YAMAWA GENERAL CATALOG

[JIS・ANSI・DIN]

2022-2023

Ver.2

"Reliable screw threads" is YAMAWA's theme.



Think threads with YAMAWA

YAMAWA Product Search and Tap Calculator Tool

A handy application for quick search

An easy-to-use application for helping you quickly and smoothly find products and information from anywhere, anytime

App Store

Google Play

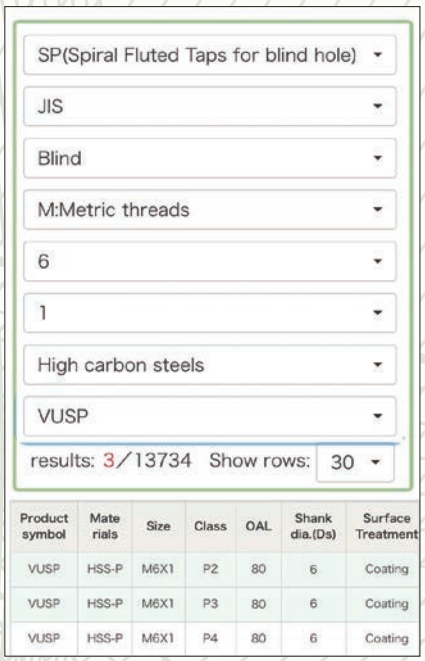
Download now



Quickly find the right tap and tapping conditions!

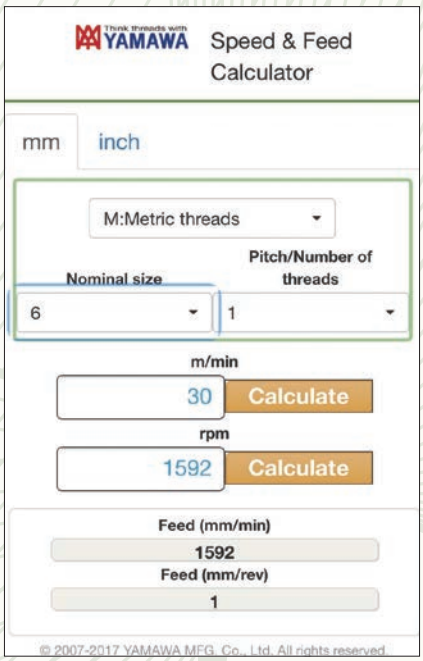


Easily find the right tap for the intended use.



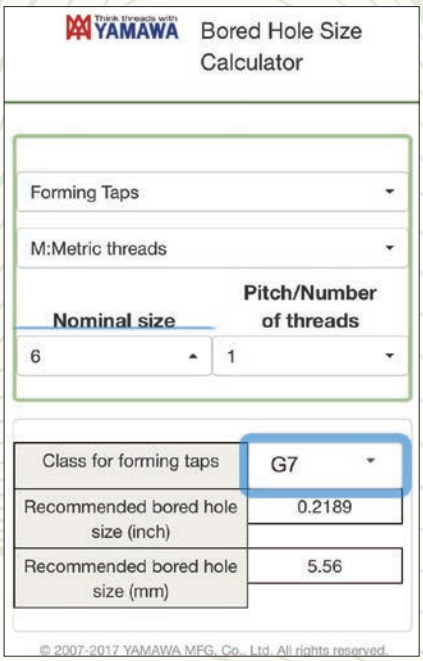
Speed & Feed

Use the handy calculator to convert a recommended tapping speed into revolution speed/feed.



Bored Hole Size

Use the handy tool to calculate a recommended bored hole size for a specific thread size.



Find products on your smartphone wherever you are.

At a production site



If you need a new tap on-site, search for it on your smartphone right away.

In a design department



Input search parameter to find the best suited tap for your design drawing from many of YAMAWA products.

At a trading company



If you find it difficult to search through many products, use the tool on your smartphone to narrow down the product candidates.


"Reliable screw threads" is
YAMAWA's theme.

YAMAWA GENERAL CATALOG

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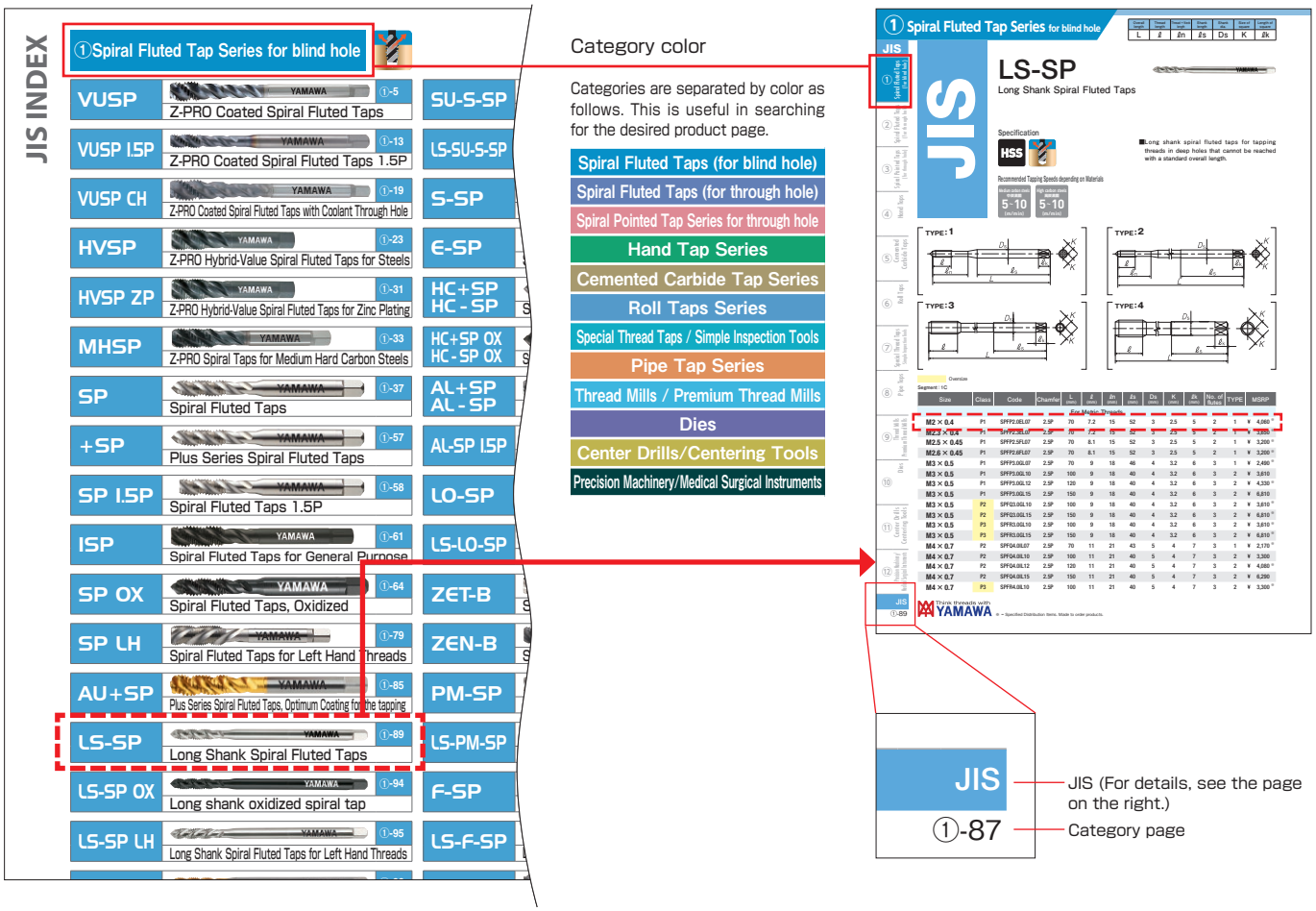
How to Read the General Catalog

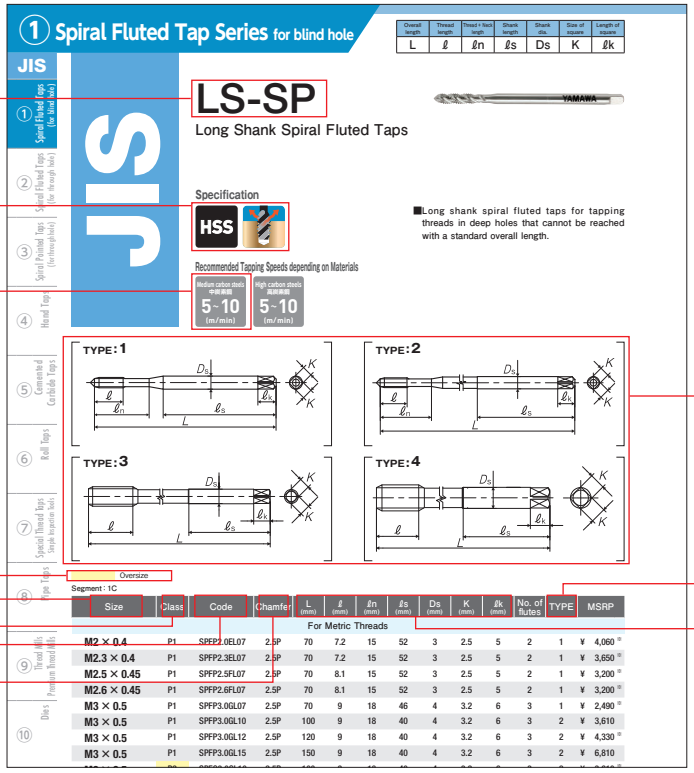
You can search for products in six ways: ❶ Line-ups arranged on products, ❷ Line-ups arranged on sizes, ❸ Work materials and tapping conditions, ❹ Product codes, ❺ Product symbols, and ❻ Work materials and cutting speeds.

1 Searching from line-ups arranged on products: Line-ups arranged on products [Product Line-ups-0 to 13]

To search for + LS-SP M2x0.4



How to read product pages



Product symbol

Icons represent materials, shapes, surface treatments, etc. For the icons, see How to Read Catalog-6.

Work materials to be tapped and standard tapping speeds are shown here.

Classes on pages for cutting taps include standard classes and oversized ones. For oversized products, the color in the Class column is expressed in .

Nominal size = Size of thread
Example: M2x0.4
Outside diameter: 2 mm,
Pitch: 0.4 mm

Class of tap
For the classes, see Technical-13.

For the product code list, see Search-1.

No. of chamfered ridges
Chamfer length (mm) can be calculated by the formula, Pitch x No. of chamfered ridges.
Example: M2x0.4 2.5P
0.4 x 2.5 x 1.0 = Chamfer length of 1.0 mm

Product shape diagram

See "TYPE" above.

For quantity symbols, see the upper right end on the double-page spread.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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About JIS, DIN, and ANSI

▸ Difference in standard

There are broadly three types of standards for taps: JIS, DIN, and ANSI.

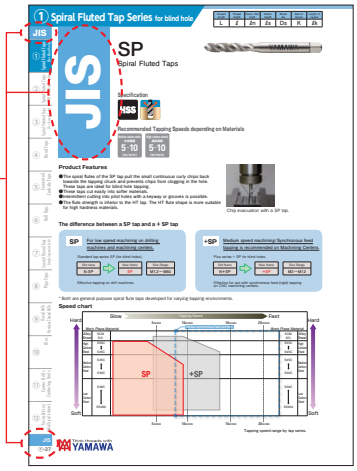
JIS: Based on Japanese national standards, and used especially in Asia. The shape size is expressed in mm.

DIN: Based on German national standards, and used especially in Europe. The shape size is expressed in mm. The overall length is longer than that in JIS.

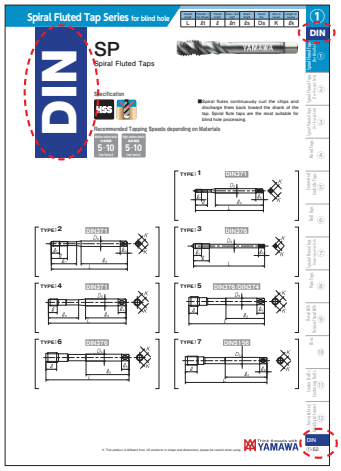
ANSI: Based on American national standards. The shape size is expressed in inches.

⚠ The standards for products are described here. When selecting a product, be careful enough not to confuse them.

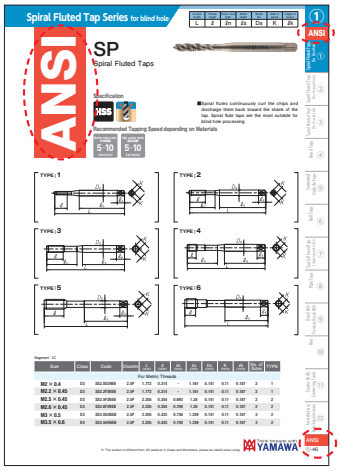
JIS



DIN



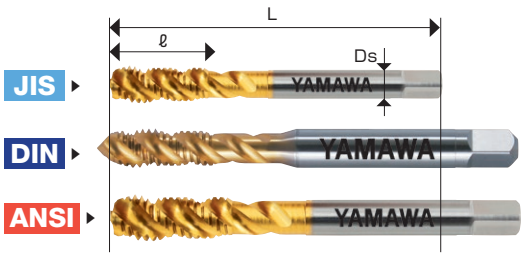
ANSI



▸ Difference in shape Example: M6x1

Standard	Overall length (L)	Thread length (ℓ)	Thread + Neck length (ℓn)	Shank dia. (Ds)	Size of square (K)	Length of square (ℓk)
JIS	62	15	26	6	4.5	7
DIN	80	15	30	6	4.9	8
ANSI	80.01 (3.15inch)	15 (0.591inch)	30 (1.181inch)	6.47 (0.255inch)	4.85 (0.191inch)	7.9 (0.312inch)

Be aware that, even if the shank diameter is the same, the same tap collet cannot be used because the size of square is different!



▸ Difference in accuracy Example: M6x1

JIS

M6 × 1	P2	SPQ6.0M	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,280
M6 × 1	P2	SPQ6.0M-T	2.5P	62	15	26	33	6	4.5	7	3	4	¥ 1,280
M6 × 1	P3	SPR6.0M	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,280
M6 × 1	P4	SPS6.0M	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,280

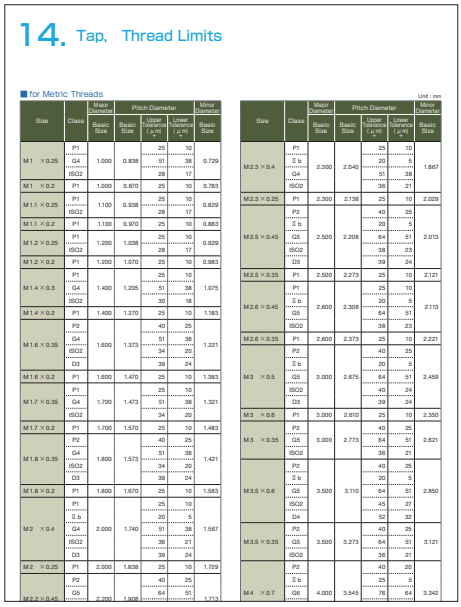
DIN

M6 × 1	ISO2	SD6.0MANEB	2.5P	80	11	15	30	45	6	4.9	8	3	2
M6 × 1	ISO2	SG6.0MANEB	2.5P	80	11	15	-	-	4.5	3.4	6	3	3
M6 × 1	ISO3	SD6.0MMNEB	2.5P	80	11	15	30	45	6	4.9	8	3	2

ANSI

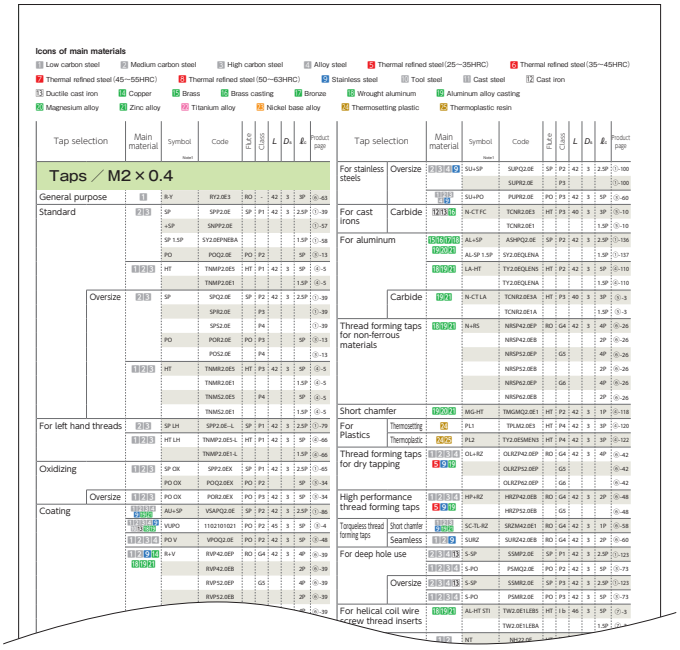
M6 × 1	D5	SS6.0M5NEB	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2	

See Technical-14.

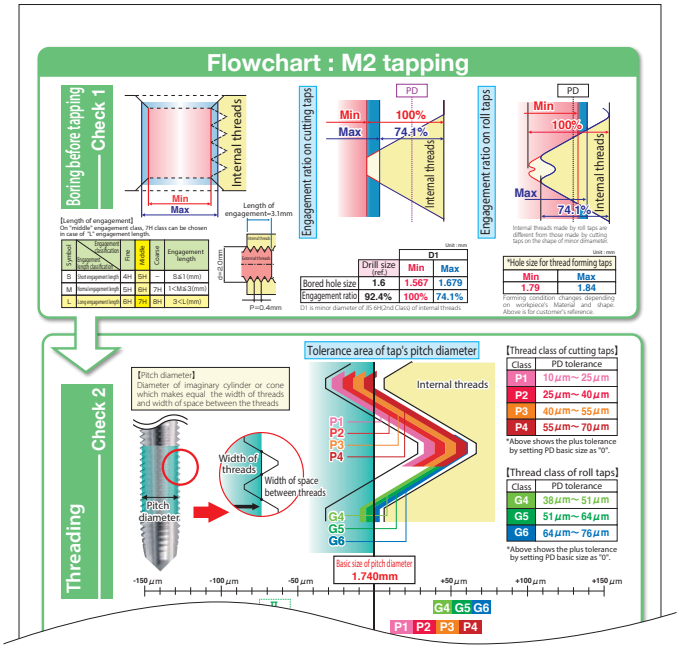


How to Read the General Catalog

2 Searching from line-ups arranged on sizes: Line-ups arranged on sizes [Sizes-0 to 133]

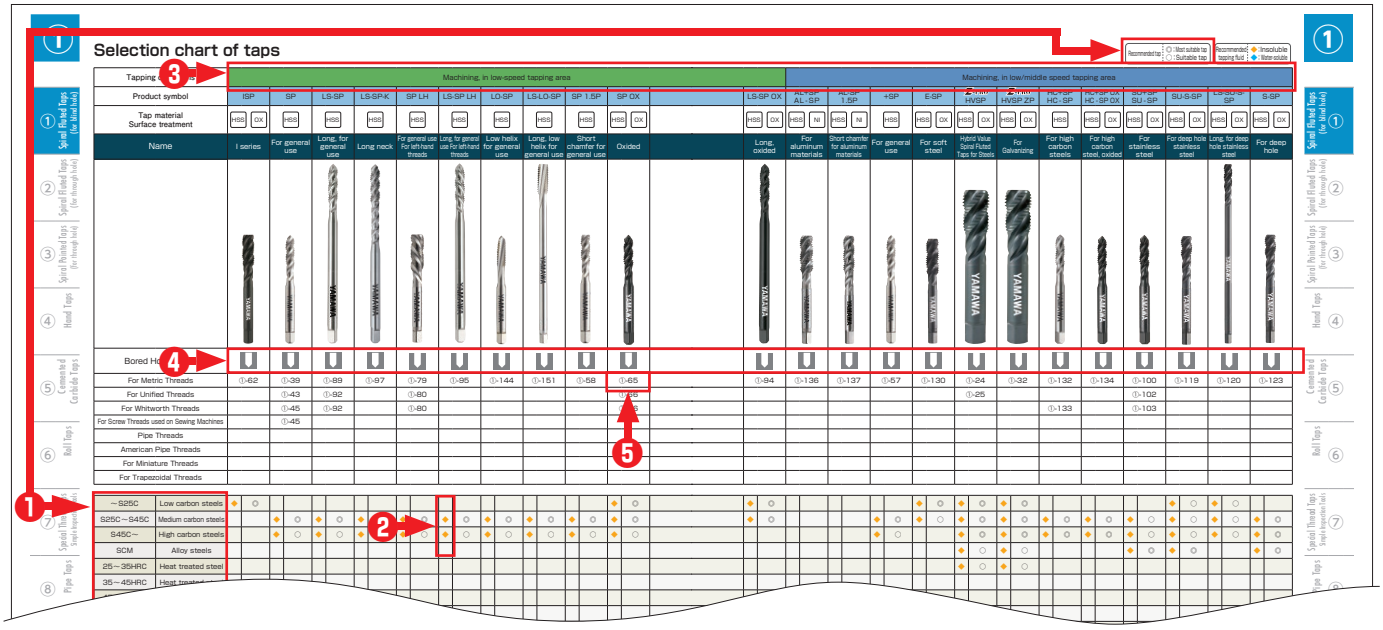


It is possible to select taps and dies from the size of the thread to tap. Available work materials, main shape sizes of products, and other information are also described here.
For details of products, see their respective pages.



For main sizes M2 to M12, the tapping flow is described, while the series of tapping steps, i.e. Boring before tapping → Threading → Gage check, is illustrated with figures.
Bored hole sizes, accuracy of internal threads, and accuracy of taps are also described here. Just seeing this page allows you to perform threading.

3 Searching from work materials and tapping conditions: Selection chart of taps [On the first page of each category section]



Check the following conditions.

[Work materials]
❶ Types of materials
Most suitable tap and suitable tap

[Tapping conditions]
❷ Water-soluble or water-immiscible
❸ Machine and tapping conditions
❹ Hole shape (through hole or blind hole)

❺ Page No.

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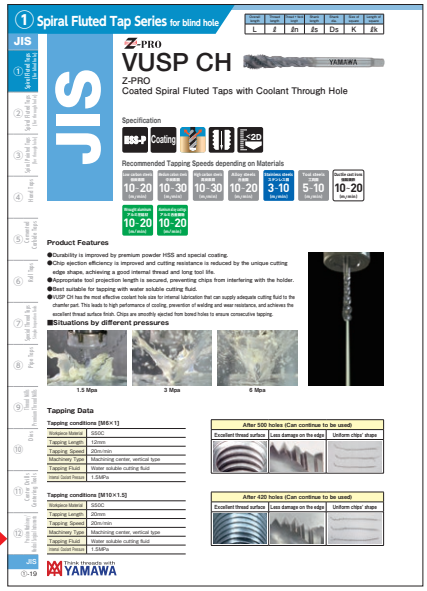
4 Searching from work materials and cutting speeds: Speed chart [Product System-1 to 9]



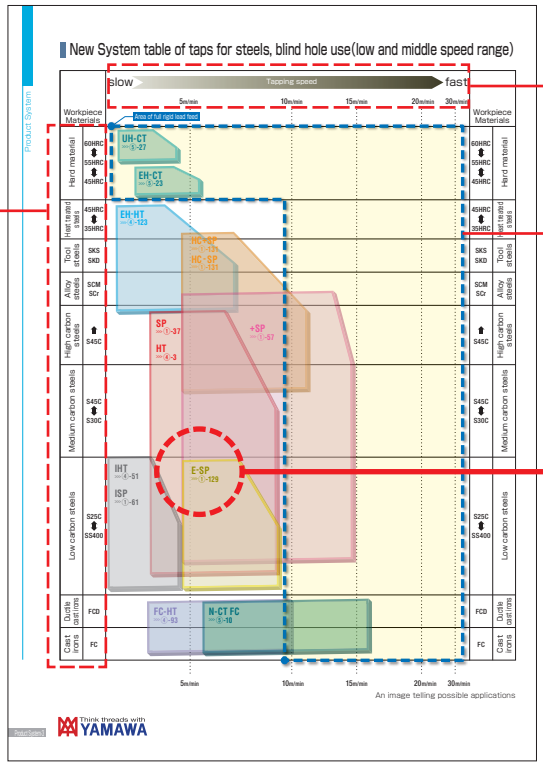
Work materials and typical grades are described here.

Tapping sizes are shown here.

Cutting speeds for respective tapping sizes are shown here. For thread diameters smaller than M6, it is recommended that the tapping speed is lowered as the thread diameter becomes smaller. For M6 or larger thread diameters, the same tapping speed can be maintained.



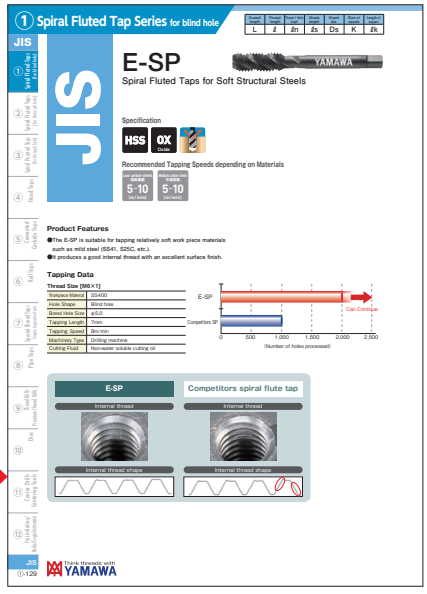
(Example) Bored hole shape: Blind hole, Workpiece: Low carbon steel, Tapping speed: 5 m/min



Work materials, typical symbol names, and hardness (HRC) are described here.

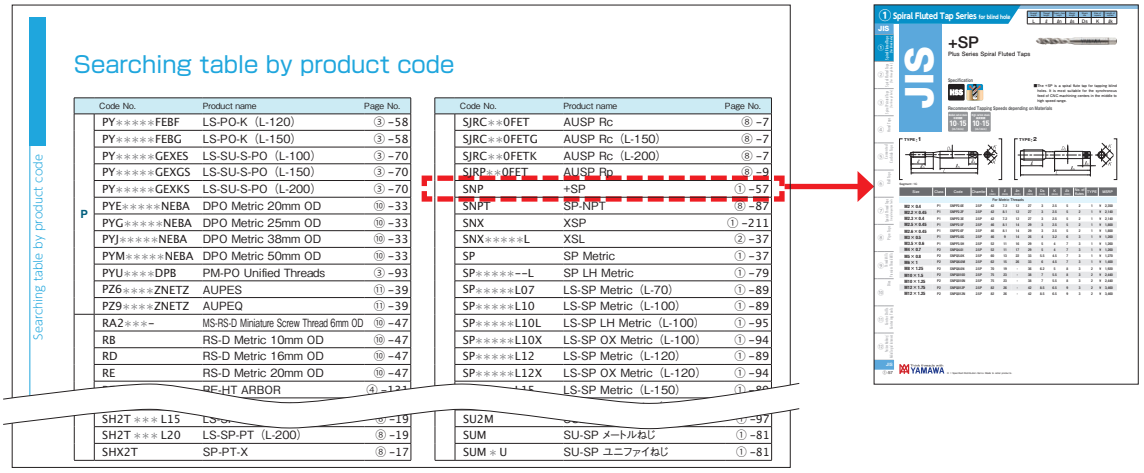
Tapping speeds are shown here.

It is recommended that products in the blue dotted box are used for tapping with fully synchronized feed.



How to Read the General Catalog

5 Searching from product codes: Searching table by product code [Search-1 to 5]



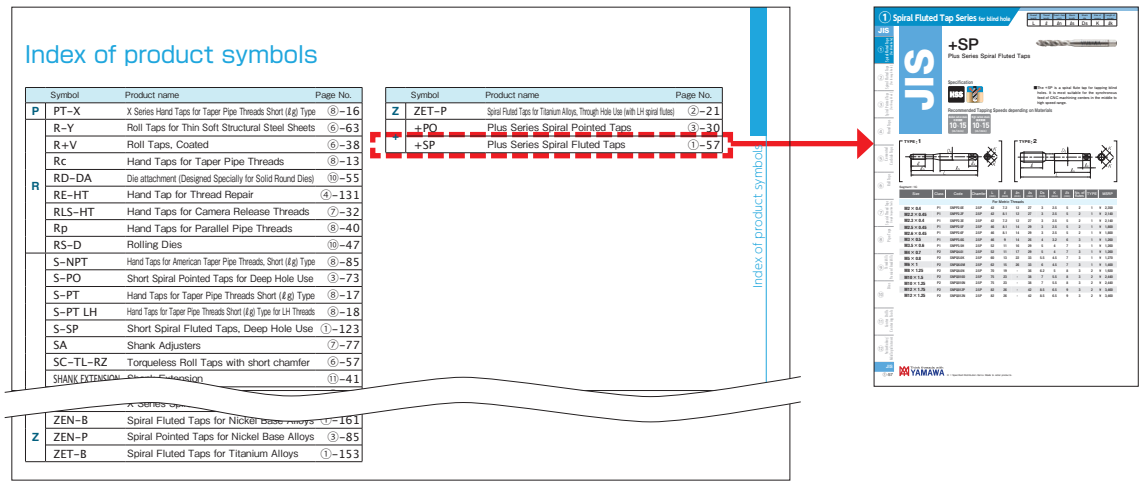
Searching table by product code

Searching table by product code

	Code No.	Product name	Page No.
P	PY＊＊＊＊＊FEBF	LS-PO-K (L-120)	③-58
	PY＊＊＊＊＊FEBG	LS-PO-K (L-150)	③-58
	PY＊＊＊＊＊GEXES	LS-SU-S-PO (L-100)	③-70
	PY＊＊＊＊＊GEXGS	LS-SU-S-PO (L-150)	③-70
	PY＊＊＊＊＊GEXKS	LS-SU-S-PO (L-200)	③-70
	PYE＊＊＊＊＊NEBA	DPO Metric 20mm OD	⑩-33
	PYG＊＊＊＊＊NEBA	DPO Metric 25mm OD	⑩-33
	PYJ＊＊＊＊＊NEBA	DPO Metric 38mm OD	⑩-33
	PYM＊＊＊＊＊NEBA	DPO Metric 50mm OD	⑩-33
	PYU＊＊＊＊DPB	PM-PO Unified Threads	③-93
	PZ6＊＊＊＊ZNETZ	AUPES	⑪-39
	PZ9＊＊＊＊ZNETZ	AUPEQ	⑪-39
	RA2＊＊＊−	MS-RS-D Miniature Screw Thread 6mm OD	⑩-47
	RB	RS-D Metric 10mm OD	⑩-47
	RD	RS-D Metric 16mm OD	⑩-47
	RE	RS-D Metric 20mm OD	⑩-47
		RE-HT ARBOR	④-131
	SH2T＊＊＊L15	LS-SP-PT (L-150)	⑧-19
	SH2T＊＊＊L20	LS-SP-PT (L-200)	⑧-19
	SHX2T	SP-PT-X	⑧-17

Code No.	Product name	Page No.
SJRC＊＊0FET	AUSP Rc	⑧-7
SJRC＊＊0FETG	AUSP Rc (L-150)	⑧-7
SJRC＊＊0FETK	AUSP Rc (L-200)	⑧-7
SJRP＊＊0FET	AUSP Rp	⑧-9
SNP	+SP	①-57
SNPT	SP-NPT	⑧-87
SNX	XSP	①-211
SNX＊＊＊＊L	XSL	②-37
SP	SP Metric	①-37
SP＊＊＊＊−−L	SP LH Metric	①-79
SP＊＊＊＊L07	LS-SP Metric (L-70)	①-89
SP＊＊＊＊L10	LS-SP Metric (L-100)	①-89
SP＊＊＊＊L10L	LS-SP LH Metric (L-100)	①-95
SP＊＊＊＊L10X	LS-SP OX Metric (L-100)	①-94
SP＊＊＊＊L12	LS-SP Metric (L-120)	①-89
SP＊＊＊＊L12X	LS-SP OX Metric (L-120)	①-94
	LS-SP Metric (L-150)	①-89
SU2M		⑦-97
SUM	SU-SP メートルねじ	①-81
SUM＊U	SU-SP ユニファイねじ	①-81

6 Searching from product symbols: Index of product symbols [Search-6 to 8]



Index of product symbols

Index of product symbols

	Symbol	Product name	Page No.
P	PT-X	X Series Hand Taps for Taper Pipe Threads Short (ℓg) Type	⑧-16
R	R-Y	Roll Taps for Thin Soft Structural Steel Sheets	⑥-63
	R+V	Roll Taps, Coated	⑥-38
	Rc	Hand Taps for Taper Pipe Threads	⑧-13
	RD-DA	Die attachment (Designed Specially for Solid Round Dies)	⑩-55
	RE-HT	Hand Tap for Thread Repair	④-131
	RLS-HT	Hand Taps for Camera Release Threads	⑦-32
	Rp	Hand Taps for Parallel Pipe Threads	⑧-40
	RS-D	Rolling Dies	⑩-47
S	S-NPT	Hand Taps for American Taper Pipe Threads, Short (ℓg) Type	⑧-85
	S-PO	Short Spiral Pointed Taps for Deep Hole Use	③-73
	S-PT	Hand Taps for Taper Pipe Threads Short (ℓg) Type	⑧-17
	S-PT LH	Hand Taps for Taper Pipe Threads Short (ℓg) Type for LH Threads	⑧-18
	S-SP	Short Spiral Fluted Taps, Deep Hole Use	①-123
	SA	Shank Adjusters	⑦-77
	SC-TL-RZ	Torqueless Roll Taps with short chamfer	⑥-57
	SHANK EXTENSION	Shank Extension	⑪-41
		X Series Spi...	
Z	ZEN-B	Spiral Fluted Taps for Nickel Base Alloys	①-161
	ZEN-P	Spiral Pointed Taps for Nickel Base Alloys	③-85
	ZET-B	Spiral Fluted Taps for Titanium Alloys	①-153

	Symbol	Product name	Page No.
Z	ZET-P	Spiral Fluted Taps for Titanium Alloys, Through Hole Use (with LH spiral flutes)	②-21
	+PO	Plus Series Spiral Pointed Taps	③-30
	+SP	Plus Series Spiral Fluted Taps	①-57

Index of product symbols

Explanation of icons

HSS — High speed steel

HSS-Co — High speed steel (Cobalt HSS)

HSS-P — Powder HSS

HF — Ultra micro grain cemented carbide

Alloy steel — Alloy steel

OX Oxide — Oxidizing

NI Nitride — Nitriding

NX Nitride+Oxide — Nitriding/Oxidizing

Coating — Coated

 For blind hole with through coolant hole

 For through hole with radial coolant hole



For left hand thread



For synchronized feeding



Number of threads on chamfer



Center drills left hand cut



Cutting length

 Spiral pointed tap through hole use

 Hand tap through hole use

 Hand tap blind hole use

 Spiral fluted tap through hole use

 Spiral fluted tap blind hole use

 Low spiral fluted tap blind hole use

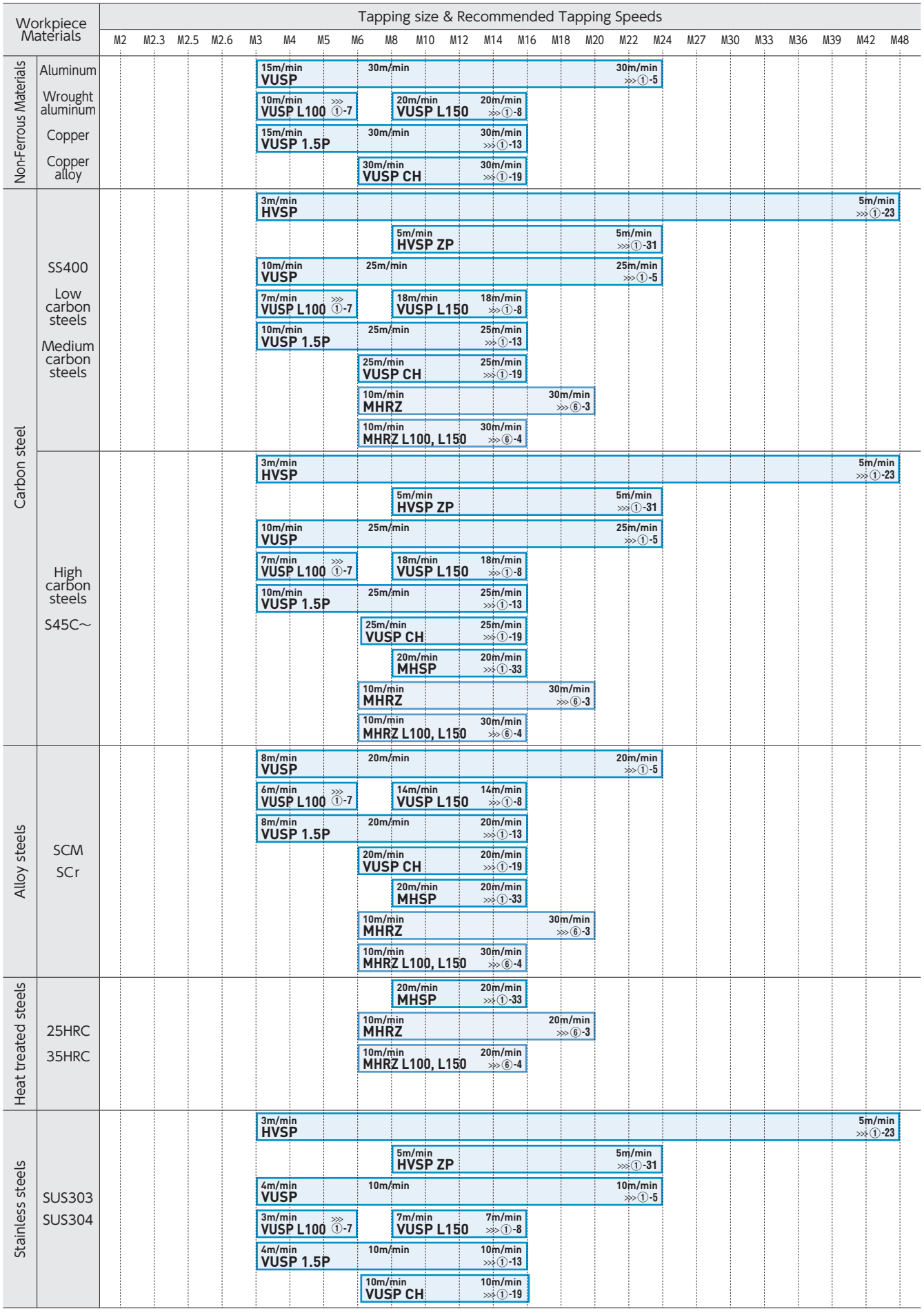
 Low spiral fluted tap blind hole use specially for horizontal tapping



Specification Tapping Speeds

Z-PRO Product System

Blind Hole



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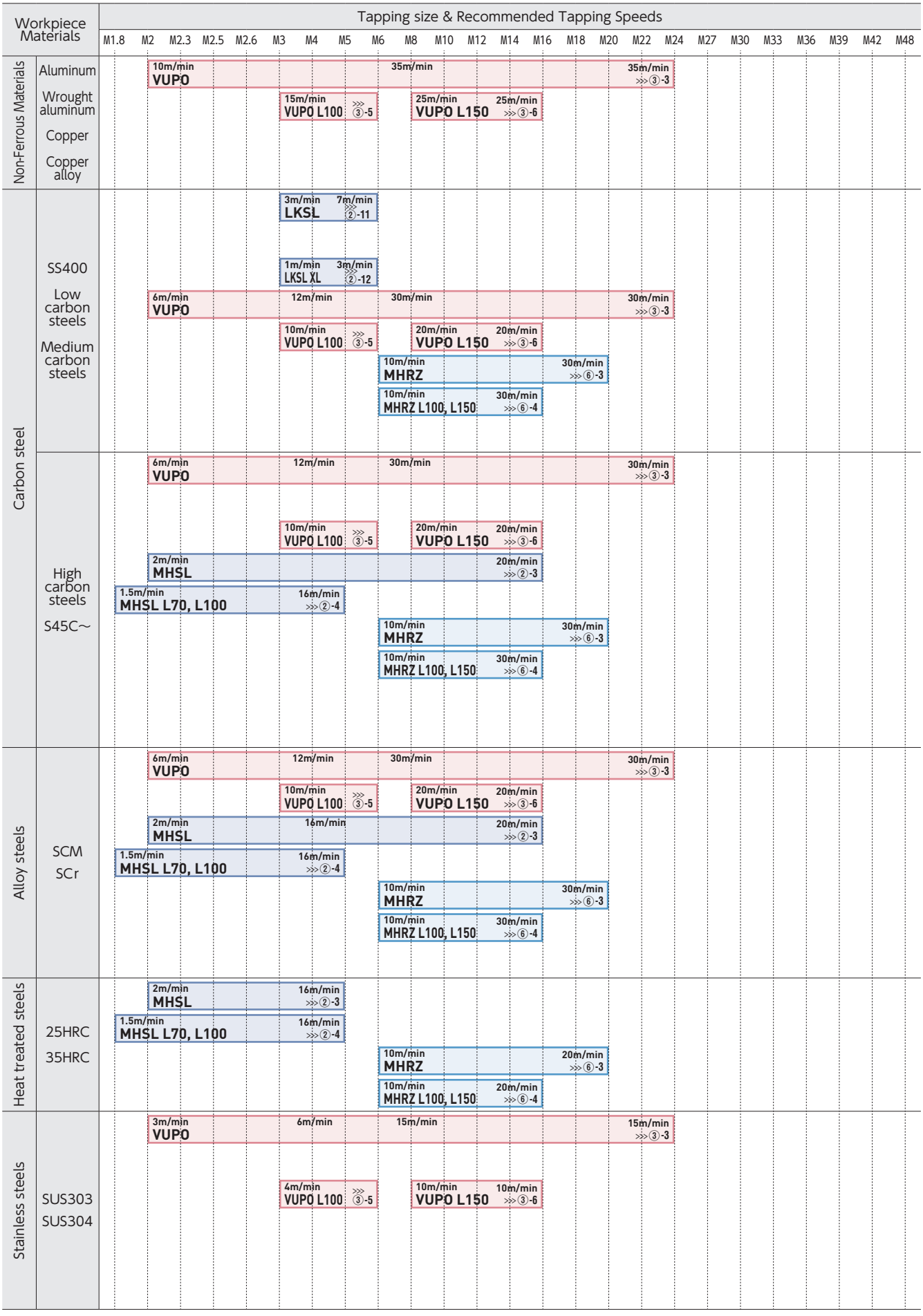
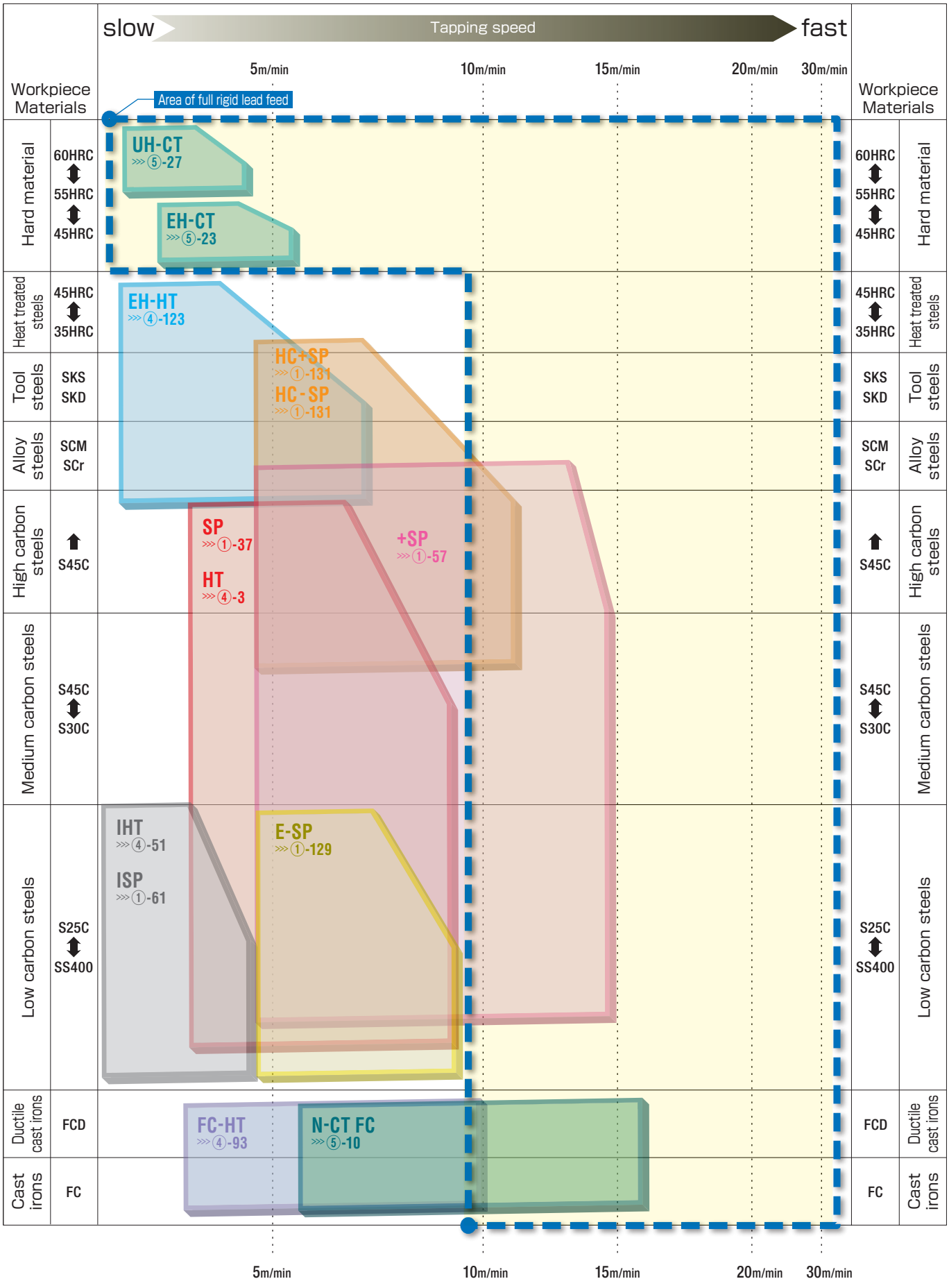
Through Hole



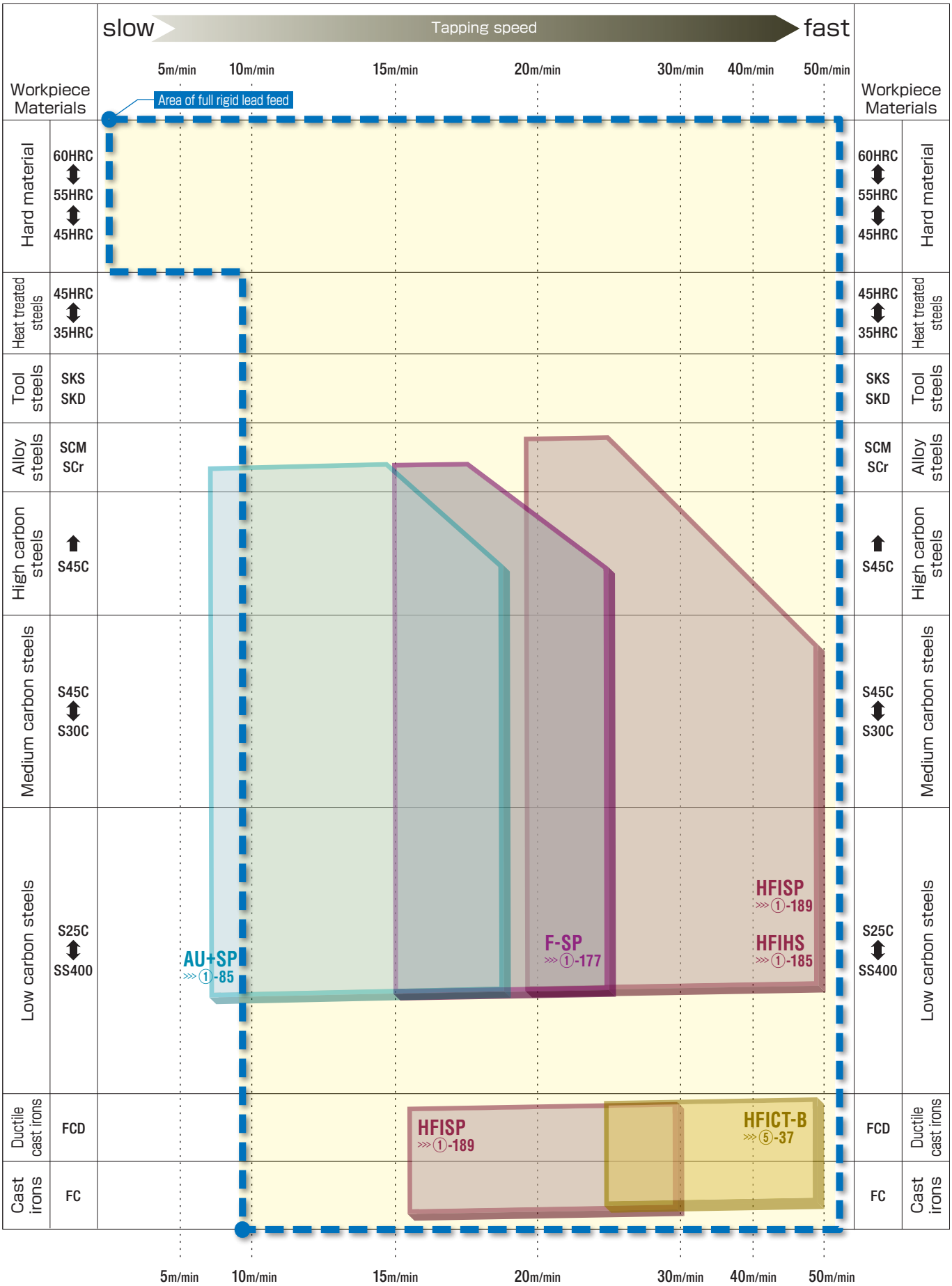
New System table of taps for steels, blind hole use(low and middle speed range)



An image telling possible applications

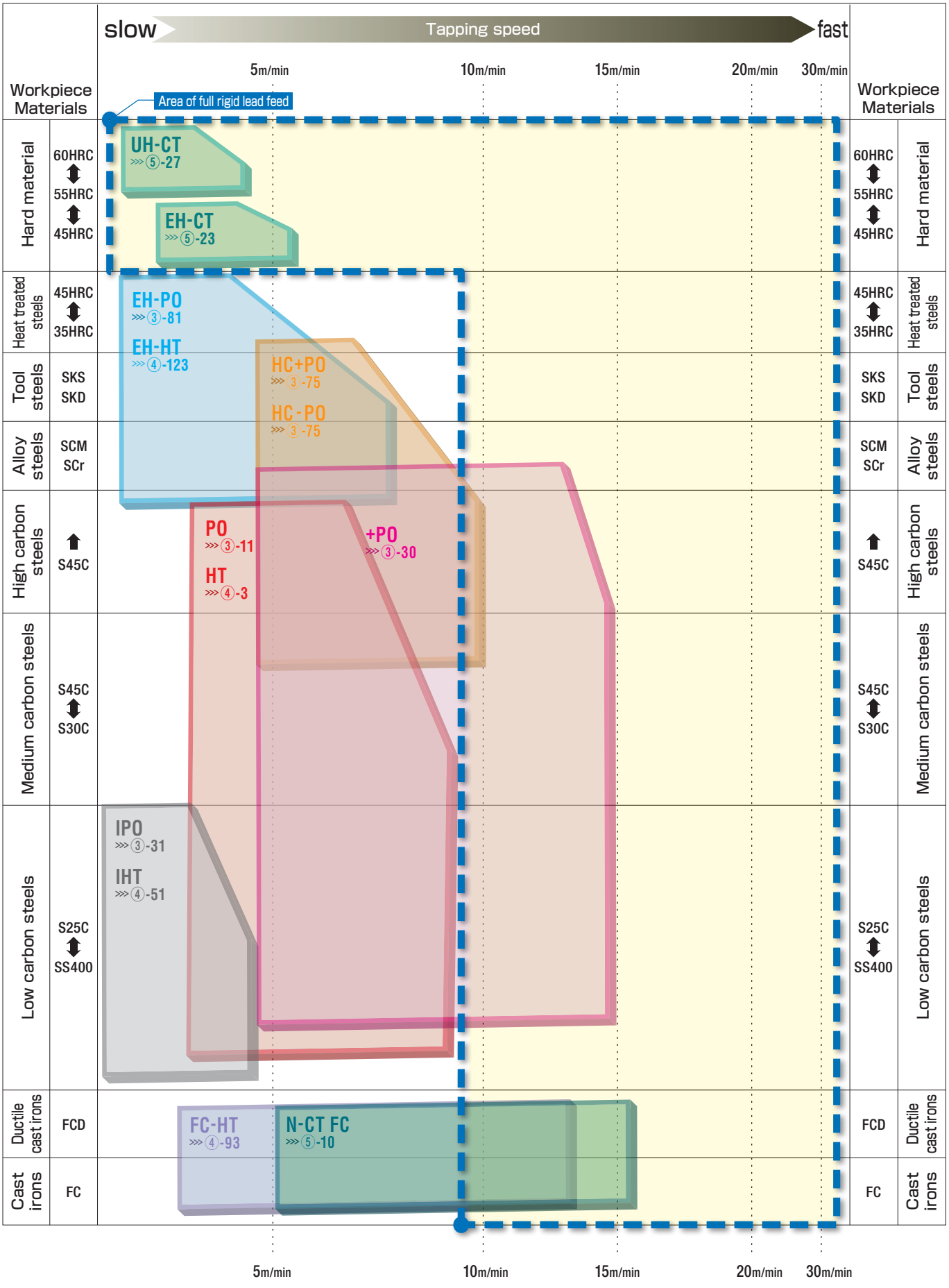
Think threads with YAMAWA

New System table of taps for steels, blind hole use(Middle and High speed range)



An image telling possible applications

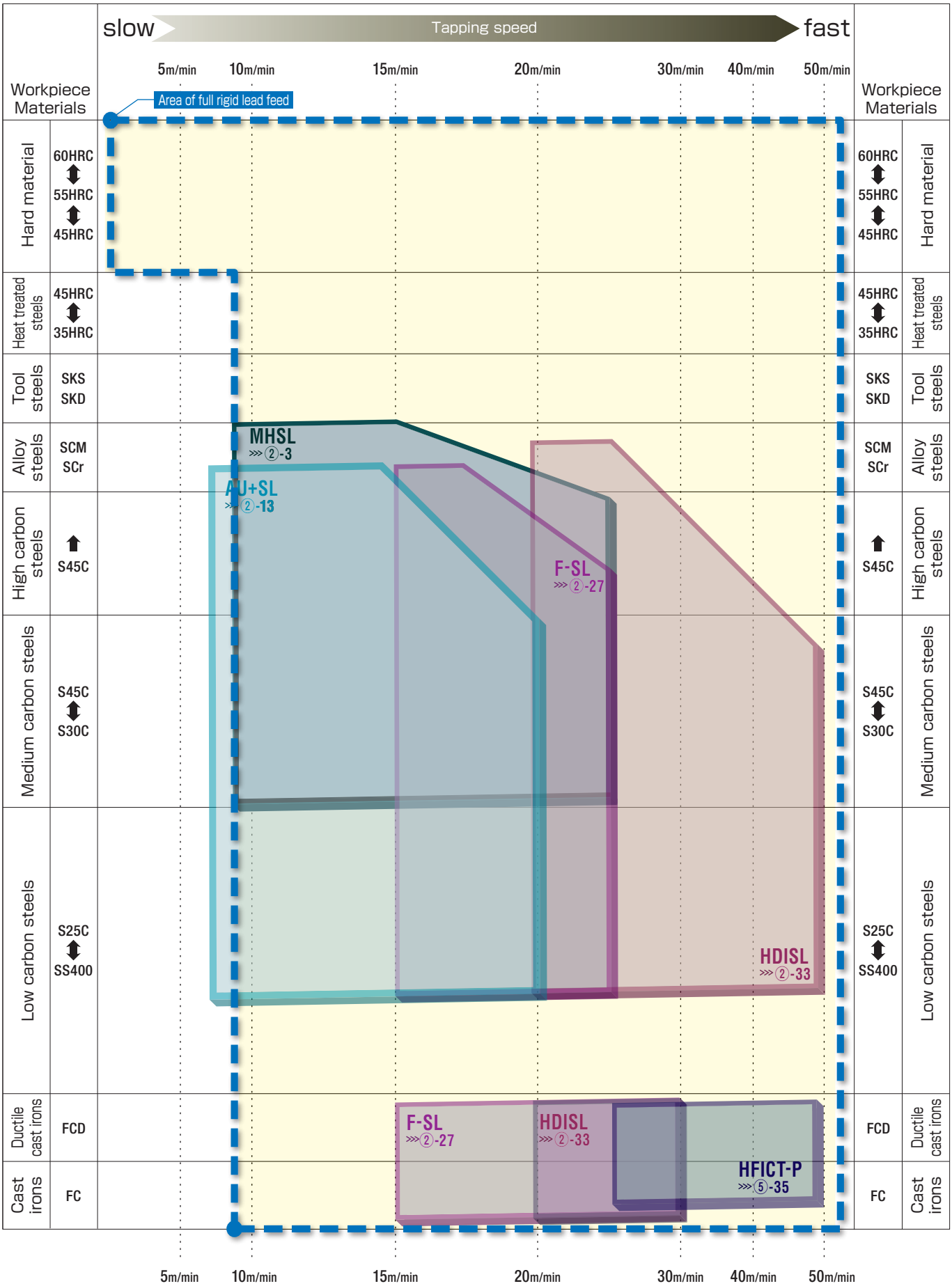
New System table of taps for steels, blind hole use(low and middle speed range)



An image telling possible applications

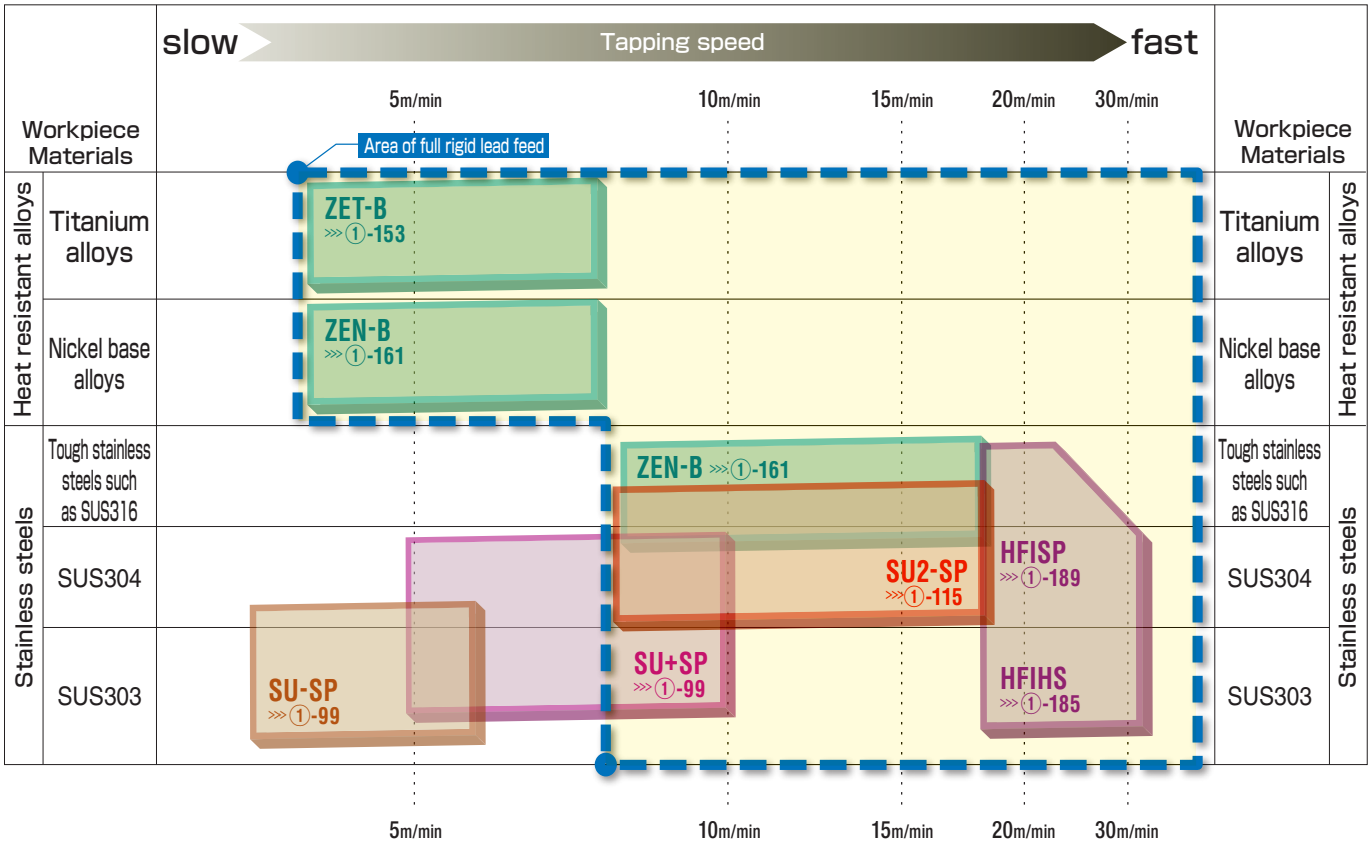
Think threads with YAMAWA

New System table of taps for steels, blind hole use(Middle and High speed range)



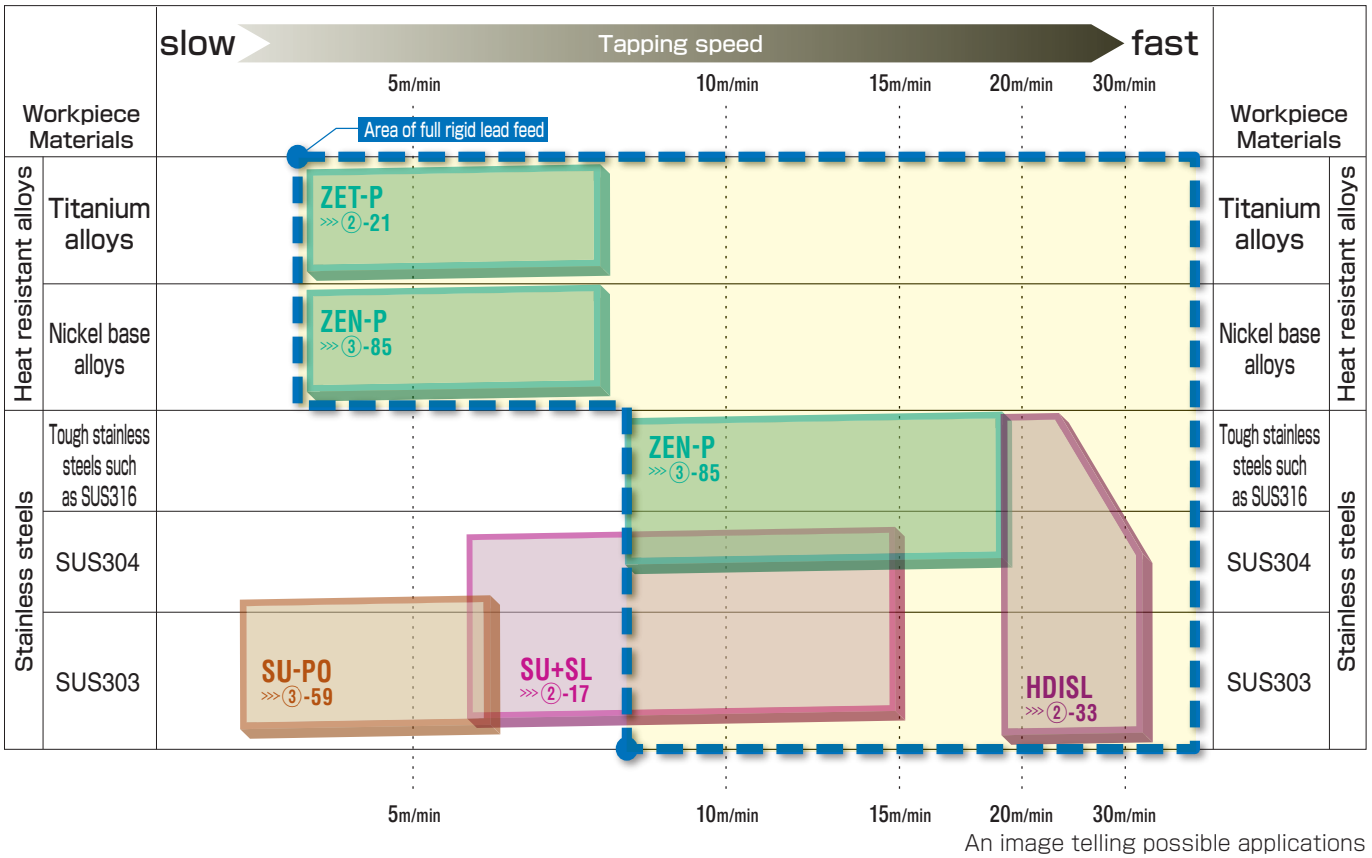
An image telling possible applications

New System table of taps for stainless steels, blind hole use



An image telling possible applications

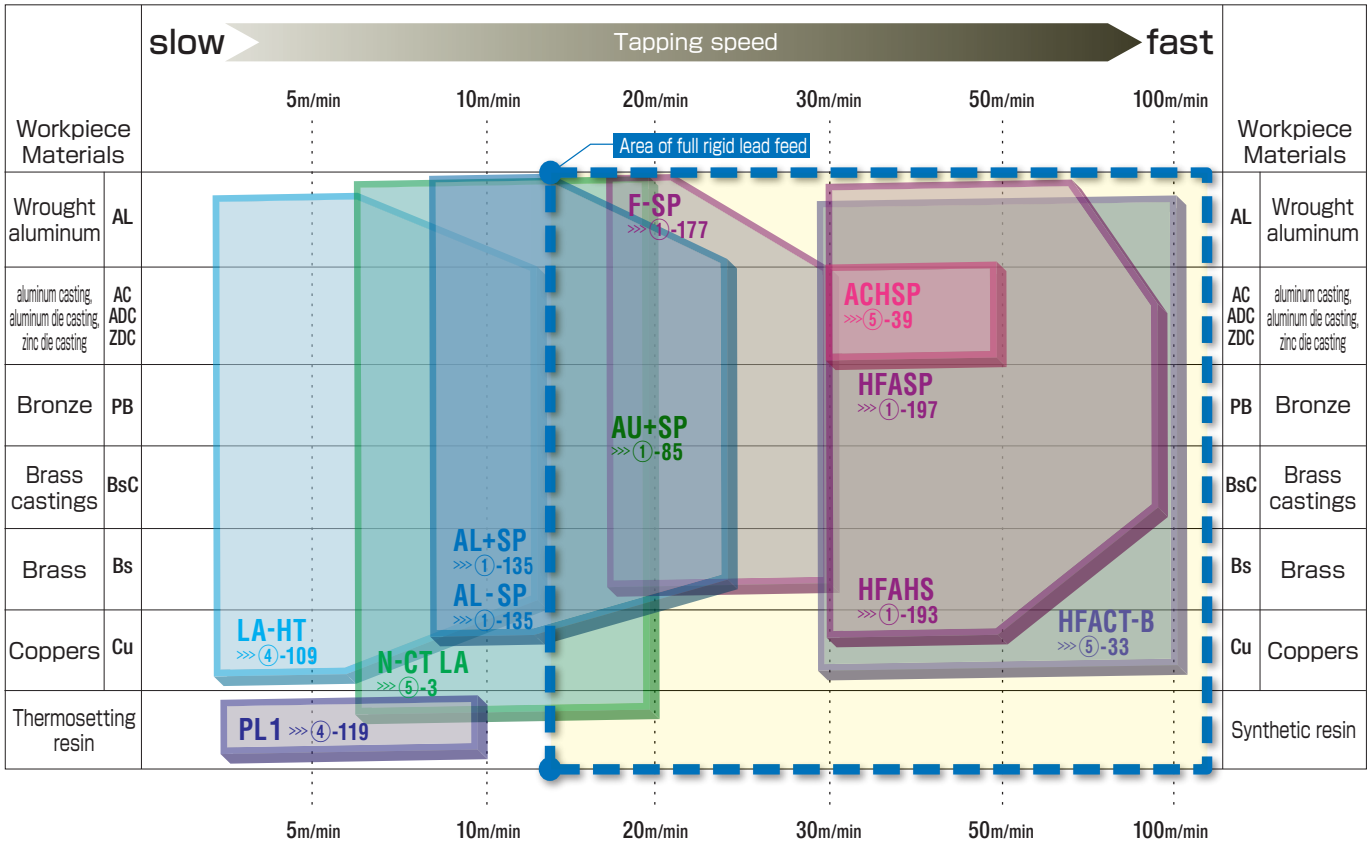
New System table of taps for stainless steels, through hole use



An image telling possible applications

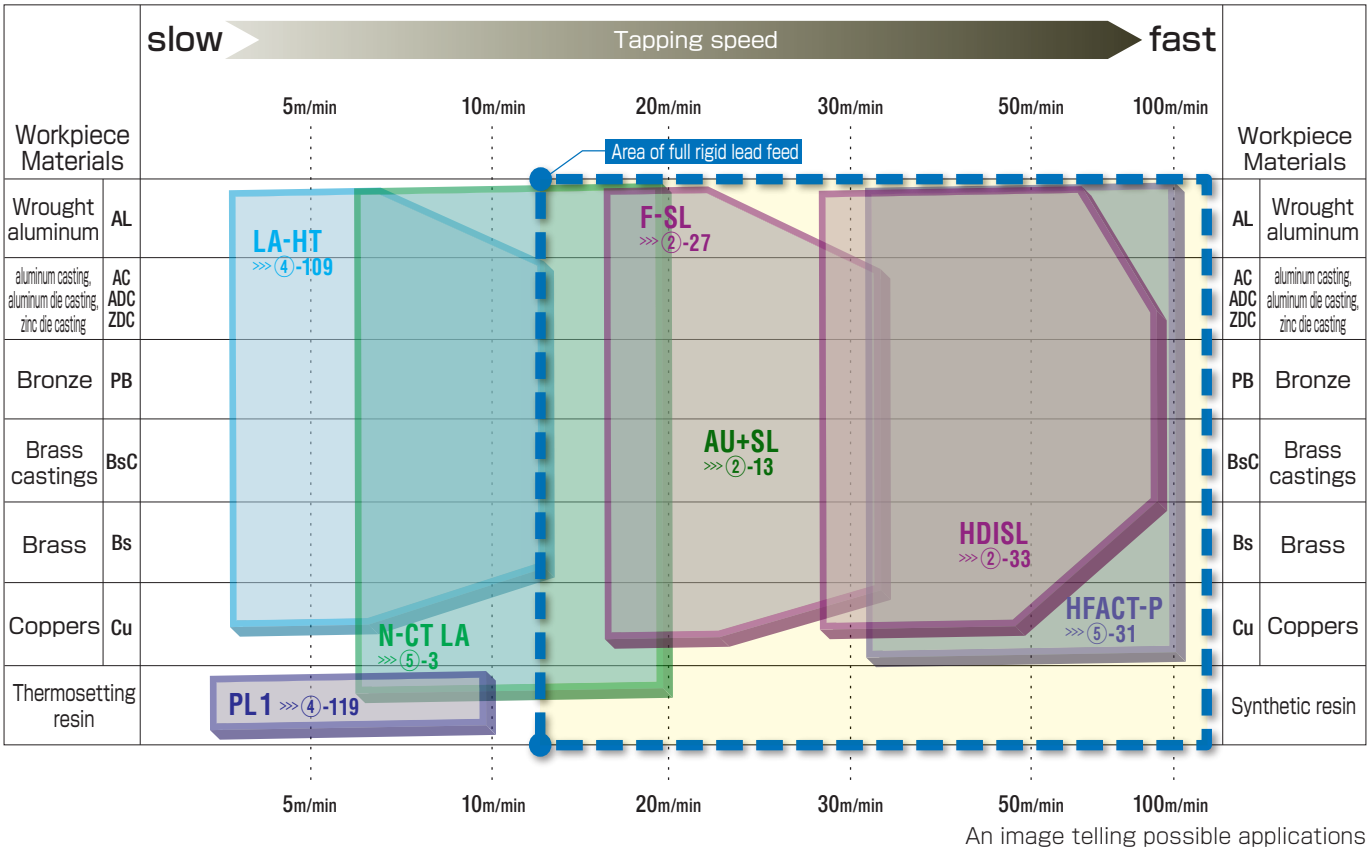
Think threads with YAMAWA

New System table of taps for non-ferrous materials, blind hole use



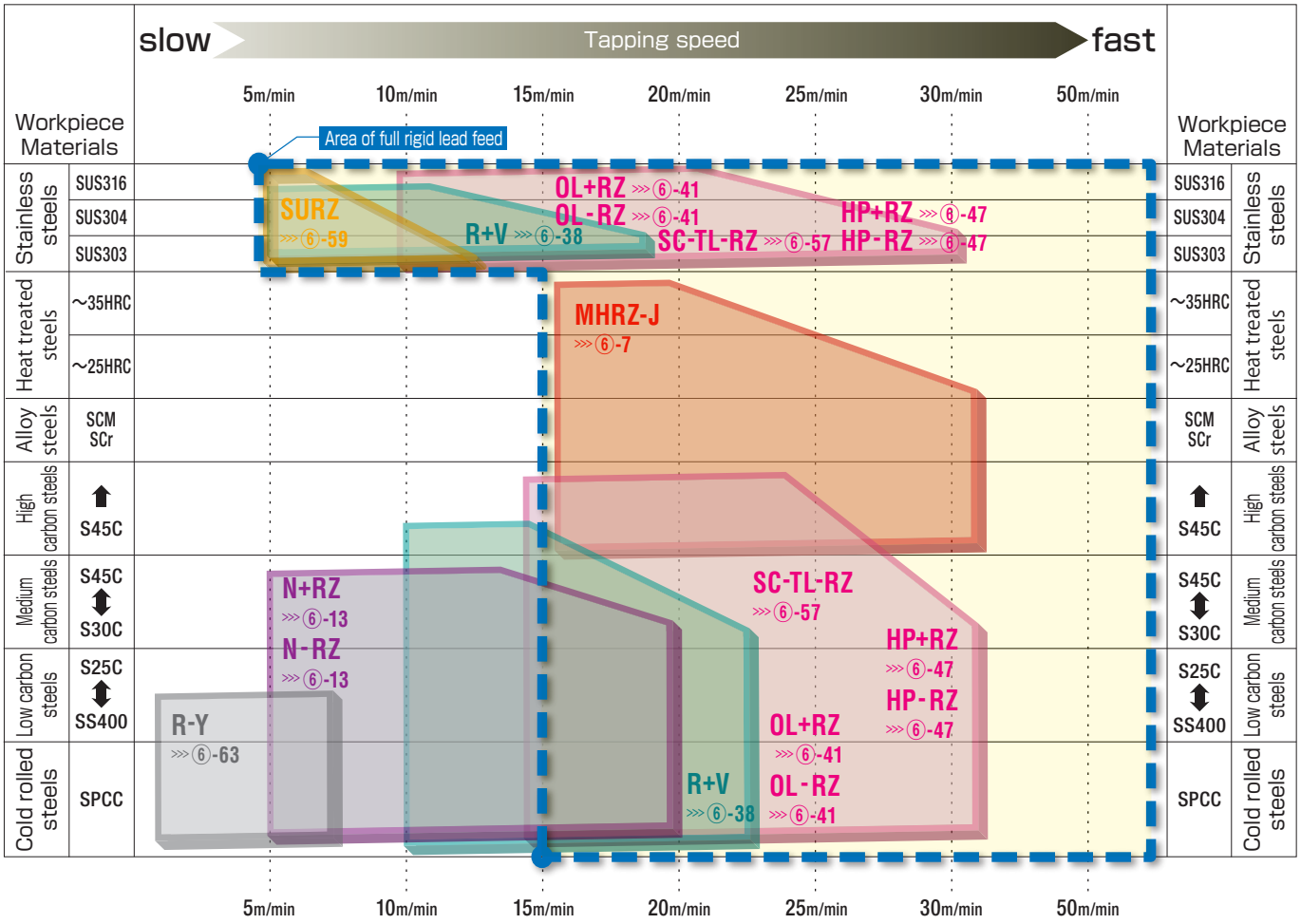
An image telling possible applications

New System table of taps for non-ferrous materials, through hole use



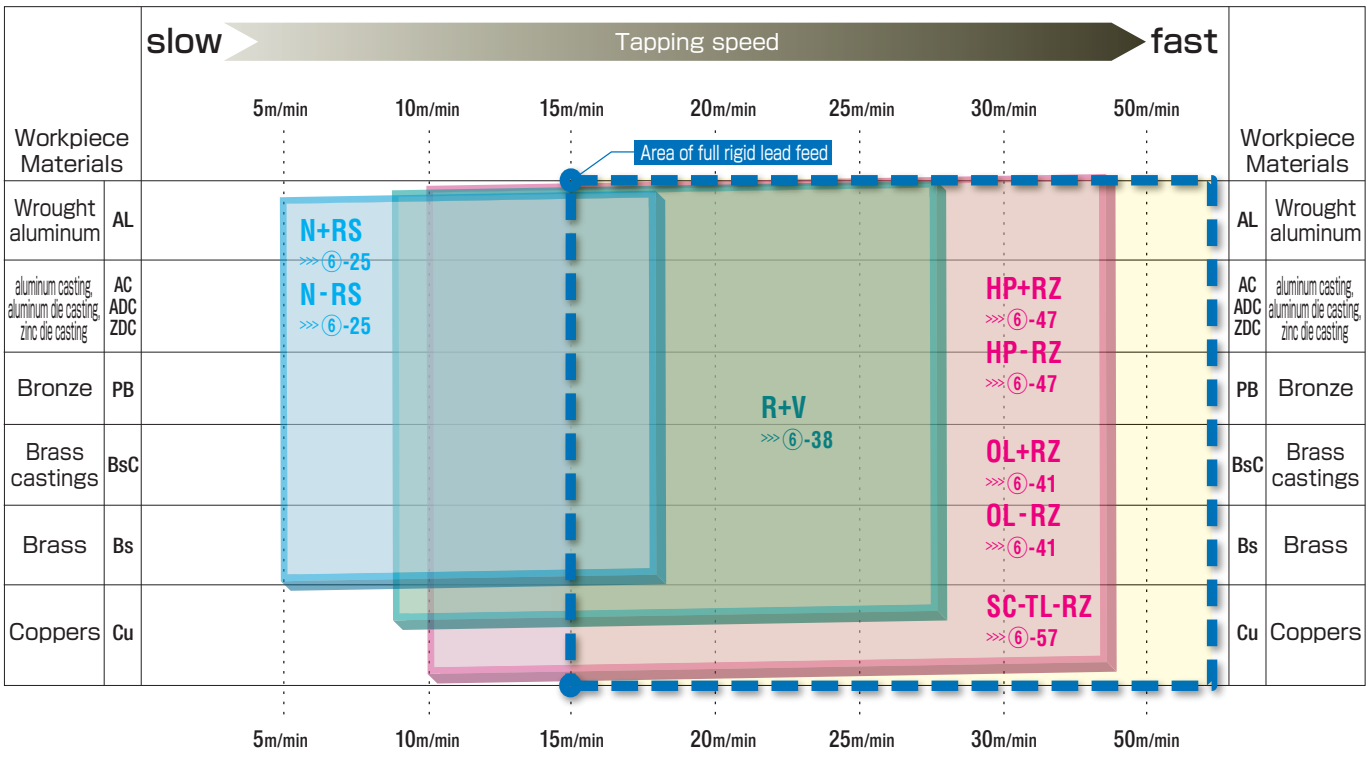
An image telling possible applications

New System table of roll taps for steels



An image telling possible applications

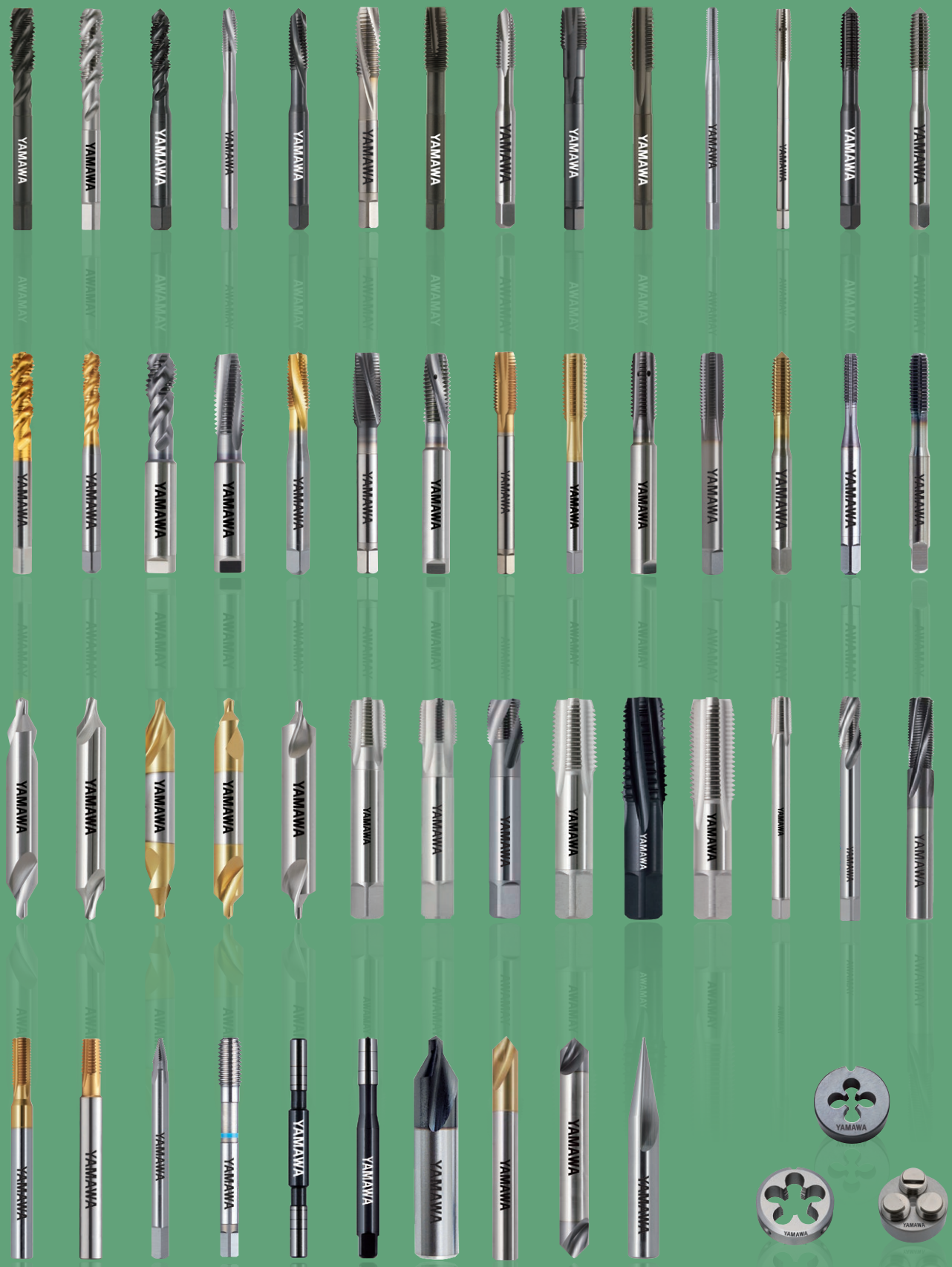
New System table of roll taps for non-ferrous materials



An image telling possible applications

Think threads with YAMAWA

YAMAWA
PRODUCT LINE-UPS



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CD-R	Low Helix Center Drills-Type R	⑪-32
CE-T	High Helix Center Drills Type A 75°	⑪-33
MHCDS	Center Drills for Carbon Steels of Medium Hardness for running at High Speed	⑪-35
AUCES	Single-ended High Helix Center Drills-Type A 60°, Coated	⑪-37
AUCDS	Single-ended Low Helix Center Drills-Type A 60°, Coated	⑪-37
AUPEQ	Single-ended Point Drills 90°, Coated	⑪-39
AUPES	Single-ended Point Drills 60°, Coated	⑪-39
SHANK EXTENSION	Shank Extension	⑪-41
PE-Q	Point Drills 90°	⑪-44
PE-Q V	Point Drills 90°, Coated	⑪-45
C-PE-Q V	Carbide Point Drills 90°, Coated	⑪-46
PE-QL V	Long Shank Point Drills 90°, Coated	⑪-47
PE-S	Point Drills 60°	⑪-48
PE-S V	Point Drills 60°, Coated	⑪-49
C-PE-S V	Carbide Point Drills 60°, Coated	⑪-50
PE-SL V	Long Shank Point Drills 60°, Coated	⑪-51
NC-SD V	NC Starting Drills for Chamfering (90°), Coated	⑪-53
NC-SD	NC Starting Drills for Center Positioning (125°)	⑪-53
CS-Q	Countersinks 90°, Machining Center Use	⑪-55
CS-QM	Countersinks 90° and 60°, Drilling Machine Use	⑪-56
CS-G	Submarine Gate Cutter, 20°, 30°	⑪-57
JO-CES	Joint- High Helix Center Drills-Type A 60°	⑪-60
JO-CES V	Joint- High Helix Center Drills-Type A 60°, Coated	⑪-60
JO-CDS	Joint- Low Helix Center Drills-Type A 60°	⑪-61
JO-CDS V	Joint- Low Helix Center Drills-Type A 60°, Coated	⑪-61
JO-C-CDS	Joint- Low Helix Carbide Center Drills-Type A 60°	⑪-62
JO-CDS(II)	Joint- Low Helix Center Drills-Type B 60°, (Old JIS Type 2)	⑪-62
JO-PEQ	Joint- Point Drills 90°	⑪-63
JO-PEQ V	Joint- Point Drills 90°, Coated	⑪-63
JO-C-PEQ V	Joint- Carbide Point Drills 90°, Coated	⑪-64
JO-NCSD V	Joint- NC Starting Drills for Beveling, Coated	⑪-64
JO-CSQM	Joint- Countersinks 90°, Drilling Machine Use	⑪-65
JO-HOLDER	Holders for Joint Tools, for 150mm and for 200mm	⑪-65

⑫Precision Machinery/Medical Surgical Instruments

Jobtap	⑫-1	TTTsystem	⑫-2
CH-T	⑫-3	Medical Surgical Instruments and Parts	⑫-4

ANSI INDEX

①Spiral Fluted Tap Series for blind hole



VUSP	 Z-PRO Coated Spiral Fluted Taps	ANSI ①-9
VUSP 1.5P	 Z-PRO Coated Spiral Fluted Taps 1.5P	ANSI ①-15
VUSP CH	 Z-PRO Coated Spiral Fluted Taps with Coolant Through Hole	ANSI ①-21
HVSP	 Z-PRO Hybrid-Value Spiral Fluted Taps for Steel	ANSI ①-26
SP	 Spiral Fluted Taps	ANSI ①-46
ISP	 Spiral Fluted Taps for General Purpose	ANSI ①-63
SP OX	 Spiral Fluted Taps,Oxidized	ANSI ①-68
SP	 Spiral Fluted Taps for Alloy Steels	ANSI ①-78
AU+SP	 Plus Series Spiral Fluted Taps,Coated	ANSI ①-87
ZELX SS SP	 Spiral Fluted Taps for Stainless Steels	ANSI ①-104
ZELX SS SP 6"	 Long Shank Spiral Fluted Taps for Stainless Steels	ANSI ①-122
AL-SP	 Spiral Fluted Taps for Aluminum	ANSI ①-138
ALS-SP	 Spiral Fluted Taps for Aluminum	ANSI ①-141
LO-SP	 Low Spiral Fluted Taps for Alloy Steels	ANSI ①-145
ZELX TI SP	 Spiral Fluted Taps for Titanium Alloys	ANSI ①-155
ZELX NI SP	 Spiral Fluted Taps for Nickel Base Alloys	ANSI ①-163
PM-SP	 Spiral Fluted Taps for Hard-to-Machine Materials	ANSI ①-170
ZELX FR	 Spiral Fluted Taps for High Speed Tapping	ANSI ①-179

②Spiral Fluted Tap Series for through hole



MHSL	 Z-PRO Spiral Fluted Taps for Carbon Steels of medium hardness, Through Hole Use (with LH spiral flutes)	ANSI ②-7
ZELX TI LHSP	 Spiral Fluted Taps for Titanium Alloys, Through Hole Use (with LH spiral flutes)	ANSI ②-23
ZELX FR LHSP	 Spiral Fluted Taps for High Speed Tapping, Through Hole Use (with LH spiral flutes)	ANSI ②-29

③Spiral Pointed Tap Series for through hole



VUPO	 Z-PRO Coated Spiral Pointed Taps	ANSI ③-7
PO	 Spiral Pointed Taps	ANSI ③-20
IPO	 Spiral Pointed Taps for General Purpose	ANSI ③-33
PO OX	 Spiral Pointed Taps, Oxidized	ANSI ③-37
ZELX SS PO	 Spiral Pointed Taps for Stainless Steels	ANSI ③-63
ZELX SS PO 6"	 Long Spiral Pointed Taps for Stainless Steels	ANSI ③-72
AL-PO	 Spiral Pointed Taps for Aluminum	ANSI ③-79
ZELX NI PO	 Spiral Pointed Taps for Nickel Base Alloys	ANSI ③-87
PM-PO	 Spiral Pointed Taps for Hard-to-Machine Materials	ANSI ③-94

④Hand Tap Series



HT	 Hand Taps	ANSI ④-29
IHT	 Hand Taps for General Purpose	ANSI ④-53
HT OX	 Hand Taps, Oxidized	ANSI ④-55
HT-CI	 Hand Taps for Cast Irons	ANSI ④-96

Think threads with YAMAWA

AXE-HT	 AXE Hand Taps	ANSI ④-115
EH-HT	 Hand Taps for Hard-to-Machine Materials	ANSI ④-126
ZELX MOLD	 Hand Taps for Hard-to-Machine Materials	ANSI ④-127

⑤Cemented Carbide Tap Series

ZELX CARB AL	 Carbide Taps for Light Alloys	ANSI ⑤-6
ZELX CARB CI	 Carbide Taps for Cast Irons	ANSI ⑤-15

⑥Roll Tap Series

MHRZ	 Z-PRO Roll Taps for Medium Hardness Carbon Steels	ANSI ⑥-9
N-RZ	 Roll Taps for Steels	ANSI ⑥-18
N-RS	 Roll Taps for Non-Ferrous Materials	ANSI ⑥-31
OL-RZ	 Roll Taps for Dry Tapping, Coated	ANSI ⑥-44
HP-RZ	 High Performance Roll Taps, Coated	ANSI ⑥-51

⑦Special Thread Taps / Simple Inspection Tools

HT STI	 Hand Taps for Helical Coil Wire Screw Thread Inserts	ANSI ⑦-6
HT OX STI	 Hand Taps for Helical Coil Wire Screw Thread Inserts, Oxided	ANSI ⑦-8
SP STI	 Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts	ANSI ⑦-12
SP OX STI	 Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts, Oxided	ANSI ⑦-14
ZELX NI SP STI	 Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts and for Nickel Base Alloys	ANSI ⑦-16
PO STI	 Spiral Pointed Taps for Helical Coil Wire Screw Thread Inserts	ANSI ⑦-19
PO OX STI	 Spiral Pointed Taps for Helical Coil Wire Screw Thread Inserts, Oxidized	ANSI ⑦-21
ZELX NI PO STI	 Spiral Pointed Taps for Helical Coil Wire Screw Thread Inserts and for Nickel Base Alloys	ANSI ⑦-23

⑧Pipe Tap Series

NPT	 Hand Taps for American Taper Pipe Threads	ANSI ⑧-82
ZELX MOLD NPT	 Hand Taps for Hard-to-Machine Materials for American Taper Pipe Threads	ANSI ⑧-83
NPT-CI	 Hand Taps for American Taper Pipe Threads for Cast Irons	ANSI ⑧-84
ZELX SS NPT	 Taps for American Taper Pipe Threads for Stainless Steels	ANSI ⑧-88
INT-NPT	 Interrupted Taps for American Taper Pipe Threads	ANSI ⑧-91
NPTF	 Hand Taps for American Dryseal Taper Pipe Threads	ANSI ⑧-94
NPTF-CI	 Hand Taps for American Dryseal Taper Pipe Threads, for Cast Irons	ANSI ⑧-95
ZELX SS NPTF	 Taps for American Dryseal Taper Pipe Threads for Stainless Steels	ANSI ⑧-96
NPS	 Hand Taps for American Parallel Pipe Threads	ANSI ⑧-99
NPSF	 Hand Taps for American Dryseal Parallel Pipe Threads	ANSI ⑧-101

⑩Dies

RD-DA	 Die Attachment (Designed Specially for Solid Round Dies)	ANSI ⑩-57

DIN INDEX

①Spiral Fluted Tap Series for blind hole



VUSP	Z-PRO Coated Spiral Fluted Taps	DIN ①-11
VUSP E	Z-PRO Coated Spiral Fluted Taps E (1.5P)	DIN ①-17
VUSP CH	Z-PRO Coated Spiral Fluted Taps ,Cool hole	DIN ①-22
HVSP	Z-PRO Hybrid-Value Spiral Fluted Taps for Steel	DIN ①-29
MHSP	Z-PRO Spiral Taps for Medium Hard Carbon Steels	DIN ①-35
SP	Spiral Fluted Taps	DIN ①-52
SP OX	Spiral Fluted Taps, Oxidized	DIN ①-73
SP LH	Spiral Fluted Taps for Left Hand Threads	DIN ①-81
SP V	Spiral Fluted Taps, Coated	DIN ①-82
AU+SP	Plus Series Spiral Fluted Taps, Coated	DIN ①-88
SP-VA	Spiral Fluted Taps for Stainless Steels	DIN ①-109
SP+VA	Spiral Fluted Taps for Stainless Steels	DIN ①-112
SP-VA (Coating)	Spiral Fluted Taps for Stainless Steels, Coated	DIN ①-114
SU2-SP	Spiral Fluted Taps for Tough Stainless Steels	DIN ①-117
SP-BLF	Spiral Fluted Taps, Deep Hole Use	DIN ①-126
SP-BLF OX	Spiral Fluted Taps, Deep Hole Use, Oxidized	DIN ①-127
SP-BLF (Coating)	Spiral Fluted Taps, Deep Hole Use (Coated)	DIN ①-128
AL+SP AL-SP	Spiral Fluted Taps for Aluminum	DIN ①-140
LO-SP	Low Spiral Fluted Taps	DIN ①-146
LO-SP OX	Low Spiral Fluted Taps, Oxidized	DIN ①-148
ZET-B	Spiral Fluted Taps for Titanium Alloys	DIN ①-158
ZEN-B	Spiral Fluted Taps for Nickel Base Alloys	DIN ①-166
PM-SP	Spiral Fluted Taps for Hard-to-Machine Materials	DIN ①-171
PH-SP	Spiral Fluted Taps for Hard-to-Machine Materials	DIN ①-173
F-SP	Spiral Fluted Taps for High Speed Tapping	DIN ①-181
HFIHS	For Ultra Fast Tapping, Vertical Use. Spiral Fluted Taps for Carbon Steels	DIN ①-187
HFISP	For Ultra Fast Tapping, Horizontal Use. Low Spiral Fluted Taps for Carbon Steels	DIN ①-191
HFAHS	For Ultra Fast Tapping, Vertical Use, Spiral Fluted Taps for Aluminum	DIN ①-195
HFASP	For Ultra Fast Tapping, Horizontal Use, Low Spiral Fluted Taps for Aluminum	DIN ①-199
HDISP	For Dry Tapping, Blind Hole Use, Spiral Fluted Taps for Steels	DIN ①-203
HDASP	For Dry Tapping, Blind Hole Use, Spiral Fluted Taps for Aluminum	DIN ①-207
AUXSP	X Series Spiral Fluted Taps, Coated	DIN ①-215

②Spiral Fluted Tap Series for through hole



MHSL	Z-PRO Spiral Fluted Taps for Carbon Steels of middle hardness, Through Hole Use (with LH spiral flutes)	DIN ②-8
AU+SL	Spiral Fluted Taps, Coated, Through Hole Use (with LH spiral flutes)	DIN ②-15
SL+VA	Spiral Fluted Taps for Stainless Steels, Through Hole Use (with LH spiral flutes)	DIN ②-19
ZET-P	Spiral Fluted Taps for Titanium Alloys, Through Hole Use (with LH spiral flutes)	DIN ②-25
F-SL	Spiral Fluted Taps for High Speed Tapping, Through Hole Use (with LH spiral flutes)	DIN ②-31
HDISL	Spiral Fluted Taps for Steels, for Dry Tapping and for Ultra High Speed Tapping, Through Hole Use (with LH spiral flutes)	DIN ②-35

AUXSL — X Series Spiral Fluted Taps, Coated, Through Hole Use (with LH spiral flutes) — DIN ②-41

③Spiral Fluted Tap Series for through hole

VUPO — Z-PRO Coated Spiral Pointed Taps — DIN ③-9

PO — Spiral Pointed Taps — DIN ③-25

PO OX — Spiral Pointed Taps, Oxidized — DIN ③-42

PO V — Spiral Pointed Taps, Coated — DIN ③-49

PO-VA — Spiral Pointed Taps for Stainless Steels — DIN ③-67

PO-VA (Coating) — Spiral Pointed Taps for Stainless Steels, Coated — DIN ③-69

EH-PO — Spiral Pointed Taps for Hard-to-Machine Materials — DIN ③-83

ZEN-P — Spiral Pointed Taps for Nickel Base Alloys — DIN ③-90

PM-PO — Spiral Pointed Taps for Hard-to-Machine Materials — DIN ③-96

④Hand Tap Series

HT — Hand Taps — DIN ④-38

GG-HT — Hand Taps for Cast Irons — DIN ④-98

GG-HT (Coating) — Hand Taps for Cast Irons, Coated — DIN ④-100

GGST — Z-PRO Straight Fluted Taps for Cast Irons — DIN ④-102

GGST CH — Z-PRO Straight Fluted Taps for Cast Irons with Coolant Through Hole, Blind Hole Use — DIN ④-104

GG-HT-OH — Hand Taps for Cast Irons with Internal Coolant Hole — DIN ④-106

GG-HT-OH (Coating) — Hand Taps for Cast Irons with Internal Coolant Hole, Coated — DIN ④-107

LA-HT — Hand Taps for Die Cast Materials — DIN ④-112

AXE-HT — AXE Hand Taps — DIN ④-116

EH-HT — Hand Taps for Hard-to-Machine Materials — DIN ④-128

⑤Cemented Carbide Tap Series

CT LA — Carbide Taps for Light Alloys — DIN ⑤-9

EH-CT — Carbide Taps for Hard Materials — DIN ⑤-25

UH-CT — Carbide taps for ultra hard materials — DIN ⑤-29

⑥Roll Tap Series

MHRZ — Z-PRO Roll Taps for Medium Hardness Carbon Steels — DIN ⑥-11

N+RZ / N - RZ — Roll Taps for Steels — DIN ⑥-22

N+RS / N - RS — Roll Taps for Non-Ferrous Materials — DIN ⑥-35

OL+RZ — Roll Taps for Dry Tapping, Coated — DIN ⑥-45

HP+RZ / HP - RZ — High Performance Roll Taps, Coated — DIN ⑥-54

R-D — Roll Taps for General Purpose — DIN ⑥-64

R-D (Coating) — Roll Taps for General Purpose, Coated — DIN ⑥-65

R-D (Coating) — Roll Taps for General Purpose, Coated — DIN ⑥-66

DIN INDEX

⑦Special Thread Taps / Simple Inspection Tools

HT Pg	 Hand Taps for Steel Conduit Threads	DIN ⑦-38

⑧Pipe Tap Series

SP G	 Spiral Fluted Taps for Parallel Pipe Threads	DIN ⑧-51
SP OX G	 Spiral Fluted Taps for Parallel Pipe Threads, Oxidized	DIN ⑧-52
SP V G	 Spiral Fluted Taps for Parallel Pipe Threads, Coated	DIN ⑧-53
SP-VA G	 Spiral Fluted Taps for Parallel Pipe Threads, for Stainless Steels	DIN ⑧-54
SU2-SP G	 Spiral Fluted Taps for Parallel Pipe Threads, for Tough Stainless Steels	DIN ⑧-55
LO-SP G	 Low Spiral Fluted Taps for Parallel Pipe Threads	DIN ⑧-56
LO-SP OX G	 Low Spiral Fluted Taps for Parallel Pipe Threads, Oxidized	DIN ⑧-57
PH-SP G	 Spiral Fluted Taps for Parallel Pipe Threads, for Hard-to-Machine Materials	DIN ⑧-58
PO G	 Spiral Pointed Taps for Parallel Pipe Threads	DIN ⑧-59
PO OX G	 Spiral Pointed Taps for Parallel Pipe Threads, Oxidized	DIN ⑧-60
PO V G	 Spiral Pointed Taps for Parallel Pipe Threads, Coated	DIN ⑧-61
PO-VA G	 Spiral Pointed Taps for Parallel Pipe Threads, for Stainless Steels	DIN ⑧-62
HT G	 Hand Taps for Parallel Pipe Threads	DIN ⑧-63
GGST G	 Z-PRO Straight Fluted Taps for Parallel Pipe Threads, for Cast Irons	DIN ⑧-65
GG-HT G	 Hand Taps for Parallel Pipe Threads, for Cast Irons	DIN ⑧-66
GG-HT G (Coating)	 Hand Taps for Parallel Pipe Threads, for Cast Irons (Coated)	DIN ⑧-67
EH-HT G	 Hand Taps for Parallel Pipe Threads, for Hard-to-Machine Materials	DIN ⑧-68
R-D G	 Roll Taps for Parallel Pipe Threads, for General Purpose	DIN ⑧-69
R-D G (Coating)	 Roll Taps for Parallel Pipe Threads, for General Purpose, Coated	DIN ⑧-70

⑩Dies

DPO	 Spiral Pointed Solid Dies	DIN ⑩-39

JIS • ANSI • DIN

LINE UP

① SPIRAL FLUTED TAP SERIES FOR BLIND HOLE



	JIS	ANSI	DIN
VUSP	①-5	①-9	①-11
VUSP 1.5P	①-13	①-15	
VUSP E			①-17
VUSP CH	①-19	①-21	①-22
HVSP	①-23	①-26	①-29
HVSP ZP	①-31		
MHSP	①-33		①-35
SP	①-37	①-46	①-52
+SP	①-57		
SP 1.5P	①-58		
ISP	①-61	①-63	
SP OX	①-64	①-68	①-73
SP		①-78	
SP LH	①-79		①-81
SP V			①-82
AU+SP	①-85	①-87	①-88
LS-SP	①-89		
LS-SP OX	①-94		
LS-SP LH	①-95		
LS-SP V	①-96		
LS-SP-K	①-97		
SU+SP SU-SP	①-99		
ZELX SS SP		①-104	
SP-VA			①-109
SP+VA			①-112
SP-VA E			①-113
SP-VA (coating)			①-114
SU2-SP	①-115		①-117
SU-S-SP	①-119		
LS-SU-S-SP	①-120		
ZELX SS SP 6"		①-122	
S-SP	①-123		
SP-BLF			①-126
SP-BLF OX			①-127
SP-BLF (coating)			①-128
E-SP	①-129		
HC+SP HC-SP	①-131		
HC+SP OX HC-SP OX	①-134		
AL+SP AL-SP	①-135		①-140
AL-SP 1.5P	①-137		
AL-SP		①-138	
ALS-SP		①-141	
LO-SP	①-143	①-145	①-146
LO-SP OX			①-148
LS-LO-SP	①-151		
ZET-B	①-153		①-158
ZELX TI SP		①-155	
ZEN-B	①-161		①-166
ZELX NI SP		①-163	
PM-SP	①-168	①-170	①-171
PH-SP			①-173
LS-PM-SP	①-175		
F-SP	①-177		①-181
ZELX FR		①-179	
LS-F-SP	①-182		
HFIHS	①-185		①-187

	JIS	ANSI	DIN
HFISP	①-189		①-191
HFAHS	①-193		①-195
HFASP	①-197		①-199
HDISP	①-201		①-203
HDASP	①-205		①-207
MC-SP	①-209		
XSP	①-211		
AUXSP	①-213		①-215
SUXSP	①-217		

・For improvement, spec may change without advance notice.

Selection chart of taps

Tapping conditions	Machining, in low-speed tapping area									
Product symbol	ISP	SP	LS-SP	LS-SP-K	SP LH	LS-SP LH	LO-SP	LS-LO-SP	SP 1.5P	SP OX
Tap material Surface treatment	HSS OX	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS OX
Name	I series	For general use	Long, for general use	Long neck	For general use For left-hand threads	Long, for general use For left-hand threads	Low helix for general use	Long, low helix for general use	Short chamfer for general use	Oxided
										
Bored Hole Shape										
For Metric Threads	①-62	①-39	①-89	①-97	①-79	①-95	①-144	①-151	①-58	①-65
For Unified Threads		①-43	①-92		①-80					①-66
For Whitworth Threads		①-45	①-92		①-80					①-66
For Screw Threads used on Sewing Machines		①-45								
Pipe Threads										
American Pipe Threads										
For Miniature Threads										
For Trapezoidal Threads										

～S25C	Low carbon steels	◆	◎																◆	◎
S25C～S45C	Medium carbon steels			◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎
S45C～	High carbon steels			◆	○	◆	○	◆	○	◆	○	◆	○	◆	○	◆	○	◆	○	◆	○
SCM	Alloy steels																			
25～35HRC	Heat treated steel																			
35～45HRC	Heat treated steel																			
45～55HRC	Heat treated steel																			
55～63HRC	Heat treated steel																			
SUS	Stainless steels (SUS)																			
SKD	Tool steels																			
SC	Cast steels																			
FC	Cast irons																			
FCD	Ductile cast irons																			
Cu	Copper																			
Bs	Brass																			
BsC	Brass castings																			
PB	Bronze																			
AL	Wrought aluminum																			
AC, ADC	Wrought aluminum																			
Mg	Magnesium alloy die castings																			
ZDC	Zinc alloy die castings																			
	Titanium alloys																			
	Nickel base alloys																			
	Thermosetting plastic																			
	Thermoplastic resin																			

Think threads with YAMAWA

Recommended tap ◎: Most suitable tap ○: Suitable tap

Recommended tapping fluid ◆: Insoluble ◆: Water-soluble

Machining, in low/middle speed tapping area

	LS-SP OX	AL+SP AL-SP	AL-SP 1.5P	+SP	E-SP	Z-PRO HVSP	Z-PRO HVSP ZP	HC+SP HC-SP	HC+SP OX HC-SP OX	SU+SP SU-SP	SU-S-SP	LS-SU-S-SP	S-SP
	HSS OX	HSS NI	HSS NI	HSS	HSS OX	HSS OX	HSS OX	HSS	HSS OX	HSS OX	HSS OX	HSS OX	HSS OX
	Long, oxided	For aluminum materials	Short chamfer for aluminum materials	For general use	For soft steel	Hybrid Value Spiral Fluted Taps for Steels	For Galvanizing	For high carbon steels	For high carbon steel, oxided	For stainless steel	For deep hole stainless steel	Long, for deep hole stainless steel	For deep hole
													
	①-94	①-136	①-137	①-57	①-130	①-24	①-32	①-132	①-134	①-100	①-119	①-120	①-123
						①-25				①-102			
								①-133		①-103			

◆	◎							◆	◎	◆	◎	◆	◎							◆	○	◆	○		
◆	◎					◆	◎	◆	○	◆	◎	◆	◎	◆	◎	◆	◎	◆	○	◆	○	◆	○	◆	◎
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		◆	◎	◆	◎																				

Selection chart of taps

Tapping conditions	Machining, in low/middle speed tapping area				Machining, in middle speed tapping area						
Product symbol	LS-SP V	PM-SP	LS-PM-SP	MC-SP	XSP	SUXSP	Z-PRO VUSP	Z-PRO VUSP 1.5P	Z-PRO VUSP CH	AU+SP	
Tap material / Surface treatment	HSS / Coating	HSS-P	HSS-P	HSS	HSS	HSS / OX	HSS-P / Coating	HSS-P / Coating	HSS-P / Coating	HSS / Coating	
Name	Long, coated	For hard-to-machine materials	Long, for hard-to-machine materials	With oil hole	For general use	For stainless steel	Coated	Short chamfer coated	Cool hole coated	Coated	
											
Bored Hole Shape	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	
For Metric Threads	①-96	①-168	①-175	①-209	①-212	①-218	①-6	①-14	①-20	①-86	
For Unified Threads		①-169									
For Whitworth Threads											
For Screw Threads used on Sewing Machines											
Pipe Threads											
American Pipe Threads											
For Miniature Threads											
For Trapezoidal Threads											

～S25C	Low carbon steels	◆◆	◎					◆	○			◆	○	◆◆	◎	◆◆	◎	◆◆	◎	◎
S25C～S45C	Medium carbon steels	◆◆	◎					◆	◎	◆	◎	◆	○	◆◆	◎	◆◆	◎	◆◆	◎	◎
S45C～	High carbon steels	◆◆	◎	◆	◎	◆	◎	◆	◎	◆	○	◆	○	◆◆	◎	◆◆	◎	◆◆	◎	◎
SCM	Alloy steels	◆◆	◎					◆	○			◆	◎	◆◆	◎	◆◆	◎	◆◆	◎	◎
25～35HRC	Heat treated steel			◆	◎	◆	◎													
35～45HRC	Heat treated steel			◆	◎	◆	◎													
45～55HRC	Heat treated steel																			
55～63HRC	Heat treated steel																			
SUS	Stainless steels (SUS)											◆	◎	◆◆	◎	◆◆	◎	◆◆	◎	○
SKD	Tool steels													◆◆	○	◆◆	○	◆◆	○	
SC	Cast steels																			
FC	Cast irons																			
FCD	Ductile cast irons													◆◆	○	◆◆	○	◆◆	○	
Cu	Copper																			
Bs	Brass																			
BsC	Brass castings																			
PB	Bronze																			
AL	Wrought aluminum													◆◆	○	◆◆	○	◆◆	○	
AC, ADC	Wrought aluminum													◆◆	○	◆◆	○	◆◆	○	◆ ○
Mg	Magnesium alloy die castings																			
ZDC	Zinc alloy die castings																		◆	○
	Titanium alloys																			
	Nickel base alloys																			
	Thermosetting plastic																			
	Thermoplastic resin																			

Think threads with YAMAWA

Recommended tap ◎: Most suitable tap ○: Suitable tap

Recommended tapping fluid ◆: Insoluble ◆: Water-soluble

Machining/Fully synchronized feed only, in high-speed tapping area

	AUXSP	SU2-SP	Z-PRO MHSP	ZEN-B	ZET-B	F-SP	LS-F-SP	HDISP	HDASP	HFIHS	HFISP	HFAHS	HFASP
	HSS / Coating	HSS / OX	HSS-Co / Coating	HSS-P / OX	HSS-P / NI	HSS / Coating	HSS / Coating	HSS-Co / Coating	HSS-Co / Coating	HSS-Co / Coating	HSS-Co / Coating	HSS-Co / Coating	HSS-Co / Coating
	Coated	For hard-to-machine stainless steel	For middle hardness carbon steel	For nickel base alloys	For titanium alloys	For high-speed	Long, for high-speed	Dry tapping, for ultra high-speed For steel	For dry tapping; For aluminum materials	For ultra high-speed For steel	For ultra high-speed For steel, low spiral	For ultra high-speed For aluminum materials	For ultra high-speed For aluminum materials, low spiral
													
	①-214	①-116	①-34	①-162	①-154	①-178	①-182	①-202	①-206	①-186	①-190	①-194	①-198
	◆◆ ◎	◆ ○		◆ ◎		◆◆ ◎	◆◆ ◎			◆◆ ◎	◆◆ ◎		
	◆◆ ◎	◆ ○		◆ ◎		◆◆ ◎	◆◆ ◎	◆◆ ○		◆◆ ◎	◆◆ ◎		
	◆◆ ◎	◆ ○	◆◆ ◎					◆◆ ◎		◆◆ ◎	◆◆ ◎		
	◆◆ ◎	◆ ◎	◆◆ ◎					◆◆ ○		◆◆ ◎	◆◆ ◎		
			◆◆ ◎										
	◆◆ ○	◆ ◎		◆ ◎									
									◆ ◎			◆ ◎	◆ ◎
	◆ ○								◆ ◎			◆ ◎	◆ ◎
									◆ ◎			◆ ◎	◆ ◎
	◆ ○								◆ ◎			◆ ◎	◆ ◎
					◆ ◎								
				◆ ◎									

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

Z-PRO

VUSP



Z-PRO
Coated Spiral Fluted Taps

Specification

HSS-P | Coating | <2D

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
10~20 (m/min)	10~30 (m/min)	10~30 (m/min)	10~20 (m/min)	3~10 (m/min)	5~10 (m/min)	10~30 (m/min)

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~30 (m/min)	10~35 (m/min)

*For long shank type, the recommended cutting speed is 30% less than the above.

Product Features

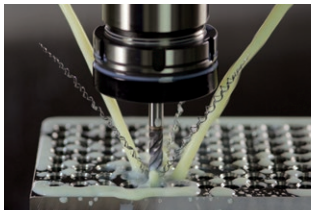
- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.
- Proper tool projection length is secured, preventing chips from interfering with the holder.
- This is most suitable for tapping with water soluble cutting fluid.

Tapping Data

Tapping conditions [M8×1.25]

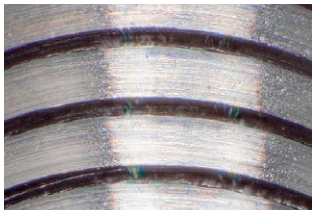
Work Material	SUS304
Tapping Length	16mm
Tapping Speed	10m/min
Machine	Machining center, vertical type
Tapping Fluid	Water soluble cutting fluid

Good tapping



The unique cutting edge shape and the long overall-length tap prevent chips from interfering with the holder. They also ensure a good supply of water soluble cutting fluid.

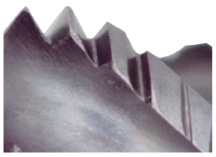
Good internal thread



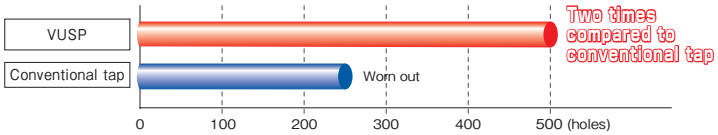
In tapping of SUS304, good internal thread surface is obtained even in tapping environments that use water soluble cutting fluid.

Tapping conditions [M3×0.5]

Work Material	S50C
Tapping Length	4.5mm
Tapping Speed	20m/min
Machine	Machining center, vertical type
Tapping Fluid	Water soluble cutting fluid



Close-up of VUSP after Tapping of 250 Holes

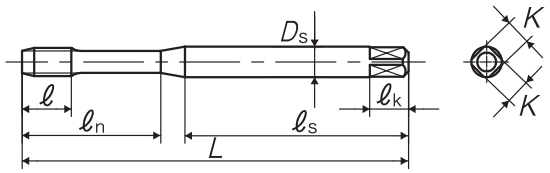


- Compatible with a wide range of work materials

  This is compatible with a wide range of steel work materials including general structural steel, carbon steel, and alloy steel.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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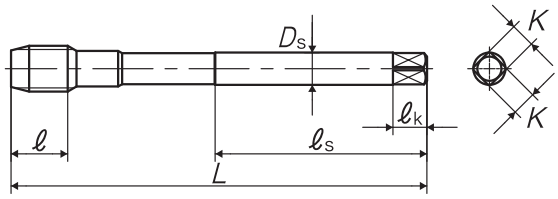

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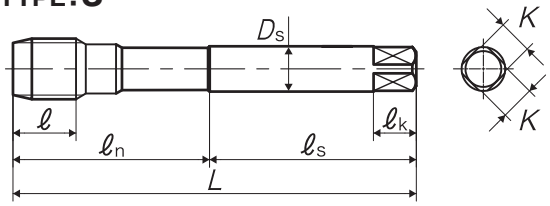

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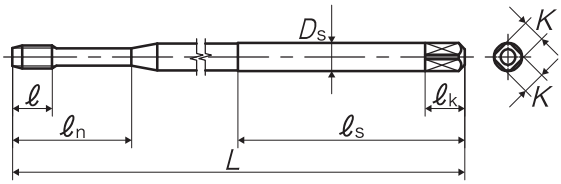
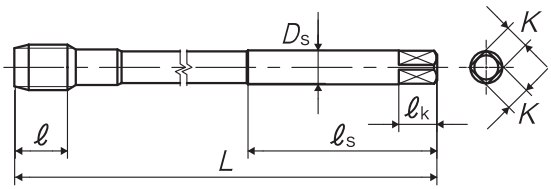


TYPE: 5



Oversize

Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	1101101035	2.5P	56	5	18	32	4	3.2	6	3	1	¥ 2,900
M3 × 0.5	P3	1101201035	2.5P	56	5	18	32	4	3.2	6	3	1	¥ 2,900
M3 × 0.5	P4	1101301035	2.5P	56	5	18	32	4	3.2	6	3	1	¥ 2,900 ※
M3 × 0.35	P2	1101101036	2.5P	56	5	18	32	4	3.2	6	3	1	¥ 4,070
M3 × 0.35	P3	1101201036	2.5P	56	5	18	32	4	3.2	6	3	1	¥ 4,070 ※
M3 × 0.35	P4	1101301036	2.5P	56	5	18	32	4	3.2	6	3	1	¥ 4,070 ※
M4 × 0.7	P2	1101101042	2.5P	63	7	21	36	5	4	7	3	1	¥ 2,850
M4 × 0.7	P3	1101201042	2.5P	63	7	21	36	5	4	7	3	1	¥ 2,850
M4 × 0.7	P4	1101301042	2.5P	63	7	21	36	5	4	7	3	1	¥ 2,850 ※
M4 × 0.5	P2	1101101043	2.5P	63	5	21	36	5	4	7	3	1	¥ 3,560
M4 × 0.5	P3	1101201043	2.5P	63	5	21	36	5	4	7	3	1	¥ 3,560 ※
M4 × 0.5	P4	1101301043	2.5P	63	5	21	36	5	4	7	3	1	¥ 3,560 ※
M5 × 0.8	P2	1101101049	2.5P	70	9	25	40	5.5	4.5	7	3	1	¥ 2,880
M5 × 0.8	P3	1101201049	2.5P	70	9	25	40	5.5	4.5	7	3	1	¥ 2,880
M5 × 0.8	P4	1101301049	2.5P	70	9	25	40	5.5	4.5	7	3	1	¥ 2,880 ※
M5 × 0.5	P2	1101101051	2.5P	70	6	25	40	5.5	4.5	7	3	1	¥ 3,690
M5 × 0.5	P3	1101201051	2.5P	70	6	25	40	5.5	4.5	7	3	1	¥ 3,690 ※
M5 × 0.5	P4	1101301051	2.5P	70	6	25	40	5.5	4.5	7	3	1	¥ 3,690 ※
M6 × 1	P2	1101101055	2.5P	80	11	30	45	6	4.5	7	3	1	¥ 3,180
M6 × 1	P3	1101201055	2.5P	80	11	30	45	6	4.5	7	3	1	¥ 3,180
M6 × 1	P4	1101301055	2.5P	80	11	30	45	6	4.5	7	3	1	¥ 3,180 ※
M6 × 0.75	P2	1101101056	2.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190
M6 × 0.75	P3	1101201056	2.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190 ※
M6 × 0.75	P4	1101301056	2.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190 ※
M6 × 0.5	P2	1101101057	2.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190
M6 × 0.5	P3	1101201057	2.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190 ※
M6 × 0.5	P4	1101301057	2.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

VUSP Z-PRO Coated Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M8 × 1.25	P3	1101101064	2.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,190
M8 × 1.25	P4	1101201064	2.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,190
M8 × 1.25	P5	1101301064	2.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,190 ※
M8 × 1	P3	1101101065	2.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,950
M8 × 1	P4	1101201065	2.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,950 ※
M8 × 1	P5	1101301065	2.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,950 ※
M10 × 1.5	P3	1101101078	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290
M10 × 1.5	P4	1101201078	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290
M10 × 1.5	P5	1101301078	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290 ※
M10 × 1.25	P3	1101101079	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290
M10 × 1.25	P4	1101201079	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290
M10 × 1.25	P5	1101301079	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290 ※
M10 × 1	P3	1101101080	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 6,280
M10 × 1	P4	1101201080	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 6,280 ※
M10 × 1	P5	1101301080	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 6,280 ※
M12 × 1.75	P4	1101101088	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.75	P5	1101201088	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.75	P6	1101301088	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900 ※
M12 × 1.5	P3	1101101089	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.5	P4	1101201089	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.5	P5	1101301089	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900 ※
M12 × 1.25	P3	1101101090	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.25	P4	1101201090	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.25	P5	1101301090	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900 ※
M14 × 2	P4	1101101100	2.5P	110	18	-	56	10.5	8	11	3	2	¥ 9,450
M14 × 2	P5	1101201100	2.5P	110	18	-	56	10.5	8	11	3	2	¥ 9,450
M14 × 2	P6	1101301100	2.5P	110	18	-	56	10.5	8	11	3	2	¥ 9,450 ※
M14 × 1.5	P3	1101101102	2.5P	110	14	-	56	10.5	8	11	3	2	¥ 9,450
M14 × 1.5	P4	1101201102	2.5P	110	14	-	56	10.5	8	11	3	2	¥ 9,450
M14 × 1.5	P5	1101301102	2.5P	110	14	-	56	10.5	8	11	3	2	¥ 9,450 ※
M16 × 2	P4	1101101114	2.5P	110	18	-	56	12.5	10	13	3	2	¥ 12,300
M16 × 2	P5	1101201114	2.5P	110	18	-	56	12.5	10	13	3	2	¥ 12,300
M16 × 2	P6	1101301114	2.5P	110	18	-	56	12.5	10	13	3	2	¥ 12,300 ※
M16 × 1.5	P3	1101101116	2.5P	110	14	-	56	12.5	10	13	3	2	¥ 12,300
M16 × 1.5	P4	1101201116	2.5P	110	14	-	56	12.5	10	13	3	2	¥ 12,300
M16 × 1.5	P5	1101301116	2.5P	110	14	-	56	12.5	10	13	3	2	¥ 12,300 ※
M18 × 2.5	P5	1101101128	2.5P	125	20	-	64	14	11	14	4	2	¥ 15,500
M18 × 1.5	P4	1101101130	2.5P	125	14	-	64	14	11	14	3	2	¥ 15,500
M20 × 2.5	P5	1101101141	2.5P	140	20	-	71	15	12	15	4	3	¥ 22,400
M20 × 1.5	P4	1101101144	2.5P	140	14	-	71	15	12	15	3	3	¥ 22,400
M22 × 2.5	P5	1101101156	2.5P	140	20	-	71	17	13	16	4	3	¥ 27,000
M22 × 1.5	P4	1101101158	2.5P	140	14	-	71	17	13	16	3	3	¥ 27,000
M24 × 3	P5	1101101167	2.5P	160	25	-	82	19	15	18	4	3	¥ 32,900
M24 × 1.5	P4	1101101170	2.5P	160	18	-	82	19	15	18	3	3	¥ 32,900
Long shank, for Metric Threads													
M3 × 0.5	P2	2101101035	2.5P	100	5	18	32	4	3.2	6	3	4	¥ 5,260
M3 × 0.35	P2	2101101036	2.5P	100	5	18	32	4	3.2	6	3	4	¥ 7,370 ※
M4 × 0.7	P2	2101101042	2.5P	100	7	21	36	5	4	7	3	4	¥ 4,800
M4 × 0.5	P2	2101101043	2.5P	100	5	21	36	5	4	7	3	4	¥ 6,240 ※
M5 × 0.8	P2	2101101049	2.5P	100	9	25	40	5.5	4.5	7	3	4	¥ 4,310

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

VUSP Z-PRO Coated Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M5 × 0.5	P2	2101101051	2.5P	100	6	25	40	5.5	4.5	7	3	4	¥ 5,390 ※
M6 × 1	P2	2101101055	2.5P	100	11	30	45	6	4.5	7	3	4	¥ 4,410
M6 × 0.75	P2	2101101056	2.5P	100	8	30	45	6	4.5	7	3	4	¥ 5,520
M6 × 0.5	P2	2101101057	2.5P	100	8	30	45	6	4.5	7	3	4	¥ 5,520 ※
M8 × 1.25	P3	2101101064	2.5P	150	12	-	46	6.2	5	8	3	5	¥ 7,600
M8 × 1	P3	2101101065	2.5P	150	12	-	46	6.2	5	8	3	5	¥ 8,740
M10 × 1.5	P3	2101101078	2.5P	150	13	-	51	7	5.5	8	3	5	¥ 8,890
M10 × 1.25	P3	2101101079	2.5P	150	13	-	51	7	5.5	8	3	5	¥ 8,890
M10 × 1	P3	2101101080	2.5P	150	13	-	51	7	5.5	8	3	5	¥ 10,300
M12 × 1.75	P4	2101101088	2.5P	150	15	-	56	8.5	6.5	9	3	5	¥ 10,600
M12 × 1.5	P3	2101101089	2.5P	150	15	-	56	8.5	6.5	9	3	5	¥ 10,600
M12 × 1.25	P3	2101101090	2.5P	150	15	-	56	8.5	6.5	9	3	5	¥ 10,600
M14 × 2	P4	2101101100	2.5P	150	18	-	56	10.5	8	11	3	5	¥ 14,200
M14 × 1.5	P3	2101101102	2.5P	150	14	-	56	10.5	8	11	3	5	¥ 14,200
M16 × 2	P4	2101101114	2.5P	150	18	-	56	12.5	10	13	3	5	¥ 14,900
M16 × 1.5	P3	2101101116	2.5P	150	14	-	56	12.5	10	13	3	5	¥ 14,900

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

Z-PRO

VUSP

Z-PRO
Coated Spiral Fluted Taps



Specification

HSS-P | Coating | <2D

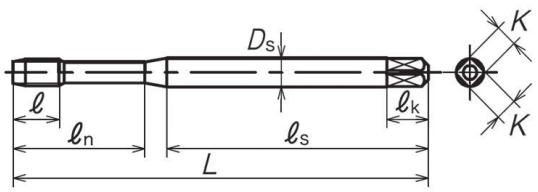
- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
10~20 (m/min)	10~30 (m/min)	10~30 (m/min)	10~20 (m/min)	3~10 (m/min)	5~10 (m/min)	10~30 (m/min)

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~30 (m/min)	10~35 (m/min)

TYPE : 1



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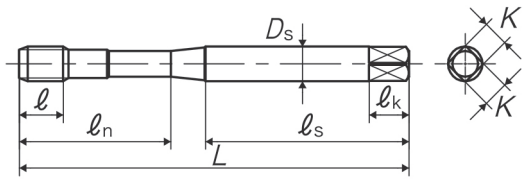

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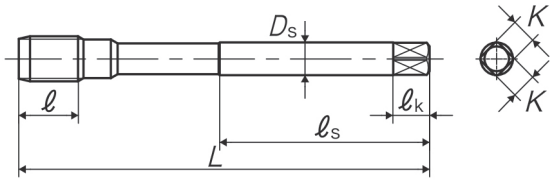


Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	D4	5101101035	2.5P	2.205	0.197	0.736	1.339	0.141	0.11	0.187	3	1
M3 × 0.35	D4	5101101036	2.5P	2.205	0.197	0.736	1.339	0.141	0.11	0.187	3	1
M4 × 0.7	D5	5101101042	2.5P	2.48	0.276	0.815	1.535	0.168	0.131	0.25	3	1
M4 × 0.5	D4	5101101043	2.5P	2.48	0.197	0.815	1.535	0.168	0.131	0.25	3	1
M5 × 0.8	D5	5101101049	2.5P	2.756	0.354	0.984	1.654	0.194	0.152	0.25	3	1
M5 × 0.5	D4	5101101051	2.5P	2.756	0.236	0.984	1.654	0.194	0.152	0.25	3	1
M6 × 1	D6	5101101055	2.5P	3.15	0.433	1.181	1.713	0.255	0.191	0.312	3	1
M6 × 0.75	D6	5101101056	2.5P	3.15	0.315	1.181	1.713	0.255	0.191	0.312	3	1
M6 × 0.5	D4	5101101057	2.5P	3.15	0.315	1.181	1.713	0.255	0.191	0.312	3	1
M8 × 1.25	D7	5101101064	2.5P	3.543	0.472	1.378	1.831	0.318	0.238	0.375	3	2
M8 × 1	D6	5101101065	2.5P	3.543	0.472	1.378	1.831	0.318	0.238	0.375	3	2
M10 × 1.5	D8	5101101078	2.5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	3	2
M10 × 1.25	D6	5101101079	2.5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	3	2
M10 × 1	D6	5101101080	2.5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	3	2
M12 × 1.75	D8	5101101088	2.5P	4.331	0.591	-	2.205	0.367	0.275	0.437	3	3
M12 × 1.5	D7	5101101089	2.5P	4.331	0.591	-	2.205	0.367	0.275	0.437	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M12 × 1.25	D7	5101101090	2.5P	4.331	0.591	-	2.205	0.367	0.275	0.437	3	3
M14 × 2	D9	5101101100	2.5P	4.331	0.709	-	2.205	0.429	0.322	0.5	3	3
M14 × 1.5	D8	5101101102	2.5P	4.331	0.551	-	2.205	0.429	0.322	0.5	3	3
M16 × 2	D9	5101101114	2.5P	4.331	0.709	-	2.205	0.48	0.36	0.562	3	3
M16 × 1.5	D8	5101101116	2.5P	4.331	0.551	-	2.205	0.48	0.36	0.562	3	3
M18 × 2.5	D9	5101101128	2.5P	4.921	0.787	-	2.52	0.542	0.406	0.625	4	3
M18 × 1.5	D8	5101101130	2.5P	4.921	0.551	-	2.52	0.542	0.406	0.625	3	3
M20 × 2.5	D9	5101101141	2.5P	5.512	0.787	-	2.795	0.652	0.489	0.687	4	3
M20 × 1.5	D8	5101101144	2.5P	5.512	0.551	-	2.795	0.652	0.489	0.687	3	3
M22 × 2.5	D9	5101101156	2.5P	5.512	0.787	-	2.795	0.697	0.523	0.75	4	3
M22 × 1.5	D8	5101101158	2.5P	5.512	0.551	-	2.795	0.697	0.523	0.75	3	3
M24 × 3	D10	5101101167	2.5P	6.299	0.984	-	3.228	0.76	0.57	0.75	4	3
M24 × 1.5	D8	5101101170	2.5P	6.299	0.709	-	3.228	0.76	0.57	0.75	3	3
For Unified Threads												
No.5-40UNC	GH2	5101103021	2.5P	2.205	0.197	0.736	1.339	0.141	0.11	0.187	2	1
No.5-44UNF	GH2	5101103022	2.5P	2.205	0.197	0.736	1.339	0.141	0.11	0.187	2	1
No.6-32UNC	GH2	5101103023	2.5P	2.205	0.276	0.748	1.339	0.141	0.11	0.187	2	1
No.6-40UNF	GH2	5101103024	2.5P	2.205	0.276	0.748	1.339	0.141	0.11	0.187	2	1
No.8-32UNC	GH3	5101103029	2.5P	2.48	0.276	0.827	1.535	0.168	0.131	0.25	2	1
No.8-36UNF	GH3	5101103030	2.5P	2.48	0.276	0.827	1.535	0.168	0.131	0.25	2	1
No.10-24UNC	GH3	5101103039	2.5P	2.756	0.354	0.945	1.654	0.194	0.152	0.25	2	1
No.10-32UNF	GH3	5101103041	2.5P	2.756	0.354	0.945	1.654	0.194	0.152	0.25	2	1
No.12-24UNC	GH3	5101103047	2.5P	3.15	0.354	0.984	1.953	0.22	0.165	0.281	2	1
No.12-28UNF	GH3	5101103048	2.5P	3.15	0.354	0.984	1.953	0.22	0.165	0.281	2	1
1/4-20UNC	GH3	5101103058	2.5P	3.15	0.433	1.181	1.713	0.255	0.191	0.312	2	1
1/4-20UNC	GH5	5101303058	2.5P	3.15	0.433	1.181	1.713	0.255	0.191	0.312	2	1
1/4-28UNF	GH3	5101103062	2.5P	3.15	0.433	1.181	1.713	0.255	0.191	0.312	2	1
1/4-28UNF	GH5	5101303062	2.5P	3.15	0.433	1.181	1.713	0.255	0.191	0.312	2	1
5/16-18UNC	GH5	5101103071	2.5P	3.543	0.472	1.378	1.831	0.318	0.238	0.375	3	2
3/8-16UNC	GH5	5101103082	2.5P	3.937	0.512	1.535	2.028	0.381	0.286	0.437	3	2
7/16-14UNC	GH5	5101103098	2.5P	3.937	0.512	-	2.008	0.323	0.242	0.406	3	3
1/2-13UNC	GH5	5101103111	2.5P	4.331	0.591	-	2.205	0.367	0.275	0.437	3	3
9/16-12UNC	GH5	5101103126	2.5P	4.331	0.709	-	2.205	0.429	0.322	0.5	3	3
5/8-11UNC	GH5	5101103138	2.5P	4.331	0.709	-	2.205	0.48	0.36	0.562	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

Z-PRO

VUSP



Z-PRO
Coated Spiral Fluted Taps

Specification

HSS-P | Coating | <2D

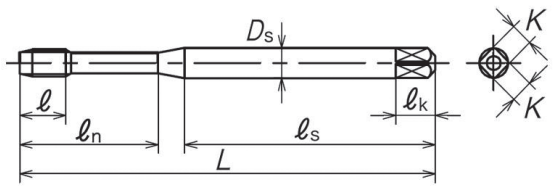
- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
10~20 (m/min)	10~30 (m/min)	10~30 (m/min)	10~20 (m/min)	3~10 (m/min)	5~10 (m/min)	10~30 (m/min)

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~30 (m/min)	10~35 (m/min)

TYPE : 1



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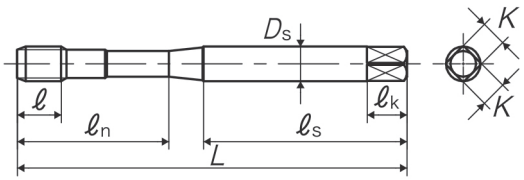

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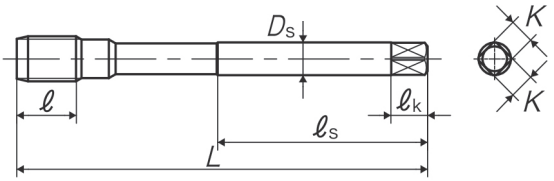


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2X	3101101021	2.5P	45	4	10	32	2.8	2.1	5	2	1
M2.2 × 0.45	ISO2X	3101101024	2.5P	45	4	11	32	2.8	2.1	5	2	1
M2.3 × 0.4	ISO2X	3101101026	2.5P	45	4	11	32	2.8	2.1	5	2	1
M2.5 × 0.45	ISO2X	3101101029	2.5P	50	4	15	33	2.8	2.1	5	2	1
M2.6 × 0.45	ISO2X	3101101032	2.5P	50	4	15	33	2.8	2.1	5	2	1
M3 × 0.5	ISO2X	3101101035	2.5P	56	5	18	34	3.5	2.7	6	3	1
M3 × 0.35	ISO2X	3101101036	2.5P	56	5	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	3101101042	2.5P	63	7	21	38	4.5	3.4	6	3	1
M4 × 0.5	ISO2X	3101101043	2.5P	63	5	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	3101101049	2.5P	70	9	25	39	6	4.9	8	3	1
M5 × 0.5	ISO2X	3101101051	2.5P	70	6	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	3101101055	2.5P	80	11	30	45	6	4.9	8	3	1
M6 × 0.75	ISO2X	3101101056	2.5P	80	8	30	45	6	4.9	8	3	1
M6 × 0.5	ISO2X	3101101057	2.5P	80	8	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	3101101064	2.5P	90	12	35	47	8	6.2	9	3	2
M8 × 1	ISO2X	3101101065	2.5P	90	12	-	46	6	4.9	8	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M10 × 1.5	ISO2X	3101101078	2.5P	100	13	39	52	10	8	11	3	2
M10 × 1.25	ISO2X	3101101079	2.5P	100	13	-	51	7	5.5	8	3	3
M10 × 1	ISO2X	3101101080	2.5P	90	13	-	46	7	5.5	8	3	3
M12 × 1.75	ISO2X	3101101088	2.5P	110	15	-	56	9	7	10	3	3
M12 × 1.5	ISO2X	3101101089	2.5P	100	15	-	51	9	7	10	3	3
M12 × 1.25	ISO2X	3101101090	2.5P	100	15	-	51	9	7	10	3	3
M14 × 2	ISO2X	3101101100	2.5P	110	18	-	56	11	9	12	3	3
M14 × 1.5	ISO2X	3101101102	2.5P	100	14	-	51	11	9	12	3	3
M16 × 2	ISO2X	3101101114	2.5P	110	18	-	56	12	9	12	3	3
M16 × 1.5	ISO2X	3101101116	2.5P	100	14	-	51	12	9	12	3	3
M18 × 2.5	ISO2X	3101101128	2.5P	125	20	-	64	14	11	14	4	3
M18 × 1.5	ISO2X	3101101130	2.5P	110	14	-	56	14	11	14	3	3
M20 × 2.5	ISO2X	3101101141	2.5P	140	20	-	71	16	12	15	4	3
M20 × 1.5	ISO2X	3101101144	2.5P	125	14	-	64	16	12	15	3	3
M22 × 2.5	ISO2X	3101101156	2.5P	140	20	-	71	18	14.5	17	4	3
M22 × 1.5	ISO2X	3101101158	2.5P	125	14	-	64	18	14.5	17	3	3
M24 × 3	ISO2X	3101101167	2.5P	160	25	-	82	18	14.5	17	4	3
M24 × 1.5	ISO2	3101101170	2.5P	140	18	-	71	18	14.5	17	3	3
For Unified Threads												
No.5-40UNC	2BX	3101103021	2.5P	56	5	18	34	3.5	2.7	6	2	1
No.5-44UNF	2BX	3101103022	2.5P	56	5	18	34	3.5	2.7	6	2	1
No.6-32UNC	2BX	3101103023	2.5P	56	7	19	32	4	3	6	2	1
No.6-40UNF	2BX	3101103024	2.5P	56	7	19	32	4	3	6	2	1
No.8-32UNC	2BX	3101103029	2.5P	63	7	21	38	4.5	3.4	6	2	1
No.8-36UNF	2BX	3101103030	2.5P	63	7	21	38	4.5	3.4	6	2	1
No.10-24UNC	2BX	3101103039	2.5P	70	9	24	39	6	4.9	8	2	1
No.10-32UNF	2BX	3101103041	2.5P	70	9	24	39	6	4.9	8	2	1
No.12-24UNC	2BX	3101103047	2.5P	80	9	28	45	6	4.9	8	2	1
No.12-28UNF	2BX	3101103048	2.5P	80	9	28	45	6	4.9	8	2	1
1/4-20UNC	2BX	3101103058	2.5P	80	11	30	42	7	5.5	8	2	1
1/4-28UNF	2BX	3101103062	2.5P	80	11	30	42	7	5.5	8	2	1
5/16-18UNC	2BX	3101103071	2.5P	90	12	35	47	8	6.2	9	3	2
3/8-16UNC	2BX	3101103082	2.5P	100	13	39	54	9	7	10	3	2
7/16-14UNC	2BX	3101103098	2.5P	100	13	-	51	8	6.2	9	3	3
1/2-13UNC	2BX	3101103111	2.5P	110	15	-	56	9	7	10	3	3
9/16-12UNC	2BX	3101103126	2.5P	110	18	-	56	11	9	12	3	3
5/8-11UNC	2BX	3101103138	2.5P	110	18	-	56	12	9	12	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

Z-PRO

VUSP 1.5P



Z-PRO
Coated Spiral Fluted Taps 1.5P

Specification



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	3~10 (m/min)	5~10 (m/min)	5~15 (m/min)

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
5~20 (m/min)	5~20 (m/min)

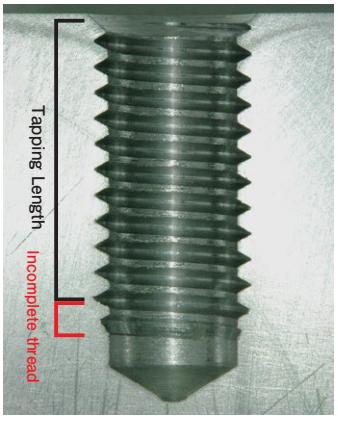
Product Features

- The chamfer length is 1.5 pitches, making it ideal for machining blind holes where there is little room between the bored hole depth and the full thread length.
- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.
- Proper tool projection length is secured, preventing chips from interfering with the holder.
- This is most suitable for tapping with water soluble cutting fluid.

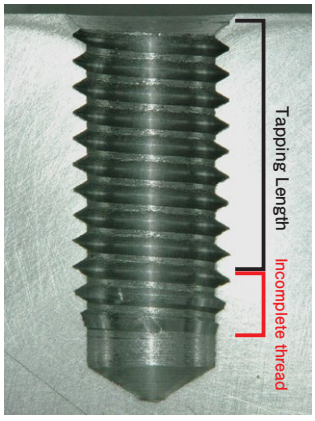
Tapping Data

Tapping condition [M6×1]

Work Material	S50C
Tapping Speed	15m/min
Machine	Machining center, vertical type
Tapping Fluid	Water soluble cutting fluid
Tapping Length	13mm, blind hole



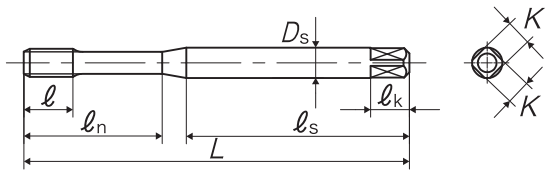
VUSP 1.5P
Internal thread surface



VUSP (Chamfer 2.5P)
Internal thread surface

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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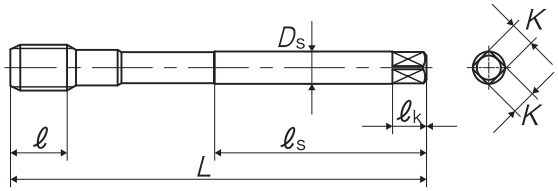


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	1103101035	1.5P	56	5	18	32	4	3.2	6	3	1	¥ 2,900
M3 × 0.35	P2	1103101036	1.5P	56	5	18	32	4	3.2	6	3	1	¥ 4,070 ※
M4 × 0.7	P2	1103101042	1.5P	63	7	21	36	5	4	7	3	1	¥ 2,850
M4 × 0.5	P2	1103101043	1.5P	63	5	21	36	5	4	7	3	1	¥ 3,560 ※
M5 × 0.8	P2	1103101049	1.5P	70	9	25	40	5.5	4.5	7	3	1	¥ 2,880
M5 × 0.5	P2	1103101051	1.5P	70	6	25	40	5.5	4.5	7	3	1	¥ 3,690 ※
M6 × 1	P2	1103101055	1.5P	80	11	30	45	6	4.5	7	3	1	¥ 3,180
M6 × 0.75	P2	1103101056	1.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190 ※
M6 × 0.5	P2	1103101057	1.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190 ※
M8 × 1.25	P3	1103101064	1.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,190
M8 × 1	P3	1103101065	1.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,950 ※
M10 × 1.5	P3	1103101078	1.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290
M10 × 1.25	P3	1103101079	1.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290
M10 × 1	P3	1103101080	1.5P	100	13	-	51	7	5.5	8	3	2	¥ 6,280 ※
M12 × 1.75	P4	1103101088	1.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.5	P3	1103101089	1.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.25	P3	1103101090	1.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M14 × 2	P4	1103101100	1.5P	110	18	-	56	10.5	8	11	3	2	¥ 9,450
M14 × 1.5	P3	1103101102	1.5P	110	14	-	56	10.5	8	11	3	2	¥ 9,450
M16 × 2	P4	1103101114	1.5P	110	18	-	56	12.5	10	13	3	2	¥ 12,300
M16 × 1.5	P3	1103101116	1.5P	110	14	-	56	12.5	10	13	3	2	¥ 12,300

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

Z-PRO

VUSP 1.5P



Z-PRO
Coated Spiral Fluted Taps 1.5P

Specification

HSS-P | Coating | 1.5 | <2D

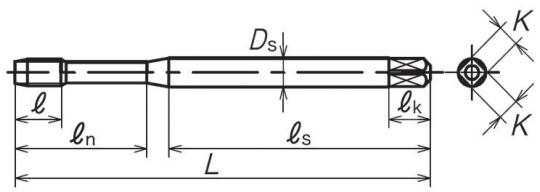
- Lead length of 1.5P makes it ideal for blind hole drilling, in which there is no tolerance for prepared hole depth and effective thread length.
- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	3~10 (m/min)	5~10 (m/min)	5~15 (m/min)

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
5~20 (m/min)	5~20 (m/min)

TYPE : 1



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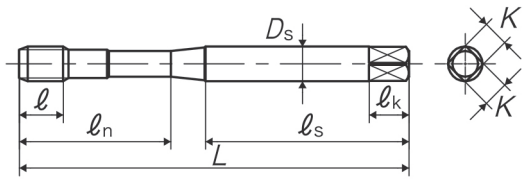

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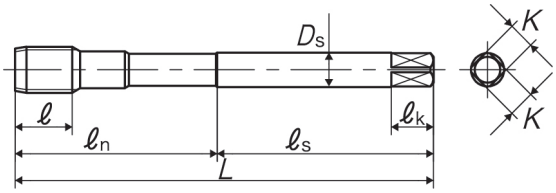


Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	D4	5103101035	1.5P	2.205	0.197	0.736	1.339	0.141	0.11	0.187	3	1
M3 × 0.35	D4	5103101036	1.5P	2.205	0.197	0.736	1.339	0.141	0.11	0.187	3	1
M4 × 0.7	D5	5103101042	1.5P	2.48	0.276	0.815	1.535	0.168	0.131	0.25	3	1
M4 × 0.5	D4	5103101043	1.5P	2.48	0.197	0.815	1.535	0.168	0.131	0.25	3	1
M5 × 0.8	D5	5103101049	1.5P	2.756	0.354	0.984	1.654	0.194	0.152	0.25	3	1
M5 × 0.5	D4	5103101051	1.5P	2.756	0.236	0.984	1.654	0.194	0.152	0.25	3	1
M6 × 1	D6	5103101055	1.5P	3.15	0.433	1.181	1.713	0.255	0.191	0.312	3	1
M6 × 0.75	D6	5103101056	1.5P	3.15	0.315	1.181	1.713	0.255	0.191	0.312	3	1
M6 × 0.5	D4	5103101057	1.5P	3.15	0.315	1.181	1.713	0.255	0.191	0.312	3	1
M8 × 1.25	D7	5103101064	1.5P	3.543	0.472	1.378	1.831	0.318	0.238	0.375	3	2
M8 × 1	D6	5103101065	1.5P	3.543	0.472	1.378	1.831	0.318	0.238	0.375	3	2
M10 × 1.5	D8	5103101078	1.5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	3	2
M10 × 1.25	D6	5103101079	1.5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	3	2
M10 × 1	D6	5103101080	1.5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	3	2
M12 × 1.75	D8	5103101088	1.5P	4.331	0.591	-	2.205	0.367	0.275	0.437	3	3
M12 × 1.5	D7	5103101089	1.5P	4.331	0.591	-	2.205	0.367	0.275	0.437	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M12 × 1.25	D7	5103101090	1.5P	4.331	0.591	-	2.205	0.367	0.275	0.437	3	3
M14 × 2	D9	5103101100	1.5P	4.331	0.709	-	2.205	0.429	0.322	0.5	3	3
M14 × 1.5	D8	5103101102	1.5P	4.331	0.551	-	2.205	0.429	0.322	0.5	3	3
M16 × 2	D9	5103101114	1.5P	4.331	0.709	-	2.205	0.48	0.36	0.562	3	3
M16 × 1.5	D8	5103101116	1.5P	4.331	0.551	-	2.205	0.48	0.36	0.562	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

Z-PRO

VUSP E



Z-PRO
Coated Spiral Fluted Taps E(1.5P)

Specification

HSS-P | Coating | 1.5 | <2D

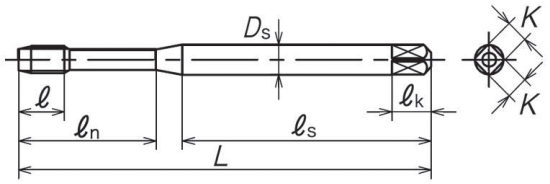
- Lead length of 1.5P makes it ideal for blind hole drilling, in which there is no tolerance for prepared hole depth and effective thread length.
- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	3~10 (m/min)	5~10 (m/min)	5~15 (m/min)

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
5~20 (m/min)	5~20 (m/min)

TYPE : 1



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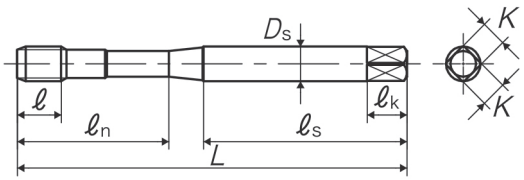

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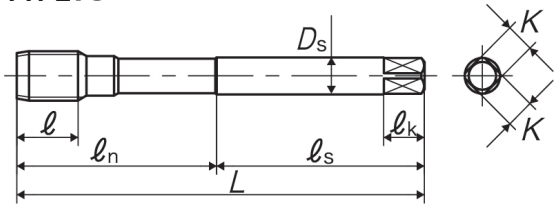


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2X	3103101035	E (1.5P)	56	5	18	34	3.5	2.7	6	3	1
M3 × 0.35	ISO2X	3103101036	E (1.5P)	56	5	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	3103101042	E (1.5P)	63	7	21	38	4.5	3.4	6	3	1
M4 × 0.5	ISO2X	3103101043	E (1.5P)	63	5	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	3103101049	E (1.5P)	70	9	25	39	6	4.9	8	3	1
M5 × 0.5	ISO2X	3103101051	E (1.5P)	70	6	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	3103101055	E (1.5P)	80	11	30	45	6	4.9	8	3	1
M6 × 0.75	ISO2X	3103101056	E (1.5P)	80	8	30	45	6	4.9	8	3	1
M6 × 0.5	ISO2X	3103101057	E (1.5P)	80	8	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	3103101064	E (1.5P)	90	12	35	47	8	6.2	9	3	2
M8 × 1	ISO2X	3103101065	E (1.5P)	90	12	-	46	6	4.9	8	3	3
M10 × 1.5	ISO2X	3103101078	E (1.5P)	100	13	39	52	10	8	11	3	2
M10 × 1.25	ISO2X	3103101079	E (1.5P)	100	13	-	51	7	5.5	8	3	3
M10 × 1	ISO2X	3103101080	E (1.5P)	90	13	-	46	7	5.5	8	3	3
M12 × 1.75	ISO2X	3103101088	E (1.5P)	110	15	-	56	9	7	10	3	3
M12 × 1.5	ISO2X	3103101089	E (1.5P)	100	15	-	51	9	7	10	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M12 × 1.25	ISO2X	3103101090	E (1.5P)	100	15	-	51	9	7	10	3	3
M14 × 2	ISO2X	3103101100	E (1.5P)	110	18	-	56	11	9	12	3	3
M14 × 1.5	ISO2X	3103101102	E (1.5P)	100	14	-	51	11	9	12	3	3
M16 × 2	ISO2X	3103101114	E (1.5P)	110	18	-	56	12	9	12	3	3
M16 × 1.5	ISO2X	3103101116	E (1.5P)	100	14	-	51	12	9	12	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

Z-PRO

VUSP CH



Z-PRO
Coated Spiral Fluted Taps with Coolant Through Hole

Specification

HSS-P | Coating | <2D

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
10~20 (m/min)	10~30 (m/min)	10~30 (m/min)	10~20 (m/min)	3~10 (m/min)	5~10 (m/min)	10~20 (m/min)

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~20 (m/min)	10~20 (m/min)

Product Features

- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.
- Appropriate tool projection length is secured, preventing chips from interfering with the holder.
- Best suitable for tapping with water soluble cutting fluid.
- VUSP CH has the most effective coolant hole size for internal lubrication that can supply adequate cutting fluid to the chamfer part. This leads to high performance of cooling, prevention of welding and wear resistance, and achieves the excellent thread surface finish. Chips are smoothly ejected from bored holes to ensure consecutive tapping.



■Situations by different pressures



1.5 Mpa



3 Mpa

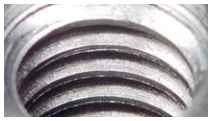
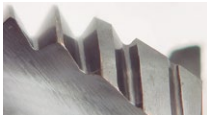
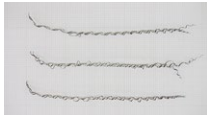


6 Mpa

Tapping Data

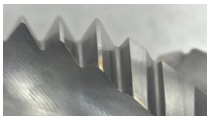
Tapping conditions [M6×1]

Workpiece Material	S50C
Tapping Length	12mm
Tapping Speed	20m/min
Machinery Type	Machining center, vertical type
Tapping Fluid	Water soluble cutting fluid
Internal Coolant Pressure	1.5MPa

After 500 holes (Can continue to be used)		
Excellent thread surface	Less damage on the edge	Uniform chips' shape
		

Tapping conditions [M10×1.5]

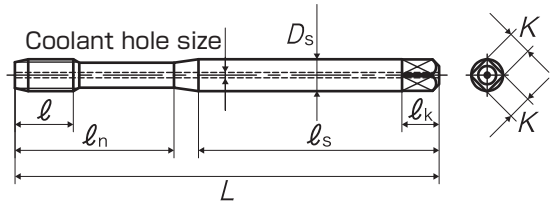
Workpiece Material	S50C
Tapping Length	20mm
Tapping Speed	20m/min
Machinery Type	Machining center, vertical type
Tapping Fluid	Water soluble cutting fluid
Internal Coolant Pressure	1.5MPa

After 420 holes (Can continue to be used)		
Excellent thread surface	Less damage on the edge	Uniform chips' shape
		

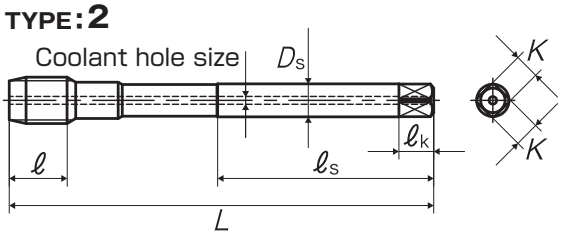
Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



TYPE: 2



Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	Coolant hole size (mm)	TYPE	MSRP
For Metric Threads														
M6 × 1	P2	1201101055	2.5P	80	11	30	45	6	4.5	7	3	1	1	¥ 4,770
M8 × 1.25	P3	1201101064	2.5P	90	12	-	46	6.2	5	8	3	1	2	¥ 6,290
M8 × 1	P3	1201101065	2.5P	90	12	-	46	6.2	5	8	3	1	2	¥ 7,430 ※
M10 × 1.5	P3	1201101078	2.5P	100	13	-	51	7	5.5	8	3	1.5	2	¥ 7,940
M10 × 1.25	P3	1201101079	2.5P	100	13	-	51	7	5.5	8	3	1.5	2	¥ 7,940
M10 × 1	P3	1201101080	2.5P	100	13	-	51	7	5.5	8	3	1.5	2	¥ 9,420 ※
M12 × 1.75	P4	1201101088	2.5P	110	15	-	56	8.5	6.5	9	3	2	2	¥ 10,400
M12 × 1.5	P3	1201101089	2.5P	110	15	-	56	8.5	6.5	9	3	2	2	¥ 10,400 ※
M12 × 1.25	P3	1201101090	2.5P	110	15	-	56	8.5	6.5	9	3	2	2	¥ 10,400
M14 × 2	P4	1201101100	2.5P	110	18	-	56	10.5	8	11	3	2	2	¥ 14,200
M14 × 1.5	P3	1201101102	2.5P	110	14	-	56	10.5	8	11	3	2	2	¥ 14,200
M16 × 2	P4	1201101114	2.5P	110	18	-	56	12.5	10	13	3	2	2	¥ 18,500
M16 × 1.5	P3	1201101116	2.5P	110	14	-	56	12.5	10	13	3	2	2	¥ 18,500

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Z-PRO

VUSP CH



Z-PRO
Coated Spiral Fluted Taps with Coolant Through Hole

Specification

HSS-P | Coating | <2D

- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
10~20 (m/min)	10~30 (m/min)	10~30 (m/min)	10~20 (m/min)	3~10 (m/min)	5~10 (m/min)	10~20 (m/min)

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~20 (m/min)	10~20 (m/min)

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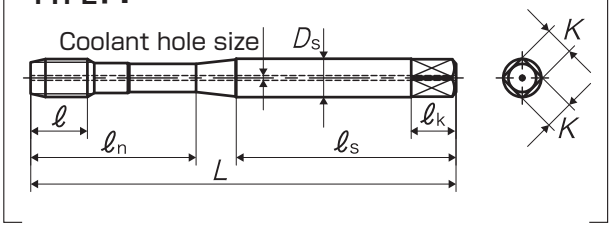

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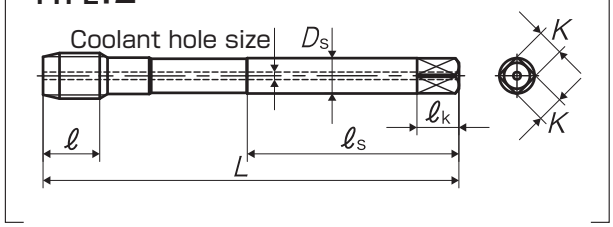


Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	Coolant hole size (inch)	TYPE
For Unified Threads													
5/16-18UNC	GH5	5201103071	2.5P	3.543	0.472	1.378	1.831	0.318	0.238	0.375	3	0.039	1
3/8-16UNC	GH5	5201103082	2.5P	3.937	0.512	1.535	2.028	0.381	0.286	0.437	3	0.059	1
1/2-13UNC	GH5	5201103111	2.5P	4.331	0.591	-	2.205	0.367	0.275	0.437	3	0.079	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

Z-PRO

VUSP CH



Z-PRO
Coated Spiral Fluted Taps with Coolant Through Hole

Specification

HSS-P | Coating | <2D

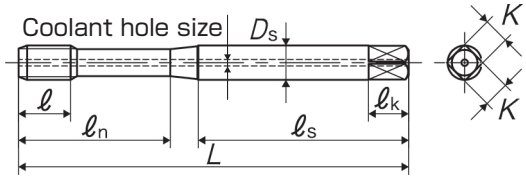
- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
10~20 (m/min)	10~30 (m/min)	10~30 (m/min)	10~20 (m/min)	3~10 (m/min)	5~10 (m/min)	10~20 (m/min)

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~20 (m/min)	10~20 (m/min)

TYPE: 1



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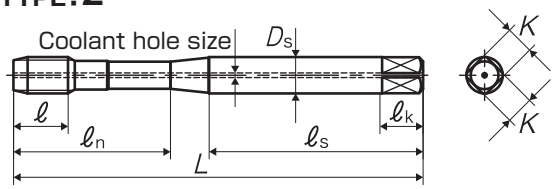

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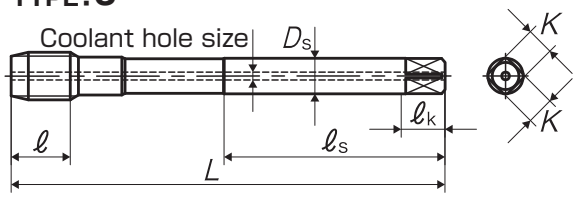


Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	Coolant hole size (mm)	TYPE
For Metric Threads													
M6 × 1	ISO2X	3201101055	2.5P	80	11	30	45	6	4.9	8	3	1	1
M8 × 1.25	ISO2X	3201101064	2.5P	90	12	35	47	8	6.2	9	3	1	2
M8 × 1	ISO2X	3201101065	2.5P	90	12	-	46	6	4.9	8	3	1	3
M10 × 1.5	ISO2X	3201101078	2.5P	100	13	39	52	10	8	11	3	1.5	2
M10 × 1.25	ISO2X	3201101079	2.5P	100	13	-	51	7	5.5	8	3	1.5	3
M10 × 1	ISO2X	3201101080	2.5P	90	13	-	46	7	5.5	8	3	1.5	3
M12 × 1.75	ISO2X	3201101088	2.5P	110	15	-	56	9	7	10	3	2	3
M12 × 1.5	ISO2X	3201101089	2.5P	100	15	-	51	9	7	10	3	2	3
M12 × 1.25	ISO2X	3201101090	2.5P	100	15	-	51	9	7	10	3	2	3
M14 × 2	ISO2X	3201101100	2.5P	110	18	-	56	11	9	12	3	2	3
M14 × 1.5	ISO2X	3201101102	2.5P	100	14	-	51	11	9	12	3	2	3
M16 × 2	ISO2X	3201101114	2.5P	110	18	-	56	12	9	12	3	2	3
M16 × 1.5	ISO2X	3201101116	2.5P	100	14	-	51	12	9	12	3	2	3
For Unified Threads													
5/16-18UNC	2BX	3201103071	2.5P	90	12	35	47	8	6.2	9	3	1	2
3/8-16UNC	2BX	3201103082	2.5P	100	13	39	54	9	7	10	3	1.5	2
1/2-13UNC	2BX	3201103111	2.5P	110	15	-	56	9	7	10	3	2	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Z-PRO

HVSP



Z-PRO
Hybrid Value Spiral Fluted Taps for Steels

Specification

HSS | OX Oxide



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast steels 鋳鋼
3~12 (m/min)	3~12 (m/min)	3~12 (m/min)	3~12 (m/min)	~5 (m/min) 25~35HRC	~5 (m/min)	3~12 (m/min)

Product Features

- YAMAWA has designed a flute shape and cutting edge angle to improve the chip ejection properties.
- A heel grind on the rear threads has improved the performance of the tap and eliminated the materials chip residue in the threads that is caused on reversal by the tap's end threads.
- With no chips left in the threads, the tapping operation is less likely to chip the flutes or threads of the tap during the tap's reversal.
- There are several full threads after the cutting chamfer and a special heel grind to the balance of the threads to reduce their full thread height, thereby reducing any chance of chipping the flutes.

Tapping Data

・Improvement of chipped flutes
Tapping conditions [M36 × 4]

Work Piece Material	SS400
Tapping Speed	3m/min
Tapping Length	50mm
Machinery Type	Radial drilling machine
Tapping Fluid	Non-water soluble cutting oil

◎Full Thread Part

Conventional Product
Chipping



HVSP
250 Holes
Ongoing Processing
No Chipping

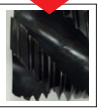


◎Chamfer Part

Conventional Product
Chipping



HVSP
250 Holes
Ongoing Processing
No Chipping



・Compatible with a wide range of workpiece machining.
Tapping conditions

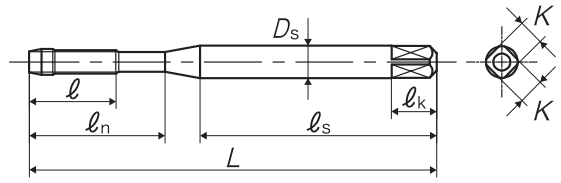
Material		Recommended Tapping Speed (m/mim)
Stainless Steel	SUS303/SUS304/SUS316	~5
Alloy Steel	SCM/SCr	3~12
High Carbon Steel	S45C~	3~12
Medium Carbon Steel	S25C~S45C	3~12
Low Carbon Steel	~S20C/SS400	3~12
Thermal refined steel		~5
Cast steel		3~12

Excellent Surface Finish



Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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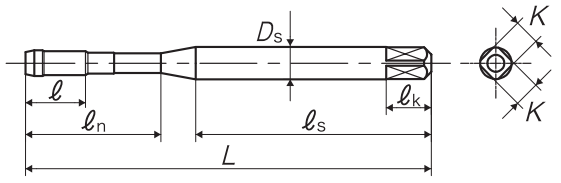

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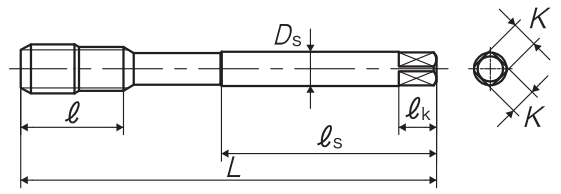

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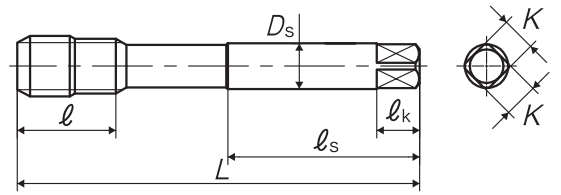


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P3	SY3.0GREEXJ	2.5P	56	9	18	32	4	3.2	6	3	1	¥ 1,400
M3 × 0.35	P3	SY3.0DREEXJ	2.5P	56	6.5	18	32	4	3.2	6	3	2	¥ 2,390
M4 × 0.7	P4	SY4.0ISEEXJ	2.5P	63	13	21	36	5	4	7	3	1	¥ 1,400
M4 × 0.5	P4	SY4.0GSEEXJ	2.5P	63	9	21	36	5	4	7	3	2	¥ 2,050
M5 × 0.8	P4	SY5.0KSEEXJ	2.5P	70	14	25	40	5.5	4.5	7	3	1	¥ 1,410
M5 × 0.5	P4	SY5.0GSEEXJ	2.5P	70	9	25	40	5.5	4.5	7	3	2	¥ 2,050
M6 × 1	P4	SY6.0MSEEXJ	2.5P	80	15	30	45	6	4.5	7	3	1	¥ 1,610
M6 × 0.75	P4	SY6.0JSEEXJ	2.5P	80	15	30	45	6	4.5	7	3	1	¥ 2,270
M6 × 0.5	P4	SY6.0GSEEXJ	2.5P	80	9	30	45	6	4.5	7	3	2	¥ 2,270
M8 × 1.25	P4	SY8.0NSEEXJ	2.5P	90	19	-	46	6.2	5	8	3	3	¥ 2,270
M8 × 1	P4	SY8.0MSEEXJ	2.5P	90	19	-	46	6.2	5	8	3	3	¥ 2,580
M10 × 1.5	P4	SY010OSEEXJ	2.5P	100	23	-	51	7	5.5	8	3	3	¥ 2,970
M10 × 1.25	P4	SY010NSEEXJ	2.5P	100	23	-	51	7	5.5	8	3	3	¥ 2,970
M10 × 1	P4	SY010MSEEXJ	2.5P	100	23	-	51	7	5.5	8	3	3	¥ 3,520
M12 × 1.75	P4	SY012PSEEXJ	2.5P	110	26	-	56	8.5	6.5	9	3	3	¥ 4,000
M12 × 1.5	P4	SY012OSEEXJ	2.5P	110	26	-	56	8.5	6.5	9	3	3	¥ 4,000
M12 × 1.25	P4	SY012NSEEXJ	2.5P	110	26	-	56	8.5	6.5	9	3	3	¥ 4,000
M14 × 2	P4	SY014QSEEXJ	2.5P	110	26	-	56	10.5	8	11	3	3	¥ 5,470
M14 × 1.5	P4	SY014OSEEXJ	2.5P	110	26	-	56	10.5	8	11	3	3	¥ 5,470
M16 × 2	P4	SY016QSEEXJ	2.5P	110	26	-	56	12.5	10	13	3	3	¥ 7,300
M16 × 1.5	P4	SY016OSEEXJ	2.5P	110	26	-	56	12.5	10	13	3	3	¥ 7,300
M18 × 2.5	P5	SY018RTEEXJ	2.5P	125	33	-	64	14	11	14	4	3	¥ 9,760
M18 × 1.5	P5	SY018OTEEXJ	2.5P	125	33	-	64	14	11	14	4	3	¥ 9,760
M20 × 2.5	P5	SY020RTEEXJ	2.5P	140	33	-	71	15	12	15	4	4	¥ 13,300
M20 × 1.5	P5	SY020OTEEXJ	2.5P	140	33	-	71	15	12	15	4	4	¥ 13,300
M22 × 2.5	P5	SY022RTEEXJ	2.5P	140	33	-	71	17	13	16	4	4	¥ 16,800
M22 × 1.5	P5	SY022OTEEXJ	2.5P	140	33	-	71	17	13	16	4	4	¥ 16,800
M24 × 3	P5	SY024STEEXJ	2.5P	160	37	-	82	19	15	18	4	4	¥ 21,000
M24 × 1.5	P5	SY024OTEEXJ	2.5P	160	37	-	82	19	15	18	4	4	¥ 21,000
M27 × 3	P5	SY027STEEXJ	2.5P	160	37	-	82	20	15	18	4	4	¥ 29,700
M27 × 1.5	P5	SY027OTEEXJ	2.5P	160	37	-	82	20	15	18	4	4	¥ 29,700
M30 × 3.5	P6	SY030TUEEXJ	2.5P	180	44	-	92	23	17	20	4	4	¥ 37,700
M30 × 3	P6	SY030SUEEXJ	2.5P	180	44	-	92	23	17	20	4	4	¥ 37,700
M30 × 1.5	P6	SY030OUEEXJ	2.5P	180	44	-	92	23	17	20	4	4	¥ 37,700

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HVSP Z-PRO Hybrid Value Spiral Fluted Taps for Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M33 × 3.5	P6	SY033TUEEXJ	2.5P	180	46	-	92	25	19	22	4	4	¥ 44,000
M33 × 3	P6	SY033SUEEXJ	2.5P	180	46	-	92	25	19	22	4	4	¥ 44,000
M36 × 4	P6	SY036UUEEXJ	2.5P	200	52	-	102	28	21	24	4	4	¥ 50,700
M36 × 3	P6	SY036SUEEXJ	2.5P	200	52	-	102	28	21	24	4	4	¥ 50,700
M39 × 4	P6	SY039UUEEXJ	2.5P	200	52	-	102	30	23	26	4	4	¥ 58,200
M39 × 3	P6	SY039SUEEXJ	2.5P	200	52	-	102	30	23	26	4	4	¥ 58,200
M42 × 4.5	P6	SY042VUEEXJ	2.5P	200	59	-	102	32	26	30	4	4	¥ 70,800
M42 × 3	P6	SY042SUEEXJ	2.5P	200	59	-	102	32	26	30	4	4	¥ 70,800
M48 × 5	P6	SY048WUEEXJ	2.5P	250	65	-	128	38	29	32	4	4	¥103,000
M48 × 3	P6	SY048SUEEXJ	2.5P	250	65	-	128	38	29	32	4	4	¥103,000
For Unified Threads													
1 -8UNC	P5	SYU16XTEEXJ	2.5P	160	37	-	82	19	15	18	4	4	¥ 32,600
1 -12UNF	P4	SYU16SSEEXJ	2.5P	160	37	-	82	19	15	18	4	4	¥ 32,600
1 1/8-7UNC	P6	SYU18YUEEXJ	2.5P	180	44	-	92	23	17	20	4	4	¥ 40,800 ※
1 1/8-8UN	P5	SYU18XTEEXJ	2.5P	180	44	-	92	23	17	20	4	4	¥ 40,800 ※
1 1/8-12UNF	P4	SYU18SSEEXJ	2.5P	180	44	-	92	23	17	20	4	4	¥ 40,800 ※
1 1/4-7UNC	P6	SYU20YUEEXJ	2.5P	180	44	-	92	24	19	22	4	4	¥ 47,700 ※
1 1/4-8UN	P5	SYU20XTEEXJ	2.5P	180	44	-	92	24	19	22	4	4	¥ 47,700 ※
1 1/4-12UNF	P4	SYU20SSEEXJ	2.5P	180	44	-	92	24	19	22	4	4	¥ 47,700 ※
1 3/8-6UNC	P6	SYU22ZUEEXJ	2.5P	200	52	-	102	28	21	24	4	4	¥ 60,000 ※
1 3/8-8UN	P5	SYU22XTEEXJ	2.5P	200	52	-	102	28	21	24	4	4	¥ 60,000 ※
1 3/8-12UNF	P4	SYU22SSEEXJ	2.5P	200	52	-	102	28	21	24	4	4	¥ 60,000 ※
1 1/2-6UNC	P6	SYU24ZUEEXJ	2.5P	200	52	-	102	30	23	26	4	4	¥ 64,000 ※
1 1/2-8UN	P5	SYU24XTEEXJ	2.5P	200	52	-	102	30	23	26	4	4	¥ 64,000 ※
1 1/2-12UNF	P4	SYU24SSEEXJ	2.5P	200	52	-	102	30	23	26	4	4	¥ 64,000 ※
1 3/4-5UNC	P6	SYU280UEEXJ	2.5P	220	59	-	112	35	26	30	4	4	¥ 80,900 ※
1 3/4-8UN	P5	SYU28XTEEXJ	2.5P	220	59	-	112	35	26	30	4	4	¥ 80,900 ※
1 3/4-12UN	P4	SYU28SSEEXJ	2.5P	220	59	-	112	35	26	30	4	4	¥ 80,900 ※
2 -4 1/2UNC	P7	SYU329VEEXJ	2.5P	250	73	-	128	40	32	35	4	4	¥117,000 ※
2 -8UN	P6	SYU32XUEEXJ	2.5P	250	73	-	128	40	32	35	4	4	¥117,000 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

Z-PRO

HVSP



Z-PRO
Hybrid Value Spiral Fluted Taps for Steels

Specification

HSS | OX Oxide

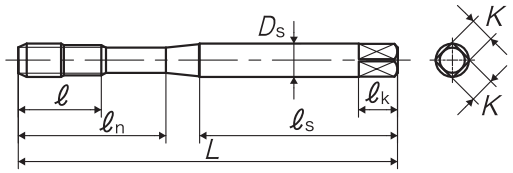


■The HVSP is a spiral flute tap for blind hole tapping where problems existed in chipping the cutting chamfer. It enables trouble free perfect threading.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast steels 鋳鋼
3~12 (m/min)	3~12 (m/min)	3~12 (m/min)	3~12 (m/min)	~5 (m/min)	~5 (m/min)	3~12 (m/min)

TYPE : 1



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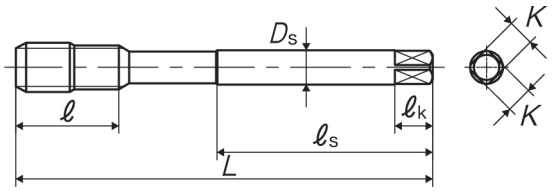

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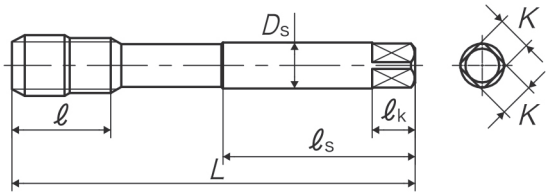

Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	D4	SS3.0G4EEXJ	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	1
M3 × 0.35	D4	SS3.0D4EEXJ	2.5P	2.205	0.256	0.736	1.339	0.141	0.11	0.187	3	1
M4 × 0.7	D5	SS4.0I5EEXJ	2.5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	1
M4 × 0.5	D4	SS4.0G4EEXJ	2.5P	2.48	0.354	0.815	1.535	0.168	0.131	0.25	3	1
M5 × 0.8	D5	SS5.0K5EEXJ	2.5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	1
M5 × 0.5	D4	SS5.0G4EEXJ	2.5P	2.756	0.354	0.984	1.654	0.194	0.152	0.25	3	1
M6 × 1	D6	SS6.0M6EEXJ	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
M6 × 0.75	D6	SS6.0J6EEXJ	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
M6 × 0.5	D4	SS6.0G4EEXJ	2.5P	3.15	0.354	1.181	1.713	0.255	0.191	0.312	3	1
M8 × 1.25	D7	SS8.0N7EEXJ	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	1
M8 × 1	D6	SS8.0M6EEXJ	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	1
M10 × 1.5	D8	SS01008EEXJ	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	1
M10 × 1.25	D7	SS010N7EEXJ	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	1
M10 × 1	D6	SS010M6EEXJ	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	1
M12 × 1.75	D8	SS012P8EEXJ	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	2
M12 × 1.5	D7	SS01207EEXJ	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	2
M12 × 1.25	D7	SS012N7EEXJ	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HVSP Z-PRO Hybrid Value Spiral Fluted Taps for Steels

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M14 × 2	D9	SS014Q9EEXJ	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	2
M14 × 1.5	D8	SS014O8EEXJ	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	2
M16 × 2	D9	SS016Q9EEXJ	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	2
M16 × 1.5	D8	SS016O8EEXJ	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	2
M18 × 2.5	D9	SS018R9EEXJ	2.5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	2
M18 × 1.5	D8	SS018O8EEXJ	2.5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	2
M20 × 2.5	D9	SS020R9EEXJ	2.5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	3
M20 × 1.5	D8	SS020O8EEXJ	2.5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	3
M22 × 2.5	D9	SS022R9EEXJ	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	3
M22 × 1.5	D8	SS022O8EEXJ	2.5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	3
M24 × 3	D9	SS024S9EEXJ	2.5P	6.299	1.457	-	3.228	0.76	0.57	0.75	4	3
M24 × 1.5	D8	SS024O8EEXJ	2.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	3
M27 × 3	D10	SS027SOEEXJ	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	3
M27 × 1.5	D8	SS027O8EEXJ	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	3
M30 × 3.5	D10	SS030TOEEXJ	2.5P	7.087	1.732	-	3.622	1.021	0.766	1	4	3
M30 × 3	D10	SS030SOEEXJ	2.5P	7.087	1.732	-	3.622	1.021	0.766	1	4	3
M30 × 1.5	D8	SS030O8EEXJ	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	3
M33 × 3.5	D10	SS033TOEEXJ	2.5P	7.087	1.732	-	3.622	1.108	0.831	1.062	4	3
M33 × 3	D10	SS033SOEEXJ	2.5P	7.087	1.732	-	3.622	1.108	0.831	1.062	4	3
M36 × 4	D10	SS036UOEEXJ	2.5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	3
M36 × 3	D10	SS036SOEEXJ	2.5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	3
M39 × 4	D10	SS039UOEEXJ	2.5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	3
M39 × 3	D10	SS039SOEEXJ	2.5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	3
M42 × 4.5	D10	SS042VOEEXJ	2.5P	7.874	2.047	-	4.016	1.43	1.072	1.25	4	3
M42 × 3	D10	SS042SOEEXJ	2.5P	7.874	2.047	-	4.016	1.43	1.072	1.25	4	3
M48 × 5	D11	SS048W-EEXJ	2.5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	3
M48 × 3	D10	SS048SOEEXJ	2.5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	3
For Unified Threads												
1 -8UNC	2BX	SSU16XYEEXCJ	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	3
1 -12UNF	2BX	SSU16SYEEXCJ	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	3
1 1/8-7UNC	2BX	SSU18YYEEXCJ	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	3
1 1/8-8UN	2BX	SSU18XYEEXCJ	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	3
1 1/8-12UNF	2BX	SSU18SYEEXCJ	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	3
1 1/4-7UNC	2BX	SSU20YYEEXCJ	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	3
1 1/4-8UN	2BX	SSU20XYEEXCJ	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	3
1 1/4-12UNF	2BX	SSU20SYEEXCJ	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	3
1 3/8-6UNC	2BX	SSU22ZYEEXCJ	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	3
1 3/8-8UN	2BX	SSU22XYEEXCJ	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	3
1 3/8-12UNF	2BX	SSU22SYEEXCJ	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	3
1 1/2-6UNC	2BX	SSU24ZYEEXCJ	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	3
1 1/2-8UN	2BX	SSU24XYEEXCJ	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	3
1 1/2-12UNF	2BX	SSU24SYEEXCJ	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	3
1 3/4-5UNC	2BX	SSU280YEEXCJ	2.5P	8.661	2.559	-	4.409	1.43	1.072	1.25	4	3
1 3/4-8UN	2BX	SSU28XYEEXCJ	2.5P	8.661	2.559	-	4.409	1.43	1.072	1.25	4	3
1 3/4-12UN	2BX	SSU28SYEEXCJ	2.5P	8.661	2.559	-	4.409	1.43	1.072	1.25	4	3
2 -4 1/2UNC	2BX	SSU329YEEXCJ	2.5P	9.843	2.874	-	5.039	1.644	1.233	1.375	4	3
2 -8UN	2BX	SSU32XYEEXCJ	2.5P	9.843	2.874	-	5.039	1.644	1.233	1.375	4	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

Z-PRO

HVSP



Z-PRO
Hybrid Value Spiral Fluted Taps for Steels

Specification

HSS | OX Oxide



■The HVSP is a spiral flute tap for blind hole tapping where problems existed in chipping the cutting chamfer. It enables trouble free perfect threading.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast steels 鋳鋼
3~12 (m/min)	3~12 (m/min)	3~12 (m/min)	3~12 (m/min)	~5 (m/min) 25~35HRC	~5 (m/min)	3~12 (m/min)

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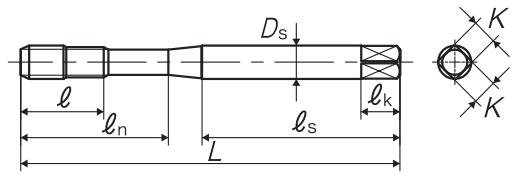

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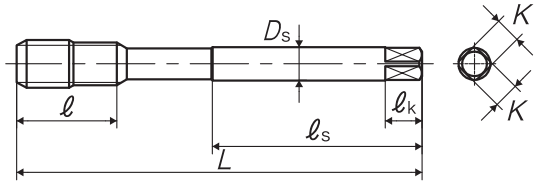

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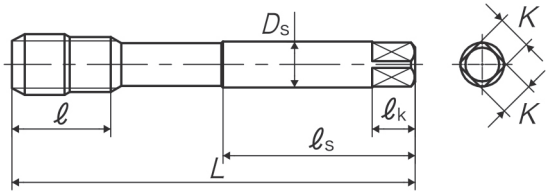


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2X	SD3.0GYEEXJ	2.5P	56	9	18	34	3.5	2.7	6	3	1
M3 × 0.35	ISO2X	SD3.0DREEXJ	2.5P	56	6.5	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	SD4.0IYEEXJ	2.5P	63	13	21	38	4.5	3.4	6	3	1
M4 × 0.5	ISO2X	SD4.0GSEEXJ	2.5P	63	9	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	SD5.0KYEEXJ	2.5P	70	14	25	39	6	4.9	8	3	1
M5 × 0.5	ISO2X	SD5.0GSEEXJ	2.5P	70	9	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	SD6.0MYEEXJ	2.5P	80	15	30	45	6	4.9	8	3	1
M6 × 0.75	ISO2X	SD6.0JSEEXJ	2.5P	80	15	30	45	6	4.9	8	3	1
M6 × 0.5	ISO2X	SD6.0GSEEXJ	2.5P	80	9	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	SD8.0NYEEXJ	2.5P	90	19	35	47	8	6.2	9	3	1
M8 × 1	ISO2X	SM8.0MSEEXJ	2.5P	90	19	-	46	6	4.9	8	3	2
M10 × 1.5	ISO2X	SD0100YEEXJ	2.5P	100	23	39	52.5	10	8	11	3	1
M10 × 1.25	ISO2X	SM010NSEEXJ	2.5P	100	23	-	51	7	5.5	8	3	2
M10 × 1	ISO2X	SM010MSEEXJ	2.5P	90	19	-	46	7	5.5	8	3	2
M12 × 1.75	ISO2X	SG012PSEEXJ	2.5P	110	26	-	56	9	7	10	3	2
M12 × 1.5	ISO2X	SM012OSEEXJ	2.5P	100	21	-	51	9	7	10	3	2
M12 × 1.25	ISO2X	SM012NSEEXJ	2.5P	100	21	-	51	9	7	10	3	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Spiral Fluted Tap Series for blind hole

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M14 × 2	ISO2X	SG014QSEEXJ	2.5P	110	26	-	56	11	9	12	3	2
M14 × 1.5	ISO2X	SM014OSEEXJ	2.5P	100	21	-	51	11	9	12	3	2
M16 × 2	ISO2X	SG016QSEEXJ	2.5P	110	26	-	56	12	9	12	3	2
M16 × 1.5	ISO2X	SM016OSEEXJ	2.5P	100	21	-	51	12	9	12	3	2
M18 × 2.5	ISO2X	SG018RTEEXJ	2.5P	125	33	-	64	14	11	14	4	2
M18 × 1.5	ISO2X	SM018OTEEXJ	2.5P	110	24	-	56	14	11	14	4	2
M20 × 2.5	ISO2X	SG020RTEEXJ	2.5P	140	33	-	71	16	12	15	4	2
M20 × 1.5	ISO2X	SM020OTEEXJ	2.5P	125	24	-	64	16	12	15	4	2
M22 × 2.5	ISO2X	SG022RTEEXJ	2.5P	140	33	-	71	18	14.5	17	4	2
M22 × 1.5	ISO2X	SM022OTEEXJ	2.5P	125	24	-	64	18	14.5	17	4	2
M24 × 3	ISO2X	SG024STEEXJ	2.5P	160	37	-	82	18	14.5	17	4	3
M24 × 1.5	ISO2X	SM024OTEEXJ	2.5P	140	27	-	71	18	14.5	17	4	3
M27 × 3	ISO2X	SG027STEEXJ	2.5P	160	37	-	82	20	16	19	4	3
M27 × 1.5	ISO2X	SM027OTEEXJ	2.5P	140	27	-	71	20	16	19	4	3
M30 × 3.5	ISO2X	SG030TBEEXJ	2.5P	180	44	-	92	22	18	21	4	3
M30 × 3	ISO2X	SM030SUEEXJ	2.5P	180	44	-	92	22	18	21	4	3
M30 × 1.5	ISO2X	SM030OUEEXJ	2.5P	150	27	-	77	22	18	21	4	3
M33 × 3.5	ISO2X	SG033TBEEXJ	2.5P	180	46	-	92	25	20	23	4	3
M33 × 3	ISO2X	SM033SUEEXJ	2.5P	180	46	-	92	25	20	23	4	3
M36 × 4	ISO2X	SG036UBEEXJ	2.5P	200	52	-	102	28	22	25	4	3
M36 × 3	ISO2X	SM036SUEEXJ	2.5P	200	52	-	102	28	22	25	4	3
M39 × 4	ISO2X	SG039UBEEXJ	2.5P	200	52	-	102	32	24	27	4	3
M39 × 3	ISO2X	SM039SUEEXJ	2.5P	200	52	-	102	32	24	27	4	3
M42 × 4.5	ISO2X	SG042VBEEXJ	2.5P	200	59	-	102	32	24	27	4	3
M42 × 3	ISO2X	SM042SUEEXJ	2.5P	200	59	-	102	32	24	27	4	3
M48 × 5	ISO2X	SG048WBEEXJ	2.5P	250	65	-	128	36	29	32	4	3
M48 × 3	ISO2X	SM048SUEEXJ	2.5P	225	49	-	115	36	29	32	4	3
For Unified Threads												
1 -8UNC	2BX	SGU16XYEEXJ	2.5P	160	37	-	82	18	14.5	17	4	3
1 -12UNF	2BX	SMU16SYEEXJ	2.5P	140	27	-	71	18	14.5	17	4	3
1 1/8-7UNC	2BX	SGU18YYEEXJ	2.5P	180	44	-	92	22	18	21	4	3
1 1/8-8UN	2BX	SMU18XYEEXJ	2.5P	180	44	-	92	22	18	21	4	3
1 1/8-12UNF	2BX	SMU18SYEEXJ	2.5P	150	27	-	77	22	18	21	4	3
1 1/4-7UNC	2BX	SGU20YYEEXJ	2.5P	180	49	-	92	22	18	21	4	3
1 1/4-8UN	2BX	SMU20XYEEXJ	2.5P	180	49	-	92	22	18	21	4	3
1 1/4-12UNF	2BX	SMU20SYEEXJ	2.5P	150	27	-	77	22	18	21	4	3
1 3/8-6UNC	2BX	SGU22ZYEEXJ	2.5P	200	55	-	102	28	22	25	4	3
1 3/8-8UN	2BX	SMU22XYEEXJ	2.5P	200	55	-	102	28	22	25	4	3
1 3/8-12UNF	2BX	SMU22SYEEXJ	2.5P	170	29	-	87	28	22	25	4	3
1 1/2-6UNC	2BX	SGU24ZYEEXJ	2.5P	200	59	-	102	32	24	27	4	3
1 1/2-8UN	2BX	SMU24XYEEXJ	2.5P	200	59	-	102	32	24	27	4	3
1 1/2-12UNF	2BX	SMU24SYEEXJ	2.5P	170	29	-	87	32	24	27	4	3
1 3/4-5UNC	2BX	SGU280YEEXJ	2.5P	220	65	-	112	36	29	32	4	3
1 3/4-8UN	2BX	SMU28XYEEXJ	2.5P	200	49	-	102	36	29	32	4	3
1 3/4-12UN	2BX	SMU28SYEEXJ	2.5P	180	31	-	92	36	29	32	4	3
2 -4 1/2UNC	2BX	SGU329YEEXJ	2.5P	250	73	-	128	40	32	35	4	3
2 -8UN	2BX	SMU32XYEEXJ	2.5P	225	49	-	115	40	32	35	4	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

Z-PRO

HVSP ZP



Z-PRO
Hybrid Value Spiral Fluted Taps for Zinc Plating

Specification

HSS | OX Oxide



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast steels 鋳鋼
3~12 (m/min)	3~12 (m/min)	3~12 (m/min)	3~12 (m/min)	~5 (m/min) 25~35HRC	~5 (m/min)	3~12 (m/min)

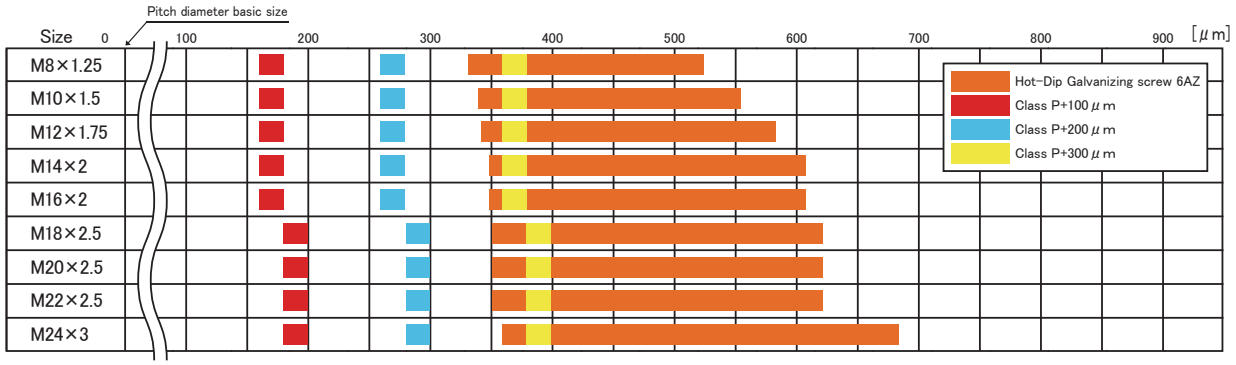
Product Features

- We have a standard line-up of optimum tap classes for tapping internal threads before zinc plating.
- We have commercialized three types of oversize tap classes in great market demand for different purposes: +0.1 mm, +0.2 mm, and +0.3 mm.
- Specifications are based on HVSP (Hybrid Value Spiral Fluted Taps), so you can use them for various workpiece materials and machines.
- Stable tapping without chipping can be achieved in both vertical and horizontal tapping.

Uses of Products

HVSP ZP taps are used mainly for tapping internal threads before plating to prevent rust and corrosion on parts for roads, bridges, and other large buildings.
In zinc plating, HVSP ZP taps are used for tapping internal threads that have a large plating thickness.

Comparison Table of Pitch Diameter Tolerance Zones between taps' classes and internal thread classes (for Hot-Dip Galvanizing)



※M8 x 1.25 was calculated according to the formula for dimensional tolerances that will be the basis for the tolerance zone classes 6AZ specified in JIS B 0209-5.

■Reference Bored Hole Size Chart

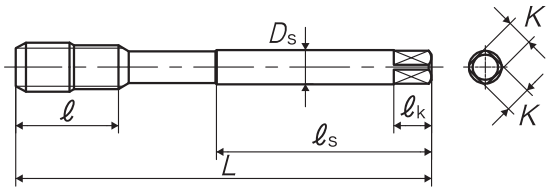
In tapping before zinc plating, we recommend to make the bored hole size larger by the plating thickness.
Please use the following chart as a guide to determine the final bored hole size.

unit: mm

Size	Normally recommended bored hole size	Oversize bored hole size (reference)			Internal thread Class 6H Min. minor diameter
		Oversize+0.1mm	Oversize+0.2mm	Oversize+0.3mm	
M8 × 1.25	6.85	6.90	6.95	7.00	6.647
M10 × 1.5	8.60	8.65	8.70	8.75	8.376
M12 × 1.75	10.4	10.5	10.6	10.7	10.106
M14 × 2	12.1	12.2	12.3	12.4	11.835
M16 × 2	14.1	14.2	14.3	14.4	13.935
M18 × 2.5	15.6	15.7	15.8	15.9	15.294
M20 × 2.5	17.6	17.7	17.8	17.9	17.294
M22 × 2.5	19.6	19.7	19.8	19.9	19.294
M24 × 3	21.1	21.2	21.3	21.4	20.752

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

TYPE: 1



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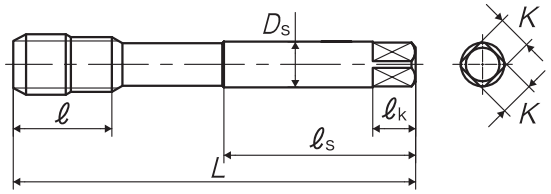


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M8 × 1.25	P4+0.1	1112201064	2.5P	90	19	-	46	6.2	5	8	3	1	¥ 2,960
M8 × 1.25	P4+0.2	1112301064	2.5P	90	19	-	46	6.2	5	8	3	1	¥ 2,960
M8 × 1.25	P4+0.3	1112401064	2.5P	90	19	-	46	6.2	5	8	3	1	¥ 2,960
M10 × 1.5	P4+0.1	1112201078	2.5P	100	23	-	51	7	5.5	8	3	1	¥ 3,870
M10 × 1.5	P4+0.2	1112301078	2.5P	100	23	-	51	7	5.5	8	3	1	¥ 3,870
M10 × 1.5	P4+0.3	1112401078	2.5P	100	23	-	51	7	5.5	8	3	1	¥ 3,870
M12 × 1.75	P4+0.1	1112201088	2.5P	110	26	-	56	8.5	6.5	9	3	1	¥ 5,200
M12 × 1.75	P4+0.2	1112301088	2.5P	110	26	-	56	8.5	6.5	9	3	1	¥ 5,200
M12 × 1.75	P4+0.3	1112401088	2.5P	110	26	-	56	8.5	6.5	9	3	1	¥ 5,200
M14 × 2	P4+0.1	1112201100	2.5P	110	26	-	56	10.5	8	11	3	1	¥ 7,120
M14 × 2	P4+0.2	1112301100	2.5P	110	26	-	56	10.5	8	11	3	1	¥ 7,120
M14 × 2	P4+0.3	1112401100	2.5P	110	26	-	56	10.5	8	11	3	1	¥ 7,120
M16 × 2	P4+0.1	1112201114	2.5P	110	26	-	56	12.5	10	13	3	1	¥ 9,490
M16 × 2	P4+0.2	1112301114	2.5P	110	26	-	56	12.5	10	13	3	1	¥ 9,490
M16 × 2	P4+0.3	1112401114	2.5P	110	26	-	56	12.5	10	13	3	1	¥ 9,490
M18 × 2.5	P5+0.1	1112201128	2.5P	125	33	-	64	14	11	14	4	1	¥ 12,700
M18 × 2.5	P5+0.2	1112301128	2.5P	125	33	-	64	14	11	14	4	1	¥ 12,700
M18 × 2.5	P5+0.3	1112401128	2.5P	125	33	-	64	14	11	14	4	1	¥ 12,700
M20 × 2.5	P5+0.1	1112201141	2.5P	140	33	-	71	15	12	15	4	2	¥ 17,300
M20 × 2.5	P5+0.2	1112301141	2.5P	140	33	-	71	15	12	15	4	2	¥ 17,300
M20 × 2.5	P5+0.3	1112401141	2.5P	140	33	-	71	15	12	15	4	2	¥ 17,300
M22 × 2.5	P5+0.1	1112201156	2.5P	140	33	-	71	17	13	16	4	2	¥ 21,900
M22 × 2.5	P5+0.2	1112301156	2.5P	140	33	-	71	17	13	16	4	2	¥ 21,900
M22 × 2.5	P5+0.3	1112401156	2.5P	140	33	-	71	17	13	16	4	2	¥ 21,900
M24 × 3	P5+0.1	1112201167	2.5P	160	37	-	82	19	15	18	4	2	¥ 27,300
M24 × 3	P5+0.2	1112301167	2.5P	160	37	-	82	19	15	18	4	2	¥ 27,300
M24 × 3	P5+0.3	1112401167	2.5P	160	37	-	82	19	15	18	4	2	¥ 27,300

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Z-PRO

MHSP



Z-PRO
Spiral Taps for Medium Hard Carbon Steels

Specification



Recommended Tapping Speeds depending on Materials



25~35HRC

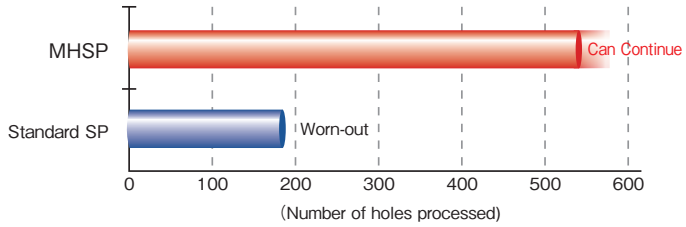
Product Features

- Ideal for forged products and tempered materials like S48C to S55C at 25 to 35HRC.
- Utilizing a unique high speed steel material and a special coating has created an excellent wear resistance with longer tool life.
- The special threaded portion design makes it effective against flute chipping at the full thread portion of the tap. This new design helps reduce tapping torque and frictional resistance to maintain the screw thread guide properties.
- The new design allows for a longer tool projection to accommodate the discharge of the chips and prevents them from being entangled with the holder.

Tapping Data

Tapping conditions [M8×1.25]

Workpiece Material	SCM440 35HRC
Tapping Length	12mm
Tapping Speed	15m/min
Machine	Machining center (Vertical)
Tapping Fluid	Water soluble cutting fluid



· **Compatible with a wide range of workpiece machining.**

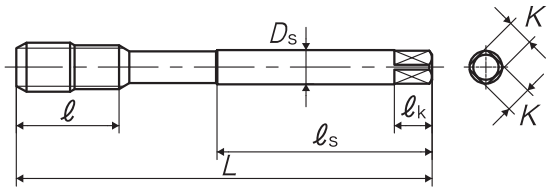
Workpiece Material	Target Tapping Speed (m/min)
High Carbon Steel/Alloy Steel S50C/SCM440 35HRC	5～15
High Carbon Steel/Alloy Steel S50C/SCM440 25HRC	5～20
High Carbon Steel/Alloy Steel S50C/SCM440 raw material	5～30

MHSP Microphotography after Tapped 550 Holes



Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M8 × 1.25	P4	SY8.0NSOCLJ	2.5P	90	19	-	46	6.2	5	8	3	1	¥ 4,720
M10 × 1.5	P4	SY010OSOCLJ	2.5P	100	23	-	51	7	5.5	8	3	1	¥ 5,460
M10 × 1.25	P4	SY010NSOCLJ	2.5P	100	23	-	51	7	5.5	8	3	1	¥ 5,460
M10 × 1	P4	SY010MSOCLJ	2.5P	100	23	-	51	7	5.5	8	3	1	¥ 6,490
M12 × 1.75	P4	SY012PSOCLJ	2.5P	110	26	-	56	8.5	6.5	9	4	1	¥ 7,830
M12 × 1.5	P4	SY012OSOCLJ	2.5P	110	26	-	56	8.5	6.5	9	4	1	¥ 7,830
M12 × 1.25	P4	SY012NSOCLJ	2.5P	110	26	-	56	8.5	6.5	9	4	1	¥ 7,830
M14 × 2	P5	SY014QTOCLJ	2.5P	110	26	-	56	10.5	8	11	4	1	¥ 10,900
M14 × 1.5	P4	SY014OSOCLJ	2.5P	110	26	-	56	10.5	8	11	4	1	¥ 10,900
M16 × 2	P5	SY016QTOCLJ	2.5P	110	26	-	56	12.5	10	13	4	1	¥ 14,100
M16 × 1.5	P4	SY016OSOCLJ	2.5P	110	26	-	56	12.5	10	13	4	1	¥ 14,100

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

Z-PRO

MHSP



Z-PRO
Spiral Taps for Medium Hard Carbon Steels

Specification

HSS-Co | Coating | Synchronized | <2D

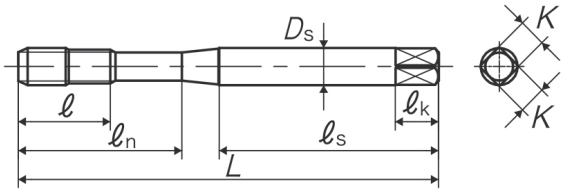
- Most suitable for forgings from S48C to S55C and thermal refined materials (25 to 35 HRC)
- Long life is achieved by the adoption of HSS material and special coating for wear resistance.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

25~35HRC

TYPE : 1



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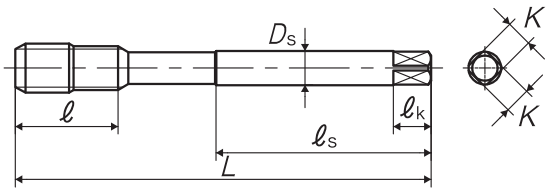


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M8 × 1.25	ISO2X	SD8.0NBOCLJ	2.5P	90	19	35	47	8	6.2	9	3	1
M10 × 1.5	ISO2X	SD010OBOCLJ	2.5P	100	23	39	52.5	10	8	11	3	1
M10 × 1.25	ISO2X	SM010NBOCLJ	2.5P	100	23	-	51	7	5.5	8	3	2
M10 × 1	ISO2X	SM010MBOCLJ	2.5P	90	19	-	46	7	5.5	8	3	2
M12 × 1.75	ISO2X	SG012PBOCLJ	2.5P	110	26	-	56	9	7	10	4	2
M12 × 1.5	ISO2X	SM012OBOCLJ	2.5P	100	21	-	51	9	7	10	4	2
M12 × 1.25	ISO2X	SM012NBOCLJ	2.5P	100	21	-	51	9	7	10	4	2
M14 × 2	ISO2X	SG014QBOCLJ	2.5P	110	26	-	56	11	9	12	4	2
M14 × 1.5	ISO2X	SM014OBOCLJ	2.5P	100	21	-	51	11	9	12	4	2
M16 × 2	ISO2X	SG016QBOCLJ	2.5P	110	26	-	56	12	9	12	4	2
M16 × 1.5	ISO2X	SM016OBOCLJ	2.5P	100	21	-	51	12	9	12	4	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP

Spiral Fluted Taps



Specification

HSS

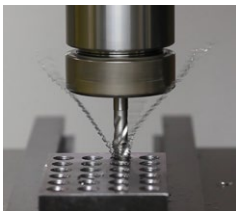


Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

Product Features

- The spiral flutes of the SP tap pull the small continuous curly chips back towards the tapping chuck and prevents chips from clogging in the hole. These taps are ideal for blind hole tapping.
- These taps cut easily into softer materials.
- Intermittent cutting into pilot holes with a keyway or grooves is possible.
- The flute strength is inferior to the HT tap. The HT flute shape is more suitable for high hardness materials.



Chip evacuation with a SP tap.

The difference between a SP tap and a + SP tap

SP For low speed machining on drilling machines and machining centers.

Standard tap series SP (for blind holes).

Old name	New Name	Size Range
N-SP	SP	M1.2～M64

Effective tapping on drill machines.

+SP Medium speed machining/Synchronous feed tapping is recommended on Machining Centers.

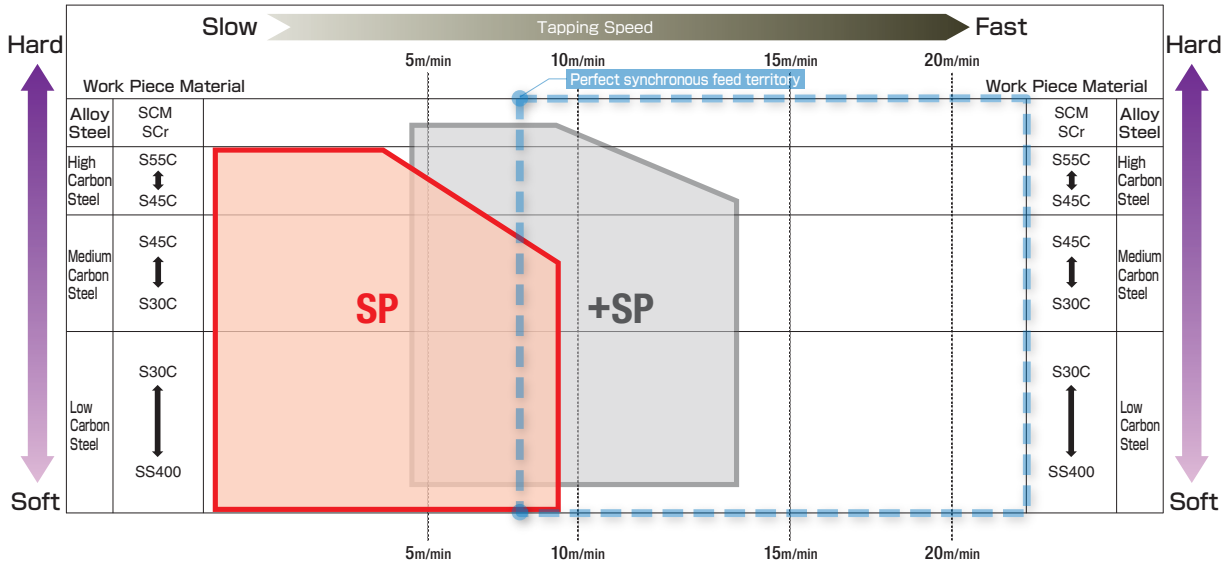
Plus series + SP for blind holes.

Old Name	New Name	Size Range
N+SP	+SP	M2～M12

Effective for use with synchronous feed (rigid) tapping on CNC machining centers.

* Both are general purpose spiral flute taps developed for varying tapping environments.

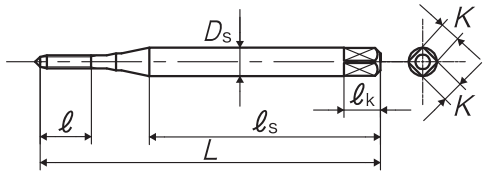
Speed chart



Tapping speed range by tap series.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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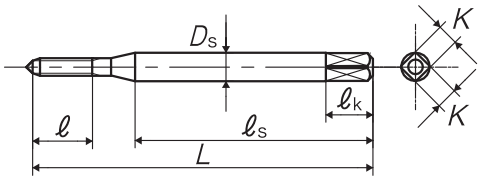

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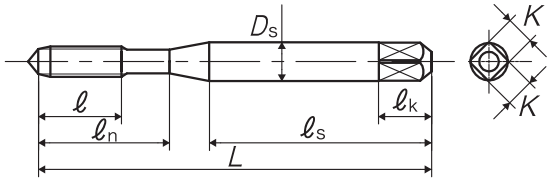

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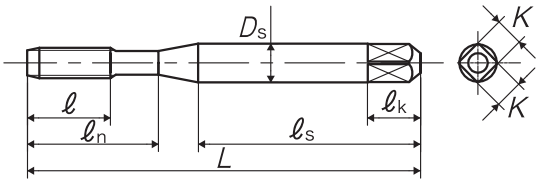

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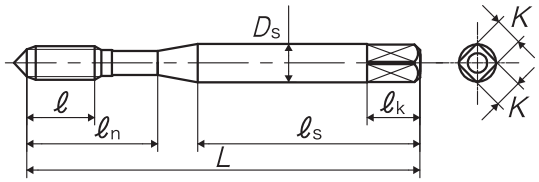

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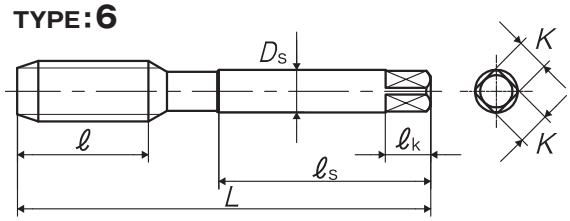

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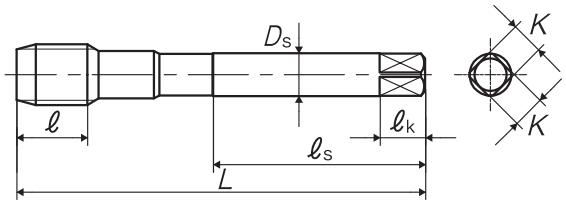

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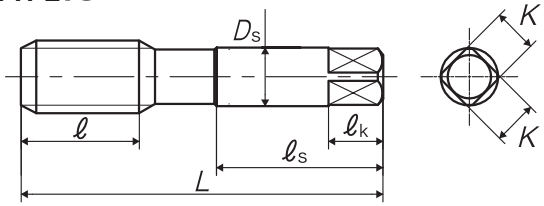

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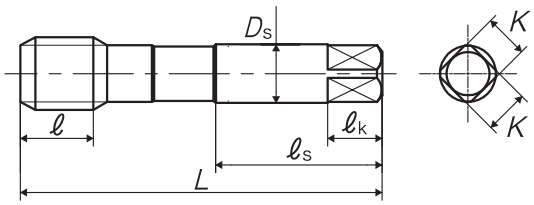

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Oversize

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M1.2 × 0.25	P1	SPP1.2B	2.5P	36	4.5	-	24	3	2.5	5	2	1	¥ 3,770
M1.4 × 0.3	P1	SPP1.4C	2.5P	36	5.4	-	24	3	2.5	5	2	1	¥ 3,080
M1.6 × 0.35	P1	SPP1.6D	2.5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940
M1.7 × 0.35	P1	SPP1.7D	2.5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940
M1.7 × 0.35	P2	SPQ1.7D	2.5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940
M1.7 × 0.35	P3	SPR1.7D	2.5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940 ※
M1.8 × 0.35	P1	SPP1.8D	2.5P	42	6.3	-	27	3	2.5	5	2	2	¥ 2,940 ※
M2 × 0.4	P1	SPP2.0E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,350
M2 × 0.4	P2	SPQ2.0E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,350
M2 × 0.4	P3	SPR2.0E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,350
M2 × 0.4	P4	SPS2.0E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,350 ※
M2 × 0.25	P1	SPP2.0B	2.5P	42	4.5	12	27	3	2.5	5	2	5	¥ 3,600
M2.2 × 0.45	P1	SPP2.2F	2.5P	42	8.1	12	27	3	2.5	5	2	3	¥ 2,140
M2.2 × 0.45	P3	SPR2.2F	2.5P	42	8.1	12	27	3	2.5	5	2	3	¥ 2,140 ※
M2.3 × 0.4	P1	SPP2.3E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,140
M2.3 × 0.4	P2	SPQ2.3E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,140 ※
M2.3 × 0.4	P3	SPR2.3E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,140 ※
M2.3 × 0.4	P4	SPS2.3E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,140 ※
M2.3 × 0.25	P1	SPP2.3B	2.5P	42	4.5	12	27	3	2.5	5	2	5	¥ 3,600 ※
M2.5 × 0.45	P1	SPP2.5F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,800
M2.5 × 0.45	P2	SPQ2.5F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,800
M2.5 × 0.45	P3	SPR2.5F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,800
M2.5 × 0.45	P4	SPS2.5F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,800
M2.5 × 0.35	P1	SPP2.5D	2.5P	46	6.3	14	29	3	2.5	5	2	5	¥ 2,650
M2.6 × 0.45	P1	SPP2.6F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,800
M2.6 × 0.45	P2	SPQ2.6F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,800
M2.6 × 0.45	P3	SPR2.6F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,800
M2.6 × 0.45	P4	SPS2.6F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,800 ※
M2.6 × 0.35	P1	SPP2.6D	2.5P	46	6.3	14	29	3	2.5	5	2	5	¥ 2,650 ※
M3 × 0.5	P1	SPP3.0G	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,260
M3 × 0.5	P2	SPQ3.0G	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,260
M3 × 0.5	P3	SPR3.0G	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,260
M3 × 0.5	P4	SPS3.0G	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,260
3M0.6	P1	SPP3.0H	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,260 ※
M3 × 0.35	P1	SPP3.0D	2.5P	46	6.5	14	26	4	3.2	6	3	5	¥ 2,150
M3.5 × 0.6	P1	SPP3.5H	2.5P	52	11	16	29	5	4	7	3	3	¥ 1,260
M3.5 × 0.6	P2	SPQ3.5H	2.5P	52	11	16	29	5	4	7	3	3	¥ 1,260 ※
M3.5 × 0.6	P3	SPR3.5H	2.5P	52	11	16	29	5	4	7	3	3	¥ 1,260 ※
M3.5 × 0.6	P4	SPS3.5H	2.5P	52	11	16	29	5	4	7	3	3	¥ 1,260 ※
M3.5 × 0.35	P1	SPP3.5D	2.5P	52	6.5	16	29	5	4	7	3	5	¥ 2,150 ※
M4 × 0.7	P2	SPQ4.0I	2.5P	52	11	17	29	5	4	7	3	3	¥ 1,260
M4 × 0.7	P3	SPR4.0I	2.5P	52	11	17	29	5	4	7	3	3	¥ 1,260
M4 × 0.7	P4	SPS4.0I	2.5P	52	11	17	29	5	4	7	3	3	¥ 1,260
4M0.75	P2	SPQ4.0J	2.5P	52	11	17	29	5	4	7	3	3	¥ 1,260
M4 × 0.5	P1	SPP4.0G	2.5P	52	9	17	29	5	4	7	3	5	¥ 1,850
M4.5 × 0.75	P2	SPQ4.5J	2.5P	60	13	21	33	5.5	4.5	7	3	3	¥ 1,270 ※
M4.5 × 0.5	P1	SPP4.5G	2.5P	60	9	21	33	5.5	4.5	7	3	5	¥ 1,850 ※
M5 × 0.8	P2	SPQ5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,270

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M5 × 0.8	P3	SPR5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,270
M5 × 0.8	P4	SPS5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,270
5M0.9	P2	SPQ5.0L	2.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,270 ※
M5 × 0.75	P2	SPQ5.0J	2.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,850 ※
M5 × 0.5	P1	SPP5.0G	2.5P	60	9	22	33	5.5	4.5	7	3	5	¥ 1,850
M5.5 × 0.9	P2	SPQ5.5L	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,400 ※
M5.5 × 0.5	P1	SPP5.5G	2.5P	62	9	26	33	6	4.5	7	3	5	¥ 1,970 ※
M6 × 1	P2	SPQ6.0M	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,400
M6 × 1	P2	SPQ6.0M-T	2.5P	62	15	26	33	6	4.5	7	3	4	¥ 1,400
M6 × 1	P3	SPR6.0M	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,400
M6 × 1	P4	SPS6.0M	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,400
M6 × 0.75	P2	SPQ6.0J	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,970
M6 × 0.75	P3	SPR6.0J	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,970 ※
M6 × 0.75	P4	SPS6.0J	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,970 ※
M6 × 0.5	P1	SPP6.0G	2.5P	62	9	26	33	6	4.5	7	3	5	¥ 1,970
M6 × 0.5	P2	SPQ6.0G	2.5P	62	9	26	33	6	4.5	7	3	5	¥ 1,970 ※
M6 × 0.5	P3	SPR6.0G	2.5P	62	9	26	33	6	4.5	7	3	5	¥ 1,970 ※
M7 × 1	P2	SPQ7.0M	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 1,670
M7 × 1	P3	SPR7.0M	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 1,670 ※
M7 × 1	P4	SPS7.0M	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 1,670 ※
M7 × 0.75	P2	SPQ7.0J	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 2,470
M7 × 0.5	P2	SPQ7.0G	2.5P	70	10	-	36	6.2	5	8	3	7	¥ 3,080 ※
M8 × 1.25	P2	SPQ8.0N	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 1,920
M8 × 1.25	P3	SPR8.0N	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 1,920
M8 × 1.25	P4	SPS8.0N	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 1,920
M8 × 1	P2	SPQ8.0M	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 2,180
M8 × 1	P3	SPR8.0M	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 2,180 ※
M8 × 1	P4	SPS8.0M	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 2,180 ※
M8 × 0.75	P2	SPQ8.0J	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 2,470
M8 × 0.75	P3	SPR8.0J	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 2,470 ※
M8 × 0.5	P2	SPQ8.0G	2.5P	70	10	-	36	6.2	5	8	3	7	¥ 3,080
M9 × 1.25	P2	SPQ9.0N	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,440 ※
M9 × 1	P2	SPQ9.0M	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,900
M9 × 0.75	P2	SPQ9.0J	2.5P	75	13	-	38	7	5.5	8	3	7	¥ 3,530
M9 × 0.5	P2	SPQ9.0G	2.5P	75	11	-	38	7	5.5	8	3	7	¥ 3,840 ※
M10 × 1.5	P2	SPQ010O	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,440
M10 × 1.5	P3	SPR010O	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,440
M10 × 1.5	P4	SPS010O	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,440
M10 × 1.25	P2	SPQ010N	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,440
M10 × 1.25	P3	SPR010N	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,440
M10 × 1.25	P4	SPS010N	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,440
M10 × 1	P2	SPQ010M	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,900
M10 × 1	P3	SPR010M	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,900 ※
M10 × 1	P4	SPS010M	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,900 ※
M10 × 0.75	P2	SPQ010J	2.5P	75	13	-	38	7	5.5	8	3	7	¥ 3,530
M10 × 0.5	P2	SPQ010G	2.5P	75	11	-	38	7	5.5	8	3	7	¥ 3,840 ※
M11 × 1.5	P2	SPQ011O	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,460 ※
M11 × 1.25	P2	SPQ011N	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,460 ※
M11 × 1	P2	SPQ011M	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 4,070 ※
M11 × 0.75	P2	SPQ011J	2.5P	82	14	-	42	8.5	6.5	9	3	7	¥ 5,190 ※
M12 × 1.75	P2	SPQ012P	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,460

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Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M12 × 1.75	P3	SPR012P	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,460
M12 × 1.75	P4	SPS012P	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,460
M12 × 1.5	P2	SPQ012O	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,460
M12 × 1.5	P3	SPR012O	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,460 ※
M12 × 1.5	P4	SPS012O	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,460 ※
M12 × 1.25	P2	SPQ012N	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,460
M12 × 1.25	P3	SPR012N	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,460
M12 × 1.25	P4	SPS012N	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,460 ※
M12 × 1	P2	SPQ012M	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 4,070
M12 × 1	P3	SPR012M	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 4,070 ※
M12 × 1	P4	SPS012M	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 4,070 ※
M12 × 0.75	P2	SPQ012J	2.5P	82	14	-	42	8.5	6.5	9	3	7	¥ 5,190 ※
M12 × 0.5	P2	SPQ012G	2.5P	82	12	-	42	8.5	6.5	9	3	7	¥ 5,190 ※
M13 × 1.75	P2	SPQ013P	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 5,480 ※
M13 × 1.5	P2	SPQ013O	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 5,480 ※
M13 × 1.25	P2	SPQ013N	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 5,480 ※
M13 × 1	P2	SPQ013M	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 5,480 ※
M14 × 2	P2	SPQ014Q	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 4,720
M14 × 2	P3	SPR014Q	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 4,720 ※
M14 × 2	P4	SPS014Q	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 4,720 ※
M14 × 1.5	P2	SPQ014O	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 4,720
M14 × 1.5	P3	SPR014O	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 4,720 ※
M14 × 1.5	P4	SPS014O	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 4,720
M14 × 1.25	P2	SPQ014N	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 5,480
M14 × 1	P2	SPQ014M	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 5,480
M15 × 2	P2	SPQ015Q	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310 ※
M15 × 1.5	P2	SPQ015O	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310 ※
M15 × 1	P2	SPQ015M	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 7,520 ※
M16 × 2	P2	SPQ016Q	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310
M16 × 2	P3	SPR016Q	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310
M16 × 2	P4	SPS016Q	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310
M16 × 2	P5	SPT016Q	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310 ※
M16 × 1.5	P2	SPQ016O	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310
M16 × 1.5	P3	SPR016O	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310 ※
M16 × 1.5	P4	SPS016O	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310
M16 × 1.25	P2	SPQ016N	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 7,520 ※
M16 × 1	P2	SPQ016M	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 7,520
M17 × 1.5	P2	SPQ017O	2.5P	100	33	-	51	14	11	14	4	6	¥ 8,430 ※
M17 × 1	P2	SPQ017M	2.5P	100	18	-	51	14	11	14	4	7	¥ 10,900 ※
M18 × 2.5	P3	SPR018R	2.5P	100	33	-	51	14	11	14	4	6	¥ 8,430
M18 × 2.5	P4	SPS018R	2.5P	100	33	-	51	14	11	14	4	6	¥ 8,430 ※
M18 × 2	P3	SPR018Q	2.5P	100	33	-	51	14	11	14	4	6	¥ 8,430 ※
M18 × 1.5	P2	SPQ018O	2.5P	100	33	-	51	14	11	14	4	6	¥ 8,430
M18 × 1.5	P3	SPR018O	2.5P	100	33	-	51	14	11	14	4	6	¥ 8,430 ※
M18 × 1.5	P4	SPS018O	2.5P	100	33	-	51	14	11	14	4	6	¥ 8,430 ※
M18 × 1.25	P2	SPQ018N	2.5P	100	33	-	51	14	11	14	4	6	¥ 10,900 ※
M18 × 1	P2	SPQ018M	2.5P	100	18	-	51	14	11	14	4	7	¥ 10,900
M19 × 1.5	P3	SPR019O	2.5P	105	33	-	50	15	12	15	4	8	¥ 11,500 ※
M19 × 1	P2	SPQ019M	2.5P	105	18	-	50	15	12	15	4	9	¥ 14,600 ※
M20 × 2.5	P3	SPR020R	2.5P	105	33	-	50	15	12	15	4	8	¥ 11,500

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M20 × 2.5	P4	SPS020R	2.5P	105	33	-	50	15	12	15	4	8	¥ 11,500
M20 × 2	P3	SPR020Q	2.5P	105	33	-	50	15	12	15	4	8	¥ 11,500
M20 × 1.5	P3	SPR020O	2.5P	105	33	-	50	15	12	15	4	8	¥ 11,500
M20 × 1.5	P4	SPS020O	2.5P	105	33	-	50	15	12	15	4	8	¥ 11,500 ※
M20 × 1.5	P5	SPT020O	2.5P	105	33	-	50	15	12	15	4	8	¥ 11,500 ※
M20 × 1.25	P2	SPQ020N	2.5P	105	18	-	50	15	12	15	4	9	¥ 14,600 ※
M20 × 1	P2	SPQ020M	2.5P	105	18	-	50	15	12	15	4	9	¥ 14,600
M22 × 2.5	P3	SPR022R	2.5P	115	33	-	55	17	13	16	4	8	¥ 14,700
M22 × 2.5	P4	SPS022R	2.5P	115	33	-	55	17	13	16	4	8	¥ 14,700 ※
M22 × 2	P3	SPR022Q	2.5P	115	33	-	55	17	13	16	4	8	¥ 14,700 ※
M22 × 1.5	P3	SPR022O	2.5P	115	33	-	55	17	13	16	4	8	¥ 14,700
M22 × 1.5	P4	SPS022O	2.5P	115	33	-	55	17	13	16	4	8	¥ 14,700 ※
M22 × 1.5	P5	SPT022O	2.5P	115	33	-	55	17	13	16	4	8	¥ 14,700 ※
M22 × 1	P2	SPQ022M	2.5P	115	19	-	55	17	13	16	4	9	¥ 19,000
M23 × 1.5	P3	SPR023O	2.5P	120	39	-	55	19	15	18	4	8	¥ 18,300 ※
M24 × 3	P3	SPR024S	2.5P	120	39	-	55	19	15	18	4	8	¥ 18,300
M24 × 3	P4	SPS024S	2.5P	120	39	-	55	19	15	18	4	8	¥ 18,300 ※
M24 × 2	P3	SPR024Q	2.5P	120	39	-	55	19	15	18	4	8	¥ 18,300
M24 × 1.5	P3	SPR024O	2.5P	120	39	-	55	19	15	18	4	8	¥ 18,300
M24 × 1.5	P4	SPS024O	2.5P	120	39	-	55	19	15	18	4	8	¥ 18,300 ※
M24 × 1	P2	SPQ024M	2.5P	120	19	-	55	19	15	18	4	9	¥ 23,400
M25 × 2	P3	SPR025Q	2.5P	125	39	-	58	19	15	18	4	8	¥ 23,700 ※
M25 × 1.5	P3	SPR025O	2.5P	125	39	-	58	19	15	18	4	8	¥ 23,700
M25 × 1	P2	SPQ025M	2.5P	125	20	-	58	19	15	18	4	9	¥ 28,100 ※
M26 × 3	P3	SPR026S	2.5P	130	39	-	60	20	15	18	4	8	¥ 25,500 ※
M26 × 2	P3	SPR026Q	2.5P	130	39	-	60	20	15	18	4	8	¥ 25,500 ※
M26 × 1.5	P3	SPR026O	2.5P	130	39	-	60	20	15	18	4	8	¥ 25,500
M26 × 1	P2	SPQ026M	2.5P	130	20	-	60	20	15	18	4	9	¥ 31,400 ※
M27 × 3	P3	SPR027S	2.5P	130	39	-	60	20	15	18	4	8	¥ 25,500
M27 × 2	P3	SPR027Q	2.5P	130	39	-	60	20	15	18	4	8	¥ 25,500
M27 × 1.5	P3	SPR027O	2.5P	130	39	-	60	20	15	18	4	8	¥ 25,500
M27 × 1	P2	SPQ027M	2.5P	130	20	-	60	20	15	18	4	9	¥ 31,400 ※
M28 × 2	P3	SPR028Q	2.5P	135	46	-	62	23	17	20	4	8	¥ 32,500
M28 × 1.5	P3	SPR028O	2.5P	135	46	-	62	23	17	20	4	8	¥ 32,500
M28 × 1	P2	SPQ028M	2.5P	135	20	-	62	23	17	20	4	9	¥ 40,600 ※
M30 × 3.5	P4	SPS030T	2.5P	135	46	-	62	23	17	20	4	8	¥ 32,500
M30 × 3	P3	SPR030S	2.5P	135	46	-	62	23	17	20	4	8	¥ 32,500
M30 × 2	P3	SPR030Q	2.5P	135	46	-	62	23	17	20	4	8	¥ 32,500
M30 × 1.5	P3	SPR030O	2.5P	135	46	-	62	23	17	20	4	8	¥ 32,500
M30 × 1	P2	SPQ030M	2.5P	135	21	-	62	23	17	20	4	9	¥ 40,600 ※
M32 × 3	P3	SPMR032S	2.5P	145	46	-	67	24	19	22	4	8	¥ 37,800 ※
M32 × 2	P3	SPMR032Q	2.5P	145	46	-	67	24	19	22	4	8	¥ 37,800 ※
M32 × 1.5	P3	SPMR032O	2.5P	145	46	-	67	24	19	22	4	8	¥ 37,800 ※
M32 × 1	P2	SPMQ032M	2.5P	145	21	-	67	24	19	22	4	9	¥ 46,600 ※
M33 × 3.5	P4	SPMS033T	2.5P	145	46	-	67	25	19	22	4	8	¥ 37,800
M33 × 3	P3	SPMR033S	2.5P	145	46	-	67	25	19	22	4	8	¥ 37,800 ※
M33 × 2	P3	SPMR033Q	2.5P	145	46	-	67	25	19	22	4	8	¥ 37,800 ※
M33 × 1.5	P3	SPMR033O	2.5P	145	46	-	67	25	19	22	4	8	¥ 37,800 ※
M33 × 1	P2	SPMQ033M	2.5P	145	21	-	67	25	19	22	4	9	¥ 46,600 ※
M34 × 3	P3	SPMR034S	2.5P	155	52	-	71	28	21	24	4	8	¥ 43,800 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M34 × 2	P3	SPMR034Q	2.5P	155	52	-	71	28	21	24	4	8	¥ 43,800 ※
M34 × 1.5	P3	SPMR034O	2.5P	155	26	-	71	28	21	24	4	9	¥ 43,800 ※
M34 × 1	P2	SPMQ034M	2.5P	155	26	-	71	28	21	24	4	9	¥ 51,900 ※
M35 × 3	P3	SPMR035S	2.5P	155	52	-	71	28	21	24	4	8	¥ 43,800 ※
M35 × 2	P3	SPMR035Q	2.5P	155	52	-	71	28	21	24	4	8	¥ 43,800 ※
M35 × 1.5	P3	SPMR035O	2.5P	155	26	-	71	28	21	24	4	9	¥ 43,800 ※
M35 × 1	P2	SPMQ035M	2.5P	155	26	-	71	28	21	24	4	9	¥ 51,900 ※
M36 × 4	P4	SPMS036U	2.5P	155	52	-	71	28	21	24	4	8	¥ 43,800
M36 × 3	P3	SPMR036S	2.5P	155	52	-	71	28	21	24	4	8	¥ 43,800 ※
M36 × 2	P3	SPMR036Q	2.5P	155	52	-	71	28	21	24	4	8	¥ 43,800 ※
M36 × 1.5	P3	SPMR036O	2.5P	155	26	-	71	28	21	24	4	9	¥ 43,800 ※
M36 × 1	P2	SPMQ036M	2.5P	155	26	-	71	28	21	24	4	9	¥ 51,900 ※
M38 × 3	P3	SPMR038S	2.5P	165	52	-	76	30	23	26	4	8	¥ 50,200 ※
M38 × 2	P3	SPMR038Q	2.5P	165	52	-	76	30	23	26	4	8	¥ 50,200 ※
M38 × 1.5	P3	SPMR038O	2.5P	165	26	-	76	30	23	26	4	9	¥ 50,200 ※
M39 × 4	P4	SPMS039U	2.5P	165	52	-	76	30	23	26	4	8	¥ 50,200 ※
M39 × 3	P3	SPMR039S	2.5P	165	52	-	76	30	23	26	4	8	¥ 50,200 ※
M39 × 2	P3	SPMR039Q	2.5P	165	52	-	76	30	23	26	4	8	¥ 50,200 ※
M39 × 1.5	P3	SPMR039O	2.5P	165	26	-	76	30	23	26	4	9	¥ 50,200 ※
M40 × 3	P3	SPMR040S	2.5P	175	59	-	81	32	26	30	4	8	¥ 61,100 ※
M40 × 2	P3	SPMR040Q	2.5P	175	59	-	81	32	26	30	4	8	¥ 61,100 ※
M40 × 1.5	P3	SPMR040O	2.5P	175	27	-	81	32	26	30	4	9	¥ 61,100 ※
M42 × 4.5	P4	SPMS042V	2.5P	175	59	-	81	32	26	30	4	8	¥ 61,100 ※
M42 × 3	P3	SPMR042S	2.5P	175	59	-	81	32	26	30	4	8	¥ 61,100 ※
M42 × 2	P3	SPMR042Q	2.5P	175	59	-	81	32	26	30	4	8	¥ 61,100 ※
M42 × 1.5	P3	SPMR042O	2.5P	175	27	-	81	32	26	30	4	9	¥ 61,100 ※
M45 × 4.5	P4	SPMS045V	2.5P	180	59	-	83	35	26	30	4	8	¥ 70,700 ※
M45 × 3	P3	SPMR045S	2.5P	180	59	-	83	35	26	30	4	8	¥ 70,700 ※
M45 × 2	P3	SPMR045Q	2.5P	180	59	-	83	35	26	30	4	8	¥ 70,700 ※
M45 × 1.5	P3	SPMR045O	2.5P	180	27	-	83	35	26	30	4	9	¥ 70,700 ※
M48 × 5	P4	SPMS048W	2.5P	185	65	-	85	38	29	32	4	8	¥ 88,400 ※
M48 × 4	P4	SPMS048U	2.5P	185	65	-	85	38	29	32	4	8	¥ 88,400 ※
M48 × 3	P3	SPMR048S	2.5P	185	65	-	85	38	29	32	4	8	¥ 88,400 ※
M48 × 2	P3	SPMR048Q	2.5P	185	65	-	85	38	29	32	4	8	¥ 88,400 ※
M48 × 1.5	P3	SPMR048O	2.5P	185	28	-	85	38	29	32	4	9	¥ 88,400 ※
M52 × 5	P4	SPS052W	2.5P	195	70	-	86	42	32	35	4	8	¥110,000 ※
M56 × 5.5	P4	SPS056X	2.5P	205	70	-	91	44	35	38	4	8	¥125,000 ※
M60 × 5.5	P4	SPS060X	2.5P	215	76	-	96	46	35	38	4	8	¥151,000 ※
M64 × 6	P4	SPS064Y	2.5P	225	79	-	100	48	38	42	4	8	¥179,000 ※
For Unified Threads													
No.1-64UNC	P1	SPPUN1D	2.5P	42	7.2	-	27	3	2.5	5	2	2	¥ 3,490 ※
No.2-56UNC	P1	SPPUN2E	2.5P	42	8.1	12	27	3	2.5	5	2	3	¥ 2,460 ※
No.2-64UNF	P1	SPPUN2D	2.5P	42	8.1	12	27	3	2.5	5	2	3	¥ 2,460 ※
No.3-48UNC	P1	SPPUN3F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,080 ※
No.3-56UNF	P1	SPPUN3E	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,080 ※
No.4-40UNC	P1	SPPUN4H	2.5P	46	9	14	25	4	3.2	6	2	3	¥ 1,590
No.4-48UNF	P1	SPPUN4F	2.5P	46	9	14	25	4	3.2	6	2	3	¥ 1,590 ※
No.5-40UNC	P1	SPPUN5H	2.5P	52	11	16	28	5	4	7	3	3	¥ 1,480
No.5-44UNF	P1	SPPUN5G	2.5P	52	11	16	28	5	4	7	3	3	¥ 1,480 ※
No.6-32UNC	P2	SPQUN6J	2.5P	52	11	17	27	5	4	7	3	3	¥ 1,480

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
No.6-40UNF	P1	SPPUN6H	2.5P	52	11	17	27	5	4	7	3	3	¥ 1,480 ※
No.8-32UNC	P2	SPQUN8J	2.5P	60	13	22	31	5.5	4.5	7	3	3	¥ 1,490
No.8-36UNF	P2	SPQUN8I	2.5P	60	13	22	31	5.5	4.5	7	3	3	¥ 1,490 ※
No.10-24UNC	P2	SPQUNAM	2.5P	60	13	22	32	5.5	4.5	7	3	3	¥ 1,490
No.10-32UNF	P2	SPQUNAJ	2.5P	60	13	22	32	5.5	4.5	7	3	3	¥ 1,490
No.12-24UNC	P2	SPQUNCM	2.5P	62	15	26	32	6	4.5	7	3	3	¥ 1,600 ※
No.12-28UNF	P2	SPQUNCK	2.5P	62	15	26	32	6	4.5	7	3	3	¥ 1,600 ※
1/4-20UNC	P2	SPQU04N	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,600
1/4-28UNF	P2	SPQU04K	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,600
1/4-32UNEF	P2	SPQU04J	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 2,370 ※
5/16-18UNC	P2	SPQU05O	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 2,210
5/16-24UNF	P2	SPQU05M	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 2,210
5/16-32UNEF	P2	SPQU05J	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 3,080 ※
3/8-16UNC	P2	SPQU06P	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,830
3/8-24UNF	P2	SPQU06M	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,830
3/8-32UNEF	P2	SPQU06J	2.5P	75	13	-	38	7	5.5	8	3	7	¥ 3,530 ※
7/16-14UNC	P3	SPRU07Q	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,990
7/16-20UNF	P2	SPQU07N	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,990
7/16-28UNEF	P2	SPQU07K	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 5,190 ※
1/2-13UNC	P3	SPRU08R	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 4,230
1/2-20UNF	P2	SPQU08N	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 4,230
1/2-28UNEF	P2	SPQU08K	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 6,240 ※
9/16-12UNC	P3	SPRU09S	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310 ※
9/16-18UNF	P2	SPQU09O	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310
9/16-24UNEF	P2	SPQU09M	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 9,030 ※
5/8-11UNC	P3	SPRU10U	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310
5/8-18UNF	P2	SPQU10O	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310
5/8-24UNEF	P2	SPQU10M	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 9,030 ※
3/4-10UNC	P3	SPRU12V	2.5P	105	33	-	50	15	12	15	4	8	¥ 11,500
3/4-16UNF	P3	SPRU12P	2.5P	105	33	-	50	15	12	15	4	8	¥ 11,500
3/4-20UNEF	P2	SPQU12N	2.5P	105	33	-	50	15	12	15	4	8	¥ 14,600 ※
7/8-9UNC	P3	SPRU14W	2.5P	115	33	-	55	17	13	16	4	8	¥ 16,200
7/8-14UNF	P3	SPRU14Q	2.5P	115	33	-	55	17	13	16	4	8	¥ 16,200
7/8-20UNEF	P2	SPQU14N	2.5P	115	33	-	55	17	13	16	4	8	¥ 22,700 ※
1 -8UNC	P3	SPRU16X	2.5P	125	39	-	58	19	15	18	4	8	¥ 23,700
1 -12UNF	P3	SPRU16S	2.5P	125	39	-	58	19	15	18	4	8	¥ 23,700 ※
1 -14UNS	P3	SPRU16Q	2.5P	125	39	-	58	19	15	18	4	8	¥ 31,400 ※
1 -20UNEF	P2	SPQU16N	2.5P	125	39	-	58	19	15	18	4	8	¥ 31,400 ※
1 1/8-7UNC	P4	SPSU18Y	2.5P	135	46	-	62	23	17	20	4	8	¥ 32,500 ※
1 1/8-8UN	P3	SPRU18X	2.5P	135	46	-	62	23	17	20	4	8	¥ 38,900 ※
1 1/8-12UNF	P3	SPRU18S	2.5P	135	46	-	62	23	17	20	4	8	¥ 32,500 ※
1 1/8-14UNS	P3	SPRU18Q	2.5P	135	46	-	62	23	17	20	4	8	¥ 38,900 ※
1 1/4-7UNC	P4	SPMSU20Y	2.5P	145	46	-	67	24	19	22	4	8	¥ 37,800 ※
1 1/4-8UN	P3	SPMRU20X	2.5P	145	46	-	67	24	19	22	4	8	¥ 45,300 ※
1 1/4-12UNF	P3	SPMRU20S	2.5P	145	46	-	67	24	19	22	4	8	¥ 37,800 ※
1 3/8-6UNC	P4	SPMSU22Z	2.5P	155	52	-	71	28	21	24	4	8	¥ 43,800 ※
1 3/8-8UN	P3	SPMRU22X	2.5P	155	52	-	71	28	21	24	4	8	¥ 52,500 ※
1 3/8-12UNF	P3	SPMRU22S	2.5P	155	52	-	71	28	21	24	4	8	¥ 43,800 ※
1 1/2-6UNC	P4	SPMSU24Z	2.5P	165	52	-	76	30	23	26	4	8	¥ 62,700 ※
1 1/2-8UN	P3	SPMRU24X	2.5P	165	52	-	76	30	23	26	4	8	¥ 62,700 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
1 1/2-12UNF	P3	SPMRU24S	2.5P	165	52	-	76	30	23	26	4	8	¥ 62,700 ※
1 3/4-5UNC	P4	SPMSU280	2.5P	180	59	-	83	35	26	30	4	8	¥ 87,500 ※
1 3/4-12UN	P3	SPMRU28S	2.5P	180	59	-	83	35	26	30	4	8	¥ 87,500 ※
2 -4 1/2UNC	P5	SPTU329	2.5P	195	70	-	85	40	32	35	4	8	¥138,000 ※
2 -12UN	P3	SPRU32S	2.5P	145	45	-	82	40	32	35	4	8	¥138,000 ※
For Whitworth Threads													
1/8W40	P1	SPPW02H	2.5P	52	11	16	28	5	4	7	3	3	¥ 1,840
5/32W32	P2	SPQW2HJ	2.5P	52	11	17	29	5	4	7	3	3	¥ 1,480 ※
3/16W24	P2	SPQW03M	2.5P	60	13	21	32	5.5	4.5	7	3	3	¥ 1,490
7/32W24	P2	SPQW3HM	2.5P	62	15	26	32	6	4.5	7	3	3	¥ 1,600 ※
1/4W20	P2	SPQW04N	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,600
5/16W18	P2	SPQW05O	2.5P	70	19	-	36	6.2	5	8	3	6	¥ 2,210
3/8W16	P2	SPQW06P	2.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,830
7/16W14	P3	SPRW07Q	2.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,990 ※
1/2W12	P3	SPRW08S	2.5P	88	26	-	45	10.5	8	11	3	6	¥ 4,230
9/16W12	P3	SPRW09S	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310 ※
5/8W11	P3	SPRW10U	2.5P	95	26	-	48	12.5	10	13	3	6	¥ 6,310
3/4W10	P3	SPRW12V	2.5P	105	33	-	50	15	12	15	4	8	¥ 11,500
7/8W9	P3	SPRW14W	2.5P	115	33	-	55	17	13	16	4	8	¥ 16,200
1 W8	P3	SPRW16X	2.5P	125	39	-	58	19	15	18	4	8	¥ 23,700
1 1/8W7	P4	SPSW18Y	2.5P	135	46	-	62	23	17	20	4	8	¥ 32,500 ※
1 1/4W7	P4	SPMSW20Y	2.5P	145	46	-	67	24	19	22	4	8	¥ 37,800 ※
1 3/8W6	P4	SPMSW22Z	2.5P	155	52	-	71	28	21	24	4	8	¥ 43,800 ※
1 1/2W6	P4	SPMSW24Z	2.5P	165	52	-	76	30	23	26	4	8	¥ 62,700 ※
1 5/8W5	P4	SPMSW260	2.5P	175	59	-	81	32	26	30	4	8	¥ 64,200 ※
1 3/4W5	P4	SPMSW280	2.5P	180	59	-	83	35	26	30	4	8	¥ 87,500 ※
1 7/8W4 1/2	P4	SPMSW309	2.5P	185	65	-	85	38	29	32	4	8	¥102,000 ※
2 W4 1/2	P4	SPSW329	2.5P	195	70	-	85	40	32	35	4	8	¥138,000 ※
For Screw Threads used on Sewing Machines													
3/32SM56	P1	SPPS06E	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,500 ※
1/8SM40	P1	SPPS08H	2.5P	52	11	16	28	5	4	7	3	3	¥ 1,840 ※
1/8SM44	P1	SPPS08G	2.5P	52	11	16	28	5	4	7	3	3	¥ 1,840
9/64SM40	P1	SPPS09H	2.5P	52	11	16	29	5	4	7	3	3	¥ 1,840
11/64SM40	P1	SPPS11H	2.5P	60	13	21	33	5.5	4.5	7	3	3	¥ 1,790
3/16SM28	P2	SPQS12K	2.5P	60	13	21	32	5.5	4.5	7	3	3	¥ 1,790 ※
3/16SM32	P2	SPQS12J	2.5P	60	13	21	32	5.5	4.5	7	3	3	¥ 1,790 ※
7/32SM32	P2	SPQS14J	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,920 ※
15/64SM28	P2	SPQS15K	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,920 ※
1/4SM24	P2	SPQS16M	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,920 ※
1/4SM40	P1	SPPS16H	2.5P	62	8.6	26	33	6	4.5	7	3	5	¥ 2,760 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

SP

Spiral Fluted Taps



Specification

HSS



■Spiral flutes continuously curl the chips and discharge them back toward the shank of the tap. Spiral flute taps are the most suitable for blind hole processing.

Recommended Tapping Speed depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

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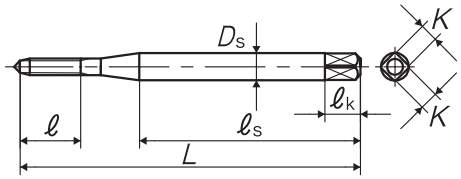

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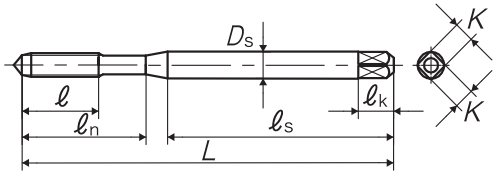

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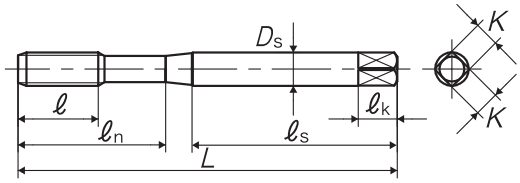

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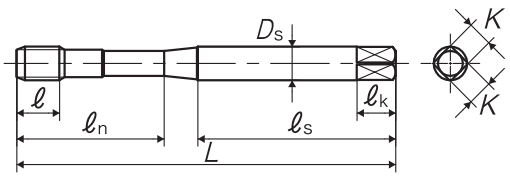

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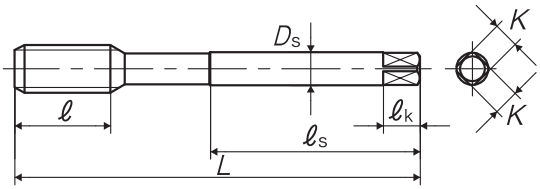

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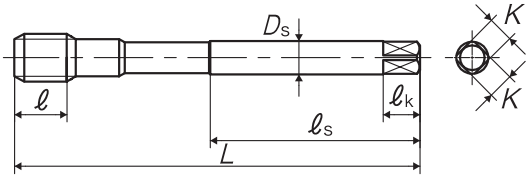

Segment : 1C

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	D3	SS2.0E3NEB	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
M2.2 × 0.45	D3	SS2.2F3NEB	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
M2.5 × 0.45	D3	SS2.5F3NEB	2.5P	2.205	0.354	0.693	1.28	0.141	0.11	0.187	2	2
M2.6 × 0.45	D3	SS2.6F3NEB	2.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
M3 × 0.5	D3	SS3.0G3NEB	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
M3.5 × 0.6	D4	SS3.5H4NEB	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M4 × 0.7	D4	SS4.0I4NEB	2.5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	2
M5 × 0.8	D4	SS5.0K4NEB	2.5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M6 × 1	D5	SS6.0M5NEB	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
M7 × 1	D5	SS7.0M5NEB	2.5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M7 × 0.75	D4	SS7.0J4NEB	2.5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M7 × 0.5	D4	SS7.0G4NEB	2.5P	3.543	0.394	1.339	1.831	0.318	0.238	0.375	3	4
M8 × 1.25	D5	SS8.0N5NEB	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 1	D5	SS8.0M5NEB	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 0.75	D4	SS8.0J4NEB	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 0.5	D4	SS8.0G4NEB	2.5P	3.543	0.394	1.378	1.831	0.318	0.238	0.375	3	4
M9 × 1.25	D5	SS9.0N5NEB	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
M9 × 1	D5	SS9.0M5NEB	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
M10 × 1.5	D6	SS010O6NEB	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 1.25	D5	SS010N5NEB	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 1	D5	SS010M5NEB	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 0.75	D4	SS010J4NEB	2.5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	3	4
M11 × 1.5	D6	SS011O6NEB	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
M12 × 1.75	D6	SS012P6NEB	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M12 × 1.5	D6	SS012O6NEB	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M12 × 1.25	D6	SS012N6NEB	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M12 × 1	D5	SS012M5NEB	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M14 × 2	D7	SS014Q7NEB	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M14 × 1.5	D6	SS014O6NEB	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M14 × 1.25	D6	SS014N6NEB	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M14 × 1	D5	SS014M5NEB	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M16 × 2	D7	SS016Q7NEB	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
M16 × 1.5	D6	SS016O6NEB	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
M16 × 1	D5	SS016M5NEB	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
M18 × 2.5	D7	SS018R7NEB	2.5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	5
M18 × 2	D7	SS018Q7NEB	2.5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	5
M18 × 1.5	D6	SS018O6NEB	2.5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	6
M18 × 1	D5	SS018M5NEB	2.5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	6
M20 × 2.5	D7	SS020R7NEB	2.5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	5
M20 × 2	D7	SS020Q7NEB	2.5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	5
M20 × 1.5	D6	SS020O6NEB	2.5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	6
M20 × 1	D5	SS020M5NEB	2.5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	6
M22 × 2.5	D7	SS022R7NEB	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
M22 × 2	D7	SS022Q7NEB	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
M22 × 1.5	D6	SS022O6NEB	2.5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	6
M22 × 1	D5	SS022M5NEB	2.5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	6
M24 × 3	D8	SS024S8NEB	2.5P	6.299	1.457	-	3.228	0.76	0.57	0.75	4	5
M24 × 2	D7	SS024Q7NEB	2.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 1.5	D6	SS024O6NEB	2.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 1	D5	SS024M5NEB	2.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M25 × 1.5	D6	SS025O6NEB	2.5P	6.299	1.063	-	3.228	0.8	0.6	0.812	4	6
M26 × 1.5	D6	SS026O6NEB	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 3	D8	SS027S8NEB	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
M27 × 2	D7	SS027Q7NEB	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1.5	D6	SS027O6NEB	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M27 × 1	D5	SS027M5NEB	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 2	D7	SS028Q7NEB	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1.5	D6	SS028O6NEB	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1	D5	SS028M5NEB	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M30 × 3.5	D9	SS030T9NEB	2.5P	7.087	1.732	-	3.622	1.021	0.766	1	4	5
M30 × 2	D7	SS030Q7NEB	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1.5	D6	SS030O6NEB	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1	D5	SS030M5NEB	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M32 × 2	D7	SS032Q7NEB	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1.5	D6	SS032O6NEB	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1	D5	SS032M5NEB	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M33 × 3.5	D9	SS033T9NEB	2.5P	7.087	1.732	-	3.622	1.108	0.831	1.062	4	5
M33 × 2	D7	SS033Q7NEB	2.5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1.5	D6	SS033O6NEB	2.5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1	D5	SS033M5NEB	2.5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M36 × 4	D9	SS036U9NEB	2.5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 3	D8	SS036S8NEB	2.5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 2	D7	SS036Q7NEB	2.5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1.5	D6	SS036O6NEB	2.5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1	D5	SS036M5NEB	2.5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M39 × 4	D9	SS039U9NEB	2.5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 3	D8	SS039S8NEB	2.5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 2	D7	SS039Q7NEB	2.5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1.5	D6	SS039O6NEB	2.5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1	D5	SS039M5NEB	2.5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M42 × 4.5	D10	SS042V0NEB	2.5P	7.874	2.047	-	4.016	1.43	1.072	1.25	4	5
M42 × 2	D7	SS042Q7NEB	2.5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1.5	D6	SS042O6NEB	2.5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1	D5	SS042M5NEB	2.5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M45 × 4.5	D10	SS045V0NEB	2.5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 3	D8	SS045S8NEB	2.5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 2	D7	SS045Q7NEB	2.5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1.5	D6	SS045O6NEB	2.5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1	D5	SS045M5NEB	2.5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M48 × 5	D11	SS048W-NEB	2.5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 3	D9	SS048S9NEB	2.5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 2	D7	SS048Q7NEB	2.5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1.5	D7	SS048O7NEB	2.5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1	D6	SS048M6NEB	2.5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
For Unified Threads												
No.2-56UNC	GH1	SSUN2E1NEB	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.2-56UNC	GH2	SSUN2E2NEB	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.2-64UNF	GH1	SSUN2D1NEB	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.2-64UNF	GH2	SSUN2D2NEB	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.3-48UNC	GH1	SSUN3F1NEB	2.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.3-48UNC	GH2	SSUN3F2NEB	2.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.3-56UNF	GH1	SSUN3E1NEB	2.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.3-56UNF	GH2	SSUN3E2NEB	2.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.4-40UNC	GH1	SSUN4H1NEB	2.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.4-40UNC	GH2	SSUN4H2NEB	2.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.4-48UNF	GH1	SSUN4F1NEB	2.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.4-48UNF	GH2	SSUN4F2NEB	2.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.5-40UNC	GH1	SSUN5H1NEB	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-40UNC	GH2	SSUN5H2NEB	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-44UNF	GH1	SSUN5G1NEB	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-44UNF	GH2	SSUN5G2NEB	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.6-32UNC	GH1	SSUN6J1NEB	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH2	SSUN6J2NEB	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH3	SSUN6J3NEB	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH4	SSUN6J4NEB	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-40UNF	GH1	SSUN6H1NEB	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-40UNF	GH2	SSUN6H2NEB	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.8-32UNC	GH2	SSUN8J2NEB	2.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	3	2
No.8-32UNC	GH3	SSUN8J3NEB	2.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	3	2
No.8-36UNF	GH2	SSUN8I2NEB	2.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	3	2
No.8-36UNF	GH3	SSUN8I3NEB	2.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	3	2
No.10-24UNC	GH2	SSUNAM2NEB	2.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	3	2
No.10-24UNC	GH3	SSUNAM3NEB	2.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	3	2
No.10-32UNF	GH2	SSUNAJ2NEB	2.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	3	2
No.10-32UNF	GH3	SSUNAJ3NEB	2.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	3	2
No.12-24UNC	GH2	SSUNCM2NEB	2.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	3	2
No.12-24UNC	GH3	SSUNCM3NEB	2.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	3	2
No.12-28UNF	GH2	SSUNCK2NEB	2.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	3	2
No.12-28UNF	GH3	SSUNCK3NEB	2.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	3	2
1/4-20UNC	GH2	SSU04N2NEB	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-20UNC	GH3	SSU04N3NEB	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	SSU04N5NEB	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-20UNC	GH11	SSU04N-EEB	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH2	SSU04K2NEB	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	SSU04K3NEB	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	SSU04K4NEB	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH11	SSU04K-EEB	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
5/16-18UNC	GH2	SSU05O2NEB	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-18UNC	GH3	SSU05O3NEB	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	SSU05O5NEB	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-18UNC	GH11	SSU05O-EEB	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH2	SSU05M2NEB	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	SSU05M3NEB	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	SSU05M4NEB	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH5	SSU05M5NEB	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH11	SSU05M-EEB	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	SSU06P3NEB	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-16UNC	GH4	SSU06P4NEB	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	SSU06P5NEB	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-16UNC	GH11	SSU06P-EEB	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH2	SSU06M2NEB	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	SSU06M3NEB	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
3/8-24UNF	GH4	SSU06M4NEB	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH11	SSU06M-EEB	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	SSU07Q3NEB	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-14UNC	GH4	SSU07Q4NEB	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-14UNC	GH5	SSU07Q5NEB	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-20UNF	GH2	SSU07N2NEB	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-20UNF	GH3	SSU07N3NEB	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-20UNF	GH5	SSU07N5NEB	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
1/2-13UNC	GH3	SSU08R3NEB	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-13UNC	GH4	SSU08R4NEB	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-13UNC	GH5	SSU08R5NEB	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-13UNC	GH11	SSU08R-EEB	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH2	SSU08N2NEB	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH3	SSU08N3NEB	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH5	SSU08N5NEB	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH11	SSU08N-EEB	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
9/16-12UNC	GH3	SSU09S3NEB	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-12UNC	GH4	SSU09S4NEB	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-12UNC	GH5	SSU09S5NEB	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-18UNF	GH3	SSU09O3NEB	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-18UNF	GH4	SSU09O4NEB	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-18UNF	GH5	SSU09O5NEB	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
5/8-11UNC	GH3	SSU10U3NEB	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-11UNC	GH4	SSU10U4NEB	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-11UNC	GH5	SSU10U5NEB	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-11UNC	GH11	SSU10U-EEB	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-18UNF	GH3	SSU10O3NEB	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-18UNF	GH4	SSU10O4NEB	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-18UNF	GH5	SSU10O5NEB	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-18UNF	GH11	SSU10O-EEB	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
3/4-10UNC	GH3	SSU12V3NEB	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH5	SSU12V5NEB	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH11	SSU12V-EEB	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH3	SSU12P3NEB	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH4	SSU12P4NEB	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH5	SSU12P5NEB	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH11	SSU12P-EEB	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
7/8-9UNC	GH4	SSU14W4NEB	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-9UNC	GH5	SSU14W5NEB	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-9UNC	GH6	SSU14W6NEB	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH3	SSU14Q3NEB	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH4	SSU14Q4NEB	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH6	SSU14Q6NEB	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
1 -8UNC	GH4	SSU16X4NEB	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH5	SSU16X5NEB	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH6	SSU16X6NEB	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH3	SSU16S3NEB	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH4	SSU16S4NEB	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH5	SSU16S5NEB	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
1 -12UNF	GH6	SSU16S6NEB	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 1/8-7UNC	GH4	SSU18Y4NEB	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-7UNC	GH6	SSU18Y6NEB	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH4	SSU18S4NEB	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH5	SSU18S5NEB	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/4-7UNC	GH4	SSU20Y4NEB	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-7UNC	GH6	SSU20Y6NEB	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-12UNF	GH4	SSU20S4NEB	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-12UNF	GH5	SSU20S5NEB	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 3/8-6UNC	GH5	SSU22Z5NEB	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-6UNC	GH6	SSU22Z6NEB	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-12UNF	GH4	SSU22S4NEB	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-12UNF	GH5	SSU22S5NEB	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 1/2-6UNC	GH5	SSU24Z5NEB	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-6UNC	GH6	SSU24Z6NEB	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-12UNF	GH4	SSU24S4NEB	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-12UNF	GH5	SSU24S5NEB	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5

Think threads with YAMAWA

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Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

SP

Spiral Fluted Taps



Specification

HSS

■Spiral flutes continuously curl the chips and discharge them back toward the shank of the tap. Spiral flute taps are the most suitable for blind hole processing.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

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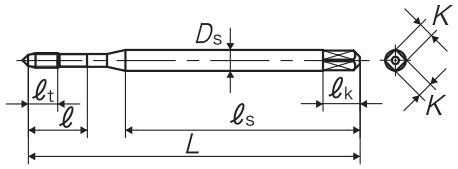

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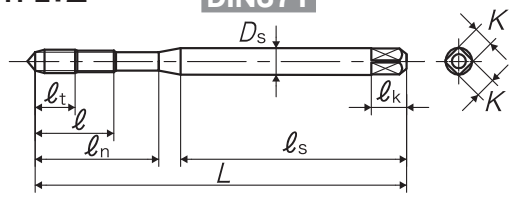

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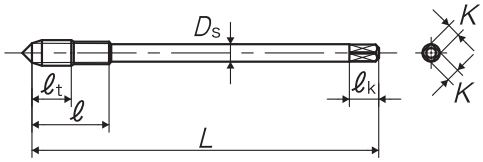

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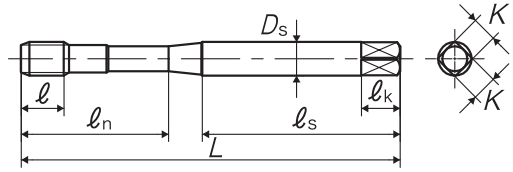

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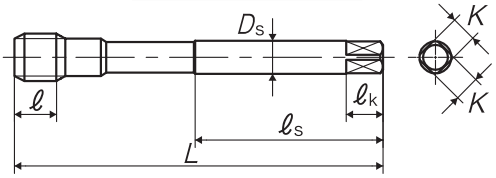

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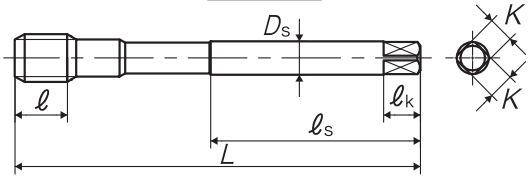

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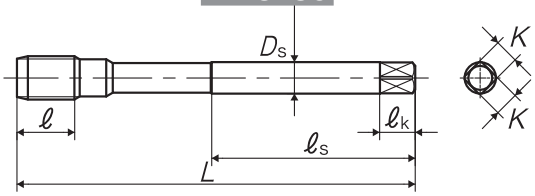

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Segment : 1D (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads													
M2 × 0.4	ISO2	SD2.0EANEB	2.5P	45	4	8	-	32	2.8	2.1	5	2	1
M2.2 × 0.45	ISO2	SD2.2FANEB	2.5P	45	4	9	-	32	2.8	2.1	5	2	1
M2.5 × 0.45	ISO2	SD2.5FANEB	2.5P	50	4	8	15	33	2.8	2.1	5	2	2
M2.6 × 0.45	ISO2	SD2.6FANEB	2.5P	50	4	8	15	33	2.8	2.1	5	2	2
M3 × 0.5	ISO2	SD3.0GANEB	2.5P	56	5	9	18	34	3.5	2.7	6	3	2
M3 × 0.5	ISO3	SD3.0GMNEB	2.5P	56	5	9	18	34	3.5	2.7	6	3	2
M3.5 × 0.6	ISO2	SD3.5HANEB	2.5P	56	7	11	20	32	4	3	6	3	2
M4 × 0.7	ISO2	SD4.0IANEB	2.5P	63	7	13	21	38	4.5	3.4	6	3	2
M4 × 0.7	ISO2	SG4.0IANEB	2.5P	63	7	13	-	-	2.8	2.1	5	3	3
M4 × 0.7	ISO3	SD4.0IMNEB	2.5P	63	7	13	21	38	4.5	3.4	6	3	2
M5 × 0.8	ISO2	SD5.0KANEB	2.5P	70	9	14	25	39	6	4.9	8	3	2
M5 × 0.8	ISO2	SG5.0KANEB	2.5P	70	9	14	-	-	3.5	2.7	6	3	3
M5 × 0.8	ISO3	SD5.0KMNEB	2.5P	70	9	14	25	39	6	4.9	8	3	2
M6 × 1	ISO2	SD6.0MANEB	2.5P	80	11	15	30	45	6	4.9	8	3	2
M6 × 1	ISO2	SG6.0MANEB	2.5P	80	11	15	-	-	4.5	3.4	6	3	3
M6 × 1	ISO3	SD6.0MMNEB	2.5P	80	11	15	30	45	6	4.9	8	3	2
M7 × 1	ISO2	SD7.0MANEB	2.5P	80	-	11	30	45	7	5.5	8	3	4
M7 × 0.75	ISO2	SM7.0JANEB	2.5P	80	-	8	-	41	5.5	4.3	7	3	5
M7 × 0.5	ISO2	SM7.0GANEB	2.5P	80	-	8	-	41	5.5	4.3	7	3	5
M8 × 1.25	ISO2	SD8.0NANEB	2.5P	90	-	12	35	47	8	6.2	9	3	4
M8 × 1.25	ISO2	SG8.0NANEB	2.5P	90	-	12	-	46	6	4.9	8	3	5
M8 × 1.25	ISO3	SD8.0NMNEB	2.5P	90	-	12	35	47	8	6.2	9	3	4
M8 × 1	ISO2	SM8.0MANEB	2.5P	90	-	12	-	46	6	4.9	8	3	5
M8 × 0.75	ISO2	SM8.0JANEB	2.5P	80	-	12	-	41	6	4.9	8	3	5
M8 × 0.5	ISO2	SM8.0GANEB	2.5P	80	-	12	-	41	6	4.9	8	3	5
M9 × 1.25	ISO2	SG9.0NANEB	2.5P	90	-	12	-	46	7	5.5	8	3	5
M9 × 1.25	ISO2	SD9.0NANEB	2.5P	90	-	12	35	48	9	7	10	3	4
M9 × 1.25	ISO3	SD9.0NMNEB	2.5P	90	-	12	35	48	9	7	10	3	4
M9 × 1	ISO2	SM9.0MANEB	2.5P	90	-	12	-	46	7	5.5	8	3	5
M10 × 1.5	ISO2	SD0100ANEB	2.5P	100	-	13	39	52.5	10	8	11	3	4
M10 × 1.5	ISO2	SG0100ANEB	2.5P	100	-	13	-	51	7	5.5	8	3	5
M10 × 1.5	ISO3	SD0100MNEB	2.5P	100	-	13	39	52.5	10	8	11	3	4
M10 × 1.25	ISO2	SM010NANEB	2.5P	100	-	13	-	51	7	5.5	8	3	5
M10 × 1	ISO2	SM010MANEB	2.5P	90	-	13	-	46	7	5.5	8	3	5
M10 × 0.75	ISO2	SM010JANEB	2.5P	90	-	13	-	46	7	5.5	8	3	5
M11 × 1.5	ISO2	SG011OANEB	2.5P	100	-	13	-	51	8	6.2	9	3	5
M11 × 1.5	ISO2	SM011OANEB	2.5P	100	-	13	-	51	8	6.2	9	3	5
M12 × 1.75	ISO2	SG012PANEB	2.5P	110	-	15	-	56	9	7	10	3	6
M12 × 1.75	ISO3	SG012PMNEB	2.5P	110	-	15	-	56	9	7	10	3	6
M12 × 1.5	ISO2	SM012OANEB	2.5P	100	-	15	-	51	9	7	10	3	5
M12 × 1.25	ISO2	SM012NANEB	2.5P	100	-	15	-	51	9	7	10	3	5
M12 × 1	ISO2	SM012MANEB	2.5P	100	-	15	-	51	9	7	10	3	5
M14 × 2	ISO2	SG014QANEB	2.5P	110	-	18	-	56	11	9	12	3	6
M14 × 2	ISO3	SG014QMNEB	2.5P	110	-	18	-	56	11	9	12	3	6
M14 × 1.5	ISO2	SM014OANEB	2.5P	100	-	14	-	51	11	9	12	3	5
M14 × 1.25	ISO2	SM014NANEB	2.5P	100	-	14	-	51	11	9	12	3	5
M14 × 1	ISO2	SM014MANEB	2.5P	100	-	14	-	51	11	9	12	3	5
M16 × 2	ISO2	SG016QANEB	2.5P	110	-	18	-	56	12	9	12	3	6
M16 × 2	ISO3	SG016QMNEB	2.5P	110	-	18	-	56	12	9	12	3	6

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M16 × 1.5	ISO2	SM0160ANEB	2.5P	100	-	14	-	51	12	9	12	3	5
M16 × 1	ISO2	SM016MANEB	2.5P	100	-	14	-	51	12	9	12	3	5
M18 × 2.5	ISO2	SG018RANEB	2.5P	125	-	20	-	64	14	11	14	4	6
M18 × 2	ISO2	SM018QANEB	2.5P	125	-	18	-	64	14	11	14	4	5
M18 × 1.5	ISO2	SM0180ANEB	2.5P	110	-	14	-	56	14	11	14	4	5
M18 × 1	ISO2	SM018MANEB	2.5P	110	-	14	-	56	14	11	14	4	5
M20 × 2.5	ISO2	SG020RANEB	2.5P	140	-	20	-	71	16	12	15	4	6
M20 × 2	ISO2	SM020QANEB	2.5P	140	-	18	-	71	16	12	15	4	5
M20 × 1.5	ISO2	SM0200ANEB	2.5P	125	-	14	-	64	16	12	15	4	5
M20 × 1	ISO2	SM020MANEB	2.5P	125	-	14	-	64	16	12	15	4	5
M22 × 2.5	ISO2	SG022RANEB	2.5P	140	-	20	-	71	18	14.5	17	4	6
M22 × 2	ISO2	SM022QANEB	2.5P	140	-	18	-	71	18	14.5	17	4	5
M22 × 1.5	ISO2	SM0220ANEB	2.5P	125	-	14	-	64	18	14.5	17	4	5
M22 × 1	ISO2	SM022MANEB	2.5P	125	-	14	-	64	18	14.5	17	4	5
M24 × 3	ISO2	SG024SANEB	2.5P	160	-	25	-	82	18	14.5	17	4	6
M24 × 2	ISO2	SM024QANEB	2.5P	140	-	18	-	71	18	14.5	17	4	5
M24 × 1.5	ISO2	SM0240ANEB	2.5P	140	-	18	-	71	18	14.5	17	4	5
M24 × 1	ISO2	SM024MANEB	2.5P	140	-	18	-	71	18	14.5	17	4	5
M25 × 1.5	ISO2	SM0250ANEB	2.5P	140	-	18	-	71	18	14.5	17	4	5
M26 × 1.5	ISO2	SM0260ANEB	2.5P	140	-	18	-	71	18	14.5	17	4	5
M27 × 3	ISO2	SG027SANEB	2.5P	160	-	25	-	82	20	16	19	4	6
M27 × 2	ISO2	SM027QANEB	2.5P	140	-	20	-	71	20	16	19	4	5
M27 × 1.5	ISO2	SM0270ANEB	2.5P	140	-	20	-	71	20	16	19	4	5
M27 × 1	ISO2	SM027MANEB	2.5P	140	-	20	-	71	20	16	19	4	5
M28 × 2	ISO2	SM028QANEB	2.5P	140	-	20	-	71	20	16	19	4	5
M28 × 1.5	ISO2	SM0280ANEB	2.5P	140	-	20	-	71	20	16	19	4	5
M28 × 1	ISO2	SM028MANEB	2.5P	140	-	20	-	71	20	16	19	4	5
M30 × 3.5	ISO2	SG030TANEB	2.5P	180	-	30	-	92	22	18	21	4	6
M30 × 2	ISO2	SM030QANEB	2.5P	150	-	20	-	77	22	18	21	4	5
M30 × 1.5	ISO2	SM0300ANEB	2.5P	150	-	20	-	77	22	18	21	4	5
M30 × 1	ISO2	SM030MANEB	2.5P	150	-	20	-	77	22	18	21	4	5
M32 × 2	ISO2	SM032QANEB	2.5P	150	-	20	-	77	22	18	21	4	5
M32 × 1.5	ISO2	SM0320ANEB	2.5P	150	-	20	-	77	22	18	21	4	5
M32 × 1	ISO2	SM032MANEB	2.5P	150	-	20	-	77	22	18	21	4	5
M33 × 3.5	ISO2	SG033TANEB	2.5P	180	-	30	-	92	25	20	23	4	6
M33 × 2	ISO2	SM033QANEB	2.5P	160	-	20	-	82	25	20	23	4	5
M33 × 1.5	ISO2	SM0330ANEB	2.5P	160	-	20	-	82	25	20	23	4	5
M33 × 1	ISO2	SM033MANEB	2.5P	160	-	20	-	82	25	20	23	4	5
M36 × 4	ISO2	SG036UANEB	2.5P	200	-	40	-	102	28	22	25	4	6
M36 × 3	ISO2	SM036SANEB	2.5P	200	-	30	-	102	28	22	25	4	5
M36 × 2	ISO2	SM036QANEB	2.5P	170	-	20	-	87	28	22	25	4	5
M36 × 1.5	ISO2	SM0360ANEB	2.5P	170	-	20	-	87	28	22	25	4	5
M36 × 1	ISO2	SM036MANEB	2.5P	170	-	20	-	87	28	22	25	4	5
M39 × 4	ISO2	SG039UANEB	2.5P	200	-	40	-	102	32	24	27	4	6
M39 × 2	ISO2	SM039QANEB	2.5P	170	-	20	-	87	32	24	27	4	5
M39 × 1.5	ISO2	SM0390ANEB	2.5P	170	-	20	-	87	32	24	27	4	5
M39 × 1	ISO2	SM039MANEB	2.5P	170	-	20	-	87	32	24	27	4	5
M42 × 4.5	ISO2	SG042VANEB	2.5P	200	-	40	-	102	32	24	27	4	6
M42 × 2	ISO2	SM042QANEB	2.5P	170	-	20	-	87	32	24	27	4	5
M42 × 1.5	ISO2	SM0420ANEB	2.5P	170	-	20	-	87	32	24	27	4	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M42 × 1	ISO2	SM042MANEB	2.5P	170	-	20	-	87	32	24	27	4	5
M45 × 4.5	ISO2	SG045VANEB	2.5P	220	-	45	-	112	36	29	32	4	6
M45 × 3	ISO2	SM045SANEB	2.5P	200	-	40	-	102	36	29	32	4	5
M45 × 2	ISO2	SM045QANEB	2.5P	180	-	25	-	92	36	29	32	4	5
M45 × 1.5	ISO2	SM045OANEB	2.5P	180	-	25	-	92	36	29	32	4	5
M45 × 1	ISO2	SM045MANEB	2.5P	180	-	25	-	92	36	29	32	4	5
M48 × 5	ISO2	SG048WANEB	2.5P	250	-	45	-	128	36	29	32	4	6
M48 × 3	ISO2	SM048SANEB	2.5P	225	-	40	-	115	36	29	32	4	5
M48 × 2	ISO2	SM048QANEB	2.5P	190	-	25	-	97	36	29	32	4	5
M48 × 1.5	ISO2	SM048OANEB	2.5P	190	-	25	-	97	36	29	32	4	5
M48 × 1	ISO2	SM048MANEB	2.5P	190	-	25	-	97	36	29	32	4	5
For Unified Threads													
No.4-40UNC	2B	SDUN4HXNEB	2.5P	56	11	5	18	34	3.5	2.7	6	2	2
No.4-48UNF	2B	SDUN4FXNEB	2.5P	56	11	5	18	34	3.5	2.7	6	2	2
No.5-40UNC	2B	SDUN5HXNEB	2.5P	56	5	11	18	34	3.5	2.7	6	2	2
No.5-44UNF	2B	SDUN5GXNEB	2.5P	56	5	11	18	34	3.5	2.7	6	2	2
No.6-32UNC	2B	SDUN6JXNEB	2.5P	56	7	11	19	32	4	3	6	3	2
No.6-40UNF	2B	SDUN6HXNEB	2.5P	56	7	11	19	32	4	3	6	3	2
No.8-32UNC	2B	SDUN8JXNEB	2.5P	63	7	13	21	38	4.5	3.4	6	3	2
No.8-36UNF	2B	SDUN8IXNEB	2.5P	63	7	13	21	38	4.5	3.4	6	3	2
No.10-24UNC	2B	SDUNAMXNEB	2.5P	70	9	14	24	39	6	4.9	8	3	2
No.10-32UNF	2B	SDUNAJXNEB	2.5P	70	9	14	24	39	6	4.9	8	3	2
No.12-24UNC	2B	SDUNCMXNEB	2.5P	80	9	15	28	45	6	4.9	8	3	2
No.12-28UNF	2B	SDUNCKXNEB	2.5P	80	9	15	28	45	6	4.9	8	3	2
1/4-20UNC	2B	SDU04NXNEB	2.5P	80	11	15	30	42	7	5.5	8	3	2
1/4-28UNF	2B	SDU04KXNEB	2.5P	80	11	15	30	42	7	5.5	8	3	2
5/16-18UNC	2B	SDU05OXNEB	2.5P	90	-	12	35	47	8	6.2	9	3	4
5/16-24UNF	2B	SMU05MXNEB	2.5P	90	-	12	-	46	6	4.9	8	3	5
3/8-16UNC	2B	SDU06PXNEB	2.5P	100	-	13	39	54.5	9	7	10	3	4
3/8-24UNF	2B	SMU06MXNEB	2.5P	100	-	13	-	51	7	5.5	8	3	5
7/16-14UNC	2B	SGU07QXNEB	2.5P	100	-	13	-	51	8	6.2	9	3	6
7/16-20UNF	2B	SMU07NXNEB	2.5P	100	-	13	-	51	8	6.2	9	3	5
1/2-13UNC	2B	SGU08RXNEB	2.5P	110	-	15	-	56	9	7	10	3	6
1/2-20UNF	2B	SMU08NXNEB	2.5P	100	-	15	-	51	9	7	10	3	5
9/16-12UNC	2B	SGU09SXNEB	2.5P	110	-	18	-	56	11	9	12	3	6
9/16-18UNF	2B	SMU09OXNEB	2.5P	100	-	14	-	51	11	9	12	3	5
5/8-11UNC	2B	SGU10UXNEB	2.5P	110	-	18	-	56	12	9	12	3	6
5/8-18UNF	2B	SMU10OXNEB	2.5P	100	-	14	-	51	12	9	12	3	5
3/4-10UNC	2B	SGU12VXNEB	2.5P	125	-	20	-	64	14	11	14	4	6
3/4-16UNF	2B	SMU12PXNEB	2.5P	110	-	14	-	56	14	11	14	4	5
7/8-9UNC	2B	SGU14WXNEB	2.5P	140	-	20	-	71	18	14.5	17	4	6
7/8-14UNF	2B	SMU14QXNEB	2.5P	125	-	20	-	64	18	14.5	17	4	5
1 -8UNC	2B	SGU16XXNEB	2.5P	160	-	25	-	82	18	14.5	17	4	6
1 -12UNF	2B	SMU16SXNEB	2.5P	140	-	18	-	71	18	14.5	17	4	5
1 1/8-7UNC	2B	SGU18YXNEB	2.5P	180	-	30	-	92	22	18	21	4	6
1 1/8-12UNF	2B	SMU18SXNEB	2.5P	150	-	20	-	77	22	18	21	4	5
1 1/4-7UNC	2B	SGU20YXNEB	2.5P	180	-	30	-	92	22	18	21	4	6
1 1/4-12UNF	2B	SMU20SXNEB	2.5P	150	-	20	-	77	22	18	21	4	5

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

SP Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
1 3/8-6UNC	2B	SGU22ZXNEB	2.5P	200	-	40	-	102	28	22	25	4	6
1 3/8-12UNF	2B	SMU22SXNEB	2.5P	170	-	20	-	87	28	20	23	4	5
1 1/2-6UNC	2B	SGU24ZXNEB	2.5P	200	-	40	-	102	32	24	27	4	6
1 1/2-12UNF	2B	SMU24SXNEB	2.5P	170	-	20	-	87	32	24	27	4	5
1 3/4-5UNC	2B	SGU280XNEB	2.5P	220	-	45	-	112	36	29	32	4	6
1 3/4-12UN	2B	SMU28SXNEB	2.5P	180	-	20	-	92	36	29	32	4	5
For G Threads													
G 1/16-28	-	SVG0010NEB	2.5P	90	-	12	-	46	6	4.9	8	3	7
G 1/8-28	-	SVG0020NEB	2.5P	90	-	12	-	46	7	5.5	8	3	7
G 1/4-19	-	SVG0040NEB	2.5P	100	-	14	-	51	11	9	12	3	7
G 3/8-19	-	SVG0060NEB	2.5P	100	-	14	-	51	12	9	12	3	7
G 1/2-14	-	SVG0080NEB	2.5P	125	-	18	-	64	16	12	15	4	7
G 3/4-14	-	SVG0120NEB	2.5P	140	-	20	-	71	20	16	19	4	7
G 7/8-14	-	SVG0140NEB	2.5P	150	-	20	-	77	22	18	21	4	7
G 1-11	-	SVG0160NEB	2.5P	160	-	20	-	82	25	20	23	4	7
G 1 1/8-11	-	SVG0180NEB	2.5P	170	-	20	-	87	28	22	25	4	7
G 1 1/4-11	-	SVG0200NEB	2.5P	170	-	20	-	87	32	24	27	4	7
G 1 1/2-11	-	SVG0240NEB	2.5P	190	-	25	-	97	36	29	32	4	7

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

+SP

Plus Series Spiral Fluted Taps



Specification

HSS

■The +SP is a spiral flute tap for tapping blind holes. It is most suitable for the synchronous feed of CNC machining centers in the middle to high speed range.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
10~15 (m/min)	10~15 (m/min)

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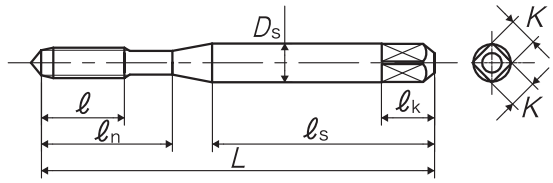

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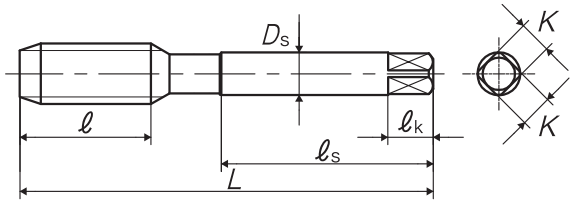

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P1	SNPP2.0E	2.5P	42	7.2	12	27	3	2.5	5	2	1	¥ 2,350
M2.2 × 0.45	P1	SNPP2.2F	2.5P	42	8.1	12	27	3	2.5	5	2	1	¥ 2,140
M2.3 × 0.4	P1	SNPP2.3E	2.5P	42	7.2	12	27	3	2.5	5	2	1	¥ 2,140
M2.5 × 0.45	P1	SNPP2.5F	2.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 1,800
M2.6 × 0.45	P1	SNPP2.6F	2.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 1,800
M3 × 0.5	P1	SNPP3.0G	2.5P	46	9	14	26	4	3.2	6	3	1	¥ 1,260
M3.5 × 0.6	P1	SNPP3.5H	2.5P	52	11	16	29	5	4	7	3	1	¥ 1,260
M4 × 0.7	P2	SNPQ4.0I	2.5P	52	11	17	29	5	4	7	3	1	¥ 1,260
M5 × 0.8	P2	SNPQ5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,270
M6 × 1	P2	SNPQ6.0M	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,400
M8 × 1.25	P2	SNPQ8.0N	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 1,920
M10 × 1.5	P2	SNPQ010O	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,440
M10 × 1.25	P2	SNPQ010N	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,440
M12 × 1.75	P2	SNPQ012P	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,460
M12 × 1.25	P2	SNPQ012N	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,460

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

SP 1.5P

Spiral Fluted Taps 1.5P



Specification

HSS 1.5

■The SP 1.5P has a shorter cutting chamfer than usual and there is no convex center at the end. This makes it the best spiral flute tap for machining a blind hole that does not have the pilot hole length for processing the thread length.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

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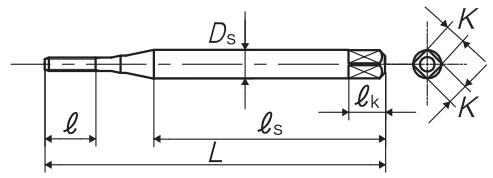

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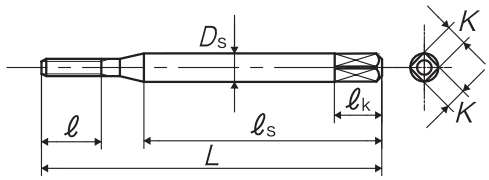

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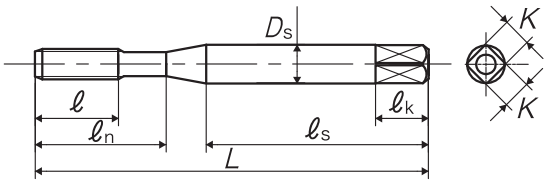

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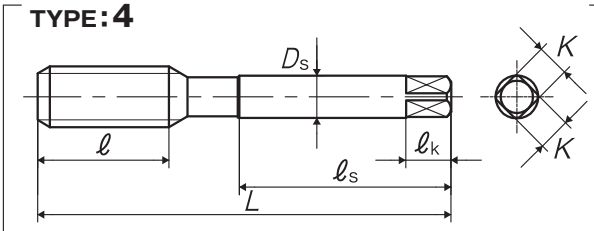


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M1.2 × 0.25	P1	SY1.2BPNEBA	1.5P	36	4.5	-	24	3	2.5	5	2	1	¥ 3,770 ※
M1.4 × 0.3	P1	SY1.4CPNEBA	1.5P	36	5.4	-	24	3	2.5	5	2	1	¥ 3,080 ※
M1.6 × 0.35	P1	SY1.6DPNEBA	1.5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940
M1.7 × 0.35	P1	SY1.7DPNEBA	1.5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940 ※
M1.8 × 0.35	P1	SY1.8DPNEBA	1.5P	42	6.3	-	27	3	2.5	5	2	2	¥ 2,940 ※
M2 × 0.4	P1	SY2.0EPNEBA	1.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,350
M2.3 × 0.4	P1	SY2.3EPNEBA	1.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,140 ※
M2.5 × 0.45	P1	SY2.5FPNEBA	1.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,800 ※
M2.6 × 0.45	P1	SY2.6FPNEBA	1.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,800 ※
M3 × 0.5	P1	SY3.0GPNEBA	1.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,260
M3.5 × 0.6	P1	SY3.5HPNEBA	1.5P	52	11	16	29	5	4	7	3	3	¥ 1,260 ※
M4 × 0.7	P2	SY4.0IQNEBA	1.5P	52	11	17	29	5	4	7	3	3	¥ 1,260
M5 × 0.8	P2	SY5.0KQNEBA	1.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,270
M6 × 1	P2	SY6.0MQNEBA	1.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,400
M8 × 1.25	P2	SY8.0NQNEBA	1.5P	70	19	-	36	6.2	5	8	3	4	¥ 1,920
M8 × 1	P2	SY8.0MQNEBA	1.5P	70	19	-	36	6.2	5	8	3	4	¥ 2,180 ※
M10 × 1.5	P2	SY010OQNEBA	1.5P	75	23	-	38	7	5.5	8	3	4	¥ 2,440

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP 1.5P Spiral Fluted Taps 1.5P

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M10 × 1.25	P2	SY010NQNEBA	1.5P	75	23	-	38	7	5.5	8	3	4	¥ 2,440 ※
M10 × 1	P2	SY010MQNEBA	1.5P	75	23	-	38	7	5.5	8	3	4	¥ 2,900 ※
M12 × 1.75	P2	SY012PQNEBA	1.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,460
M12 × 1.5	P2	SY012OQNEBA	1.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,460 ※
M12 × 1.25	P2	SY012NQNEBA	1.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,460 ※
M12 × 1	P2	SY012MQNEBA	1.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 4,070 ※
M14 × 2	P2	SY014QQNEBA	1.5P	88	26	-	45	10.5	8	11	3	4	¥ 4,720 ※
M14 × 1.5	P2	SY014OQNEBA	1.5P	88	26	-	45	10.5	8	11	3	4	¥ 4,720 ※
M16 × 2	P2	SY016QQNEBA	1.5P	95	26	-	48	12.5	10	13	3	4	¥ 6,310 ※
M16 × 1.5	P2	SY016OQNEBA	1.5P	95	26	-	48	12.5	10	13	3	4	¥ 6,310 ※

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

ISP



Spiral Fluted Taps for General Purpose

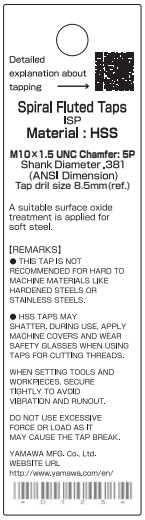
Specification

HSS | OX Oxide | <2D

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼 ~5 (m/min)





Blister Pack

Product Features

- The IPS is for a blind hole and mainly used for low speed machining on a drilling machine.
- Use the IPS for tapping iron products like SPC and SS400 where there are a small quantities of threads.
- The ISP has an ideal oxidation surface treatment for tapping iron materials.
- The ISP is ideal for small quantity tapping components such as prototype non-production parts.
- The ISP has spiral flutes to discharge the chips back out of the hole.
- Please use the ISP for tapping of blind holes.



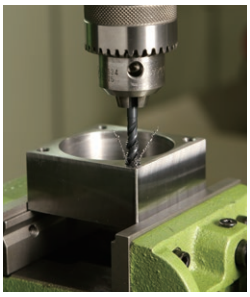
Chips from a tapped hole.

How to Use

- First create the workpiece bore diameter with a drill that matches the screw thread size minor diameter, and then start the tapping.
- Please use a cutting speed of 5 m/min or less.
- When tapping, please use a cutting oil.



Hand tapping using a tap handle.



Machining with a drilling machine.

■Thread bored hole diameter table.

Unit: mm

Thread Size	Internal Thread Diameter			Drill Diameter	Percentage of Thread
	Minimum Allowable Bored Hole.	Maximum Allowable Bored Hole.			
		6H (Level 2)	7H (Level 3)		
M3 × 0.5	2.459	2.599	2.639	2.6 (2.5)	74% (92%)
M4 × 0.7	3.242	3.422	3.466	3.4 (3.3)	79% (92%)
M5 × 0.8	4.134	4.344	4.384	4.3 (4.2)	81% (92%)
M6 × 1	4.917	5.153	5.217	5.1 (5.0)	83% (92%)
M8 × 1.25	6.647	6.912	6.982	6.9 (6.8)	91% (89%)
M10 × 1.5	8.376	8.676	8.751	8.6 (8.5)	86% (92%)

Note 1) Recommended bored hole size in this table is for 7H (3rd grade) internal thread, selected from commercially available standard drills.
Note 2) The size of the drill in parentheses is used for cases where the drill cutting oversize is too large or for 6H (2nd grade) internal thread processing.

[Related Products]

Shank Adjuster

- Use the shank adjuster when tapping into deep holes.
- The I series (IHT / ISP / IPO) can be detached from the shank adjuster with one touch.

・For details on shank adjusters,refer to ⑦-77.

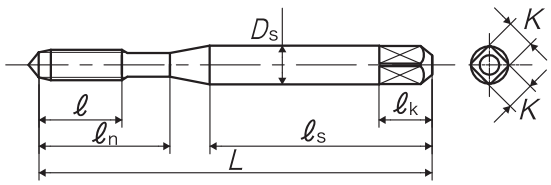


Think threads with YAMAWA

You can also see it from the video site on the right.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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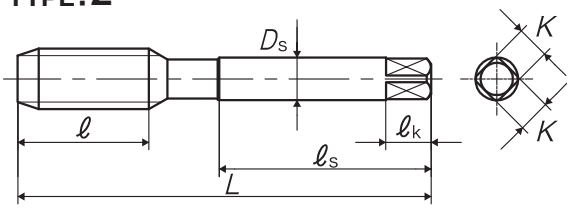

Blister Pack

Segment : 1C

Size	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads												
M3 × 0.5	SI73.0GBP	2.5P	46	9	14	26	4	3.2	6	3	1	¥ 795
M4 × 0.7	SI74.0IBP	2.5P	52	11	17	29	5	4	7	3	1	¥ 825
M5 × 0.8	SI75.0KBP	2.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 835
M6 × 1	SI76.0MBP	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 880
M8 × 1.25	SI78.0NBP	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 1,330
M10 × 1.5	SI70100BP	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 1,670

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ISP

Spiral Fluted Taps for General Purpose



Specification

HSS | OX Oxide | <2D

■Suitable for low speed tapping of steels.
For manual use and drilling machine use.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼 ~5 (m/min)

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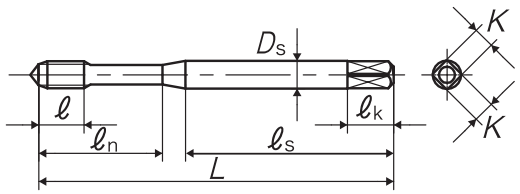

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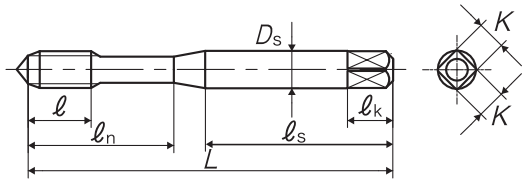

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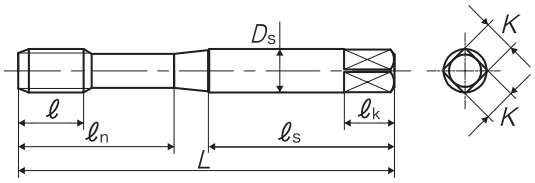

Segment : 1C

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
No.6-32UNC	-	UAUN6JXHEX	2.5P	2	0.374	0.669	1.201	0.141	0.11	0.187	3	1
No.8-32UNC	-	UAUN8JXHEX	2.5P	2.125	0.374	0.866	1.339	0.168	0.131	0.25	3	1
No.10-24UNC	-	UAUNAMXHEX	2.5P	2.375	0.512	0.866	1.339	0.194	0.152	0.25	3	1
1/4-20UNC	-	UAU04NXHEX	2.5P	2.5	0.591	1.024	1.22	0.255	0.191	0.312	3	2
5/16-18UNC	-	UAU05OXHEX	2.5P	2.718	0.669	1.004	1.378	0.318	0.238	0.375	3	3
3/8-16UNC	-	UAU06PXHEX	2.5P	2.937	0.748	1.059	1.496	0.381	0.286	0.437	3	3
For Unified Threads (In blister package)												
No.6-32UNC	-	UAUN6JXHEXR	2.5P	2	0.374	0.669	1.201	0.141	0.11	0.187	3	1
No.8-32UNC	-	UAUN8JXHEXR	2.5P	2.125	0.374	0.866	1.339	0.168	0.131	0.25	3	1
No.10-24UNC	-	UAUNAMXHEXR	2.5P	2.375	0.512	0.866	1.339	0.194	0.152	0.25	3	1
1/4-20UNC	-	UAU04NXHEXR	2.5P	2.5	0.591	1.024	1.22	0.255	0.191	0.312	3	2
5/16-18UNC	-	UAU05OXHEXR	2.5P	2.718	0.669	1.004	1.378	0.318	0.238	0.375	3	3
3/8-16UNC	-	UAU06PXHEXR	2.5P	2.937	0.748	1.059	1.496	0.381	0.286	0.437	3	3

Blister Package



Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

SP OX

Spiral Fluted Taps, Oxidized



Specification

HSS | OX Oxide



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

■The SP OX is a spiral flute tap for blind hole tapping. These taps have an applied oxidation treatment to prevent chip welding on the surface of the taps threaded portion. They are suitable for thread processing of soft steel materials where the chips easily weld to the tap like low carbon.

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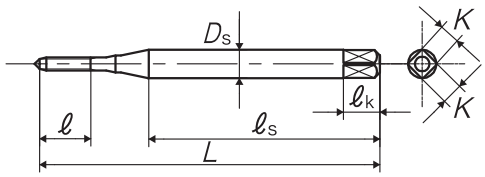

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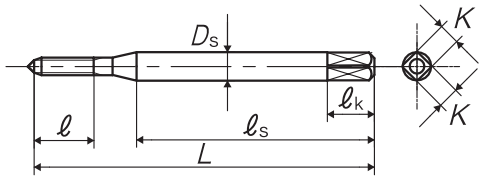

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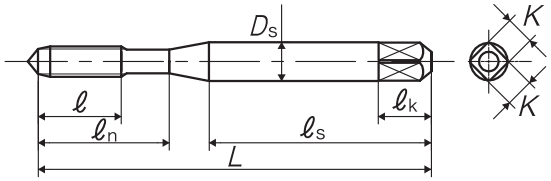

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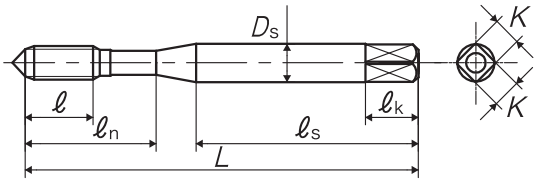

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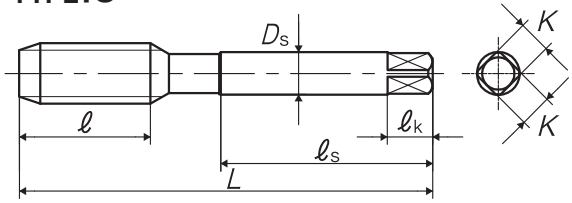

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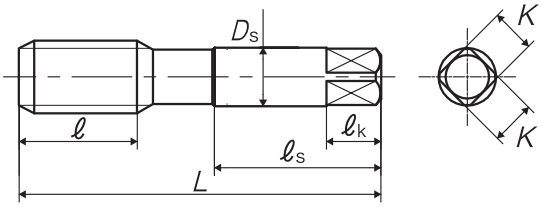

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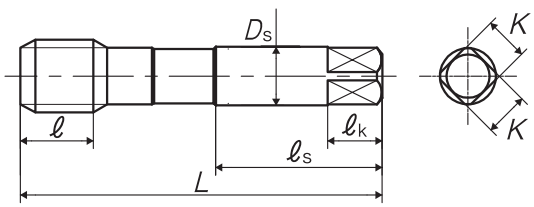

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP OX Spiral Fluted Taps, Oxidized

Oversize

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M1.4 × 0.3	P1	SPP1.4CX	2.5P	36	5.4	-	24	3	2.5	5	2	1	¥ 3,390 ※
M1.6 × 0.35	P1	SPP1.6DX	2.5P	36	6.3	-	24	3	2.5	5	2	2	¥ 3,240 ※
M1.7 × 0.35	P1	SPP1.7DX	2.5P	36	6.3	-	24	3	2.5	5	2	2	¥ 3,240 ※
M2 × 0.4	P1	SPP2.0EX	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,590 ※
M2.5 × 0.45	P1	SPP2.5FX	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,980 ※
M2.6 × 0.45	P1	SPP2.6FX	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,980 ※
M3 × 0.5	P1	SPP3.0GX	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,390
M3 × 0.5	P2	SPQ3.0GX	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,390 ※
M3 × 0.5	P3	SPR3.0GX	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,390 ※
3M0.6	P1	SPP3.0HX	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,390 ※
M3.5 × 0.6	P1	SPP3.5HX	2.5P	52	11	16	29	5	4	7	3	3	¥ 1,390 ※
M4 × 0.7	P2	SPQ4.0IX	2.5P	52	11	17	29	5	4	7	3	3	¥ 1,390
M4 × 0.7	P3	SPR4.0IX	2.5P	52	11	17	29	5	4	7	3	3	¥ 1,390 ※
M4 × 0.5	P1	SPP4.0GX	2.5P	52	9	17	29	5	4	7	3	4	¥ 2,040 ※
M4.5 × 0.5	P1	SPP4.5GX	2.5P	60	9	21	33	5.5	4.5	7	3	4	¥ 2,040 ※
M5 × 0.8	P2	SPQ5.0KX	2.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,400
M5 × 0.8	P3	SPR5.0KX	2.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,400 ※
M6 × 1	P2	SPQ6.0MX	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,540
M6 × 1	P3	SPR6.0MX	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,540 ※
M6 × 0.75	P2	SPQ6.0JX	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 2,170 ※
M7 × 1	P2	SPQ7.0MX	2.5P	70	19	-	36	6.2	5	8	3	5	¥ 1,840 ※
M8 × 1.25	P2	SPQ8.0NX	2.5P	70	19	-	36	6.2	5	8	3	5	¥ 2,120
M8 × 1.25	P3	SPR8.0NX	2.5P	70	19	-	36	6.2	5	8	3	5	¥ 2,120 ※
M8 × 1	P2	SPQ8.0MX	2.5P	70	19	-	36	6.2	5	8	3	5	¥ 2,400 ※
M10 × 1.5	P2	SPQ010OX	2.5P	75	23	-	38	7	5.5	8	3	5	¥ 2,690
M10 × 1.25	P2	SPQ010NX	2.5P	75	23	-	38	7	5.5	8	3	5	¥ 2,690 ※
M10 × 1.25	P3	SPR010NX	2.5P	75	23	-	38	7	5.5	8	3	5	¥ 2,690 ※
M10 × 1	P2	SPQ010MX	2.5P	75	23	-	38	7	5.5	8	3	5	¥ 3,190 ※
M12 × 1.75	P2	SPQ012PX	2.5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,810
M12 × 1.5	P2	SPQ012OX	2.5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,810 ※
M12 × 1.25	P2	SPQ012NX	2.5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,810 ※
M12 × 1	P2	SPQ012MX	2.5P	82	26	-	42	8.5	6.5	9	3	5	¥ 4,480 ※
M14 × 2	P2	SPQ014QX	2.5P	88	26	-	45	10.5	8	11	3	5	¥ 5,200 ※
M14 × 1.5	P2	SPQ014OX	2.5P	88	26	-	45	10.5	8	11	3	5	¥ 5,200 ※
M14 × 1.25	P2	SPQ014NX	2.5P	88	26	-	45	10.5	8	11	3	5	¥ 6,030 ※
M14 × 1	P2	SPQ014MX	2.5P	88	26	-	45	10.5	8	11	3	5	¥ 6,030 ※
M16 × 2	P2	SPQ016QX	2.5P	95	26	-	48	12.5	10	13	3	5	¥ 6,950
M16 × 1.5	P2	SPQ016OX	2.5P	95	26	-	48	12.5	10	13	3	5	¥ 6,950 ※
M16 × 1.25	P2	SPQ016NX	2.5P	95	26	-	48	12.5	10	13	3	5	¥ 8,280 ※
M16 × 1	P2	SPQ016MX	2.5P	95	26	-	48	12.5	10	13	3	5	¥ 8,280 ※
M18 × 2.5	P3	SPR018RX	2.5P	100	33	-	51	14	11	14	4	5	¥ 9,280 ※
M18 × 1.5	P2	SPQ018OX	2.5P	100	33	-	51	14	11	14	4	5	¥ 9,280 ※
M20 × 2.5	P3	SPR020RX	2.5P	105	33	-	50	15	12	15	4	6	¥ 12,700
M20 × 1.5	P3	SPR020OX	2.5P	105	33	-	50	15	12	15	4	6	¥ 12,700 ※
M20 × 1	P2	SPQ020MX	2.5P	105	18	-	50	15	12	15	4	7	¥ 16,100 ※
M22 × 2.5	P3	SPR022RX	2.5P	115	33	-	55	17	13	16	4	6	¥ 16,200 ※
M22 × 1.5	P3	SPR022OX	2.5P	115	33	-	55	17	13	16	4	6	¥ 16,200 ※
M24 × 3	P3	SPR024SX	2.5P	120	39	-	55	19	15	18	4	6	¥ 20,200 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP OX Spiral Fluted Taps, Oxidized

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M24 × 1.5	P3	SPR024OX	2.5P	120	39	-	55	19	15	18	4	6	¥ 20,200 ※
M27 × 3	P3	SPR027SX	2.5P	130	39	-	60	20	15	18	4	6	¥ 28,100 ※
M27 × 2	P3	SPR027QX	2.5P	130	39	-	60	20	15	18	4	6	¥ 28,100 ※
M28 × 1.5	P3	SPR028OX	2.5P	135	46	-	62	23	17	20	4	6	¥ 35,800 ※
M30 × 3.5	P4	SPS030TX	2.5P	135	46	-	62	23	17	20	4	6	¥ 35,800 ※
M30 × 3	P3	SPR030SX	2.5P	135	46	-	62	23	17	20	4	6	¥ 35,800 ※
M30 × 2	P3	SPR030QX	2.5P	135	46	-	62	23	17	20	4	6	¥ 35,800 ※
M30 × 1.5	P3	SPR030OX	2.5P	135	46	-	62	23	17	20	4	6	¥ 35,800 ※
M32 × 2	P3	SPMR032QX	2.5P	145	46	-	67	24	19	22	4	6	¥ 41,600 ※
M33 × 3.5	P4	SPMS033TX	2.5P	145	46	-	67	25	19	22	4	6	¥ 41,600 ※
M36 × 4	P4	SPMS036UX	2.5P	155	52	-	71	28	21	24	4	6	¥ 48,200 ※
For Unified Threads													
No.2-56UNC	P1	SPPUN2EX	2.5P	42	8.1	12	27	3	2.5	5	2	3	¥ 2,710 ※
No.4-40UNC	P1	SPPUN4HX	2.5P	46	9	14	25	4	3.2	6	2	3	¥ 1,750 ※
No.5-40UNC	P1	SPPUN5HX	2.5P	52	11	16	28	5	4	7	3	3	¥ 1,630 ※
No.6-32UNC	P2	SPQUN6JX	2.5P	52	11	17	27	5	4	7	3	3	¥ 1,630 ※
No.8-32UNC	P2	SPQUN8JX	2.5P	60	13	22	31	5.5	4.5	7	3	3	¥ 1,640 ※
No.10-24UNC	P2	SPQUNAMX	2.5P	60	13	22	32	5.5	4.5	7	3	3	¥ 1,640 ※
No.10-32UNF	P2	SPQUNAJX	2.5P	60	13	22	32	5.5	4.5	7	3	3	¥ 1,640 ※
1/4-20UNC	P2	SPQU04NX	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,760 ※
1/4-28UNF	P2	SPQU04KX	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,760 ※
5/16-18UNC	P2	SPQU05OX	2.5P	70	19	-	36	6.2	5	8	3	5	¥ 2,440 ※
5/16-24UNF	P2	SPQU05MX	2.5P	70	19	-	36	6.2	5	8	3	5	¥ 2,440 ※
3/8-16UNC	P2	SPQU06PX	2.5P	75	23	-	38	7	5.5	8	3	5	¥ 3,120 ※
3/8-24UNF	P2	SPQU06MX	2.5P	75	23	-	38	7	5.5	8	3	5	¥ 3,120 ※
7/16-14UNC	P3	SPRU07QX	2.5P	82	26	-	42	8.5	6.5	9	3	5	¥ 4,390 ※
7/16-20UNF	P2	SPQU07NX	2.5P	82	26	-	42	8.5	6.5	9	3	5	¥ 4,390 ※
1/2-13UNC	P3	SPRU08RX	2.5P	88	26	-	45	10.5	8	11	3	5	¥ 4,660 ※
1/2-20UNF	P2	SPQU08NX	2.5P	88	26	-	45	10.5	8	11	3	5	¥ 4,660 ※
9/16-18UNF	P2	SPQU09OX	2.5P	95	26	-	48	12.5	10	13	3	5	¥ 6,950 ※
5/8-11UNC	P3	SPRU10UX	2.5P	95	26	-	48	12.5	10	13	3	5	¥ 6,950 ※
5/8-18UNF	P2	SPQU10OX	2.5P	95	26	-	48	12.5	10	13	3	5	¥ 6,950 ※
3/4-10UNC	P3	SPRU12VX	2.5P	105	33	-	50	15	12	15	4	6	¥ 12,700 ※
3/4-16UNF	P3	SPRU12PX	2.5P	105	33	-	50	15	12	15	4	6	¥ 12,700 ※
7/8-9UNC	P3	SPRU14WX	2.5P	115	33	-	55	17	13	16	4	6	¥ 17,900 ※
7/8-14UNF	P3	SPRU14QX	2.5P	115	33	-	55	17	13	16	4	6	¥ 17,900 ※
1 -8UNC	P3	SPRU16XX	2.5P	125	39	-	58	19	15	18	4	6	¥ 26,100 ※
1 -12UNF	P3	SPRU16SX	2.5P	125	39	-	58	19	15	18	4	6	¥ 26,100 ※
1 1/2 -6UNC	P4	SPMSU24ZX	2.5P	165	52	-	76	30	23	26	4	6	¥ 69,000 ※
1 1/2 -12UNF	P3	SPMRU24SX	2.5P	165	52	-	76	30	23	26	4	6	¥ 69,000 ※
For Whitworth Threads													
1/8W40	P1	SPPW02HX	2.5P	52	11	16	28	5	4	7	3	3	¥ 2,030 ※
5/32W32	P2	SPQW2HJX	2.5P	52	11	17	29	5	4	7	3	3	¥ 1,630 ※
3/16W24	P2	SPQW03MX	2.5P	60	13	21	32	5.5	4.5	7	3	3	¥ 1,640 ※
1/4W20	P2	SPQW04NX	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,760 ※
5/16W18	P2	SPQW05OX	2.5P	70	19	-	36	6.2	5	8	3	5	¥ 2,440 ※
3/8W16	P2	SPQW06PX	2.5P	75	23	-	38	7	5.5	8	3	5	¥ 3,120 ※
7/16W14	P3	SPRW07QX	2.5P	82	26	-	42	8.5	6.5	9	3	5	¥ 4,390 ※
1/2W12	P3	SPRW08SX	2.5P	88	26	-	45	10.5	8	11	3	5	¥ 4,660 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP OX Spiral Fluted Taps, Oxidized

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
5/8W11	P3	SPRW10UX	2.5P	95	26	-	48	12.5	10	13	3	5	¥ 6,950 ※
3/4W10	P3	SPRW12VX	2.5P	105	33	-	50	15	12	15	4	6	¥ 12,700 ※
7/8W9	P3	SPRW14WX	2.5P	115	33	-	55	17	13	16	4	6	¥ 17,900 ※
1 W8	P3	SPRW16XX	2.5P	125	39	-	58	19	15	18	4	6	¥ 26,100 ※
1 1/4W7	P4	SPMSW20YX	2.5P	145	46	-	67	24	19	22	4	6	¥ 41,600 ※
1 1/2W6	P4	SPMSW24ZX	2.5P	165	52	-	76	30	23	26	4	6	¥ 69,000 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

SP OX



Spiral Fluted Taps,Oxidized

Specification

HSS | OX Oxide



Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

■The SP OX is a spiral flute tap for blind hole tapping. These taps have an applied oxidation treatment to prevent chip welding on the surface of the taps threaded portion. They are suitable for thread processing of soft steel materials where the chips easily weld to the tap like low carbon.

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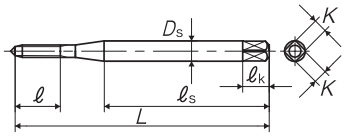

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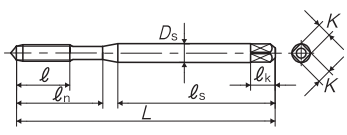

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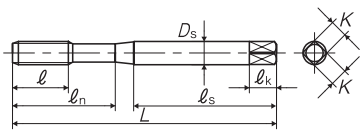

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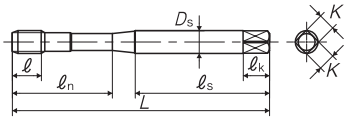

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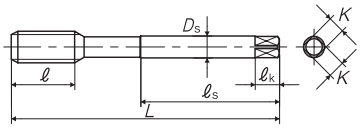

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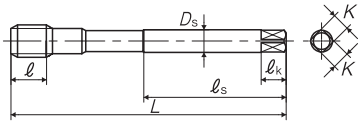

Segment : 1C

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	D3	SS2.0E3NEX	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
M2.2 × 0.45	D3	SS2.2F3NEX	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
M2.5 × 0.45	D3	SS2.5F3NEX	2.5P	2.205	0.354	0.693	1.28	0.141	0.11	0.187	2	2
M2.6 × 0.45	D3	SS2.6F3NEX	2.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
M3 × 0.5	D3	SS3.0G3NEX	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
M3.5 × 0.6	D4	SS3.5H4NEX	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
M4 × 0.7	D4	SS4.0I4NEX	2.5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	2
M5 × 0.8	D4	SS5.0K4NEX	2.5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M6 × 1	D5	SS6.0M5NEX	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
M7 × 1	D5	SS7.0M5NEX	2.5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M7 × 0.75	D4	SS7.0J4NEX	2.5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M7 × 0.5	D4	SS7.0G4NEX	2.5P	3.543	0.394	1.339	1.831	0.318	0.238	0.375	3	4
M8 × 1.25	D5	SS8.0N5NEX	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 1	D5	SS8.0M5NEX	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 0.75	D4	SS8.0J4NEX	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	4
M8 × 0.5	D4	SS8.0G4NEX	2.5P	3.543	0.394	1.378	1.831	0.318	0.238	0.375	3	4
M9 × 1.25	D5	SS9.0N5NEX	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
M9 × 1	D5	SS9.0M5NEX	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
M10 × 1.5	D6	SS010O6NEX	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 1.25	D5	SS010N5NEX	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP OX Spiral Fluted Taps,Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M10 × 1	D5	SS010M5NEX	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 0.75	D4	SS010J4NEX	2.5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	3	4
M11 × 1.5	D6	SS01106NEX	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
M12 × 1.75	D6	SS012P6NEX	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M12 × 1.5	D6	SS01206NEX	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M12 × 1.25	D6	SS012N6NEX	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M12 × 1	D5	SS012M5NEX	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M14 × 2	D7	SS014Q7NEX	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M14 × 1.5	D6	SS01406NEX	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M14 × 1.25	D6	SS014N6NEX	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M14 × 1	D5	SS014M5NEX	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M16 × 2	D7	SS016Q7NEX	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
M16 × 1.5	D6	SS01606NEX	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
M16 × 1	D5	SS016M5NEX	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
M18 × 2.5	D7	SS018R7NEX	2.5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	5
M18 × 2	D7	SS018Q7NEX	2.5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	5
M18 × 1.5	D6	SS01806NEX	2.5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	6
M18 × 1	D5	SS018M5NEX	2.5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	6
M20 × 2.5	D7	SS020R7NEX	2.5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	5
M20 × 2	D7	SS020Q7NEX	2.5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	5
M20 × 1.5	D6	SS02006NEX	2.5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	6
M20 × 1	D5	SS020M5NEX	2.5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	6
M22 × 2.5	D7	SS022R7NEX	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
M22 × 2	D7	SS022Q7NEX	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
M22 × 1.5	D6	SS02206NEX	2.5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	6
M22 × 1	D5	SS022M5NEX	2.5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	6
M24 × 3	D8	SS024S8NEX	2.5P	6.299	1.457	-	3.228	0.76	0.57	0.75	4	5
M24 × 2	D7	SS024Q7NEX	2.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 1.5	D6	SS02406NEX	2.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 1	D5	SS024M5NEX	2.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M25 × 1.5	D6	SS02506NEX	2.5P	6.299	1.063	-	3.228	0.8	0.6	0.812	4	6
M26 × 1.5	D6	SS02606NEX	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 3	D8	SS027S8NEX	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
M27 × 2	D7	SS027Q7NEX	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1.5	D6	SS02706NEX	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1	D5	SS027M5NEX	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 2	D7	SS028Q7NEX	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1.5	D6	SS02806NEX	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1	D5	SS028M5NEX	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M30 × 3.5	D9	SS030T9NEX	2.5P	7.087	1.732	-	3.622	1.021	0.766	1	4	5
M30 × 2	D7	SS030Q7NEX	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1.5	D6	SS03006NEX	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1	D5	SS030M5NEX	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M32 × 2	D7	SS032Q7NEX	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1.5	D6	SS03206NEX	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1	D5	SS032M5NEX	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M33 × 3.5	D9	SS033T9NEX	2.5P	7.087	1.732	-	3.622	1.108	0.831	1.062	4	5
M33 × 2	D7	SS033Q7NEX	2.5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1.5	D6	SS03306NEX	2.5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1	D5	SS033M5NEX	2.5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP OX Spiral Fluted Taps,Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M36 × 4	D9	SS036U9NEX	2.5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 3	D8	SS036S8NEX	2.5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 2	D7	SS036Q7NEX	2.5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1.5	D6	SS036O6NEX	2.5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1	D5	SS036M5NEX	2.5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M39 × 4	D9	SS039U9NEX	2.5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 3	D8	SS039S8NEX	2.5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 2	D7	SS039Q7NEX	2.5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1.5	D6	SS039O6NEX	2.5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1	D5	SS039M5NEX	2.5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M42 × 4.5	D10	SS042V0NEX	2.5P	7.874	2.047	-	4.016	1.43	1.072	1.25	4	5
M42 × 2	D7	SS042Q7NEX	2.5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1.5	D6	SS042O6NEX	2.5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1	D5	SS042M5NEX	2.5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M45 × 4.5	D10	SS045V0NEX	2.5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 3	D8	SS045S8NEX	2.5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 2	D7	SS045Q7NEX	2.5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1.5	D6	SS045O6NEX	2.5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1	D5	SS045M5NEX	2.5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M48 × 5	D11	SS048W-NEX	2.5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 3	D9	SS048S9NEX	2.5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 2	D7	SS048Q7NEX	2.5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1.5	D7	SS048O7NEX	2.5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1	D6	SS048M6NEX	2.5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
For Unified Threads												
No.2-56UNC	GH1	SSUN2E1NEX	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.2-56UNC	GH2	SSUN2E2NEX	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.2-64UNF	GH1	SSUN2D1NEX	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.2-64UNF	GH2	SSUN2D2NEX	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.3-48UNC	GH1	SSUN3F1NEX	2.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.3-48UNC	GH2	SSUN3F2NEX	2.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.3-56UNF	GH1	SSUN3E1NEX	2.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.3-56UNF	GH2	SSUN3E2NEX	2.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.4-40UNC	GH1	SSUN4H1NEX	2.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.4-40UNC	GH2	SSUN4H2NEX	2.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.4-48UNF	GH1	SSUN4F1NEX	2.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.4-48UNF	GH2	SSUN4F2NEX	2.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.5-40UNC	GH1	SSUN5H1NEX	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-40UNC	GH2	SSUN5H2NEX	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-44UNF	GH1	SSUN5G1NEX	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-44UNF	GH2	SSUN5G2NEX	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.6-32UNC	GH1	SSUN6J1NEX	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH2	SSUN6J2NEX	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH3	SSUN6J3NEX	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH4	SSUN6J4NEX	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-40UNF	GH1	SSUN6H1NEX	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-40UNF	GH2	SSUN6H2NEX	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.8-32UNC	GH2	SSUN8J2NEX	2.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	3	2
No.8-32UNC	GH3	SSUN8J3NEX	2.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	3	2
No.8-36UNF	GH2	SSUN8I2NEX	2.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	3	2

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP OX Spiral Fluted Taps,Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.8-36UNF	GH3	SSUN8I3NEX	2.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	3	2
No.10-24UNC	GH2	SSUNAM2NEX	2.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	3	2
No.10-24UNC	GH3	SSUNAM3NEX	2.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	3	2
No.10-32UNF	GH2	SSUNAJ2NEX	2.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	3	2
No.10-32UNF	GH3	SSUNAJ3NEX	2.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	3	2
No.12-24UNC	GH2	SSUNCM2NEX	2.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	3	2
No.12-24UNC	GH3	SSUNCM3NEX	2.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	3	2
No.12-28UNF	GH2	SSUNCK2NEX	2.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	3	2
No.12-28UNF	GH3	SSUNCK3NEX	2.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	3	2
1/4-20UNC	GH2	SSU04N2NEX	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-20UNC	GH3	SSU04N3NEX	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	SSU04N5NEX	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-20UNC	GH11	SSU04N-EEX	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH2	SSU04K2NEX	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	SSU04K3NEX	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	SSU04K4NEX	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH11	SSU04K-EEX	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
5/16-18UNC	GH2	SSU05O2NEX	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-18UNC	GH3	SSU05O3NEX	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	SSU05O5NEX	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-18UNC	GH11	SSU05O-EEX	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH2	SSU05M2NEX	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	SSU05M3NEX	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	SSU05M4NEX	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH5	SSU05M5NEX	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH11	SSU05M-EEX	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	SSU06P3NEX	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-16UNC	GH4	SSU06P4NEX	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	SSU06P5NEX	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-16UNC	GH11	SSU06P-EEX	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH2	SSU06M2NEX	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	SSU06M3NEX	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	SSU06M4NEX	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH11	SSU06M-EEX	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	SSU07Q3NEX	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-14UNC	GH4	SSU07Q4NEX	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-14UNC	GH5	SSU07Q5NEX	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-20UNF	GH2	SSU07N2NEX	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-20UNF	GH3	SSU07N3NEX	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-20UNF	GH5	SSU07N5NEX	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
1/2-13UNC	GH3	SSU08R3NEX	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-13UNC	GH4	SSU08R4NEX	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-13UNC	GH5	SSU08R5NEX	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-13UNC	GH11	SSU08R-EEX	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH2	SSU08N2NEX	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH3	SSU08N3NEX	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH5	SSU08N5NEX	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH11	SSU08N-EEX	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
9/16-12UNC	GH3	SSU09S3NEX	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-12UNC	GH4	SSU09S4NEX	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP OX Spiral Fluted Taps,Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
9/16-12UNC	GH5	SSU09S5NEX	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-18UNF	GH3	SSU09O3NEX	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-18UNF	GH4	SSU09O4NEX	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-18UNF	GH5	SSU09O5NEX	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
5/8-11UNC	GH3	SSU10U3NEX	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-11UNC	GH4	SSU10U4NEX	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-11UNC	GH5	SSU10U5NEX	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-11UNC	GH11	SSU10U-EEX	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-18UNF	GH3	SSU10O3NEX	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-18UNF	GH4	SSU10O4NEX	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-18UNF	GH5	SSU10O5NEX	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-18UNF	GH11	SSU10O-EEX	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
3/4-10UNC	GH3	SSU12V3NEX	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH5	SSU12V5NEX	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH11	SSU12V-EEX	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH3	SSU12P3NEX	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH4	SSU12P4NEX	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH5	SSU12P5NEX	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH11	SSU12P-EEX	2.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
7/8-9UNC	GH4	SSU14W4NEX	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-9UNC	GH5	SSU14W5NEX	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-9UNC	GH6	SSU14W6NEX	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH3	SSU14Q3NEX	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH4	SSU14Q4NEX	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH6	SSU14Q6NEX	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
1 -8UNC	GH4	SSU16X4NEX	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH5	SSU16X5NEX	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH6	SSU16X6NEX	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH3	SSU16S3NEX	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH4	SSU16S4NEX	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH5	SSU16S5NEX	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH6	SSU16S6NEX	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 1/8-7UNC	GH4	SSU18Y4NEX	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-7UNC	GH6	SSU18Y6NEX	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH4	SSU18S4NEX	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH5	SSU18S5NEX	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/4-7UNC	GH4	SSU20Y4NEX	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-7UNC	GH6	SSU20Y6NEX	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-12UNF	GH4	SSU20S4NEX	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-12UNF	GH5	SSU20S5NEX	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 3/8-6UNC	GH5	SSU22Z5NEX	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-6UNC	GH6	SSU22Z6NEX	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-12UNF	GH4	SSU22S4NEX	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-12UNF	GH5	SSU22S5NEX	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 1/2-6UNC	GH5	SSU24Z5NEX	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-6UNC	GH6	SSU24Z6NEX	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-12UNF	GH4	SSU24S4NEX	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-12UNF	GH5	SSU24S5NEX	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

SP OX

Spiral Fluted Taps, Oxidized



Specification

HSS | OX Oxide



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

■The SP OX is a spiral flute tap for blind hole tapping. These taps have an applied oxidation treatment to prevent chip welding on the surface of the taps threaded portion. They are suitable for thread processing of soft steel materials where the chips easily weld to the tap like low carbon.

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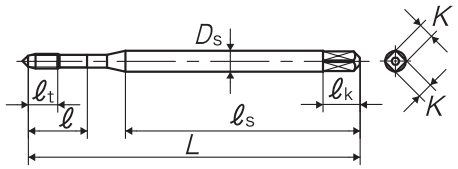

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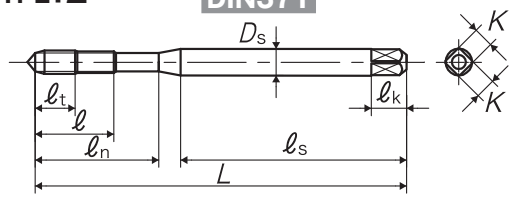

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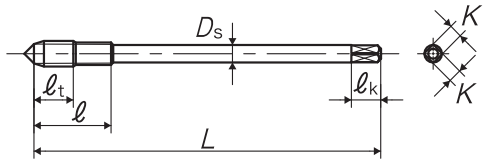

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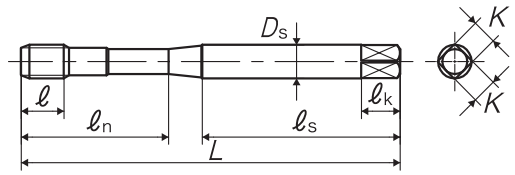

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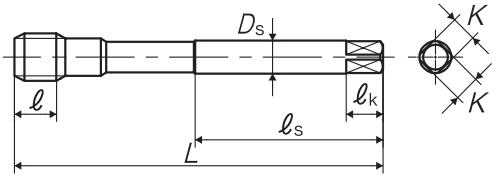

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

Segment : 1D (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads													
M2 × 0.4	ISO2	SD2.0EANEX	2.5P	45	4	8	-	32	2.8	2.1	5	2	1
M2.2 × 0.45	ISO2	SD2.2FANEX	2.5P	45	4	9	-	32	2.8	2.1	5	2	1
M2.3 × 0.4	ISO2	SD2.3EANEX	2.5P	45	4	9	-	32	2.8	2.1	5	2	1
M2.5 × 0.45	ISO2	SD2.5FANEX	2.5P	50	4	8	15	33	2.8	2.1	5	2	2
M2.6 × 0.45	ISO2	SD2.6FANEX	2.5P	50	4	8	15	33	2.8	2.1	5	2	2
M3 × 0.5	ISO2	SD3.0GANEX	2.5P	56	5	9	18	34	3.5	2.7	6	3	2
M3 × 0.5	ISO3	SD3.0GMNEX	2.5P	56	5	9	18	34	3.5	2.7	6	3	2
M3.5 × 0.6	ISO2	SD3.5HANEX	2.5P	56	7	11	20	32	4	3	6	2	2
M4 × 0.7	ISO2	SD4.0IANEX	2.5P	63	7	13	21	38	4.5	3.4	6	3	2
M4 × 0.7	ISO2	SG4.0IANEX	2.5P	63	7	13	-	-	2.8	2.1	5	3	3
M4 × 0.7	ISO3	SD4.0IMNEX	2.5P	63	7	13	21	38	4.5	3.4	6	3	2
M4 × 0.5	ISO2	SM4.0GANEX	2.5P	63	5	9	-	-	2.8	2.1	5	3	3
M4.5 × 0.75	ISO2	SD4.5JANEX	2.5P	70	9	14	24	39	6	4.9	8	3	2
M5 × 0.8	ISO2	SD5.0KANEX	2.5P	70	9	14	25	39	6	4.9	8	3	2
M5 × 0.8	ISO2	SG5.0KANEX	2.5P	70	9	14	-	-	3.5	2.7	6	3	3
M5 × 0.8	ISO3	SD5.0KMNEX	2.5P	70	9	14	25	39	6	4.9	8	3	2
M5 × 0.5	ISO2	SM5.0GANEX	2.5P	70	6	11	-	-	3.5	2.7	6	3	3
M6 × 1	ISO2	SD6.0MANEX	2.5P	80	11	15	30	45	6	4.9	8	3	2
M6 × 1	ISO2	SG6.0MANEX	2.5P	80	11	15	-	-	4.5	3.4	6	3	3
M6 × 1	ISO3	SD6.0MMNEX	2.5P	80	11	15	30	45	6	4.9	8	3	2
M6 × 0.75	ISO2	SM6.0JANEX	2.5P	80	8	13	-	-	4.5	3.4	6	3	3
M6 × 0.5	ISO2	SM6.0GANEX	2.5P	80	8	13	-	-	4.5	3.4	6	3	3
M7 × 1	ISO2	SD7.0MANEX	2.5P	80	-	11	30	45	7	5.5	8	3	4
M7 × 0.75	ISO2	SM7.0JANEX	2.5P	80	-	8	-	41	5.5	4.3	7	3	5
M7 × 0.5	ISO2	SM7.0GANEX	2.5P	80	-	8	-	41	5.5	4.3	7	3	5
M8 × 1.25	ISO2	SD8.0NANEX	2.5P	90	-	12	35	47	8	6.2	9	3	4
M8 × 1.25	ISO2	SG8.0NANEX	2.5P	90	-	12	-	46	6	4.9	8	3	5
M8 × 1.25	ISO3	SD8.0NMNEX	2.5P	90	-	12	35	47	8	6.2	9	3	4
M8 × 1	ISO2	SM8.0MANEX	2.5P	90	-	12	-	46	6	4.9	8	3	5
M8 × 0.75	ISO2	SM8.0JANEX	2.5P	80	-	12	-	41	6	4.9	8	3	5
M8 × 0.5	ISO2	SM8.0GANEX	2.5P	80	-	12	-	41	6	4.9	8	3	5
M9 × 1.25	ISO2	SG9.0NANEX	2.5P	90	-	12	-	46	7	5.5	8	3	5
M9 × 1.25	ISO2	SD9.0NANEX	2.5P	90	-	12	35	48	9	7	10	3	4
M9 × 1.25	ISO3	SD9.0NMNEX	2.5P	90	-	12	35	48	9	7	10	3	4
M9 × 1	ISO2	SM9.0MANEX	2.5P	90	-	12	-	46	7	5.5	8	3	5
M10 × 1.5	ISO2	SD0100ANEX	2.5P	100	-	13	39	52.5	10	8	11	3	4
M10 × 1.5	ISO2	SG0100ANEX	2.5P	100	-	13	-	51	7	5.5	8	3	5
M10 × 1.5	ISO3	SD0100MNEX	2.5P	100	-	13	39	52.5	10	8	11	3	4
M10 × 1.25	ISO2	SM010NANEX	2.5P	100	-	13	-	51	7	5.5	8	3	5
M10 × 1	ISO2	SM010MANEX	2.5P	90	-	13	-	46	7	5.5	8	3	5
M10 × 0.75	ISO2	SM010JANEX	2.5P	90	-	13	-	46	7	5.5	8	3	5
M11 × 1.5	ISO2	SG0110ANEX	2.5P	100	-	13	-	51	8	6.2	9	3	5
M11 × 1.5	ISO2	SM0110ANEX	2.5P	100	-	13	-	51	8	6.2	9	3	5
M12 × 1.75	ISO2	SG012PANEX	2.5P	110	-	15	-	56	9	7	10	3	5
M12 × 1.75	ISO3	SG012PMNEX	2.5P	110	-	15	-	56	9	7	10	3	5
M12 × 1.5	ISO2	SM0120ANEX	2.5P	100	-	15	-	51	9	7	10	3	5
M12 × 1.25	ISO2	SM012NANEX	2.5P	100	-	15	-	51	9	7	10	3	5
M12 × 1	ISO2	SM012MANEX	2.5P	100	-	15	-	51	9	7	10	3	5
M14 × 2	ISO2	SG014QANEX	2.5P	110	-	18	-	56	11	9	12	3	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

SP OX Spiral Fluted Taps,Oxidized

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M14 × 2	ISO3	SG014QMNEX	2.5P	110	-	18	-	56	11	9	12	3	5
M14 × 1.5	ISO2	SM014OANEX	2.5P	100	-	14	-	51	11	9	12	3	5
M14 × 1.25	ISO2	SM014NANEX	2.5P	100	-	14	-	51	11	9	12	3	5
M14 × 1	ISO2	SM014MANEX	2.5P	100	-	14	-	51	11	9	12	3	5
M16 × 2	ISO2	SG016QANEX	2.5P	110	-	18	-	56	12	9	12	3	5
M16 × 2	ISO3	SG016QMNEX	2.5P	110	-	18	-	56	12	9	12	3	5
M16 × 1.5	ISO2	SM016OANEX	2.5P	100	-	14	-	51	12	9	12	3	5
M16 × 1	ISO2	SM016MANEX	2.5P	100	-	14	-	51	12	9	12	3	5
M18 × 2.5	ISO2	SG018RANEX	2.5P	125	-	20	-	64	14	11	14	4	5
M18 × 2	ISO2	SM018QANEX	2.5P	125	-	18	-	64	14	11	14	4	5
M18 × 1.5	ISO2	SM018OANEX	2.5P	110	-	14	-	56	14	11	14	4	5
M18 × 1	ISO2	SM018MANEX	2.5P	110	-	14	-	56	14	11	14	4	5
M20 × 2.5	ISO2	SG020RANEX	2.5P	140	-	20	-	71	16	12	15	4	5
M20 × 2	ISO2	SM020QANEX	2.5P	140	-	18	-	71	16	12	15	4	5
M20 × 1.5	ISO2	SM020OANEX	2.5P	125	-	14	-	64	16	12	15	4	5
M20 × 1	ISO2	SM020MANEX	2.5P	125	-	14	-	64	16	12	15	4	5
M22 × 2.5	ISO2	SG022RANEX	2.5P	140	-	20	-	71	18	14.5	17	4	5
M22 × 2	ISO2	SM022QANEX	2.5P	140	-	18	-	71	18	14.5	17	4	5
M22 × 1.5	ISO2	SM022OANEX	2.5P	125	-	14	-	64	18	14.5	17	4	5
M22 × 1	ISO2	SM022MANEX	2.5P	125	-	14	-	64	18	14.5	17	4	5
M24 × 3	ISO2	SG024SANEX	2.5P	160	-	25	-	82	18	14.5	17	4	5
M24 × 2	ISO2	SM024QANEX	2.5P	140	-	18	-	71	18	14.5	17	4	5
M24 × 1.5	ISO2	SM024OANEX	2.5P	140	-	18	-	71	18	14.5	17	4	5
M24 × 1	ISO2	SM024MANEX	2.5P	140	-	18	-	71	18	14.5	17	4	5
M25 × 1.5	ISO2	SM025OANEX	2.5P	140	-	18	-	71	18	14.5	17	4	5
M26 × 1.5	ISO2	SM026OANEX	2.5P	140	-	18	-	71	18	14.5	17	4	5
M27 × 3	ISO2	SG027SANEX	2.5P	160	-	25	-	82	20	16	19	4	5
M27 × 2	ISO2	SM027QANEX	2.5P	140	-	20	-	71	20	16	19	4	5
M27 × 1.5	ISO2	SM027OANEX	2.5P	140	-	20	-	71	20	16	19	4	5
M27 × 1	ISO2	SM027MANEX	2.5P	140	-	20	-	71	20	16	19	4	5
M28 × 2	ISO2	SM028QANEX	2.5P	140	-	20	-	71	20	16	19	4	5
M28 × 1.5	ISO2	SM028OANEX	2.5P	140	-	20	-	71	20	16	19	4	5
M28 × 1	ISO2	SM028MANEX	2.5P	140	-	20	-	71	20	16	19	4	5
M30 × 3.5	ISO2	SG030TANEX	2.5P	180	-	30	-	92	22	18	21	4	5
M30 × 2	ISO2	SM030QANEX	2.5P	150	-	20	-	77	22	18	21	4	5
M30 × 1.5	ISO2	SM030OANEX	2.5P	150	-	20	-	77	22	18	21	4	5
M30 × 1	ISO2	SM030MANEX	2.5P	150	-	20	-	77	22	18	21	4	5
M32 × 2	ISO2	SM032QANEX	2.5P	150	-	20	-	77	22	18	21	4	5
M32 × 1.5	ISO2	SM032OANEX	2.5P	150	-	20	-	77	22	18	21	4	5
M32 × 1	ISO2	SM032MANEX	2.5P	150	-	20	-	77	22	18	21	4	5
M33 × 3.5	ISO2	SG033TANEX	2.5P	180	-	30	-	92	25	20	23	4	5
M33 × 2	ISO2	SM033QANEX	2.5P	160	-	20	-	82	25	20	23	4	5
M33 × 1.5	ISO2	SM033OANEX	2.5P	160	-	20	-	82	25	20	23	4	5
M33 × 1	ISO2	SM033MANEX	2.5P	160	-	20	-	82	25	20	23	4	5
M35 × 1.5	ISO2	SM035OANEX	2.5P	170	-	20	-	87	28	22	25	4	5
M36 × 4	ISO2	SG036UANEX	2.5P	200	-	40	-	102	28	22	25	4	5
M36 × 3	ISO2	SM036SANEX	2.5P	200	-	30	-	102	28	22	25	4	5
M36 × 2	ISO2	SM036QANEX	2.5P	170	-	20	-	87	28	22	25	4	5
M36 × 1.5	ISO2	SM036OANEX	2.5P	170	-	20	-	87	28	22	25	4	5
M36 × 1	ISO2	SM036MANEX	2.5P	170	-	20	-	87	28	22	25	4	5

Think threads with YAMAWA

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Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

SP OX Spiral Fluted Taps,Oxidized

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M39 × 4	ISO2	SG039UANEX	2.5P	200	-	40	-	102	32	24	27	4	5
M39 × 2	ISO2	SM039QANEX	2.5P	170	-	20	-	87	32	24	27	4	5
M39 × 1.5	ISO2	SM039OANEX	2.5P	170	-	20	-	87	32	24	27	4	5
M39 × 1	ISO2	SM039MANEX	2.5P	170	-	20	-	87	32	24	27	4	5
M42 × 4.5	ISO2	SG042VANEX	2.5P	200	-	40	-	102	32	24	27	4	5
M42 × 2	ISO2	SM042QANEX	2.5P	170	-	20	-	87	32	24	27	4	5
M42 × 1.5	ISO2	SM042OANEX	2.5P	170	-	20	-	87	32	24	27	4	5
M42 × 1	ISO2	SM042MANEX	2.5P	170	-	20	-	87	32	24	27	4	5
M45 × 4.5	ISO2	SG045VANEX	2.5P	220	-	45	-	112	36	29	32	4	5
M45 × 3	ISO2	SM045SANEX	2.5P	200	-	40	-	102	36	29	32	4	5
M45 × 2	ISO2	SM045QANEX	2.5P	180	-	25	-	92	36	29	32	4	5
M45 × 1.5	ISO2	SM045OANEX	2.5P	180	-	25	-	92	36	29	32	4	5
M45 × 1	ISO2	SM045MANEX	2.5P	180	-	25	-	92	36	29	32	4	5
M48 × 5	ISO2	SG048WANEX	2.5P	250	-	45	-	128	36	29	32	4	5
M48 × 3	ISO2	SM048SANEX	2.5P	225	-	40	-	115	36	29	32	4	5
M48 × 2	ISO2	SM048QANEX	2.5P	190	-	25	-	97	36	29	32	4	5
M48 × 1.5	ISO2	SM048OANEX	2.5P	190	-	25	-	97	36	29	32	4	5
M48 × 1	ISO2	SM048MANEX	2.5P	190	-	25	-	97	36	29	32	4	5
For Unified Threads													
No.4-40UNC	2B	SDUN4HXNEX	2.5P	56	5	9	18	34	3.5	2.7	6	2	2
No.4-48UNF	2B	SDUN4FXNEX	2.5P	56	5	9	18	34	3.5	2.7	6	2	2
No.5-40UNC	2B	SDUN5HXNEX	2.5P	56	5	11	18	34	3.5	2.7	6	2	2
No.5-44UNF	2B	SDUN5GXNEX	2.5P	56	5	11	18	34	3.5	2.7	6	2	2
No.6-32UNC	2B	SDUN6JXNEX	2.5P	56	7	11	19	32	4	3	6	3	2
No.6-40UNF	2B	SDUN6HXNEX	2.5P	56	7	11	19	32	4	3	6	3	2
No.8-32UNC	2B	SDUN8JXNEX	2.5P	63	7	13	21	38	4.5	3.4	6	3	2
No.8-36UNF	2B	SDUN8IXNEX	2.5P	63	7	13	21	38	4.5	3.4	6	3	2
No.10-24UNC	2B	SDUNAMXNEX	2.5P	70	9	14	24	39	6	4.9	8	3	2
No.10-32UNF	2B	SDUNAJXNEX	2.5P	70	9	14	24	39	6	4.9	8	3	2
No.12-24UNC	2B	SDUNCMXNEX	2.5P	80	9	15	28	45	6	4.9	8	3	2
No.12-28UNF	2B	SDUNCKXNEX	2.5P	80	9	15	28	45	6	4.9	8	3	2
1/4-20UNC	2B	SDU04NXNEX	2.5P	80	11	15	30	42	7	5.5	8	3	2
1/4-28UNF	2B	SDU04KXNEX	2.5P	80	11	15	30	42	7	5.5	8	3	2
5/16-18UNC	2B	SDU05OXNEX	2.5P	90	-	12	35	47	8	6.2	9	3	4
5/16-24UNF	2B	SMU05MXNEX	2.5P	90	-	12	-	46	6	4.9	8	3	5
3/8-16UNC	2B	SDU06PXNEX	2.5P	100	-	13	39	54.5	9	7	10	3	4
3/8-24UNF	2B	SMU06MXNEX	2.5P	100	-	13	-	51	7	5.5	8	3	5
7/16-14UNC	2B	SGU07QXNEX	2.5P	100	-	13	-	51	8	6.2	9	3	5
7/16-20UNF	2B	SMU07NXNEX	2.5P	100	-	13	-	51	8	6.2	9	3	5
1/2-13UNC	2B	SGU08RXNEX	2.5P	110	-	15	-	56	9	7	10	3	5
1/2-20UNF	2B	SMU08NXNEX	2.5P	100	-	15	-	51	9	7	10	3	5
9/16-12UNC	2B	SGU09SXNEX	2.5P	110	-	18	-	56	11	9	12	3	5
9/16-18UNF	2B	SMU09OXNEX	2.5P	100	-	14	-	51	11	9	12	3	5
5/8-11UNC	2B	SGU10UXNEX	2.5P	110	-	18	-	56	12	9	12	3	5
5/8-18UNF	2B	SMU10OXNEX	2.5P	100	-	14	-	51	12	9	12	3	5
3/4-10UNC	2B	SGU12VXNEX	2.5P	125	-	20	-	64	14	11	14	4	5
3/4-16UNF	2B	SMU12PXNEX	2.5P	110	-	14	-	56	14	11	14	4	5
7/8-9UNC	2B	SGU14WXNEX	2.5P	140	-	20	-	71	18	14.5	17	4	5
7/8-14UNF	2B	SMU14QXNEX	2.5P	125	-	20	-	64	18	14.5	17	4	5
1-8UNC	2B	SGU16XXNEX	2.5P	160	-	25	-	82	18	14.5	17	4	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

SP OX Spiral Fluted Taps,Oxidized

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
1 -12UNF	2B	SMU16SXNEX	2.5P	140	-	18	-	71	18	14.5	17	4	5
1 1/8-7UNC	2B	SGU18YXNEX	2.5P	180	-	30	-	92	22	18	21	4	5
1 1/8-12UNF	2B	SMU18SXNEX	2.5P	150	-	20	-	77	22	18	21	4	5
1 1/4-7UNC	2B	SGU20YXNEX	2.5P	180	-	30	-	92	22	18	21	4	5
1 1/4-12UNF	2B	SMU20SXNEX	2.5P	150	-	20	-	77	22	18	21	4	5
1 3/8-6UNC	2B	SGU22ZXNEX	2.5P	200	-	40	-	102	28	22	25	4	5
1 3/8-12UNF	2B	SMU22SXNEX	2.5P	170	-	20	-	87	28	20	23	4	5
1 1/2-6UNC	2B	SGU24ZXNEX	2.5P	200	-	40	-	102	32	24	27	4	5
1 1/2-12UNF	2B	SMU24SXNEX	2.5P	170	-	20	-	87	32	24	27	4	5
1 3/4-5UNC	2B	SGU280XNEX	2.5P	220	-	45	-	112	36	29	32	4	5
1 3/4-12UN	2B	SMU28SXNEX	2.5P	180	-	20	-	92	36	29	32	4	5
For G Threads													
G 1/16-28	-	SVG0010NEX	2.5P	90	-	12	-	46	6	4.9	8	3	5
G 1/8-28	-	SVG0020NEX	2.5P	90	-	12	-	46	7	5.5	8	3	5
G 1/4-19	-	SVG0040NEX	2.5P	100	-	14	-	51	11	9	12	3	5
G 3/8-19	-	SVG0060NEX	2.5P	100	-	14	-	51	12	9	12	3	5
G 1/2-14	-	SVG0080NEX	2.5P	125	-	18	-	64	16	12	15	4	5
G 5/8-14	-	SVG0100NEX	2.5P	125	-	18	-	64	18	14.5	17	4	5
G 3/4-14	-	SVG0120NEX	2.5P	140	-	20	-	71	20	16	19	4	5
G 7/8-14	-	SVG0140NEX	2.5P	150	-	20	-	77	22	18	21	4	5
G 1 -11	-	SVG0160NEX	2.5P	160	-	20	-	82	25	20	23	4	5
G 1 1/8-11	-	SVG0180NEX	2.5P	170	-	20	-	87	28	22	25	4	5
G 1 1/4-11	-	SVG0200NEX	2.5P	170	-	20	-	87	32	24	27	4	5
G 1 1/2-11	-	SVG0240NEX	2.5P	190	-	25	-	97	36	29	32	4	5

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

SP

Spiral Fluted Taps for Alloy Steels



Specification

HSS | OX Oxide



■SP taps are spiral flute taps for alloy steel and high carbon steel. They have an improved chip discharge performance and are ideal for reducing tapping torque. They are also ideal for large diameter blind hole tapping.

Recommended Tapping Speed depending on Materials

Alloy steels 合金鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

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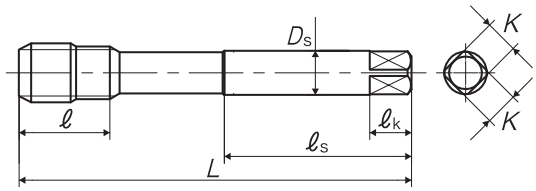


Segment : 1C

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
1 -8UNC	2BX	SSU16XYEEXJ	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	1
1 1/8-8UN	2BX	SSU18XYEEXJ	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	1
1 1/4-8UN	2BX	SSU20XYEEXJ	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	1
1 3/8-8UN	2BX	SSU22XYEEXJ	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	1
1 1/2-8UN	2BX	SSU24XYEEXJ	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP LH

Spiral Fluted Taps for Left Hand Threads



Specification

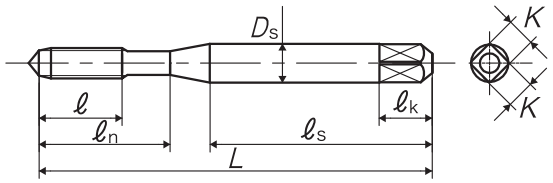
HSS | LH Left hand

■The SP LH is a spiral flute tap for tapping left hand thread blind holes.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

TYPE: 1



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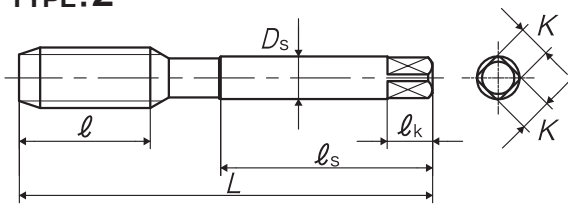

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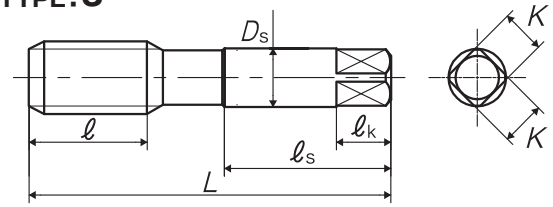

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P1	SPP2.0E--L	2.5P	42	7.2	12	27	3	2.5	5	2	1	¥ 3,060 ※
M2.3 × 0.4	P1	SPP2.3E--L	2.5P	42	7.2	12	27	3	2.5	5	2	1	¥ 2,790 ※
M2.5 × 0.45	P1	SPP2.5F--L	2.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 2,340 ※
M2.6 × 0.45	P1	SPP2.6F--L	2.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 2,340 ※
M3 × 0.5	P1	SPP3.0G--L	2.5P	46	9	14	26	4	3.2	6	3	1	¥ 1,640
M4 × 0.7	P2	SPQ4.0I--L	2.5P	52	11	17	29	5	4	7	3	1	¥ 1,640
M5 × 0.8	P2	SPQ5.0K--L	2.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,660
M6 × 1	P2	SPQ6.0M--L	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,820
M7 × 1	P2	SPQ7.0M--L	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,180 ※
M8 × 1.25	P2	SPQ8.0N--L	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,500
M8 × 1	P2	SPQ8.0M--L	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,840 ※
M10 × 1.5	P2	SPQ010O--L	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,180
M10 × 1.25	P2	SPQ010N--L	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,180
M10 × 1	P2	SPQ010M--L	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,770 ※
M12 × 1.75	P2	SPQ012P--L	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,500
M12 × 1.5	P2	SPQ012O--L	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,500 ※
M12 × 1.25	P2	SPQ012N--L	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,500 ※
M12 × 1	P2	SPQ012M--L	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 5,300 ※
M14 × 2	P2	SPQ014Q--L	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 6,140 ※
M14 × 1.5	P2	SPQ014O--L	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 6,140 ※
M14 × 1	P2	SPQ014M--L	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 7,130 ※
M16 × 2	P2	SPQ016Q--L	2.5P	95	26	-	48	12.5	10	13	3	2	¥ 8,210
M16 × 1.5	P2	SPQ016O--L	2.5P	95	26	-	48	12.5	10	13	3	2	¥ 8,210 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M18 × 2.5	P3	SPR018R--L	2.5P	100	33	-	51	14	11	14	4	2	¥ 11,000 ※
M18 × 1.5	P2	SPQ018O--L	2.5P	100	33	-	51	14	11	14	4	2	¥ 11,000 ※
M20 × 2.5	P3	SPR020R--L	2.5P	105	33	-	50	15	12	15	4	3	¥ 15,000
M20 × 1.5	P3	SPR020O--L	2.5P	105	33	-	50	15	12	15	4	3	¥ 15,000 ※
M22 × 2.5	P3	SPR022R--L	2.5P	115	33	-	55	17	13	16	4	3	¥ 19,200 ※
M22 × 1.5	P3	SPR022O--L	2.5P	115	33	-	55	17	13	16	4	3	¥ 19,200 ※
M24 × 3	P3	SPR024S--L	2.5P	120	39	-	55	19	15	18	4	3	¥ 23,800
M24 × 2	P3	SPR024Q--L	2.5P	120	39	-	55	19	15	18	4	3	¥ 23,800 ※
M24 × 1.5	P3	SPR024O--L	2.5P	120	39	-	55	19	15	18	4	3	¥ 23,800 ※
M27 × 3	P3	SPR027S--L	2.5P	130	39	-	60	20	15	18	4	3	¥ 33,200 ※
M27 × 1.5	P3	SPR027O--L	2.5P	130	39	-	60	20	15	18	4	3	¥ 33,200 ※
M30 × 3.5	P4	SPS030T--L	2.5P	135	46	-	62	23	17	20	4	3	¥ 42,300 ※
M30 × 2	P3	SPR030Q--L	2.5P	135	46	-	62	23	17	20	4	3	¥ 42,300 ※
M30 × 1.5	P3	SPR030O--L	2.5P	135	46	-	62	23	17	20	4	3	¥ 42,300 ※
For Unified Threads													
1/4-20UNC	P2	SPQU04N--L	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 2,080 ※
1/4-28UNF	P2	SPQU04K--L	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 2,080 ※
5/16-18UNC	P2	SPQU05O--L	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,880 ※
5/16-24UNF	P2	SPQU05M--L	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,880 ※
3/8-16UNC	P2	SPQU06P--L	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,680 ※
3/8-24UNF	P2	SPQU06M--L	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,680 ※
7/16-14UNC	P3	SPRU07Q--L	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 5,190 ※
7/16-20UNF	P2	SPQU07N--L	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 5,190 ※
1/2-13UNC	P3	SPRU08R--L	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,500 ※
1/2-20UNF	P2	SPQU08N--L	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,500 ※
For Whitworth Threads													
1/4W20	P2	SPQW04N--L	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 2,080 ※
5/16W18	P2	SPQW05O--L	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,880 ※
3/8W16	P2	SPQW06P--L	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,680 ※
7/16W14	P3	SPRW07Q--L	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 5,190 ※
1/2W12	P3	SPRW08S--L	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,500 ※
5/8W11	P3	SPRW10U--L	2.5P	95	26	-	48	12.5	10	13	3	2	¥ 8,210 ※
3/4W10	P3	SPRW12V--L	2.5P	105	33	-	50	15	12	15	4	3	¥ 15,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

SP LH



Spiral Fluted Taps for Left Hand Threads

Specification

HSS | LH Left hand

■The SP LH is a spiral flute tap for tapping left hand thread blind holes.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

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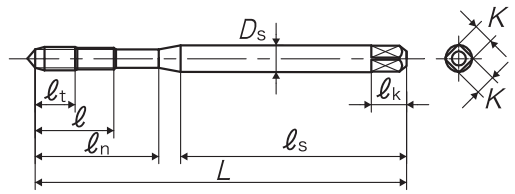

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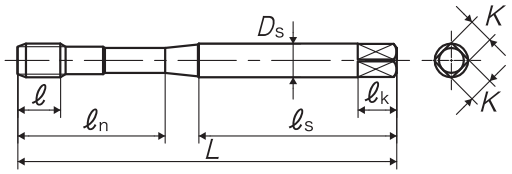

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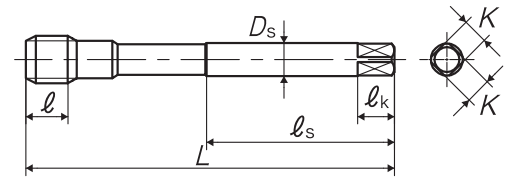

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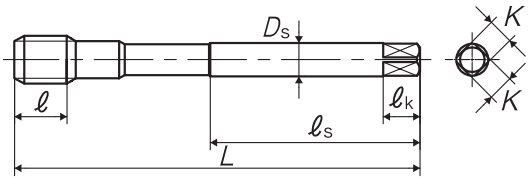

Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads													
M4 × 0.7	ISO2	HD4.0IANEB	2.5P	63	7	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2	HD5.0KANEB	2.5P	70	9	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2	HD6.0MANEB	2.5P	80	11	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2	HD8.0NANEB	2.5P	90	-	12	35	47	8	6.2	9	3	2
M8 × 1	ISO2	HM8.0MANEB	2.5P	90	-	12	-	46	6	4.9	8	3	3
M10 × 1.5	ISO2	HD010OANEB	2.5P	100	-	13	39	52.5	10	8	11	3	2
M12 × 1.75	ISO2	HG012PANEB	2.5P	110	-	15	-	56	9	7	10	3	4
M14 × 2	ISO2	HG014QANEB	2.5P	110	-	18	-	56	11	9	12	3	4
M14 × 1.5	ISO2	HM014OANEB	2.5P	100	-	14	-	51	11	9	12	3	3
M16 × 2	ISO2	HG016QANEB	2.5P	110	-	18	-	56	12	9	12	3	4
M16 × 1.5	ISO2	HM016OANEB	2.5P	100	-	14	-	51	12	9	12	3	3
M18 × 2.5	ISO2	HG018RANEB	2.5P	125	-	20	-	64	14	11	14	4	4
M20 × 2.5	ISO2	HG020RANEB	2.5P	140	-	20	-	71	16	12	15	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

SP V

Spiral Fluted Taps, Coated



Specification

HSS Coating



■This is a coated spiral fluted tap for blind holes.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

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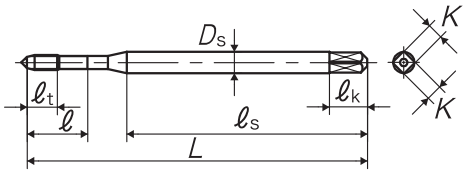

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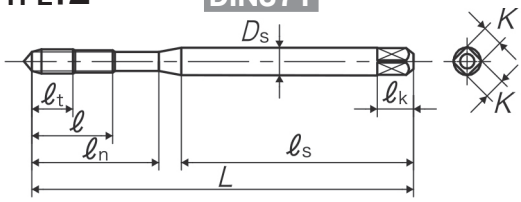

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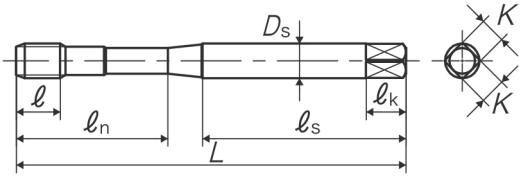

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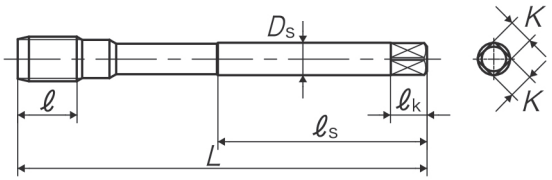


Segment : 1D (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads													
M2 × 0.4	ISO2	96402.0TI	2.5P	45	4	8	-	32	2.8	2.1	5	2	1
M3 × 0.5	ISO2	96403.0TI	2.5P	56	5	9	18	34	3.5	2.7	6	3	2
M4 × 0.7	ISO2	96404.0TI	2.5P	63	7	13	21	38	4.5	3.4	6	3	2
M5 × 0.8	ISO2	96405.0TI	2.5P	70	9	14	25	39	6	4.9	8	3	2
M6 × 1	ISO2	96406.0TI	2.5P	80	11	15	30	45	6	4.9	8	3	2
M8 × 1.25	ISO2	96408.0TI	2.5P	90	-	12	35	47	8	6.2	9	3	3
M8 × 1	ISO2	98408.0MTI	2.5P	90	-	12	-	46	6	4.9	8	3	4
M10 × 1.5	ISO2	9640010TI	2.5P	100	-	13	39	52.5	10	8	11	3	3
M10 × 1.25	ISO2	9840010NTI	2.5P	100	-	13	-	51	7	5.5	8	3	4
M10 × 1	ISO2	9840010MTI	2.5P	90	-	13	-	46	7	5.5	8	3	4
M12 × 1.75	ISO2	9740012TI	2.5P	110	-	15	-	56	9	7	10	3	4
M12 × 1.5	ISO2	9840012OTI	2.5P	100	-	15	-	51	9	7	10	3	4
M12 × 1.25	ISO2	9840012NTI	2.5P	100	-	15	-	51	9	7	10	3	4
M14 × 2	ISO2	9740014TI	2.5P	110	-	18	-	56	11	9	12	3	4
M14 × 1.5	ISO2	9840014OTI	2.5P	100	-	14	-	51	11	9	12	3	4
M16 × 2	ISO2	9740016TI	2.5P	110	-	18	-	56	12	9	12	3	4
M16 × 1.5	ISO2	9840016OTI	2.5P	100	-	14	-	51	12	9	12	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

SP V Spiral Fluted Taps, Coated

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M18 × 2.5	ISO2	9740018TI	2.5P	125	-	20	-	64	14	11	14	4	4
M18 × 1.5	ISO2	98400180TI	2.5P	110	-	14	-	56	14	11	14	4	4
M20 × 2.5	ISO2	9740020TI	2.5P	140	-	20	-	71	16	12	15	4	4
M20 × 1.5	ISO2	98400200TI	2.5P	125	-	14	-	64	16	12	15	4	4
M22 × 2.5	ISO2	9740022TI	2.5P	140	-	20	-	71	18	14.5	17	4	4
M22 × 1.5	ISO2	98400220TI	2.5P	125	-	14	-	64	18	14.5	17	4	4
M24 × 3	ISO2	9740024TI	2.5P	160	-	25	-	82	18	14.5	17	4	4
For G Threads													
G 1/8-28	-	9940R02TI	2.5P	90	-	12	-	46	7	5.5	8	3	4
G 1/4-19	-	9940R04TI	2.5P	100	-	14	-	51	11	9	12	3	4
G 3/8-19	-	9940R06TI	2.5P	100	-	14	-	51	12	9	12	3	4
G 1/2-14	-	9940R08TI	2.5P	125	-	18	-	64	16	12	15	4	4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

AU+SP



Plus Series Spiral Fluted Taps, Optimum Coating for the Tapping

Specification

HSS | Coating | <2D

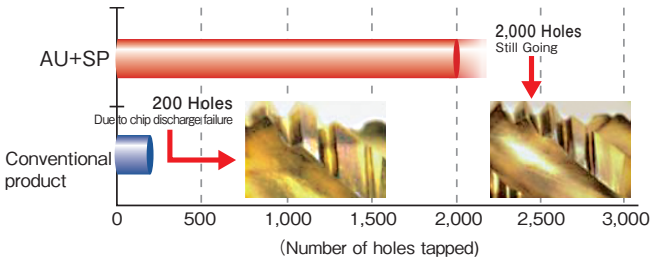
Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	5~10 (m/min)	20~30 (m/min)	20~30 (m/min)

Tapping Data

Tapping conditions [M6×1]

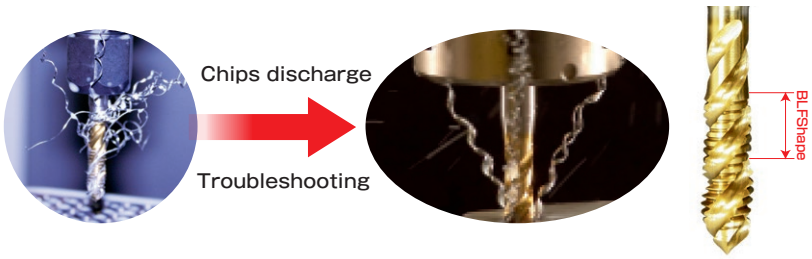
Workpiece Material	SCM440
Bore Hole Size	ϕ5.0
Tapping Length	9mm, blind hole
Tapping Speed	10m/min
Machinery Type	Vertical machining center (using floating holder)
Tapping Fluid	Water soluble cutting fluid (chlorine-free 20 to 1 dilution)



Product Features

BLF (Special shape of threaded part) + Significant improvements in chip discharge performance from a unique flute shape.

●The AU+SP tap has a special shape that has the first few threads at full size and reduces the remainder to half of the screw thread height.
●The special flute shape offers the following performance effects;
1. Prevents chipping of the complete threads.
2. Reduces the tapping torque and frictional resistance.
3. Creates a smooth discharge of chips.



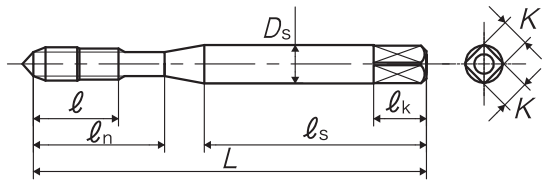
Moving the identification markings to the square end of the tap generates a roundness with higher precision, a better surface finish on the taps shank diameter and improves the accuracy of the tap. Minute burrs can occur during marking, even with laser engraving, therefore moving the identification markings to the square improves the overall quality and performance of the tap.



The AU+SP is applicable to a wide range of work materials.
It utilizes a flute shape that can maximize the features of the coating (wear resistance, heat resistance, resistance to welding) and can handle a wide range of work materials. It is also ideal for water soluble cutting fluids.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



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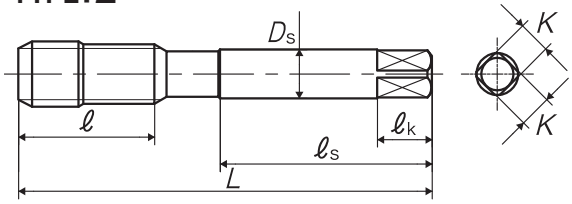

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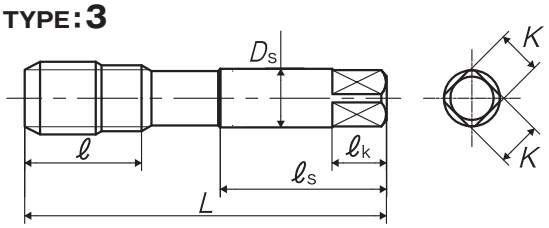


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P2	VSAPQ2.0E	2.5P	42	7.2	12	27	3	2.5	5	2	1	¥ 3,630
M2.5 × 0.45	P2	VSAPQ2.5F	2.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 3,130
M2.6 × 0.45	P2	VSAPQ2.6F	2.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 3,130
M3 × 0.5	P2	VSAPQ3.0G	2.5P	46	9	14	26	4	3.2	6	3	1	¥ 2,660
M4 × 0.7	P2	VSAPQ4.0I	2.5P	52	11	17	29	5	4	7	3	1	¥ 2,660
M5 × 0.8	P2	VSAPQ5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 2,710
M6 × 1	P2	VSAPQ6.0M	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 2,740
M8 × 1.25	P3	VSAPR8.0N	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 3,580
M8 × 1	P3	VSAPR8.0M	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 4,050
M10 × 1.5	P3	VSAPR010O	2.5P	75	23	-	38	7	5.5	8	4	2	¥ 4,190
M10 × 1.25	P3	VSAPR010N	2.5P	75	23	-	38	7	5.5	8	4	2	¥ 4,190
M10 × 1	P3	VSAPR010M	2.5P	75	23	-	38	7	5.5	8	4	2	¥ 4,610
M12 × 1.75	P3	VSAPR012P	2.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 5,550
M12 × 1.5	P3	VSAPR012O	2.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 5,550
M12 × 1.25	P3	VSAPR012N	2.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 5,550
M14 × 2	P3	VSAPR014Q	2.5P	88	26	-	45	10.5	8	11	4	2	¥ 7,640
M14 × 1.5	P3	VSAPR014O	2.5P	88	26	-	45	10.5	8	11	4	2	¥ 7,640
M16 × 2	P3	VSAPR016Q	2.5P	95	26	-	48	12.5	10	13	4	2	¥ 10,300
M16 × 1.5	P3	VSAPR016O	2.5P	95	26	-	48	12.5	10	13	4	2	¥ 10,300
M18 × 2.5	P4	VSAPS018R	2.5P	100	33	-	51	14	11	14	4	2	¥ 13,500
M18 × 1.5	P4	VSAPS018O	2.5P	100	33	-	51	14	11	14	4	2	¥ 13,500
M20 × 2.5	P4	VSAPS020R	2.5P	105	33	-	50	15	12	15	4	3	¥ 17,000
M20 × 1.5	P4	VSAPS020O	2.5P	105	33	-	50	15	12	15	4	3	¥ 17,000

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

AU+SP

Plus Series Spiral Fluted Taps,Coated



Specification

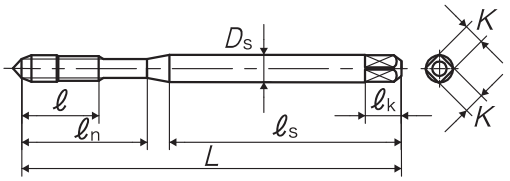
HSS | Coating | <2D

■For wide range of materials.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	5~10 (m/min)	20~30 (m/min)	20~30 (m/min)

TYPE : 1



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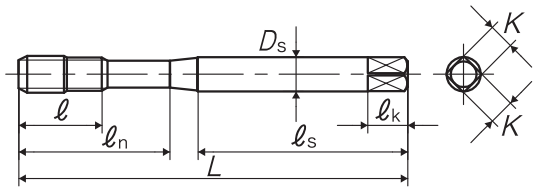

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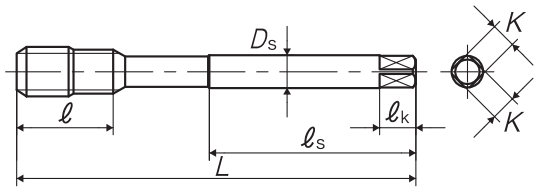


Segment : 1C

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	D3	ST3.0G3NEV	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	1
M4 × 0.7	D4	ST4.0I4NEV	2.5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	1
M5 × 0.8	D4	ST5.0K4NEV	2.5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	1
M6 × 1	D5	ST6.0M5NEV	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
M8 × 1.25	D5	ST8.0N5NEV	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
M8 × 1	D5	ST8.0M5NEV	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
M10 × 1.5	D6	ST010O6NEV	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	2
M10 × 1.25	D5	ST010N5NEV	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	2
M10 × 1	D5	ST010M5NEV	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	2
M12 × 1.75	D6	ST012P6NEV	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3
M12 × 1.5	D6	ST012O6NEV	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3
M12 × 1.25	D5	ST012N5NEV	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

AU+SP



Plus Series Spiral Fluted Taps, Coated

Specification

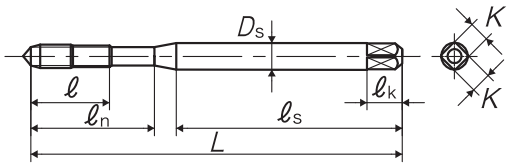
HSS | Coating | <2D

■Optimum coating suitable for the tapping condition.

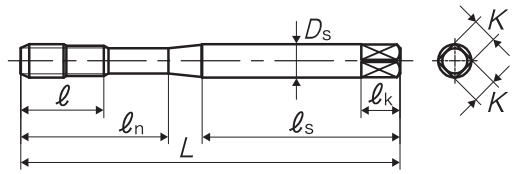
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	5~10 (m/min)	20~30 (m/min)	20~30 (m/min)

TYPE: 1 DIN371



TYPE: 2 DIN371



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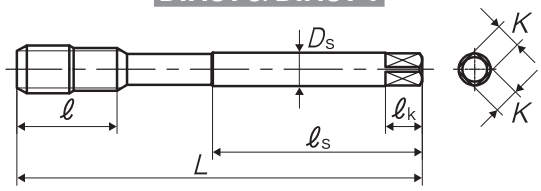


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2	SE3.0GANEV	2.5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2	SE4.0IANEV	2.5P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2	SE5.0KANEV	2.5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2	SE6.0MANEV	2.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2	SE8.0NANEV	2.5P	90	19	35	47	8	6.2	9	3	2
M8 × 1	ISO2	SN8.0MANEV	2.5P	90	19	-	46	6	4.9	8	3	3
M10 × 1.5	ISO2	SE010OANEV	2.5P	100	23	39	52.5	10	8	11	4	2
M10 × 1.25	ISO2	SN010NANEV	2.5P	100	23	-	51	7	5.5	8	4	3
M10 × 1	ISO2	SN010MANEV	2.5P	90	19	-	46	7	5.5	8	4	3
M12 × 1.75	ISO2	SH012PANEV	2.5P	110	26	-	56	9	7	10	4	3
M12 × 1.5	ISO2	SN012OANEV	2.5P	100	21	-	51	9	7	10	4	3
M12 × 1.25	ISO2	SN012NANEV	2.5P	100	21	-	51	9	7	10	4	3
M14 × 2	ISO2	SH014QANEV	2.5P	110	26	-	56	11	9	12	4	3
M14 × 1.5	ISO2	SN014OANEV	2.5P	100	21	-	51	11	9	12	4	3
M16 × 2	ISO2	SH016QANEV	2.5P	110	26	-	56	12	9	12	4	3
M16 × 1.5	ISO2	SN016OANEV	2.5P	100	21	-	51	12	9	12	4	3
M18 × 2.5	ISO2	SH018RANEV	2.5P	125	33	-	64	14	11	14	4	3
M18 × 1.5	ISO2	SN018OANEV	2.5P	110	24	-	56	14	11	14	4	3
M20 × 2.5	ISO2	SH020RANEV	2.5P	140	33	-	71	16	12	15	4	3
M20 × 1.5	ISO2	SN020OANEV	2.5P	125	24	-	64	16	12	15	4	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-SP

Long Shank Spiral Fluted Taps



Specification

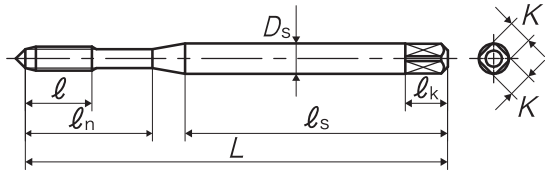
HSS

■Long shank spiral fluted taps for tapping threads in deep holes that cannot be reached with a standard overall length.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

TYPE: 1



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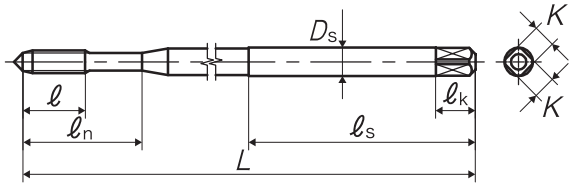

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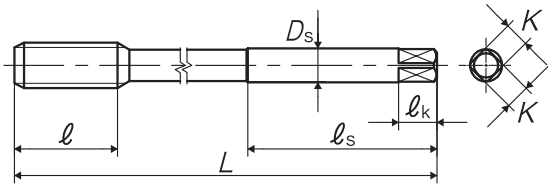

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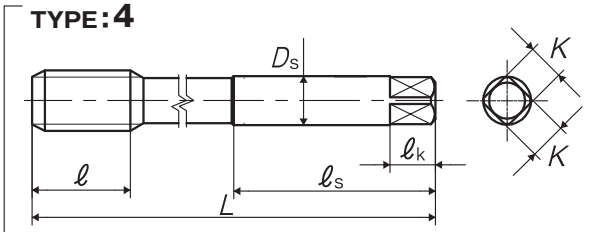


Oversize

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P1	SPFP2.0EL07	2.5P	70	7.2	15	52	3	2.5	5	2	1	¥ 4,060 ※
M2.3 × 0.4	P1	SPFP2.3EL07	2.5P	70	7.2	15	52	3	2.5	5	2	1	¥ 3,650 ※
M2.5 × 0.45	P1	SPFP2.5FL07	2.5P	70	8.1	15	52	3	2.5	5	2	1	¥ 3,200 ※
M2.6 × 0.45	P1	SPFP2.6FL07	2.5P	70	8.1	15	52	3	2.5	5	2	1	¥ 3,200 ※
M3 × 0.5	P1	SPFP3.0GL07	2.5P	70	9	18	46	4	3.2	6	3	1	¥ 2,490 ※
M3 × 0.5	P1	SPFP3.0GL10	2.5P	100	9	18	40	4	3.2	6	3	2	¥ 3,610
M3 × 0.5	P1	SPFP3.0GL12	2.5P	120	9	18	40	4	3.2	6	3	2	¥ 4,330 ※
M3 × 0.5	P1	SPFP3.0GL15	2.5P	150	9	18	40	4	3.2	6	3	2	¥ 6,810
M3 × 0.5	P2	SPFQ3.0GL10	2.5P	100	9	18	40	4	3.2	6	3	2	¥ 3,610 ※
M3 × 0.5	P2	SPFQ3.0GL15	2.5P	150	9	18	40	4	3.2	6	3	2	¥ 6,810 ※
M3 × 0.5	P3	SPFR3.0GL10	2.5P	100	9	18	40	4	3.2	6	3	2	¥ 3,610 ※
M3 × 0.5	P3	SPFR3.0GL15	2.5P	150	9	18	40	4	3.2	6	3	2	¥ 6,810 ※
M4 × 0.7	P2	SPFQ4.0IL07	2.5P	70	11	21	43	5	4	7	3	1	¥ 2,170 ※
M4 × 0.7	P2	SPFQ4.0IL10	2.5P	100	11	21	40	5	4	7	3	2	¥ 3,300
M4 × 0.7	P2	SPFQ4.0IL12	2.5P	120	11	21	40	5	4	7	3	2	¥ 4,080 ※
M4 × 0.7	P2	SPFQ4.0IL15	2.5P	150	11	21	40	5	4	7	3	2	¥ 6,290
M4 × 0.7	P3	SPFR4.0IL10	2.5P	100	11	21	40	5	4	7	3	2	¥ 3,300 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M4 × 0.7	P3	SPFR4.0IL15	2.5P	150	11	21	40	5	4	7	3	2	¥ 6,290 ※
M5 × 0.8	P2	SPFQ5.0KL10	2.5P	100	13	25	40	5.5	4.5	7	3	2	¥ 2,890
M5 × 0.8	P2	SPFQ5.0KL12	2.5P	120	13	25	40	5.5	4.5	7	3	2	¥ 3,600 ※
M5 × 0.8	P2	SPFQ5.0KL15	2.5P	150	13	25	40	5.5	4.5	7	3	2	¥ 4,890
M5 × 0.8	P3	SPFR5.0KL10	2.5P	100	13	25	40	5.5	4.5	7	3	2	¥ 2,890 ※
M5 × 0.8	P3	SPFR5.0KL15	2.5P	150	13	25	40	5.5	4.5	7	3	2	¥ 4,890 ※
M6 × 1	P2	SPFQ6.0ML10	2.5P	100	15	30	40	6	4.5	7	3	2	¥ 2,470
M6 × 1	P2	SPFQ6.0ML12	2.5P	120	15	30	40	6	4.5	7	3	2	¥ 3,180 ※
M6 × 1	P2	SPFQ6.0ML15	2.5P	150	15	30	40	6	4.5	7	3	2	¥ 4,360
M6 × 1	P2	SPFQ6.0ML20	2.5P	200	15	30	40	6	4.5	7	3	2	¥ 6,030 ※
M6 × 1	P3	SPFR6.0ML10	2.5P	100	15	30	40	6	4.5	7	3	2	¥ 2,470 ※
M6 × 1	P3	SPFR6.0ML15	2.5P	150	15	30	40	6	4.5	7	3	2	¥ 4,360 ※
M6 × 0.75	P2	SPFQ6.0JL10	2.5P	100	15	30	40	6	4.5	7	3	2	¥ 3,540 ※
M8 × 1.25	P2	SPQ8.0NL10	2.5P	100	19	-	50	6.2	5	8	3	3	¥ 3,140
M8 × 1.25	P2	SPQ8.0NL12	2.5P	120	19	-	50	6.2	5	8	3	3	¥ 3,890 ※
M8 × 1.25	P2	SPQ8.0NL15	2.5P	150	19	-	50	6.2	5	8	3	3	¥ 5,350
M8 × 1.25	P2	SPQ8.0NL20	2.5P	200	19	-	50	6.2	5	8	3	3	¥ 7,920 ※
M8 × 1.25	P3	SPR8.0NL10	2.5P	100	19	-	50	6.2	5	8	3	3	¥ 3,140 ※
M8 × 1.25	P3	SPR8.0NL15	2.5P	150	19	-	50	6.2	5	8	3	3	¥ 5,350 ※
M8 × 1	P2	SPQ8.0ML10	2.5P	100	19	-	50	6.2	5	8	3	3	¥ 3,380 ※
M8 × 1	P2	SPQ8.0ML12	2.5P	120	19	-	50	6.2	5	8	3	3	¥ 4,380 ※
M8 × 1	P2	SPQ8.0ML15	2.5P	150	19	-	50	6.2	5	8	3	3	¥ 5,590 ※
M8 × 0.75	P2	SPQ8.0JL10	2.5P	100	19	-	50	6.2	5	8	3	3	¥ 3,380 ※
M10 × 1.5	P2	SPQ0100L10	2.5P	100	23	-	50	7	5.5	8	3	3	¥ 3,810
M10 × 1.5	P2	SPQ0100L12	2.5P	120	23	-	50	7	5.5	8	3	3	¥ 4,520 ※
M10 × 1.5	P2	SPQ0100L15	2.5P	150	23	-	50	7	5.5	8	3	3	¥ 6,220
M10 × 1.5	P2	SPQ0100L20	2.5P	200	23	-	50	7	5.5	8	3	3	¥ 8,650 ※
M10 × 1.5	P3	SPR0100L10	2.5P	100	23	-	50	7	5.5	8	3	3	¥ 3,810 ※
M10 × 1.5	P3	SPR0100L15	2.5P	150	23	-	50	7	5.5	8	3	3	¥ 6,220 ※
M10 × 1.25	P2	SPQ010NL10	2.5P	100	23	-	50	7	5.5	8	3	3	¥ 3,810
M10 × 1.25	P2	SPQ010NL12	2.5P	120	23	-	50	7	5.5	8	3	3	¥ 4,520 ※
M10 × 1.25	P2	SPQ010NL15	2.5P	150	23	-	50	7	5.5	8	3	3	¥ 6,220
M10 × 1.25	P2	SPQ010NL20	2.5P	200	23	-	50	7	5.5	8	3	3	¥ 8,650 ※
M10 × 1	P2	SPQ010ML10	2.5P	100	23	-	50	7	5.5	8	3	3	¥ 4,120 ※
M10 × 1	P2	SPQ010ML12	2.5P	120	23	-	50	7	5.5	8	3	3	¥ 4,730 ※
M10 × 1	P2	SPQ010ML15	2.5P	150	23	-	50	7	5.5	8	3	3	¥ 7,020 ※
M10 × 0.75	P2	SPQ010JL15	2.5P	150	13	-	50	7	5.5	8	3	3	¥ 8,730 ※
M12 × 1.75	P2	SPQ012PL10	2.5P	100	26	-	50	8.5	6.5	9	3	3	¥ 4,670 ※
M12 × 1.75	P2	SPQ012PL12	2.5P	120	26	-	50	8.5	6.5	9	3	3	¥ 5,420 ※
M12 × 1.75	P2	SPQ012PL15	2.5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,790
M12 × 1.75	P2	SPQ012PL20	2.5P	200	26	-	50	8.5	6.5	9	3	3	¥ 10,900
M12 × 1.75	P3	SPR012PL15	2.5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,790 ※
M12 × 1.5	P2	SPQ0120L10	2.5P	100	26	-	50	8.5	6.5	9	3	3	¥ 4,670 ※
M12 × 1.5	P2	SPQ0120L12	2.5P	120	26	-	50	8.5	6.5	9	3	3	¥ 5,420 ※
M12 × 1.5	P2	SPQ0120L15	2.5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,790 ※
M12 × 1.5	P2	SPQ0120L20	2.5P	200	26	-	50	8.5	6.5	9	3	3	¥ 10,900 ※
M12 × 1.25	P2	SPQ012NL10	2.5P	100	26	-	50	8.5	6.5	9	3	3	¥ 4,670 ※
M12 × 1.25	P2	SPQ012NL12	2.5P	120	26	-	50	8.5	6.5	9	3	3	¥ 5,420 ※
M12 × 1.25	P2	SPQ012NL15	2.5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,790
M12 × 1.25	P2	SPQ012NL20	2.5P	200	26	-	50	8.5	6.5	9	3	3	¥ 10,900 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-SP Long Shank Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M12 × 1	P2	SPQ012ML10	2.5P	100	26	-	50	8.5	6.5	9	3	3	¥ 5,680 ※
M12 × 1	P2	SPQ012ML12	2.5P	120	26	-	50	8.5	6.5	9	3	3	¥ 6,400 ※
M12 × 1	P2	SPQ012ML15	2.5P	150	26	-	50	8.5	6.5	9	3	3	¥ 9,650 ※
M14 × 2	P2	SPQ014QL12	2.5P	120	26	-	60	10.5	8	11	3	3	¥ 7,140 ※
M14 × 2	P2	SPQ014QL15	2.5P	150	26	-	60	10.5	8	11	3	3	¥ 9,760
M14 × 2	P2	SPQ014QL20	2.5P	200	26	-	60	10.5	8	11	3	3	¥ 13,100
M14 × 1.5	P2	SPQ0140L12	2.5P	120	26	-	60	10.5	8	11	3	3	¥ 7,140 ※
M14 × 1.5	P2	SPQ0140L15	2.5P	150	26	-	60	10.5	8	11	3	3	¥ 9,760
M14 × 1.5	P2	SPQ0140L20	2.5P	200	26	-	60	10.5	8	11	3	3	¥ 13,100 ※
M16 × 2	P2	SPQ016QL15	2.5P	150	26	-	60	12.5	10	13	3	3	¥ 10,600
M16 × 2	P2	SPQ016QL20	2.5P	200	26	-	60	12.5	10	13	3	3	¥ 14,000
M16 × 2	P2	SPQ016QL25	2.5P	250	26	-	60	12.5	10	13	3	3	¥ 17,400 ※
M16 × 1.5	P2	SPQ0160L15	2.5P	150	26	-	60	12.5	10	13	3	3	¥ 10,600
M16 × 1.5	P2	SPQ0160L20	2.5P	200	26	-	60	12.5	10	13	3	3	¥ 14,000 ※
M18 × 2.5	P3	SPR018RL15	2.5P	150	33	-	70	14	11	14	4	3	¥ 14,500
M18 × 2.5	P3	SPR018RL20	2.5P	200	33	-	70	14	11	14	4	3	¥ 18,200 ※
M18 × 2.5	P3	SPR018RL25	2.5P	250	33	-	70	14	11	14	4	3	¥ 22,300 ※
M18 × 2	P3	SPR018QL20	2.5P	200	33	-	70	14	11	14	4	3	¥ 18,200 ※
M18 × 1.5	P2	SPQ0180L15	2.5P	150	33	-	70	14	11	14	4	3	¥ 14,500
M18 × 1.5	P2	SPQ0180L20	2.5P	200	33	-	70	14	11	14	4	3	¥ 18,200 ※
M20 × 2.5	P3	SPR020RL15	2.5P	150	33	-	70	15	12	15	4	4	¥ 18,600
M20 × 2.5	P3	SPR020RL20	2.5P	200	33	-	70	15	12	15	4	4	¥ 23,200
M20 × 2.5	P3	SPR020RL25	2.5P	250	33	-	70	15	12	15	4	4	¥ 29,500 ※
M20 × 2	P3	SPR020QL20	2.5P	200	33	-	70	15	12	15	4	4	¥ 23,200 ※
M20 × 1.5	P3	SPR0200L15	2.5P	150	33	-	70	15	12	15	4	4	¥ 18,600
M20 × 1.5	P3	SPR0200L20	2.5P	200	33	-	70	15	12	15	4	4	¥ 23,200 ※
M22 × 2.5	P3	SPR022RL15	2.5P	150	33	-	70	17	13	16	4	4	¥ 20,700 ※
M22 × 2.5	P3	SPR022RL20	2.5P	200	33	-	70	17	13	16	4	4	¥ 25,700 ※
M22 × 2.5	P3	SPR022RL25	2.5P	250	33	-	70	17	13	16	4	4	¥ 31,700 ※
M22 × 2	P3	SPR022QL20	2.5P	200	33	-	70	17	13	16	4	4	¥ 25,700 ※
M22 × 1.5	P3	SPR0220L15	2.5P	150	33	-	70	17	13	16	4	4	¥ 20,700
M22 × 1.5	P3	SPR0220L20	2.5P	200	33	-	70	17	13	16	4	4	¥ 25,700 ※
M24 × 3	P3	SPR024SL15	2.5P	150	39	-	80	19	15	18	4	4	¥ 24,100
M24 × 3	P3	SPR024SL20	2.5P	200	39	-	80	19	15	18	4	4	¥ 28,900
M24 × 3	P3	SPR024SL25	2.5P	250	39	-	80	19	15	18	4	4	¥ 36,600 ※
M24 × 2	P3	SPR024QL20	2.5P	200	39	-	80	19	15	18	4	4	¥ 28,900 ※
M24 × 1.5	P3	SPR0240L15	2.5P	150	39	-	80	19	15	18	4	4	¥ 24,100
M24 × 1.5	P3	SPR0240L20	2.5P	200	39	-	80	19	15	18	4	4	¥ 28,900 ※
M27 × 3	P3	SPR027SL20	2.5P	200	39	-	80	20	15	18	4	4	¥ 32,100 ※
M27 × 3	P3	SPR027SL25	2.5P	250	39	-	80	20	15	18	4	4	¥ 41,600 ※
M27 × 2	P3	SPR027QL20	2.5P	200	39	-	80	20	15	18	4	4	¥ 32,100 ※
M27 × 2	P3	SPR027QL25	2.5P	250	39	-	80	20	15	18	4	4	¥ 41,600 ※
M27 × 1.5	P3	SPR0270L20	2.5P	200	39	-	80	20	15	18	4	4	¥ 32,100 ※
M27 × 1.5	P3	SPR0270L25	2.5P	250	39	-	80	20	15	18	4	4	¥ 41,600 ※
M30 × 3.5	P4	SPS030TL20	2.5P	200	46	-	80	23	17	20	4	4	¥ 41,200 ※
M30 × 3.5	P4	SPS030TL25	2.5P	250	46	-	80	23	17	20	4	4	¥ 52,300 ※
M30 × 3.5	P4	SPS030TL30	2.5P	300	46	-	80	23	17	20	4	4	¥ 60,100 ※
M30 × 3	P3	SPR030SL25	2.5P	250	46	-	80	23	17	20	4	4	¥ 52,300 ※
M30 × 2	P3	SPR030QL20	2.5P	200	46	-	80	23	17	20	4	4	¥ 41,200 ※
M30 × 2	P3	SPR030QL25	2.5P	250	46	-	80	23	17	20	4	4	¥ 52,300 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-SP Long Shank Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M30 × 1.5	P3	SPR0300L20	2.5P	200	46	-	80	23	17	20	4	4	¥ 41,200 ※
M30 × 1.5	P3	SPR0300L25	2.5P	250	46	-	80	23	17	20	4	4	¥ 52,300 ※
M30 × 1.5	P3	SPR0300L30	2.5P	300	46	-	80	23	17	20	4	4	¥ 60,100 ※
M33 × 3.5	P4	SPS033TL25	2.5P	250	51	-	80	25	19	22	4	4	¥ 60,000 ※
M36 × 4	P4	SPS036UL25	2.5P	250	57	-	100	28	21	24	4	4	¥ 62,300 ※
M36 × 4	P4	SPS036UL30	2.5P	300	57	-	100	28	21	24	4	4	¥ 72,200 ※
For Unified Threads													
1/4-20UNC	P2	SPFQU04NL10	2.5P	100	15	30	40	6	4.5	7	3	2	¥ 2,680 ※
1/4-20UNC	P2	SPFQU04NL15	2.5P	150	15	30	40	6	4.5	7	3	2	¥ 4,330 ※
1/4-28UNF	P2	SPFQU04KL10	2.5P	100	15	30	40	6	4.5	7	3	2	¥ 2,680 ※
1/4-28UNF	P2	SPFQU04KL15	2.5P	150	15	30	40	6	4.5	7	3	2	¥ 4,330 ※
5/16-18UNC	P2	SPQU050L10	2.5P	100	19	-	50	6.2	5	8	3	3	¥ 3,190 ※
5/16-18UNC	P2	SPQU050L15	2.5P	150	19	-	50	6.2	5	8	3	3	¥ 5,330 ※
5/16-24UNF	P2	SPQU05ML10	2.5P	100	19	-	50	6.2	5	8	3	3	¥ 3,190 ※
5/16-24UNF	P2	SPQU05ML15	2.5P	150	19	-	50	6.2	5	8	3	3	¥ 5,330 ※
3/8-16UNC	P2	SPQU06PL10	2.5P	100	23	-	50	7	5.5	8	3	3	¥ 3,890 ※
3/8-16UNC	P2	SPQU06PL15	2.5P	150	23	-	50	7	5.5	8	3	3	¥ 6,320 ※
3/8-16UNC	P2	SPQU06PL20	2.5P	200	23	-	50	7	5.5	8	3	3	¥ 9,150 ※
3/8-24UNF	P2	SPQU06ML10	2.5P	100	23	-	50	7	5.5	8	3	3	¥ 3,890 ※
3/8-24UNF	P2	SPQU06ML15	2.5P	150	23	-	50	7	5.5	8	3	3	¥ 6,320 ※
3/8-24UNF	P2	SPQU06ML20	2.5P	200	23	-	50	7	5.5	8	3	3	¥ 9,150 ※
7/16-14UNC	P3	SPRU07QL15	2.5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,480 ※
7/16-20UNF	P2	SPQU07NL15	2.5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,480 ※
1/2-13UNC	P3	SPRU08RL15	2.5P	150	26	-	60	10.5	8	11	3	3	¥ 7,920 ※
1/2-13UNC	P3	SPRU08RL20	2.5P	200	26	-	60	10.5	8	11	3	3	¥ 11,300 ※
1/2-20UNF	P2	SPQU08NL15	2.5P	150	26	-	60	10.5	8	11	3	3	¥ 7,920 ※
1/2-20UNF	P2	SPQU08NL20	2.5P	200	26	-	60	10.5	8	11	3	3	¥ 11,300 ※
5/8-11UNC	P3	SPRU10UL15	2.5P	150	26	-	60	12.5	10	13	3	3	¥ 10,900 ※
5/8-11UNC	P3	SPRU10UL20	2.5P	200	26	-	60	12.5	10	13	3	3	¥ 14,200 ※
5/8-18UNF	P2	SPQU100L15	2.5P	150	26	-	60	12.5	10	13	3	3	¥ 10,900 ※
5/8-18UNF	P2	SPQU100L20	2.5P	200	26	-	60	12.5	10	13	3	3	¥ 14,200 ※
3/4-10UNC	P3	SPRU12VL15	2.5P	150	33	-	70	15	12	15	4	4	¥ 18,900 ※
3/4-10UNC	P3	SPRU12VL20	2.5P	200	33	-	70	15	12	15	4	4	¥ 24,100 ※
3/4-16UNF	P3	SPRU12PL15	2.5P	150	33	-	70	15	12	15	4	4	¥ 18,900 ※
3/4-16UNF	P3	SPRU12PL20	2.5P	200	33	-	70	15	12	15	4	4	¥ 24,100 ※
7/8-9UNC	P3	SPRU14WL15	2.5P	150	33	-	70	17	13	16	4	4	¥ 21,100 ※
7/8-9UNC	P3	SPRU14WL20	2.5P	200	33	-	70	17	13	16	4	4	¥ 25,700 ※
7/8-14UNF	P3	SPRU14QL20	2.5P	200	33	-	70	17	13	16	4	4	¥ 25,700 ※
1 -8UNC	P3	SPRU16XL15	2.5P	150	39	-	80	19	15	18	4	4	¥ 24,500 ※
1 -8UNC	P3	SPRU16XL20	2.5P	200	39	-	80	19	15	18	4	4	¥ 30,500 ※
1 -12UNF	P3	SPRU16SL20	2.5P	200	39	-	80	19	15	18	4	4	¥ 30,500 ※
For Whitworth Threads													
1/4W20	P2	SPFQW04NL10	2.5P	100	15	30	40	6	4.5	7	3	2	¥ 2,680 ※
1/4W20	P2	SPFQW04NL15	2.5P	150	15	30	40	6	4.5	7	3	2	¥ 4,330 ※
5/16W18	P2	SPQW050L10	2.5P	100	19	-	50	6.2	5	8	3	3	¥ 3,190 ※
5/16W18	P2	SPQW050L15	2.5P	150	19	-	50	6.2	5	8	3	3	¥ 5,330 ※
3/8W16	P2	SPQW06PL10	2.5P	100	23	-	50	7	5.5	8	3	3	¥ 3,890 ※
3/8W16	P2	SPQW06PL15	2.5P	150	23	-	50	7	5.5	8	3	3	¥ 6,320 ※
3/8W16	P2	SPQW06PL20	2.5P	200	23	-	50	7	5.5	8	3	3	¥ 9,150 ※
7/16W14	P3	SPRW07QL15	2.5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,480 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-SP Long Shank Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
1/2W12	P3	SPRW08SL15	2.5P	150	26	-	60	10.5	8	11	3	3	¥ 7,920 ※
1/2W12	P3	SPRW08SL20	2.5P	200	26	-	60	10.5	8	11	3	3	¥ 11,300 ※
5/8W11	P3	SPRW10UL15	2.5P	150	26	-	60	12.5	10	13	3	3	¥ 10,900 ※
5/8W11	P3	SPRW10UL20	2.5P	200	26	-	60	12.5	10	13	3	3	¥ 14,200 ※
3/4W10	P3	SPRW12VL15	2.5P	150	33	-	70	15	12	15	4	4	¥ 18,900 ※
3/4W10	P3	SPRW12VL20	2.5P	200	33	-	70	15	12	15	4	4	¥ 24,100 ※
7/8W9	P3	SPRW14WL15	2.5P	150	33	-	70	17	13	16	4	4	¥ 21,100 ※
7/8W9	P3	SPRW14WL20	2.5P	200	33	-	70	17	13	16	4	4	¥ 25,700 ※
1 W8	P3	SPRW16XL15	2.5P	150	39	-	80	19	15	18	4	4	¥ 24,500 ※
1 W8	P3	SPRW16XL20	2.5P	200	39	-	80	19	15	18	4	4	¥ 30,500 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-SP OX

Long Shank Oxidized Spiral Tap



Specification

HSS | OX Oxide

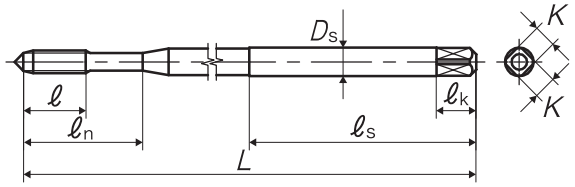


■Long shank spiral fluted taps for tapping threads in deep holes that cannot be reached with a standard overall length. The thread surface is oxidized to prevent welding.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
5~10 (m/min)	5~10 (m/min)

TYPE: 1



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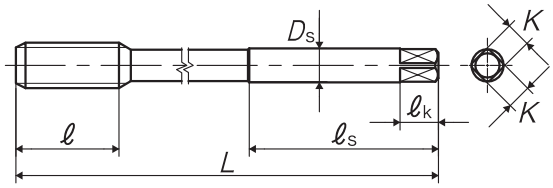


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M5 × 0.8	P2	SPFQ5.0KL12X	2.5P	120	13	25	40	5.5	4.5	7	3	1	¥ 3,960 ※
M8 × 1.25	P2	SPQ8.0NL10X	2.5P	100	19	-	50	6.2	5	8	3	2	¥ 3,460 ※
M8 × 1.25	P2	SPQ8.0NL12X	2.5P	120	19	-	50	6.2	5	8	3	2	¥ 4,280 ※
M10 × 1.5	P2	SPQ010OL12X	2.5P	120	23	-	50	7	5.5	8	3	2	¥ 4,980 ※
M10 × 1.5	P2	SPQ010OL15X	2.5P	150	23	-	50	7	5.5	8	3	2	¥ 6,850 ※
M10 × 1.25	P2	SPQ010NL10X	2.5P	100	23	-	50	7	5.5	8	3	2	¥ 4,200 ※
M10 × 1.25	P2	SPQ010NL12X	2.5P	120	23	-	50	7	5.5	8	3	2	¥ 4,980 ※
M12 × 1.75	P2	SPQ012PL10X	2.5P	100	26	-	50	8.5	6.5	9	3	2	¥ 5,140 ※
M12 × 1.75	P2	SPQ012PL15X	2.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 8,570 ※
M12 × 1.25	P2	SPQ012NL12X	2.5P	120	26	-	50	8.5	6.5	9	3	2	¥ 5,970 ※
M16 × 2	P2	SPQ016QL15X	2.5P	150	26	-	60	12.5	10	13	3	2	¥ 11,700 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-SP LH



Long Shank Spiral Fluted Taps for Left Hand Threads

Specification

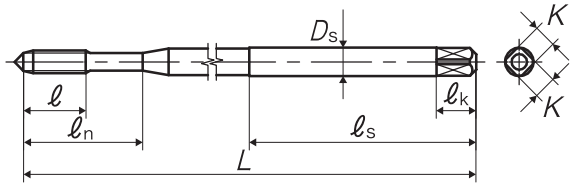
HSS | LH Left hand

■Long shank spiral fluted taps for tapping left hand threads in deep holes that cannot be reached with a standard overall length.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

TYPE: 1



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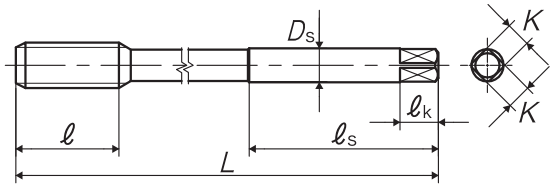


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P1	SPFP3.0GL10L	2.5P	100	9	18	40	4	3.2	6	3	1	¥ 4,700 ※
M4 × 0.7	P2	SPFQ4.0IL10L	2.5P	100	11	21	40	5	4	7	3	1	¥ 4,290 ※
M5 × 0.8	P2	SPFQ5.0KL10L	2.5P	100	13	25	40	5.5	4.5	7	3	1	¥ 3,760 ※
M6 × 1	P2	SPFQ6.0ML10L	2.5P	100	15	30	40	6	4.5	7	3	1	¥ 3,220 ※
M6 × 1	P2	SPFQ6.0ML15L	2.5P	150	15	30	40	6	4.5	7	3	1	¥ 5,670 ※
M8 × 1.25	P2	SPQ8.0NL15-L	2.5P	150	19	-	50	6.2	5	8	3	2	¥ 6,960 ※
M10 × 1.5	P2	SPQ010OL15-L	2.5P	150	23	-	50	7	5.5	8	3	2	¥ 8,090 ※
M10 × 1.25	P2	SPQ010NL15-L	2.5P	150	23	-	50	7	5.5	8	3	2	¥ 8,090 ※
M12 × 1.75	P2	SPQ012PL15-L	2.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 10,200 ※
M12 × 1.5	P2	SPQ012OL15-L	2.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 10,200 ※
M12 × 1.25	P2	SPQ012NL15-L	2.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 10,200 ※
M14 × 2	P2	SPQ014QL15-L	2.5P	150	26	-	60	10.5	8	11	3	2	¥ 12,700 ※
M14 × 1.5	P2	SPQ014OL15-L	2.5P	150	26	-	60	10.5	8	11	3	2	¥ 12,700 ※
M16 × 2	P2	SPQ016QL15-L	2.5P	150	26	-	60	12.5	10	13	3	2	¥ 13,800 ※
M16 × 1.5	P2	SPQ016OL15-L	2.5P	150	26	-	60	12.5	10	13	3	2	¥ 13,800 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-SP V



Long Shank Spiral Fluted Taps, Coated

Specification

HSS Coating

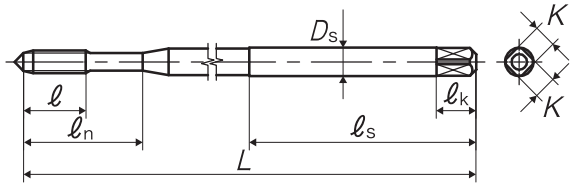


■Long shank coated spiral fluted taps for tapping threads in deep holes that cannot be reached with a standard overall length.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

TYPE: 1



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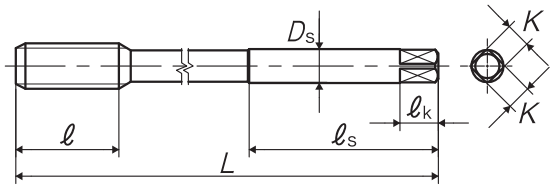


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P1	VSPFP3.0GL10	2.5P	100	9	18	40	4	3.2	6	3	1	¥ 5,600
M4 × 0.7	P2	VSPFQ4.0IL10	2.5P	100	11	21	40	5	4	7	3	1	¥ 5,250
M5 × 0.8	P2	VSPFQ5.0KL10	2.5P	100	13	25	40	5.5	4.5	7	3	1	¥ 4,910
M6 × 1	P2	VSPFQ6.0ML10	2.5P	100	15	30	40	6	4.5	7	3	1	¥ 4,460
M6 × 1	P2	VSPFQ6.0ML15	2.5P	150	15	30	40	6	4.5	7	3	1	¥ 6,220 ※
M8 × 1.25	P2	VSPQ8.0NL10	2.5P	100	19	-	50	6.2	5	8	3	2	¥ 5,470
M8 × 1.25	P2	VSPQ8.0NL15	2.5P	150	19	-	50	6.2	5	8	3	2	¥ 7,560
M10 × 1.5	P2	VSPQ010OL15	2.5P	150	23	-	50	7	5.5	8	3	2	¥ 8,770
M10 × 1.25	P2	VSPQ010NL15	2.5P	150	23	-	50	7	5.5	8	3	2	¥ 8,770 ※
M12 × 1.75	P2	VSPQ012PL15	2.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 11,100
M12 × 1.5	P2	VSPQ012OL15	2.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 11,100 ※
M12 × 1.25	P2	VSPQ012NL15	2.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 11,100 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-SP-K



Long Shank Spiral Fluted Taps with Long Neck

Specification

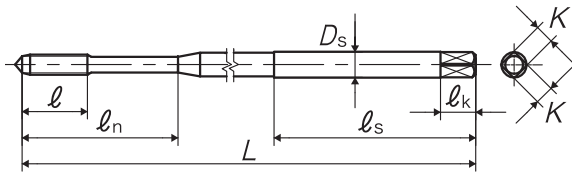
HSS

■Long shank spiral fluted taps with long neck for tapping threads in deep holes that cannot be reached with a standard overall length. The long neck enables deep hole tapping.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P1	SY3.0GPFEBE	2.5P	100	9	28	40	4	3.2	6	2	1	¥ 3,610 ※
M3 × 0.5	P1	SY3.0GPFEBF	2.5P	120	9	28	40	4	3.2	6	2	1	¥ 4,330 ※
M3 × 0.5	P1	SY3.0GPFEBG	2.5P	150	9	28	40	4	3.2	6	2	1	¥ 6,810 ※
M4 × 0.7	P2	SY4.0IQFEBE	2.5P	100	11	31	40	5	4	7	3	1	¥ 3,300 ※
M4 × 0.7	P2	SY4.0IQFEBF	2.5P	120	11	31	40	5	4	7	3	1	¥ 4,080 ※
M4 × 0.7	P2	SY4.0IQFEBG	2.5P	150	11	31	40	5	4	7	3	1	¥ 6,290 ※
M5 × 0.8	P2	SY5.0KQFEBE	2.5P	100	13	38	40	5.5	4.5	7	3	1	¥ 2,890 ※
M5 × 0.8	P2	SY5.0KQFEBF	2.5P	120	13	38	40	5.5	4.5	7	3	1	¥ 3,600 ※
M5 × 0.8	P2	SY5.0KQFEBG	2.5P	150	13	38	40	5.5	4.5	7	3	1	¥ 4,890 ※
M6 × 1	P2	SY6.0MQFEBE	2.5P	100	15	45	40	6	4.5	7	3	1	¥ 2,470 ※
M6 × 1	P2	SY6.0MQFEBF	2.5P	120	15	45	40	6	4.5	7	3	1	¥ 3,180 ※
M6 × 1	P2	SY6.0MQFEBG	2.5P	150	15	45	40	6	4.5	7	3	1	¥ 4,360 ※

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS



SU+SP
SU-SP

Spiral Fluted Taps for Stainless Steels

Specification



・Product Name and Size.

SU+SP	M2～M6 (coarse thread)
SU−SP	～M1.7, M2～M6(fine thread), M8～, all U, all W

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)

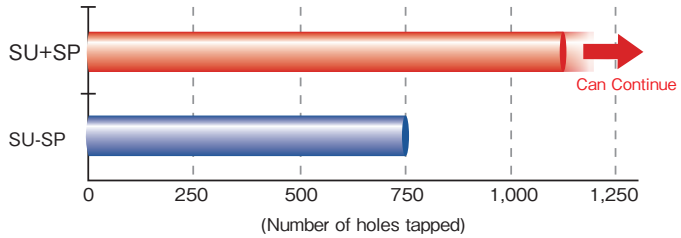
Product Features

- Ideal for blind hole machining in stainless steel, chromium steel, molybdenum steel. These materials have remarkably high work hardening properties.
- The optimum design of the thread section reduces the processing burden on each flutes cutting chamfer.
- Reduces cutting resistance and increases tool life.
- Chip discharge is stable and achieves a good surface finished.
- Improved strength and life expectancy is achieved.
- Use with either synchronous or asynchronous thread processing.

Tapping Data

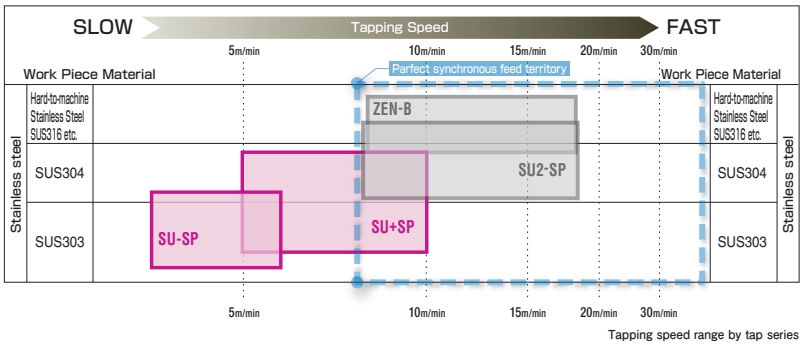
Tapping Conditions [M6×1]

Workpiece Material	SUS304 (90HRB)
Bored Hole Size	ϕ5.0
Tapping length	9mm, blind hole
Tapping Speed	8m/min
Machinery Type	Vertical machining center (perfect synchronous feed)
Tapping Fluid	Non-water soluble cutting oil (chlorine-free)

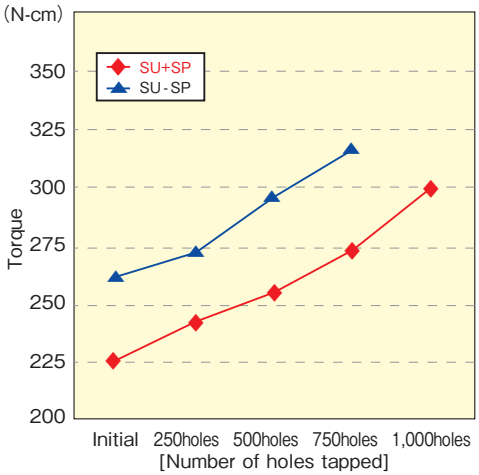


Speed chart

Taps for blind hole tapping of stainless steel.



Change in tapping torque



■ Notes

When tapping SS400 materials and soft steel materials with SU+SP, use a synchronized feed machine. If they are tapped with a non-synchronized feed drilling machine or the like, the internal thread may widen.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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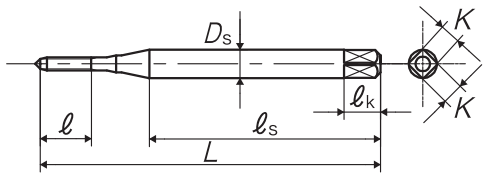

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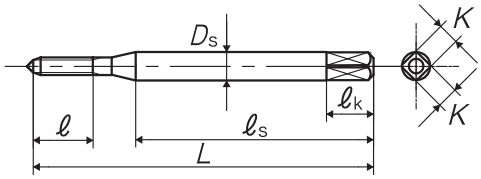

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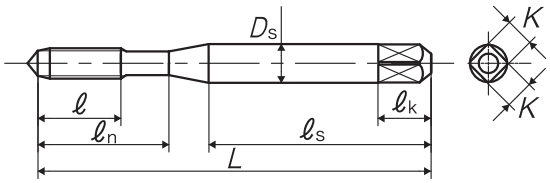

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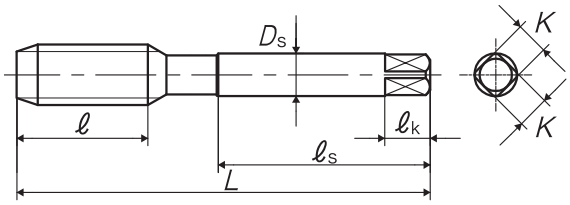

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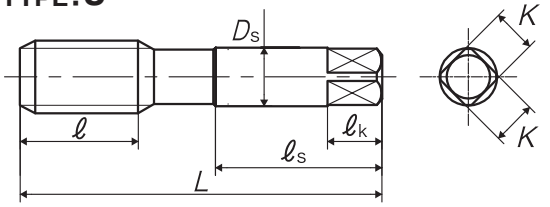

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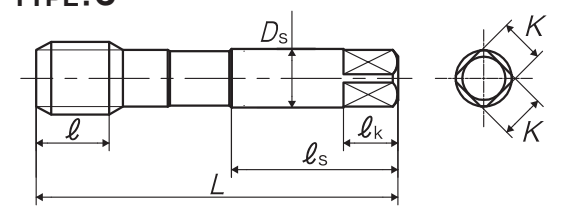

SU+SP Spiral Fluted Taps for Stainless Steels

Oversize

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P1	SUPP2.0E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,710
M2 × 0.4	P2	SUPQ2.0E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,710 ※
M2 × 0.4	P3	SUPR2.0E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,710 ※
M2.3 × 0.4	P1	SUPP2.3E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,470 ※
M2.3 × 0.4	P2	SUPQ2.3E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,470 ※
M2.3 × 0.4	P3	SUPR2.3E	2.5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,470 ※
M2.5 × 0.45	P1	SUPP2.5F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,070
M2.5 × 0.45	P2	SUPQ2.5F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,070 ※
M2.5 × 0.45	P3	SUPR2.5F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,070 ※
M2.6 × 0.45	P1	SUPP2.6F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,070
M2.6 × 0.45	P2	SUPQ2.6F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,070 ※
M2.6 × 0.45	P3	SUPR2.6F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,070 ※
M3 × 0.5	P1	SUPP3.0G	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,450
M3 × 0.5	P2	SUPQ3.0G	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,450 ※
M3 × 0.5	P3	SUPR3.0G	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,450 ※
3M0.6	P1	SUPP3.0H	2.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,450 ※
M3.5 × 0.6	P1	SUPP3.5H	2.5P	52	11	16	29	5	4	7	3	3	¥ 1,450 ※
M3.5 × 0.6	P3	SUPR3.5H	2.5P	52	11	16	29	5	4	7	3	3	¥ 1,450 ※
M4 × 0.7	P2	SUPQ4.0I	2.5P	52	11	17	29	5	4	7	3	3	¥ 1,450
M4 × 0.7	P3	SUPR4.0I	2.5P	52	11	17	29	5	4	7	3	3	¥ 1,450 ※
M4 × 0.7	P4	SUPS4.0I	2.5P	52	11	17	29	5	4	7	3	3	¥ 1,450 ※
4M0.75	P2	SUPQ4.0J	2.5P	52	11	17	29	5	4	7	3	3	¥ 1,450 ※
M5 × 0.8	P2	SUPQ5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,470
M5 × 0.8	P3	SUPR5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,470 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SU+SP Spiral Fluted Taps for Stainless Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M5 × 0.8	P4	SUPS5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,470 ※
5M0.9	P2	SUPQ5.0L	2.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,470 ※
M6 × 1	P2	SUPQ6.0M	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,610
M6 × 1	P3	SUPR6.0M	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,610 ※
M6 × 1	P4	SUPS6.0M	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,610 ※

SU-SP Spiral Fluted Taps for Stainless Steels

Oversize

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M1.4 × 0.3	P1	SUMP1.4C	2.5P	36	5.4	-	24	3	2.5	5	2	1	¥ 3,550 ※
M1.6 × 0.35	P1	SUMP1.6D	2.5P	36	6.3	-	24	3	2.5	5	2	2	¥ 3,390 ※
M1.7 × 0.35	P1	SUMP1.7D	2.5P	36	6.3	-	24	3	2.5	5	2	2	¥ 3,390 ※
M1.7 × 0.35	P2	SUMQ1.7D	2.5P	36	6.3	-	24	3	2.5	5	2	2	¥ 3,390 ※
M6 × 0.75	P2	SUMQ6.0J	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 2,270 ※
M8 × 1.25	P2	SUMQ8.0N	2.5P	70	19	-	36	6.2	5	8	3	4	¥ 2,210
M8 × 1.25	P3	SUMR8.0N	2.5P	70	19	-	36	6.2	5	8	3	4	¥ 2,210 ※
M8 × 1.25	P4	SUMS8.0N	2.5P	70	19	-	36	6.2	5	8	3	4	¥ 2,210 ※
M8 × 1	P2	SUMQ8.0M	2.5P	70	19	-	36	6.2	5	8	3	4	¥ 2,510 ※
M8 × 0.75	P2	SUMQ8.0J	2.5P	70	19	-	36	6.2	5	8	3	4	¥ 2,850 ※
M10 × 1.5	P2	SUMQ010O	2.5P	75	23	-	38	7	5.5	8	3	4	¥ 2,810
M10 × 1.5	P3	SUMR010O	2.5P	75	23	-	38	7	5.5	8	3	4	¥ 2,810 ※
M10 × 1.5	P4	SUMS010O	2.5P	75	23	-	38	7	5.5	8	3	4	¥ 2,810 ※
M10 × 1.25	P2	SUMQ010N	2.5P	75	23	-	38	7	5.5	8	3	4	¥ 2,810
M10 × 1.25	P3	SUMR010N	2.5P	75	23	-	38	7	5.5	8	3	4	¥ 2,810 ※
M10 × 1.25	P4	SUMS010N	2.5P	75	23	-	38	7	5.5	8	3	4	¥ 2,810 ※
M10 × 1	P2	SUMQ010M	2.5P	75	23	-	38	7	5.5	8	3	4	¥ 3,340 ※
M10 × 1	P4	SUMS010M	2.5P	75	23	-	38	7	5.5	8	3	4	¥ 3,340 ※
M12 × 1.75	P2	SUMQ012P	2.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980
M12 × 1.75	P3	SUMR012P	2.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980 ※
M12 × 1.75	P4	SUMS012P	2.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980 ※
M12 × 1.5	P2	SUMQ012O	2.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980
M12 × 1.5	P3	SUMR012O	2.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980 ※
M12 × 1.5	P4	SUMS012O	2.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980 ※
M12 × 1.25	P2	SUMQ012N	2.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980
M12 × 1.25	P3	SUMR012N	2.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980 ※
M12 × 1	P2	SUMQ012M	2.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 4,690 ※
M14 × 2	P2	SUMQ014Q	2.5P	88	26	-	45	10.5	8	11	3	4	¥ 5,430
M14 × 2	P3	SUMR014Q	2.5P	88	26	-	45	10.5	8	11	3	4	¥ 5,430 ※
M14 × 2	P4	SUMS014Q	2.5P	88	26	-	45	10.5	8	11	3	4	¥ 5,430 ※
M14 × 1.5	P2	SUMQ014O	2.5P	88	26	-	45	10.5	8	11	3	4	¥ 5,430
M14 × 1.5	P4	SUMS014O	2.5P	88	26	-	45	10.5	8	11	3	4	¥ 5,430 ※
M14 × 1	P2	SUMQ014M	2.5P	88	26	-	45	10.5	8	11	3	4	¥ 6,310 ※
M16 × 2	P2	SUMQ016Q	2.5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260
M16 × 2	P3	SUMR016Q	2.5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
M16 × 2	P4	SUMS016Q	2.5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
M16 × 1.5	P2	SUMQ016O	2.5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260
M16 × 1.5	P4	SUMS016O	2.5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SU-SP Spiral Fluted Taps for Stainless Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M18 × 2.5	P3	SUMR018R	2.5P	100	33	-	51	14	11	14	4	4	¥ 9,700
M18 × 2.5	P4	SUMS018R	2.5P	100	33	-	51	14	11	14	4	4	¥ 9,700 ※
M18 × 1.5	P2	SUMQ018O	2.5P	100	33	-	51	14	11	14	4	4	¥ 9,700
M18 × 1.5	P4	SUMS018O	2.5P	100	33	-	51	14	11	14	4	4	¥ 9,700 ※
M20 × 2.5	P3	SUMR020R	2.5P	105	33	-	50	15	12	15	4	5	¥ 13,300
M20 × 2.5	P4	SUMS020R	2.5P	105	33	-	50	15	12	15	4	5	¥ 13,300 ※
M20 × 1.5	P3	SUMR020O	2.5P	105	33	-	50	15	12	15	4	5	¥ 13,300
M20 × 1.5	P4	SUMS020O	2.5P	105	33	-	50	15	12	15	4	5	¥ 13,300 ※
M22 × 2.5	P3	SUMR022R	2.5P	115	33	-	55	17	13	16	4	5	¥ 17,000
M22 × 2.5	P4	SUMS022R	2.5P	115	33	-	55	17	13	16	4	5	¥ 17,000 ※
M22 × 2.5	P5	SUMT022R	2.5P	115	33	-	55	17	13	16	4	5	¥ 17,000 ※
M22 × 1.5	P3	SUMR022O	2.5P	115	33	-	55	17	13	16	4	5	¥ 17,000 ※
M22 × 1.5	P4	SUMS022O	2.5P	115	33	-	55	17	13	16	4	5	¥ 17,000 ※
M24 × 3	P3	SUMR024S	2.5P	120	39	-	55	19	15	18	4	5	¥ 21,100
M24 × 3	P4	SUMS024S	2.5P	120	39	-	55	19	15	18	4	5	¥ 21,100 ※
M24 × 3	P5	SUMT024S	2.5P	120	39	-	55	19	15	18	4	5	¥ 21,100 ※
M24 × 2	P3	SUMR024Q	2.5P	120	39	-	55	19	15	18	4	5	¥ 21,100 ※
M24 × 1.5	P3	SUMR024O	2.5P	120	39	-	55	19	15	18	4	5	¥ 21,100 ※
M24 × 1.5	P4	SUMS024O	2.5P	120	39	-	55	19	15	18	4	5	¥ 21,100 ※
M27 × 3	P3	SUMR027S	2.5P	130	39	-	60	20	15	18	4	5	¥ 29,400 ※
M27 × 1.5	P3	SUMR027O	2.5P	130	39	-	60	20	15	18	4	5	¥ 29,400 ※
M30 × 3.5	P4	SUMS030T	2.5P	135	46	-	62	23	17	20	4	5	¥ 37,400 ※
M30 × 1.5	P3	SUMR030O	2.5P	135	46	-	62	23	17	20	4	5	¥ 37,400 ※
M33 × 3.5	P4	SUMS033T	2.5P	145	46	-	67	25	19	22	4	5	¥ 43,500 ※
M36 × 4	P4	SUMS036U	2.5P	155	52	-	71	28	21	24	4	5	¥ 50,400 ※
M39 × 4	P4	SUMS039U	2.5P	165	52	-	76	30	23	26	4	5	¥ 57,800 ※
M42 × 4.5	P4	SUMS042V	2.5P	175	59	-	81	32	26	30	4	5	¥ 70,300 ※
M42 × 1.5	P3	SUMR042O	2.5P	175	27	-	81	32	26	30	4	6	¥ 70,300 ※
M45 × 4.5	P4	SUMS045V	2.5P	180	59	-	83	35	26	30	4	5	¥ 81,400 ※
M48 × 5	P4	SUMS048W	2.5P	185	65	-	85	38	29	32	4	5	¥102,000 ※
For Unified Threads													
No.2-56UNC	P1	SUMPUN2E	2.5P	42	8.1	12	27	3	2.5	5	2	3	¥ 2,830 ※
No.3-48UNC	P1	SUMPUN3F	2.5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,400 ※
No.4-40UNC	P1	SUMPUN4H	2.5P	46	9	14	25	4	3.2	6	2	3	¥ 1,830 ※
No.4-48UNF	P1	SUMPUN4F	2.5P	46	9	14	25	4	3.2	6	2	3	¥ 1,830 ※
No.5-40UNC	P1	SUMPUN5H	2.5P	52	11	16	28	5	4	7	3	3	¥ 1,710 ※
No.5-44UNF	P1	SUMPUN5G	2.5P	52	11	16	28	5	4	7	3	3	¥ 1,710 ※
No.6-32UNC	P2	SUMQUN6J	2.5P	52	11	17	27	5	4	7	3	3	¥ 1,710 ※
No.6-40UNF	P1	SUMPUN6H	2.5P	52	11	17	27	5	4	7	3	3	¥ 1,710 ※
No.8-32UNC	P2	SUMQUN8J	2.5P	60	13	22	31	5.5	4.5	7	3	3	¥ 1,720 ※
No.8-36UNF	P2	SUMQUN8I	2.5P	60	13	22	31	5.5	4.5	7	3	3	¥ 1,720 ※
No.10-24UNC	P2	SUMQUNAM	2.5P	60	13	22	32	5.5	4.5	7	3	3	¥ 1,720 ※
No.10-32UNF	P2	SUMQUNAJ	2.5P	60	13	22	32	5.5	4.5	7	3	3	¥ 1,720 ※
1/4-20UNC	P2	SUMQU04N	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,840 ※
1/4-28UNF	P2	SUMQU04K	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,840 ※
5/16-18UNC	P2	SUMQU05O	2.5P	70	19	-	36	6.2	5	8	3	4	¥ 2,550 ※
5/16-24UNF	P2	SUMQU05M	2.5P	70	19	-	36	6.2	5	8	3	4	¥ 2,550 ※
3/8-16UNC	P2	SUMQU06P	2.5P	75	23	-	38	7	5.5	8	3	4	¥ 3,260 ※
3/8-24UNF	P2	SUMQU06M	2.5P	75	23	-	38	7	5.5	8	3	4	¥ 3,260 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SU-SP Spiral Fluted Taps for Stainless Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
7/16-14UNC	P3	SUMRU07Q	2.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 4,590 ※
7/16-20UNF	P2	SUMQU07N	2.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 4,590 ※
1/2-13UNC	P3	SUMRU08R	2.5P	88	26	-	45	10.5	8	11	3	4	¥ 4,870 ※
1/2-20UNF	P2	SUMQU08N	2.5P	88	26	-	45	10.5	8	11	3	4	¥ 4,870 ※
5/8-11UNC	P3	SUMRU10U	2.5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
5/8-18UNF	P2	SUMQU10O	2.5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
3/4-10UNC	P3	SUMRU12V	2.5P	105	33	-	50	15	12	15	4	5	¥ 13,300 ※
3/4-16UNF	P3	SUMRU12P	2.5P	105	33	-	50	15	12	15	4	5	¥ 13,300 ※
7/8-9UNC	P3	SUMRU14W	2.5P	115	33	-	55	17	13	16	4	5	¥ 18,700 ※
7/8-14UNF	P3	SUMRU14Q	2.5P	115	33	-	55	17	13	16	4	5	¥ 18,700 ※
1 -8UNC	P3	SUMRU16X	2.5P	125	39	-	58	19	15	18	4	5	¥ 27,300 ※
1 -12UNF	P3	SUMRU16S	2.5P	125	39	-	58	19	15	18	4	5	¥ 27,300 ※
For Whitworth Threads													
3/16W24	P2	SUMQW03M	2.5P	60	13	21	32	5.5	4.5	7	3	3	¥ 1,720 ※
1/4W20	P2	SUMQW04N	2.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,840 ※
5/16W18	P2	SUMQW05O	2.5P	70	19	-	36	6.2	5	8	3	4	¥ 2,550 ※
3/8W16	P2	SUMQW06P	2.5P	75	23	-	38	7	5.5	8	3	4	¥ 3,260 ※
7/16W14	P3	SUMRW07Q	2.5P	82	26	-	42	8.5	6.5	9	3	4	¥ 4,590 ※
1/2W12	P3	SUMRW08S	2.5P	88	26	-	45	10.5	8	11	3	4	¥ 4,870 ※
9/16W12	P3	SUMRW09S	2.5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
5/8W11	P3	SUMRW10U	2.5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
3/4W10	P3	SUMRW12V	2.5P	105	33	-	50	15	12	15	4	5	¥ 13,300 ※
7/8W9	P3	SUMRW14W	2.5P	115	33	-	55	17	13	16	4	5	¥ 18,700 ※
1 W8	P3	SUMRW16X	2.5P	125	39	-	58	19	15	18	4	5	¥ 27,300 ※

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ANSI

ZELX SS SP



Spiral Fluted Taps for Stainless Steels

Specification

HSS | OX Oxide | <2D

■Suitable for stainless steels, sticky and tending to work-harden, as well as chrome steels and chrome molybdenum steels. Blind hole use.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)

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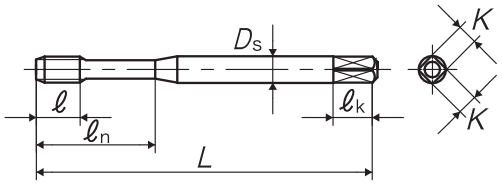

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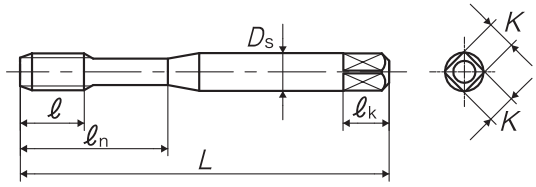

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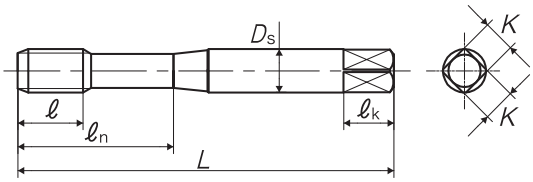

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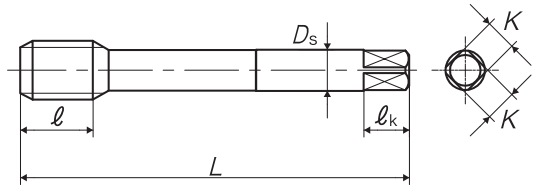

Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads											
M3 × 0.5	D3	Y74615	2.5P	1.937	0.197	0.625	0.141	0.11	0.187	3	1
M3 × 0.5	D3	Y74015	1.5P	1.937	0.197	0.625	0.141	0.11	0.187	3	1
M3.5 × 0.6	D4	Y74616	2.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
M4 × 0.7	D4	Y74617	2.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
M4 × 0.7	D4	Y74017	1.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
M5 × 0.8	D4	Y74619	2.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
M5 × 0.8	D4	Y74019	1.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
M6 × 1	D5	Y74620	2.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
M6 × 1	D5	Y74020	1.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
M7 × 1	D5	Y74621	2.5P	2.718	0.433	1.125	0.318	0.238	0.375	3	3
M8 × 1.25	D5	Y74623	2.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
M8 × 1.25	D5	Y74023	1.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
M8 × 1	D5	Y74622	2.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
M8 × 1	D5	Y74022	1.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
M10 × 1.5	D6	Y74625	2.5P	2.937	0.512	1.25	0.381	0.286	0.437	3	3
M10 × 1.5	D6	Y74025	1.5P	2.937	0.512	1.25	0.381	0.286	0.437	3	3
M10 × 1.25	D5	Y74624	2.5P	2.937	0.472	1.25	0.381	0.286	0.437	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX SS SP Spiral Fluted Taps for Stainless Steels

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M10 × 1.25	D5	Y74024	1.5P	2.937	0.472	1.25	0.381	0.286	0.437	3	3
M12 × 1.75	D6	Y74627	2.5P	3.375	0.591	-	0.367	0.275	0.437	3	4
M12 × 1.75	D6	Y74027	1.5P	3.375	0.591	-	0.367	0.275	0.437	3	4
M12 × 1.25	D5	Y74626	2.5P	3.375	0.551	-	0.367	0.275	0.437	3	4
M12 × 1.25	D5	Y74026	1.5P	3.375	0.551	-	0.367	0.275	0.437	3	4
M14 × 2	D7	Y74629	2.5P	3.593	0.709	-	0.429	0.322	0.5	3	4
M14 × 2	D7	Y74029	1.5P	3.593	0.709	-	0.429	0.322	0.5	3	4
M14 × 1.5	D6	Y74628	2.5P	3.593	0.551	-	0.429	0.322	0.5	3	4
M14 × 1.5	D6	Y74028	1.5P	3.593	0.551	-	0.429	0.322	0.5	3	4
M16 × 2	D7	Y74631	2.5P	3.812	0.709	-	0.48	0.36	0.562	3	4
M16 × 2	D7	Y74031	1.5P	3.812	0.709	-	0.48	0.36	0.562	3	4
M16 × 1.5	D6	Y74630	2.5P	3.812	0.551	-	0.48	0.36	0.562	3	4
M16 × 1.5	D6	Y74030	1.5P	3.812	0.551	-	0.48	0.36	0.562	3	4
M18 × 2.5	D7	Y74633	2.5P	4.031	0.787	-	0.542	0.406	0.625	4	4
M18 × 1.5	D6	Y74632	2.5P	4.031	0.551	-	0.542	0.406	0.625	4	4
M20 × 2.5	D7	Y74635	2.5P	4.468	0.787	-	0.652	0.489	0.687	4	4
M24 × 3	D8	Y74639	2.5P	4.906	0.984	-	0.76	0.57	0.75	4	4
For Unified Threads											
No.2-56UNC	GH2	Y84623	2.5P	1.75	0.157	0.437	0.141	0.11	0.187	2	1
No.3-48UNC	GH2	Y84600	2.5P	1.812	0.197	0.5	0.141	0.11	0.187	2	1
No.4-40UNC	GH2	Y84601	2.5P	1.875	0.236	0.562	0.141	0.11	0.187	2	1
No.4-40UNC	GH2	Y84001	1.5P	1.875	0.236	0.562	0.141	0.11	0.187	2	1
No.4-40UNC	GH3	Y84602	2.5P	1.875	0.236	0.562	0.141	0.11	0.187	2	1
No.4-40UNC	GH3	Y84002	1.5P	1.875	0.236	0.562	0.141	0.11	0.187	2	1
No.4-40UNC	GH4	Y84629	2.5P	1.875	0.236	0.562	0.141	0.11	0.187	2	1
No.4-40UNC	GH5	Y84634	2.5P	1.875	0.236	0.562	0.141	0.11	0.187	2	1
No.4-40UNC	GH5	Y84034	1.5P	1.875	0.236	0.562	0.141	0.11	0.187	2	1
No.4-48UNF	GH2	Y84683	2.5P	1.875	0.236	0.562	0.141	0.11	0.187	2	1
No.4-48UNF	GH2	Y84083	1.5P	1.875	0.236	0.562	0.141	0.11	0.187	2	1
No.5-40UNC	GH2	Y84603	2.5P	1.937	0.236	0.625	0.141	0.11	0.187	3	1
No.5-40UNC	GH2	Y84003	1.5P	1.937	0.236	0.625	0.141	0.11	0.187	3	1
No.6-32UNC	GH2	Y84604	2.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH2	Y84004	1.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y84605	2.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y84005	1.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH4	Y84636	2.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH5	Y84635	2.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH5	Y84035	1.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH6	Y84659	2.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH7	Y84665	2.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-40UNF	GH2	Y84684	2.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-40UNF	GH2	Y84084	1.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-40UNF	GH3	Y84685	2.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-40UNF	GH3	Y84085	1.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.8-32UNC	GH2	Y84606	2.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH2	Y84006	1.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH3	Y84607	2.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH3	Y84007	1.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH4	Y84638	2.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH5	Y84637	2.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX SS SP Spiral Fluted Taps for Stainless Steels

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.8-32UNC	GH5	Y84037	1.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH6	Y84660	2.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH7	Y84667	2.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-36UNF	GH3	Y84687	2.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.10-24UNC	GH2	Y84624	2.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH3	Y84609	2.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH3	Y84009	1.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH5	Y84639	2.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH5	Y84039	1.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH6	Y84690	2.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH7	Y84669	2.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH2	Y84611	2.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y84610	2.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y84010	1.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH4	Y84630	2.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH5	Y84640	2.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH5	Y84040	1.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH6	Y84662	2.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH7	Y84670	2.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.12-24UNC	GH3	Y84688	2.5P	2.375	0.354	0.937	0.22	0.165	0.281	3	1
No.12-28UNF	GH3	Y84689	2.5P	2.375	0.276	0.937	0.22	0.165	0.281	3	1
1/4-20UNC	GH3	Y84613	2.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH3	Y84013	1.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	Y84643	2.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	Y84043	1.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH7	Y84673	2.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y84614	2.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y84014	1.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	Y84631	2.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH5	Y84644	2.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH5	Y84044	1.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH6	Y84664	2.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH7	Y84674	2.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	Y84615	2.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH3	Y84015	1.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	Y84645	2.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	Y84045	1.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH7	Y84675	2.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y84616	2.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y84016	1.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	Y84632	2.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH5	Y84646	2.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH5	Y84046	1.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH7	Y84676	2.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	Y84617	2.5P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH3	Y84017	1.5P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	Y84647	2.5P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	Y84047	1.5P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH7	Y84677	2.5P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH7	Y84077	1.5P	2.937	0.551	1.25	0.381	0.286	0.437	3	3

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Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX SS SP Spiral Fluted Taps for Stainless Steels

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
3/8-24UNF	GH3	Y84618	2.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y84018	1.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	Y84633	2.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	Y84033	1.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH5	Y84648	2.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH5	Y84048	1.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH7	Y84678	2.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	Y84619	2.5P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH3	Y84019	1.5P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH5	Y84649	2.5P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH5	Y84049	1.5P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH7	Y84679	2.5P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y84620	2.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y84020	1.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	Y84650	2.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	Y84050	1.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH6	Y84691	2.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH7	Y84680	2.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	Y84621	2.5P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH3	Y84021	1.5P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH5	Y84651	2.5P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH5	Y84051	1.5P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH7	Y84681	2.5P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y84622	2.5P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y84022	1.5P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH5	Y84652	2.5P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH5	Y84052	1.5P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH6	Y84692	2.5P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH7	Y84682	2.5P	3.375	0.472	-	0.367	0.275	0.437	3	4
9/16-12UNC	GH3	Y84653	2.5P	3.593	0.709	-	0.429	0.322	0.5	3	4
9/16-12UNC	GH3	Y84053	1.5P	3.593	0.709	-	0.429	0.322	0.5	3	4
9/16-18UNF	GH3	Y84654	2.5P	3.593	0.512	-	0.429	0.322	0.5	3	4
9/16-18UNF	GH3	Y84054	1.5P	3.593	0.512	-	0.429	0.322	0.5	3	4
9/16-18UNF	GH5	Y84698	2.5P	3.593	0.512	-	0.429	0.322	0.5	3	4
5/8-11UNC	GH3	Y84625	2.5P	3.812	0.748	-	0.48	0.36	0.562	3	4
5/8-11UNC	GH3	Y84025	1.5P	3.812	0.748	-	0.48	0.36	0.562	3	4
5/8-11UNC	GH5	Y84655	2.5P	3.812	0.748	-	0.48	0.36	0.562	3	4
5/8-11UNC	GH5	Y84055	1.5P	3.812	0.748	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH3	Y84626	2.5P	3.812	0.512	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH3	Y84026	1.5P	3.812	0.512	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH5	Y84656	2.5P	3.812	0.512	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH5	Y84056	1.5P	3.812	0.512	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH7	Y84672	2.5P	3.812	0.512	-	0.48	0.36	0.562	3	4
3/4-10UNC	GH3	Y84627	2.5P	4.25	0.827	-	0.59	0.442	0.687	4	4
3/4-10UNC	GH3	Y84027	1.5P	4.25	0.827	-	0.59	0.442	0.687	4	4
3/4-10UNC	GH5	Y84657	2.5P	4.25	0.827	-	0.59	0.442	0.687	4	4
3/4-16UNF	GH3	Y84628	2.5P	4.25	0.591	-	0.59	0.442	0.687	4	4
3/4-16UNF	GH3	Y84028	1.5P	4.25	0.591	-	0.59	0.442	0.687	4	4
3/4-16UNF	GH5	Y84658	2.5P	4.25	0.591	-	0.59	0.442	0.687	4	4
3/4-16UNF	GH7	Y84686	2.5P	4.25	0.591	-	0.59	0.442	0.687	4	4

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX SS SP Spiral Fluted Taps for Stainless Steels

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
7/8-9UNC	GH4	Y84695	2.5P	4.687	0.827	-	0.697	0.523	0.75	4	4
7/8-14UNF	GH4	Y84696	2.5P	4.687	0.709	-	0.697	0.523	0.75	4	4
7/8-14UNF	GH6	Y84694	2.5P	4.687	0.709	-	0.697	0.523	0.75	4	4
1 -8UNC	GH4	Y84697	2.5P	5.125	0.984	-	0.8	0.6	0.812	4	4
1 -12UNF	GH4	Y84668	2.5P	5.125	0.709	-	0.8	0.6	0.812	4	4
1 1/8-7UNC	GH6	Y84701	2.5P	5.437	1.181	-	0.896	0.672	0.875	4	4
1 1/8-12UNF	GH5	Y84702	2.5P	5.437	0.787	-	0.896	0.672	0.875	4	4
1 1/4-7UNC	GH6	Y84703	2.5P	5.75	1.181	-	1.021	0.766	1	4	4
1 1/4-12UNF	GH5	Y84705	2.5P	5.75	0.787	-	1.021	0.766	1	4	4
1 3/8-6UNC	GH6	Y84706	2.5P	6.062	1.575	-	1.108	0.831	1.062	4	4
1 3/8-12UNF	GH5	Y84707	2.5P	6.062	0.787	-	1.108	0.831	1.062	4	4
1 1/2-6UNC	GH6	Y84709	2.5P	6.375	1.575	-	1.233	0.925	1.125	4	4
1 1/2-12UNF	GH5	Y84711	2.5P	6.375	0.787	-	1.233	0.925	1.125	4	4
1 3/4-5UNC	GH7	Y84714	2.5P	7	1.772	-	1.43	1.072	1.25	4	4
2 -4 1/2UNC	GH7	Y84715	2.5P	7.625	1.969	-	1.644	1.233	1.375	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

SP-VA



Spiral Fluted Taps for Stainless Steels

Specification

HSS | OX Oxide | <2D

■Most suitable for stainless steels, sticky and tending to work-harden, as well as chrome steels and molybdenum steels, blind hole use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)

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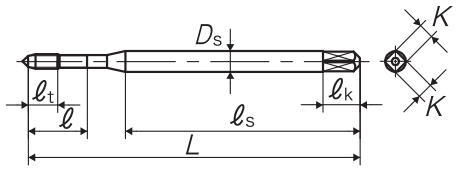

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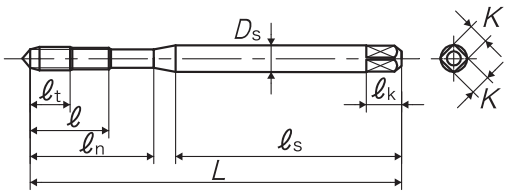

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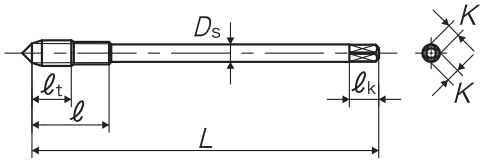

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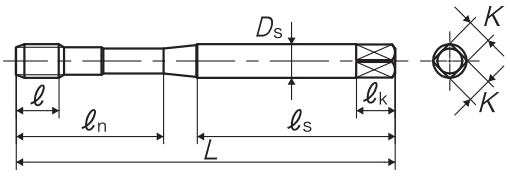

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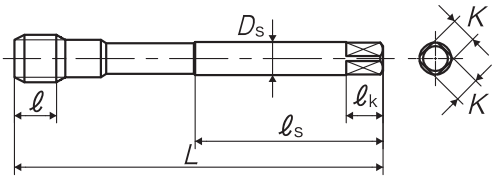

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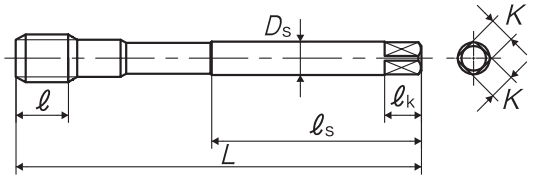

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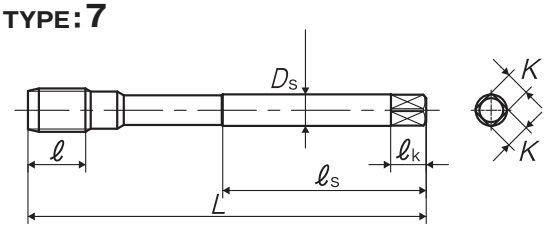

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

Segment : 1D (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads													
M2 × 0.4	ISO2	SD2.0EAGEX	2.5P	45	4	8	-	32	2.8	2.1	5	2	1
M2.5 × 0.45	ISO2	SD2.5FAGEX	2.5P	50	4	8	15	33	2.8	2.1	5	2	2
M3 × 0.5	ISO2	SD3.0GAGEX	2.5P	56	5	9	18	34	3.5	2.7	6	2	2
M3 × 0.5	ISO3	SD3.0GMGEX	2.5P	56	5	9	18	34	3.5	2.7	6	2	2
M4 × 0.7	ISO2	SD4.0IAGEX	2.5P	63	7	13	21	38	4.5	3.4	6	3	2
M4 × 0.7	ISO3	SD4.0IMGEX	2.5P	63	7	13	21	38	4.5	3.4	6	3	2
M5 × 0.8	ISO2	SD5.0KAGEX	2.5P	70	9	14	25	39	6	4.9	8	3	2
M5 × 0.8	ISO3	SD5.0KMGEX	2.5P	70	9	14	25	39	6	4.9	8	3	2
M6 × 1	ISO2	SD6.0MAGEX	2.5P	80	11	15	30	45	6	4.9	8	3	2
M6 × 1	ISO3	SD6.0MMGEX	2.5P	80	11	15	30	45	6	4.9	8	3	2
M6 × 0.75	ISO2	SM6.0JAGEX	2.5P	80	8	13	-	-	4.5	3.4	6	3	3
M8 × 1.25	ISO2	SD8.0NAGEX	2.5P	90	-	12	35	47	8	6.2	9	3	4
M8 × 1.25	ISO2	SG8.0NAGEX	2.5P	90	-	12	-	46	6	4.9	8	3	5
M8 × 1.25	ISO3	SD8.0NMGEX	2.5P	90	-	12	35	47	8	6.2	9	3	4
M8 × 1	ISO2	SM8.0MAGEX	2.5P	90	-	12	-	46	6	4.9	8	3	5
M8 × 0.75	ISO2	SM8.0JAGEX	2.5P	80	-	12	-	41	6	4.9	8	3	5
M10 × 1.5	ISO2	SD0100AGEX	2.5P	100	-	13	39	52.5	10	8	11	3	4
M10 × 1.5	ISO2	SG0100AGEX	2.5P	100	-	13	-	51	7	5.5	8	3	5
M10 × 1.5	ISO3	SD0100MGEX	2.5P	100	-	13	39	52.5	10	8	11	3	4
M10 × 1.25	ISO2	SM010NAGEX	2.5P	100	-	13	-	51	7	5.5	8	3	5
M10 × 1	ISO2	SM010MAGEX	2.5P	90	-	13	-	46	7	5.5	8	3	5
M12 × 1.75	ISO2	SG012PAGEX	2.5P	110	-	15	-	56	9	7	10	3	6
M12 × 1.75	ISO3	SG012PMGEX	2.5P	110	-	15	-	56	9	7	10	3	6
M12 × 1.5	ISO2	SM0120AGEX	2.5P	100	-	15	-	51	9	7	10	3	5
M12 × 1.25	ISO2	SM012NAGEX	2.5P	100	-	15	-	51	9	7	10	3	5
M12 × 1	ISO2	SM012MAGEX	2.5P	100	-	15	-	51	9	7	10	3	5
M14 × 2	ISO2	SG014QAGEX	2.5P	110	-	18	-	56	11	9	12	3	6
M14 × 1.5	ISO2	SM0140AGEX	2.5P	100	-	14	-	51	11	9	12	3	5
M14 × 1	ISO2	SM014MAGEX	2.5P	100	-	14	-	51	11	9	12	3	5
M16 × 2	ISO2	SG016QAGEX	2.5P	110	-	18	-	56	12	9	12	3	6
M16 × 1.5	ISO2	SM0160AGEX	2.5P	100	-	14	-	51	12	9	12	3	5
M16 × 1	ISO2	SM016MAGEX	2.5P	100	-	14	-	51	12	9	12	3	5
M18 × 2.5	ISO2	SG018RAGEX	2.5P	125	-	20	-	64	14	11	14	4	6
M18 × 1.5	ISO2	SM0180AGEX	2.5P	110	-	14	-	56	14	11	14	4	5
M20 × 2.5	ISO2	SG020RAGEX	2.5P	140	-	20	-	71	16	12	15	4	6
M20 × 1.5	ISO2	SM0200AGEX	2.5P	125	-	14	-	64	16	12	15	4	5
M22 × 2.5	ISO2	SG022RAGEX	2.5P	140	-	20	-	71	18	14.5	17	4	6
M22 × 1.5	ISO2	SM0220AGEX	2.5P	125	-	14	-	64	18	14.5	17	4	5
M24 × 3	ISO2	SG024SAGEX	2.5P	160	-	25	-	82	18	14.5	17	4	6
M24 × 2	ISO2	SM024QAGEX	2.5P	140	-	18	-	71	18	14.5	17	4	5
M24 × 1.5	ISO2	SM0240AGEX	2.5P	140	-	18	-	71	18	14.5	17	4	5
M27 × 3	ISO2	SG027SAGEX	2.5P	160	-	25	-	82	20	16	19	4	6
M27 × 2	ISO2	SM027QAGEX	2.5P	140	-	20	-	71	20	16	19	4	5
M30 × 3.5	ISO2	SG030TAGEX	2.5P	180	-	30	-	92	22	18	21	4	6
M30 × 2	ISO2	SM030QAGEX	2.5P	150	-	20	-	77	22	18	21	4	5
M30 × 1.5	ISO2	SM0300AGEX	2.5P	150	-	20	-	77	22	18	21	4	5
M36 × 4	ISO2	SG036UAGEX	2.5P	200	-	40	-	102	28	22	25	4	6
For Unified Threads													
No.4-40UNC	2B	SDUN4HXGEX	2.5P	56	11	5	18	34	3.5	2.7	6	2	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

SP-VA Spiral Fluted Taps for Stainless Steels

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
No.6-32UNC	2B	SDUN6JXGEX	2.5P	56	7	11	19	32	4	3	6	3	2
No.8-32UNC	2B	SDUN8JXGEX	2.5P	63	7	13	21	38	4.5	3.4	6	3	2
No.10-24UNC	2B	SDUNAMXGEX	2.5P	70	9	14	24	39	6	4.9	8	3	2
No.10-32UNF	2B	SDUNAJXGEX	2.5P	70	9	14	24	39	6	4.9	8	3	2
1/4-20UNC	2B	SDU04NXGEX	2.5P	80	11	15	30	42	7	5.5	8	3	2
1/4-28UNF	2B	SDU04KXGEX	2.5P	80	11	15	30	42	7	5.5	8	3	2
5/16-18UNC	2B	SDU05OXGEX	2.5P	90	-	12	35	47	8	6.2	9	3	4
5/16-24UNF	2B	SMU05MXGEX	2.5P	90	-	12	-	46	6	4.9	8	3	5
3/8-16UNC	2B	SDU06PXGEX	2.5P	100	-	13	39	54.5	9	7	10	3	4
3/8-24UNF	2B	SMU06MXGEX	2.5P	100	-	13	-	51	7	5.5	8	3	5
7/16-14UNC	2B	SGU07QXGEX	2.5P	100	-	13	-	51	8	6.2	9	3	6
7/16-20UNF	2B	SMU07NXGEX	2.5P	100	-	13	-	51	8	6.2	9	3	5
1/2-13UNC	2B	SGU08RXGEX	2.5P	110	-	15	-	56	9	7	10	3	6
1/2-20UNF	2B	SMU08NXGEX	2.5P	100	-	15	-	51	9	7	10	3	5
9/16-12UNC	2B	SGU09SXGEX	2.5P	110	-	18	-	56	11	9	12	3	6
9/16-18UNF	2B	SMU09OXGEX	2.5P	100	-	14	-	51	11	9	12	3	5
5/8-11UNC	2B	SGU10UXGEX	2.5P	110	-	18	-	56	12	9	12	3	6
5/8-18UNF	2B	SMU10OXGEX	2.5P	100	-	14	-	51	12	9	12	3	5
3/4-10UNC	2B	SGU12VXGEX	2.5P	125	-	20	-	64	14	11	14	4	6
3/4-16UNF	2B	SMU12PXGEX	2.5P	110	-	14	-	56	14	11	14	4	5
7/8-9UNC	2B	SGU14WXGEX	2.5P	140	-	20	-	71	18	14.5	17	4	6
7/8-14UNF	2B	SMU14QXGEX	2.5P	125	-	20	-	64	18	14.5	17	4	5
1 -8UNC	2B	SGU16XXGEX	2.5P	160	-	25	-	82	18	14.5	17	4	6
1 -12UNF	2B	SMU16SXGEX	2.5P	140	-	18	-	71	18	14.5	17	4	5
1 1/8-7UNC	2B	SGU18YXGEX	2.5P	180	-	30	-	92	22	18	21	4	6
1 1/8-8UN	2B	SMU18XXGEX	2.5P	180	-	28	-	92	22	18	21	4	5
1 1/8-12UNF	2B	SMU18SXGEX	2.5P	150	-	20	-	77	22	18	21	4	5
1 1/4-7UNC	2B	SGU20YXGEX	2.5P	180	-	30	-	92	22	18	21	4	6
1 1/4-8UN	2B	SMU20XXGEX	2.5P	180	-	28	-	92	22	18	21	4	5
1 1/4-12UNF	2B	SMU20SXGEX	2.5P	150	-	20	-	77	22	18	21	4	5
1 3/8-6UNC	2B	SGU22ZXGEX	2.5P	200	-	40	-	102	28	22	25	4	6
1 3/8-8UN	2B	SMU22XXGEX	2.5P	200	-	30	-	102	28	22	25	4	5
1 3/8-12UNF	2B	SMU22SXGEX	2.5P	170	-	20	-	87	28	22	25	4	5
1 1/2-6UNC	2B	SGU24ZXGEX	2.5P	200	-	40	-	102	32	24	27	4	6
1 1/2-8UN	2B	SMU24XXGEX	2.5P	200	-	30	-	102	32	24	27	4	5
1 1/2-12UNF	2B	SMU24SXGEX	2.5P	170	-	20	-	87	32	24	27	4	5
1 5/8-8UN	2B	SMU26XXGEX	2.5P	200	-	30	-	102	32	24	27	4	5
1 3/4-8UN	2B	SMU28XXGEX	2.5P	200	-	40	-	102	36	29	32	4	5
2 -8UN	2B	SMU32XXGEX	2.5P	225	-	40	-	115	40	32	35	4	5
For PF Threads													
G 1/8-28	-	SVG0020GEX	2.5P	90	-	12	-	46	7	5.5	8	3	7
G 1/4-19	-	SVG0040GEX	2.5P	100	-	14	-	51	11	9	12	3	7
G 3/8-19	-	SVG0060GEX	2.5P	100	-	14	-	51	12	9	12	3	7
G 1/2-14	-	SVG0080GEX	2.5P	125	-	18	-	64	16	12	15	4	7
G 3/4-14	-	SVG0120GEX	2.5P	140	-	20	-	71	20	16	19	4	7
G 1 -11	-	SVG0160GEX	2.5P	160	-	20	-	82	25	20	23	4	7

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

SP+VA



Spiral Fluted Taps for Stainless Steels

Specification

HSS | OX Oxide | Synchro nized | <2D

■Most suitable for stainless steels, sticky and tending to work-harden, as well as chrome steels and molybdenum steels, blind hole use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~10 (m/min)

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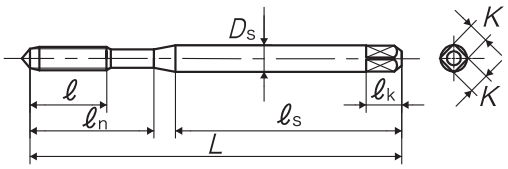

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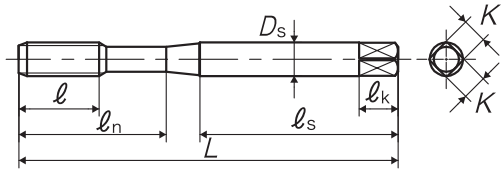

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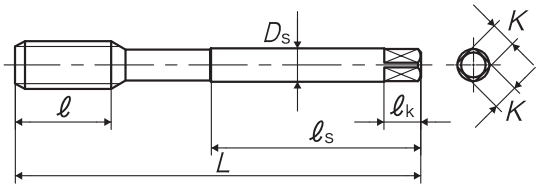

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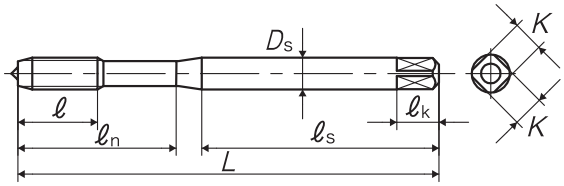


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2	SE3.0GAGEX	2.5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2	SE4.0IAGEX	2.5P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2	SE5.0KAGEX	2.5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2	SE6.0MAGEX	2.5P	80	15	30	45	6	4.9	8	3	1
M6 × 1	ISO2	SZ6.0MAGEX	2.5P	80	15	30	45	6	4.9	8	3	4
M8 × 1.25	ISO2	SE8.0NAGEX	2.5P	90	19	35	47	8	6.2	9	3	2
M8 × 1.25	ISO2	SZ8.0NAGEX	2.5P	90	19	35	48	8	6.2	9	3	4
M10 × 1.5	ISO2	SE010OAGEX	2.5P	100	23	39	52.5	10	8	11	4	2
M10 × 1.5	ISO2	SZ010OAGEX	2.5P	100	23	39	53	10	8	11	4	4
M12 × 1.75	ISO2	SZ012PAGEX	2.5P	110	26	45	56	12	9	12	4	4
M12 × 1.75	ISO2	SH012PAGEX	2.5P	110	26	-	56	9	7	10	4	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

SP-VA E



Spiral Fluted Taps for Stainless Steels

Specification

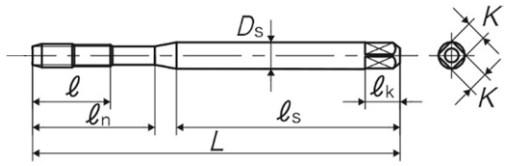
HSS | OX Oxide | <2D

■Most suitable for stainless steels, sticky and tending to work-harden, as well as chrome steels and molybdenum steels, blind hole use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)

TYPE: 1



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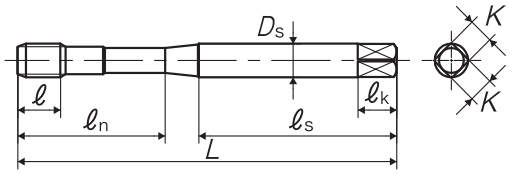

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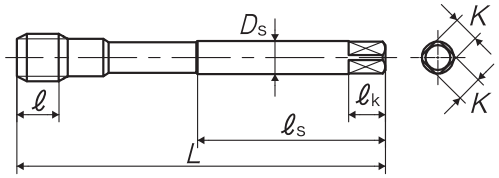

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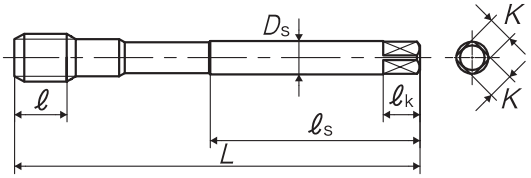


Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2	SD3.0GAGEXA	E(1.5P)	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2	SD4.0IAGEXA	E(1.5P)	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2	SD5.0KAGEXA	E(1.5P)	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2	SD6.0MAGEXA	E(1.5P)	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2	SD8.0NAGEXA	E(1.5P)	90	12	35	47	8	6.2	9	3	2
M8 × 1	ISO2	SM8.0MAGEXA	E(1.5P)	90	12	-	46	6	4.9	8	3	3
M10 × 1.5	ISO2	SD010OAGEXA	E(1.5P)	100	13	39	52.5	10	8	11	3	2
M10 × 1.25	ISO2	SM010NAGEXA	E(1.5P)	100	13	-	51	7	5.5	8	3	3
M10 × 1	ISO2	SM010MAGEXA	E(1.5P)	90	13	-	46	7	5.5	8	3	3
M12 × 1.75	ISO2	SG012PAGEXA	E(1.5P)	110	15	-	56	9	7	10	3	4
M12 × 1.5	ISO2	SM012OAGEXA	E(1.5P)	100	15	-	51	9	7	10	3	3
M12 × 1.25	ISO2	SM012NAGEXA	E(1.5P)	100	15	-	51	9	7	10	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

SP-VA



Spiral Fluted Taps for Stainless Steels, Coated

Specification

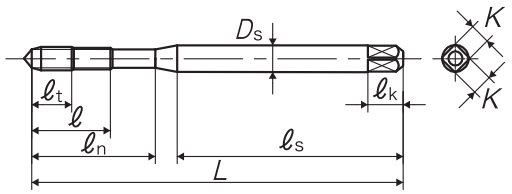
HSS | Coating | <2D

■Most suitable for stainless steels, sticky and tending to work-harden, as well as chrome steels and molybdenum steels, blind hole use.
Tapping speed can be increased by the effect of coating. At the same time, the tool life is improved.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~15 (m/min)	~15 (m/min)	~15 (m/min)	~15 (m/min)	~10 (m/min)

TYPE: 1



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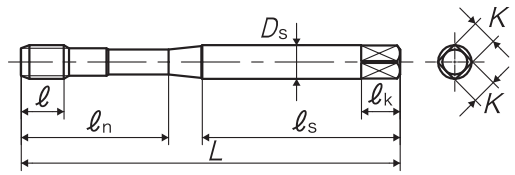

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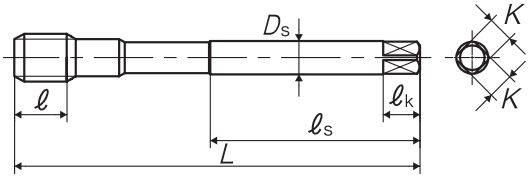


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	
For Metric Threads														
M3 × 0.5	ISO2	SD3.0GAGET	2.5P	56	5	9	18	34	3.5	2.7	6	2	1	▲
M4 × 0.7	ISO2	SD4.0IAGET	2.5P	63	7	13	21	38	4.5	3.4	6	3	1	▲
M5 × 0.8	ISO2	SD5.0KAGET	2.5P	70	9	14	25	39	6	4.9	8	3	1	▲
M6 × 1	ISO2	SD6.0MAGET	2.5P	80	11	15	30	45	6	4.9	8	3	1	▲
M8 × 1.25	ISO2	SD8.0NAGET	2.5P	90	-	12	35	47	8	6.2	9	3	2	▲
M10 × 1.5	ISO2	SD010OAGET	2.5P	100	-	13	39	52.5	10	8	11	3	2	▲
M12 × 1.75	ISO2	SG012PAGET	2.5P	110	-	15	-	56	9	7	10	3	3	▲
M14 × 2	ISO2	SG014QAGET	2.5P	110	-	18	-	56	11	9	12	3	3	▲
M16 × 2	ISO2	SG016QAGET	2.5P	110	-	18	-	56	12	9	12	3	3	▲
M20 × 2.5	ISO2	SG020RAGET	2.5P	140	-	20	-	71	16	12	15	4	3	▲

Note: Products marked with an ▲ in the stock column are available while supplies last.

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

SU2-SP



Spiral Fluted Taps for Tough Stainless Steels

Specification

HSS | OX Oxide | Synchro nized

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
5~20 (m/min)	5~20 (m/min)	5~20 (m/min)	5~20 (m/min)	5~15 (m/min)



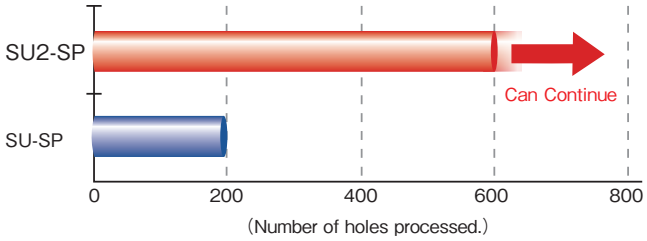
Product Features

- The SU2-SP is a spiral flute tap for hard to cut stainless steel that is optimum for blind hole machining of stainless steel such as SUS 316 and SUS 317.
- It is a special design of full threads for the first few threads and the balance are half the thread height.
- With this special shape, it is effective in the prevention of flute chipping of the full threads. It reduces tapping torque and has good abrasion resistance while allowing to maintain the screw thread guide specifications.
- It has improved chip ejection from the unique flute design.

Tapping Data

Thread Size [M12×1.75]

Workpiece Material	SUS316
Bored Hole Size	ϕ10.3
Tapping Length	25mm blind hole
Machinery Type	CNC tapping machine
Tapping Speed	8m/min
Tapping Fluid	Non-water soluble cutting oil



Characteristics of stainless steel

・It work hardens easily. Chip welding occurs frequently. Chip ejection is poor. ・ It tends to shrink.
・Tool friction tends to occur.

In general wear, austenitic stainless steel have the characteristics described above and are regarded as difficult to cut materials. Among these stainless steels there are a few that have a higher Ni content. Austenitic stainless steel with the Ni content of more than 10% such as SUS 316 is regarded as "difficult-to-cut stainless steel".

Type of Material	Element Content (%)	
	Ni	Cr
SUS303	8.00～10.00	17.00～19.00
SUS304	8.00～10.50	18.00～20.00
SUS316	10.00～14.00	16.00～18.00
SUS317	11.00～15.00	18.00～20.00

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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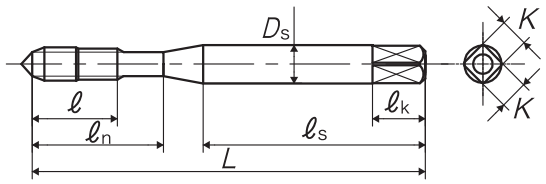

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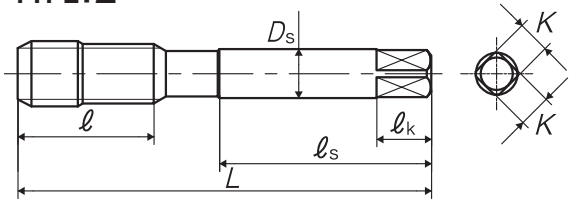

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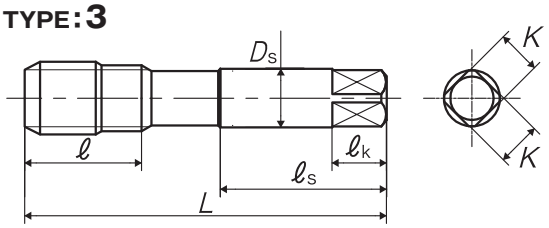


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	SU2MQ3.0G	3P	46	9	14	26	4	3.2	6	3	1	¥ 1,580
M3.5 × 0.6	P2	SU2MQ3.5H	3P	52	11	16	29	5	4	7	3	1	¥ 1,580 ※
M4 × 0.7	P2	SU2MQ4.0I	3P	52	11	17	29	5	4	7	3	1	¥ 1,580
M5 × 0.8	P2	SU2MQ5.0K	3P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,590
M6 × 1	P2	SU2MQ6.0M	3P	62	15	26	33	6	4.5	7	3	1	¥ 1,750
M8 × 1.25	P3	SU2MR8.0N	3P	70	19	-	36	6.2	5	8	3	2	¥ 2,400
M10 × 1.5	P3	SU2MR010O	3P	75	23	-	38	7	5.5	8	3	2	¥ 3,050
M10 × 1.25	P3	SU2MR010N	3P	75	23	-	38	7	5.5	8	3	2	¥ 3,050
M10 × 1	P3	SU2MR010M	3P	75	23	-	38	7	5.5	8	3	2	¥ 3,630 ※
M12 × 1.75	P3	SU2MR012P	3P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,330
M12 × 1.5	P3	SU2MR012O	3P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,330 ※
M12 × 1.25	P3	SU2MR012N	3P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,330 ※
M12 × 1	P3	SU2MR012M	3P	82	26	-	42	8.5	6.5	9	4	2	¥ 5,090 ※
M14 × 2	P3	SU2MR014Q	3P	88	26	-	45	10.5	8	11	4	2	¥ 5,900 ※
M14 × 1.5	P3	SU2MR014O	3P	88	26	-	45	10.5	8	11	4	2	¥ 5,900 ※
M16 × 2	P3	SU2MR016Q	3P	95	26	-	48	12.5	10	13	4	2	¥ 7,890
M16 × 1.5	P3	SU2MR016O	3P	95	26	-	48	12.5	10	13	4	2	¥ 7,890 ※
M18 × 2.5	P4	SU2MS018R	3P	100	33	-	51	14	11	14	4	2	¥ 10,600 ※
M18 × 1.5	P3	SU2MR018O	3P	100	33	-	51	14	11	14	4	2	¥ 10,600 ※
M20 × 2.5	P4	SU2MS020R	3P	105	33	-	50	15	12	15	4	3	¥ 14,400
M20 × 1.5	P4	SU2MS020O	3P	105	33	-	50	15	12	15	4	3	¥ 14,400 ※
M22 × 2.5	P4	SU2MS022R	3P	115	33	-	55	17	13	16	4	3	¥ 18,400 ※
M22 × 1.5	P4	SU2MS022O	3P	115	33	-	55	17	13	16	4	3	¥ 18,400 ※
M24 × 3	P4	SU2MS024S	3P	120	39	-	55	19	15	18	4	3	¥ 22,900 ※
M24 × 1.5	P4	SU2MS024O	3P	120	39	-	55	19	15	18	4	3	¥ 22,900 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

SU2-SP



Spiral Fluted Taps for Tough Stainless Steels

Specification

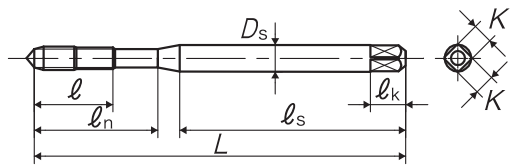
HSS | OX Oxide | Synchro nized

■SU2-SP is the spiral fluted tap most suitable for tough stainless steels, blind hole use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
5~20 (m/min)	5~20 (m/min)	5~20 (m/min)	5~20 (m/min)	5~15 (m/min)

TYPE: 1



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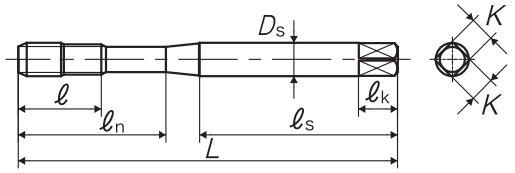

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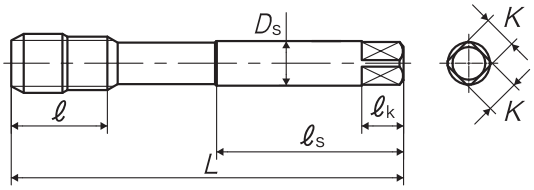

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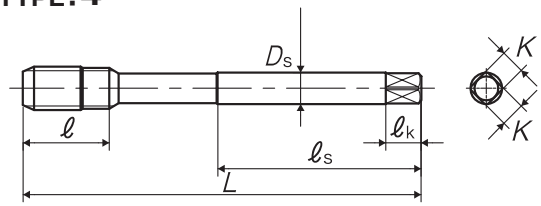


Segment : 1D (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2	SD3.0GAGEXJ	3P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2	SD4.0IAGEXJ	3P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2	SD5.0KAGEXJ	3P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2	SD6.0MAGEXJ	3P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2	SD8.0NAGEXJ	3P	90	19	35	47	8	6.2	9	3	2
M10 × 1.5	ISO2	SD010OAGEXJ	3P	100	23	39	52.5	10	8	11	3	2
M12 × 1.75	ISO2	SG012PAGEXJ	3P	110	26	-	56	9	7	10	4	3
M14 × 2	ISO2	SG014QAGEXJ	3P	110	26	-	56	11	9	12	4	3
M16 × 2	ISO2	SG016QAGEXJ	3P	110	26	-	56	12	9	12	4	3
M18 × 2.5	ISO2	SG018RAGEXJ	3P	125	33	-	64	14	11	14	4	3
M20 × 2.5	ISO2	SG020RAGEXJ	3P	140	33	-	71	16	12	15	4	3
M22 × 2.5	ISO2	SG022RAGEXJ	3P	140	33	-	71	18	14.5	17	4	3
M24 × 3	ISO2	SG024SAGEXJ	3P	160	37	-	82	18	14.5	17	4	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads												
G 1/8-28	-	SVG0020GEXJ	3P	90	19	-	46	7	5.5	8	3	4
G 1/4-19	-	SVG0040GEXJ	3P	100	21	-	51	11	9	12	4	4
G 3/8-19	-	SVG0060GEXJ	3P	100	21	-	51	12	9	12	4	4
G 1/2-14	-	SVG0080GEXJ	3P	125	24	-	64	16	12	15	4	4
G 3/4-14	-	SVG0120GEXJ	3P	140	27	-	71	20	16	19	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

SU-S-SP



Spiral Fluted Taps for Stainless Steels, Deep Hole Use

Specification

HSS | OX Oxide

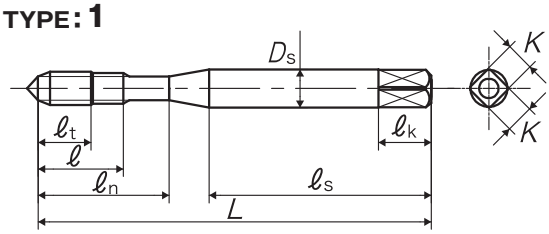


■SU-S-SP is the short spiral fluted tap for stainless steels suitable for stainless steels tending to work-harden and sticky, as well as chrome steels and molybdenum steels. Blind hole use. Deeper hole tapping is attainable.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE: 1



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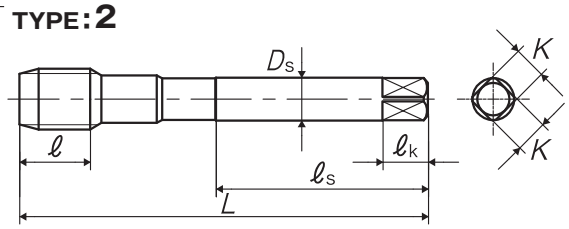

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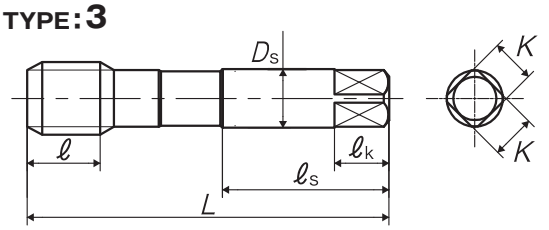

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M3 × 0.5	P1	SSMP3.0G-SU	2.5P	46	5	9	14	26	4	3.2	6	3	1	¥ 1,520 ※
M4 × 0.7	P2	SSMQ4.0I-SU	2.5P	52	7	11	17	29	5	4	7	3	1	¥ 1,520 ※
M5 × 0.8	P2	SSMQ5.0K-SU	2.5P	60	9	13	22	33	5.5	4.5	7	3	1	¥ 1,530 ※
M6 × 1	P2	SSMQ6.0M-SU	2.5P	62	11	15	26	33	6	4.5	7	3	1	¥ 1,680 ※
M8 × 1.25	P2	SSMQ8.0N-SU	2.5P	70	-	12	-	36	6.2	5	8	3	2	¥ 2,310 ※
M10 × 1.5	P2	SSMQ010O-SU	2.5P	75	-	13	-	38	7	5.5	8	3	2	¥ 2,930 ※
M12 × 1.75	P2	SSMQ012P-SU	2.5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 4,160 ※
M14 × 2	P2	SSMQ014Q-SU	2.5P	88	-	18	-	45	10.5	8	11	3	2	¥ 5,670 ※
M16 × 2	P2	SSMQ016Q-SU	2.5P	95	-	18	-	48	12.5	10	13	3	2	¥ 7,580 ※
M18 × 2.5	P3	SSMR018R-SU	2.5P	100	-	20	-	51	14	11	14	4	2	¥ 10,200 ※
M20 × 2.5	P3	SSMR020R-SU	2.5P	105	-	20	-	50	15	12	15	4	3	¥ 13,800 ※
M22 × 2.5	P3	SSMR022R-SU	2.5P	115	-	20	-	55	17	13	16	4	3	¥ 17,700 ※
M24 × 3	P3	SSMR024S-SU	2.5P	120	-	25	-	55	19	15	18	4	3	¥ 22,000 ※
M27 × 3	P3	SSMR027S-SU	2.5P	130	-	25	-	60	20	15	18	4	3	¥ 30,600 ※
M30 × 3.5	P4	SSMS030T-SU	2.5P	135	-	30	-	62	23	17	20	4	3	¥ 39,000 ※
M33 × 3.5	P4	SSMS033T-SU	2.5P	145	-	30	-	67	25	19	22	4	3	¥ 45,400 ※
M36 × 4	P4	SSMS036U-SU	2.5P	155	-	40	-	71	28	21	24	4	3	¥ 52,600 ※
M42 × 4.5	P4	SSMS042V-SU	2.5P	175	-	40	-	81	32	26	30	4	3	¥ 73,400 ※

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-SU-S-SP



Long Shank Spiral Fluted Taps for Stainless Steels, Deep Hole Use

Specification

HSS | OX Oxide



■LS-SU-S-SP is the long shank short spiral fluted tap for stainless steels suitable for stainless steels tending to work-harden and sticky, as well as chrome steels and molybdenum steels. Blind hole use. Deeper hole tapping is attainable.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Stainless steels ステンレス鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

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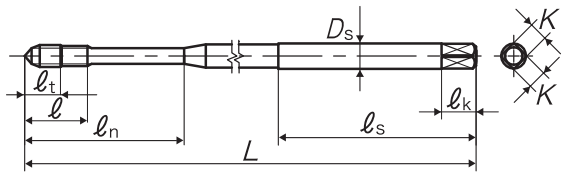

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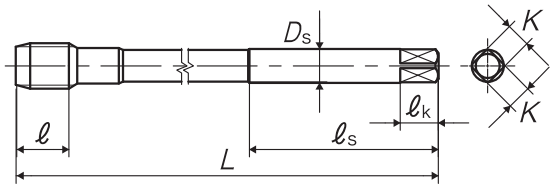

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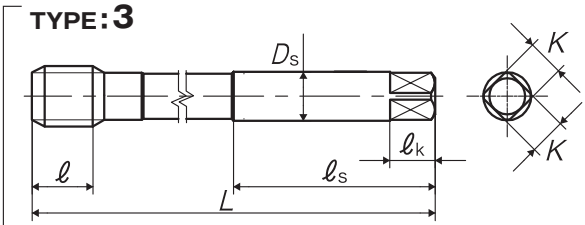

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M3 × 0.5	P1	SY3.0GPGEXES	2.5P	100	5	9	28	40	4	3.2	6	2	1	¥ 4,160 ※
M4 × 0.7	P2	SY4.0IQGEXES	2.5P	100	7	11	31	40	5	4	7	3	1	¥ 3,800 ※
M4 × 0.7	P2	SY4.0IQGEXGS	2.5P	150	7	11	31	40	5	4	7	3	1	¥ 7,240 ※
M5 × 0.8	P2	SY5.0KQGEXES	2.5P	100	9	13	38	40	5.5	4.5	7	3	1	¥ 3,330 ※
M5 × 0.8	P2	SY5.0KQGEXGS	2.5P	150	9	13	38	40	5.5	4.5	7	3	1	¥ 5,630 ※
M6 × 1	P2	SY6.0MQGEXES	2.5P	100	11	15	45	40	6	4.5	7	3	1	¥ 2,850 ※
M6 × 1	P2	SY6.0MQGEXGS	2.5P	150	11	15	45	40	6	4.5	7	3	1	¥ 5,020 ※
M8 × 1.25	P2	SY8.0NQGEXES	2.5P	100	-	12	-	50	6.2	5	8	3	2	¥ 3,620 ※
M8 × 1.25	P2	SY8.0NQGEXGS	2.5P	150	-	12	-	50	6.2	5	8	3	2	¥ 6,160 ※
M8 × 1.25	P2	SY8.0NQGEXKS	2.5P	200	-	12	-	50	6.2	5	8	3	2	¥ 9,110 ※
M10 × 1.5	P2	SY010OQGEXES	2.5P	100	-	13	-	50	7	5.5	8	3	2	¥ 4,390 ※
M10 × 1.5	P2	SY010OQGEXGS	2.5P	150	-	13	-	50	7	5.5	8	3	2	¥ 7,160 ※
M10 × 1.5	P2	SY010OQGEXKS	2.5P	200	-	13	-	50	7	5.5	8	3	2	¥ 9,950 ※
M10 × 1.25	P2	SY010NQGEXGS	2.5P	150	-	13	-	50	7	5.5	8	3	2	¥ 7,160 ※
M12 × 1.75	P2	SY012PQGEXES	2.5P	100	-	15	-	50	8.5	6.5	9	3	2	¥ 5,380 ※
M12 × 1.75	P2	SY012PQGEXGS	2.5P	150	-	15	-	50	8.5	6.5	9	3	2	¥ 8,960 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-SU-S-SP Long Shank Spiral Fluted Taps for Stainless Steels, Deep Hole Use

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M12 × 1.75	P2	SY012PQGEXKS	2.5P	200	-	15	-	50	8.5	6.5	9	3	2	¥ 12,600 ※
M12 × 1.5	P2	SY0120QGEXGS	2.5P	150	-	15	-	50	8.5	6.5	9	3	2	¥ 8,960 ※
M12 × 1.5	P2	SY0120QGEXKS	2.5P	200	-	15	-	50	8.5	6.5	9	3	2	¥ 12,600 ※
M12 × 1.25	P2	SY012NQGEXGS	2.5P	150	-	15	-	50	8.5	6.5	9	3	2	¥ 8,960 ※
M12 × 1.25	P2	SY012NQGEXKS	2.5P	200	-	15	-	50	8.5	6.5	9	3	2	¥ 12,600 ※
M14 × 2	P2	SY014QQGEXGS	2.5P	150	-	18	-	60	10.5	8	11	3	2	¥ 11,300 ※
M14 × 1.5	P2	SY0140QGEXGS	2.5P	150	-	14	-	60	10.5	8	11	3	2	¥ 11,300 ※
M16 × 2	P2	SY016QQGEXGS	2.5P	150	-	18	-	60	12.5	10	13	3	2	¥ 12,200 ※
M16 × 2	P2	SY016QQGEXKS	2.5P	200	-	18	-	60	12.5	10	13	3	2	¥ 16,100 ※
M16 × 1.5	P2	SY0160QGEXGS	2.5P	150	-	14	-	60	12.5	10	13	3	2	¥ 12,200 ※
M16 × 1.5	P2	SY0160QGEXKS	2.5P	200	-	14	-	60	12.5	10	13	3	2	¥ 16,100 ※
M18 × 2.5	P3	SY018RRGEXGS	2.5P	150	-	20	-	70	14	11	14	4	2	¥ 16,700 ※
M18 × 2.5	P3	SY018RRGEXKS	2.5P	200	-	20	-	70	14	11	14	4	2	¥ 21,000 ※
M18 × 1.5	P2	SY0180QGEXGS	2.5P	150	-	14	-	70	14	11	14	4	2	¥ 16,700 ※
M18 × 1.5	P2	SY0180QGEXKS	2.5P	200	-	14	-	70	14	11	14	4	2	¥ 21,000 ※
M20 × 2.5	P3	SY020RRGEXGS	2.5P	150	-	20	-	70	15	12	15	4	3	¥ 21,400 ※
M20 × 2.5	P3	SY020RRGEXKS	2.5P	200	-	20	-	70	15	12	15	4	3	¥ 26,700 ※
M20 × 1.5	P3	SY0200RGEXGS	2.5P	150	-	14	-	70	15	12	15	4	3	¥ 21,400 ※
M20 × 1.5	P3	SY0200RGEXKS	2.5P	200	-	14	-	70	15	12	15	4	3	¥ 26,700 ※
M22 × 2.5	P3	SY022RRGEXGS	2.5P	150	-	20	-	70	17	13	16	4	3	¥ 23,900 ※
M22 × 2.5	P3	SY022RRGEXKS	2.5P	200	-	20	-	70	17	13	16	4	3	¥ 29,600 ※
M22 × 1.5	P3	SY0220RGEXGS	2.5P	150	-	14	-	70	17	13	16	4	3	¥ 23,900 ※
M22 × 1.5	P3	SY0220RGEXKS	2.5P	200	-	14	-	70	17	13	16	4	3	¥ 29,600 ※
M24 × 3	P3	SY024SRGEXGS	2.5P	150	-	25	-	80	19	15	18	4	3	¥ 27,800 ※
M24 × 3	P3	SY024SRGEXKS	2.5P	200	-	25	-	80	19	15	18	4	3	¥ 33,300 ※
M24 × 1.5	P3	SY0240RGEXGS	2.5P	150	-	18	-	80	19	15	18	4	3	¥ 27,800 ※
M24 × 1.5	P3	SY0240RGEXKS	2.5P	200	-	18	-	80	19	15	18	4	3	¥ 33,300 ※

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ANSI

ZELX SS SP 6"

Long Shank Spiral Fluted Taps for Stainless Steels



Specification

HSS | OX Oxide



■The ZELX SS SP 6" tap series is used for processing blind holes in chrome steels, molybdenum steels and stainless steels that are free machining and that workharden easily.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Stainless steels ステンレス鋼
~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)

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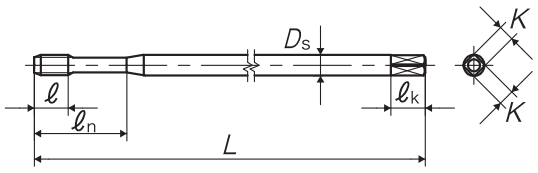

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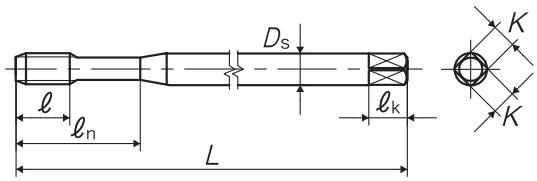

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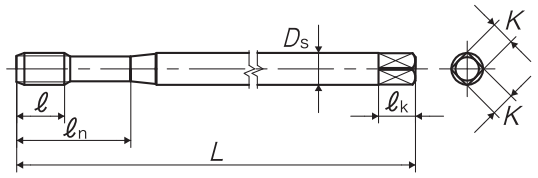

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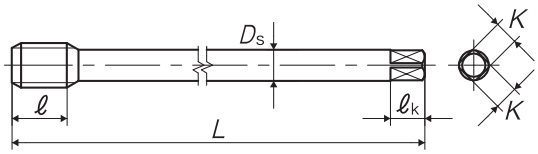

Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads											
No.2-56UNC	GH2	Y84523	2.5P	6	0.157	0.437	0.141	0.11	0.187	2	1
No.3-48UNC	GH2	Y84500	2.5P	6	0.197	0.5	0.141	0.11	0.187	2	1
No.4-40UNC	GH2	Y84501	2.5P	6	0.236	0.562	0.141	0.11	0.187	2	1
No.6-32UNC	GH3	Y84505	2.5P	6	0.276	0.687	0.141	0.11	0.187	3	1
No.8-32UNC	GH3	Y84507	2.5P	6	0.276	0.75	0.168	0.131	0.25	3	1
No.10-24UNC	GH3	Y84509	2.5P	6	0.354	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y84510	2.5P	6	0.276	0.875	0.194	0.152	0.25	3	1
1/4-20UNC	GH3	Y84513	2.5P	6	0.433	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y84514	2.5P	6	0.354	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	Y84515	2.5P	6	0.472	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y84516	2.5P	6	0.394	1.125	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	Y84517	2.5P	6	0.551	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y84518	2.5P	6	0.394	1.25	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	Y84519	2.5P	6	0.591	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y84520	2.5P	6	0.472	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	Y84521	2.5P	6	0.63	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y84522	2.5P	6	0.472	-	0.367	0.275	0.437	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

S-SP



Short Spiral Fluted Taps, Deep Hole Use

Specification

HSS | OX Oxide



■Due to short thread portion, friction becomes less and lubrication supply becomes better, and S-SP is the spiral fluted tap quite efficient for tapping deep holes that are 2.5 times deeper than the nominal dia.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Ductile cast irons 強靭鋳鉄
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

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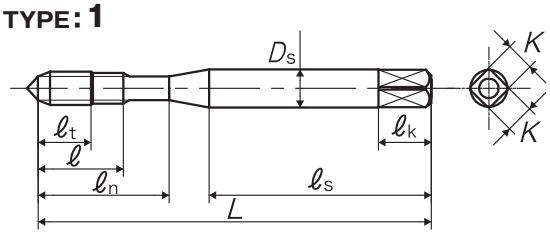

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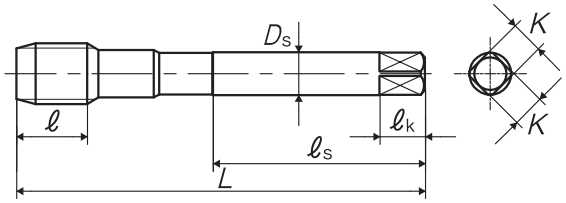

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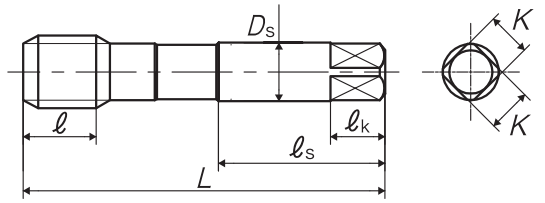

Oversize

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M2 × 0.4	P1	SSMP2.0E	2.5P	42	4	7.2	12	27	3	2.5	5	2	1	¥ 2,710
M2 × 0.4	P3	SSMR2.0E	2.5P	42	4	7.2	12	27	3	2.5	5	2	1	¥ 2,710 ※
M2.3 × 0.4	P1	SSMP2.3E	2.5P	42	4	7.2	12	27	3	2.5	5	2	1	¥ 2,470 ※
M2.3 × 0.4	P3	SSMR2.3E	2.5P	42	4	7.2	12	27	3	2.5	5	2	1	¥ 2,470 ※
M2.5 × 0.45	P1	SSMP2.5F	2.5P	46	4	8.1	14	29	3	2.5	5	2	1	¥ 2,070 ※
M2.5 × 0.45	P2	SSMQ2.5F	2.5P	46	4	8.1	14	29	3	2.5	5	2	1	¥ 2,070 ※
M2.5 × 0.45	P3	SSMR2.5F	2.5P	46	4	8.1	14	29	3	2.5	5	2	1	¥ 2,070 ※
M2.6 × 0.45	P1	SSMP2.6F	2.5P	46	4	8.1	14	29	3	2.5	5	2	1	¥ 2,070 ※
M2.6 × 0.45	P3	SSMR2.6F	2.5P	46	4	8.1	14	29	3	2.5	5	2	1	¥ 2,070 ※
M3 × 0.5	P1	SSMP3.0G-3	2.5P	46	5	9	14	26	4	3.2	6	3	1	¥ 1,450
M3 × 0.5	P2	SSMQ3.0G	2.5P	46	5	9	14	26	4	3.2	6	3	1	¥ 1,450 ※
M3 × 0.5	P3	SSMR3.0G	2.5P	46	5	9	14	26	4	3.2	6	3	1	¥ 1,450 ※
M3.5 × 0.6	P1	SSMP3.5H-3	2.5P	52	7	11	16	29	5	4	7	3	1	¥ 1,450 ※
M3.5 × 0.6	P2	SSMQ3.5H	2.5P	52	7	11	16	29	5	4	7	3	1	¥ 1,450 ※
M4 × 0.7	P2	SSMQ4.0I	2.5P	52	7	11	17	29	5	4	7	3	1	¥ 1,450
M4 × 0.7	P3	SSMR4.0I	2.5P	52	7	11	17	29	5	4	7	3	1	¥ 1,450 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M5 × 0.8	P2	SSMQ5.0K	2.5P	60	9	13	22	33	5.5	4.5	7	3	1	¥ 1,470
M5 × 0.8	P3	SSMR5.0K	2.5P	60	9	13	22	33	5.5	4.5	7	3	1	¥ 1,470 ※
M6 × 1	P2	SSMQ6.0M	2.5P	62	11	15	26	33	6	4.5	7	3	1	¥ 1,610
M6 × 1	P3	SSMR6.0M	2.5P	62	11	15	26	33	6	4.5	7	3	1	¥ 1,610 ※
M8 × 1.25	P2	SSMQ8.0N	2.5P	70	-	12	-	36	6.2	5	8	3	2	¥ 2,210
M8 × 1.25	P3	SSMR8.0N	2.5P	70	-	12	-	36	6.2	5	8	3	2	¥ 2,210 ※
M8 × 1	P2	SSMQ8.0M	2.5P	70	-	12	-	36	6.2	5	8	3	2	¥ 2,510 ※
M10 × 1.5	P2	SSMQ010O	2.5P	75	-	13	-	38	7	5.5	8	3	2	¥ 2,810
M10 × 1.5	P3	SSMR010O	2.5P	75	-	13	-	38	7	5.5	8	3	2	¥ 2,810 ※
M10 × 1.25	P2	SSMQ010N	2.5P	75	-	13	-	38	7	5.5	8	3	2	¥ 2,810
M10 × 1.25	P3	SSMR010N	2.5P	75	-	13	-	38	7	5.5	8	3	2	¥ 2,810 ※
M10 × 1	P2	SSMQ010M	2.5P	75	-	13	-	38	7	5.5	8	3	2	¥ 3,340 ※
M12 × 1.75	P2	SSMQ012P	2.5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 3,980
M12 × 1.75	P3	SSMR012P	2.5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 3,980 ※
M12 × 1.5	P2	SSMQ012O	2.5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 3,980 ※
M12 × 1.5	P3	SSMR012O	2.5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 3,980 ※
M12 × 1.25	P2	SSMQ012N	2.5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 3,980
M12 × 1.25	P3	SSMR012N	2.5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 3,980 ※
M12 × 1	P2	SSMQ012M	2.5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 4,690 ※
M14 × 2	P2	SSMQ014Q	2.5P	88	-	18	-	45	10.5	8	11	3	2	¥ 5,430
M14 × 2	P4	SSMS014Q	2.5P	88	-	18	-	45	10.5	8	11	3	2	¥ 5,430 ※
M14 × 1.5	P2	SSMQ014O	2.5P	88	-	14	-	45	10.5	8	11	3	2	¥ 5,430
M14 × 1.5	P4	SSMS014O	2.5P	88	-	14	-	45	10.5	8	11	3	2	¥ 5,430 ※
M14 × 1	P2	SSMQ014M	2.5P	88	-	14	-	45	10.5	8	11	3	2	¥ 6,310 ※
M16 × 2	P2	SSMQ016Q	2.5P	95	-	18	-	48	12.5	10	13	3	2	¥ 7,260
M16 × 2	P3	SSMR016Q	2.5P	95	-	18	-	48	12.5	10	13	3	2	¥ 7,260 ※
M16 × 2	P4	SSMS016Q	2.5P	95	-	18	-	48	12.5	10	13	3	2	¥ 7,260 ※
M16 × 1.5	P2	SSMQ016O	2.5P	95	-	14	-	48	12.5	10	13	3	2	¥ 7,260
M16 × 1.5	P4	SSMS016O	2.5P	95	-	14	-	48	12.5	10	13	3	2	¥ 7,260 ※
M16 × 1	P2	SSMQ016M	2.5P	95	-	14	-	48	12.5	10	13	3	2	¥ 8,650 ※
M18 × 2.5	P3	SSMR018R	2.5P	100	-	20	-	51	14	11	14	4	2	¥ 9,700
M18 × 2.5	P4	SSMS018R	2.5P	100	-	20	-	51	14	11	14	4	2	¥ 9,700 ※
M18 × 2	P3	SSMR018Q	2.5P	100	-	18	-	51	14	11	14	4	2	¥ 9,700 ※
M18 × 1.5	P2	SSMQ018O	2.5P	100	-	14	-	51	14	11	14	4	2	¥ 9,700 ※
M18 × 1.5	P4	SSMS018O	2.5P	100	-	14	-	51	14	11	14	4	2	¥ 9,700 ※
M18 × 1	P2	SSMQ018M	2.5P	100	-	14	-	51	14	11	14	4	2	¥ 12,600 ※
M20 × 2.5	P3	SSMR020R	2.5P	105	-	20	-	50	15	12	15	4	3	¥ 13,300
M20 × 2.5	P4	SSMS020R	2.5P	105	-	20	-	50	15	12	15	4	3	¥ 13,300 ※
M20 × 2	P3	SSMR020Q	2.5P	105	-	18	-	50	15	12	15	4	3	¥ 13,300 ※
M20 × 1.5	P3	SSMR020O	2.5P	105	-	14	-	50	15	12	15	4	3	¥ 13,300 ※
M20 × 1.5	P4	SSMS020O	2.5P	105	-	14	-	50	15	12	15	4	3	¥ 13,300 ※
M20 × 1	P2	SSMQ020M	2.5P	105	-	14	-	50	15	12	15	4	3	¥ 16,800 ※
M22 × 2.5	P3	SSMR022R	2.5P	115	-	20	-	55	17	13	16	4	3	¥ 17,000
M22 × 2	P3	SSMR022Q	2.5P	115	-	18	-	55	17	13	16	4	3	¥ 17,000 ※
M22 × 1.5	P3	SSMR022O	2.5P	115	-	14	-	55	17	13	16	4	3	¥ 17,000 ※
M22 × 1.5	P4	SSMS022O	2.5P	115	-	14	-	55	17	13	16	4	3	¥ 17,000 ※
M24 × 3	P3	SSMR024S	2.5P	120	-	25	-	55	19	15	18	4	3	¥ 21,100
M24 × 3	P4	SSMS024S	2.5P	120	-	25	-	55	19	15	18	4	3	¥ 21,100 ※
M24 × 2	P3	SSMR024Q	2.5P	120	-	18	-	55	19	15	18	4	3	¥ 21,100 ※
M24 × 1.5	P3	SSMR024O	2.5P	120	-	18	-	55	19	15	18	4	3	¥ 21,100 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

S-SP Short Spiral Fluted Taps, Deep Hole Use

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M24 × 1.5	P4	SSMS024O	2.5P	120	-	18	-	55	19	15	18	4	3	¥ 21,100 ※
M27 × 3	P3	SSMR027S	2.5P	130	-	25	-	60	20	15	18	4	3	¥ 29,400 ※
M27 × 2	P3	SSMR027Q	2.5P	130	-	20	-	60	20	15	18	4	3	¥ 29,400 ※
M27 × 1.5	P3	SSMR027O	2.5P	130	-	20	-	60	20	15	18	4	3	¥ 29,400 ※
M30 × 3.5	P4	SSMS030T	2.5P	135	-	30	-	62	23	17	20	4	3	¥ 37,400 ※
M30 × 3	P3	SSMR030S	2.5P	135	-	28	-	62	23	17	20	4	3	¥ 37,400 ※
M30 × 2	P3	SSMR030Q	2.5P	135	-	20	-	62	23	17	20	4	3	¥ 37,400 ※
M30 × 1.5	P3	SSMR030O	2.5P	135	-	20	-	62	23	17	20	4	3	¥ 37,400 ※
M32 × 2	P3	SSMR032Q	2.5P	145	-	20	-	67	24	19	22	4	3	¥ 43,500 ※
M32 × 1.5	P3	SSMR032O	2.5P	145	-	20	-	67	24	19	22	4	3	¥ 43,500 ※
M33 × 3.5	P4	SSMS033T	2.5P	145	-	30	-	67	25	19	22	4	3	¥ 43,500 ※
M33 × 3	P3	SSMR033S	2.5P	145	-	28	-	67	25	19	22	4	3	¥ 43,500 ※
M33 × 2	P3	SSMR033Q	2.5P	145	-	20	-	67	25	19	22	4	3	¥ 43,500 ※
M33 × 1.5	P3	SSMR033O	2.5P	145	-	20	-	67	25	19	22	4	3	¥ 43,500 ※
M35 × 2	P3	SSMR035Q	2.5P	155	-	20	-	71	28	21	24	4	3	¥ 50,400 ※
M35 × 1.5	P3	SSMR035O	2.5P	155	-	20	-	71	28	21	24	4	3	¥ 50,400 ※
M36 × 4	P4	SSMS036U	2.5P	155	-	40	-	71	28	21	24	4	3	¥ 50,400 ※
M36 × 3	P3	SSMR036S	2.5P	155	-	30	-	71	28	21	24	4	3	¥ 50,400 ※
M36 × 2	P3	SSMR036Q	2.5P	155	-	20	-	71	28	21	24	4	3	¥ 50,400 ※
M36 × 1.5	P3	SSMR036O	2.5P	155	-	20	-	71	28	21	24	4	3	¥ 50,400 ※
M39 × 4	P4	SSMS039U	2.5P	165	-	40	-	76	30	23	26	4	3	¥ 57,800 ※
M42 × 4.5	P4	SSMS042V	2.5P	175	-	40	-	81	32	26	30	4	3	¥ 70,300 ※
M45 × 4.5	P4	SSMS045V	2.5P	180	-	45	-	83	35	26	30	4	3	¥ 81,400 ※
M48 × 5	P4	SSMS048W	2.5P	185	-	45	-	85	38	29	32	4	3	¥102,000 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

SP-BLF



Spiral Fluted Taps, Deep Hole Use

Specification

HSS

■The SP-BLF is a spiral flute tap for cutting blind holes with a special thread shape to prevent chipping caused by the chips jamming.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

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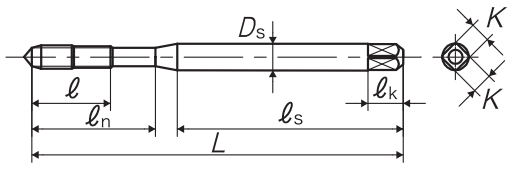

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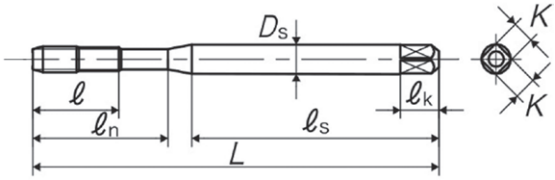

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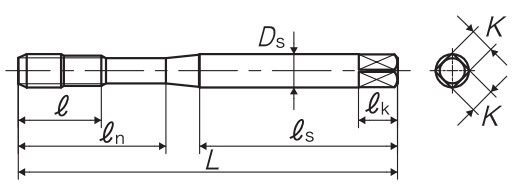

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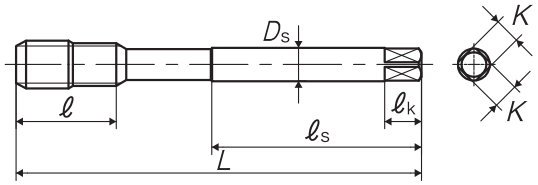

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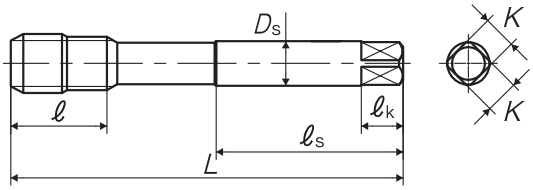

Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2	SD3.0GANEBJ	2.5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2	SD4.0IANEBJ	2.5P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2	SD5.0KANEBJ	2.5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2	SD6.0MANEBJ	2.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2	SD8.0NANEBJ	2.5P	90	19	35	47	8	9	6.2	3	3
M10 × 1.5	ISO2	SD010OANEBJ	2.5P	100	23	39	52.5	10	8	11	3	3
M12 × 1.75	ISO2	SG012PANEBJ	2.5P	110	26	-	56	9	7	10	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

SP-BLF OX



Spiral Fluted Taps, Deep Hole Use, Oxidized

Specification

HSS | OX Oxide



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

■The SP-BLF OX has a special thread portion to prevent chipping caused by the chip jamming. It is a spiral flute tap for tapping blind holes. The oxidized treatment prevents welding and is applied to the surface of the taps threaded portion.

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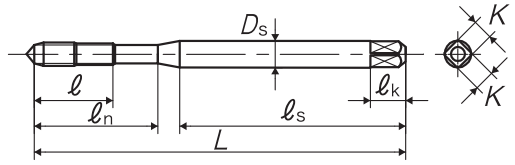

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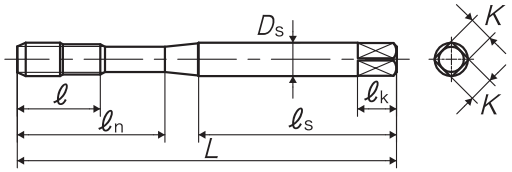

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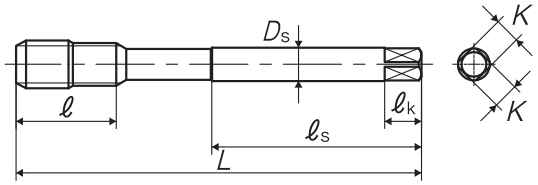

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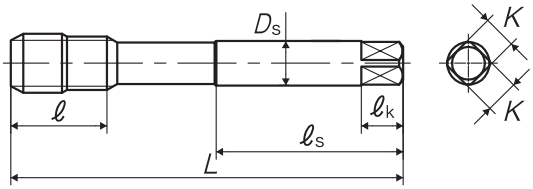

Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2	SD3.0GANEXJ	2.5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2	SD4.0IANEXJ	2.5P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2	SD5.0KANEXJ	2.5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2	SD6.0MANEXJ	2.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2	SD8.0NANEXJ	2.5P	90	19	35	47	8	6.2	9	3	2
M10 × 1.5	ISO2	SD010OANEXJ	2.5P	100	23	39	52.5	10	8	11	3	2
M12 × 1.75	ISO2	SG012PANEXJ	2.5P	110	26	-	56	9	7	10	3	3
M14 × 2	ISO2	SG014QANEXJ	2.5P	110	26	-	56	11	9	12	3	3
M16 × 2	ISO2	SG016QANEXJ	2.5P	110	26	-	56	12	9	12	3	3
M18 × 2.5	ISO2	SG018RANEXJ	2.5P	125	33	-	64	14	11	14	4	3
M20 × 2.5	ISO2	SG020RANEXJ	2.5P	140	33	-	71	16	12	15	4	3
M22 × 2.5	ISO2	SG022RANEXJ	2.5P	140	33	-	71	18	14.5	17	4	3
M24 × 3	ISO2	SG024SANEXJ	2.5P	160	37	-	82	18	14.5	17	4	4
M27 × 3	ISO2	SG027SANEXJ	2.5P	160	37	-	82	20	16	19	4	4
M30 × 3.5	ISO2	SG030TANEXJ	2.5P	180	44	-	92	22	18	21	4	4
M33 × 3.5	ISO2	SG033TANEXJ	2.5P	180	46	-	92	25	20	23	4	4
M36 × 4	ISO2	SG036UANEXJ	2.5P	200	52	-	102	28	22	25	4	4
M39 × 4	ISO2	SG039UANEXJ	2.5P	200	52	-	102	32	24	27	4	4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

SP-BLF



Spiral Fluted Taps, Deep Hole Use (Coated)

Specification

HSS | Coating



■The SP-BLF has a special thread portion to prevent chipping caused by the chip jamming. It is a spiral flute tap for tapping blind holes.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

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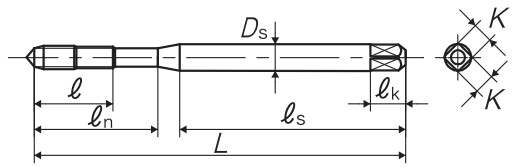

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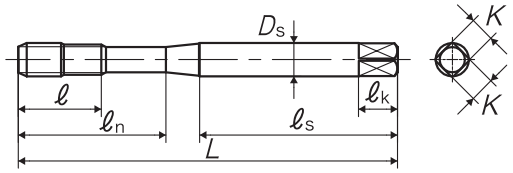

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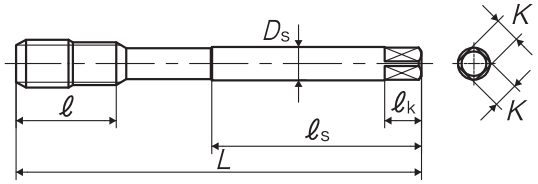

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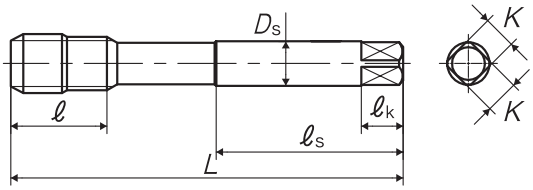


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2	96473.0TI	2.5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2	96474.0TI	2.5P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2	96475.0TI	2.5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2	96476.0TI	2.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2	96478.0TI	2.5P	90	19	35	47	8	6.2	9	3	2
M10 × 1.5	ISO2	9647010TI	2.5P	100	23	39	52.5	10	8	11	3	2
M12 × 1.75	ISO2	9747012TI	2.5P	110	26	-	56	9	7	10	3	3
M14 × 2	ISO2	9747014TI	2.5P	110	26	-	56	11	9	12	3	3
M16 × 2	ISO2	9747016TI	2.5P	110	26	-	56	12	9	12	3	3
M18 × 2.5	ISO2	9747018TI	2.5P	125	33	-	64	14	11	14	4	3
M20 × 2.5	ISO2	9747020TI	2.5P	140	33	-	71	16	12	15	4	3
M22 × 2.5	ISO2	9747022TI	2.5P	140	33	-	71	18	14.5	17	4	3
M24 × 3	ISO2	9747024TI	2.5P	160	37	-	82	18	14.5	17	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

E-SP



Spiral Fluted Taps for Soft Structural Steels

Specification

HSS | OX Oxide



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
5~10 (m/min)	5~10 (m/min)

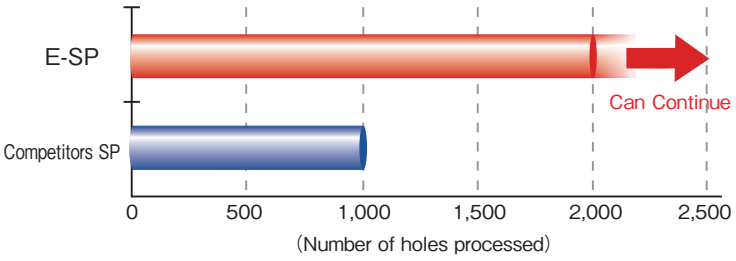
Product Features

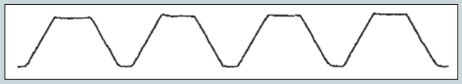
- The E-SP is suitable for tapping relatively soft work piece materials such as mild steel (SS41, S25C, etc.).
- It produces a good internal thread with an excellent surface finish.

Tapping Data

Thread Size [M6×1]

Workpiece Material	SS400
Hole Shape	Blind hole
Bored Hole Size	ϕ5.0
Tapping Length	7mm
Tapping Speed	8m/min
Machinery Type	Drilling machine
Cutting Fluid	Non-water soluble cutting oil



E-SP	Competitors spiral flute tap
Internal thread	Internal thread
	
Internal thread shape	Internal thread shape
	

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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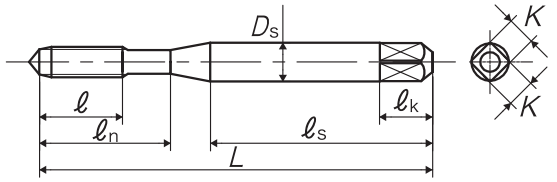

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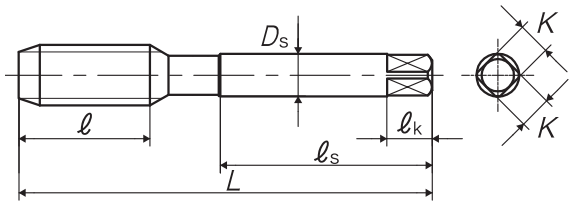

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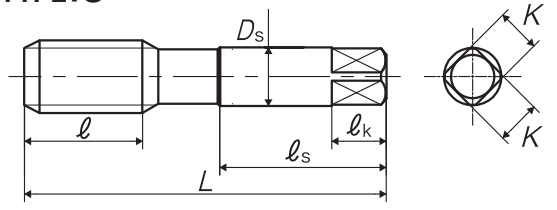


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P1	ESHMP3.0G	2.5P	46	9	14	26	4	3.2	6	2	1	¥ 1,390 ※
M3 × 0.5	P1	ESHMP3.0G-3	2.5P	46	9	14	26	4	3.2	6	3	1	¥ 1,390
M3.5 × 0.6	P1	ESHMP3.5H	2.5P	52	11	16	29	5	4	7	3	1	¥ 1,390 ※
M4 × 0.7	P2	ESHMQ4.0I	2.5P	52	11	17	29	5	4	7	3	1	¥ 1,390
M5 × 0.8	P2	ESHMQ5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,400
M6 × 1	P2	ESHMQ6.0M	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,540
M8 × 1.25	P2	ESHMQ8.0N	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,120
M10 × 1.5	P2	ESHMQ010O	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,690
M10 × 1.25	P2	ESHMQ010N	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,690 ※
M12 × 1.75	P2	ESHMQ012P	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,810
M12 × 1.5	P2	ESHMQ012O	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,810 ※
M12 × 1.25	P2	ESHMQ012N	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,810 ※
M14 × 2	P2	ESHMQ014Q	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,200 ※
M14 × 1.5	P2	ESHMQ014O	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,200 ※
M16 × 2	P2	ESHMQ016Q	2.5P	95	26	-	48	12.5	10	13	3	2	¥ 6,950
M16 × 1.5	P2	ESHMQ016O	2.5P	95	26	-	48	12.5	10	13	3	2	¥ 6,950 ※
M18 × 2.5	P3	ESHMR018R	2.5P	100	33	-	51	14	11	14	4	2	¥ 9,280 ※
M18 × 1.5	P2	ESHMQ018O	2.5P	100	33	-	51	14	11	14	4	2	¥ 9,280 ※
M20 × 2.5	P3	ESHMR020R	2.5P	105	33	-	50	15	12	15	4	3	¥ 12,700
M20 × 1.5	P3	ESHMR020O	2.5P	105	33	-	50	15	12	15	4	3	¥ 12,700 ※
M22 × 2.5	P3	ESHMR022R	2.5P	115	33	-	55	17	13	16	4	3	¥ 16,200 ※
M22 × 1.5	P3	ESHMR022O	2.5P	115	33	-	55	17	13	16	4	3	¥ 16,200 ※
M24 × 3	P3	ESHMR024S	2.5P	120	39	-	55	19	15	18	4	3	¥ 20,200 ※
M24 × 1.5	P3	ESHMR024O	2.5P	120	39	-	55	19	15	18	4	3	¥ 20,200 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

HC+SP
HC-SP



Spiral Fluted Taps for High Carbon Steels

Specification

HSS



・Product Name and Size.

HC+SP	～M6
HC−SP	M8～, all W

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

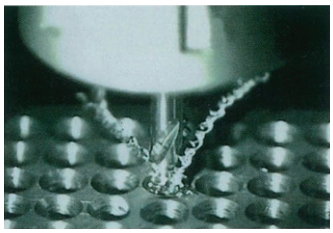
Product Features

●The HC+SP/HC-SP is a spiral flute tap for high carbon steel such as S55C and is suitable for tapping of medium and high hardness materials up to 30 HRC.

Tapping conditions

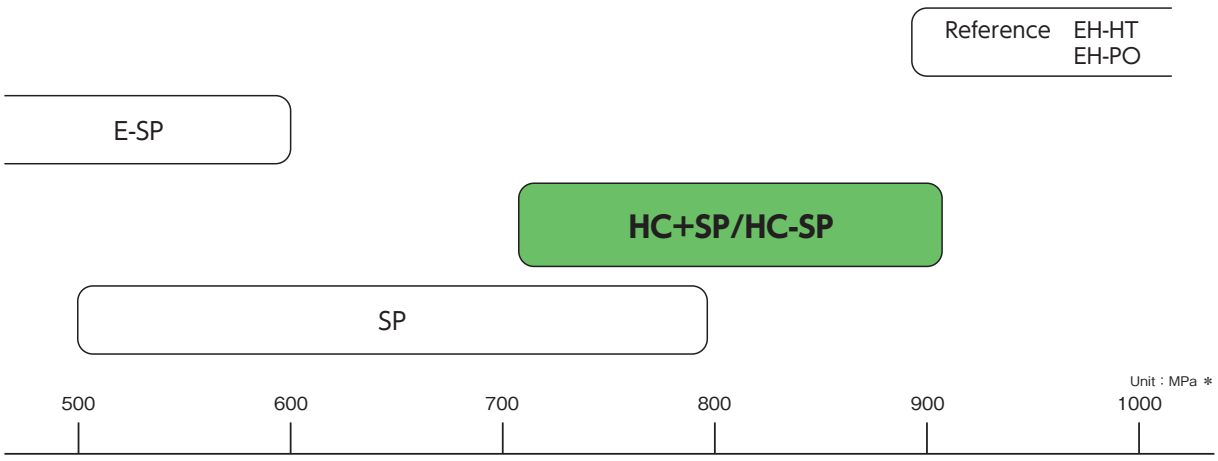
The HC+SP/HC-SP is best suited for tapping of high carbon steel, alloy tool steel and refined steel.

Workpiece Material	Cutting Speed (m/min)
S45C～ High Carbon Steel	10～20
SKC、SKD Alloy Tool Steel	5～10
Thermal Refining Steel 25～35HRC	5～10



Product chart (tensile strength)

HC + SP / HC - SP application range (tensile strength)



＊1MPa=1N/mm²≒1Kgf/mm²÷9.8

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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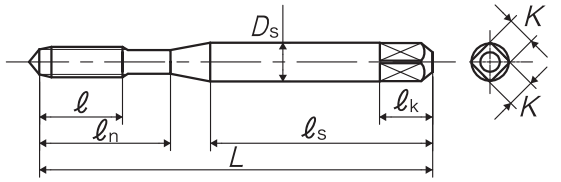

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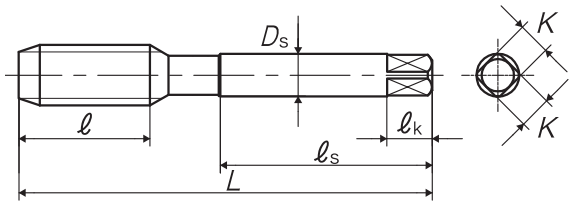

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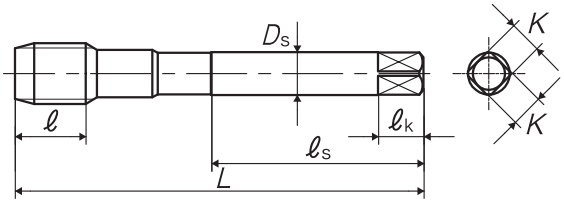

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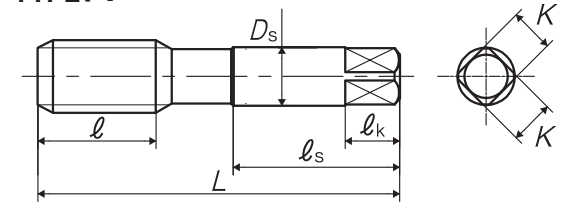

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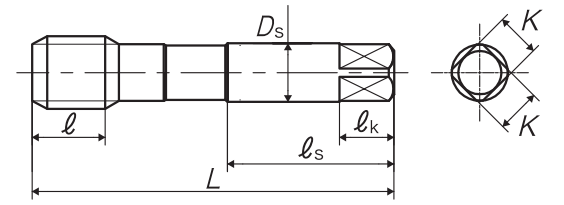

HC+SP Spiral Fluted Taps for High Carbon Steels

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P1	SCPP3.0G	2.5P	46	9	14	26	4	3.2	6	3	1	¥ 1,260
M4 × 0.7	P2	SCPQ4.0I	2.5P	52	11	17	29	5	4	7	3	1	¥ 1,260
M5 × 0.8	P2	SCPQ5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,270
M6 × 1	P2	SCPQ6.0M	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,400

HC-SP Spiral Fluted Taps for High Carbon Steels

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M8 × 1.25	P2	SCMQ8.0N	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 1,920
M8 × 1	P2	SCMQ8.0M	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,180 ※
M10 × 1.5	P2	SCMQ010O	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,440
M10 × 1.25	P2	SCMQ010N	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,440 ※
M10 × 1	P2	SCMQ010M	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,900 ※
M12 × 1.75	P2	SCMQ012P	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,460
M12 × 1.5	P2	SCMQ012O	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,460 ※
M12 × 1.25	P2	SCMQ012N	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,460 ※
M12 × 1	P2	SCMQ012M	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,070 ※
M14 × 2	P2	SCMQ014Q	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 4,720 ※
M14 × 1.5	P2	SCMQ014O	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 4,720 ※
M14 × 1.25	P2	SCMQ014N	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,480 ※
M14 × 1	P2	SCMQ014M	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,480 ※
M16 × 2	P2	SCMQ016Q	2.5P	95	26	-	48	12.5	10	13	3	2	¥ 6,310

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HC-SP Spiral Fluted Taps for High Carbon Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M16 × 1.5	P2	SCMQ016O	2.5P	95	26	-	48	12.5	10	13	3	2	¥ 6,310 ※
M16 × 1	P2	SCMQ016M	2.5P	95	26	-	48	12.5	10	13	3	2	¥ 7,520 ※
M18 × 2.5	P3	SCMR018R	2.5P	100	33	-	51	14	11	14	4	2	¥ 8,430 ※
M18 × 2	P3	SCMR018Q	2.5P	100	33	-	51	14	11	14	4	2	¥ 8,430 ※
M18 × 1.5	P2	SCMQ018O	2.5P	100	33	-	51	14	11	14	4	2	¥ 8,430 ※
M18 × 1	P2	SCMQ018M	2.5P	100	18	-	51	14	11	14	4	3	¥ 10,900 ※
M20 × 2.5	P3	SCMR020R	2.5P	105	33	-	50	15	12	15	4	4	¥ 11,500
M20 × 2	P3	SCMR020Q	2.5P	105	33	-	50	15	12	15	4	4	¥ 11,500 ※
M20 × 1.5	P3	SCMR020O	2.5P	105	33	-	50	15	12	15	4	4	¥ 11,500 ※
M20 × 1	P2	SCMQ020M	2.5P	105	18	-	50	15	12	15	4	5	¥ 14,600 ※
M22 × 2.5	P3	SCMR022R	2.5P	115	33	-	55	17	13	16	4	4	¥ 14,700 ※
M22 × 2	P3	SCMR022Q	2.5P	115	33	-	55	17	13	16	4	4	¥ 14,700 ※
M22 × 1.5	P3	SCMR022O	2.5P	115	33	-	55	17	13	16	4	4	¥ 14,700 ※
M24 × 3	P3	SCMR024S	2.5P	120	39	-	55	19	15	18	4	4	¥ 18,300 ※
M24 × 2	P3	SCMR024Q	2.5P	120	39	-	55	19	15	18	4	4	¥ 18,300 ※
M24 × 1.5	P3	SCMR024O	2.5P	120	39	-	55	19	15	18	4	4	¥ 18,300 ※
M25 × 1.5	P3	SCMR025O	2.5P	125	39	-	58	19	15	18	4	4	¥ 23,700 ※
M26 × 1.5	P3	SCMR026O	2.5P	130	39	-	60	20	15	18	4	4	¥ 25,500 ※
M27 × 3	P3	SCMR027S	2.5P	130	39	-	60	20	15	18	4	4	¥ 25,500 ※
M27 × 1.5	P3	SCMR027O	2.5P	130	39	-	60	20	15	18	4	4	¥ 25,500 ※
M28 × 1.5	P3	SCMR028O	2.5P	135	46	-	62	23	17	20	4	4	¥ 32,500 ※
M30 × 3.5	P4	SCMS030T	2.5P	135	46	-	62	23	17	20	4	4	¥ 32,500 ※
M30 × 1.5	P3	SCMR030O	2.5P	135	46	-	62	23	17	20	4	4	¥ 32,500 ※
For Whitworth Threads													
1/4W20	P2	SCMQW04N	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,600 ※
5/16W18	P2	SCMQW05O	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,210 ※
3/8W16	P2	SCMQW06P	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,830 ※
1/2W12	P3	SCMRW08S	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 4,230 ※
5/8W11	P3	SCMRW10U	2.5P	95	26	-	48	12.5	10	13	3	2	¥ 6,310 ※
3/4W10	P3	SCMRW12V	2.5P	105	33	-	50	15	12	15	4	4	¥ 11,500 ※
7/8W9	P3	SCMRW14W	2.5P	115	33	-	55	17	13	16	4	4	¥ 16,200 ※
1 W8	P3	SCMRW16X	2.5P	125	39	-	58	19	15	18	4	4	¥ 23,700 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

HC+SP OX
HC-SP OX



Spiral Fluted Taps for High Carbon Steels, Oxidized

Specification

HSS | OX Oxide



■Spiral fluted tap suitable for high carbon steels such as S55C and the like, oxidized to avoid welding trouble.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

・Product Name and Size.

HC+SP OX	~M6
HC-SP OX	M8~

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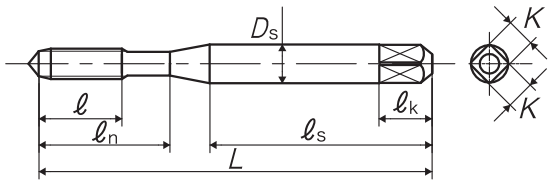

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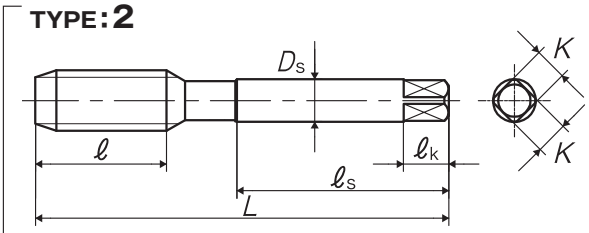


HC+SP OX Spiral Fluted Taps for High Carbon Steels, Oxidized

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P1	SCPP3.0GX	2.5P	46	9	14	26	4	3.2	6	3	1	¥ 1,390
M4 × 0.7	P2	SCPQ4.0IX	2.5P	52	11	17	29	5	4	7	3	1	¥ 1,390
M5 × 0.8	P2	SCPQ5.0KX	2.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,400
M6 × 1	P2	SCPQ6.0MX	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,540

HC-SP OX Spiral Fluted Taps for High Carbon Steels, Oxidized

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M8 × 1.25	P2	SCMQ8.0NX	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,120
M10 × 1.5	P2	SCMQ010OX	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,690
M12 × 1.75	P2	SCMQ012PX	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,810
M16 × 2	P2	SCMQ016QX	2.5P	95	26	-	48	12.5	10	13	3	2	¥ 6,950

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

AL+SP
AL-SP

Spiral Fluted Taps for Aluminum



Specification

HSS | NI Nitride | <2D

・Product Name and Size.

AL+SP	～M6
AL−SP	M8～

Recommended Tapping Speeds depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Bronze 青銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)

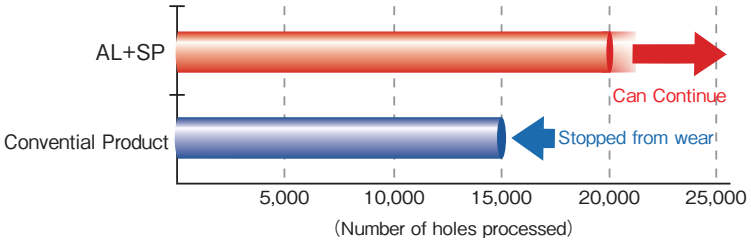
Product Features

●Stable screw tapping in light alloy castings such as aluminum die casting and aluminum casting even at a high speed range.
●Optimum design of the flute makes it possible to produce stable and clean internal threading with fewer burrs on the inner diameter that normally occur in tapping of light alloys.

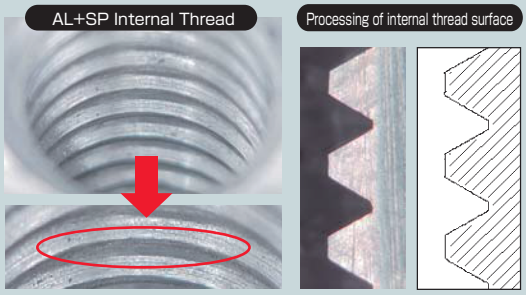
Tapping Data

Thread Size [M6×1]

Material	AC4C
Bored Hole Size	ϕ5.0
Tapping Length	9mm (Blind hole)
Tapping Speed	20m/min
Machinery Type	Vertical type machining center
Tapping Fluid	Water soluble cutting fluid (chlorinefree 20 to 1 dilution)

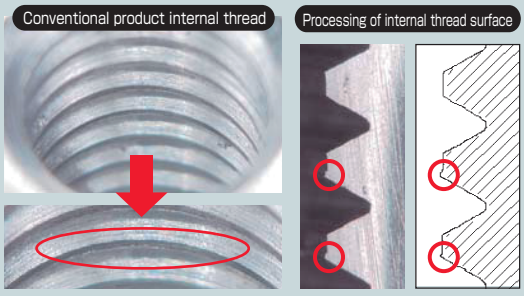


AL+SP



No burning to the inner diameter and the finish is good.

Conventional Product



Burning to inner diameter occurs

●AL+SPCompared to conventional products, the internal thread quality is good and the AL+SP had long tool life.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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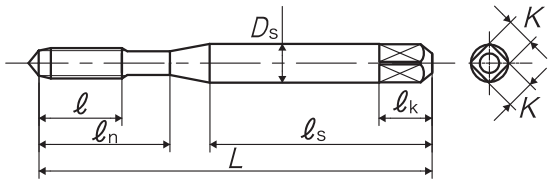

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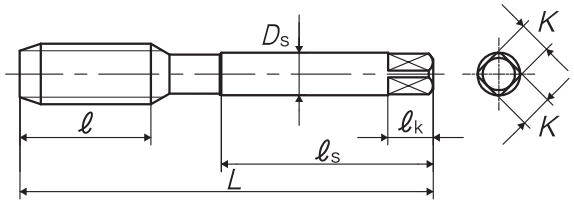

AL+SP Spiral Fluted Taps for Aluminum

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P2	ASHPQ2.0E	2.5P	42	7.2	12	27	3	2.5	5	2	1	¥ 2,710
M2.3 × 0.4	P2	ASHPQ2.3E	2.5P	42	7.2	12	27	3	2.5	5	2	1	¥ 2,470 ※
M2.5 × 0.45	P2	ASHPQ2.5F	2.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 2,070
M2.6 × 0.45	P2	ASHPQ2.6F	2.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 2,070
M3 × 0.5	P2	ASHPQ3.0G	2.5P	46	9	14	26	4	3.2	6	3	1	¥ 1,450
M3.5 × 0.6	P2	ASHPQ3.5H	2.5P	52	11	16	29	5	4	7	3	1	¥ 1,450 ※
M4 × 0.7	P3	ASHPR4.0I	2.5P	52	11	17	29	5	4	7	3	1	¥ 1,450
M5 × 0.8	P3	ASHPR5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,470
M6 × 1	P3	ASHPR6.0M	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,610

AL-SP Spiral Fluted Taps for Aluminum

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M8 × 1.25	P3	ASHMR8.0N	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,210
M10 × 1.5	P3	ASHMR010O	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,810
M10 × 1.25	P3	ASHMR010N	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,810 ※
M10 × 1	P3	ASHMR010M	2.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,340 ※
M12 × 1.75	P3	ASHMR012P	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,980
M12 × 1.5	P3	ASHMR012O	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,980 ※
M12 × 1.25	P3	ASHMR012N	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,980 ※
M12 × 1	P3	ASHMR012M	2.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,690 ※
M14 × 2	P3	ASHMR014Q	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,430 ※
M14 × 1.5	P3	ASHMR014O	2.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,430 ※
M16 × 2	P3	ASHMR016Q	2.5P	95	26	-	48	12.5	10	13	3	2	¥ 7,260 ※
M16 × 1.5	P3	ASHMR016O	2.5P	95	26	-	48	12.5	10	13	3	2	¥ 7,260 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

AL-SP 1.5P



Spiral Fluted Taps for Aluminum 1.5P

Specification

HSS | NI Nitride | 1.5 | <2D

■In aluminum die casting and aluminum casting tapping, AL-SP solves such problems as chip jamming, chip clogging, and torn threads.

Recommended Tapping Speeds depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Bronze 青銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)

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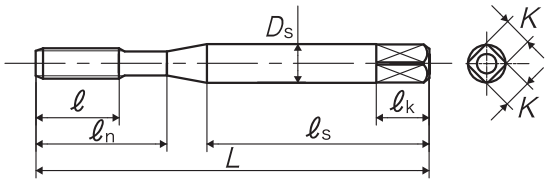

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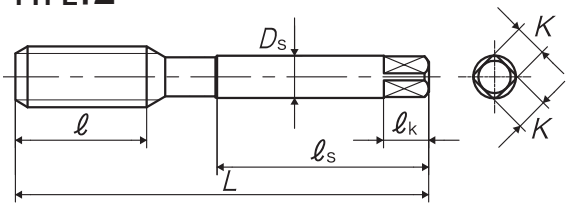

Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P2	SY2.0EQLENA	1.5P	42	7.2	12	27	3	2.5	5	2	1	¥ 2,710
M2.3 × 0.4	P2	SY2.3EQLENA	1.5P	42	7.2	12	27	3	2.5	5	2	1	¥ 2,470 ※
M2.5 × 0.45	P2	SY2.5FQLENA	1.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 2,070
M2.6 × 0.45	P2	SY2.6FQLENA	1.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 2,070
M3 × 0.5	P2	SY3.0GQLENA	1.5P	46	9	14	26	4	3.2	6	3	1	¥ 1,450
M3.5 × 0.6	P2	SY3.5HQLENA	1.5P	52	11	16	29	5	4	7	3	1	¥ 1,450 ※
M4 × 0.7	P3	SY4.0IRLENA	1.5P	52	11	17	29	5	4	7	3	1	¥ 1,450
M5 × 0.8	P3	SY5.0KRLENA	1.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,470
M6 × 1	P3	SY6.0MRLENA	1.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,610
M8 × 1.25	P3	SY8.0NRLENA	1.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,210
M10 × 1.5	P3	SY010ORLENA	1.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,810
M10 × 1.25	P3	SY010NRLENA	1.5P	75	23	-	38	7	5.5	8	3	2	¥ 2,810 ※
M10 × 1	P3	SY010MRLENA	1.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,340 ※
M12 × 1.75	P3	SY012PRLENA	1.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,980
M12 × 1.5	P3	SY012ORLENA	1.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,980 ※
M12 × 1.25	P3	SY012NRLENA	1.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,980 ※
M12 × 1	P3	SY012MRLENA	1.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,690 ※
M14 × 2	P3	SY014QRLENA	1.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,430 ※
M14 × 1.5	P3	SY014ORLENA	1.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,430 ※
M16 × 2	P3	SY016QRLENA	1.5P	95	26	-	48	12.5	10	13	3	2	¥ 7,260 ※
M16 × 1.5	P3	SY016ORLENA	1.5P	95	26	-	48	12.5	10	13	3	2	¥ 7,260 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

AL-SP

Spiral Fluted Taps for Aluminum



Specification

HSS | NI Nitride | <2D

■In aluminum die casting and aluminum casting tapping, AL-SP solves such problems as chip jamming, chip clogging, and torn threads.

Recommended Tapping Speed depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Bronze 青銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)

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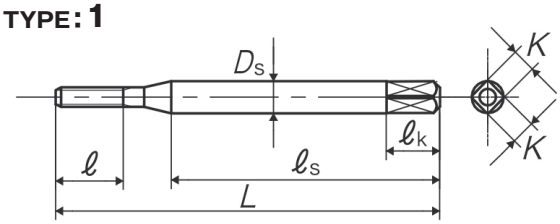

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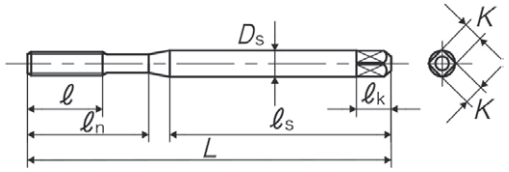

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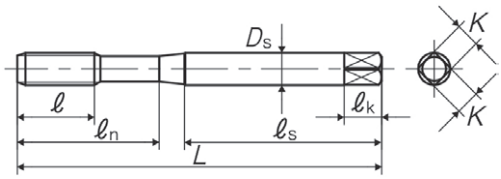

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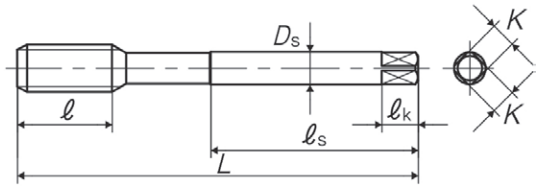

Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	D3	386528M	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
M3.5 × 0.6	D4	386529M	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
M4 × 0.7	D4	386530M	2.5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	2
M5 × 0.8	D4	386531M	2.5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M6 × 1	D5	386532M	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
M7 × 1	D5	386533M	2.5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M8 × 1.25	D5	386535M	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 1	D5	386534M	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M10 × 1.5	D6	386537M	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 1.25	D5	386536M	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M12 × 1.75	D6	386540M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
M12 × 1.5	D5	386539M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
M12 × 1.25	D5	386538M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

AL-SP Spiral Fluted Taps for Aluminum

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
No.2-56UNC	GH2	386500M	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.4-40UNC	GH2	386501M	2.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.5-40UNC	GH2	386502M	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH3	386503M	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.8-32UNC	GH3	386504M	2.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	3	2
No.10-24UNC	GH3	386505M	2.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	3	2
No.10-32UNF	GH3	386506M	2.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	3	2
1/4-20UNC	GH3	386507M	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	386508M	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	386509M	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	386511M	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	386512M	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	386513M	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	386514M	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	386515M	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	386516M	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	386517M	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	386518M	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	386519M	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	386520M	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	4
7/16-14UNC	GH5	386521M	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	386522M	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	386523M	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	386524M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
1/2-13UNC	GH5	386525M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	386526M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
1/2-20UNF	GH5	386527M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

AL+SP
AL-SP



Spiral Fluted Taps for Aluminum

Specification

HSS | NI Nitride | <2D

■In aluminum die casting and aluminum casting tapping, AL+SP/AL-SP solves such problems as chip jamming, chip clogging, and torn threads.

Recommended Tapping Speeds depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Bronze 青銅
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)

・Product Name and Size.

AL+SP	～M6
AL−SP	M8～

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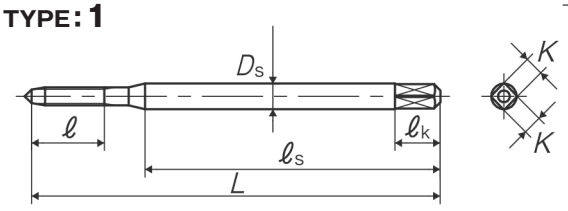

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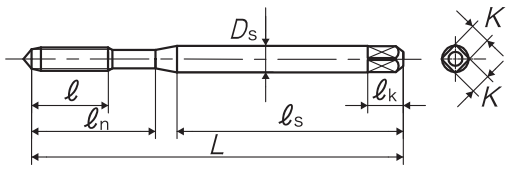

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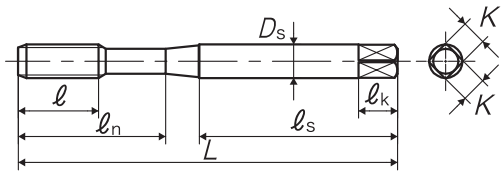

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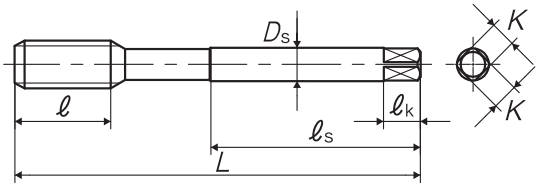

AL+SP Spiral Fluted Taps for Aluminum

Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2	SE2.0EALEN	2.5P	45	8	-	32	2.8	2.1	5	2	1
M2.5 × 0.45	ISO2	SE2.5FALEN	2.5P	50	8	15	33	2.8	2.1	5	2	2
M3 × 0.5	ISO2	SE3.0GALEN	2.5P	56	9	18	34	3.5	2.7	6	3	2
M4 × 0.7	ISO2	SE4.0IALEN	2.5P	63	13	21	38	4.5	3.4	6	3	2
M5 × 0.8	ISO2	SE5.0KALEN	2.5P	70	14	25	39	6	4.9	8	3	2
M6 × 1	ISO2	SE6.0MALEN	2.5P	80	15	30	45	6	4.9	8	3	2

AL-SP Spiral Fluted Taps for Aluminum

Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M8 × 1.25	ISO2	SD8.0NALEN	2.5P	90	19	35	47	8	6.2	9	3	3
M10 × 1.5	ISO2	SD010OALEN	2.5P	100	23	39	52.5	10	8	11	3	3
M12 × 1.75	ISO2	SG012PALEN	2.5P	110	26	-	56	9	7	10	3	4
M14 × 2	ISO2	SG014QALEN	2.5P	110	26	-	56	11	9	12	3	4
M16 × 2	ISO2	SG016QALEN	2.5P	110	26	-	56	12	9	12	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

ALS-SP

Spiral Fluted Taps for Aluminum



Specification

HSS | NI Nitride | <2D

■In aluminum die casting and aluminum casting tapping, ALS-SP solves such problems as chip jamming, chip clogging, and torn threads.

Recommended Tapping Speed depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Bronze 青銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)

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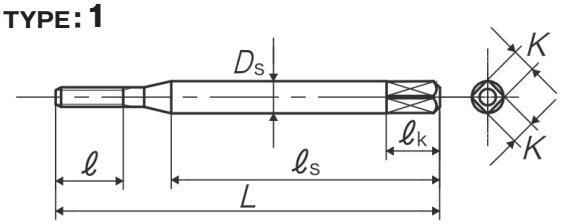

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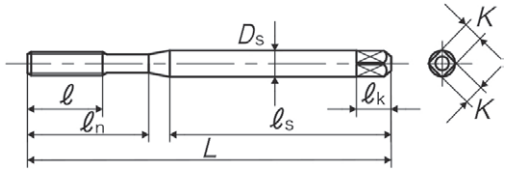

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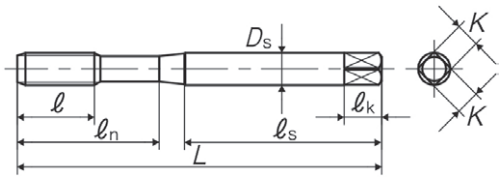

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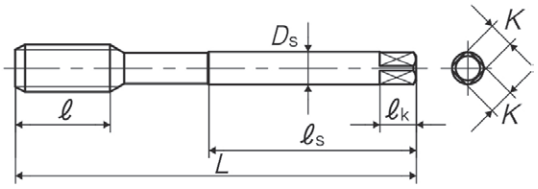


Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	D3	386428M	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
M3.5 × 0.6	D4	386429M	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
M4 × 0.7	D4	386430M	2.5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	2
M5 × 0.8	D4	386431M	2.5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M6 × 1	D5	386432M	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
M7 × 1	D5	386433M	2.5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M8 × 1.25	D5	386435M	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 1	D5	386434M	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M10 × 1.5	D6	386437M	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 1.25	D5	386436M	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M12 × 1.75	D6	386440M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
M12 × 1.5	D5	386439M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
M12 × 1.25	D5	386438M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
No.2-56UNC	GH2	386400M	2.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.4-40UNC	GH2	386401M	2.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.5-40UNC	GH2	386402M	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH3	386403M	2.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.8-32UNC	GH3	386404M	2.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	3	2
No.10-24UNC	GH3	386405M	2.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	3	2
No.10-32UNF	GH3	386406M	2.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	3	2
1/4-20UNC	GH3	386407M	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	386408M	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	386409M	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	386411M	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	386412M	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	386413M	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	386414M	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	386415M	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	386416M	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	386417M	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	386418M	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	386419M	2.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	386420M	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	4
7/16-14UNC	GH5	386421M	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	386422M	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	386423M	2.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	386424M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
1/2-13UNC	GH5	386425M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	386426M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
1/2-20UNF	GH5	386427M	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LO-SP

Low Spiral Fluted Taps



Specification

HSS



Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

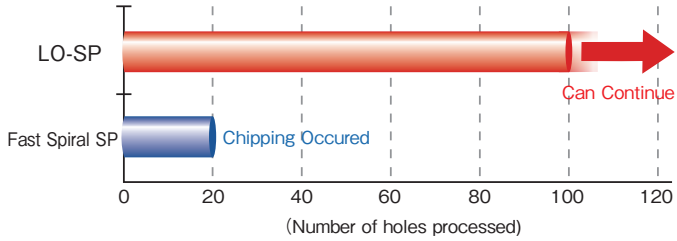
Product Features

- The chips are cut short in length and ejected smoothly due to the effect of a low spiral flute.
- The LO-SP is effective for thread processing and horizontal machining of tempered materials such as high carbon steel and alloy tool steel.

Tapping Data

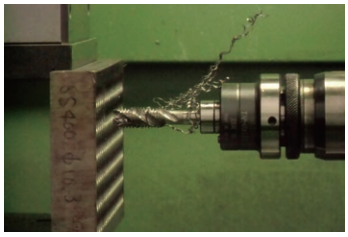
Tapping conditions [M12×1.75]

Work Piece Material	SS400
Bored Hole Size	ϕ10.3
Tapping Length	25mm (Blind hole)
Tapping Speed	10m/min
Machinery Type	CNC horizontal machining center (synchronous)
Holder	Fixed
Tapping Fluid	Water soluble cutting fluid



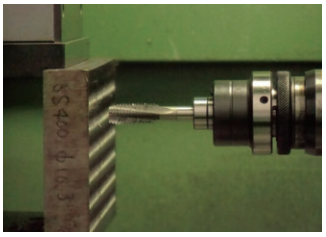
Chip evacuation capability.

High spiral tap.



When horizontal tapping, the chips tend to hang down due to gravity. These chips wrap around the taps and the holders.

LO-SP



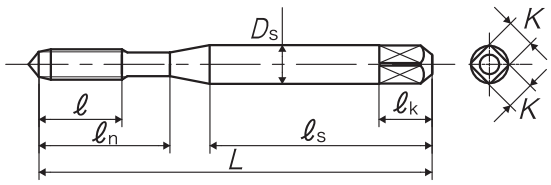
By cutting chips small, the chip problem is eliminated.

Chips



Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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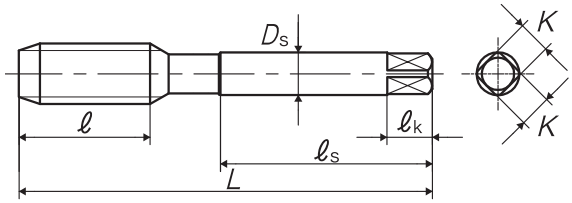


Segment : 1C

Size	Class	Code	Chamfer	Helix angle	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M3 × 0.5	P1	LSHMP3.0G8	2.5P	8°	46	9	14	26	4	3.2	6	3	1	¥ 1,260 ※
M3 × 0.5	P1	LSHMP3.0G15	2.5P	15°	46	9	14	26	4	3.2	6	3	1	¥ 1,260 ※
M3 × 0.5	P1	LSHMP3.0G20	2.5P	20°	46	9	14	26	4	3.2	6	3	1	¥ 1,260 ※
M4 × 0.7	P2	LSHMQ4.0I8	2.5P	8°	52	11	17	29	5	4	7	3	1	¥ 1,260 ※
M4 × 0.7	P2	LSHMQ4.0I15	2.5P	15°	52	11	17	29	5	4	7	3	1	¥ 1,260 ※
M4 × 0.7	P2	LSHMQ4.0I20	2.5P	20°	52	11	17	29	5	4	7	3	1	¥ 1,260 ※
M5 × 0.8	P2	LSHMQ5.0K8	2.5P	8°	60	13	22	33	5.5	4.5	7	3	1	¥ 1,270 ※
M5 × 0.8	P2	LSHMQ5.0K15	2.5P	15°	60	13	22	33	5.5	4.5	7	3	1	¥ 1,270 ※
M5 × 0.8	P2	LSHMQ5.0K20	2.5P	20°	60	13	22	33	5.5	4.5	7	3	1	¥ 1,270 ※
M6 × 1	P2	LSHMQ6.0M8	2.5P	8°	62	15	26	33	6	4.5	7	3	1	¥ 1,400 ※
M6 × 1	P2	LSHMQ6.0M15	2.5P	15°	62	15	26	33	6	4.5	7	3	1	¥ 1,400 ※
M6 × 1	P2	LSHMQ6.0M20	2.5P	20°	62	15	26	33	6	4.5	7	3	1	¥ 1,400 ※
M8 × 1.25	P2	LSHMQ8.0N8	2.5P	8°	70	19	-	36	6.2	5	8	3	2	¥ 1,920 ※
M8 × 1.25	P2	LSHMQ8.0N15	2.5P	15°	70	19	-	36	6.2	5	8	3	2	¥ 1,920 ※
M8 × 1.25	P2	LSHMQ8.0N20	2.5P	20°	70	19	-	36	6.2	5	8	3	2	¥ 1,920 ※
M10 × 1.5	P2	LSHMQ01008	2.5P	8°	75	23	-	38	7	5.5	8	3	2	¥ 2,440 ※
M10 × 1.5	P2	LSHMQ010015	2.5P	15°	75	23	-	38	7	5.5	8	3	2	¥ 2,440 ※
M10 × 1.5	P2	LSHMQ010020	2.5P	20°	75	23	-	38	7	5.5	8	3	2	¥ 2,440 ※
M12 × 1.75	P2	LSHMQ012P8	2.5P	8°	82	26	-	42	8.5	6.5	9	3	2	¥ 3,460 ※
M12 × 1.75	P2	LSHMQ012P15	2.5P	15°	82	26	-	42	8.5	6.5	9	3	2	¥ 3,460 ※
M12 × 1.75	P2	LSHMQ012P20	2.5P	20°	82	26	-	42	8.5	6.5	9	3	2	¥ 3,460 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LO-SP



Low Spiral Fluted Taps for Alloy Steels

Specification

HSS | OX Oxide

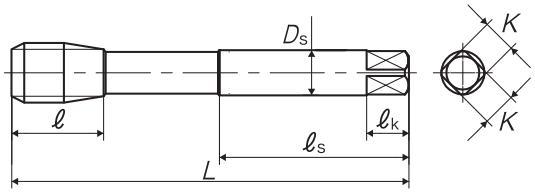


■Using the LO-SP, the chips are divided and discharged smoothly due to the low helix spiral flute. The LO-SP is effective for thread processing of high carbon steels, alloy steels etc. and horizontal machining.

Recommended Tapping Speed depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼
5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1C

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
1 -8UNC	2BX	SSU16XYEEXHT	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	1
1 1/8-8UN	2BX	SSU18XYEEXHT	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	1
1 1/4-8UN	2BX	SSU20XYEEXHT	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	1
1 3/8-8UN	2BX	SSU22XYEEXHT	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	1
1 1/2-8UN	2BX	SSU24XYEEXHT	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

LO-SP

Low Spiral Fluted Taps



Specification

HSS

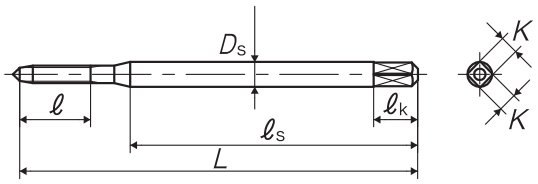


■Spiral flutes with low helix can break down chips and can eject them smoothly. Suitable for thermal refined high carbon steels and alloy tool steels. Effective in horizontal tapping.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

TYPE:1



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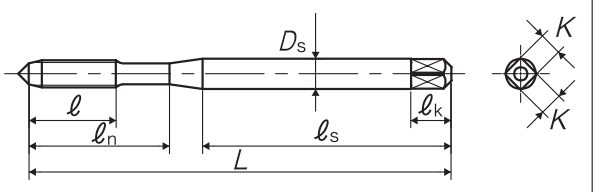

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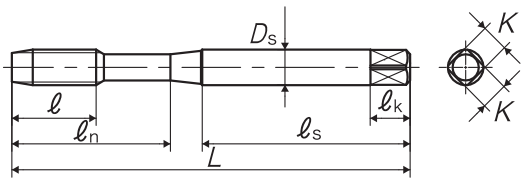

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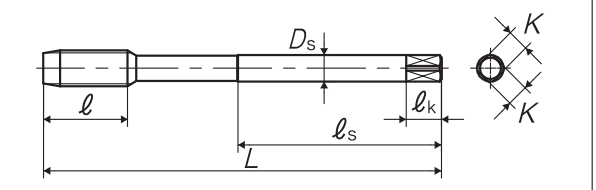

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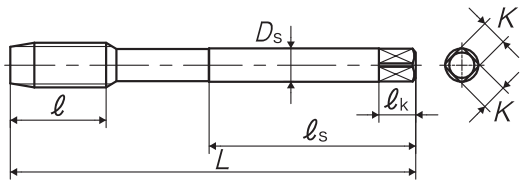

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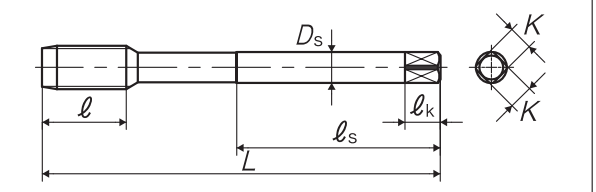

Segment : 1D (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2	SD2.0EANEBH	3.5P	45	8	-	32	2.8	2.1	5	2	1
M2.3 × 0.4	ISO2	SD2.3EANEBH	3.5P	45	9	-	32	2.8	2.1	5	2	1
M2.5 × 0.45	ISO2	SD2.5FANEBH	3.5P	50	8	15	33	2.8	2.1	5	2	2
M2.6 × 0.45	ISO2	SD2.6FANEBH	3.5P	50	8	15	33	2.8	2.1	5	2	2
M3 × 0.5	ISO2	SD3.0GANEBH	3.5P	56	9	18	34	3.5	2.7	6	2	2
M3.5 × 0.6	ISO2	SD3.5HANEBH	3.5P	56	11	20	32	4	3	6	3	2
M4 × 0.7	ISO2	SD4.0IANEBH	3.5P	63	13	21	38	4.5	3.4	6	3	2
M5 × 0.8	ISO2	SD5.0KANEBH	3.5P	70	14	25	39	6	4.9	8	3	2
M6 × 1	ISO2	SD6.0MANEBH	3.5P	80	15	30	45	6	4.9	8	3	2
M8 × 1.25	ISO2	SD8.0NANEBH	3.5P	90	19	35	47	8	6.2	9	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LO-SP Low Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M8 × 1	ISO2	SM8.0MANEBH	3.5P	90	19	-	46	6	4.9	8	3	4
M10 × 1.5	ISO2	SD0100ANEBH	3.5P	100	23	39	52.5	10	8	11	3	3
M10 × 1.25	ISO2	SM010NANEBH	3.5P	100	23	-	51	7	5.5	8	3	4
M10 × 1	ISO2	SM010MANEBH	3.5P	90	19	-	46	7	5.5	8	3	4
M12 × 1.75	ISO2	SG012PANEBH	3.5P	110	26	-	56	9	7	10	3	5
M12 × 1.5	ISO2	SM0120ANEBH	3.5P	100	21	-	51	9	7	10	3	4
M12 × 1.25	ISO2	SM012NANEBH	3.5P	100	21	-	51	9	7	10	3	4
M12 × 1	ISO2	SM012MANEBH	3.5P	100	21	-	51	9	7	10	3	4
M14 × 2	ISO2	SG014QANEBH	3.5P	110	26	-	56	11	9	12	3	5
M14 × 1.5	ISO2	SM0140ANEBH	3.5P	100	21	-	51	11	9	12	3	4
M16 × 2	ISO2	SG016QANEBH	3.5P	110	26	-	56	12	9	12	3	5
M16 × 1.5	ISO2	SM0160ANEBH	3.5P	100	21	-	51	12	9	12	3	4
M16 × 1	ISO2	SM016MANEBH	3.5P	100	21	-	51	12	9	12	3	4
M18 × 1.5	ISO2	SM0180ANEBH	3.5P	110	24	-	56	14	11	14	4	4
M20 × 2.5	ISO2	SG020RANEBH	3.5P	140	33	-	71	16	12	15	4	5
M24 × 3	ISO2	SG024SANEBH	3.5P	160	37	-	82	18	14.5	17	4	5
M24 × 1.5	ISO2	SM0240ANEBH	3.5P	140	27	-	71	18	14.5	17	4	4
M30 × 3.5	ISO2	SG030TANEBH	3.5P	180	44	-	92	22	18	21	4	5
For G Threads												
G 1/8-28	-	SVG0020NEBH	3.5P	90	19	-	46	7	5.5	8	3	6
G 1/4-19	-	SVG0040NEBH	3.5P	100	21	-	51	11	9	12	3	6
G 3/8-19	-	SVG0060NEBH	3.5P	100	21	-	51	12	9	12	3	6
G 1/2-14	-	SVG0080NEBH	3.5P	125	24	-	64	16	12	15	4	6
G 1 -11	-	SVG0160NEBH	3.5P	160	29	-	82	25	20	23	4	6

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

LO-SP OX



Low Spiral Fluted Taps, Oxidized

Specification

HSS | OX Oxide



■Spiral flutes with low helix can break down chips and can eject them smoothly. Suitable for thermal refined high carbon steels and alloy tool steels. Effective in horizontal tapping.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

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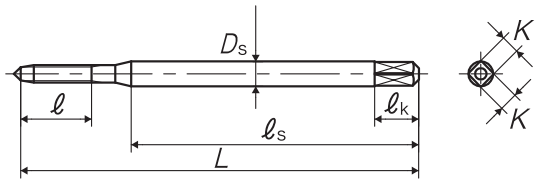

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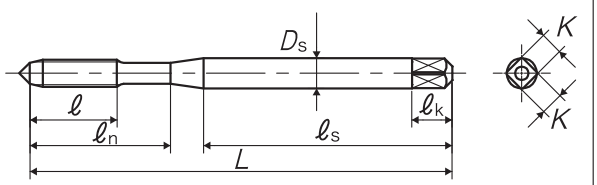

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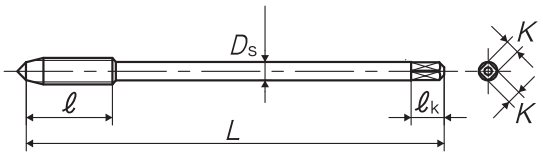

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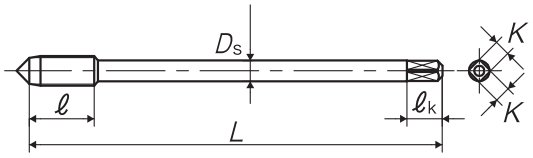

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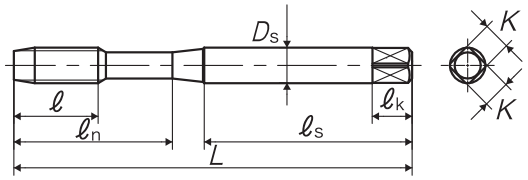

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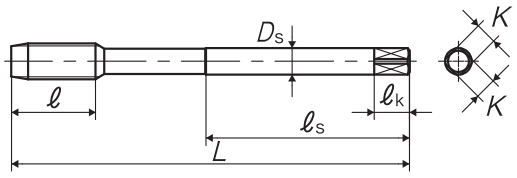

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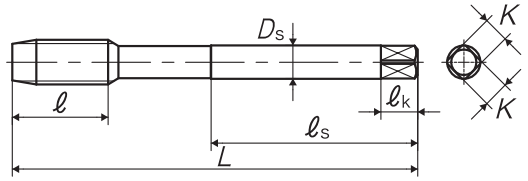

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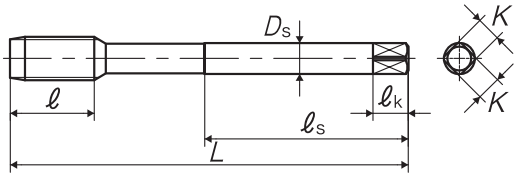


※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LO-SP OX Low Spiral Fluted Taps, Oxidized

Segment : 1D (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2	SD2.0EANEXH	3.5P	45	8	-	32	2.8	2.1	5	2	1
M2.5 × 0.45	ISO2	SD2.5FANEXH	3.5P	50	8	15	33	2.8	2.1	5	2	2
M2.6 × 0.45	ISO2	SD2.6FANEXH	3.5P	50	8	15	33	2.8	2.1	5	2	2
M3 × 0.5	ISO2	SD3.0GANEXH	3.5P	56	9	18	34	3.5	2.7	6	2	2
M3 × 0.5	ISO3	SD3.0GMNEXH	3.5P	56	9	18	34	3.5	2.7	6	2	2
M4 × 0.7	ISO2	SD4.0IANEXH	3.5P	63	13	21	38	4.5	3.4	6	3	2
M4 × 0.7	ISO2	SG4.0IANEXH	3.5P	63	13	-	-	2.8	2.1	5	3	3
M4 × 0.7	ISO3	SD4.0IMNEXH	3.5P	63	13	21	38	4.5	3.4	6	3	2
M5 × 0.8	ISO2	SD5.0KANEXH	3.5P	70	14	25	39	6	4.9	8	3	2
M5 × 0.8	ISO2	SG5.0KANEXH	3.5P	70	14	-	-	3.5	2.7	6	3	3
M5 × 0.8	ISO3	SD5.0KMNEXH	3.5P	70	14	25	39	6	4.9	8	3	2
M5 × 0.5	ISO2	SM5.0GANEXH	3.5P	70	11	-	-	3.5	2.7	6	3	4
M6 × 1	ISO2	SD6.0MANEXH	3.5P	80	15	30	45	6	4.9	8	3	2
M6 × 1	ISO2	SG6.0MANEXH	3.5P	80	15	-	-	4.5	3.4	6	3	3
M6 × 1	ISO3	SD6.0MMNEXH	3.5P	80	15	30	45	6	4.9	8	3	2
M6 × 0.75	ISO2	SM6.0JANEXH	3.5P	80	13	-	-	4.5	3.4	6	3	4
M7 × 1	ISO2	SD7.0MANEXH	3.5P	80	15	30	45	7	5.5	8	3	5
M8 × 1.25	ISO2	SD8.0NANEXH	3.5P	90	19	35	47	8	6.2	9	3	5
M8 × 1.25	ISO2	SG8.0NANEXH	3.5P	90	19	-	46	6	4.9	8	3	6
M8 × 1.25	ISO3	SD8.0NMNEXH	3.5P	90	19	35	47	8	6.2	9	3	5
M8 × 1	ISO2	SM8.0MANEXH	3.5P	90	19	-	46	6	4.9	8	3	7
M8 × 0.75	ISO2	SM8.0JANEXH	3.5P	80	19	-	41	6	4.9	8	3	7
M10 × 1.5	ISO2	SD010OANEXH	3.5P	100	23	39	52.5	10	8	11	3	5
M10 × 1.5	ISO2	SG010OANEXH	3.5P	100	23	-	51	7	5.5	8	3	6
M10 × 1.5	ISO3	SD010OMNEXH	3.5P	100	23	39	52.5	10	8	11	3	5
M10 × 1.25	ISO2	SM010NANEXH	3.5P	100	23	-	51	7	5.5	8	3	7
M10 × 1	ISO2	SM010MANEXH	3.5P	90	19	-	46	7	5.5	8	3	7
M10 × 0.75	ISO2	SM010JANEXH	3.5P	90	19	-	46	7	5.5	8	3	7
M12 × 1.75	ISO2	SG012PANEXH	3.5P	110	26	-	56	9	7	10	3	6
M12 × 1.75	ISO3	SG012PMNEXH	3.5P	110	26	-	56	9	7	10	3	6
M12 × 1.5	ISO2	SM012OANEXH	3.5P	100	21	-	51	9	7	10	3	7
M12 × 1.25	ISO2	SM012NANEXH	3.5P	100	21	-	51	9	7	10	3	7
M12 × 1	ISO2	SM012MANEXH	3.5P	100	21	-	51	9	7	10	3	7
M14 × 2	ISO2	SG014QANEXH	3.5P	110	26	-	56	11	9	12	3	6
M14 × 2	ISO3	SG014QMNEXH	3.5P	110	26	-	56	11	9	12	3	6
M14 × 1.5	ISO2	SM014OANEXH	3.5P	100	21	-	51	11	9	12	3	7
M14 × 1	ISO2	SM014MANEXH	3.5P	100	21	-	51	11	9	12	3	7
M16 × 2	ISO2	SG016QANEXH	3.5P	110	26	-	56	12	9	12	3	6
M16 × 2	ISO3	SG016QMNEXH	3.5P	110	26	-	56	12	9	12	3	6
M16 × 1.5	ISO2	SM016OANEXH	3.5P	100	21	-	51	12	9	12	3	7
M16 × 1	ISO2	SM016MANEXH	3.5P	100	21	-	51	12	9	12	3	7
M18 × 2.5	ISO2	SG018RANEXH	3.5P	125	33	-	64	14	11	14	4	6
M18 × 1.5	ISO2	SM018OANEXH	3.5P	110	24	-	56	14	11	14	4	7
M20 × 2.5	ISO2	SG020RANEXH	3.5P	140	33	-	71	16	12	15	4	6
M20 × 2	ISO2	SM020QANEXH	3.5P	140	33	-	71	16	12	15	4	7
M20 × 1.5	ISO2	SM020OANEXH	3.5P	125	24	-	64	16	12	15	4	7
M20 × 1	ISO2	SM020MANEXH	3.5P	125	24	-	64	16	12	15	4	7
M22 × 2.5	ISO2	SG022RANEXH	3.5P	140	33	-	71	18	14.5	17	4	6
M22 × 1.5	ISO2	SM022OANEXH	3.5P	125	24	-	64	18	14.5	17	4	7

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LO-SP OX Low Spiral Fluted Taps, Oxidized

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M22 × 1	ISO2	SM022MANEXH	3.5P	125	24	-	64	18	14.5	17	4	7
M24 × 3	ISO2	SG024SANEXH	3.5P	160	37	-	82	18	14.5	17	4	6
M24 × 2	ISO2	SM024QANEXH	3.5P	140	27	-	71	18	14.5	17	4	7
M24 × 1.5	ISO2	SM024OANEXH	3.5P	140	27	-	71	18	14.5	17	4	7
M24 × 1	ISO2	SM024MANEXH	3.5P	140	27	-	71	18	14.5	17	4	7
M25 × 1.5	ISO2	SM025OANEXH	3.5P	140	27	-	71	18	14.5	17	4	7
M27 × 3	ISO2	SG027SANEXH	3.5P	160	37	-	82	20	16	19	4	6
M27 × 2	ISO2	SM027QANEXH	3.5P	140	27	-	71	20	16	19	4	7
M28 × 1.5	ISO2	SM028OANEXH	3.5P	140	27	-	71	20	16	19	4	7
M28 × 1	ISO2	SM028MANEXH	3.5P	140	27	-	71	20	16	19	4	7
M30 × 3.5	ISO2	SG030TANEXH	3.5P	180	44	-	92	22	18	21	4	6
M30 × 2	ISO2	SM030QANEXH	3.5P	150	27	-	77	22	18	21	4	7
M30 × 1.5	ISO2	SM030OANEXH	3.5P	150	27	-	77	22	18	21	4	7
For G Threads												
G 1/8-28	-	SVG002ONEXH	3.5P	90	19	-	46	7	5.5	8	3	8
G 1/4-19	-	SVG004ONEXH	3.5P	100	21	-	51	11	9	12	3	8
G 3/8-19	-	SVG006ONEXH	3.5P	100	21	-	51	12	9	12	3	8
G 1/2-14	-	SVG008ONEXH	3.5P	125	24	-	64	16	12	15	4	8
G 3/4-14	-	SVG012ONEXH	3.5P	140	27	-	71	20	16	19	4	8
G 1 -11	-	SVG016ONEXH	3.5P	160	29	-	82	25	20	23	4	8

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-LO-SP



Long Shank Low Spiral Fluted Taps

Specification

HSS



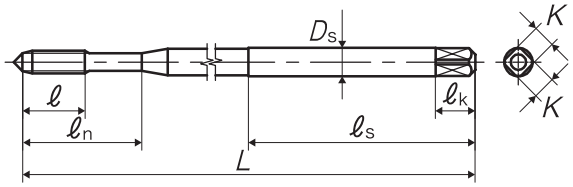
Helix angle 8°

■Spiral flutes with low helix can break down chips and can eject them smoothly. LS-LO-SP is the long shank spiral fluted tap suitable for thermal refined high carbon steels and alloy tool steels. Effective in horizontal tapping.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

TYPE: 1



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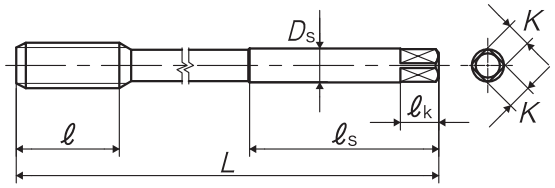

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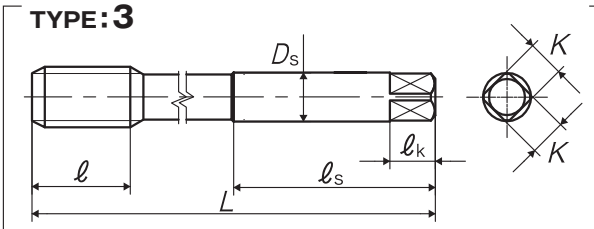


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P2	LSHFQ6.0ML10	2.5P	100	15	30	40	6	4.5	7	3	1	¥ 2,470 ※
M8 × 1.25	P2	LSHMQ8.0NL10	2.5P	100	19	-	50	6.2	5	8	3	2	¥ 3,140 ※
M8 × 1.25	P2	LSHMQ8.0NL15	2.5P	150	19	-	50	6.2	5	8	3	2	¥ 5,350 ※
M10 × 1.5	P2	LSHMQ010QL15	2.5P	150	23	-	50	7	5.5	8	3	2	¥ 6,220 ※
M10 × 1.25	P2	LSHMQ010NL15	2.5P	150	23	-	50	7	5.5	8	3	2	¥ 6,220 ※
M12 × 1.75	P2	LSHMQ012PL15	2.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 7,790 ※
M12 × 1.5	P2	LSHMQ012QL15	2.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 7,790 ※
M12 × 1.25	P2	LSHMQ012NL15	2.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 7,790 ※
M14 × 2	P2	LSHMQ014QL15	2.5P	150	26	-	60	10.5	8	11	3	2	¥ 9,760 ※
M14 × 1.5	P2	LSHMQ014QL15	2.5P	150	26	-	60	10.5	8	11	3	2	¥ 9,760 ※
M16 × 2	P2	LSHMQ016QL15	2.5P	150	26	-	60	12.5	10	13	3	2	¥ 10,600 ※
M16 × 2	P2	LSHMQ016QL20	2.5P	200	26	-	60	12.5	10	13	3	2	¥ 14,000 ※
M16 × 1.5	P2	LSHMQ016QL15	2.5P	150	26	-	60	12.5	10	13	3	2	¥ 10,600 ※
M16 × 1.5	P2	LSHMQ016QL20	2.5P	200	26	-	60	12.5	10	13	3	2	¥ 14,000 ※
M18 × 2.5	P3	LSHMR018RL20	2.5P	200	33	-	70	14	11	14	4	2	¥ 18,200 ※
M18 × 1.5	P2	LSHMQ018QL20	2.5P	200	33	-	70	14	11	14	4	2	¥ 18,200 ※
M20 × 2.5	P3	LSHMR020RL20	2.5P	200	33	-	70	15	12	15	4	3	¥ 23,200 ※
M20 × 1.5	P3	LSHMR020QL20	2.5P	200	33	-	70	15	12	15	4	3	¥ 23,200 ※
M22 × 2.5	P3	LSHMR022RL20	2.5P	200	33	-	70	17	13	16	4	3	¥ 25,700 ※
M22 × 1.5	P3	LSHMR022QL20	2.5P	200	33	-	70	17	13	16	4	3	¥ 25,700 ※
M24 × 3	P3	LSHMR024SL20	2.5P	200	39	-	80	19	15	18	4	3	¥ 28,900 ※
M24 × 1.5	P3	LSHMR024QL20	2.5P	200	39	-	80	19	15	18	4	3	¥ 28,900 ※

MEMO

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

ZET-B



Spiral Fluted Taps for Titanium Alloys

Specification

HSS-P | NI Nitride |  | Synchro nized

Recommended Tapping Speeds depending on Materials

Titanium alloys チタン合金 5~10 (m/min)

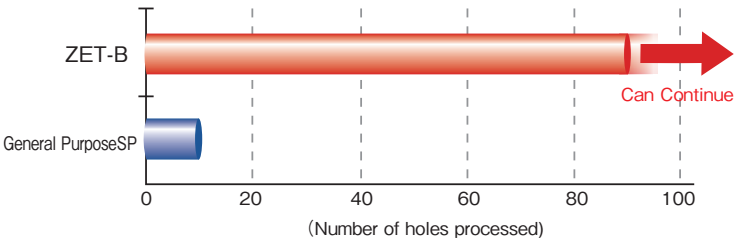
Product Features

- The tap is produced from a high grade powder high speed steel that is excellent for heat resistance and wear resistance.
- The cutting edge geometry helps prevent material shrinkage. The the spiral flute design helps pull the chips ou of the hole to allow the cutting heat to be carried out.
- Appropriate flute shape for titanium alloy is utilized and the ejection of the chips is smooth.
- A nitride surface treatment is performed for added wear resistance.
- Considering the shrinkage of the internal screw thread, the tap is produced to a moderate oversize condition.

Tapping Data

Tapping Conditions [M6×1]

Work Piece Material	Ti-6Aℓ-4V
Bored Hole Size	ϕ5.0
Tapping Length	12mm
Tapping Speed	8m/min
Machiery Type	CNC tapping center
Tapping Fluid	Water soluble cutting fluid



Characteristics of titanium alloy

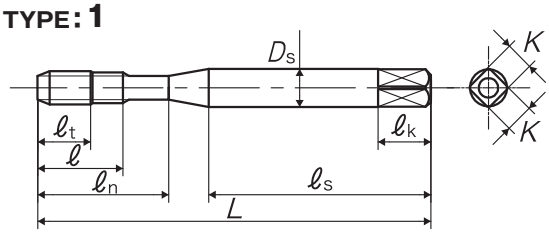
It is mainly composed of titanium that has a high strength and is light weight. It has excellent heat resistance. There are various types of titanium alloys such as Ti - 5Aℓ - 2.5Sn, Ti - 5Ta, and the most popular Ti - 6Aℓ - 4V which is commonly used due to its good characteristics.

Examples of problems in tapping

- Titanium alloys have high temperature strength and the thermal diffusion is small, so abrupt abrasion occurs on the tap.
- The spring back on internal screw threads may cause diameters to shrink and the tap may be crimped causing breakage.
- Chip welding occurs easily on the cutting chamfer of the tap and the threads flank surface. The finished thread surface of the internal screw thread also becomes rough and coarse.

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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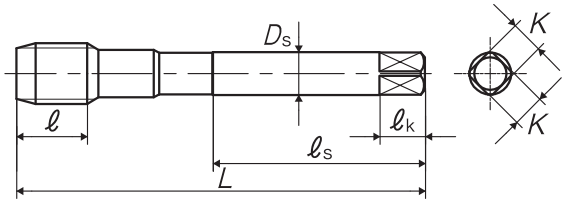

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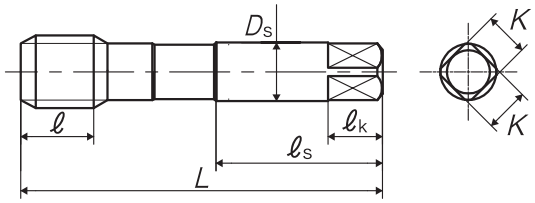

Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M3 × 0.5	P2	ZETBMQ3.0G	3P	46	5	9	14	26	4	3.2	6	3	1	¥ 2,520
M4 × 0.7	P3	ZETBMR4.0I	3P	52	7	11	17	29	5	4	7	3	1	¥ 2,520
M5 × 0.8	P3	ZETBMR5.0K	3P	60	9	13	22	33	5.5	4.5	7	3	1	¥ 2,540
M6 × 1	P3	ZETBMR6.0M	3P	62	11	15	26	33	6	4.5	7	3	1	¥ 2,800
M8 × 1.25	P3	ZETBMR8.0N	3P	70	-	12	-	36	6.2	5	8	3	2	¥ 3,840
M10 × 1.5	P3	ZETBMR010O	3P	75	-	13	-	38	7	5.5	8	3	2	¥ 4,880
M10 × 1.25	P3	ZETBMR010N	3P	75	-	13	-	38	7	5.5	8	3	2	¥ 4,880
M12 × 1.75	P3	ZETBMR012P	3P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 6,920
M12 × 1.5	P3	ZETBMR012O	3P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 6,920 ※
M12 × 1.25	P3	ZETBMR012N	3P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 6,920 ※
M14 × 2	P3	ZETBMR014Q	3P	88	-	18	-	45	10.5	8	11	3	2	¥ 9,440 ※
M14 × 1.5	P3	ZETBMR014O	3P	88	-	14	-	45	10.5	8	11	3	2	¥ 9,440 ※
M16 × 2	P3	ZETBMR016Q	3P	95	-	18	-	48	12.5	10	13	4	2	¥ 12,700 ※
M16 × 1.5	P3	ZETBMR016O	3P	95	-	14	-	48	12.5	10	13	4	2	¥ 12,700 ※
M18 × 2.5	P4	ZETBMS018R	3P	100	-	20	-	51	14	11	14	4	2	¥ 16,900 ※
M18 × 1.5	P3	ZETBMR018O	3P	100	-	14	-	51	14	11	14	4	2	¥ 16,900 ※
M20 × 2.5	P4	ZETBMS020R	3P	105	-	20	-	50	15	12	15	4	3	¥ 23,000 ※
M20 × 1.5	P4	ZETBMS020O	3P	105	-	14	-	50	15	12	15	4	3	¥ 23,000 ※
M27 × 3	P4	ZETBMS027S	3P	130	-	25	-	60	20	15	18	4	3	¥ 51,000 ※
M30 × 3.5	P5	ZETBMT030T	3P	135	-	30	-	62	23	17	20	4	3	¥ 65,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX TI SP



Spiral Fluted Taps for Titanium Alloys

Specification

HSS-P | NI Nitride | Synchro nized

■Spiral fluted tap suitable for titanium alloys which, including titanium as the main composition, are tough, light and heat resistant.

Recommended Tapping Speed depending on Materials

Titanium alloys チタン合金 5~10 (m/min)

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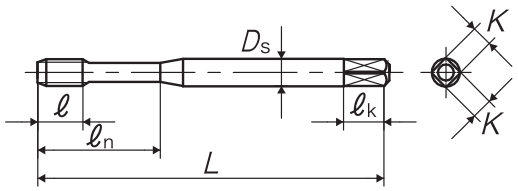

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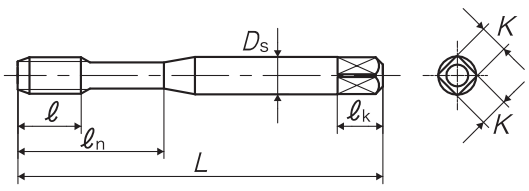

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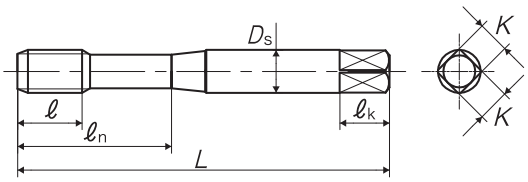

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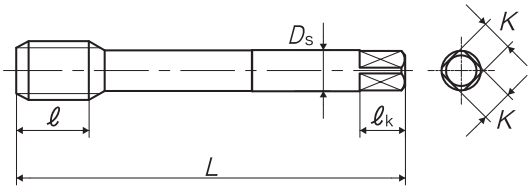


Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric threads											
M2.5 × 0.45	D3	Y87700	3P	1.812	0.157	0.5	0.141	0.11	0.187	3	1
M3 × 0.5	D3	Y87701	3P	1.937	0.197	0.625	0.141	0.11	0.187	3	1
M3.5 × 0.6	D4	Y87702	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
M4 × 0.7	D4	Y87703	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
M5 × 0.8	D4	Y87704	3P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
M6 × 1	D5	Y87705	3P	2.5	0.433	1	0.255	0.191	0.312	3	2
M7 × 1	D5	Y87706	3P	2.718	0.433	1.125	0.318	0.238	0.375	3	3
M8 × 1.25	D5	Y87708	3P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
M8 × 1	D5	Y87707	3P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
M10 × 1.5	D6	Y87710	3P	2.937	0.512	1.25	0.381	0.286	0.437	3	3
M10 × 1.25	D5	Y87709	3P	2.937	0.472	1.25	0.381	0.286	0.437	3	3
M12 × 1.75	D6	Y87712	3P	3.375	0.591	-	0.367	0.275	0.437	3	4
M12 × 1.25	D5	Y87711	3P	3.375	0.551	-	0.367	0.275	0.437	3	4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads											
No.2-56UNC	GH2	Y87623	3P	1.75	0.157	0.437	0.141	0.11	0.187	3	1
No.4-40UNC	GH2	Y87601	3P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.4-40UNC	GH4	Y87612	3P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.4-40UNC	GH4	Y87001	1.5P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y87605	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y87606	1.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH4	Y87608	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH5	Y87635	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.8-32UNC	GH3	Y87607	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH3	Y87007	1.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH4	Y87629	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH5	Y87637	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH6	Y87660	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH7	Y87667	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.10-24UNC	GH3	Y87609	3P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH3	Y81608	1.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y87610	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y87010	1.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH4	Y87630	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH5	Y87640	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH6	Y87661	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH7	Y87670	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
1/4-20UNC	GH3	Y87613	3P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH3	Y87628	1.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y87614	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y87014	1.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	Y87631	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH5	Y87644	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH6	Y87662	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH7	Y87674	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	Y87615	3P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH3	Y87695	1.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y87616	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y87016	1.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	Y87632	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH5	Y87646	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH6	Y87663	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH7	Y87676	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	Y87617	3P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH3	Y87611	1.5P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y87618	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y87018	1.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	Y87633	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH5	Y87648	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH6	Y87664	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH7	Y87678	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	Y87619	3P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH3	Y81629	1.5P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y87620	3P	3.156	0.472	-	0.323	0.242	0.406	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX TI SP Spiral Fluted Taps for Titanium Alloys

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
7/16-20UNF	GH3	Y87020	1.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	Y87650	3P	3.156	0.472	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	Y87621	3P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH3	Y87021	1.5P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH5	Y87626	3P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y87622	3P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y87023	1.5P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH5	Y87652	3P	3.375	0.472	-	0.367	0.275	0.437	3	4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

ZET-B



Spiral Fluted Taps for Titanium Alloys

Specification

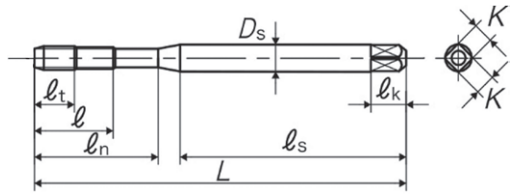
HSS-P | NI Nitride | Synchro nized

■ZET-B is the spiral fluted tap for titanium alloys which, including titanium as the main composition, are tough, light and heat resistant.

Recommended Tapping Speeds depending on Materials

Titanium alloys チタン合金 5~10 (m/min)

TYPE: 1



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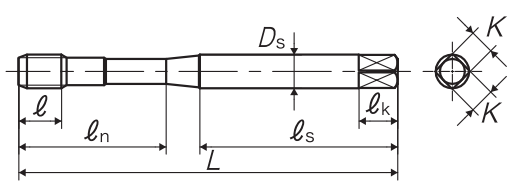

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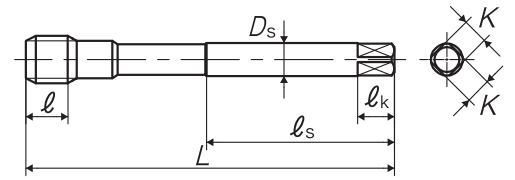

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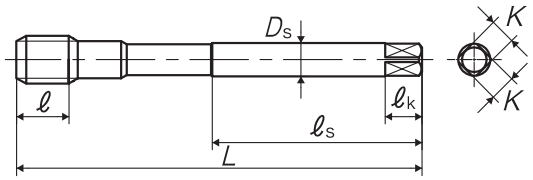


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads													
M3 × 0.5	ISO2X	SD3.0GBIPN	3P	56	5	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	SD4.0IBIPN	3P	63	7	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	SD5.0KBIPN	3P	70	9	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	SD6.0MBIPN	3P	80	11	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	SD8.0NBIPN	3P	90	-	12	35	47	8	6.2	9	3	2
M10 × 1.5	ISO2X	SD010OBIPN	3P	100	-	13	39	52.5	10	8	11	3	2
M10 × 1.25	ISO2X	SM010NBIPN	3P	100	-	13	-	51	7	5.5	8	3	3
M12 × 1.75	ISO2X	SG012PBIPN	3P	110	-	15	-	56	9	7	10	3	4
M12 × 1.5	ISO2X	SM012OBIPN	3P	100	-	15	-	51	9	7	10	3	3
M12 × 1.25	ISO2X	SM012NBIPN	3P	100	-	15	-	51	9	7	10	3	3
M14 × 2	ISO2X	SG014QBIPN	3P	110	-	18	-	56	11	9	12	3	4
M14 × 1.5	ISO2X	SM014OBIPN	3P	100	-	14	-	51	11	9	12	3	3
M16 × 2	ISO2X	SG016QBIPN	3P	110	-	18	-	56	12	9	12	4	4
M16 × 1.5	ISO2X	SM016OBIPN	3P	100	-	14	-	51	12	9	12	4	3
M18 × 2.5	ISO2X	SG018RBIPN	3P	125	-	20	-	64	14	11	14	4	4
M20 × 2.5	ISO2X	SG020RBIPN	3P	140	-	20	-	71	16	12	15	4	4
M22 × 2.5	ISO2X	SG022RBIPN	3P	140	-	20	-	71	18	14.5	17	4	4
M24 × 3	ISO2X	SG024SBIPN	3P	160	-	25	-	82	18	14.5	17	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

ZET-B Spiral Fluted Taps for Titanium Alloys

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Unified Threads													
No.4-40UNC	2BX	SDUN4HYIPN	3P	56	11	5	18	34	3.5	2.7	6	3	1
No.6-32UNC	2BX	SDUN6JYIPN	3P	56	7	11	19	32	4	3	6	3	1
No.6-40UNF	2BX	SDUN6HYIPN	3P	56	7	11	19	32	4	3	6	3	1
No.8-32UNC	2BX	SDUN8JYIPN	3P	63	7	13	21	38	4.5	3.4	6	3	1
No.10-24UNC	2BX	SDUNAMYIPN	3P	70	9	14	24	39	6	4.9	8	3	1
No.10-32UNF	2BX	SDUNAJYIPN	3P	70	9	14	24	39	6	4.9	8	3	1
1/4-20UNC	2BX	SDU04NYIPN	3P	80	11	15	30	42	7	5.5	8	3	1
1/4-28UNF	2BX	SDU04KYIPN	3P	80	11	15	30	42	7	5.5	8	3	1
5/16-18UNC	2BX	SDU05OYIPN	3P	90	-	12	35	47	8	6.2	9	3	2
5/16-24UNF	2BX	SMU05MYIPN	3P	90	-	12	-	46	6	4.9	8	3	3
3/8-16UNC	2BX	SDU06PYIPN	3P	100	-	13	39	54.5	9	7	10	3	2
3/8-24UNF	2BX	SMU06MYIPN	3P	100	-	13	-	51	7	5.5	8	3	3
1/2-13UNC	2BX	SGU08RYIPN	3P	110	-	15	-	56	9	7	10	3	4
1/2-20UNF	2BX	SMU08NYIPN	3P	100	-	15	-	51	9	7	10	3	3
5/8-11UNC	2BX	SGU10UYIPN	3P	110	-	18	-	56	12	9	12	4	4
3/4-10UNC	2BX	SGU12VYIPN	3P	125	-	20	-	64	14	11	14	4	4

MEMO

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

ZEN-B



Spiral Fluted Taps for Nickel Base Alloys

Specification

HSS-P | OX Oxide | Synchro nized

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Nickel base alloys ニッケル基合金
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~10 (m/min)

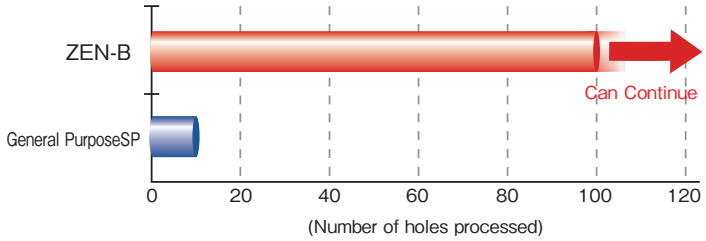
Product Features

- The tap is produced from a high grade powder high speed steel that is excellent for heat resistance and wear resistance.
- The optimum thread relief is adopted in consideration of the shrinkage and cutting heat for Nickel Base Alloys.
- The ZEN-B has a flute design for nickel base alloy to smooth the discharge of chips.
- Optimum surface treatment is applied to prevent welding.
- Considering the shrinkage of the internal screw thread, the tap is produced to a moderate oversize condition.

Tapping Data

Tapping Conditions [M6×1]

Work Piece Material	Hastelloy C-276
Bored Hole Size	ϕ5.0
Tapping Length	10mm
Tapping Speed	5m/min
Machinery Type	CNC tapping center
Tapping Fluid	Water soluble cutting fluid



Characteristics of nickel base alloys

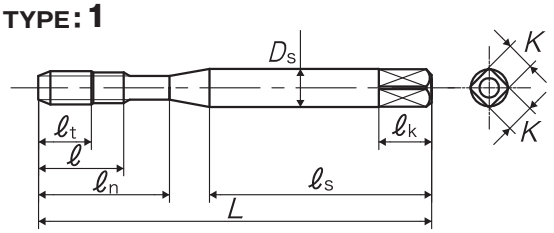
- Nickel based alloys have much better corrosion and heat resistance than steel. In general, nickel based alloys are much more difficult to process than steels and stainless steels. Nickel based alloys include A286, inconels, hastelloys, waspaloys and more. There are many kinds of nickel based alloys, but one of the more difficult ones to cut is inconel 718.

Types of tapping problems

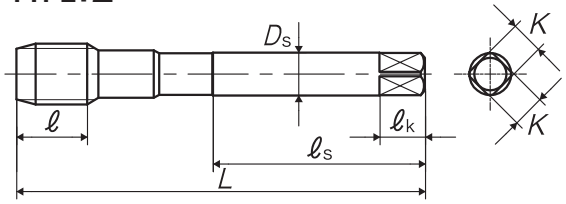
- Nickel based alloys have high temperature strength and the thermal diffusivity is small so, abrupt abrasion occurs on the tap.
- The material tends to spring back so, internal threads may shrink or the tap may be crimped causing breakage.
- The material tends to cause welding on the cutting chamfer and the thread flank surface. The finished surface of the internal screw thread can become rough.

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



TYPE : 2



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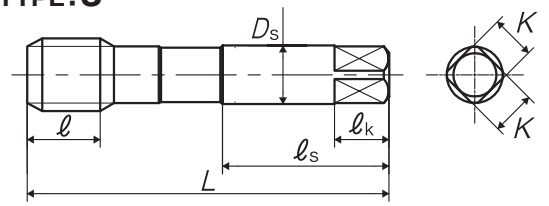


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M3 × 0.5	P2	ZENBMQ3.0G	3P	46	5	9	14	26	4	3.2	6	3	1	¥ 2,520
M4 × 0.7	P3	ZENBMR4.0I	3P	52	7	11	17	29	5	4	7	3	1	¥ 2,520
M5 × 0.8	P3	ZENBMR5.0K	3P	60	9	13	22	33	5.5	4.5	7	3	1	¥ 2,540
M6 × 1	P3	ZENBMR6.0M	3P	62	11	15	26	33	6	4.5	7	3	1	¥ 2,800
M8 × 1.25	P3	ZENBMR8.0N	3P	70	-	12	-	36	6.2	5	8	3	2	¥ 3,840
M10 × 1.5	P3	ZENBMR010O	3P	75	-	13	-	38	7	5.5	8	3	2	¥ 4,880
M10 × 1.25	P3	ZENBMR010N	3P	75	-	13	-	38	7	5.5	8	3	2	¥ 4,880
M12 × 1.75	P3	ZENBMR012P	3P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 6,920
M12 × 1.5	P3	ZENBMR012O	3P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 6,920 ※
M12 × 1.25	P3	ZENBMR012N	3P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 6,920 ※
M14 × 2	P3	ZENBMR014Q	3P	88	-	18	-	45	10.5	8	11	3	2	¥ 9,440 ※
M14 × 1.5	P3	ZENBMR014O	3P	88	-	14	-	45	10.5	8	11	3	2	¥ 9,440 ※
M16 × 2	P3	ZENBMR016Q	3P	95	-	18	-	48	12.5	10	13	3	2	¥ 12,700 ※
M16 × 1.5	P3	ZENBMR016O	3P	95	-	14	-	48	12.5	10	13	3	2	¥ 12,700 ※
M18 × 2.5	P4	ZENBMS018R	3P	100	-	20	-	51	14	11	14	4	2	¥ 16,900 ※
M18 × 1.5	P3	ZENBMR018O	3P	100	-	14	-	51	14	11	14	4	2	¥ 16,900 ※
M20 × 2.5	P4	ZENBMS020R	3P	105	-	20	-	50	15	12	15	4	3	¥ 23,000 ※
M20 × 1.5	P4	ZENBMS020O	3P	105	-	14	-	50	15	12	15	4	3	¥ 23,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX NI SP



Spiral Fluted Taps for Nickel Base Alloys

Specification

HSS-P | NX Nitride/Oxide | Synchro nized

■ZELX NI SP is the spiral fluted tap for nickel base alloys which, with nickel as main composition, have much higher corrosion resistance and much higher heat resistance than steels.

Recommended Tapping Speed depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Stainless steels ステンレス鋼	Nickel base alloys ニッケル基合金
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~10 (m/min)

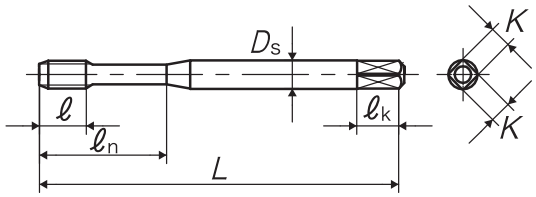
Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads											
M2.5 × 0.45	D3	Y88320	3P	1.812	0.157	0.5	0.141	0.11	0.187	3	1
M3 × 0.5	D3	Y88321	3P	1.937	0.197	0.625	0.141	0.11	0.187	3	1
M3.5 × 0.6	D4	Y88322	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
M4 × 0.7	D4	Y88323	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
M5 × 0.8	D4	Y88324	3P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
M6 × 1	D5	Y88325	3P	2.5	0.433	1	0.255	0.191	0.312	3	2
M7 × 1	D5	Y88326	3P	2.718	0.433	1.125	0.318	0.238	0.375	3	3
M8 × 1.25	D5	Y88328	3P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
M8 × 1	D5	Y88327	3P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
M10 × 1.5	D6	Y88330	3P	2.937	0.512	1.25	0.381	0.286	0.437	3	3
M10 × 1.25	D5	Y88329	3P	2.937	0.472	1.25	0.381	0.286	0.437	3	3
M12 × 1.75	D6	Y88332	3P	3.375	0.591	-	0.367	0.275	0.437	3	4
M12 × 1.25	D5	Y88331	3P	3.375	0.551	-	0.367	0.275	0.437	3	4
For Unified Threads											
No.2-56UNC	GH2	Y87523	3P	1.75	0.157	0.437	0.141	0.11	0.187	3	1
No.4-40UNC	GH2	Y87501	3P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.4-40UNC	GH2	Y87583	1.5P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.4-40UNC	GH3	Y87502	3P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.4-40UNC	GH3	Y87002	1.5P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.4-40UNC	GH4	Y87512	3P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.4-40UNC	GH5	Y87534	3P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.4-40UNC	GH5	Y87072	1.5P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.5-40UNC	GH2	Y87504	3P	1.937	0.236	0.625	0.141	0.11	0.187	3	1
No.6-32UNC	GH2	Y87006	1.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y87505	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y87005	1.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH4	Y87508	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH5	Y87535	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH5	Y87035	1.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH6	Y87559	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH7	Y87565	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.8-32UNC	GH2	Y87506	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH3	Y87507	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

TYPE: 1



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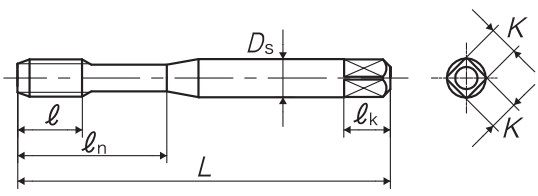

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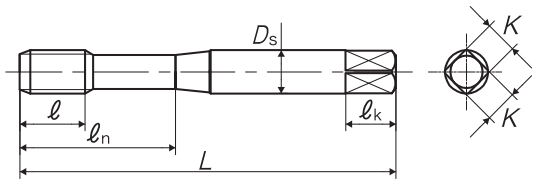

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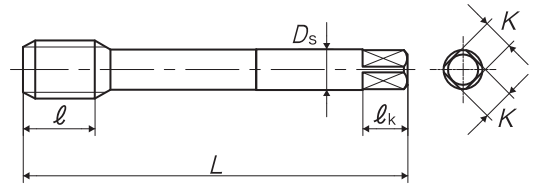


Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.8-32UNC	GH3	Y87580	1.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH4	Y87529	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH5	Y87537	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH5	Y87037	1.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH6	Y87560	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH7	Y87567	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.10-24UNC	GH3	Y87509	3P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH3	Y87009	1.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH5	Y87539	3P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH5	Y87039	1.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH2	Y87511	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y87510	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y81556	1.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH4	Y87530	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH5	Y87540	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH5	Y87040	1.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH6	Y87561	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH7	Y87570	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
1/4-20UNC	GH3	Y87513	3P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH3	Y87013	1.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	Y87543	3P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	Y87043	1.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y87514	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y87579	1.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	Y87531	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	Y87031	1.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH5	Y87544	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH5	Y87443	1.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH6	Y87562	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH7	Y87574	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	Y87515	3P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH3	Y87015	1.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	Y87545	3P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	Y87045	1.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX NI SP Spiral Fluted Taps for Nickel Base Alloys

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
5/16-24UNF	GH3	Y87516	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y87577	1.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	Y87532	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	Y87032	1.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH5	Y87546	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH6	Y87563	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH7	Y87576	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	Y87517	3P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH3	Y87017	1.5P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	Y87547	3P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	Y87047	1.5P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y87518	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y87575	1.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	Y87533	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	Y87033	1.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH5	Y87548	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH5	Y87048	1.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH6	Y87564	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH7	Y87578	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	Y87519	3P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH3	Y87019	1.5P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH5	Y87549	3P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y87520	3P	3.156	0.472	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y87573	1.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	Y87550	3P	3.156	0.472	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	Y87050	1.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	Y87521	3P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH3	Y87500	1.5P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH5	Y87551	3P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH5	Y87051	1.5P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH7	Y87581	3P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y87522	3P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y87022	1.5P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH5	Y87552	3P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH7	Y87582	3P	3.375	0.472	-	0.367	0.275	0.437	3	4
9/16-18UNF	GH3	Y88554	3P	3.593	0.512	-	0.429	0.322	0.5	3	4
9/16-18UNF	GH5	Y88542	3P	3.593	0.512	-	0.429	0.322	0.5	3	4
5/8-11UNC	GH3	Y87525	3P	3.812	0.748	-	0.48	0.36	0.562	4	4
5/8-11UNC	GH3	Y87025	1.5P	3.812	0.748	-	0.48	0.36	0.562	4	4
5/8-11UNC	GH5	Y87555	3P	3.812	0.748	-	0.48	0.36	0.562	4	4
5/8-11UNC	GH7	Y87585	3P	3.812	0.748	-	0.48	0.36	0.562	4	4
5/8-18UNF	GH3	Y87526	3P	3.812	0.512	-	0.48	0.36	0.562	4	4
5/8-18UNF	GH3	Y81508	1.5P	3.812	0.512	-	0.48	0.36	0.562	4	4
5/8-18UNF	GH4	Y87536	3P	3.812	0.512	-	0.48	0.36	0.562	4	4
5/8-18UNF	GH5	Y87556	3P	3.812	0.512	-	0.48	0.36	0.562	4	4
5/8-18UNF	GH7	Y87586	3P	3.812	0.512	-	0.48	0.36	0.562	4	4
3/4-10UNC	GH3	Y87527	3P	4.25	0.827	-	0.59	0.442	0.687	4	4
3/4-10UNC	GH3	Y87027	1.5P	4.25	0.827	-	0.59	0.442	0.687	4	4
3/4-10UNC	GH5	Y87557	3P	4.25	0.827	-	0.59	0.442	0.687	4	4
3/4-16UNF	GH3	Y87528	3P	4.25	0.591	-	0.59	0.442	0.687	4	4
3/4-16UNF	GH5	Y87558	3P	4.25	0.591	-	0.59	0.442	0.687	4	4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

ZEN-B



Spiral Fluted Taps for Nickel Base Alloys

Specification

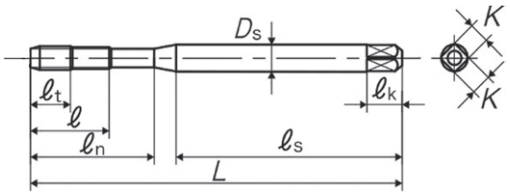
HSS-P | OX Oxide | Synchro nized

■ZEN-B is the spiral fluted tap for nickel base alloys which, with nickel as main composition, have much higher corrosion resistance and much higher heat resistance than steels.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Nickel base alloys ニッケル基合金
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~10 (m/min)

TYPE: 1



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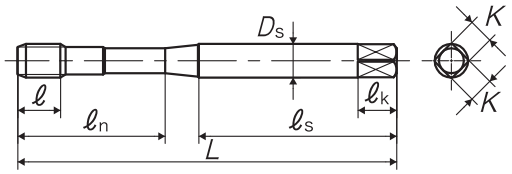

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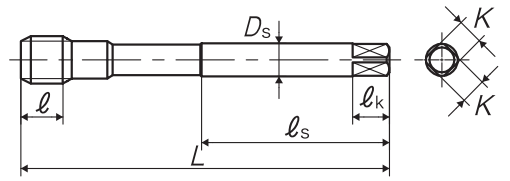

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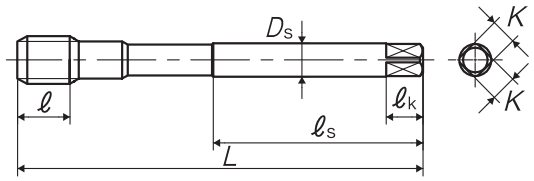

Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads													
M3 × 0.5	ISO2X	SD3.0GBJPX	3P	56	5	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	SD4.0IBJPX	3P	63	7	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	SD5.0KBJPX	3P	70	9	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	SD6.0MBJPX	3P	80	11	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	SD8.0NBJPX	3P	90	-	12	35	47	8	6.2	9	3	2
M10 × 1.5	ISO2X	SD010OBJPX	3P	100	-	13	39	52.5	10	8	11	3	2
M10 × 1.25	ISO2X	SM010NBJPX	3P	100	-	13	-	51	7	5.5	8	3	3
M12 × 1.75	ISO2X	SG012PBJPX	3P	110	-	15	-	56	9	7	10	3	4
M12 × 1.5	ISO2X	SM012OBJPX	3P	100	-	15	-	51	9	7	10	3	3
M12 × 1.25	ISO2X	SM012NBJPX	3P	100	-	15	-	51	9	7	10	3	3
M14 × 2	ISO2X	SG014QBJPX	3P	110	-	18	-	56	11	9	12	3	4
M14 × 1.5	ISO2X	SM014OBJPX	3P	100	-	14	-	51	11	9	12	3	3
M16 × 2	ISO2X	SG016QBJPX	3P	110	-	18	-	56	12	9	12	3	4
M16 × 1.5	ISO2X	SM016OBJPX	3P	100	-	14	-	51	12	9	12	3	3
M18 × 2.5	ISO2X	SG018RBJPX	3P	125	-	20	-	64	14	11	14	4	4
M20 × 2.5	ISO2X	SG020RBJPX	3P	140	-	20	-	71	16	12	15	4	4
M22 × 2.5	ISO2X	SG022RBJPX	3P	140	-	20	-	71	18	14.5	17	4	4
M24 × 3	ISO2X	SG024SBJPX	3P	160	-	25	-	82	18	14.5	17	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

ZEN-B Spiral Fluted Taps for Nickel Base Alloys

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Unified Threads													
No.4-40UNC	2BX	SDUN4HYJPX	3P	56	11	5	18	34	3.5	2.7	6	3	1
No.6-32UNC	2BX	SDUN6JYJPX	3P	56	7	11	19	32	4	3	6	3	1
No.8-32UNC	2BX	SDUN8JYJPX	3P	63	7	13	21	38	4.5	3.4	6	3	1
No.10-24UNC	2BX	SDUNAMYJPX	3P	70	9	14	24	39	6	4.9	8	3	1
No.10-32UNF	2BX	SDUNAJYJPX	3P	70	9	14	24	39	6	4.9	8	3	1
1/4-20UNC	2BX	SDU04NYJPX	3P	80	11	15	30	42	7	5.5	8	3	1
1/4-28UNF	2BX	SDU04KYJPX	3P	80	11	15	30	42	7	5.5	8	3	1
5/16-18UNC	2BX	SDU05OYJPX	3P	90	-	12	35	47	8	6.2	9	3	2
5/16-24UNF	2BX	SMU05MYJPX	3P	90	-	12	-	46	6	4.9	8	3	3
3/8-16UNC	2BX	SDU06PYJPX	3P	100	-	13	39	54.5	9	7	10	3	2
3/8-24UNF	2BX	SMU06MYJPX	3P	100	-	13	-	51	7	5.5	8	3	3
7/16-20UNF	2BX	SMU07NYJPX	3P	100	-	13	-	51	8	6.2	9	3	3
1/2-13UNC	2BX	SGU08RYJPX	3P	110	-	15	-	56	9	7	10	3	4
1/2-20UNF	2BX	SMU08NYJPX	3P	100	-	15	-	51	9	7	10	3	3
9/16-18UNF	2BX	SMU09OYJPX	3P	100	-	14	-	51	11	9	12	3	3
5/8-11UNC	2BX	SGU10UYJPX	3P	110	-	18	-	56	12	9	12	3	4
5/8-18UNF	2BX	SMU10OYJPX	3P	100	-	14	-	51	12	9	12	3	3
3/4-10UNC	2BX	SGU12VYJPX	3P	125	-	20	-	64	14	11	14	4	4
3/4-16UNF	2BX	SMU12PYJPX	3P	110	-	14	-	56	14	11	14	4	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

PM-SP



Spiral Fluted Taps for Hard-to-Machine Materials

Specification

HSS-P



■Spiral fluted tap suitable for tapping hard steels with hardness between 25-45HRC such as forgings and thermal refined steels of high carbon steels and alloy steels, and mold steels.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼
5~10 (m/min)	~5 (m/min)	~5 (m/min)
	25~35HRC	35~45HRC

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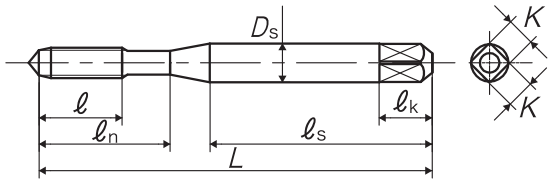

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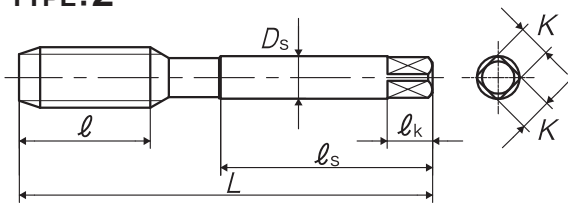

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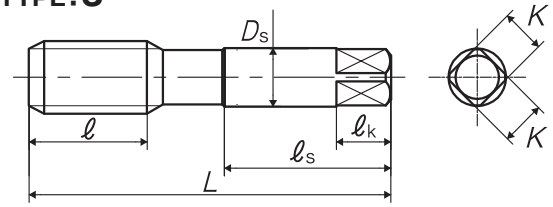


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P3	SY3.0GRDPB	2.75P	46	9	14	26	4	3.2	6	3	1	¥ 1,770 ※
M4 × 0.7	P3	SY4.0IRDPB	2.75P	52	11	17	29	5	4	7	3	1	¥ 1,770 ※
M5 × 0.8	P3	SY5.0KRDPB	2.75P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,780 ※
M6 × 1	P3	SY6.0MRDPB	2.75P	62	15	26	33	6	4.5	7	3	1	¥ 1,960 ※
M8 × 1.25	P3	SY8.0NRDPB	2.75P	70	19	-	36	6.2	5	8	3	2	¥ 2,690 ※
M10 × 1.5	P3	SY010ORDPB	2.75P	75	23	-	38	7	5.5	8	3	2	¥ 3,420 ※
M10 × 1.25	P3	SY010NRDPB	2.75P	75	23	-	38	7	5.5	8	3	2	¥ 3,420 ※
M12 × 1.75	P3	SY012PRDPB	2.75P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,850 ※
M12 × 1.5	P3	SY012ORDPB	2.75P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,850 ※
M12 × 1.25	P4	SY012NSDPB	2.75P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,850 ※
M14 × 2	P4	SY014QSDPB	2.75P	88	26	-	45	10.5	8	11	3	2	¥ 6,610 ※
M14 × 1.5	P3	SY014ORDPB	2.75P	88	26	-	45	10.5	8	11	3	2	¥ 6,610 ※
M16 × 2	P4	SY016QSDPB	2.75P	95	26	-	48	12.5	10	13	3	2	¥ 8,840 ※
M16 × 1.5	P3	SY016ORDPB	2.75P	95	26	-	48	12.5	10	13	3	2	¥ 8,840 ※
M18 × 2.5	P4	SY018RSDPB	2.75P	100	33	-	51	14	11	14	4	2	¥ 11,900 ※
M18 × 1.5	P4	SY018OSDPB	2.75P	100	33	-	51	14	11	14	4	2	¥ 11,900 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PM-SP Spiral Fluted Taps for Hard-to-Machine Materials

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M20 × 2.5	P4	SY020RSDPB	2.75P	105	33	-	50	15	12	15	4	3	¥ 16,100 ※
M20 × 1.5	P4	SY020OSDPB	2.75P	105	33	-	50	15	12	15	4	3	¥ 16,100 ※
M22 × 2.5	P4	SY022RSDPB	2.75P	115	33	-	55	17	13	16	4	3	¥ 20,600 ※
M22 × 1.5	P4	SY022OSDPB	2.75P	115	33	-	55	17	13	16	4	3	¥ 20,600 ※
M24 × 3	P4	SY024SSDPB	2.75P	120	39	-	55	19	15	18	4	3	¥ 25,700 ※
M24 × 1.5	P4	SY024OSDPB	2.75P	120	39	-	55	19	15	18	4	3	¥ 25,700 ※
M27 × 3	P4	SY027SSDPB	2.75P	130	39	-	60	20	15	18	4	3	¥ 35,700 ※
M27 × 1.5	P4	SY027OSDPB	2.75P	130	39	-	60	20	15	18	4	3	¥ 35,700 ※
M30 × 3.5	P4	SY030TSDPB	2.75P	135	46	-	62	23	17	20	4	3	¥ 45,500 ※
M30 × 1.5	P4	SY030OSDPB	2.75P	135	46	-	62	23	17	20	4	3	¥ 45,500 ※
For Unified Threads													
1/2-13UNC	P4	SYU08RSDPB	2.75P	88	26	-	45	10.5	8	11	3	2	¥ 5,930 ※
1/2-20UNF	P3	SYU08NRDPB	2.75P	88	26	-	45	10.5	8	11	3	2	¥ 5,930 ※
5/8-11UNC	P4	SYU10USDPB	2.75P	95	26	-	48	12.5	10	13	3	2	¥ 8,840 ※
5/8-18UNF	P3	SYU10ORDPB	2.75P	95	26	-	48	12.5	10	13	3	2	¥ 8,840 ※
3/4-10UNC	P4	SYU12VSDPB	2.75P	105	33	-	50	15	12	15	3	3	¥ 16,100 ※
3/4-16UNF	P4	SYU12PSDPB	2.75P	105	33	-	50	15	12	15	3	3	¥ 16,100 ※
1 -8UNC	P5	SYU16XTDPB	2.75P	125	39	-	58	19	15	18	3	3	¥ 33,200 ※
1 -12UNF	P4	SYU16SSDPB	2.75P	125	39	-	58	19	15	18	3	3	¥ 33,200 ※

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ANSI

PM-SP



Spiral Fluted Taps for Hard-to-Machine Materials

Specification

HSS-P

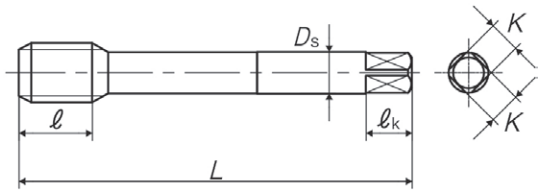


■Spiral fluted tap suitable for tapping hard steels with hardness between 25-45HRC such as forgings and thermal refined steels of high carbon steels and alloy steels, and mold steels.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼
5~10 (m/min)	~5 (m/min)	~5 (m/min)
	25~35HRC	35~45HRC

TYPE : 1



Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads										
1/2-13UNC	GH6	SAU08R6DPB	2.75P	3.375	0.984	0.367	0.275	0.437	3	1
1/2-20UNF	GH4	SAU08N4DPB	2.75P	3.375	0.984	0.367	0.275	0.437	3	1
5/8-11UNC	GH6	SAU10U6DPB	2.75P	3.812	1.083	0.48	0.36	0.562	3	1
5/8-18UNF	GH4	SAU1004DPB	2.75P	3.812	1.083	0.48	0.36	0.562	3	1
3/4-10UNC	GH6	SAU12V6DPB	2.75P	4.25	1.201	0.59	0.442	0.687	3	1
3/4-16UNF	GH6	SAU12P6DPB	2.75P	4.25	1.201	0.59	0.442	0.687	3	1
1 -8UNC	GH7	SAU16X7DPB	2.75P	5.125	1.496	0.8	0.6	0.812	3	1
1 -12UNF	GH6	SAU16S6DPB	2.75P	5.125	1.496	0.8	0.6	0.812	3	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

PM-SP



Spiral Fluted Taps for Hard-to-Machine Materials

Specification

HSS-P

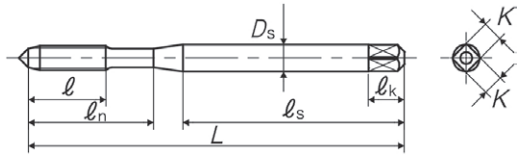


■Spiral fluted tap suitable for tapping hard steels with hardness between 25-45HRC such as forgings and thermal refined steels of high carbon steels and alloy steels, and mold steels.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼
5~10 (m/min)	~5 (m/min)	~5 (m/min)
	25~35HRC	35~45HRC

TYPE: 1



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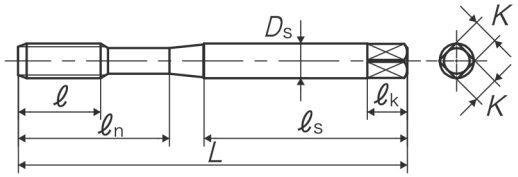

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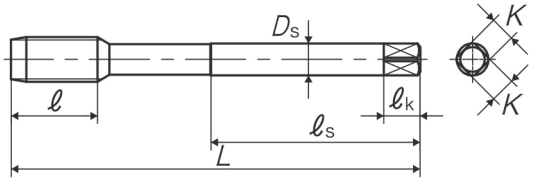

Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads													
M3 × 0.5	ISO2X	SD3.0GBDPB	2.75P	56	-	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	SD4.0IBDPB	2.75P	63	-	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	SD5.0KBDPB	2.75P	70	-	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	SD6.0MBDPB	2.75P	80	-	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	SD8.0NBDPB	2.75P	90	-	19	35	47	8	6.2	9	3	2
M8 × 1	ISO2X	SM8.0MBDPB	2.75P	90	-	19	-	46	6	4.9	8	3	3
M10 × 1.5	ISO2X	SD0100BDPB	2.75P	100	-	23	39	52.5	10	8	11	3	2
M10 × 1.25	ISO2X	SM010NBDPB	2.75P	100	-	23	-	51	7	5.5	8	3	3
M10 × 1	ISO2X	SM010MBDPB	2.75P	90	-	19	-	46	7	5.5	8	3	3
M12 × 1.75	ISO2X	SG012PBDPB	2.75P	110	-	26	-	56	9	7	10	3	3
M12 × 1.5	ISO2X	SM0120BDPB	2.75P	100	-	21	-	51	9	7	10	3	3
M12 × 1.25	ISO2X	SM012NBDPB	2.75P	100	-	21	-	51	9	7	10	3	3
M14 × 2	ISO2X	SG014QBDPB	2.75P	110	-	26	-	56	11	9	12	3	3
M14 × 1.5	ISO2X	SM0140BDPB	2.75P	100	-	21	-	51	11	9	12	3	3
M16 × 2	ISO2X	SG016QBDPB	2.75P	110	-	26	-	56	12	9	12	3	3
M16 × 1.5	ISO2X	SM0160BDPB	2.75P	100	-	21	-	51	12	9	12	3	3
M18 × 2.5	ISO2X	SG018RBDPB	2.75P	125	-	33	-	64	14	11	14	4	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Spiral Fluted Tap Series for blind hole

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M18 × 1.5	ISO2X	SM0180BDPB	2.75P	110	-	24	-	56	14	11	14	4	3
M20 × 2.5	ISO2X	SG020RBDPB	2.75P	140	-	33	-	71	16	12	15	4	3
M20 × 1.5	ISO2X	SM0200BDPB	2.75P	125	-	24	-	64	16	12	15	4	3
M22 × 2.5	ISO2X	SG022RBDPB	2.75P	140	-	33	-	71	18	14.5	17	4	3
M22 × 1.5	ISO2X	SM0220BDPB	2.75P	125	-	24	-	64	18	14.5	17	4	3
M24 × 3	ISO2X	SG024SBDPB	2.75P	160	-	37	-	82	18	14.5	17	4	3
M24 × 2	ISO2X	SM024QBDPB	2.75P	140	-	27	-	71	18	14.5	17	4	3
M24 × 1.5	ISO2X	SM0240BDPB	2.75P	140	-	27	-	71	18	14.5	17	4	3
M27 × 3	ISO2X	SG027SBDPB	2.75P	160	-	37	-	82	20	16	19	4	3
M27 × 2	ISO2X	SM027QBDPB	2.75P	140	-	27	-	71	20	16	19	4	3
M27 × 1.5	ISO2X	SM0270BDPB	2.75P	140	-	27	-	71	20	16	19	4	3
M30 × 3.5	ISO2X	SG030TBDPB	2.75P	180	-	44	-	92	22	18	21	4	3
M30 × 2	ISO2X	SM030QBDPB	2.75P	150	-	27	-	77	22	18	21	4	3
M30 × 1.5	ISO2X	SM0300BDPB	2.75P	150	-	27	-	77	22	18	21	4	3
For Unified Threads													
1/2-13UNC	2BX	SGU08RYDPB	2.75P	110	-	26	-	56	9	7	10	3	3
1/2-20UNF	2BX	SMU08NYDPB	2.75P	100	-	21	-	51	9	7	10	3	3
5/8-11UNC	2BX	SGU10UYDPB	2.75P	110	-	26	-	56	12	9	12	3	3
5/8-18UNF	2BX	SMU100YDPB	2.75P	100	-	21	-	51	12	9	12	3	3
3/4-10UNC	2BX	SGU12VYDPB	2.75P	125	-	33	-	64	14	11	14	4	3
3/4-16UNF	2BX	SMU12PYDPB	2.75P	110	-	24	-	56	14	11	14	4	3
1 -8UNC	2BX	SGU16XYDPB	2.75P	160	-	37	-	82	18	14.5	17	4	3
1 -12UNF	2BX	SMU16SYDPB	2.75P	140	-	27	-	71	18	14.5	17	4	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

PH-SP



Spiral Fluted Taps for Hard-to-Machine Materials

Specification

HSS | OX Oxide



■Suitable for hard steels of 25-35HRC, such as forgings and thermal refined steels of high carbon steels and alloy steels, and die steels.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼
2~7 (m/min)	2~7 (m/min)	~5 (m/min)

25~35HRC

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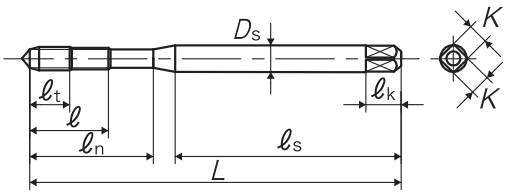

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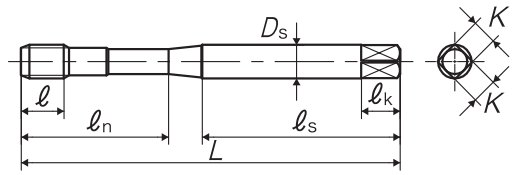

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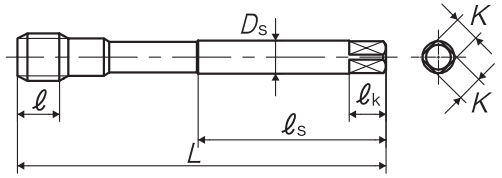

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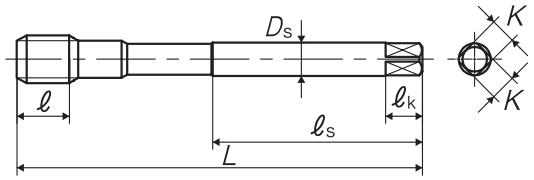

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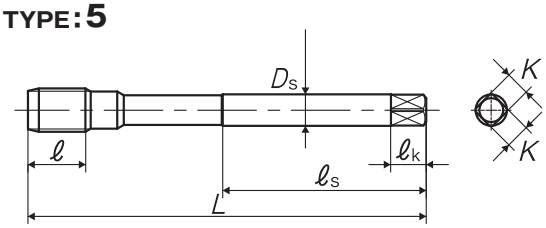

Segment : 1D (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads													
M3 × 0.5	ISO2	SD3.0GAEEX	3P	56	5	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2	SD4.0IAEEX	3P	63	7	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2	SD5.0KAEEX	3P	70	9	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2	SD6.0MAEEX	3P	80	11	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2	SD8.0NAEEX	3P	90	-	12	35	47	8	6.2	9	3	2
M8 × 1	ISO2	SM8.0MAEEX	3P	90	-	12	-	46	6	4.9	8	3	3
M10 × 1.5	ISO2	SD0100AEEX	3P	100	-	13	39	52.5	10	8	11	3	2
M10 × 1.25	ISO2	SM010NAEEX	3P	100	-	13	-	51	7	5.5	8	3	3
M10 × 1	ISO2	SM010MAEEX	3P	90	-	13	-	46	7	5.5	8	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M12 × 1.75	ISO2	SG012PAEEX	3P	110	-	15	-	56	9	7	10	4	4
M12 × 1.5	ISO2	SM0120AEEX	3P	100	-	15	-	51	9	7	10	4	3
M12 × 1.25	ISO2	SM012NAEEX	3P	100	-	15	-	51	9	7	10	4	3
M14 × 2	ISO2	SG014QAEEX	3P	110	-	18	-	56	11	9	12	4	4
M14 × 1.5	ISO2	SM0140AEEX	3P	100	-	14	-	51	11	9	12	4	3
M16 × 2	ISO2	SG016QAEEX	3P	110	-	18	-	56	12	9	12	4	4
M16 × 1.5	ISO2	SM0160AEEX	3P	100	-	14	-	51	12	9	12	4	3
M18 × 2.5	ISO2	SG018RAEEX	3P	125	-	20	-	64	14	11	14	4	4
M18 × 1.5	ISO2	SM0180AEEX	3P	110	-	14	-	56	14	11	14	4	3
M20 × 2.5	ISO2	SG020RAEEX	3P	140	-	20	-	71	16	12	15	4	4
M20 × 1.5	ISO2	SM0200AEEX	3P	125	-	14	-	64	16	12	15	4	3
M22 × 2.5	ISO2	SG022RAEEX	3P	140	-	20	-	71	18	14.5	17	5	4
M22 × 1.5	ISO2	SM0220AEEX	3P	125	-	14	-	64	18	14.5	17	5	3
M24 × 3	ISO2	SG024SAEEX	3P	160	-	25	-	82	18	14.5	17	5	4
M24 × 2	ISO2	SM024QAEEX	3P	140	-	18	-	71	18	14.5	17	5	3
M24 × 1.5	ISO2	SM0240AEEX	3P	140	-	18	-	71	18	14.5	17	5	3
M27 × 3	ISO2	SG027SAEEX	3P	160	-	25	-	82	20	16	19	5	4
M27 × 2	ISO2	SM027QAEEX	3P	140	-	20	-	71	20	16	19	5	3
M30 × 3.5	ISO2	SG030TAEEX	3P	180	-	30	-	92	22	18	21	5	4
M30 × 2	ISO2	SM030QAEEX	3P	150	-	20	-	77	22	18	21	5	3
M30 × 1.5	ISO2	SM0300AEEX	3P	150	-	20	-	77	22	18	21	5	3
For G Threads													
G 1/8-28	-	SVG0020EEX	3P	90	-	12	-	46	7	5.5	8	3	5
G 1/4-19	-	SVG0040EEX	3P	100	-	14	-	51	11	9	12	4	5
G 3/8-19	-	SVG0060EEX	3P	100	-	14	-	51	12	9	12	4	5
G 1/2-14	-	SVG0080EEX	3P	125	-	18	-	64	16	12	15	4	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-PM-SP



Long Shank Spiral Fluted Taps for Hard-to-Machine Materials

Specification

HSS-P



■Long shank spiral fluted tap suitable for tapping hard steels with hardness between 35-45HRC such as forgings and thermal refined steels of high carbon steels and alloy steels, and mold steels.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼
5~10 (m/min)	~5 (m/min)	~5 (m/min)
	25~35HRC	35~45HRC

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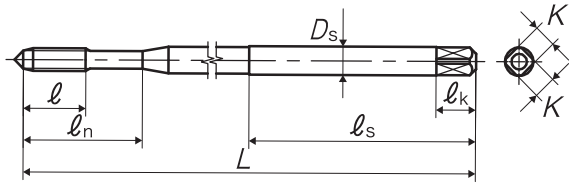

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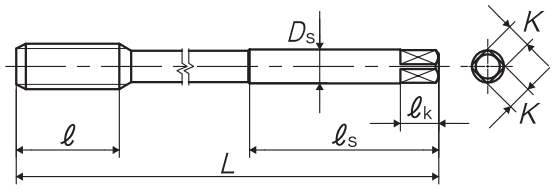

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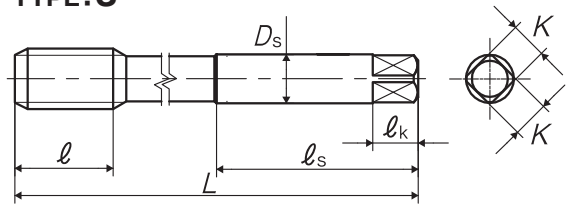


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P3	S43.0GRDPBE	2.75P	100	9	18	40	4	3.2	6	3	1	¥ 5,060 ※
M4 × 0.7	P3	S44.0IRDPBE	2.75P	100	11	21	40	5	4	7	3	1	¥ 4,620 ※
M5 × 0.8	P3	S45.0KRDPBE	2.75P	100	13	25	40	5.5	4.5	7	3	1	¥ 4,050 ※
M6 × 1	P3	S46.0MRDPBE	2.75P	100	15	30	40	6	4.5	7	3	1	¥ 3,460 ※
M6 × 1	P3	S46.0MRDPBG	2.75P	150	15	30	40	6	4.5	7	3	1	¥ 6,110 ※
M8 × 1.25	P3	SY8.0NRDPBE	2.75P	100	19	-	50	6.2	5	8	3	2	¥ 4,400 ※
M8 × 1.25	P3	SY8.0NRDPBG	2.75P	150	19	-	50	6.2	5	8	3	2	¥ 7,490 ※
M10 × 1.5	P3	SY010ORDPBG	2.75P	150	23	-	50	7	5.5	8	3	2	¥ 8,710 ※
M10 × 1.25	P3	SY010NRDPBG	2.75P	150	23	-	50	7	5.5	8	3	2	¥ 8,710 ※
M12 × 1.75	P3	SY012PRDPBG	2.75P	150	26	-	50	8.5	6.5	9	3	2	¥ 11,000 ※
M12 × 1.5	P3	SY012ORDPBG	2.75P	150	26	-	50	8.5	6.5	9	3	2	¥ 11,000 ※
M12 × 1.25	P4	SY012NSDPBG	2.75P	150	26	-	50	8.5	6.5	9	3	2	¥ 11,000 ※
M14 × 2	P4	SY014QSDPBG	2.75P	150	26	-	60	10.5	8	11	3	2	¥ 13,700 ※
M14 × 1.5	P3	SY014ORDPBG	2.75P	150	26	-	60	10.5	8	11	3	2	¥ 13,700 ※
M16 × 2	P4	SY016QSDPBG	2.75P	150	26	-	60	12.5	10	13	3	2	¥ 14,900 ※
M16 × 1.5	P3	SY016ORDPBG	2.75P	150	26	-	60	12.5	10	13	3	2	¥ 14,900 ※
M18 × 2.5	P4	SY018RSDPBG	2.75P	150	33	-	70	14	11	14	4	2	¥ 20,300 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M18 × 1.5	P4	SY018OSDPBG	2.75P	150	33	-	70	14	11	14	4	2	¥ 20,300 ※
M20 × 2.5	P4	SY020RSDPBG	2.75P	150	33	-	70	15	12	15	4	3	¥ 26,100 ※
M20 × 1.5	P4	SY020OSDPBG	2.75P	150	33	-	70	15	12	15	4	3	¥ 26,100 ※
M22 × 2.5	P4	SY022RSDPBK	2.75P	200	33	-	70	17	13	16	4	3	¥ 36,000 ※
M22 × 1.5	P4	SY022OSDPBK	2.75P	200	33	-	70	17	13	16	4	3	¥ 36,000 ※
M24 × 3	P4	SY024SSDPBK	2.75P	200	39	-	80	19	15	18	4	3	¥ 40,500 ※
M24 × 1.5	P4	SY024OSDPBK	2.75P	200	39	-	80	19	15	18	4	3	¥ 40,500 ※
M27 × 3	P4	SY027SSDPBK	2.75P	200	39	-	80	20	15	18	4	3	¥ 45,000 ※
M27 × 1.5	P4	SY027OSDPBK	2.75P	200	39	-	80	20	15	18	4	3	¥ 45,000 ※
M30 × 3.5	P4	SY030TSDPBK	2.75P	200	46	-	80	23	17	20	4	3	¥ 57,700 ※
M30 × 1.5	P4	SY030OSDPBK	2.75P	200	46	-	80	23	17	20	4	3	¥ 57,700 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

F-SP



Spiral Fluted Taps for High Speed Tapping

Specification

HSS | Coating | Synchronized

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
15~25 (m/min)	15~25 (m/min)

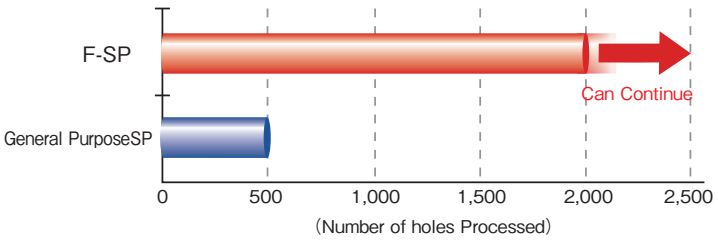
Product Features

- High speed machining is possible with a machine equipped with a fully synchronous feed mechanism.
- The F-SP exhibits excellent chip ejection properties from its unique flute shape and short thread length.
- At low speed, the shape and ejection of the chips can deteriorate, causing problems.

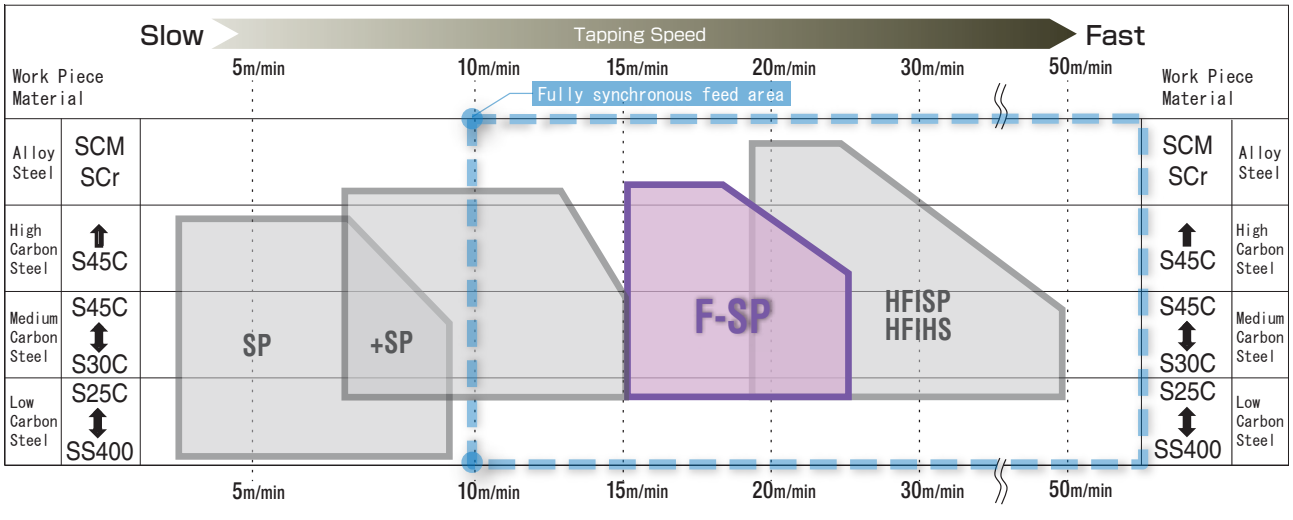
Tapping Data

Tapping Conditions [M6×1]

Work Piece Material	S50C
Bored Hole Shape	Blind hole
Tapping Length	1.5D～
Machinery Type	M/C
Tapping Direction	Vertical
Feed	Synchronous
Tapping Speed	20m/mim
Cutting Fluid	Water soluble cutting fluid
Pilot hole Processing Method	Drill
Number of Holes Processed	2,000



Speed chart



Speed range by material being cut.

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

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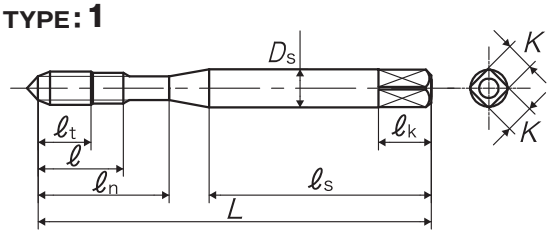

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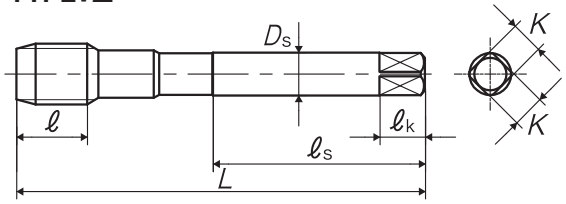

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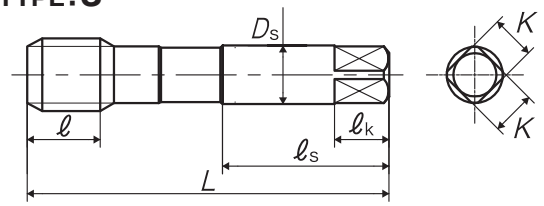


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M3 × 0.5	P2	VFSHMQ3.0G	2.5P	46	5	9	14	26	4	3.2	6	3	1	¥ 3,530
M4 × 0.7	P2	VFSHMQ4.0I	2.5P	52	7	11	17	29	5	4	7	3	1	¥ 3,580
M5 × 0.8	P2	VFSHMQ5.0K	2.5P	60	9	13	22	33	5.5	4.5	7	3	1	¥ 3,840
M6 × 1	P2	VFSHMQ6.0M	2.5P	62	11	15	26	33	6	4.5	7	3	1	¥ 4,130
M8 × 1.25	P3	VFSHMR8.0N	3P	70	-	12	-	36	6.2	5	8	3	2	¥ 5,390
M10 × 1.5	P3	VFSHMR010O	3P	75	-	13	-	38	7	5.5	8	3	2	¥ 6,290
M10 × 1.25	P3	VFSHMR010N	3P	75	-	13	-	38	7	5.5	8	3	2	¥ 6,290
M12 × 1.75	P4	VFSHMS012P	3P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 7,960
M12 × 1.5	P3	VFSHMR012O	3P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 7,960
M12 × 1.25	P4	VFSHMS012N	3P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 7,960
M14 × 2	P4	VFSHMS014Q	3P	88	-	18	-	45	10.5	8	11	3	2	¥ 9,810 ※
M14 × 1.5	P3	VFSHMR014O	3P	88	-	14	-	45	10.5	8	11	3	2	¥ 9,810 ※
M16 × 2	P4	VFSHMS016Q	3P	95	-	18	-	48	12.5	10	13	3	2	¥ 12,900 ※
M16 × 1.5	P3	VFSHMR016O	3P	95	-	14	-	48	12.5	10	13	3	2	¥ 12,900 ※
M18 × 2.5	P4	VFSHMS018R	3P	100	-	20	-	51	14	11	14	4	2	¥ 17,200 ※
M18 × 1.5	P4	VFSHMS018O	3P	100	-	14	-	51	14	11	14	4	2	¥ 17,200 ※
M20 × 2.5	P4	VFSHMS020R	3P	105	-	20	-	50	15	12	15	4	3	¥ 21,700 ※
M20 × 1.5	P4	VFSHMS020O	3P	105	-	14	-	50	15	12	15	4	3	¥ 21,700 ※
M22 × 2.5	P4	VFSHMS022R	3P	115	-	20	-	55	17	13	16	4	3	¥ 27,400 ※
M22 × 1.5	P4	VFSHMS022O	3P	115	-	14	-	55	17	13	16	4	3	¥ 27,400 ※
M24 × 3	P4	VFSHMS024S	3P	120	-	25	-	55	19	15	18	4	3	¥ 34,500 ※
M24 × 1.5	P4	VFSHMS024O	3P	120	-	18	-	55	19	15	18	4	3	¥ 34,500 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ANSI

ZELX FR



Spiral Fluted Taps for High Speed Tapping

Specification

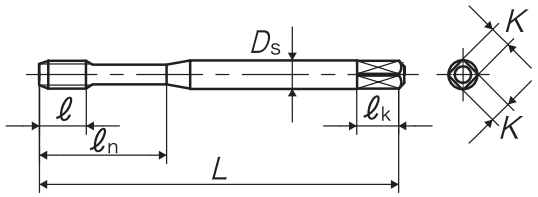
HSS | Coating | Synchronized

■Spiral fluted tap applicable for such high speed tapping as 15m/min to 25m/min. Under low tapping speed, poor chip shape and poor chip ejection may occur and cause tapping troubles.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
15~25 (m/min)	15~25 (m/min)

TYPE: 1



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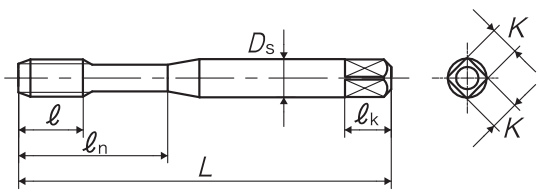

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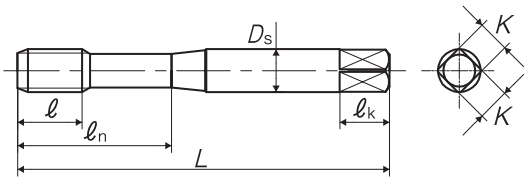

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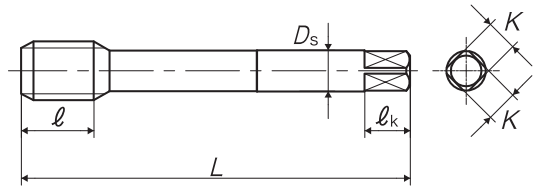


Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads											
No.4-40UNC	GH2	Y84401	2.5P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.5-40UNC	GH2	Y84403	2.5P	1.937	0.236	0.625	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y84405	2.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.8-32UNC	GH3	Y84407	2.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.10-24UNC	GH3	Y84409	2.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y84410	2.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
1/4-20UNC	GH3	Y84413	2.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y84414	2.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	Y84415	2.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y84416	2.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	Y84417	2.5P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y84418	2.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	Y84419	2.5P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y84420	2.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	Y84421	2.5P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y84422	2.5P	3.375	0.472	-	0.367	0.275	0.437	3	4
5/8-11UNC	GH3	Y84425	2.5P	3.812	0.748	-	0.48	0.36	0.562	3	4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
5/8-18UNF	GH3	Y84426	2.5P	3.812	0.512	-	0.48	0.36	0.562	3	4
3/4-10UNC	GH3	Y84427	2.5P	4.25	0.827	-	0.59	0.442	0.687	4	4
3/4-16UNF	GH3	Y84428	2.5P	4.25	0.591	-	0.59	0.442	0.687	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

F-SP



Spiral Fluted Taps for High Speed Tapping

Specification

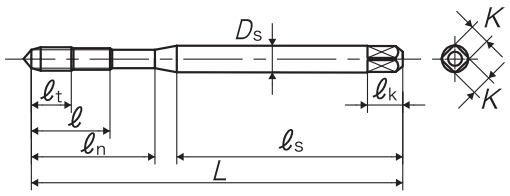
HSS | Coating | Synchro nized

■Spiral fluted tap applicable for such high speed tapping as 15m/min to 25m/min. Under low tapping speed, poor chip shape and poor chip ejection may occur and cause tapping troubles.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
15~25 (m/min)	15~25 (m/min)

TYPE:1



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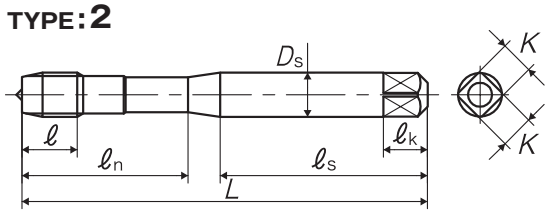

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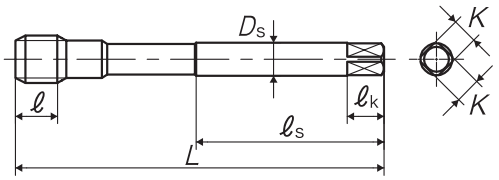


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads													
M3 × 0.5	ISO2X	SD3.0GBNEV	2.5P	56	5	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	SD4.0IBNEV	2.5P	63	7	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	SD5.0KBNEV	2.5P	70	9	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	SY6.0MBNEV	2.5P	80	11	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	SY8.0NBNEV	2.5P	90	-	12	35	48	8	6.2	9	3	2
M10 × 1.5	ISO2X	SY010OBNEV	2.5P	100	-	13	39	53	10	8	11	3	2
M10 × 1.25	ISO2X	SY010NBNEV	2.5P	100	-	13	39	53	10	8	11	3	2
M12 × 1.75	ISO2X	SY012PBNEV	2.5P	110	-	15	45	56	12	9	12	3	2
M12 × 1.75	ISO2X	SG012PBNEV	2.5P	110	-	15	-	56	9	7	10	3	3
M12 × 1.5	ISO2X	SY012OBNEV	2.5P	110	-	15	45	56	12	9	12	3	2
M12 × 1.5	ISO2X	SM012OBNEV	2.5P	100	-	15	-	51	9	7	10	3	3
M12 × 1.25	ISO2X	SY012NBNEV	2.5P	110	-	15	45	56	12	9	12	3	2
M12 × 1.25	ISO2X	SM012NBNEV	2.5P	100	-	15	-	51	9	7	10	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-F-SP



Long Shank Spiral Fluted Taps for High Speed Tapping

Specification

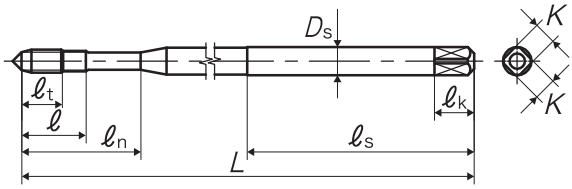
HSS | Coating | Synchronized

■Long Shank spiral fluted Tap applicable for such high speed tapping as 15m/min to 25m/min. Under low tapping speed, poor chip shape and poor chip ejection may occur and cause tapping troubles.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
15~25 (m/min)	15~25 (m/min)

TYPE:1



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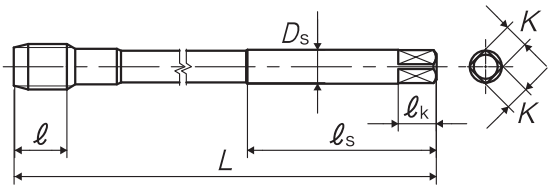

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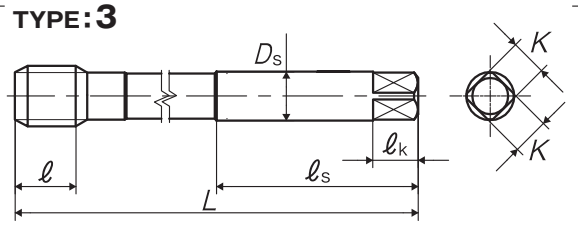


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M3 × 0.5	P2	S43.0GQFEVES	2.5P	100	5	9	18	40	4	3.2	6	3	1	¥ 6,400 ※
M4 × 0.7	P2	S44.0IQFEVES	2.5P	100	7	11	21	40	5	4	7	3	1	¥ 6,080 ※
M5 × 0.8	P2	S45.0KQFEVES	2.5P	100	9	13	25	40	5.5	4.5	7	3	1	¥ 5,510 ※
M6 × 1	P2	S46.0MQFEVES	2.5P	100	11	15	30	40	6	4.5	7	3	1	¥ 4,990 ※
M8 × 1.25	P3	SY8.0NRFEVES	3P	100	-	12	-	50	6.2	5	8	3	2	¥ 6,080 ※
M10 × 1.5	P3	SY010ORFEVES	3P	100	-	13	-	50	7	5.5	8	3	2	¥ 7,920 ※
M10 × 1.5	P3	SY010ORFEVGS	3P	150	-	13	-	50	7	5.5	8	3	2	¥ 11,700 ※
M10 × 1.25	P3	SY010NRFEVES	3P	100	-	13	-	50	7	5.5	8	3	2	¥ 7,920 ※
M10 × 1.25	P3	SY010NRFEVGS	3P	150	-	13	-	50	7	5.5	8	3	2	¥ 11,700 ※
M12 × 1.75	P4	SY012PSFEVGS	3P	150	-	15	-	50	8.5	6.5	9	3	2	¥ 14,300 ※
M12 × 1.5	P3	SY012ORFEVGS	3P	150	-	15	-	50	8.5	6.5	9	3	2	¥ 14,300 ※
M12 × 1.25	P4	SY012NSFEVGS	3P	150	-	15	-	50	8.5	6.5	9	3	2	¥ 14,300 ※
M14 × 2	P4	SY014QSFEVGS	3P	150	-	18	-	60	10.5	8	11	3	2	¥ 17,700 ※
M14 × 1.5	P3	SY014ORFEVGS	3P	150	-	14	-	60	10.5	8	11	3	2	¥ 17,700 ※
M16 × 2	P4	SY016QSFEVGS	3P	150	-	18	-	60	12.5	10	13	3	2	¥ 19,300 ※
M16 × 1.5	P3	SY016ORFEVGS	3P	150	-	14	-	60	12.5	10	13	3	2	¥ 19,300 ※
M18 × 2.5	P4	SY018RSFEVGS	3P	150	-	20	-	70	14	11	14	4	2	¥ 24,300 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Chamfer+ full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-F-SP Long Shank Spiral Fluted Taps for High Speed Tapping

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M18 × 1.5	P4	SY0180SFEVGS	3P	150	-	14	-	70	14	11	14	4	2	¥ 24,300 ※
M20 × 2.5	P4	SY020RSFEVGS	3P	150	-	20	-	70	15	12	15	4	3	¥ 30,100 ※
M20 × 1.5	P4	SY0200SFEVGS	3P	150	-	14	-	70	15	12	15	4	3	¥ 30,100 ※
M22 × 2.5	P4	SY022RSFEVGS	3P	150	-	20	-	70	17	13	16	4	3	¥ 35,000 ※
M22 × 1.5	P4	SY0220SFEVGS	3P	150	-	14	-	70	17	13	16	4	3	¥ 35,000 ※
M24 × 3	P4	SY024SSFEVGS	3P	150	-	25	-	80	19	15	18	4	3	¥ 41,000 ※
M24 × 1.5	P4	SY0240SFEVGS	3P	150	-	18	-	80	19	15	18	4	3	¥ 41,000 ※
M27 × 3	P4	SY027SSFEVKS	3P	200	-	25	-	80	20	15	18	4	3	¥ 62,300 ※
M30 × 3.5	P5	SY030TTFEVKS	3P	200	-	30	-	80	23	17	20	4	3	¥ 72,300 ※

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HFIHS



For Ultra Fast Tapping, Vertical Use. Spiral Fluted Taps for Steels

Specification



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
20~50 (m/min)	20~50 (m/min)	20~30 (m/min)	20~30 (m/min)

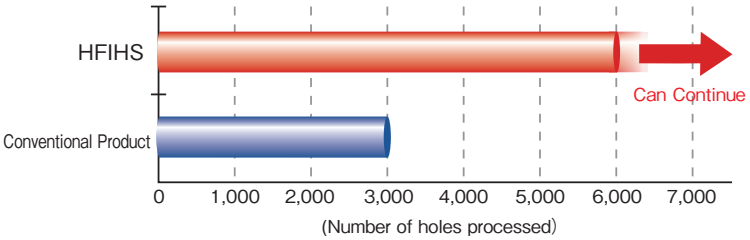
Product Features

- A center through coolant hole tap that can be used at ultra high speed and is compatible with internal lubrication processing.
- The high helix flutes, making it the optimum tap for materials such as carbon steels and alloy steels.

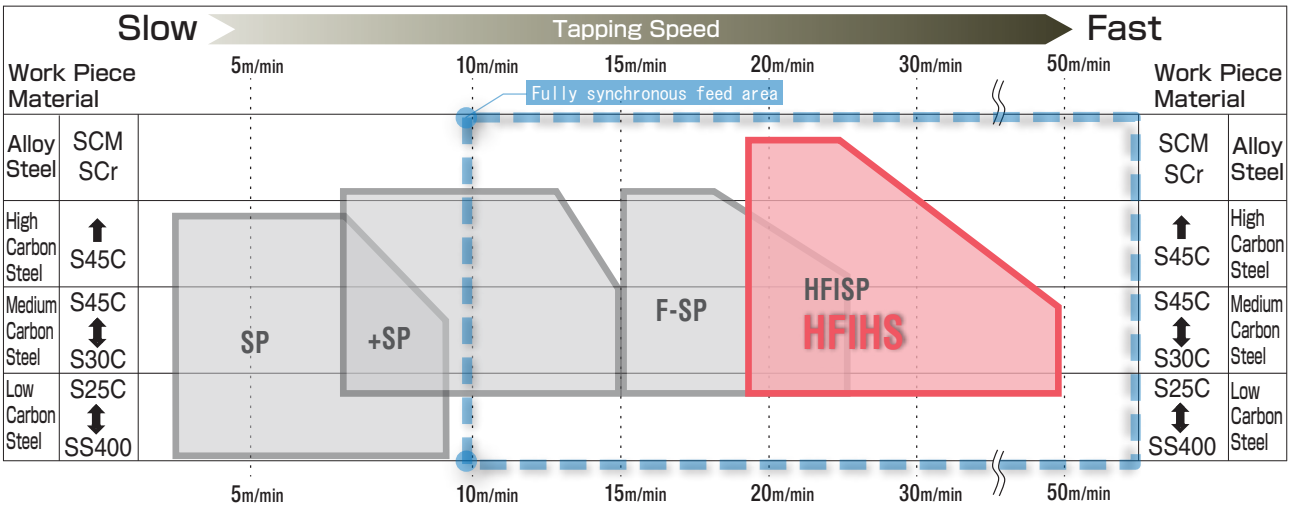
Tapping Data

Tapping conditions [P4 M12 × 1.25]

Work Piece Material	FCD450
Bored Hole Shape	Blind hole
Bored Hole Size	ϕ10.8
Tapping Length	19mm
Tapping Speed	57m/min
Machinery Type	M/C machining center (vertical type)
Cutting Fluid	Water soluble cutting fluid
Number of Holes Processed	6,000



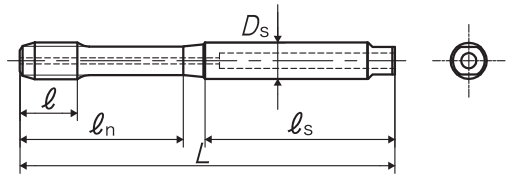
Speed chart



Tapping range by material being cut.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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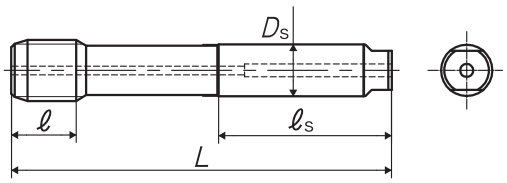


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P4	HFIHSS6.0M	2.5P	62	11	27	32	6	-	-	3	1	¥ 4,420
M8 × 1.25	P4	HFIHSS8.0N	2.5P	70	12	-	36	8	-	-	3	2	¥ 6,380
M10 × 1.5	P4	HFIHSS0100	2.5P	75	13	-	37	10	-	-	3	2	¥ 8,080
M10 × 1.25	P4	HFIHSS010N	2.5P	75	12	-	37	10	-	-	3	2	¥ 8,080
M12 × 1.75	P4	HFIHSS012P	2.5P	82	15	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.5	P4	HFIHSS0120	2.5P	82	14	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.25	P4	HFIHSS012N	2.5P	82	14	-	40	12	-	-	3	2	¥ 11,500
M14 × 1.5	P4	HFIHSS0140	2.5P	88	14	-	40	12	-	-	3	2	¥ 15,700
M16 × 1.5	P4	HFIHSS0160	2.5P	95	14	-	43	16	-	-	3	2	¥ 20,700
M18 × 1.5	P4	HFIHSS0180	2.5P	100	14	-	45	16	-	-	4	2	¥ 29,400
M20 × 1.5	P5	HFIHST0200	2.5P	105	14	-	45	16	-	-	4	2	¥ 38,400

Note:

・There is no shank square. Use a holder with high holding force like a milling chuck. ・The back end of the HFIHS shank has a tongue drive design. If the tool holder only grips on the back end of the HFIHS shank tongue drive, the coolant may leak.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

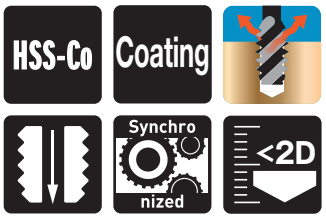
Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

HFIHS



For Ultra Fast Tapping, Vertical Use. Spiral Fluted Taps for Steels

Specification

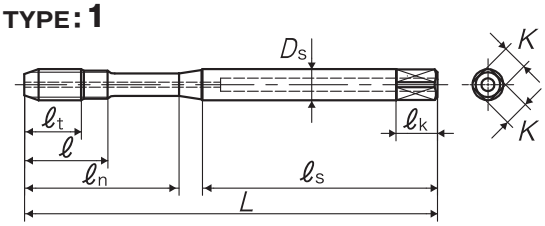


■Applicable for ultra high speed tapping. Having center through hole geometry to correspond with inner coolant supply system, HFIHS is suitable for carbon steels and alloy steels, blind hole use. Vertical tapping use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
20~50 (m/min)	20~50 (m/min)	20~30 (m/min)	20~30 (m/min)

TYPE: 1



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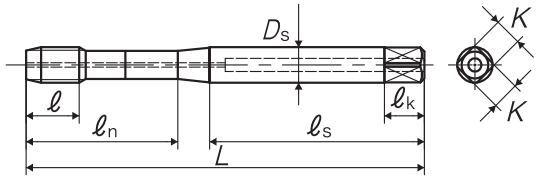


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads													
M6 × 1	ISO2X	SY6.0MBEDTZ	2.5P	80	11	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	SY8.0NBEDTZ	2.5P	90	-	12	35	48	8	6.2	9	3	2
M10 × 1.5	ISO2X	SY010OBEDTZ	2.5P	100	-	13	39	53	10	8	11	3	2
M10 × 1.25	ISO2X	SY010NBEDTZ	2.5P	100	-	13	39	53	10	8	11	3	2
M12 × 1.75	ISO2X	SY012PBEDTZ	2.5P	110	-	15	44	57	12	9	12	3	2
M12 × 1.5	ISO2X	SY012OBEDTZ	2.5P	110	-	15	44	57	12	9	12	3	2
M12 × 1.25	ISO2X	SY012NBEDTZ	2.5P	110	-	15	44	57	12	9	12	3	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HFISP



For Ultra Fast Tapping, Horizontal Use. Low Spiral Fluted Taps for Steels

Specification



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
20~50 (m/min)	20~50 (m/min)	20~30 (m/min)	20~30 (m/min)

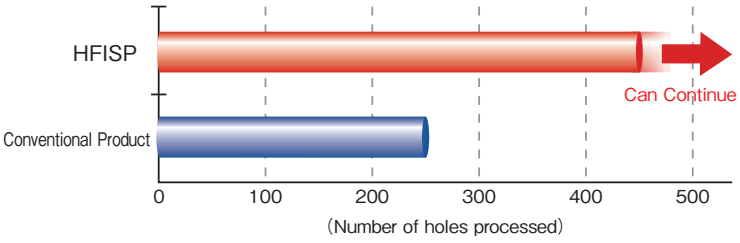
Product Features

- A center through coolant hole tap that can be used at ultra high speed and is compatible with internal lubrication processing.
- The low helix flutes, making it the optimum tap for materials such as carbon steels and alloy steels.

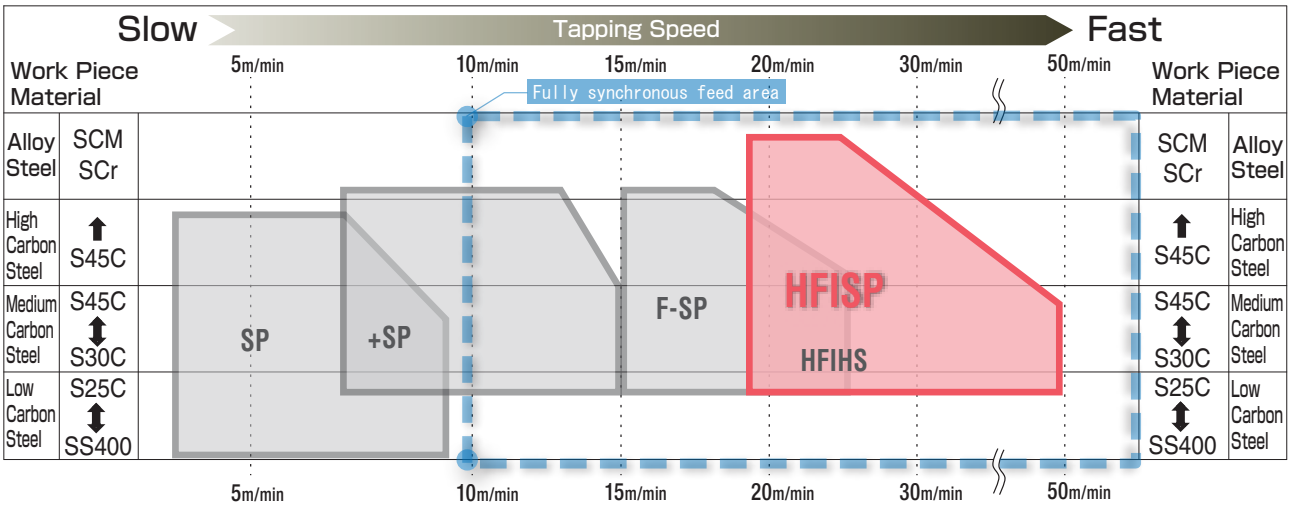
Tapping Data

Tapping Conditions [P4 M10×1.25]

Work Piece Material	S45C
Bored Hole Shape	Blind hole
Bored Hole Size	ϕ8.8
Tapping Length	18mm
Tapping Speed	126m/min
Machinery Type	M/C machining center (vertical type)
Cutting Fluid	Water soluble cutting fluid
Number of Holes Processed	450



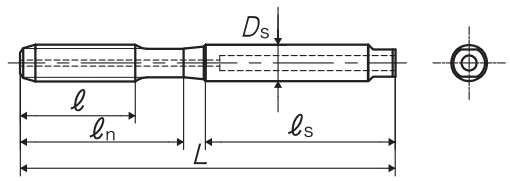
Speed chart



Tapping range by material being cut.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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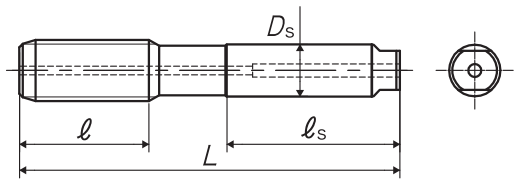


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P4	HFISPS6.0M	2.5P	62	19	27	32	6	-	-	3	1	¥ 4,420
M8 × 1.25	P4	HFISPS8.0N	2.5P	70	22	-	36	8	-	-	3	2	¥ 6,380
M10 × 1.5	P4	HFISPS0100	2.5P	75	24	-	37	10	-	-	3	2	¥ 8,080
M10 × 1.25	P4	HFISPS010N	2.5P	75	24	-	37	10	-	-	3	2	¥ 8,080
M12 × 1.75	P4	HFISPS012P	2.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.5	P4	HFISPS0120	2.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.25	P4	HFISPS012N	2.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M14 × 1.5	P4	HFISPS0140	2.5P	88	30	-	40	12	-	-	3	2	¥ 15,700
M16 × 1.5	P4	HFISPS0160	2.5P	95	32	-	43	16	-	-	3	2	¥ 20,700
M18 × 1.5	P4	HFISPS0180	2.5P	100	37	-	45	16	-	-	4	2	¥ 29,400
M20 × 1.5	P5	HFISPT0200	2.5P	105	37	-	45	16	-	-	4	2	¥ 38,400

Note:
・There is no shank square. Use a holder with high holding force like a milling chuck. ・The back end of the HFAHS shank has a tongue drive design. If the tool holder only grips on the back end of the HFAHS shank tongue drive, the coolant may leak.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

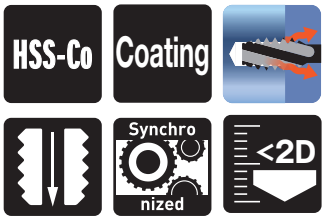
DIN

HFISP



For Ultra Fast Tapping, Horizontal Use. Low Spiral Fluted Taps for Steels

Specification

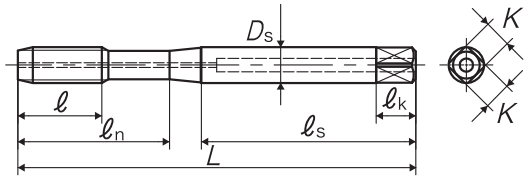


■Applicable for ultra high speed tapping. Having center through hole geometry to correspond with inner coolant supply system, HFISP is suitable for carbon steels and alloy steels, blind hole use. Effective in horizontal tapping use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
20~50 (m/min)	20~50 (m/min)	20~30 (m/min)	20~30 (m/min)

TYPE : 1



Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M6 × 1	ISO2X	SY6.0MBEDTHZ	2.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	SY8.0NBEDTHZ	2.5P	90	19	35	48	8	6.2	9	3	1
M10 × 1.5	ISO2X	SY010OBEDTHZ	2.5P	100	23	39	53	10	8	11	3	1
M10 × 1.25	ISO2X	SY010NBEDTHZ	2.5P	100	23	39	53	10	8	11	3	1
M12 × 1.75	ISO2X	SY012PBEDTHZ	2.5P	110	26	44	57	12	9	12	3	1
M12 × 1.5	ISO2X	SY012OBEDTHZ	2.5P	110	26	44	57	12	9	12	3	1
M12 × 1.25	ISO2X	SY012NBEDTHZ	2.5P	110	26	44	57	12	9	12	3	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HFAHS



For Ultra Fast Tapping, Vertical Use. Spiral Fluted Taps for Aluminum

Specification



Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
30~100 (m/min)	30~100 (m/min)	30~100 (m/min)	30~100 (m/min)

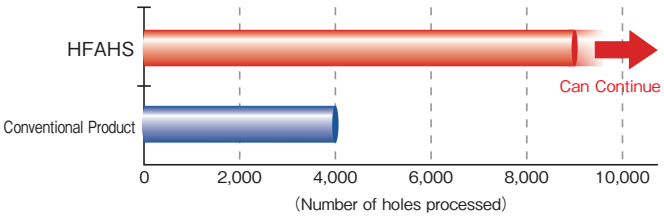
Product Features

- A center through coolant hole tap that can be used at ultra high speed and is compatible with internal lubrication processing.
- The high helix flutes, making it the optimum tap for materials such as aluminum alloy, magnesium alloy and zinc alloy castings.

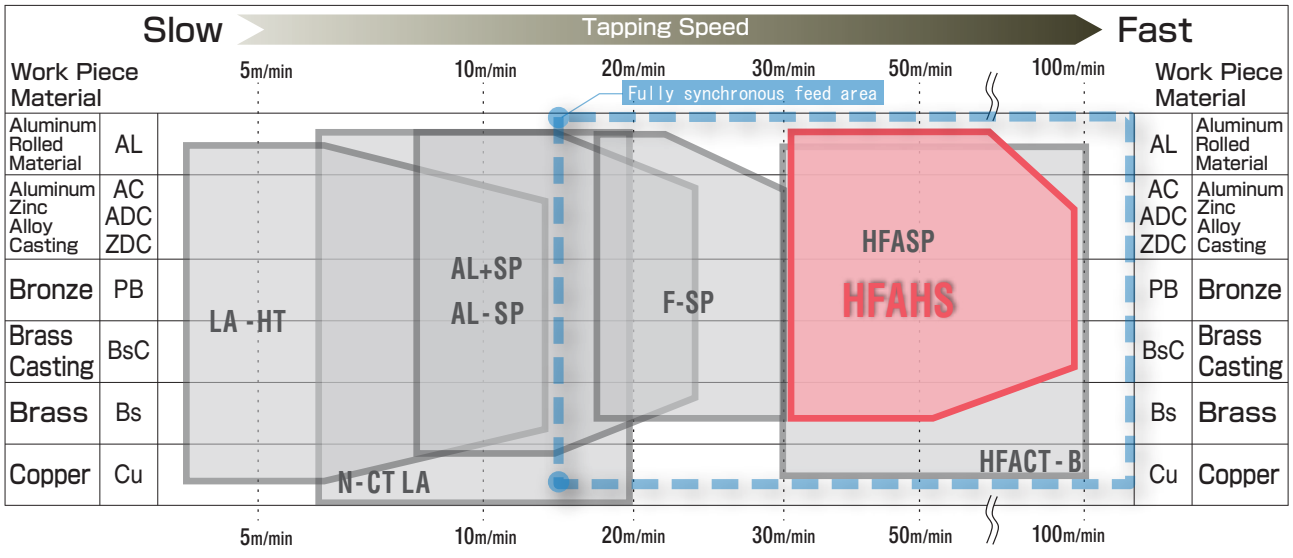
Tapping Data

Tapping Condition [P4 M6×1]

Work Piece Material	ADC12
Bored Hole Shape	Blind hole
Bored Hole Size	ϕ5.1
Tapping Length	15mm
Tapping Speed	104m/min
Machinery Type	M/C machining center (vertical type)
Cutting Fluid	Water soluble cutting fluid
Nubmer of Holes Processed	9,000



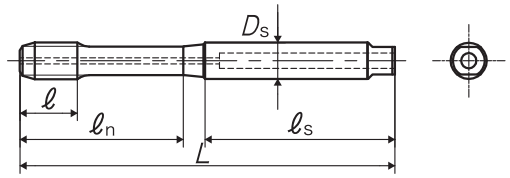
Speed chart



Tapping range by material being cut.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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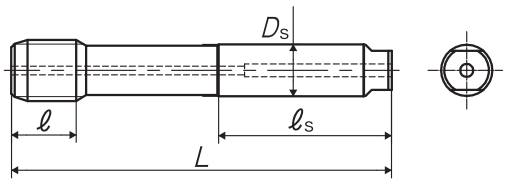


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P4	HFAHSS6.0M	2.5P	62	11	27	32	6	-	-	3	1	¥ 4,420
M8 × 1.25	P4	HFAHSS8.0N	2.5P	70	12	-	36	8	-	-	3	2	¥ 6,380
M10 × 1.5	P4	HFAHSS0100	2.5P	75	13	-	37	10	-	-	3	2	¥ 8,080
M10 × 1.25	P4	HFAHSS010N	2.5P	75	12	-	37	10	-	-	3	2	¥ 8,080
M12 × 1.75	P4	HFAHSS012P	2.5P	82	15	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.5	P4	HFAHSS0120	2.5P	82	14	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.25	P4	HFAHSS012N	2.5P	82	14	-	40	12	-	-	3	2	¥ 11,500
M14 × 1.5	P4	HFAHSS0140	2.5P	88	14	-	40	12	-	-	3	2	¥ 15,700
M16 × 1.5	P4	HFAHSS0160	2.5P	95	14	-	43	16	-	-	3	2	¥ 20,700
M18 × 1.5	P4	HFAHSS0180	2.5P	100	14	-	45	16	-	-	3	2	¥ 29,400
M20 × 1.5	P5	HFAHST0200	2.5P	105	14	-	45	16	-	-	3	2	¥ 38,400

Note:

・There is no shank square. Use a holder with high holding force like a milling chuck. ・ The back end of the HFAHS shank has a tongue drive design. If the tool holder only grips on the back end of the HFAHS shank tongue drive, the coolant may leak.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

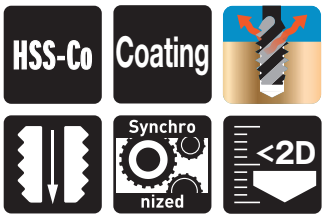
DIN

HFAHS



For Ultra Fast Tapping, Vertical Use, Spiral Fluted Taps for Aluminum

Specification

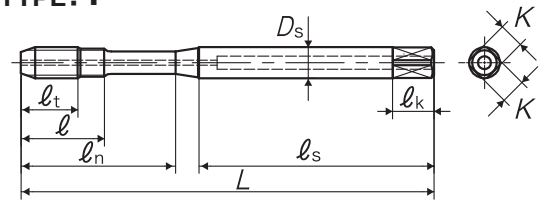


■Applicable for ultra high speed tapping. Having center through hole geometry to correspond with inner coolant supply system, HFAHS is suitable for aluminum castings, blind hole use. Vertical tapping use.

Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
30~100 (m/min)	30~100 (m/min)	30~100 (m/min)	30~100 (m/min)

TYPE : 1



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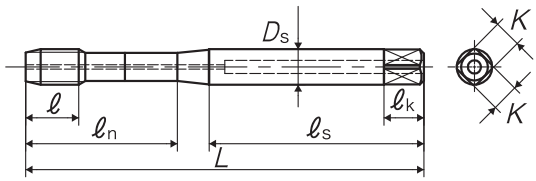


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads													
M6 × 1	ISO2X	SY6.0MBLDTZ	2.5P	80	11	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	SY8.0NBLDTZ	2.5P	90	-	12	35	48	8	6.2	9	3	2
M10 × 1.5	ISO2X	SY010OBLDTZ	2.5P	100	-	13	39	53	10	8	11	3	2
M10 × 1.25	ISO2X	SY010NBLDTZ	2.5P	100	-	13	39	53	10	8	11	3	2
M12 × 1.75	ISO2X	SY012PBLDTZ	2.5P	110	-	15	44	57	12	9	12	3	2
M12 × 1.5	ISO2X	SY012OBLDTZ	2.5P	110	-	15	44	57	12	9	12	3	2
M12 × 1.25	ISO2X	SY012NBLDTZ	2.5P	110	-	15	44	57	12	9	12	3	2

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HFASP



For Ultra Fast Tapping, Horizontal Use. Low Spiral Fluted Taps for Aluminum

Specification



Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
30~100 (m/min)	30~100 (m/min)	30~100 (m/min)	30~100 (m/min)

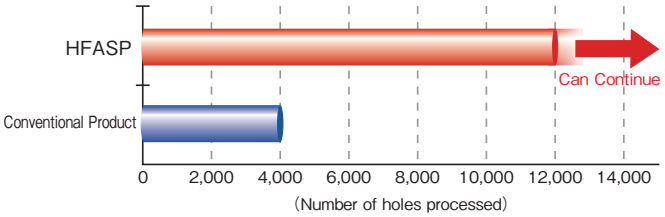
Product Features

- A center through coolant hole tap that can be used at ultra high speed and is compatible with internal lubrication in horizontal processing.
- The low helix flutes, making it the optimum tap for materials such as aluminum alloy, magnesium alloy and zinc alloy castings.

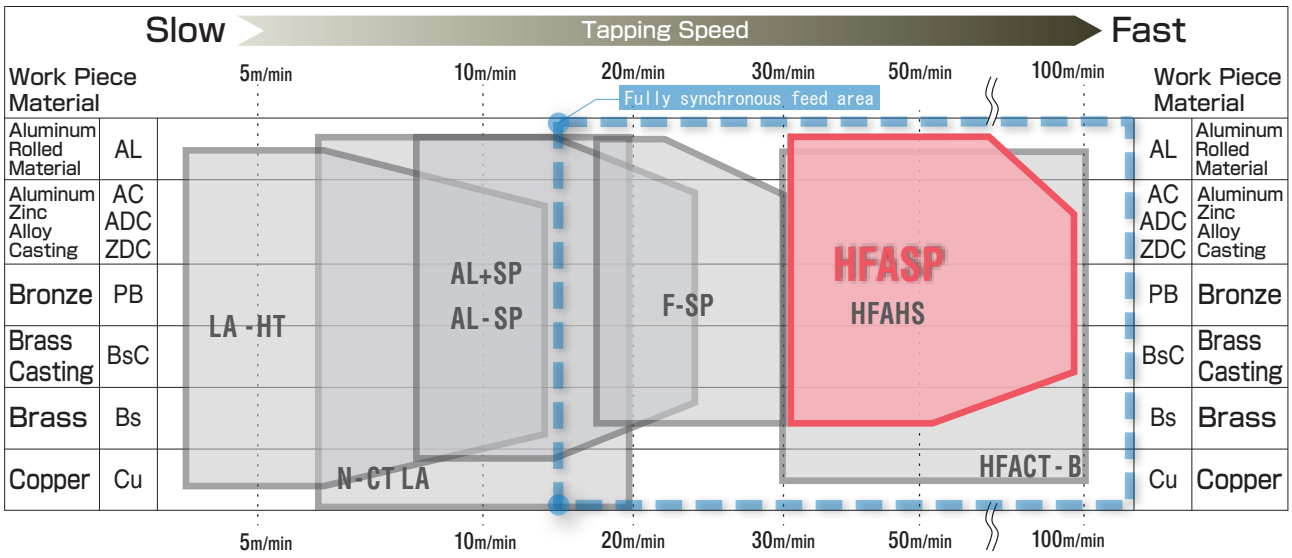
Tapping Data

Tapping Condition [P4 M8×1.25]

Work Piece Material	ADC12-T5
Bored Hole Shape	Blind hole
Bored Hole Size	ϕ6.8
Tapping Length	28.5mm
Tapping Speed	100m/min
Machinery Type	M/C machining center (vertical type)
Cutting Fluid	Water soluble cutting fluid
Number of Holes Processed	12,000



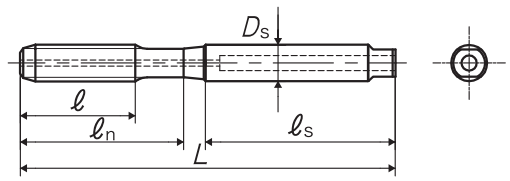
Speed chart



Tapping range by material being cut.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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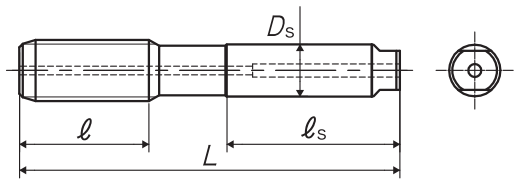


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P4	HFASPS6.0M	2.5P	62	19	27	32	6	-	-	3	1	¥ 4,420
M8 × 1.25	P4	HFASPS8.0N	2.5P	70	22	-	36	8	-	-	3	2	¥ 6,380
M10 × 1.5	P4	HFASPS0100	2.5P	75	24	-	37	10	-	-	3	2	¥ 8,080
M10 × 1.25	P4	HFASPS010N	2.5P	75	24	-	37	10	-	-	3	2	¥ 8,080
M12 × 1.75	P4	HFASPS012P	2.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.5	P4	HFASPS0120	2.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.25	P4	HFASPS012N	2.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M14 × 1.5	P4	HFASPS0140	2.5P	88	30	-	40	12	-	-	3	2	¥ 15,700
M16 × 1.5	P4	HFASPS0160	2.5P	95	32	-	43	16	-	-	3	2	¥ 20,700
M18 × 1.5	P4	HFASPS0180	2.5P	100	37	-	45	16	-	-	3	2	¥ 29,400
M20 × 1.5	P5	HFASPT0200	2.5P	105	37	-	45	16	-	-	3	2	¥ 38,400

Remarks:
1. HFACT-P do not have square on its shank, please use holders having strong gripping force, such as milling chucks.
2. Rear end of the shank is to tongue specification. If the portion which contacts the rear end has V saucer, coolant may leak.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

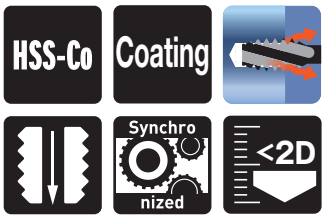
Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HFASP



For Ultra Fast Tapping, Horizontal Use, Low Spiral Fluted Taps for Aluminum

Specification

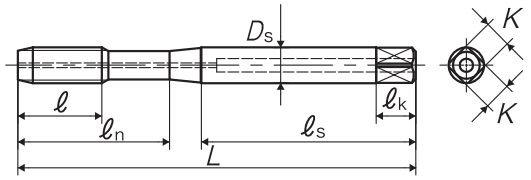


■Applicable for ultra high speed tapping. Having center through geometry to correspond with inner coolant supply system, HFASP is suitable for aluminum castings, blind hole use. Effective in horizontal tapping use.

Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
30~100 (m/min)	30~100 (m/min)	30~100 (m/min)	30~100 (m/min)

TYPE : 1



Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M6 × 1	ISO2X	SY6.0MBLDTHZ	2.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	SY8.0NBLDTHZ	2.5P	90	19	35	48	8	6.2	9	3	1
M10 × 1.5	ISO2X	SY010OBLDTHZ	2.5P	100	23	39	53	10	8	11	3	1
M10 × 1.25	ISO2X	SY010NBLDTHZ	2.5P	100	23	39	53	10	8	11	3	1
M12 × 1.75	ISO2X	SY012PBLDTHZ	2.5P	110	26	44	57	12	9	12	3	1
M12 × 1.5	ISO2X	SY012OBLDTHZ	2.5P	110	26	44	57	12	9	12	3	1
M12 × 1.25	ISO2X	SY012NBLDTHZ	2.5P	110	26	44	57	12	9	12	3	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HDISP



For Dry Tapping, Blind Hole Use. Spiral Fluted Taps for Steels

Specification



Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

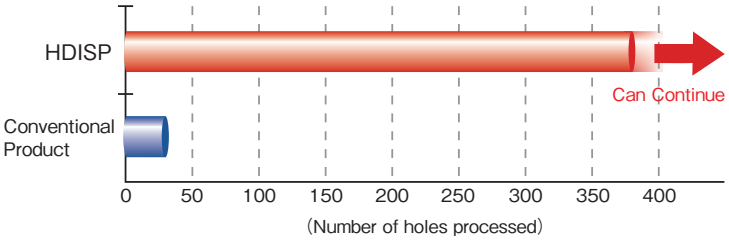
Product Features

●Designed with a through center hole for coolant lubrication, mist lubrication or air blast applications in blind holes.
●The low helix flutes, making it the optimum tap for blind hole tapping on horizontal and vertical machines in materials such as carbon steel and alloy steel.

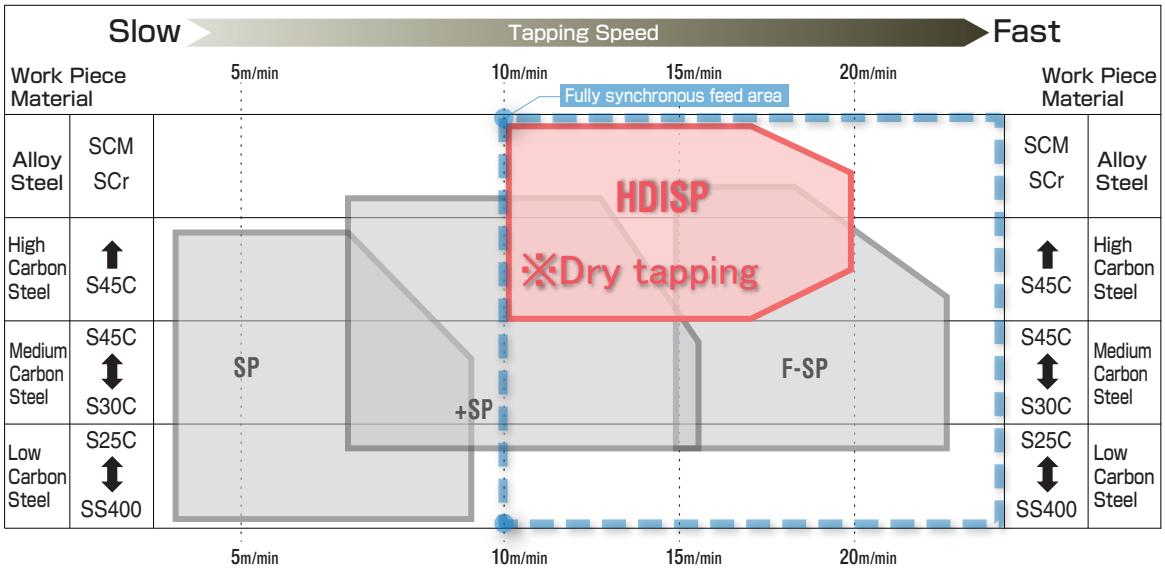
Tapping Data

Tapping Condistion [P4 M10×1.25]

Work Piece Material	S50C (18HRC)
Bored Hole Shape	Blind hole
Bored Hole Size	ϕ8.8
Tapping Length	12mm
Tapping Speed	8m/min
Machinery Type	CNCtapping machine
Cutting Fluid	Dry (Without tapping fluid)
Number of Holes Processed	380



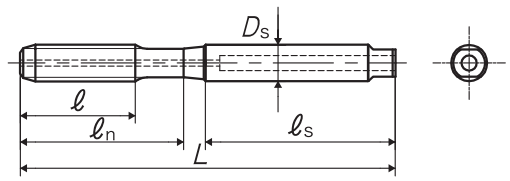
Speed chart



Tapping range by material being cut.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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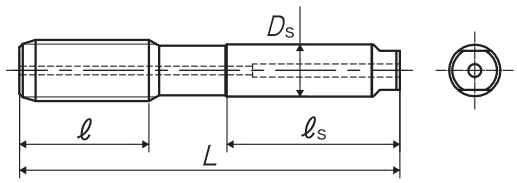


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P4	HDISPS6.0M	2.5P	62	19	27	32	6	-	-	3	1	¥ 4,420
M8 × 1.25	P4	HDISPS8.0N	2.5P	70	22	-	36	8	-	-	3	2	¥ 6,380
M10 × 1.5	P4	HDISPS0100	2.5P	75	24	-	37	10	-	-	3	2	¥ 8,080
M10 × 1.25	P4	HDISPS010N	2.5P	75	24	-	37	10	-	-	3	2	¥ 8,080
M10 × 1	P4	HDISPS010M	2.5P	75	24	-	37	10	-	-	3	2	¥ 9,730
M12 × 1.75	P4	HDISPS012P	2.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.5	P4	HDISPS0120	2.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.25	P4	HDISPS012N	2.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M14 × 1.5	P4	HDISPS0140	2.5P	88	30	-	40	12	-	-	3	2	¥ 15,700
M16 × 1.5	P4	HDISPS0160	2.5P	95	32	-	43	16	-	-	3	2	¥ 20,700
M18 × 1.5	P4	HDISPS0180	2.5P	100	37	-	45	16	-	-	4	2	¥ 29,400
M20 × 1.5	P5	HDISPT0200	2.5P	105	37	-	45	16	-	-	4	2	¥ 38,400

Note:
・There is no shank square. Use a holder with high holding force like a milling chuck. ・ The back end of the HDISP shank has a tongue drive design. If the tool holder only grips on the back end of the HDISP shank tongue drive, the coolant may leak.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

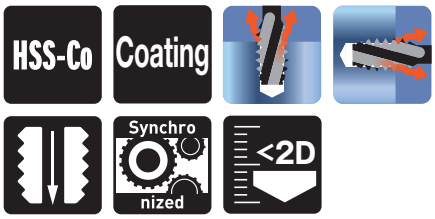
Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HDISP



For Dry Tapping, Blind Hole Use, Spiral Fluted Taps for Steels

Specification

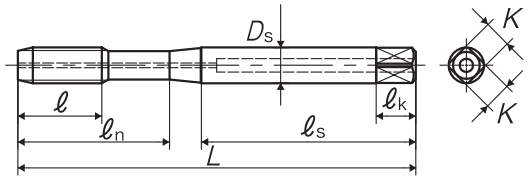


■Applicable for the tapping under mist or dry condition.
Having center through hole geometry to correspond with inner coolant supply system, HDISP is suitable for carbon steels and alloy steels, blind hole use. For both horizontal and vertical tapping use.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

TYPE : 1



Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M6 × 1	ISO2X	SY6.0MBEDTLZ	2.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	SY8.0NBEDTLZ	2.5P	90	19	35	48	8	6.2	9	3	1
M10 × 1.5	ISO2X	SY010OBEDTLZ	2.5P	100	23	39	53	10	8	11	3	1
M10 × 1.25	ISO2X	SY010NBEDTLZ	2.5P	100	23	39	53	10	8	11	3	1
M12 × 1.75	ISO2X	SY012PBEDTLZ	2.5P	110	26	44	57	12	9	12	3	1
M12 × 1.5	ISO2X	SY012OBEDTLZ	2.5P	110	26	44	57	12	9	12	3	1
M12 × 1.25	ISO2X	SY012NBEDTLZ	2.5P	110	26	44	57	12	9	12	3	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

HDASP



For Dry Tapping, Blind Hole Use. Spiral Fluted Taps for Aluminum

Specification



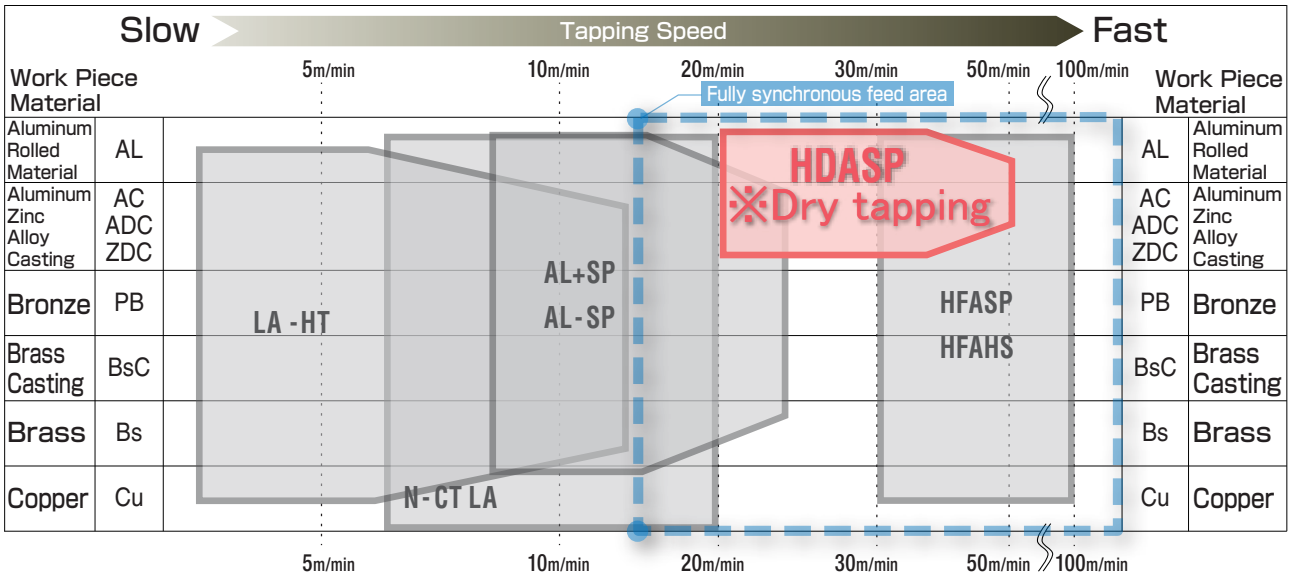
Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
20~50 (m/min)	20~50 (m/min)	20~50 (m/min)	20~50 (m/min)

Product Features

- Designed with a through center hole for coolant lubrication, mist lubrication or air blast applications in blind holes.
- The low helix flutes, making it the optimum tap for blind hole tapping on horizontal and vertical machines in materials such as aluminum castings, magnesium alloys and zinc alloys.

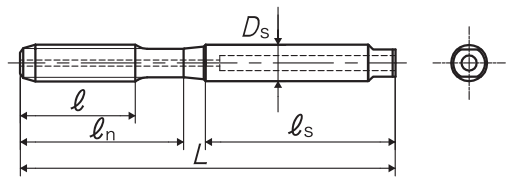
Speed chart



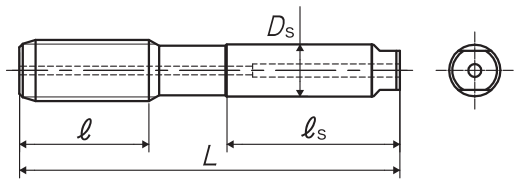
Tapping range by material being cut.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



TYPE: 2



Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P4	HDASPS6.0M	2.5P	62	19	27	32	6	-	-	3	1	¥ 4,420
M8 × 1.25	P4	HDASPS8.0N	2.5P	70	22	-	36	8	-	-	3	2	¥ 6,380
M10 × 1.5	P4	HDASPS010O	2.5P	75	24	-	37	10	-	-	3	2	¥ 8,080
M10 × 1.25	P4	HDASPS010N	2.5P	75	24	-	37	10	-	-	3	2	¥ 8,080
M12 × 1.75	P4	HDASPS012P	2.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.5	P4	HDASPS012O	2.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.25	P4	HDASPS012N	2.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M14 × 1.5	P4	HDASPS014O	2.5P	88	30	-	40	12	-	-	3	2	¥ 15,700
M16 × 1.5	P4	HDASPS016O	2.5P	95	32	-	43	16	-	-	3	2	¥ 20,700
M18 × 1.5	P4	HDASPS018O	2.5P	100	37	-	45	16	-	-	3	2	¥ 29,400
M20 × 1.5	P5	HDASPT020O	2.5P	105	37	-	45	16	-	-	3	2	¥ 38,400

Note:
- There is no shank square. Use a holder with high holding force like a milling chuck.
- The back end of the HDASP shank has a tongue drive design. If the tool holder only grips on the back end of the HDASP shank tongue drive, the coolant may leak.

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

HDASP



For Dry Tapping, Blind Hole Use, Spiral Fluted Taps for Aluminum

Specification

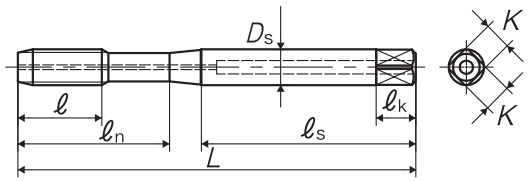


■Applicable for the tapping under mist or dry condition.
Having center through hole geometry to correspond with inner coolant supply system, HDASP is suitable for aluminum castings, blind hole use. For both horizontal and vertical tapping use.

Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
20~50 (m/min)	20~50 (m/min)	20~50 (m/min)	20~50 (m/min)

TYPE : 1



Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M6 × 1	ISO2X	SY6.0MBLDTLZ	2.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	SY8.0NBLDTLZ	2.5P	90	19	35	48	8	6.2	9	3	1
M10 × 1.5	ISO2X	SY010OBLDTLZ	2.5P	100	23	39	53	10	8	11	3	1
M10 × 1.25	ISO2X	SY010NBLDTLZ	2.5P	100	23	39	53	10	8	11	3	1
M12 × 1.75	ISO2X	SY012PBLDTLZ	2.5P	110	26	44	57	12	9	12	3	1
M12 × 1.5	ISO2X	SY012OBLDTLZ	2.5P	110	26	44	57	12	9	12	3	1
M12 × 1.25	ISO2X	SY012NBLDTLZ	2.5P	110	26	44	57	12	9	12	3	1

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

MC-SP



Spiral Fluted Taps with Internal Coolant Hole

Specification

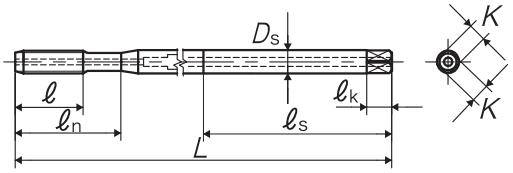
HSS

■Through internal coolant hole (center through type), satisfactory amount of oil is supplied to the exact cutting area. MC-SP spiral fluted tap ensures a long tool life as well as cuts high precision threads with good surface finish.

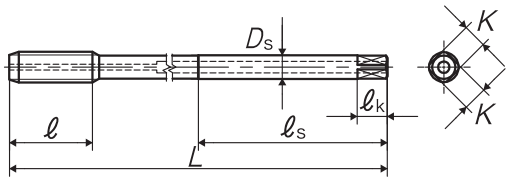
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE: 1



TYPE: 2



Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P2	MSHQ6.0ML10	2.5P	100	19	28	40	6	4.5	7	3	1	¥ 3,390 ※▲
M6 × 1	P2	MSHQ6.0ML15	2.5P	150	19	28	40	6	4.5	7	3	1	¥ 5,790 ※▲
M8 × 1.25	P2	MSHQ8.0NL10	2.5P	100	22	-	50	6.2	5	8	3	2	¥ 4,390 ※▲
M8 × 1.25	P2	MSHQ8.0NL15	2.5P	150	22	-	50	6.2	5	8	3	2	¥ 7,230 ※▲
M10 × 1.5	P2	MSHQ0100L10	2.5P	100	24	-	50	7	5.5	8	3	2	¥ 5,340 ※▲
M10 × 1.5	P2	MSHQ0100L15	2.5P	150	24	-	50	7	5.5	8	3	2	¥ 8,440 ※▲
M10 × 1.25	P2	MSHQ010NL10	2.5P	100	24	-	50	7	5.5	8	3	2	¥ 5,340 ※▲
M10 × 1.25	P2	MSHQ010NL15	2.5P	150	24	-	50	7	5.5	8	3	2	¥ 8,440 ※▲
M12 × 1.75	P2	MSHQ012PL10	2.5P	100	29	-	50	8.5	6.5	9	3	2	¥ 6,550 ※▲
M12 × 1.75	P2	MSHQ012PL15	2.5P	150	29	-	50	8.5	6.5	9	3	2	¥ 10,600 ※▲
M12 × 1.75	P2	MSHQ012PL20	2.5P	200	29	-	50	8.5	6.5	9	3	2	¥ 14,200 ※▲
M12 × 1.5	P2	MSHQ0120L10	2.5P	100	29	-	50	8.5	6.5	9	3	2	¥ 6,550 ※▲
M12 × 1.5	P2	MSHQ0120L15	2.5P	150	29	-	50	8.5	6.5	9	3	2	¥ 10,600 ※▲
M12 × 1.5	P2	MSHQ0120L20	2.5P	200	29	-	50	8.5	6.5	9	3	2	¥ 14,200 ※▲
M12 × 1.25	P2	MSHQ012NL10	2.5P	100	29	-	50	8.5	6.5	9	3	2	¥ 6,550 ※▲
M12 × 1.25	P2	MSHQ012NL15	2.5P	150	29	-	50	8.5	6.5	9	3	2	¥ 10,600 ※▲
M12 × 1.25	P2	MSHQ012NL20	2.5P	200	29	-	50	8.5	6.5	9	3	2	¥ 14,200 ※▲
M14 × 2	P2	MSHQ014QL15	2.5P	150	30	-	60	10.5	8	11	3	2	¥ 13,500 ※▲
M14 × 2	P2	MSHQ014QL20	2.5P	200	30	-	60	10.5	8	11	3	2	¥ 17,300 ※▲
M14 × 1.5	P2	MSHQ0140L15	2.5P	150	30	-	60	10.5	8	11	3	2	¥ 13,500 ※▲
M14 × 1.5	P2	MSHQ0140L20	2.5P	200	30	-	60	10.5	8	11	3	2	¥ 17,300 ※▲
M16 × 2	P2	MSHQ016QL15	2.5P	150	32	-	60	12.5	10	13	3	2	¥ 14,600 ※▲
M16 × 2	P2	MSHQ016QL20	2.5P	200	32	-	60	12.5	10	13	3	2	¥ 18,000 ※▲
M16 × 1.5	P2	MSHQ0160L15	2.5P	150	32	-	60	12.5	10	13	3	2	¥ 14,600 ※▲
M16 × 1.5	P2	MSHQ0160L20	2.5P	200	32	-	60	12.5	10	13	3	2	¥ 18,000 ※▲

Remarks: Products marked with ▲ in the MSRP column are subject to availability.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M18 × 2.5	P3	MSHR018RL15	2.5P	150	37	-	70	14	11	14	4	2	¥ 16,800 ※▲
M18 × 2.5	P3	MSHR018RL20	2.5P	200	37	-	70	14	11	14	4	2	¥ 21,900 ※▲
M18 × 1.5	P2	MSHQ018OL15	2.5P	150	37	-	70	14	11	14	4	2	¥ 16,800 ※▲
M18 × 1.5	P2	MSHQ018OL20	2.5P	200	37	-	70	14	11	14	4	2	¥ 21,900 ※▲
M20 × 2.5	P3	MSHR020RL15	2.5P	150	37	-	70	15	12	15	4	2	¥ 21,400 ※▲
M20 × 2.5	P3	MSHR020RL20	2.5P	200	37	-	70	15	12	15	4	2	¥ 28,100 ※▲
M20 × 1.5	P3	MSHR020OL15	2.5P	150	37	-	70	15	12	15	4	2	¥ 21,400 ※▲
M20 × 1.5	P3	MSHR020OL20	2.5P	200	37	-	70	15	12	15	4	2	¥ 28,100 ※▲
M22 × 2.5	P3	MSHR022RL15	2.5P	150	38	-	70	17	13	16	4	2	¥ 24,000 ※▲
M22 × 2.5	P3	MSHR022RL20	2.5P	200	38	-	70	17	13	16	4	2	¥ 31,200 ※▲
M22 × 1.5	P3	MSHR022OL15	2.5P	150	38	-	70	17	13	16	4	2	¥ 24,000 ※▲
M22 × 1.5	P3	MSHR022OL20	2.5P	200	38	-	70	17	13	16	4	2	¥ 31,200 ※▲
M24 × 3	P3	MSHR024SL15	2.5P	150	45	-	80	19	15	18	4	2	¥ 28,100 ※▲
M24 × 3	P3	MSHR024SL20	2.5P	200	45	-	80	19	15	18	4	2	¥ 35,100 ※▲
M24 × 1.5	P3	MSHR024OL15	2.5P	150	45	-	80	19	15	18	4	2	¥ 28,100 ※▲
M24 × 1.5	P3	MSHR024OL20	2.5P	200	45	-	80	19	15	18	4	2	¥ 35,100 ※▲
M27 × 3	P3	MSHR027SL20	2.5P	200	45	-	80	20	15	18	4	2	¥ 39,600 ※▲
M27 × 3	P3	MSHR027SL25	2.5P	250	45	-	80	20	15	18	4	2	¥ 53,300 ※▲
M27 × 1.5	P3	MSHR027OL20	2.5P	200	45	-	80	20	15	18	4	2	¥ 39,600 ※▲
M27 × 1.5	P3	MSHR027OL25	2.5P	250	45	-	80	20	15	18	4	2	¥ 53,300 ※▲
M30 × 3.5	P4	MSHS030TL20	2.5P	200	48	-	80	23	17	20	4	2	¥ 50,900 ※▲
M30 × 3.5	P4	MSHS030TL25	2.5P	250	48	-	80	23	17	20	4	2	¥ 67,300 ※▲
M30 × 1.5	P3	MSHR030OL20	2.5P	200	45	-	80	23	17	20	4	2	¥ 50,900 ※▲
M30 × 1.5	P3	MSHR030OL25	2.5P	250	45	-	80	23	17	20	4	2	¥ 67,300 ※▲

Remarks: Products marked with ▲ in the MSRP column are subject to availability.

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

XSP

X Series Spiral Fluted Taps



Specification



Recommended Tapping Speeds depending on Materials



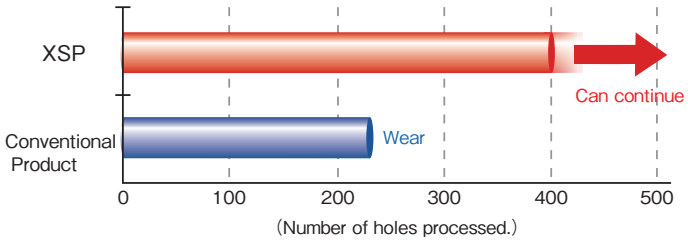
Product Features

- The XSP Series is now available, a tap with high dimensional quality. The XSP is has stronger rigidity to make full use of high performance CNC machining centers and the newer high precision tooling.
- From the YAMAWA analysis of the machining concept for thread cutting taps that conform to conventional pilot holes and review of the shape of the tap, we created the optimum flute design.
- By further improving the shank precision and the shank circularity, it became possible to create a more accurate screw thread for high speed machining.

Tapping Data

Thread Size [M10×1.5]

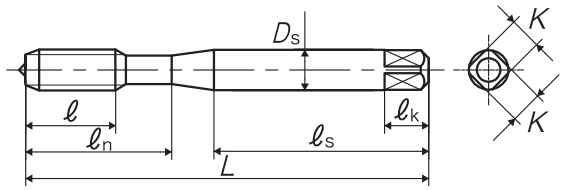
Material & Hardness	S50C 16HRC
Tapping Speed	15m/min
Bored Hole Size	ϕ8.5
Tapping Length	20mm
Machinery Type	Vertical machining center with synchronous feed.
Cutting Fluid	Water soluble cutting fluid with a 20 to 1 ratio.



Note:
- Please use this product with a collet chuck or a tapping holder adapted to the DIN 371 standard (For size M12 use the DIN 376 standard).
- NT Tool Corporation ... Tap holder for height adjustment type synchro · STM type
- Showa Seiki Co., Ltd. ... Micron chuck H series
- Daishowa Seiki Co., Ltd. ... Mega synchro tapping holder
- Nikken Kosakusho Co., Ltd. · Slim chuck
- Yukiwa Seiko Co., Ltd. ... Super G1 chuck

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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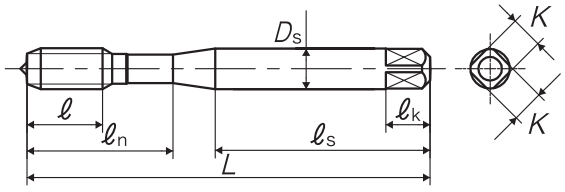


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P2	SNXQ6.0M	2.5P	80	15	30	45	6	4.9	8	3	1	¥ 1,510 ▲
M8 × 1.25	P3	SNXR8.0N	2.5P	90	19	35	48	8	6.2	9	3	1	¥ 2,130 ▲
M8 × 1	P3	SNXR8.0M	2.5P	90	15	35	48	8	6.2	9	3	2	¥ 2,460 ▲
M10 × 1.5	P3	SNXR010O	2.5P	100	23	39	53	10	8	11	3	1	¥ 2,690 ▲
M10 × 1.25	P3	SNXR010N	2.5P	100	19	39	53	10	8	11	3	2	¥ 2,690 ▲
M10 × 1	P3	SNXR010M	2.5P	100	15	39	53	10	8	11	3	2	¥ 3,470 ▲
M12 × 1.75	P3	SNXR012P	2.5P	110	26	45	56	12	9	12	3	1	¥ 3,760 ▲
M12 × 1.5	P3	SNXR012O	2.5P	110	23	45	56	12	9	12	3	2	¥ 3,760 ▲
M12 × 1.25	P3	SNXR012N	2.5P	110	19	45	56	12	9	12	3	2	¥ 3,760 ▲

Note:
- Remarks: Products marked with ▲ in the MSRP column are subject to availability.
- Please use tapping holders suitable for the shank diameter and square of DIN371 for M6～M10 and those of M16 (DIN376) for M12.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

AUXSP



X Series
Spiral Fluted Taps, Coated

Specification



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~15 (m/min)	20~30 (m/min)	20~30 (m/min)

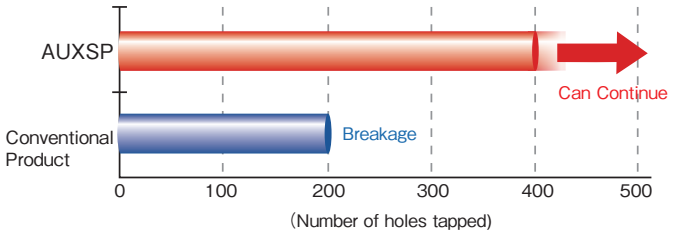
Product Features

- The AUXSP Series, a next generation high dimensional quality, high rigidity tap to make full use of high performance CNC machining centers and the newer high precision tooling is now available.
- From the YAMAWA analysis of the machining concept for thread cutting taps that conform to conventional pilot holes and the review of the shape of the tap, we created the optimum flute design.
- By further improving, the shank precision and shank circularity of the entire tap, it became possible to develop a highly accurate screw thread tap for high speed machining.
- It has a special design of full threads for the first few threads and the remainder are half the thread height. With this special shape, it is effective in the prevention of flute chipping of the full threads. It reduces tapping torque and has good abrasion resistance while helping to maintain the screw thread guide specifications.
- Combination with exclusive tooling is recommended.

Tapping Data

Tapping conditions [M10×1.5]

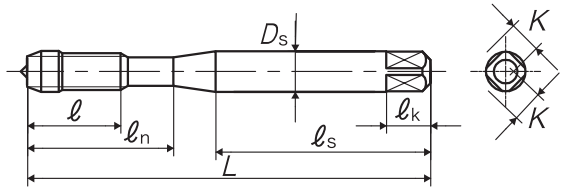
Workpiece Material	S50C 16HRC
Tapping Speed	15m/min
Bored Hole Size	ϕ8.5
Tapping Length	15mm
Machinery Type	Vertical machining center (synchronous feed)
Cutting Fluid	Water soluble cutting fluid with a 20 to 1 dilution.



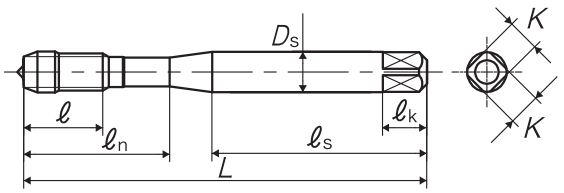
Note:
- Please use this product with a collet chuck or a tapping holder adapted to the DIN 371 standard (For size M12 use the DIN 376 standard).
- NT Tool Corporation ... Tap holder for height adjustment type synchro · STM type
- Showa Seiki Co., Ltd. ... Micron chuck H series
- Daishowa Seiki Co., Ltd. ... Mega synchro tapping holder
- Nikken Kosakusho Co., Ltd. · Slim chuck
- Yukiwa Seiko Co., Ltd. ... Super G1 chuck

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



TYPE: 2



Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P2	VSAXQ6.0M	2.5P	80	15	30	45	6	4.9	8	3	1	¥ 3,410 ▲
M8 × 1.25	P3	VSAXR8.0N	2.5P	90	19	35	48	8	6.2	9	3	1	¥ 4,290 ▲
M8 × 1	P3	VSAXR8.0M	2.5P	90	15	35	48	8	6.2	9	3	2	¥ 5,060 ▲
M10 × 1.5	P3	VSAXR010O	2.5P	100	23	39	53	10	8	11	4	1	¥ 5,150 ▲
M10 × 1.25	P3	VSAXR010N	2.5P	100	19	39	53	10	8	11	4	2	¥ 5,150 ▲
M10 × 1	P3	VSAXR010M	2.5P	100	15	39	53	10	8	11	4	2	¥ 5,860 ▲
M12 × 1.75	P3	VSAXR012P	2.5P	110	26	45	56	12	9	12	4	1	¥ 6,960 ▲
M12 × 1.5	P3	VSAXR012O	2.5P	110	23	45	56	12	9	12	4	2	¥ 6,960 ▲
M12 × 1.25	P3	VSAXR012N	2.5P	110	19	45	56	12	9	12	4	2	¥ 6,960 ▲

Note:
- Remarks: Products marked with ▲ in the MSRP column are subject to availability.
- Please use tapping holders suitable for the shank diameter and square of DIN371 for M6～M10 and those of M16 (DIN376) for M12.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

AUXSP



X Series
Spiral Fluted Taps, Coated

Specification

HSS | Coating | Synchronized | <2D

■The AUXSP is the best tap for high performance machining centers in combination with high precision tooling. The coated spiral flute tap creates optimum chip discharge performance and reduces frictional resistance by reducing the thread height in the last half of the taps thread length portion.

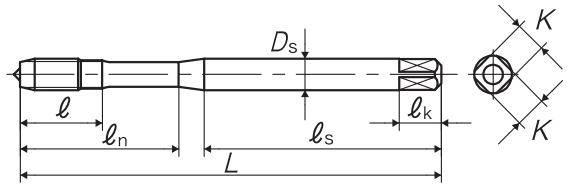
*Recommended combination with special tooling.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)

Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~15 (m/min)	20~30 (m/min)	20~30 (m/min)

TYPE : 1



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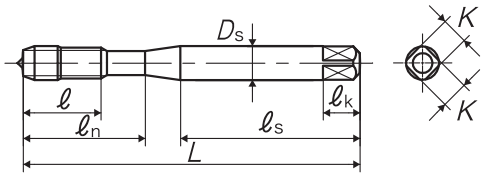


Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	
For Metric Threads													
M6 × 1	ISO2	SX6.0MANEV	2.5P	80	15	30	45	6	4.9	8	3	1	▲
M8 × 1.25	ISO2	SX8.0NANEV	2.5P	90	19	35	48	8	6.2	9	3	1	▲
M8 × 1	ISO2	SX8.0MANEV	2.5P	90	15	35	48	8	6.2	9	3	2	▲
M10 × 1.5	ISO2	SX010OANEV	2.5P	100	23	39	53	10	8	11	4	1	▲
M10 × 1.25	ISO2	SX010NANEV	2.5P	100	19	39	53	10	8	11	4	2	▲
M10 × 1	ISO2	SX010MANEV	2.5P	100	15	39	53	10	8	11	4	2	▲
M12 × 1.75	ISO2	SX012PANEV	2.5P	110	26	45	56	12	9	12	4	1	▲
M12 × 1.5	ISO2	SX012OANEV	2.5P	110	23	45	56	12	9	12	4	2	▲
M12 × 1.25	ISO2	SX012NANEV	2.5P	110	19	45	56	12	9	12	4	2	▲

Note: Products marked with an ▲ in the stock column are available while supplies last.

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

SUXSP



X Series Spiral Fluted Taps for Stainless Steels

Specification



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~10 (m/min)

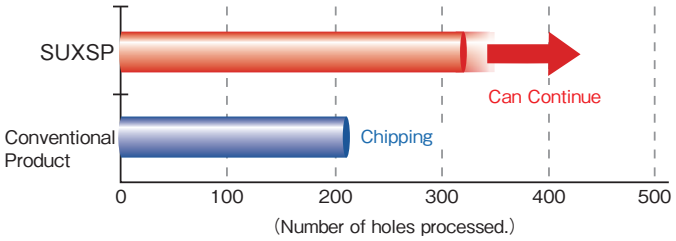
Product Features

- The SUXSP Series, a next generation high dimensional quality, high rigidity tap to make full use of high performance CNC machiningcenters and the newer high precision tooling is now available.
- From the YAMAWA analysis of the machining concept for thread cutting taps that conform to conventional pilot holes and the review of the shape of the tap we created the optimum flute design.
- By further improving, the shank precision and shank circularity of the entire tap, it became possible to develop a highly accurate screw thread tap for high speed machining areas.

Tapping Data

Thread Size [M12×1.75]

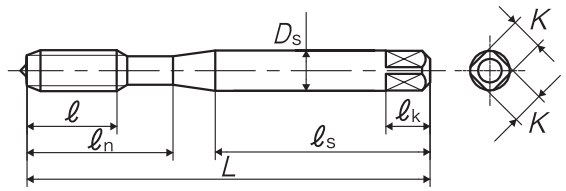
Material & Hardness	SUS304　85～90HRB
Tapping Speed	15m/min
Bored Hole Size	ϕ10.3
Tapping Length	18mm
Machinery Type	CNC vertical machining center (synchronous feed)
Cutting Fluid	Non-water soluble cutting oil (chlorine-free)



Note:
- Please use this product with a collet chuck or a tapping holder adapted to the DIN 371 standard (For size M12 use the DIN 376 standard).
- NT Tool Corporation ... Tap holder for height adjustment type synchro · STM type
- Showa Seiki Co., Ltd. ... Micron chuck H series
- Daishowa Seiki Co., Ltd. ... Mega synchro tapping holder
- Nikken Kosakusho Co., Ltd. · Slim chuck
- Yukiwa Seiko Co., Ltd. ... Super G1 chuck

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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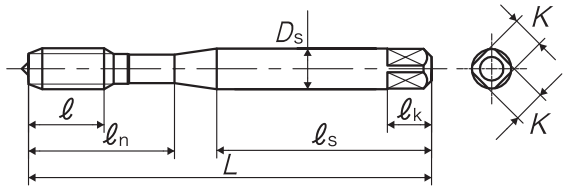


Segment : 1C

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P2	SUXQ6.0M	2.5P	80	15	30	45	6	4.9	8	3	1	¥ 1,730 ▲
M8 × 1.25	P3	SUXR8.0N	2.5P	90	19	35	48	8	6.2	9	3	1	¥ 2,470 ▲
M8 × 1	P3	SUXR8.0M	2.5P	90	15	35	48	8	6.2	9	3	2	¥ 2,830 ▲
M10 × 1.5	P3	SUXR010O	2.5P	100	23	39	53	10	8	11	4	1	¥ 3,100 ▲
M10 × 1.25	P3	SUXR010N	2.5P	100	19	39	53	10	8	11	4	2	¥ 3,100 ▲
M10 × 1	P3	SUXR010M	2.5P	100	15	39	53	10	8	11	4	2	¥ 3,990 ▲
M12 × 1.75	P4	SUXS012P	2.5P	110	26	45	56	12	9	12	4	1	¥ 4,320 ▲
M12 × 1.5	P3	SUXR012O	2.5P	110	23	45	56	12	9	12	4	2	¥ 4,320 ▲
M12 × 1.25	P3	SUXR012N	2.5P	110	19	45	56	12	9	12	4	2	¥ 4,320 ▲

Note:
・Remarks: Products marked with ▲ in the MSRP column are subject to availability.
・Please use tapping holders suitable for the shank diameter and square of DIN371 for M6～M10 and those of M16 (DIN376) for M12.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

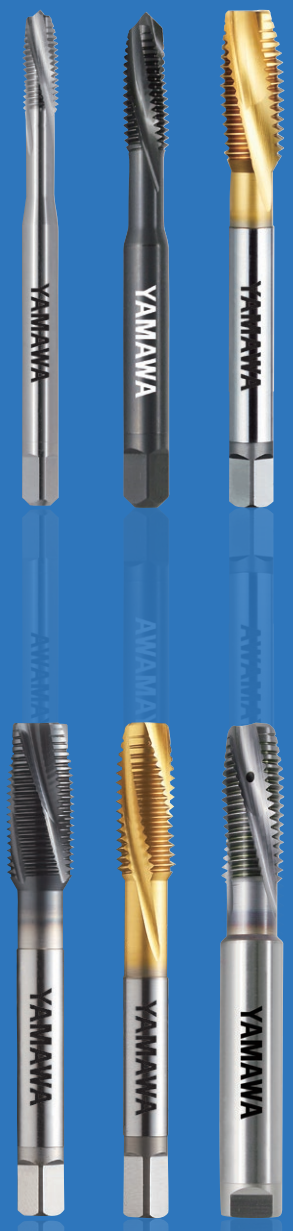
MEMO

JIS • ANSI • DIN

LINE UP

② SPIRAL FLUTED TAP SERIES FOR THROUGH HOLE

	JIS	ANSI	DIN
Z-PRO MHSL	②-3	②-7	②-8
MHSL-J	②-5		
Z-PRO LKSL	②-11		
Z-PRO LKSL XL	②-12		
AU+SL	②-13		②-15
SU+SL	②-17		
SL+VA			②-19
ZET-P	②-21		②-25
ZELX TI LHSP		②-23	
F-SL	②-27		②-31
ZELX FR LHSP		②-29	
LS-F-SL	②-32		
HDISL	②-33		②-35
XSL	②-37		
AUXSL	②-39		②-41
SUXSL	②-43		



・For improvement, spec may change without advance notice.

Selection chart of taps

Tapping conditions	Machining, in low-speed tapping area				Machining, in middle speed tapping area											
Product symbol	Z-PRO LKSL		Z-PRO LKSL XL		XSL	SU+SL		SUXSL		AU+SL		AUXSL		Z-PRO MHSL		MHSL-J	
Tap material / Surface treatment	HSS	OX	HSS	OX	HSS	HSS	OX	HSS	OX	HSS	Coating	HSS	Coating	HSS-Co	Coating	HSS-Co	Coating
Name	Long neck				For general use	For stainless steel				coated				For middle hardness carbon steel		For middle hardness carbon steel JIS	
																	
Bored Hole Shape																	
For Metric Threads	②-11		②-12		②-38	②-18		②-44		②-14		②-40		②-4		②-6	
For Unified Threads																	
For Whitworth Threads																	
For Screw Threads used on Sewing Machines																	
Pipe Threads																	
American Pipe Threads																	
For Miniature Threads																	
For Trapezoidal Threads																	

～S25C	Low carbon steels	◆	◎	◆	◎			◆	◎	◆	◎	◆◆	◎	◆◆	◎				
S25C～S45C	Medium carbon steels	◆	○	◆	○	◆	◎	◆	◎	◆	◎	◆◆	◎	◆◆	◎	◆◆	◎	◆◆	◎
S45C～	High carbon steels					◆	○	◆	○	◆	○	◆◆	◎	◆◆	◎	◆◆	◎	◆◆	◎
SCM	Alloy steels							◆	○	◆	○	◆◆	◎	◆◆	◎	◆◆	◎	◆◆	◎
25～35HRC	Heat treated steel													◆◆	◎	◆◆	◎		
35～45HRC	Heat treated steel													◆◆	◎				
45～55HRC	Heat treated steel																		
55～63HRC	Heat treated steel																		
SUS	Stainless steels (SUS)							◆	◎	◆	◎	◆◆	○	◆◆	○				
SKD	Tool steels													◆◆	○	◆◆	○		
SC	Cast steels																		
FC	Cast irons																		
FCD	Ductile cast irons																		
Cu	Copper																		
Bs	Brass																		
BsC	Brass castings																		
PB	Bronze																		
AL	Wrought aluminum																		
AC, ADC	Wrought aluminum											◆◆	○	◆◆	○				
Mg	Magnesium alloy die castings																		
ZDC	Zinc alloy die castings											◆◆	○	◆◆	○				
	Titanium alloys																		
	Nickel base alloys																		
	Thermosetting plastic																		
	Thermoplastic resin																		

Think threads with YAMAWA

Machining/Fully synchronized feed only, in high-speed tapping area								
	ZET-P		F-SL		LS-F-SL		HDISL	
	HSS-P	NI	HSS	Coating	HSS	Coating	HSS-Co	Coating
	For titanium alloys		For high-speed		Long, for high-speed		Dry tapping, for ultra high-speed For steel	
								
	②-22		②-28		②-32		②-34	
			◆◆	◎	◆◆	◎		
			◆◆	◎	◆◆	◎	◆◆	◎
							◆◆	◎
							◆◆	○
	◆	◎						

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

Z-PRO

MHSL

Z-PRO

Spiral Fluted Taps for Carbon Steels of Medium Hardness, Through Hole Use (with LH Spiral Flutes)



Specification

HSS-Co | Coating | Synchronized | <2D

Recommended Tapping Speeds depending on Materials

M1.8～M5×0.5

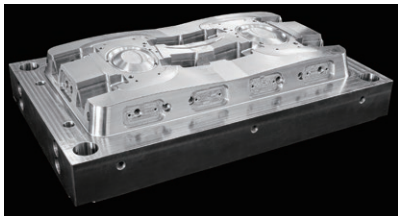
Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼	Tool steels 工具鋼
2~16 (m/min)	2~16 (m/min)	2~16 (m/min)	2~16 (m/min) 25～35HRC	1~12 (m/min) 35～45HRC	1~12 (m/min)

M6～M16

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Tool steels 工具鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min) 25～35HRC	5~15 (m/min)

Product Features

- High wear-resistant HSS material and special coating for longer tool life
- Unique flute design for stable and smooth chip ejection
- Secures appropriate tool projection length to prevent interference with workpieces



Suitable for tapping threads in mold parts



Suitable for creating tip mounting threads

Tapping Data

Tapping Conditions [M2.5×0.45]

Workpiece Material	SCM440 (45HRC)
Bored Hole Size	φ2.1
Tapping Length	5mm
Tapping Speed	5m/min
Machine	Machining center, vertical type (fully synchronized feed)
Tapping Fluid	Water soluble cutting fluid

After tapping 200 holes (The tap can still be used for tapping)

State of Wear	Good internal threads
	

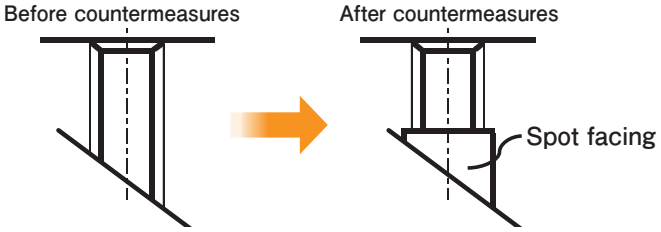
Tapping examples on the market

MHSL	Workpiece Material	Tapping Condition / Tapping Result						Remarks
Nominal Size	Material Symbol (Hardness)	Bored Hole Size (mm)	Tapping Length (mm)*	Cutting Speed (m/min)	Feed Mechanism	Cutting Fluid	Tool Life (Holes/pc)	
M2.5 × 0.45	SCM440 (45HRC)	2.1	4 (1.6D)	2.5	Synchronized	Water soluble	300 holes	Reduced breakage problems
M2.5 × 0.45	SKD61 (45HRC)	2.1	5 (2D)	5	Synchronized	Water soluble	150 holes or more (The tap still works well)	-
M4 × 0.7	SCM440 (45HRC)	3.4	6 (1.5D)	5	Synchronized	Water soluble	351 holes	Reduced tapping time

* (D) indicates the ratio of the tapping length to the outside diameter.

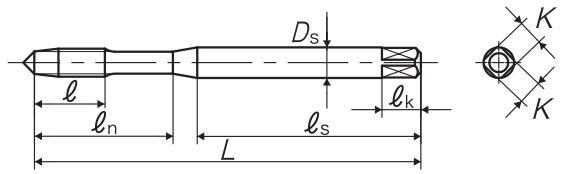
Measures against tapping-related problems

When tapping internal threads in a through hole toward the slanted surface as shown on the left, spot facing as shown on the right is recommended to prevent the occurrence of a broken tap or such other problems.



Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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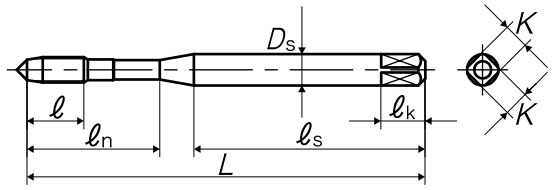

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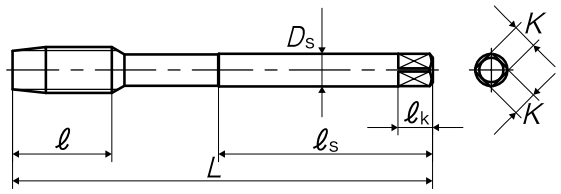

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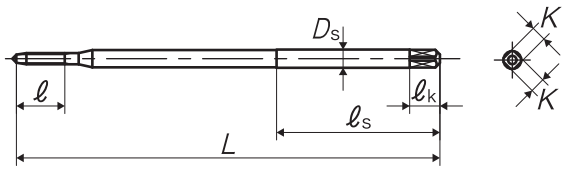

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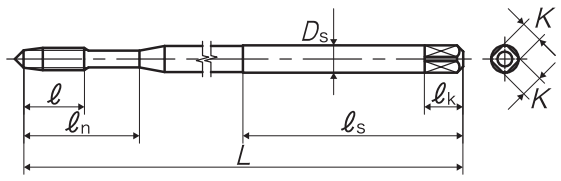

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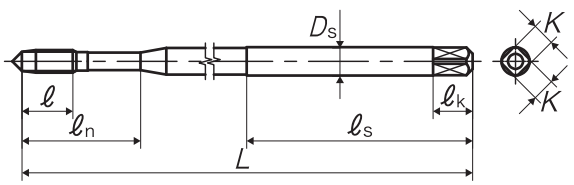


Segment : 1T

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P2	1109101021	5P	45	8	15	27	3	2.5	5	2	1	¥ 3,780
M2.5 × 0.45	P3	1109101029	5P	50	8	15	32	3	2.5	5	3	1	¥ 3,200
M3 × 0.5	P3	1109101035	5P	56	9	18	32	4	3.2	6	3	1	¥ 2,900
M3.5 × 0.6	P3	1109101038	5P	63	13	20	36	5	4	7	3	1	¥ 2,900
M4 × 0.7	P3	1109101042	5P	63	13	21	36	5	4	7	3	1	¥ 2,850
M4.5 × 0.75	P3	1109101045	5P	70	14	24	40	5.5	4.5	7	3	1	¥ 3,690
M5 × 0.8	P3	1109101049	5P	70	14	25	40	5.5	4.5	7	3	1	¥ 2,880
M5 × 0.5	P3	1109101051	5P	70	9	25	40	5.5	4.5	7	3	2	¥ 3,690
M6 × 1	P3	1109101055	5P	80	15	30	45	6	4.5	7	3	1	¥ 3,180
M8 × 1.25	P4	1109101064	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,720
M10 × 1.5	P4	1109101078	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,460
M10 × 1.25	P4	1109101079	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,460
M12 × 1.75	P5	1109101088	5P	110	26	-	56	8.5	6.5	9	4	3	¥ 7,830
M12 × 1.5	P5	1109101089	5P	110	26	-	56	8.5	6.5	9	4	3	¥ 7,830
M12 × 1.25	P5	1109101090	7P	110	26	-	56	8.5	6.5	9	4	3	¥ 7,830
M14 × 1.5	P5	1109101102	7P	110	26	-	56	10.5	8	11	4	3	¥ 10,900
M16 × 1.5	P5	1109101116	7P	110	26	-	56	12.5	10	13	4	3	¥ 14,100
For Long Metric Threads													
M1.8 × 0.35	P2	2109101017	5P	70	8	-	27	3	2.5	5	2	4	¥ 9,680
M2 × 0.4	P2	2209101021	5P	100	8	15	27	3	2.5	5	2	5	¥ 10,200
M2.5 × 0.45	P3	2209101029	5P	100	8.1	15	32	3	2.5	5	3	5	¥ 6,320
M3 × 0.5	P3	2109101035	5P	100	9	18	32	4	3.2	6	3	5	¥ 5,260
M3.5 × 0.6	P3	2109101038	5P	100	11	20	36	5	4	7	3	5	¥ 5,260
M4 × 0.7	P3	2109101042	5P	100	11	21	36	5	4	7	3	5	¥ 4,800
M4.5 × 0.75	P3	2109101045	5P	100	13	24	40	5.5	4.5	7	3	5	¥ 5,390
M5 × 0.8	P3	2109101049	5P	100	13	25	40	5.5	4.5	7	3	5	¥ 4,310
M5 × 0.5	P3	2109101051	5P	100	9	25	40	5.5	4.5	7	3	6	¥ 5,390

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

MHSL-J



Spiral Fluted Taps for Carbon Steels of Medium Hardness, Through Hole Use (with LH Spiral Flutes)

Specification

HSS-Co | Coating |  | Synchronized | <2D

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Tool steels 工具鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	5~15 (m/min)
			25~35HRC	

Product Features

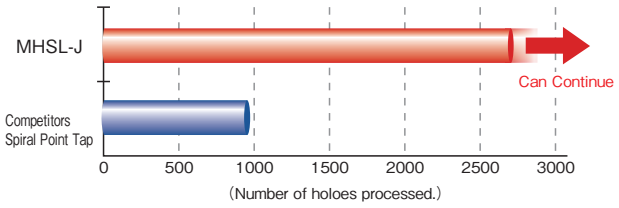
- Ideal for forged products and tempered S48C to S55C materials from 25 to 35 HRC.
- Produced from HSS-Co materials with a special coating for enhanced wear resistance and to improve long tool life.
- The original left hand spiral flute shape is used to produce a smooth chip discharge and increase performance in the medium tapping speed range. Also, the MHSL improves the internal threads surface finish.


Improved chip ejection!

Tapping Data

Tapping Conditions [M12×1.25]

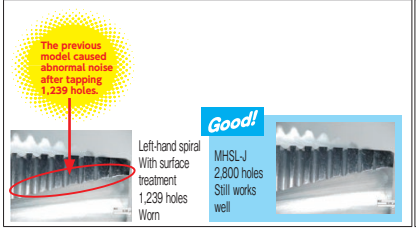
Workpiece Material	S53C (forged) / Hub bearing
Bored Hole Size	ϕ10.8
Tapping Length	12mm through hole
Tapping Speed	30m/min
Machine	Horizontal machining center (fully synchronized feed)
Tapping Fluid	Water soluble cutting fluid



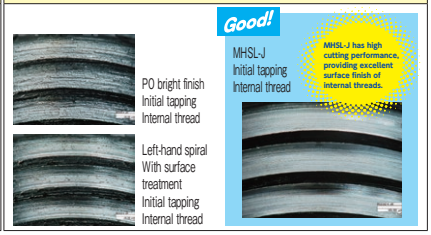
Tapping Conditions [M12×1.25]

Workpiece Materials	S53C (25HRC)
Tapping Length	13mm
Tapping Speed	30m/min
Machine	Machining center
Tapping Fluid	Water soluble cutting fluid

Enhanced wear resistance



Improved surface finish



Tapping examples on the market

MHSL-J	Workpiece Material	Tapping Condition / Tapping Result							Remarks
Nominal Size	Material Symbol (Hardness)	Pilot Hole Size (mm)	Tapping Length (mm)*	Machine	Cutting Speed (m/min)	Feed Mechanism	Cutting Oil	Lifetime (Holes or Pieces)	Previous State / Workpiece name
M6 × 1	S35C	5.1	12 (2D)	Horizontal MC	7.5	Synchronized	Non-water soluble	10,000	Bad surface finish * Workpiece name: Shafts
M8 × 1.25	S45C	6.8	8 (1D)	Vertical MC	40	Synchronized	Water soluble	9,120	Replaced after tapping 5,200 holes * Workpiece name: Shafts
M8 × 1.25	S55C (25HRC)	6.85	12 (1.5D)	Vertical MC	30	Synchronized	Water soluble	2,160	Unstable tool life * Workpiece name: Clutch parts
M10 × 1.25	S45C (23HRC)	8.8	20 (2D)	Vertical MC	8	Synchronized	Water soluble	2,450	Replaced after tapping 1,600 holes * Workpiece name: Arms
M12 × 1.75	S55C (27HRC)	10.4	12 (1D)	Vertical MC	19	Synchronized	Water soluble	2,840	Unstable tool life * Workpiece name: Hub bearings
M14 × 1.5	S53C (25HRC)	12.6	14 (1D)	Vertical MC	32	Synchronized	Water soluble	4,430	Replaced due to excessive torque after tapping 3,000 holes * Workpiece name: Hub bearings
M14 × 1.5	S55C (23HRC)	12.6	14 (1D)	Vertical MC	22	Synchronized	Water soluble	2,700	Replaced after tapping 2,000 holes * Workpiece name: Hub bearings

* (D) indicates the ratio of the tapping length to the outside diameter.

Examples of machined parts

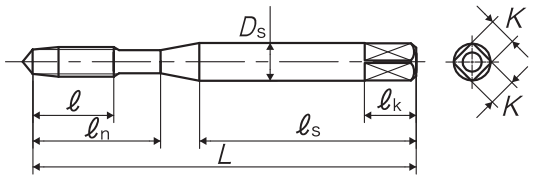
Excellent durability for tapping through holes in medium hard steels for such as hub bearings of bicycles.



Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



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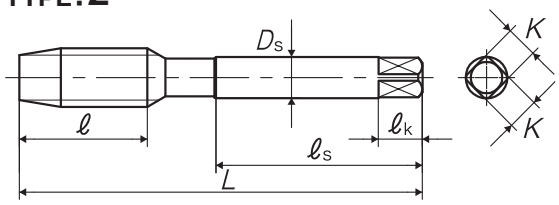


Segment : 1T

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P3	MHSLR6.0M5	5P	62	15	26	33	6	4.5	7	3	1	¥ 3,120
M8 × 1.25	P4	MHSLS8.0N5	5P	70	19	-	36	6.2	5	8	3	2	¥ 4,060
M10 × 1.5	P4	MHSLS01005	5P	75	23	-	38	7	5.5	8	3	2	¥ 4,750
M10 × 1.25	P4	MHSLS010N5	5P	75	23	-	38	7	5.5	8	3	2	¥ 4,750
M12 × 1.75	P5	MHSLT012P5	5P	82	26	-	42	8.5	6.5	9	4	2	¥ 6,400
M12 × 1.5	P5	MHSLT01205	5P	82	26	-	42	8.5	6.5	9	4	2	¥ 6,400
M12 × 1.25	P5	MHSLT012N7	7P	82	26	-	42	8.5	6.5	9	4	2	¥ 6,400
M14 × 1.5	P5	MHSLT01407	7P	88	26	-	45	10.5	8	11	4	2	¥ 8,660
M16 × 1.5	P5	MHSLT01607	7P	95	26	-	48	12.5	10	13	4	2	¥ 11,800

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

Z-PRO

MHSL



Z-PRO Spiral Fluted Taps for Carbon Steels of Medium Hardness, Through Hole Use (with LH Spiral Flutes)

Specification

HSS-Co | Coating | Synchro nized | <2D

■Suitable for through hole tapping of medium hardness steels such as forgings of high carbon steels and thermal refined steels (25HRC～35HRC)

Recommended Tapping Speeds depending on Materials

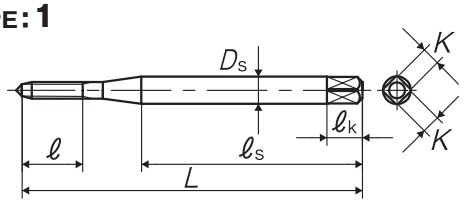
M1.8～M5×0.5

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼	Tool steels 工具鋼
2~16 (m/min)	2~16 (m/min)	2~16 (m/min)	2~16 (m/min) 25～35HRC	1~12 (m/min) 35～45HRC	1~12 (m/min)

M6～M16

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Tool steels 工具鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min) 25～35HRC	5~15 (m/min)

TYPE: 1



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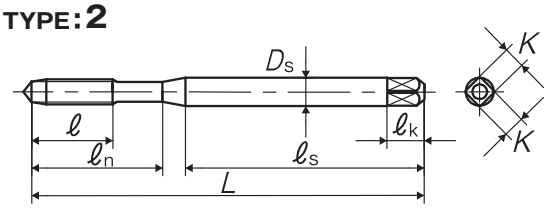

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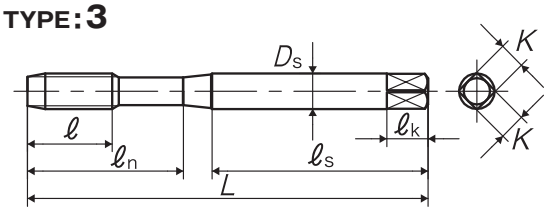

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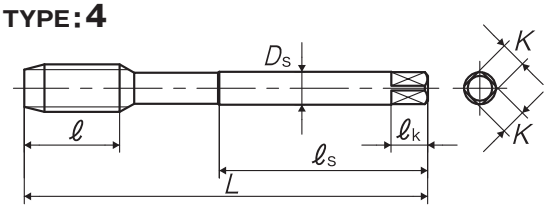


Segment : 1T

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric threads												
M2 × 0.4	D3	5109101021	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
M2.5 × 0.45	D4	5109101029	5P	2.205	0.354	0.693	1.28	0.141	0.11	0.187	3	2
M3 × 0.5	D4	5109101035	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
M3.5 × 0.6	D4	5109101038	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
M4 × 0.7	D5	5109101042	5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	2
M4.5 × 0.75	D5	5109101045	5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M5 × 0.8	D5	5109101049	5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M5 × 0.5	D4	5109101051	5P	2.756	0.354	0.984	1.654	0.194	0.152	0.25	3	2
M6 × 1	D5	LS6.0M5FCL5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
M8 × 1.25	D5	LS8.0N5FCL5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M10 × 1.5	D6	LS01006FCL5	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 1.25	D6	LS010N6FCL5	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M12 × 1.75	D7	LS012P7FCL5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	4
M12 × 1.5	D6	LS01206FCL5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	4
M12 × 1.25	D6	LS012N6FCL7	7P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	4
M14 × 1.5	D7	LS01407FCL7	7P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	4
M16 × 1.5	D7	LS01607FCL7	7P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

Z-PRO

MHSL



Z-PRO Spiral Fluted Taps for Carbon Steels of Medium Hardness, Through Hole Use (with LH Spiral Flutes)

Specification

HSS-Co | Coating | Synchronized | <2D

■Suitable for through hole tapping of medium hardness steels such as forgings of high carbon steels and thermal refined steels. (25HRC～35HRC)

Recommended Tapping Speeds depending on Materials

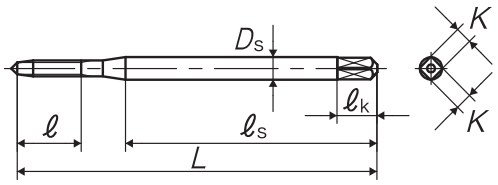
M1.8～M5×0.5

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼	Tool steels 工具鋼
2~16 (m/min)	2~16 (m/min)	2~16 (m/min)	2~16 (m/min) 25～35HRC	1~12 (m/min) 35～45HRC	1~12 (m/min)

M6～M16

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Tool steels 工具鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min) 25～35HRC	5~15 (m/min)

TYPE: 1



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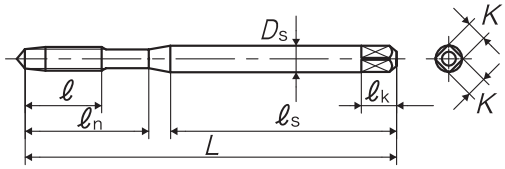

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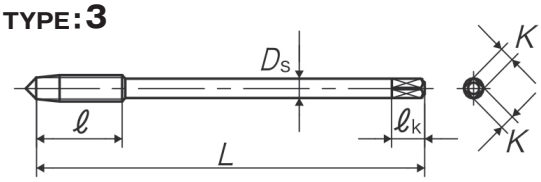

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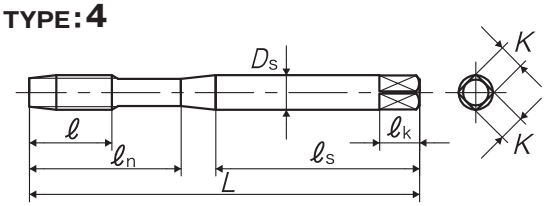

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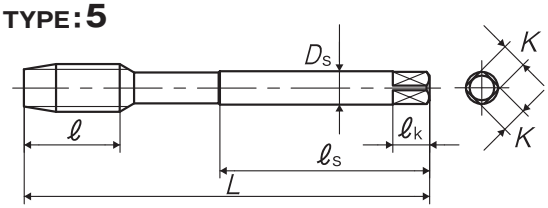


Segment : 1T

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2X	3109101021	5P	45	8	-	32	2.8	2.1	5	2	1
M2.5 × 0.45	ISO2X	3109101029	5P	50	8	15	33	2.8	2.1	5	3	2
M3 × 0.5	ISO2X	3109101035	5P	56	9	18	34	3.5	2.7	6	3	2
M3.5 × 0.6	ISO2X	3109101038	5P	56	11	20	32	4	3	6	3	2
M4 × 0.7	ISO2X	3109101042	5P	63	13	21	38	4.5	3.4	6	3	2
M4.5 × 0.75	ISO2X	3109101045	5P	70	14	24	39	6	4.9	8	3	2
M5 × 0.8	ISO2X	3109101049	5P	70	14	25	39	6	4.9	8	3	2
M5 × 0.5	ISO2X	3109101051	5P	70	11	-	-	3.5	2.7	6	3	3
M6 × 1	ISO2X	LD6.0MBFCL5	5P	80	15	30	45	6	4.9	8	3	2
M8 × 1.25	ISO2X	LD8.0NBFCL5	5P	90	19	35	47	8	6.2	9	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

MHSL Z-PRO Spiral Fluted Taps for Carbon Steels of Medium Hardness, Through Hole Use (with LH Spiral Flutes)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M10 × 1.5	ISO2X	LD010OBFCL5	5P	100	23	39	52.5	10	8	11	3	4
M10 × 1.25	ISO2X	LM010NBFCL5	5P	100	23	-	51	7	5.5	8	3	5
M12 × 1.75	ISO2X	LG012PBFCL5	5P	110	26	-	56	9	7	10	4	5
M12 × 1.5	ISO2X	LM012OBFCL5	5P	100	21	-	51	9	7	10	4	5
M12 × 1.25	ISO2X	LM012NBFCL7	7P	100	21	-	51	9	7	10	4	5
M14 × 1.5	ISO2X	LM014OBFCL7	7P	100	21	-	51	11	9	12	4	5
M16 × 1.5	ISO2X	LM016OBFCL7	7P	100	21	-	51	12	9	12	4	5

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

Z-PRO

LKSL

Z-PRO
Long Neck Spiral Fluted Tap for Through Hole



Specification

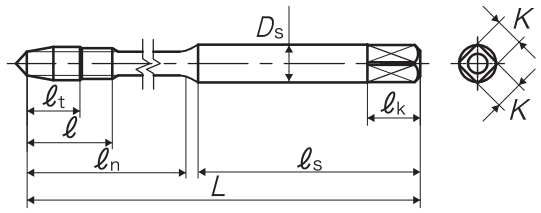
HSS | OX Oxide | <5D

■Spiral fluted tap for through hole with a long neck that enables deep hole tapping.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
3~7 (m/min)	3~7 (m/min)

TYPE : 1



Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M3 × 0.5	P3	1307101035	5P	56	5	9	28	26	4	3.2	6	3	1	¥ 1,910 ※
M4 × 0.7	P3	1307101042	5P	63	7	11	32	29	5	4	7	3	1	¥ 1,910 ※
M5 × 0.8	P3	1307101049	5P	70	9	13	35	33	5.5	4.5	7	3	1	¥ 1,920 ※
M6 × 1	P4	1307101055	5P	80	11	15	45	33	6	4.5	7	3	1	¥ 2,190 ※

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

Z-PRO

LKSL XL



Z-PRO
Extra-Long Neck Spiral Fluted Tap for Through Hole

Specification

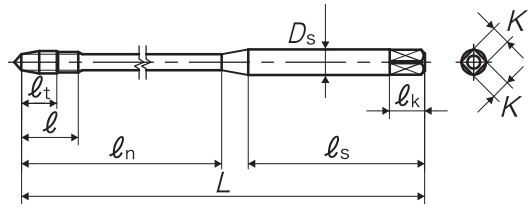
HSS | OX Oxide | <5D

■Spiral fluted tap for through hole with an extra-long neck that enables deep hole tapping.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
~3 (m/min)	~3 (m/min)

TYPE : 1



Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M3 × 0.5	P3	2008101035	5P	100	5	9	60	34	4	3.2	6	3	1	¥ 3,550 ※
M4 × 0.7	P3	2008101042	5P	100	7	11	60	34	5	4	7	3	1	¥ 3,550 ※
M5 × 0.8	P3	2008101049	5P	120	9	13	70	45	5.5	4.5	7	3	1	¥ 3,300 ※
M6 × 1	P4	2008101055	5P	120	11	15	70	47	6	4.5	7	3	1	¥ 2,970 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

AU+SL



Spiral Fluted Taps, Coated, Through Hole Use (with LH Spiral Flutes)

Specification

HSS | Coating | <2D

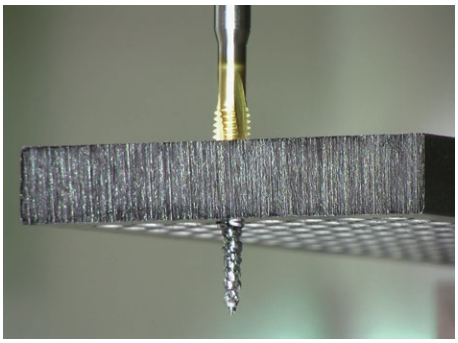
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	5~10 (m/min)	20~30 (m/min)	20~30 (m/min)

Product Features

- The AU+SL utilizing a left hand spiral flute to achieve stable chip discharge performance even at high spindle speed tapping.
- Offers good chip discharge in a wide range of work materials from steel to stainless steel.
- The laser marking has been moved to the square area of the shank to insure a fine surface on the shank diameter. Burrs can be generated and the precision of the shank can be impaired by placing the markings on the shank's diameter. To maintain the precision and the circularity of the finished shank diameter and maintain the high accuracy, the taps size and limits are now marked on the square portion of the tap.
- The AU+SL is applicable to a wide range of work materials. It utilizes a flute shape that can maximize the features of the wear and heat resistance by coating. The coating offers an adhesion resistance, and can handle a wide range of work materials. It is also ideal for water soluble cutting fluids.

Good chips discharge





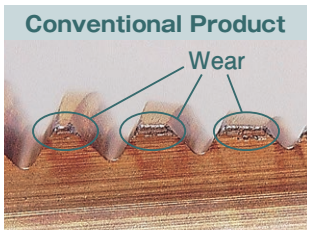
Tapping Data

Tapping Conditions [M6×1]

Workpiece Material	SCM440
Bored Hole Size	ϕ5.0
Tapping Length	9mm through hole
Tapping Speed	15m/min
Machinery Type	Vertical machining center
Tapping Fluid	Water soluble cutting fluid (chlorine-free 20 to 1 dilution)

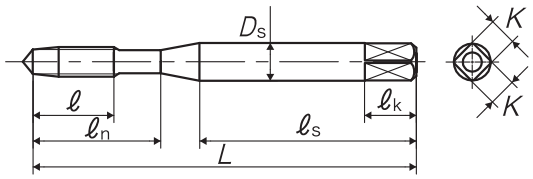
Cutting Edge after 3,000 Holes.





Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



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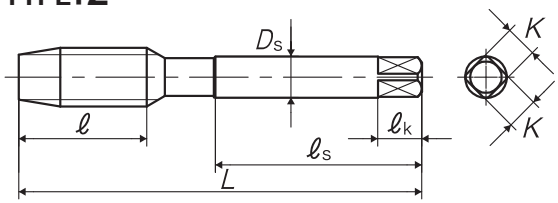

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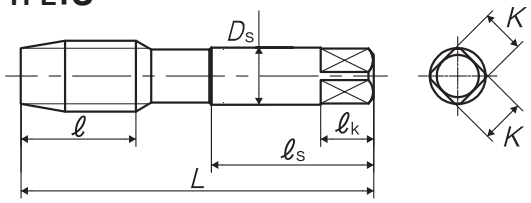


Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	VSAPQ3.0GL	5P	46	9	14	26	4	3.2	6	3	1	¥ 2,660
M4 × 0.7	P3	VSAPR4.0IL	5P	52	11	17	29	5	4	7	3	1	¥ 2,660
M5 × 0.8	P3	VSAPR5.0KL	5P	60	13	22	33	5.5	4.5	7	3	1	¥ 2,710
M6 × 1	P3	VSAPR6.0ML	5P	62	15	26	33	6	4.5	7	3	1	¥ 2,740
M8 × 1.25	P3	VSAPR8.0NL	5P	70	19	-	36	6.2	5	8	3	2	¥ 3,580
M8 × 1	P3	VSAPR8.0ML	5P	70	19	-	36	6.2	5	8	3	2	¥ 4,050
M10 × 1.5	P3	VSAPR010OL	5P	75	23	-	38	7	5.5	8	3	2	¥ 4,190
M10 × 1.25	P3	VSAPR010NL	5P	75	23	-	38	7	5.5	8	3	2	¥ 4,190
M10 × 1	P3	VSAPR010ML	5P	75	23	-	38	7	5.5	8	3	2	¥ 4,610
M12 × 1.75	P4	VSAPS012PL	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 5,550
M12 × 1.5	P3	VSAPR012OL	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 5,550
M12 × 1.25	P3	VSAPR012NL	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 5,550
M14 × 2	P4	VSAPS014QL	5P	88	26	-	45	10.5	8	11	3	2	¥ 7,640
M14 × 1.5	P3	VSAPR014OL	5P	88	26	-	45	10.5	8	11	3	2	¥ 7,640
M16 × 2	P4	VSAPS016QL	5P	95	26	-	48	12.5	10	13	3	2	¥ 10,300
M16 × 1.5	P3	VSAPR016OL	5P	95	26	-	48	12.5	10	13	3	2	¥ 10,300
M18 × 2.5	P4	VSAPS018RL	5P	100	33	-	51	14	11	14	4	2	¥ 13,500
M18 × 1.5	P4	VSAPS018OL	5P	100	33	-	51	14	11	14	4	2	¥ 13,500
M20 × 2.5	P4	VSAPS020RL	5P	105	33	-	50	15	12	15	4	3	¥ 17,000
M20 × 1.5	P4	VSAPS020OL	5P	105	33	-	50	15	12	15	4	3	¥ 17,000

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

AU+SL



Spiral Fluted Taps, Coated, Through Hole Use (with LH Spiral Flutes)

Specification

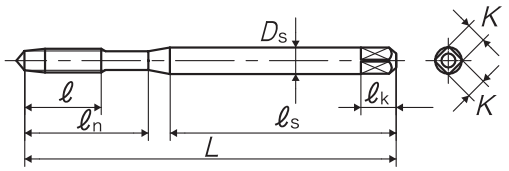
HSS | Coating | <2D

■The AU+SL is compatible with a wide range of workpiece materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	5~10 (m/min)	20~30 (m/min)	20~30 (m/min)

TYPE:1 DIN371



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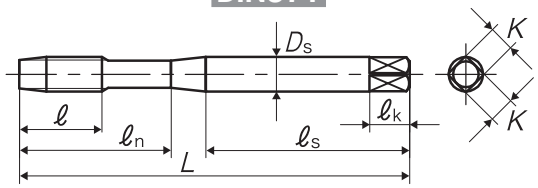

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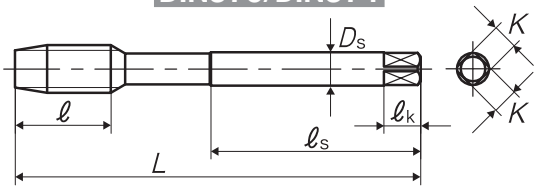


Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2X	LE3.0GBNEV	5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	LE4.0IBNEV	5P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	LE5.0KBNEV	5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	LE6.0MBNEV	5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	LE8.0NBNEV	5P	90	19	35	47	8	6.2	9	3	2
M8 × 1	ISO2X	LN8.0MBNEV	5P	90	19	-	46	6	4.9	8	3	3
M10 × 1.5	ISO2X	LE010OBNEV	5P	100	23	39	52.5	10	8	11	3	2
M10 × 1.25	ISO2X	LN010NBNEV	5P	100	23	-	51	7	5.5	8	3	3
M10 × 1	ISO2X	LN010MBNEV	5P	90	19	-	46	7	5.5	8	3	3
M12 × 1.75	ISO2X	LH012PBNEV	5P	110	26	-	56	9	7	10	3	3
M12 × 1.5	ISO2X	LN012OBNEV	5P	100	21	-	51	9	7	10	3	3
M12 × 1.25	ISO2X	LN012NBNEV	5P	100	21	-	51	9	7	10	3	3
M14 × 2	ISO2X	LH014QBNEV	5P	110	26	-	56	11	9	12	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M14 × 1.5	ISO2X	LN0140BNEV	5P	100	21	-	51	11	9	12	3	3
M16 × 2	ISO2X	LH016QBNEV	5P	110	26	-	56	12	9	12	3	3
M16 × 1.5	ISO2X	LN0160BNEV	5P	100	21	-	51	12	9	12	3	3
M18 × 2.5	ISO2X	LH018RBNEV	5P	125	33	-	64	14	11	14	4	3
M18 × 1.5	ISO2X	LN0180BNEV	5P	110	24	-	56	14	11	14	4	3
M20 × 2.5	ISO2X	LH020RBNEV	5P	140	33	-	71	16	12	15	4	3
M20 × 1.5	ISO2X	LN0200BNEV	5P	125	24	-	64	16	12	15	4	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

SU+SL



Spiral Fluted Taps for Stainless Steels, Through Hole Use (with LH Spiral Flutes)

Specification



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
10~15 (m/min)	10~15 (m/min)	10~15 (m/min)	10~15 (m/min)	5~15 (m/min)

Product Features

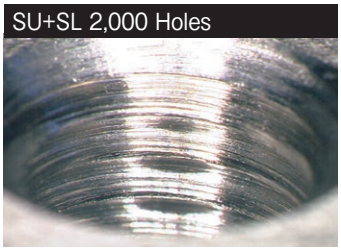
- Suitable for stainless steels tending to work-harden and sticky, as well as chrome steels and molybdenum steels, through hole use.
- Recommended speed : 5～15m/min
- In tapping SUS304, SU+SL has more than 3 times longer tool life than SU-PO. Even in 2000 tapping holes, the surface of thread finish is good and the shape of threads is clearly stable.
- Adopting left hand spiral flutes, compared with SU-PO, SU+SL improves the chip ejection and realizes longer tool life.

Tapping Data

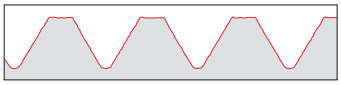
Tapping condition [M5×0.8]

Work Material	SUS304(90HRB)
Tapping Speed	15m/min
Hole Size	φ4.2
Tapping Length	12mm, through hole
Machine	Vertical machining center
Tapping Fluid	Non-water soluble cutting oil without chlorine

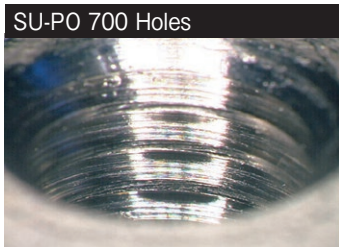
Comparison of Internal Threads



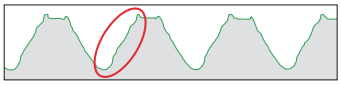
Roughness of Thread Flank Face Ra=1.1μm



Shape of Internal Thread

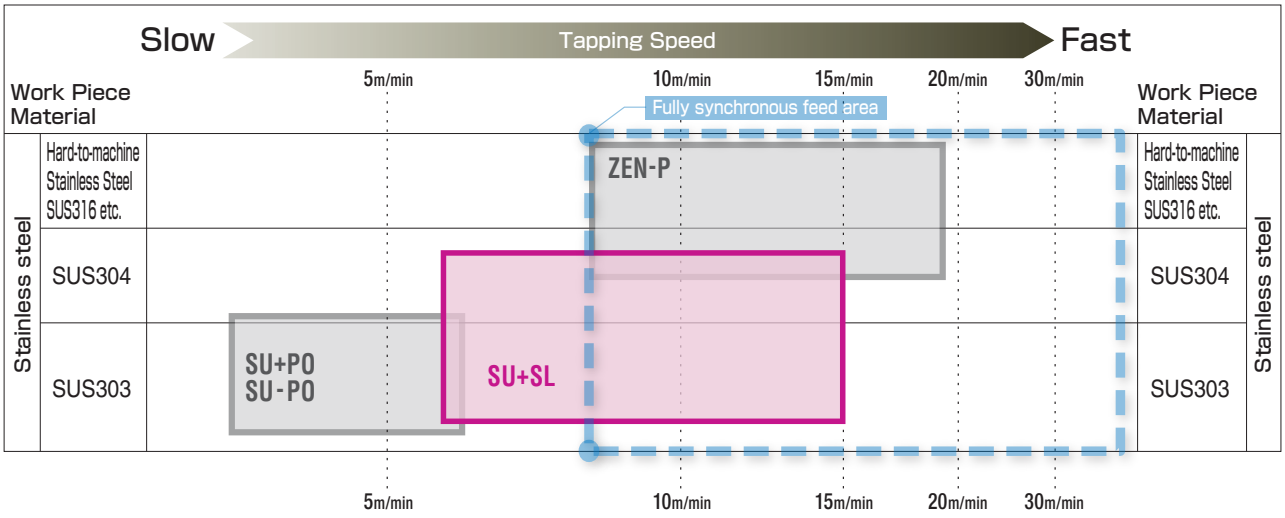


Roughness of Thread Flank Face Ra=2.0μm



Shape of Internal Thread

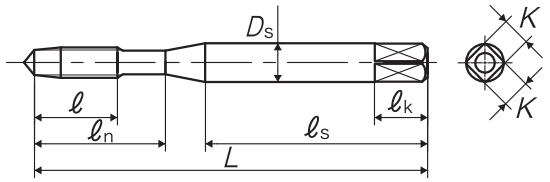
Speed chart



Tapping range by material being cut.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	SUPQ3.0GL	5P	46	9	14	26	4	3.2	6	3	1	¥ 1,450
M4 × 0.7	P2	SUPQ4.0IL	5P	52	11	17	29	5	4	7	3	1	¥ 1,450
M5 × 0.8	P3	SUPR5.0KL	5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,470
M6 × 1	P2	SUPQ6.0ML	5P	62	15	26	33	6	4.5	7	3	1	¥ 1,610

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

SL+VA



Spiral Fluted Taps for Stainless Steels, Through Hole Use (with LH Spiral Flutes)

Specification

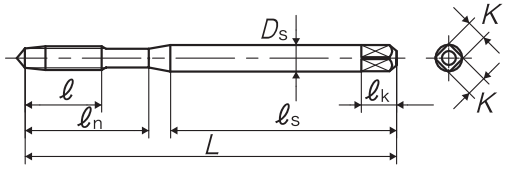
HSS | OX Oxide | <2D

■Applying the blanks of high toughness and high accuracy, SL+VA derives the maximum performance from high facility machining centers and high precision toolings. Spiral fluted taps for stainless steels, through hole use (with LH spiral flutes).

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

TYPE : 1



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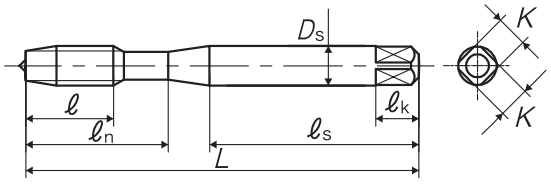


Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2X	LE3.0GBGEX	5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	LE4.0IBGEX	5P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	LE5.0KBGEX	5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	LZ6.0MBGEX	5P	80	15	30	45	6	4.9	8	3	2
M8 × 1.25	ISO2X	LZ8.0NBGEX	5P	90	19	35	47	8	6.2	9	3	2
M10 × 1.5	ISO2X	LZ0100BGEX	5P	100	23	39	52	10	8	11	3	2
M12 × 1.75	ISO2X	LZ012PBGEX	5P	110	26	45	56	12	9	12	3	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

ZET-P



Spiral Fluted Taps for Titanium Alloys, Through Hole Use (with LH Spiral Flutes)

Specification

HSS-P | NI Nitride |  | Synchro nized

Recommended Tapping Speeds depending on Materials

Titanium alloys チタン合金 5~10 (m/min)

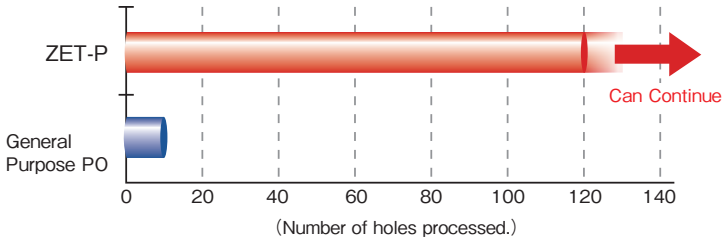
Product Features

- The tap is produced from a high grade powder high speed steel that is excellent in heat resistance and abrasion resistance applications.
- A left hand spiral flute with a right hand screw thread helps prevent material shrinkage and the chips are pushed forward out of the hole to allow the cutting heat to be carried out.
- Appropriate flute shape for titanium alloy is utilized, and the discharge of chips is made smooth.
- A nitride surface treatment is performed for added wear resistance.
- Considering the shrinkage of the internal screw thread, the tap is produced to a moderate oversize condition.

Tapping Data

Tapping Conditions [M6×1]

Workpiece Material	Ti-6Aℓ-4V
Bored Hole Size	ϕ5.0
Tapping Length	12mm
Tapping Speed	8m/min
Machinery Type	CNC tapping center
Tapping Fluid	Water soluble cutting fluid



Characteristics of titanium alloy

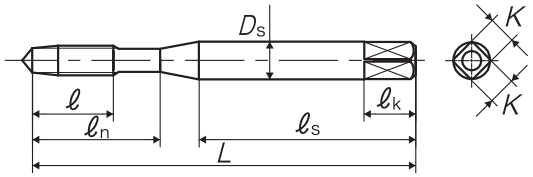
- It is mainly composed of titanium that has a high strength and is light weight. It has excellent heat resistance. There are various kinds of titanium alloys such as Ti - 5Aℓ - 2.5Sn, Ti - 5Ta, and the most popular Ti - 6Aℓ - 4V which is commonly used due to its good characteristics.

Examples of problems in tapping

- Titanium alloys have high temperature strength and the thermal diffusion is small, so abrupt abrasion occurs on the tap.
- The spring back on internal screw threads may cause diameters to shrink and the tap may be crimped causing breakage.
- Chip welding occurs easily on the cutting chamfer of the tap and the threads flank surface. The finished threads surface of the internal screw thread also becomes rough and coarse.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



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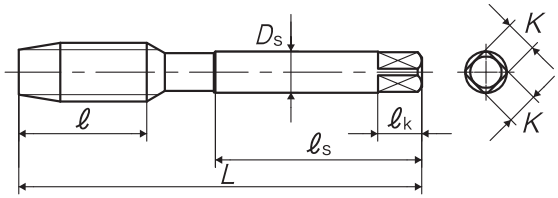

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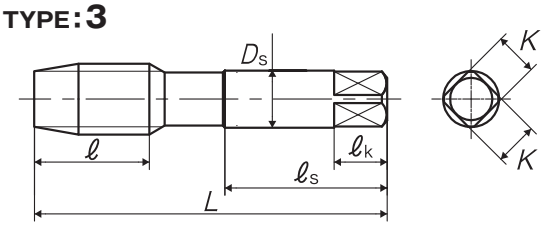


Segment : 1T

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P3	ZETPMR3.0G	5P	46	9	14	26	4	3.2	6	3	1	¥ 2,520
M4 × 0.7	P3	ZETPMR4.0I	5P	52	11	17	29	5	4	7	3	1	¥ 2,520
M5 × 0.8	P3	ZETPMR5.0K	5P	60	13	22	33	5.5	4.5	7	3	1	¥ 2,540
M6 × 1	P3	ZETPMR6.0M	5P	62	15	26	33	6	4.5	7	3	1	¥ 2,800
M8 × 1.25	P4	ZETPMS8.0N	5P	70	19	-	36	6.2	5	8	3	2	¥ 3,840
M10 × 1.5	P4	ZETPMS010O	5P	75	23	-	38	7	5.5	8	3	2	¥ 4,880
M10 × 1.25	P4	ZETPMS010N	5P	75	23	-	38	7	5.5	8	3	2	¥ 4,880 ※
M12 × 1.75	P5	ZETPMT012P	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 6,920
M12 × 1.5	P4	ZETPMS012O	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 6,920 ※
M12 × 1.25	P5	ZETPMT012N	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 6,920 ※
M14 × 2	P5	ZETPMT014Q	5P	88	26	-	45	10.5	8	11	3	2	¥ 9,440 ※
M14 × 1.5	P4	ZETPMS014O	5P	88	26	-	45	10.5	8	11	3	2	¥ 9,440 ※
M16 × 2	P5	ZETPMT016Q	5P	95	26	-	48	12.5	10	13	3	2	¥ 12,700 ※
M16 × 1.5	P4	ZETPMS016O	5P	95	26	-	48	12.5	10	13	3	2	¥ 12,700 ※
M18 × 2.5	P5	ZETPMT018R	5P	100	33	-	51	14	11	14	4	2	¥ 16,900 ※
M18 × 1.5	P5	ZETPMT018O	5P	100	33	-	51	14	11	14	4	2	¥ 16,900 ※
M20 × 2.5	P5	ZETPMT020R	5P	105	33	-	50	15	12	15	4	3	¥ 23,000 ※
M20 × 1.5	P5	ZETPMT020O	5P	105	33	-	50	15	12	15	4	3	¥ 23,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX TI LHSP

Spiral Fluted Taps for Titanium Alloys, Through Hole Use (with LH Spiral Flutes)



Specification

HSS-P | NI Nitride |  | Synchro nized

■Suitable for titanium alloys which, including titanium as the main composition, are tough, light and heat resistant.

Recommended Tapping Speed depending on Materials

Titanium alloys チタン合金 5~10 (m/min)

Segment : 1T

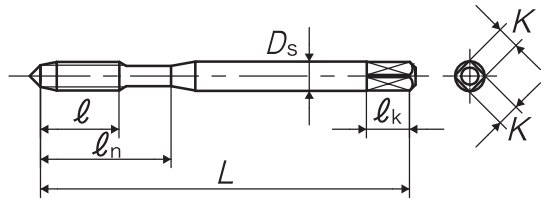
Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads											
M2.5 × 0.45	D3	Y85700	5P	1.812	0.295	0.5	0.141	0.11	0.187	3	1
M3 × 0.5	D3	Y85701	5P	1.937	0.374	0.625	0.141	0.11	0.187	3	1
M3.5 × 0.6	D4	Y85702	5P	2	0.413	0.687	0.141	0.11	0.187	3	1
M4 × 0.7	D4	Y85703	5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
M5 × 0.8	D4	Y85704	5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
M6 × 1	D5	Y85705	5P	2.5	0.591	1	0.255	0.191	0.312	3	2
M7 × 1	D5	Y85706	5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
M8 × 1.25	D5	Y85708	5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
M8 × 1	D5	Y85707	5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
M10 × 1.5	D6	Y85710	5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
M10 × 1.25	D5	Y85709	5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
M12 × 1.75	D6	Y85712	5P	3.375	0.984	-	0.367	0.275	0.437	3	4
M12 × 1.25	D5	Y85711	5P	3.375	0.984	-	0.367	0.275	0.437	3	4
For Unified Threads											
No.2-56UNC	GH2	Y85623	5P	1.75	0.256	0.437	0.141	0.11	0.187	3	1
No.4-40UNC	GH2	Y85601	5P	1.875	0.335	0.562	0.141	0.11	0.187	3	1
No.5-40UNC	GH2	Y85603	5P	1.937	0.374	0.625	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y85605	5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH5	Y85635	5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.8-32UNC	GH3	Y85607	5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH4	Y85629	5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH5	Y85637	5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH6	Y85660	5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH7	Y85667	5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.10-24UNC	GH3	Y85609	5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH5	Y85639	5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y85610	5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH4	Y85630	5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH5	Y85640	5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH6	Y85661	5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH7	Y85670	5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
1/4-20UNC	GH3	Y85613	5P	2.5	0.591	1	0.255	0.191	0.312	3	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

TYPE: 1



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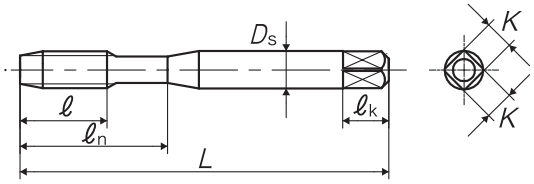

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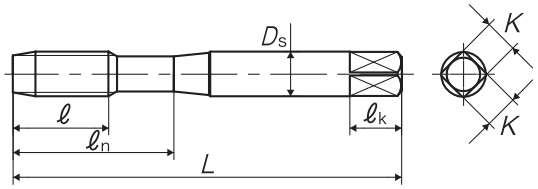

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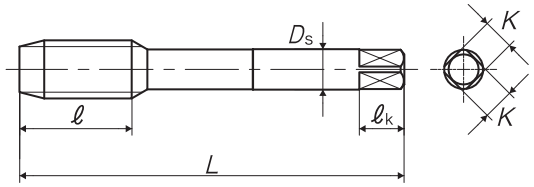


Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
1/4-20UNC	GH5	Y85643	5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y85614	5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	Y85631	5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH5	Y85644	5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH6	Y85662	5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH7	Y85674	5P	2.5	0.591	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	Y85615	5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	Y85645	5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y85616	5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	Y85632	5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH5	Y85646	5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH6	Y85663	5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH7	Y85676	5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	Y85617	5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	Y85647	5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y85618	5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	Y85633	5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH5	Y85648	5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH6	Y85664	5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH7	Y85678	5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	Y85619	5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH5	Y85649	5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y85620	5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	Y85650	5P	3.156	0.866	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	Y85621	5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH5	Y85651	5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y85622	5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH5	Y85652	5P	3.375	0.984	-	0.367	0.275	0.437	3	4
5/8-11UNC	GH3	Y85625	5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH3	Y85626	5P	3.812	1.083	-	0.48	0.36	0.562	3	4
3/4-10UNC	GH3	Y85627	5P	4.25	1.201	-	0.59	0.442	0.687	3	4
3/4-16UNF	GH3	Y85628	5P	4.25	1.201	-	0.59	0.442	0.687	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ZET-P



Spiral Fluted Taps for Titanium Alloys, Through Hole Use (with LH Spiral Flutes)

Specification

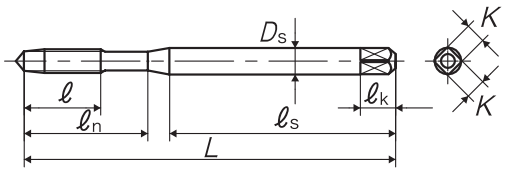
HSS-P | NI Nitride | Synchro nized

■ZET-P, spiral fluted tap, through hole use (with LH spiral flutes), is suitable for titanium alloys which, having titanium as the main composition, are tough, light, and heat resistant.

Recommended Tapping Speeds depending on Materials

Titanium alloys チタン合金 5~10 (m/min)

TYPE : 1



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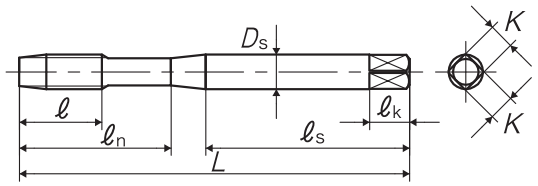

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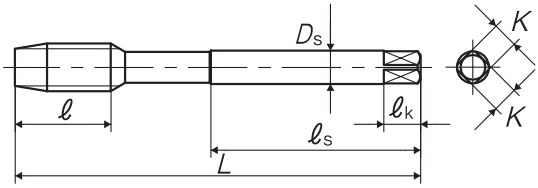


Segment : 1T

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2X	LD3.0GBIPN	5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	LD4.0IBIPN	5P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	LD5.0KBIPN	5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	LD6.0MBIPN	5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	LD8.0NBIPN	5P	90	19	35	47	8	6.2	9	3	2
M8 × 1	ISO2X	LM8.0MBIPN	5P	90	19	-	46	6	4.9	8	3	3
M10 × 1.5	ISO2X	LD010OBIPN	5P	100	23	39	52.5	10	8	11	3	2
M10 × 1.25	ISO2X	LM010NBIPN	5P	100	23	-	51	7	5.5	8	3	3
M12 × 1.75	ISO2X	LG012PBIPN	5P	110	26	-	56	9	7	10	3	3
M12 × 1.5	ISO2X	LM012OBIPN	5P	100	21	-	51	9	7	10	3	3
M12 × 1.25	ISO2X	LM012NBIPN	5P	100	21	-	51	9	7	10	3	3
M14 × 2	ISO2X	LG014QBIPN	5P	110	26	-	56	11	9	12	3	3
M14 × 1.5	ISO2X	LM014OBIPN	5P	100	21	-	51	11	9	12	3	3
M16 × 2	ISO2X	LG016QBIPN	5P	110	26	-	56	12	9	12	3	3
M16 × 1.5	ISO2X	LM016OBIPN	5P	100	21	-	51	12	9	12	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

F-SL



Spiral Fluted Taps for High Speed Tapping, Through Hole Use (with LH Spiral Flutes)

Specification

HSS | Coating | Synchronized

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
15~25 (m/min)	15~25 (m/min)

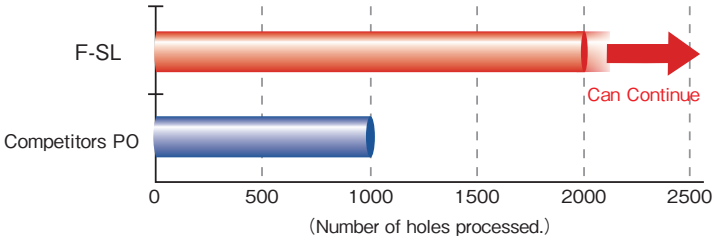
Product Features

- High speed machining is possible with a machine equipped with a fully synchronous feed mechanism.
- At low speed, the shape and discharge of the chip deteriorate, causing problems.

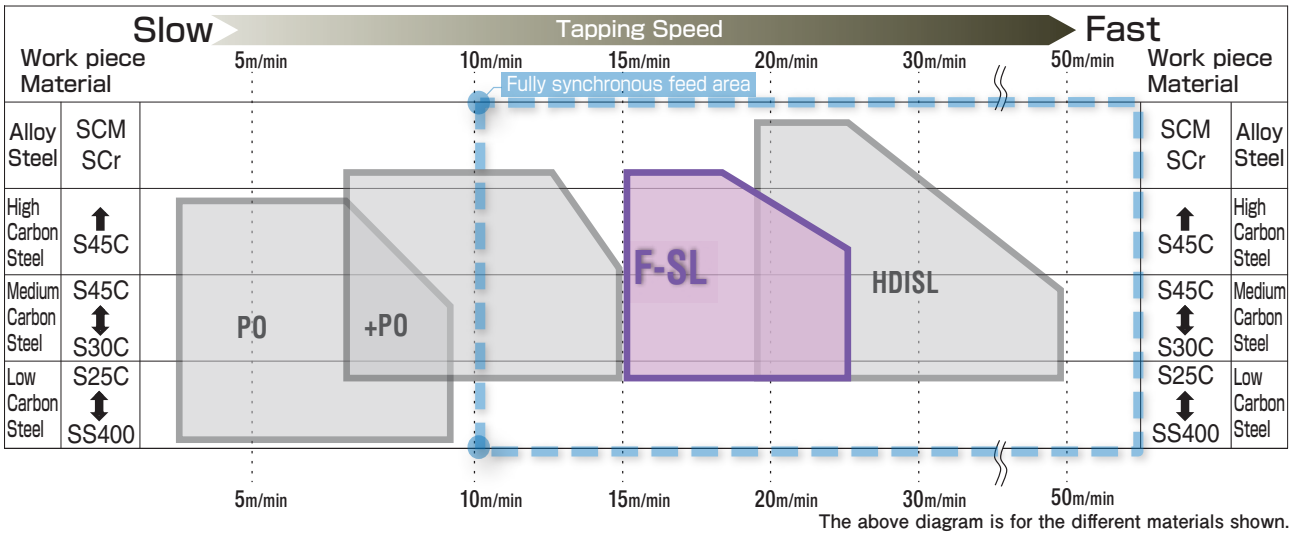
Tapping Data

Tapping conditions [M8 × 1.25]

Workpiece Material	S50C
Hardness	Raw material
Bored Hole Shape	Through hole
Tapping Length	1.5D～
Machinery Type	M/C
Tapping Direction	Vertical
Type of Feed	Synchronous
Tapping Speed	30m/min
Cutting Fluid	Water soluble cutting fluid
Bored Hole Process	Drill
Tapped Holes	2,000 holes



Recommended speed table



The above diagram is for the different materials shown.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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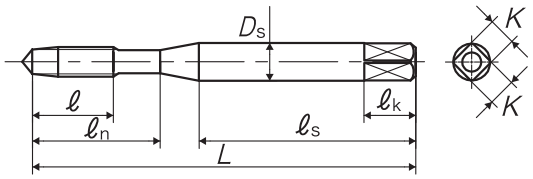

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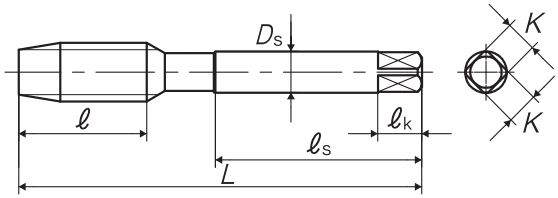

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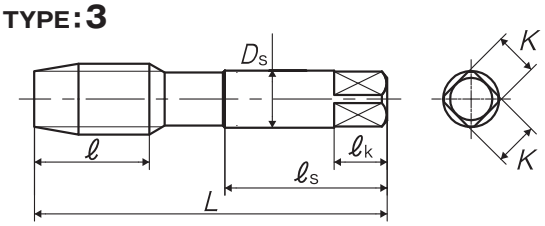


Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	VFSHMQ3.0GL	5P	46	9	14	26	4	3.2	6	3	1	¥ 3,530
M4 × 0.7	P2	VFSHMQ4.0IL	5P	52	11	17	29	5	4	7	3	1	¥ 3,580
M5 × 0.8	P2	VFSHMQ5.0KL	5P	60	13	22	33	5.5	4.5	7	3	1	¥ 3,840
M6 × 1	P2	VFSHMQ6.0ML	5P	62	15	26	33	6	4.5	7	3	1	¥ 4,130
M8 × 1.25	P3	VFSHMR8.0NL	5.5P	70	19	-	36	6.2	5	8	3	2	¥ 5,390
M10 × 1.5	P3	VFSHMR010OL	5.5P	75	23	-	38	7	5.5	8	3	2	¥ 6,290
M10 × 1.25	P3	VFSHMR010NL	5.5P	75	23	-	38	7	5.5	8	3	2	¥ 6,290
M12 × 1.75	P4	VFSHMS012PL	5.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 7,960
M12 × 1.5	P3	VFSHMR012OL	5.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 7,960
M12 × 1.25	P4	VFSHMS012NL	5.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 7,960
M14 × 2	P4	VFSHMS014QL	5.5P	88	26	-	45	10.5	8	11	3	2	¥ 9,810 ※
M14 × 1.5	P3	VFSHMR014OL	5.5P	88	26	-	45	10.5	8	11	3	2	¥ 9,810 ※
M16 × 2	P4	VFSHMS016QL	5.5P	95	26	-	48	12.5	10	13	3	2	¥ 12,900 ※
M16 × 1.5	P3	VFSHMR016OL	5.5P	95	26	-	48	12.5	10	13	3	2	¥ 12,900 ※
M18 × 2.5	P4	VFSHMS018RL	5.5P	100	33	-	51	14	11	14	4	2	¥ 17,200 ※
M18 × 1.5	P4	VFSHMS018OL	5.5P	100	33	-	51	14	11	14	4	2	¥ 17,200 ※
M20 × 2.5	P4	VFSHMS020RL	5.5P	105	33	-	50	15	12	15	4	3	¥ 21,700 ※
M20 × 1.5	P4	VFSHMS020OL	5.5P	105	33	-	50	15	12	15	4	3	¥ 21,700 ※
M22 × 2.5	P4	VFSHMS022RL	5.5P	115	33	-	55	17	13	16	4	3	¥ 27,400 ※
M22 × 1.5	P4	VFSHMS022OL	5.5P	115	33	-	55	17	13	16	4	3	¥ 27,400 ※
M24 × 3	P4	VFSHMS024SL	5.5P	120	39	-	55	19	15	18	4	3	¥ 34,500 ※
M24 × 1.5	P4	VFSHMS024OL	5.5P	120	39	-	55	19	15	18	4	3	¥ 34,500 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX FR LHSP

Spiral Fluted Taps for High Speed Tapping, Through Hole Use (with LH Spiral Flutes)



Specification

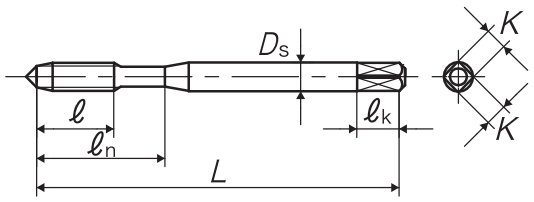
HSS | Coating | Synchro nized

■ZELX FR LHSP, spiral fluted tap, through hole use (with LH spiral flutes) is applicable for such high speed tapping as 15m/min to 25m/min. Under low tapping speed, chip shape and chip ejection may become poor and cause tapping troubles.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
15~25 (m/min)	15~25 (m/min)

TYPE:1



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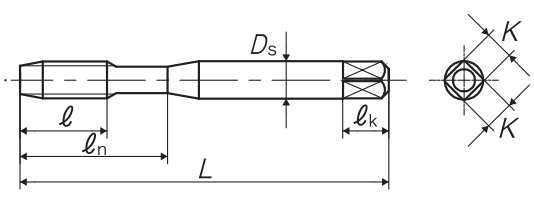

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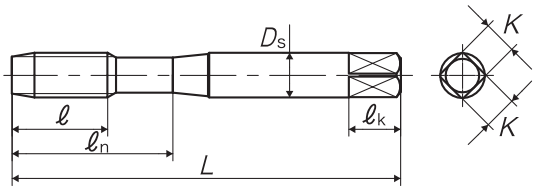

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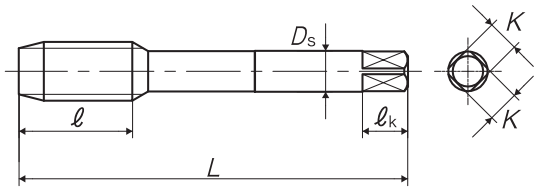


Segment : 1S

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads											
No.4-40UNC	GH2	Y84201	5P	1.875	0.335	0.562	0.141	0.11	0.187	3	1
No.5-40UNC	GH2	Y84203	5P	1.937	0.374	0.625	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y84205	5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.8-32UNC	GH3	Y84207	5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.10-24UNC	GH3	Y84209	5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y84210	5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
1/4-20UNC	GH3	Y84213	5.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y84214	5.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	Y84215	5.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y84216	5.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	Y84217	5.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y84218	5.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	Y84219	5.5P	3.156	0.984	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y84220	5.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	Y84221	5.5P	3.375	1.142	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y84222	5.5P	3.375	0.945	-	0.367	0.275	0.437	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
5/8-11UNC	GH3	Y84225	5.5P	3.812	1.26	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH3	Y84226	5.5P	3.812	0.984	-	0.48	0.36	0.562	3	4
3/4-10UNC	GH3	Y84227	5.5P	4.25	1.467	-	0.59	0.422	0.687	4	4
3/4-16UNF	GH3	Y84228	5.5P	4.25	1.142	-	0.59	0.422	0.687	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

F-SL



Spiral Fluted Taps for High Speed Tapping, Through Hole Use (with LH Spiral Flutes)

Specification

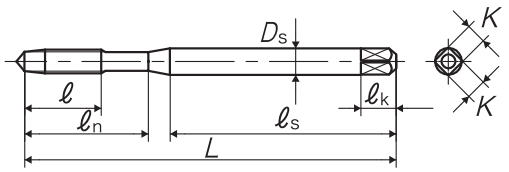
HSS | Coating | Synchro nized

■F-SL, spiral fluted tap, through hole use (with LH spiral flutes) is applicable for such high speed tapping as 15m/min to 25m/min. Under low tapping speed, chip shape and chip ejection may become poor and cause tapping troubles.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
15~25 (m/min)	15~25 (m/min)

TYPE : 1



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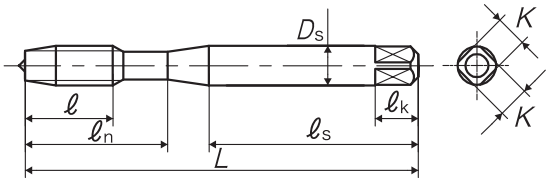

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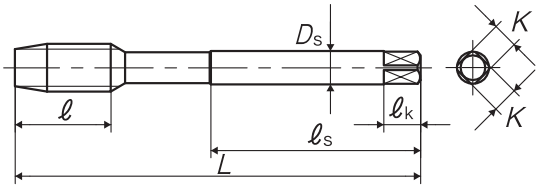


Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2X	LD3.0GBNEV	5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	LD4.0IBNEV	5P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	LD5.0KBNEV	5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	LY6.0MBNEV	5P	80	15	30	45	6	4.9	8	3	2
M8 × 1.25	ISO2X	LY8.0NBNEV	5P	90	19	35	48	8	6.2	9	3	2
M10 × 1.5	ISO2X	LY010OBNEV	5P	100	23	39	53	10	8	11	3	2
M10 × 1.25	ISO2X	LY010NBNEV	5P	100	19	39	53	10	8	11	3	2
M12 × 1.75	ISO2X	LY012PBNEV	5P	110	26	45	56	12	9	12	3	2
M12 × 1.75	ISO2X	LG012PBNEV	5P	110	26	-	56	9	7	10	3	3
M12 × 1.5	ISO2X	LY012OBNEV	5P	110	23	45	56	12	9	12	3	2
M12 × 1.5	ISO2X	LM012OBNEV	5P	100	21	-	51	9	7	10	3	3
M12 × 1.25	ISO2X	LY012NBNEV	5P	110	19	45	56	12	9	12	3	2
M12 × 1.25	ISO2X	LM012NBNEV	5P	100	21	-	51	9	7	10	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-F-SL



Long Shank Spiral Fluted Taps for High Speed Tapping, Through Hole Use (with LH Spiral Flutes)

Specification

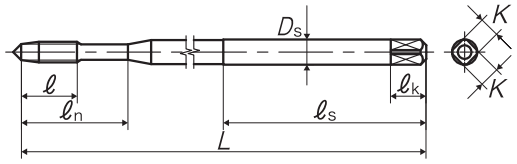
HSS | Coating | Synchro nized

■This is a long shank spiral fluted tap for tapping through holes at high-speeds of 15 m/min to 25 m/min. Using it at a low-speed will result in bad shape and ejection of chips, leading to trouble.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
15~25 (m/min)	15~25 (m/min)

TYPE: 1



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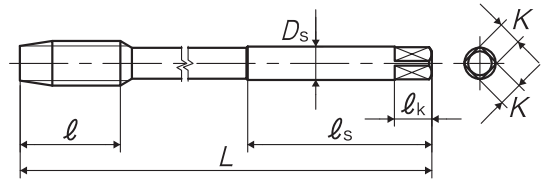

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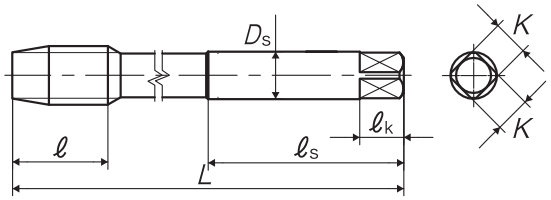


Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	L43.0GQFEVE	5P	100	9	18	40	4	3.2	6	3	1	¥ 6,400 ※
M4 × 0.7	P2	L44.0IQFEVE	5P	100	11	21	40	5	4	7	3	1	¥ 6,080 ※
M5 × 0.8	P2	L45.0KQFEVE	5P	100	13	25	40	5.5	4.5	7	3	1	¥ 5,510 ※
M6 × 1	P2	L46.0MQFEVE	5P	100	15	30	40	6	4.5	7	3	1	¥ 4,990 ※
M8 × 1.25	P3	LY8.0NRFEVE	5.5P	100	19	-	50	6.2	5	8	3	2	¥ 6,080 ※
M10 × 1.5	P3	LY010ORFEVE	5.5P	100	23	-	50	7	5.5	8	3	2	¥ 7,920 ※
M10 × 1.5	P3	LY010ORFEVG	5.5P	150	23	-	50	7	5.5	8	3	2	¥ 11,700 ※
M10 × 1.25	P3	LY010NRFEVE	5.5P	100	23	-	50	7	5.5	8	3	2	¥ 7,920 ※
M10 × 1.25	P3	LY010NRFEVG	5.5P	150	23	-	50	7	5.5	8	3	2	¥ 11,700 ※
M12 × 1.75	P4	LY012PSFEVG	5.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 14,300 ※
M12 × 1.5	P3	LY012ORFEVG	5.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 14,300 ※
M12 × 1.25	P4	LY012NSFEVG	5.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 14,300 ※
M14 × 2	P4	LY014QSFEVG	5.5P	150	26	-	60	10.5	8	11	3	2	¥ 17,700 ※
M14 × 1.5	P3	LY014ORFEVG	5.5P	150	26	-	60	10.5	8	11	3	2	¥ 17,700 ※
M16 × 2	P4	LY016QSFEVG	5.5P	150	26	-	60	12.5	10	13	3	2	¥ 19,300 ※
M16 × 1.5	P3	LY016ORFEVG	5.5P	150	26	-	60	12.5	10	13	3	2	¥ 19,300 ※
M18 × 2.5	P4	LY018RSFEVG	5.5P	150	33	-	70	14	11	14	4	2	¥ 24,300 ※
M18 × 1.5	P4	LY018OSFEVG	5.5P	150	33	-	70	14	11	14	4	2	¥ 24,300 ※
M20 × 2.5	P4	LY020RSFEVG	5.5P	150	33	-	70	15	12	15	4	3	¥ 30,100 ※
M20 × 1.5	P4	LY020OSFEVG	5.5P	150	33	-	70	15	12	15	4	3	¥ 30,100 ※
M22 × 2.5	P4	LY022RSFEVG	5.5P	150	33	-	70	17	13	16	4	3	¥ 35,000 ※
M22 × 1.5	P4	LY022OSFEVG	5.5P	150	33	-	70	17	13	16	4	3	¥ 35,000 ※
M24 × 3	P4	LY024SSFEVG	5.5P	150	39	-	80	19	15	18	4	3	¥ 41,000 ※
M24 × 1.5	P4	LY024OSFEVG	5.5P	150	39	-	80	19	15	18	4	3	¥ 41,000 ※
M27 × 3	P4	LY027SSFEVK	5.5P	200	39	-	80	20	15	18	4	3	¥ 62,300 ※
M30 × 3.5	P5	LY030TTFEVK	5.5P	200	46	-	80	23	17	20	4	3	¥ 72,300 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

HDISL



Spiral Fluted Taps for Steels, for Dry Tapping and for Ultra High Speed Tapping, Through Hole Use (with LH Spiral Fluted)

Specification



Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
20~50 (m/min)	20~50 (m/min)	20~50 (m/min)

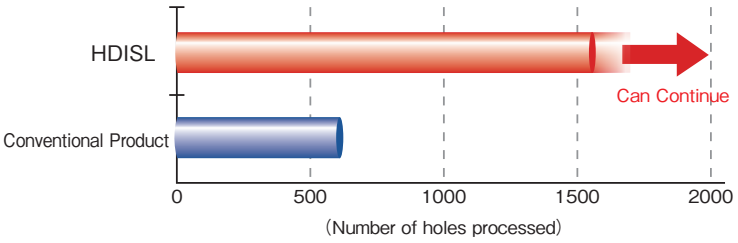
Product Features

- Ultra high-speed machining with mist or dry tapping machining are possible with a side coolant hole shape.
- The left hand spiral flute shape makes it the perfect tapping for vertical or horizontal machining in carbon steel and alloy steel in through hole applications.

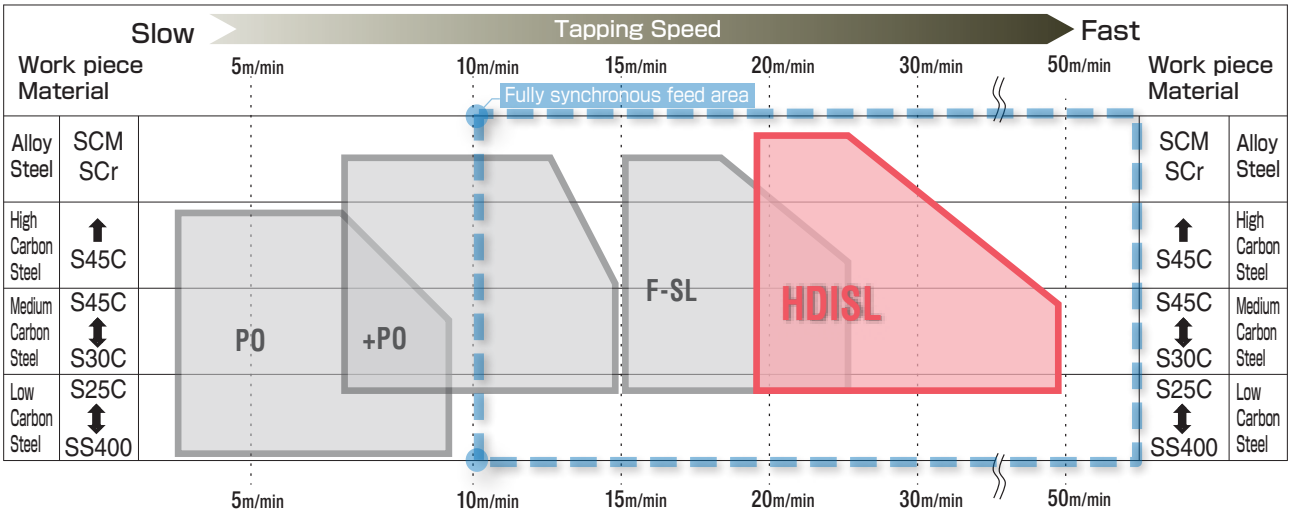
Tapping Data

Tapping Conditions [M12×1.25]

Workpiece Material	S55C tempered steel
Hole Shape	Through holes
Bored Hole Size	ϕ10.75
Tapping Length	18mm
Tapping Speed	50m/min
Machinery Type	M/C machine (horizontal type)
Cutting Fluid	Water soluble cutting fluid
Number of Holes Processed	1,600 holes



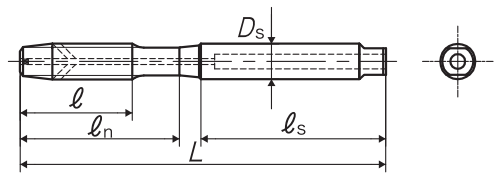
Speed recommendation table



The above diagram is for the different materials shown.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



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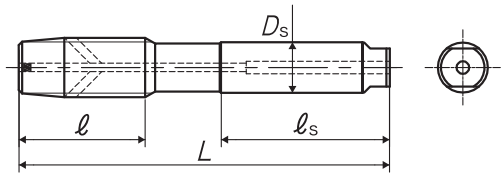


Segment : 1T

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P4	HDISLS6.0M	5.5P	62	19	27	32	6	-	-	3	1	¥ 4,420
M8 × 1.25	P4	HDISLS8.0N	5.5P	70	22	-	36	8	-	-	3	2	¥ 6,380
M10 × 1.5	P4	HDISLS0100	5.5P	75	24	-	37	10	-	-	3	2	¥ 8,080
M10 × 1.25	P4	HDISLS010N	5.5P	75	24	-	37	10	-	-	3	2	¥ 8,080
M12 × 1.75	P4	HDISLS012P	5.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.5	P4	HDISLS0120	5.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M12 × 1.25	P4	HDISLS012N	5.5P	82	29	-	40	12	-	-	3	2	¥ 11,500
M14 × 1.5	P4	HDISLS0140	5.5P	88	30	-	40	12	-	-	3	2	¥ 15,700
M16 × 1.5	P4	HDISLS0160	5.5P	95	32	-	43	16	-	-	3	2	¥ 20,700
M18 × 1.5	P4	HDISLS0180	5.5P	100	37	-	45	16	-	-	4	2	¥ 29,400
M20 × 1.5	P5	HDISLT0200	5.5P	105	37	-	45	16	-	-	4	2	¥ 38,400

Remarks:
1. HDISL do not have square on its shank, please use holders having strong gripping force, such as milling chucks.
2. Rear end of the shank is to tongue specification. If the portion which contacts the rear end has V saucer, coolant may leak.

※ = Specified Distribution Items. Made to order products.

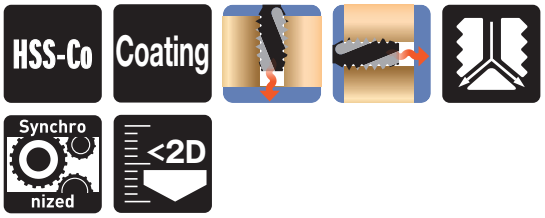
Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HDISL



Spiral Fluted Taps for Steels, for Dry Tapping and for Ultra High Speed Tapping, Through Hole Use (with LH Spiral Flutes)

Specification

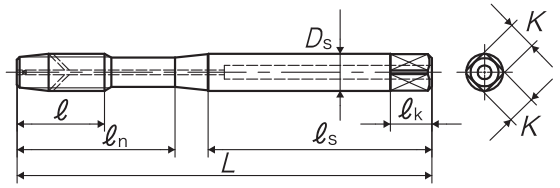


■Tapping under ultra high speed and under mist and dry, is possible with HDISL. Having radial coolant hole, HDISL is suitable for carbon steels and alloy steels. For through hole use (with LH spiral flutes) for both vertical and horizontal use.

Recommended Tapping Speeds depending on Materials



TYPE : 1



Segment : 1T

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M6 × 1	ISO2X	LY6.0MBEDTLZ	5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	LY8.0NBEDTLZ	5P	90	19	35	48	8	6.2	9	3	1
M10 × 1.5	ISO2X	LY010OBEDTLZ	5P	100	23	39	53	10	8	11	3	1
M10 × 1.25	ISO2X	LY010NBEDTLZ	5P	100	23	39	53	10	8	11	3	1
M12 × 1.75	ISO2X	LY012PBEDTLZ	5P	110	26	44	57	12	9	12	3	1
M12 × 1.5	ISO2X	LY012OBEDTLZ	5P	110	26	44	57	12	9	12	3	1
M12 × 1.25	ISO2X	LY012NBEDTLZ	5P	110	26	44	57	12	9	12	3	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

XSL

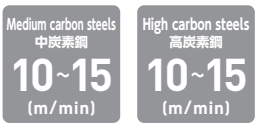


X Series Spiral Fluted Taps, Through Hole Use (with LH Spiral Flutes)

Specification



Recommended Tapping Speeds depending on Materials



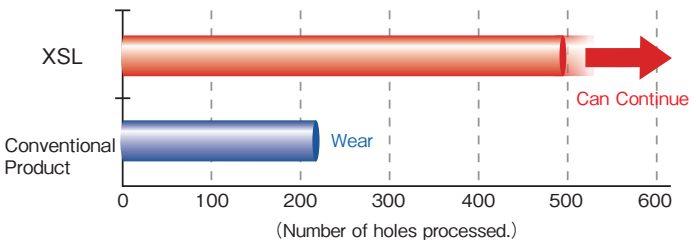
Product Features

- The X series, a next generation high dimensional quality, high rigidity tap to make full use of high performance CNC machining centers and the newer high precision tooling is now available.
- From the YAMAWA analysis of the machining concept for thread cutting taps that conform to conventional pilot holes and the review of the shape of the taps we have created the optimum flute design. This was formatted from the fundamental viewpoint of "cutting screw threads". The current taps available should have been able to accomplish this function but could not.
- By further improving shank precision and shank circularity for the entire tap, it became possible to create a highly accurate screw thread for high speed machining areas.

Tapping Data

Tapping Conditions [M12×1.75]

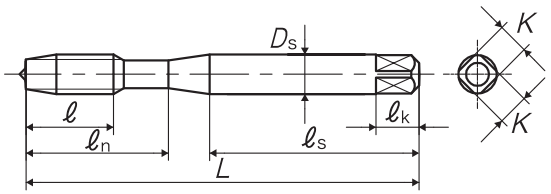
Workpiece Material	SCM440
Tapping Speed	25m/min
Bored Hole Size	ϕ10.3mm
Tapping Length	24mm
Machinery Type	Vertical machining center (synchronous feed)
Cutting Fluid	Water soluble cutting fluid (20 to 1 dilution)



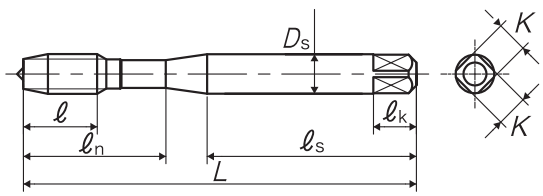
Note:
- Please use this product with a collet chuck or a tapping holder adapted to the DIN 371 standard (For size M12 use the DIN 376 standard).
- NT Tool Corporation ... Tap holder for height adjustment type synchro · STM type
- SHOWA TOOL Co., LTD. ... Micron chuck H series
- BIG DAISHOWA SEIKI CO., LTD. ... Mega synchro tapping holder
- NIKKEN KOSAKUSHO WORKS, LTD · Slim chuck
- YUKIWA SEIKO INC. ... Super G1 chuck

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



TYPE : 2



Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P2	SNXQ6.0ML	5P	80	15	30	45	6	4.9	8	3	1	¥ 1,510 ▲
M8 × 1.25	P3	SNXR8.0NL	5P	90	19	35	48	8	6.2	9	3	1	¥ 2,130 ▲
M8 × 1	P3	SNXR8.0ML	5P	90	15	35	48	8	6.2	9	3	2	¥ 2,460 ▲
M10 × 1.5	P3	SNXR010OL	5P	100	23	39	53	10	8	11	3	1	¥ 2,690 ▲
M10 × 1.25	P3	SNXR010NL	5P	100	19	39	53	10	8	11	3	2	¥ 2,690 ▲
M10 × 1	P3	SNXR010ML	5P	100	15	39	53	10	8	11	3	2	¥ 3,470 ▲
M12 × 1.75	P4	SNXS012PL	5P	110	26	45	56	12	9	12	3	1	¥ 3,760 ▲
M12 × 1.5	P3	SNXR012OL	5P	110	23	45	56	12	9	12	3	2	¥ 3,760 ▲
M12 × 1.25	P3	SNXR012NL	5P	110	19	45	56	12	9	12	3	2	¥ 3,760 ▲

Note:
・Remarks: Products marked with ▲ in the MSRP column are subject to availability.
・Please use tapping holders suitable for the shank diameter and square of DIN371 for M6～M10 and those of M16 (DIN376) for M12.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

AUXSL



X Series Spiral Fluted Taps, Coated, Through Hole Use (with LH Spiral Flutes)

Specification

HSS | Coating |  | Synchro nized | <2D

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~15 (m/min)	20~30 (m/min)	20~30 (m/min)

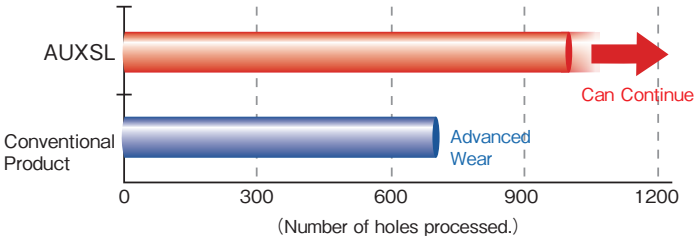
Product Features

- The AUXSL series, a next generation high dimensional quality, high rigidity tap to make full use of high performance CNC machining centers and the newer high precision tooling is now available.
- From the YAMAWA analysis of the machining concept for thread cutting taps that conform to conventional pilot holes and the review of the shape of the tap we created the optimum flute design.
- By further improving shank precision and shank circularity for the entire tap, it became possible to create a highly accurate screw thread for high speed machining areas.

Tapping Data

Processing conditions [M12 × 1.75]

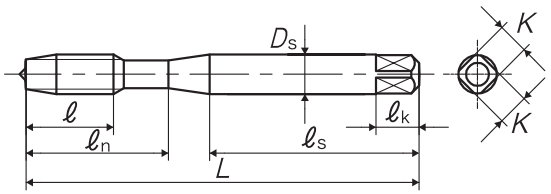
Workpiece Material	SCM440
Tapping Speed	25m/min
Bored Hole Size	ϕ10.3mm
Tapping Length	24mm
Machinery Type	Vertical machining center (synchronous feed)
Cutting Fluid	Water soluble cutting fluid (20 to 1 dilution)



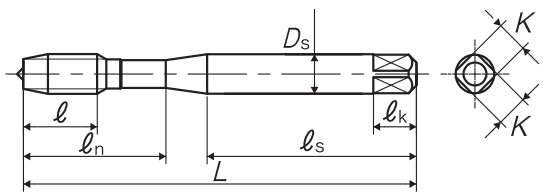
Note:
- Please use this product with a collet chuck or a tapping holder adapted to the DIN 371 standard (For size M12 use the DIN 376 standard).
- NT Tool Corporation ... Tap holder for height adjustment type synchro · STM type
- SHOWA TOOL Co., LTD. ... Micron chuck H series
- BIG DAISHOWA SEIKI CO., LTD. ... Mega synchro tapping holder
- NIKKEN KOSAKUSHO WORKS, LTD · Slim chuck
- YUKIWA SEIKO INC. ... Super G1 chuck

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



TYPE : 2



Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P2	VSAXQ6.0ML	5P	80	15	30	45	6	4.9	8	3	1	¥ 3,410 ▲
M8 × 1.25	P3	VSAXR8.0NL	5P	90	19	35	48	8	6.2	9	3	1	¥ 4,290 ▲
M8 × 1	P3	VSAXR8.0ML	5P	90	15	35	48	8	6.2	9	3	2	¥ 5,060 ▲
M10 × 1.5	P3	VSAXR010OL	5P	100	23	39	53	10	8	11	3	1	¥ 5,150 ▲
M10 × 1.25	P3	VSAXR010NL	5P	100	19	39	53	10	8	11	3	2	¥ 5,150 ▲
M10 × 1	P3	VSAXR010ML	5P	100	15	39	53	10	8	11	3	2	¥ 5,860 ▲
M12 × 1.75	P4	VSAXS012PL	5P	110	26	45	56	12	9	12	3	1	¥ 6,960 ▲
M12 × 1.5	P3	VSAXR012OL	5P	110	23	45	56	12	9	12	3	2	¥ 6,960 ▲
M12 × 1.25	P3	VSAXR012NL	5P	110	19	45	56	12	9	12	3	2	¥ 6,960 ▲

Note:
・Remarks: Products marked with ▲ in the MSRP column are subject to availability.
・Please use tapping holders suitable for the shank diameter and square of DIN371 for M6～M10 and those of M16 (DIN376) for M12.

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

AUXSL



X Series Spiral Fluted Taps, Coated, Through Hole Use (with LH Spiral Flutes)

Specification

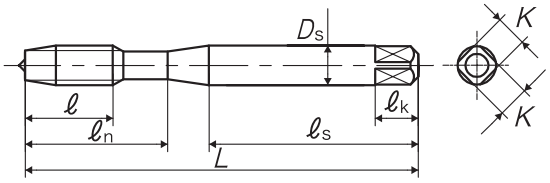
HSS | Coating | Synchronized | <2D

■Applying the blanks of high toughness and high accuracy, AUXSL, spiral fluted tap, coated, for through hole use (with LH spiral flutes), derives the maximum performance from high facility machining centers and high precision toolings. Optimum coating for the tapping condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~15 (m/min)	20~30 (m/min)	20~30 (m/min)

TYPE: 1



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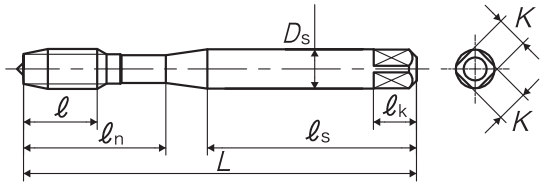


Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	
For Metric Threads													
M6 × 1	ISO2X	LX6.0MBNEV	5P	80	15	30	45	6	4.9	8	3	1	▲
M8 × 1.25	ISO2X	LX8.0NBNEV	5P	90	19	35	48	8	6.2	9	3	1	▲
M8 × 1	ISO2X	LX8.0MBNEV	5P	90	15	35	48	8	6.2	9	3	2	▲
M10 × 1.5	ISO2X	LX010OBNEV	5P	100	23	39	53	10	8	11	3	1	▲
M10 × 1.25	ISO2X	LX010NBNEV	5P	100	19	39	53	10	8	11	3	2	▲
M10 × 1	ISO2X	LX010MBNEV	5P	100	15	39	53	10	8	11	3	2	▲
M12 × 1.75	ISO2X	LX012PBNEV	5P	110	26	45	56	12	9	12	3	1	▲
M12 × 1.5	ISO2X	LX0120BNEV	5P	110	23	45	56	12	9	12	3	2	▲
M12 × 1.25	ISO2X	LX012NBNEV	5P	110	19	45	56	12	9	12	3	2	▲

Note:
・Products marked with an ▲ in the stock column are available while supplies last.

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

SUXSL



X Series Spiral Fluted Taps for Stainless Steels, Through Hole Use (with LH Spiral Flutes)

Specification



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

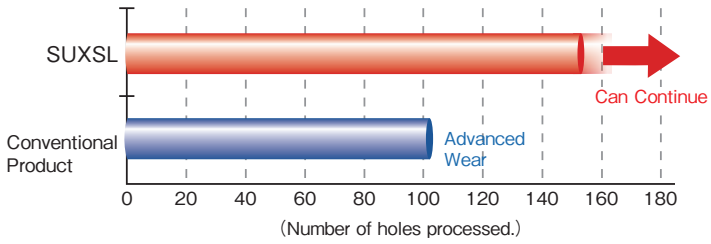
Product Features

- The SUXSL series, a next generation high dimensional quality, high rigidity tap to make full use of high performance CNC machining centers and the newer high precision tooling is now available.
- From the YAMAWA analysis of the machining concept for thread cutting taps that conform to conventional pilot holes and the review of the shape of the tap we created the optimum flute design.
- By further improving shank precision and shank circularity for the entire tap, it became possible to create a highly accurate screw thread for high speed machining areas.

Tapping Data

Tapping Conditions [M12×1.25]

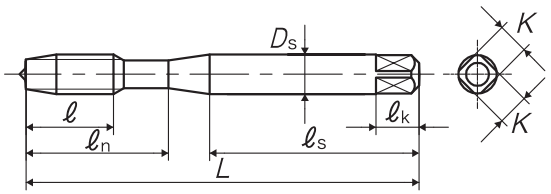
Workpiece Material	SUS304
Tapping Speed	20m/min
Bored Hole Size	ϕ10.8
Tapping Length	24mm
Machinery Type	Vertical machining center (synchronous feed)
Cutting Fluid	Non-water soluble cutting oil



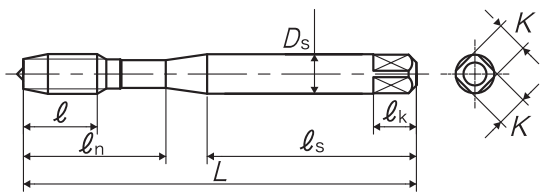
Note:
- Please use this product with a collet chuck or a tapping holder adapted to the DIN 371 standard (For size M12 use the DIN 376 standard).
- NT Tool Corporation ... Tap holder for height adjustment type synchro · STM type
- SHOWA TOOL Co., LTD. ... Micron chuck H series
- BIG DAISHOWA SEIKI CO., LTD. ... Mega synchro tapping holder
- NIKKEN KOSAKUSHO WORKS, LTD · Slim chuck
- YUKIWA SEIKO INC. ... Super G1 chuck

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



TYPE : 2



Segment : 1S

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P2	SUXQ6.0ML	5P	80	15	30	45	6	4.9	8	3	1	¥ 1,730 ▲
M8 × 1.25	P3	SUXR8.0NL	5P	90	19	35	48	8	6.2	9	3	1	¥ 2,470 ▲
M8 × 1	P3	SUXR8.0ML	5P	90	15	35	48	8	6.2	9	3	2	¥ 2,830 ▲
M10 × 1.5	P3	SUXR010OL	5P	100	23	39	53	10	8	11	3	1	¥ 3,100 ▲
M10 × 1.25	P3	SUXR010NL	5P	100	19	39	53	10	8	11	3	2	¥ 3,100 ▲
M10 × 1	P3	SUXR010ML	5P	100	15	39	53	10	8	11	3	2	¥ 3,990 ▲
M12 × 1.75	P4	SUXS012PL	5P	110	26	45	56	12	9	12	3	1	¥ 4,320 ▲
M12 × 1.5	P4	SUXS012OL	5P	110	23	45	56	12	9	12	3	2	¥ 4,320 ▲
M12 × 1.25	P4	SUXS012NL	5P	110	19	45	56	12	9	12	3	2	¥ 4,320 ▲

Note:
・Remarks: Products marked with ▲ in the MSRP column are subject to availability.
・Please use tapping holders suitable for the shank diameter and square of DIN371 for M6～M10 and those of M16 (DIN376) for M12.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

MEMO

JIS • ANSI • DIN

LINE UP

③ SPIRAL POINTED TAP SERIES FOR THROUGH HOLE



	JIS	ANSI	DIN
VUPO	③-3	③-7	③-9
PO	③-11	③-20	③-25
+PO	③-30		
IPO	③-31	③-33	
PO OX	③-34	③-37	③-42
PO LH	③-46		
PO V	③-48		③-49
LS-PO	③-51		
LS-PO V	③-57		
LS-PO-K	③-58		
SU+PO SU-PO	③-59		
ZELX SS PO		③-63	
PO-VA			③-67
PO-VA (Coating)			③-69
LS-SU-S-PO	③-70		
ZELX SS PO 6"		③-72	
S-PO	③-73		
HC+PO HC-PO	③-75		
HC-PO OX	③-78		
AL-PO		③-79	
EH-PO	③-81		③-83
ZEN-P	③-85		③-90
ZELX NI PO		③-87	
PM-PO	③-92	③-94	③-96
LS-PM-PO	③-98		
MC-PO	③-100		

・For improvement, spec may change without advance notice.

Selection chart of taps

Tapping conditions	Machining, in low-speed tapping area								
Product symbol	IPO	PO	LS-PO	LS-PO-K	PO LH	PO OX	+PO	HC+PO HC - PO	HC-PO OX
Tap material Surface treatment	HSS OX	HSS	HSS	HSS	HSS	HSS OX	HSS	HSS	HSS OX
Name	I series	For general use	Long, for general use	Long neck	For general use For left-hand threads	Oxided	For general use	For high carbon steels	For high carbon steel, oxided
									
Bored Hole Shape									
For Metric Threads	③-32	③-13	③-51	③-58	③-46	③-34	③-30	③-76	③-78
For Unified Threads		③-17	③-54		③-47	③-35			
For Whitworth Threads		③-18	③-54		③-47	③-36			
For Screw Threads used on Sewing Machines		③-18							
Pipe Threads									
American Pipe Threads									
For Miniature Threads									
For Trapezoidal Threads									

～S25C	Low carbon steels	◆	◎									◆	◎					
S25C～S45C	Medium carbon steels			◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	○	◆	◎
S45C～	High carbon steels			◆	○	◆	○	◆	○	◆	○	◆	○	◆	○	◆	◎	◆	◎
SCM	Alloy steels																	
25～35HRC	Heat treated steel															◆	○	◆	○
35～45HRC	Heat treated steel																		
45～55HRC	Heat treated steel																		
55～63HRC	Heat treated steel																		
SUS	Stainless steels (SUS)																	
SKD	Tool steels																	
SC	Cast steels																	
FC	Cast irons																	
FCD	Ductile cast irons																	
Cu	Copper																	
Bs	Brass																	
BsC	Brass castings																	
PB	Bronze																	
AL	Wrought aluminum																	
AC, ADC	Wrought aluminum																	
Mg	Magnesium alloy die castings																	
ZDC	Zinc alloy die castings																	
	Titanium alloys																	
	Nickel base alloys																	
	Thermosetting plastic																	
	Thermoplastic resin																	

Think threads with YAMAWA

Recommended tap: ◎: Most suitable tap ○: Suitable tap

Recommended tapping fluid: ◆: Insoluble ◆: Water-soluble

Machining, in low/middle speed tapping area														Machining, in middle speed tapping area		Machining Fully synchronized feed only, in high-speed tapping area	
	SU+PO SU - PO		LS-SU-S-PO		S-PO		PO V		LS-PO V		EH-PO	PM-PO	LS-PM-PO	MC-PO		Z-PRO VUPO		ZEN-P	
	HSS	OX	HSS	OX	HSS	OX	HSS	Coating	HSS	Coating	HSS-Co	HSS-P	HSS-P	HSS		HSS-P	Coating	HSS-P	NX
	For stainless steel		Long, for deep hole stainless steel		For deep hole		Coated		Long, coated		For hard-to-machine materials		Long, for hard-to-machine materials	With oil hole		coated		For nickel base alloys	
																			
	③-60		③-70		③-73		③-48		③-57		③-82	③-92	③-98	③-100		③-4		③-86	
	③-62											③-93							
	③-62																		
	◆	◎	◆	◎	◆	○	◆◆	◎	◆◆	◎				◆	○	◆◆	◎	◆	◎
	◆	◎	◆	◎	◆	◎	◆◆	◎	◆◆	◎				◆	◎	◆◆	◎	◆	◎
	◆	○	◆	○	◆	◎	◆◆	◎	◆◆	◎	◆	◎	◆	◎	◆	◎	◆◆	◎		
	◆	○			◆	○	◆◆	◎	◆◆	◎					◆	○	◆◆	◎		
											◆	◎	◆	◎	◆	◎				
											◆	◎	◆	◎	◆	◎				
	◆	◎	◆	◎													◆◆	◎	◆	◎
																	◆◆	○		
																	◆◆	○		
																	◆◆	○		
																			◆	◎

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

Z-PRO

VUPO



Z-PRO Coated Spiral Pointed Taps

Specification

HSS-P | Coating | <2D

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	5~15 (m/min)	5~15 (m/min)	10~35 (m/min)

For long shank type, the recommended cutting speed is 30% less than the above.

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~35 (m/min)	10~35 (m/min)

Product Features

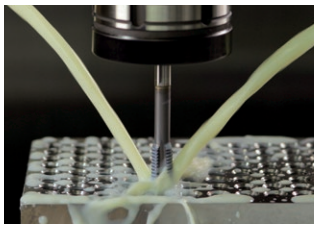
- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.
- Proper tool projection length is secured, achieving a good supply of water soluble cutting fluid.
- This is most suitable for tapping with water soluble cutting fluid.

Tapping Data

Tapping Conditions [M10×1.5]

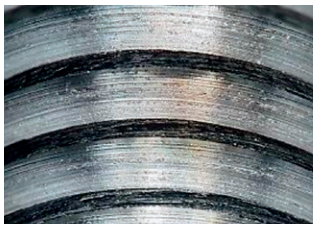
Workpiece Material	SUS304
Tapping Speed	10m/min
Machine Type	Machining center, vertical type
Tapping Fluid	Non-water soluble cutting oil

Good tapping



The unique cutting edge shape and the longer projection achieve a good supply of water soluble cutting fluid.

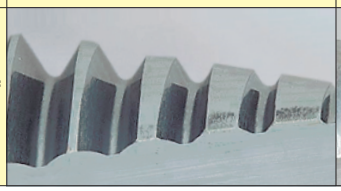
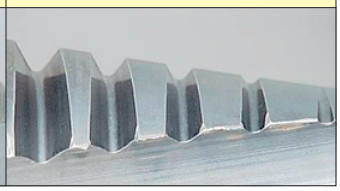
Good internal thread



In tapping of SUS304, good internal thread surface is obtained even in tapping environments that use water soluble cutting fluid.

Tapping Conditions [M10×1.5]

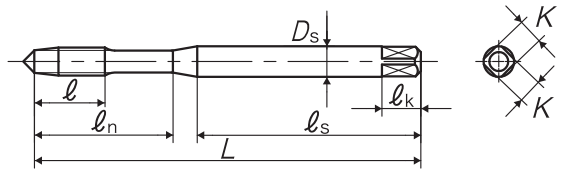
Workpiece Material	S50C
Tapping Length	20mm (2D)
Tapping Speed	20m/min
Machine Type	Machining center, vertical type
Tapping Fluid	Non-water soluble cutting oil

	VUPO	Competitor's tap
After Tapping of 560 Holes		

- Compatible with a wide range of work materials
  This is compatible with a wide range of steel work materials, including general structural steel, carbon steel, and alloy steel.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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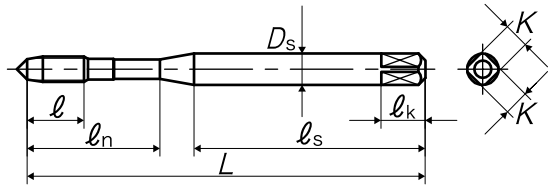

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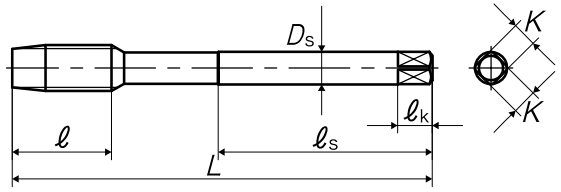

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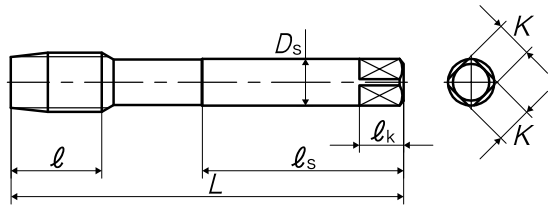

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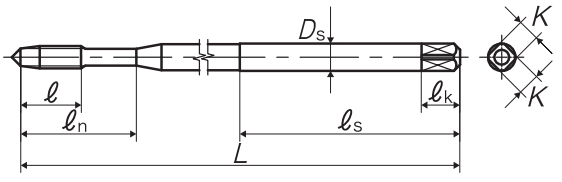

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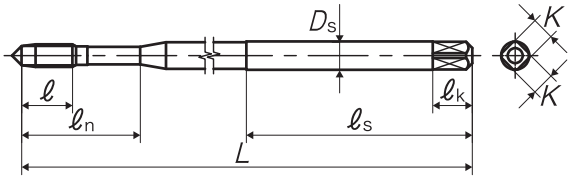
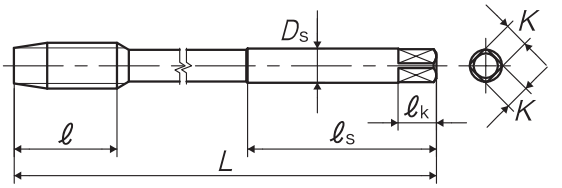


TYPE: 7



Oversize

Segment : 1F

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P2	1102101021	5P	45	8	15	27	3	2.5	5	2	1	¥ 3,780
M2.2 × 0.45	P2	1102101024	5P	45	9	15	27	3	2.5	5	2	1	¥ 3,550
M2.3 × 0.4	P2	1102101026	5P	45	9	15	27	3	2.5	5	2	1	¥ 3,550
M2.5 × 0.45	P2	1102101029	5P	50	8	15	32	3	2.5	5	2	1	¥ 3,200
M2.6 × 0.45	P2	1102101032	5P	50	8	15	32	3	2.5	5	2	1	¥ 3,200
M3 × 0.5	P2	1102101035	5P	56	9	18	32	4	3.2	6	3	1	¥ 2,900
M3 × 0.5	P3	1102201035	5P	56	9	18	32	4	3.2	6	3	1	¥ 2,900
M3 × 0.5	P4	1102301035	5P	56	9	18	32	4	3.2	6	3	1	¥ 2,900 ※
M3 × 0.35	P2	1102101036	5P	56	6.5	18	32	4	3.2	6	3	2	¥ 4,070
M3 × 0.35	P3	1102201036	5P	56	6.5	18	32	4	3.2	6	3	2	¥ 4,070 ※
M3 × 0.35	P4	1102301036	5P	56	6.5	18	32	4	3.2	6	3	2	¥ 4,070 ※
M4 × 0.7	P3	1102101042	5P	63	13	21	36	5	4	7	3	1	¥ 2,850
M4 × 0.7	P4	1102201042	5P	63	13	21	36	5	4	7	3	1	¥ 2,850
M4 × 0.7	P5	1102301042	5P	63	13	21	36	5	4	7	3	1	¥ 2,850 ※
M4 × 0.5	P2	1102101043	5P	63	9	21	36	5	4	7	3	2	¥ 3,560
M4 × 0.5	P3	1102201043	5P	63	9	21	36	5	4	7	3	2	¥ 3,560 ※
M4 × 0.5	P4	1102301043	5P	63	9	21	36	5	4	7	3	2	¥ 3,560 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

VUPO Z-PRO Coated Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M5 × 0.8	P3	1102101049	5P	70	14	25	40	5.5	4.5	7	3	1	¥ 2,880
M5 × 0.8	P4	1102201049	5P	70	14	25	40	5.5	4.5	7	3	1	¥ 2,880
M5 × 0.8	P5	1102301049	5P	70	14	25	40	5.5	4.5	7	3	1	¥ 2,880 ※
M5 × 0.5	P2	1102101051	5P	70	9	25	40	5.5	4.5	7	3	2	¥ 3,690
M5 × 0.5	P3	1102201051	5P	70	9	25	40	5.5	4.5	7	3	2	¥ 3,690 ※
M5 × 0.5	P4	1102301051	5P	70	9	25	40	5.5	4.5	7	3	2	¥ 3,690 ※
M6 × 1	P3	1102101055	5P	80	15	30	45	6	4.5	7	3	1	¥ 3,180
M6 × 1	P4	1102201055	5P	80	15	30	45	6	4.5	7	3	1	¥ 3,180
M6 × 1	P5	1102301055	5P	80	15	30	45	6	4.5	7	3	1	¥ 3,180 ※
M6 × 0.75	P2	1102101056	5P	80	15	30	45	6	4.5	7	3	1	¥ 4,190
M6 × 0.75	P3	1102201056	5P	80	15	30	45	6	4.5	7	3	1	¥ 4,190 ※
M6 × 0.75	P4	1102301056	5P	80	15	30	45	6	4.5	7	3	1	¥ 4,190 ※
M6 × 0.5	P2	1102101057	5P	80	9	30	45	6	4.5	7	3	2	¥ 4,190
M6 × 0.5	P3	1102201057	5P	80	9	30	45	6	4.5	7	3	2	¥ 4,190 ※
M6 × 0.5	P4	1102301057	5P	80	9	30	45	6	4.5	7	3	2	¥ 4,190 ※
M8 × 1.25	P3	1102101064	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,190
M8 × 1.25	P4	1102201064	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,190
M8 × 1.25	P5	1102301064	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,190 ※
M8 × 1	P3	1102101065	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,950
M8 × 1	P4	1102201065	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,950 ※
M8 × 1	P5	1102301065	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,950 ※
M10 × 1.5	P3	1102101078	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,290
M10 × 1.5	P4	1102201078	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,290
M10 × 1.5	P5	1102301078	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,290 ※
M10 × 1.25	P3	1102101079	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,290
M10 × 1.25	P4	1102201079	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,290
M10 × 1.25	P5	1102301079	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,290 ※
M10 × 1	P3	1102101080	5P	100	23	-	51	7	5.5	8	3	3	¥ 6,280
M10 × 1	P4	1102201080	5P	100	23	-	51	7	5.5	8	3	3	¥ 6,280 ※
M10 × 1	P5	1102301080	5P	100	23	-	51	7	5.5	8	3	3	¥ 6,280 ※
M12 × 1.75	P4	1102101088	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900
M12 × 1.75	P5	1102201088	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900
M12 × 1.75	P6	1102301088	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900 ※
M12 × 1.5	P3	1102101089	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900
M12 × 1.5	P4	1102201089	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900
M12 × 1.5	P5	1102301089	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900 ※
M12 × 1.25	P4	1102101090	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900
M12 × 1.25	P5	1102201090	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900
M12 × 1.25	P6	1102301090	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900 ※
M14 × 2	P4	1102101100	5P	110	26	-	56	10.5	8	11	3	3	¥ 9,450
M14 × 2	P5	1102201100	5P	110	26	-	56	10.5	8	11	3	3	¥ 9,450
M14 × 2	P6	1102301100	5P	110	26	-	56	10.5	8	11	3	3	¥ 9,450 ※
M14 × 1.5	P3	1102101102	5P	110	26	-	56	10.5	8	11	3	3	¥ 9,450
M14 × 1.5	P4	1102201102	5P	110	26	-	56	10.5	8	11	3	3	¥ 9,450
M14 × 1.5	P5	1102301102	5P	110	26	-	56	10.5	8	11	3	3	¥ 9,450 ※
M16 × 2	P4	1102101114	5P	110	26	-	56	12.5	10	13	3	3	¥ 12,300
M16 × 2	P5	1102201114	5P	110	26	-	56	12.5	10	13	3	3	¥ 12,300
M16 × 2	P6	1102301114	5P	110	26	-	56	12.5	10	13	3	3	¥ 12,300 ※
M16 × 1.5	P3	1102101116	5P	110	26	-	56	12.5	10	13	3	3	¥ 12,300

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

VUPO Z-PRO Coated Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M16 × 1.5	P4	1102201116	5P	110	26	-	56	12.5	10	13	3	3	¥ 12,300
M16 × 1.5	P5	1102301116	5P	110	26	-	56	12.5	10	13	3	3	¥ 12,300 ※
M18 × 2.5	P5	1102101128	5P	125	33	-	64	14	11	14	3	3	¥ 15,500
M18 × 1.5	P4	1102101130	5P	125	33	-	64	14	11	14	3	3	¥ 15,500
M20 × 2.5	P5	1102101141	5P	140	33	-	71	15	12	15	3	4	¥ 22,400
M20 × 1.5	P4	1102101144	5P	140	33	-	71	15	12	15	3	4	¥ 22,400
M22 × 2.5	P5	1102101156	5P	140	33	-	71	17	13	16	3	4	¥ 27,000
M22 × 1.5	P4	1102101158	5P	140	33	-	71	17	13	16	3	4	¥ 27,000
M24 × 3	P5	1102101167	5P	160	37	-	82	19	15	18	3	4	¥ 32,900
M24 × 1.5	P4	1102101170	5P	160	37	-	82	19	15	18	3	4	¥ 32,900
Long shank, for Metric Threads													
M3 × 0.5	P2	2102101035	5P	100	9	18	32	4	3.2	6	3	5	¥ 5,260
M3 × 0.35	P2	2102101036	5P	100	6.5	18	32	4	3.2	6	3	6	¥ 7,370 ※
M4 × 0.7	P3	2102101042	5P	100	11	21	36	5	4	7	3	5	¥ 4,800
M4 × 0.5	P2	2102101043	5P	100	9	21	36	5	4	7	3	6	¥ 6,240 ※
M5 × 0.8	P3	2102101049	5P	100	13	25	40	5.5	4.5	7	3	5	¥ 4,310
M5 × 0.5	P2	2102101051	5P	100	9	25	40	5.5	4.5	7	3	6	¥ 5,390 ※
M6 × 1	P3	2102101055	5P	100	15	30	45	6	4.5	7	3	5	¥ 4,410
M6 × 0.75	P2	2102101056	5P	100	15	30	45	6	4.5	7	3	5	¥ 5,520
M6 × 0.5	P2	2102101057	5P	100	9	30	45	6	4.5	7	3	6	¥ 5,520 ※
M8 × 1.25	P3	2102101064	5P	150	19	-	46	6.2	5	8	3	7	¥ 7,600
M8 × 1	P3	2102101065	5P	150	19	-	46	6.2	5	8	3	7	¥ 8,740
M10 × 1.5	P3	2102101078	5P	150	23	-	51	7	5.5	8	3	7	¥ 8,890
M10 × 1.25	P3	2102101079	5P	150	23	-	51	7	5.5	8	3	7	¥ 8,890
M10 × 1	P3	2102101080	5P	150	23	-	51	7	5.5	8	3	7	¥ 10,300
M12 × 1.75	P4	2102101088	5P	150	26	-	56	8.5	6.5	9	3	7	¥ 10,600
M12 × 1.5	P3	2102101089	5P	150	26	-	56	8.5	6.5	9	3	7	¥ 10,600
M12 × 1.25	P4	2102101090	5P	150	26	-	56	8.5	6.5	9	3	7	¥ 10,600
M14 × 2	P4	2102101100	5P	150	26	-	56	10.5	8	11	3	7	¥ 14,200
M14 × 1.5	P3	2102101102	5P	150	26	-	56	10.5	8	11	3	7	¥ 14,200
M16 × 2	P4	2102101114	5P	150	26	-	56	12.5	10	13	3	7	¥ 14,900
M16 × 1.5	P3	2102101116	5P	150	26	-	56	12.5	10	13	3	7	¥ 14,900

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

Z-PRO

VUPO



Z-PRO Coated Spiral Pointed Taps

Specification

HSS-P | Coating | <2D

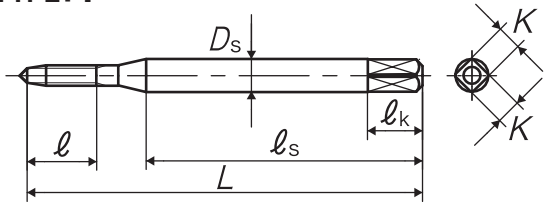
- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	5~15 (m/min)	5~15 (m/min)	10~35 (m/min)

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~35 (m/min)	10~35 (m/min)

TYPE: 1



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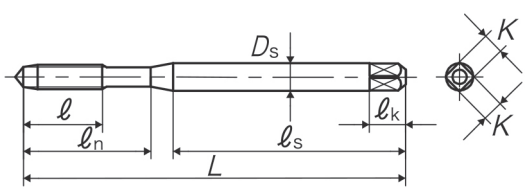

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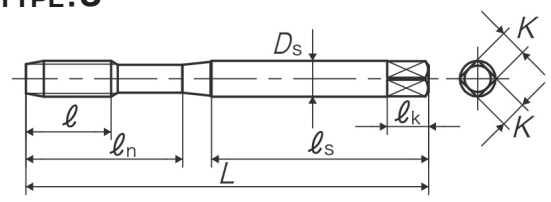

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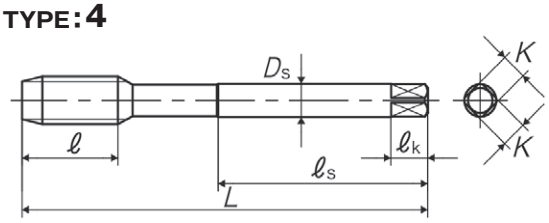

Segment : 1F

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	D4	5102101021	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
M2.2 × 0.45	D4	5102101024	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
M2.3 × 0.4	D4	5102101026	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
M2.5 × 0.45	D4	5102101029	5P	2.205	0.354	0.693	1.28	0.141	0.11	0.187	2	2
M2.6 × 0.45	D4	5102101032	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
M3 × 0.5	D4	5102101035	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
M3 × 0.35	D4	5102101036	5P	2.205	0.256	0.736	1.339	0.141	0.11	0.187	3	2
M4 × 0.7	D5	5102101042	5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	2
M4 × 0.5	D4	5102101043	5P	2.48	0.354	0.815	1.535	0.168	0.131	0.25	3	2
M5 × 0.8	D5	5102101049	5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M5 × 0.5	D4	5102101051	5P	2.756	0.354	0.984	1.654	0.194	0.152	0.25	3	2
M6 × 1	D6	5102101055	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
M6 × 0.75	D6	5102101056	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M6 × 0.5	D4	5102101057	5P	3.15	0.354	1.181	1.713	0.255	0.191	0.312	3	2
M8 × 1.25	D7	5102101064	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 1	D6	5102101065	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M10 × 1.5	D8	5102101078	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 1.25	D7	5102101079	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 1	D6	5102101080	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M12 × 1.75	D8	5102101088	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
M12 × 1.5	D8	5102101089	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
M12 × 1.25	D7	5102101090	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
M14 × 2	D9	5102101100	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	4
M14 × 1.5	D8	5102101102	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	4
M16 × 2	D9	5102101114	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	4
M16 × 1.5	D8	5102101116	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	4
M18 × 2.5	D9	5102101128	5P	4.921	1.299	-	2.52	0.542	0.406	0.625	3	4
M18 × 1.5	D8	5102101130	5P	4.921	0.945	-	2.52	0.542	0.406	0.625	3	4
M20 × 2.5	D9	5102101141	5P	5.512	1.299	-	2.795	0.652	0.489	0.687	3	4
M20 × 1.5	D8	5102101144	5P	5.512	0.945	-	2.795	0.652	0.489	0.687	3	4
M22 × 2.5	D9	5102101156	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	4
M22 × 1.5	D8	5102101158	5P	5.512	0.945	-	2.795	0.697	0.523	0.75	3	4
M24 × 3	D10	5102101167	5P	6.299	1.457	-	3.228	0.76	0.57	0.75	3	4
M24 × 1.5	D8	5102101170	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	3	4
For Unified Threads												
No.5-40UNC	GH2	5102103021	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-44UNF	GH2	5102103022	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.6-32UNC	GH3	5102103023	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	2	2
No.6-40UNF	GH2	5102103024	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	2	2
No.8-32UNC	GH3	5102103029	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	2	2
No.8-36UNF	GH2	5102103030	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	2	2
No.10-24UNC	GH3	5102103039	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	2	2
No.10-32UNF	GH3	5102103041	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	2	2
No.12-24UNC	GH3	5102103047	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	2	2
No.12-28UNF	GH3	5102103048	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	2	2
1/4-20UNC	GH5	5102103058	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	5102103062	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
5/16-18UNC	GH5	5102103071	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	5102103074	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
3/8-16UNC	GH5	5102103082	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	5102103085	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
7/16-14UNC	GH5	5102103098	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	5102103101	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	4
1/2-13UNC	GH5	5102103111	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
1/2-20UNF	GH5	5102103115	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	4
9/16-12UNC	GH5	5102103126	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	4
9/16-18UNF	GH5	5102103129	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	4
5/8-11UNC	GH5	5102103138	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	4
5/8-18UNF	GH5	5102103142	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	4
3/4-10UNC	GH5	5102103161	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	3	4
3/4-16UNF	GH5	5102103164	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	3	4
7/8-9UNC	GH6	5102103181	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	4
7/8-14UNF	GH6	5102103184	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	4

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Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

Z-PRO

VUPO



Z-PRO Coated Spiral Pointed Taps

Specification

HSS-P | Coating | <2D

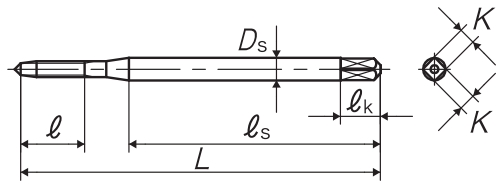
- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	5~15 (m/min)	5~15 (m/min)	10~35 (m/min)

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~35 (m/min)	10~35 (m/min)

TYPE: 1



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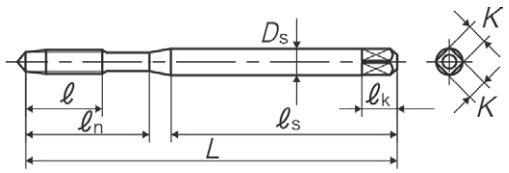

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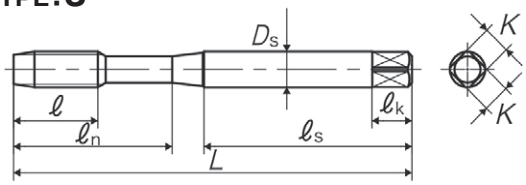

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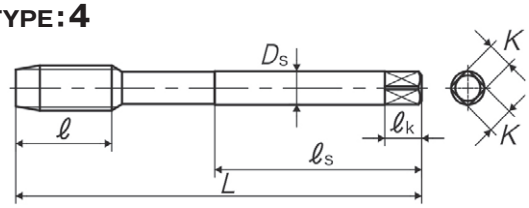

Segment : 1F

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2X	3102101021	5P	45	8	-	32	2.8	2.1	5	2	1
M2.2 × 0.45	ISO2X	3102101024	5P	45	9	-	32	2.8	2.1	5	2	1
M2.3 × 0.4	ISO2X	3102101026	5P	45	9	-	32	2.8	2.1	5	2	1
M2.5 × 0.45	ISO2X	3102101029	5P	50	8	15	33	2.8	2.1	5	3	2
M2.6 × 0.45	ISO2X	3102101032	5P	50	8	15	33	2.8	2.1	5	2	2
M3 × 0.5	ISO2X	3102101035	5P	56	9	18	34	3.5	2.7	6	3	2
M3 × 0.35	ISO2X	3102101036	5P	56	6.5	18	34	3.5	2.7	6	3	2
M4 × 0.7	ISO2X	3102101042	5P	63	13	21	38	4.5	3.4	6	3	2
M4 × 0.5	ISO2X	3102101043	5P	63	9	21	38	4.5	3.4	6	3	2
M5 × 0.8	ISO2X	3102101049	5P	70	14	25	39	6	4.9	8	3	2
M5 × 0.5	ISO2X	3102101051	5P	70	9	25	39	6	4.9	8	3	2
M6 × 1	ISO2X	3102101055	5P	80	15	30	45	6	4.9	8	3	2
M6 × 0.75	ISO2X	3102101056	5P	80	15	30	45	6	4.9	8	3	2
M6 × 0.5	ISO2X	3102101057	5P	80	9	30	45	6	4.9	8	3	2

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M8 × 1.25	ISO2X	3102101064	5P	90	19	35	47	8	6.2	9	3	3
M8 × 1	ISO2X	3102101065	5P	90	19	-	46	6	4.9	8	3	4
M10 × 1.5	ISO2X	3102101078	5P	100	23	39	52.5	10	8	11	3	3
M10 × 1.25	ISO2X	3102101079	5P	100	23	-	51	7	5.5	8	3	4
M10 × 1	ISO2X	3102101080	5P	90	19	-	46	7	5.5	8	3	4
M12 × 1.75	ISO2X	3102101088	5P	110	26	-	56	9	7	10	3	4
M12 × 1.5	ISO2X	3102101089	5P	100	21	-	51	9	7	10	3	4
M12 × 1.25	ISO2X	3102101090	5P	100	21	-	51	9	7	10	3	4
M14 × 2	ISO2X	3102101100	5P	110	26	-	56	11	9	12	3	4
M14 × 1.5	ISO2X	3102101102	5P	100	21	-	51	11	9	12	3	4
M16 × 2	ISO2X	3102101114	5P	110	26	-	56	12	9	12	3	4
M16 × 1.5	ISO2X	3102101116	5P	100	21	-	51	12	9	12	3	4
M18 × 2.5	ISO2X	3102101128	5P	125	33	-	64	14	11	14	3	4
M18 × 1.5	ISO2X	3102101130	5P	110	24	-	56	14	11	14	3	4
M20 × 2.5	ISO2X	3102101141	5P	140	33	-	71	16	12	15	3	4
M20 × 1.5	ISO2X	3102101144	5P	125	24	-	64	16	12	15	3	4
M22 × 2.5	ISO2X	3102101156	5P	140	33	-	71	18	14.5	17	3	4
M22 × 1.5	ISO2X	3102101158	5P	125	24	-	64	18	14.5	17	3	4
M24 × 3	ISO2X	3102101167	5P	160	37	-	82	18	14.5	17	3	4
M24 × 1.5	ISO2X	3102101170	5P	140	27	-	71	18	14.5	17	3	4
For Unified Threads												
No.5-40UNC	2BX	3102103021	5P	56	11	18	34	3.5	2.7	6	2	2
No.5-44UNF	2BX	3102103022	5P	56	11	18	34	3.5	2.7	6	2	2
No.6-32UNC	2BX	3102103023	5P	56	11	19	32	4	3	6	2	2
No.6-40UNF	2BX	3102103024	5P	56	11	19	32	4	3	6	2	2
No.8-32UNC	2BX	3102103029	5P	63	13	21	38	4.5	3.4	6	2	2
No.8-36UNF	2BX	3102103030	5P	63	13	21	38	4.5	3.4	6	2	2
No.10-24UNC	2BX	3102103039	5P	70	14	24	39	6	4.9	8	2	2
No.10-32UNF	2BX	3102103041	5P	70	14	24	39	6	4.9	8	2	2
No.12-24UNC	2BX	3102103047	5P	80	15	28	45	6	4.9	8	2	2
No.12-28UNF	2BX	3102103048	5P	80	15	28	45	6	4.9	8	2	2
1/4-20UNC	2BX	3102103058	5P	80	15	30	42	7	5.5	8	3	2
1/4-28UNF	2BX	3102103062	5P	80	15	30	42	7	5.5	8	3	2
5/16-18UNC	2BX	3102103071	5P	90	19	35	47	8	6.2	9	3	3
5/16-24UNF	2BX	3102103074	5P	90	19	-	46	6	4.9	8	3	4
3/8-16UNC	2BX	3102103082	5P	100	23	39	54	9	7	10	3	3
3/8-24UNF	2BX	3102103085	5P	100	23	-	51	7	5.5	8	3	4
7/16-14UNC	2BX	3102103098	5P	100	23	-	51	8	6.2	9	3	4
7/16-20UNF	2BX	3102103101	5P	100	23	-	51	8	6.2	9	3	4
1/2-13UNC	2BX	3102103111	5P	110	26	-	56	9	7	10	3	4
1/2-20UNF	2BX	3102103115	5P	100	21	-	51	9	7	10	3	4
9/16-12UNC	2BX	3102103126	5P	110	26	-	56	11	9	12	3	4
9/16-18UNF	2BX	3102103129	5P	100	21	-	51	11	9	12	3	4
5/8-11UNC	2BX	3102103138	5P	110	26	-	56	12	9	12	3	4
5/8-18UNF	2BX	3102103142	5P	100	21	-	51	12	9	12	3	4
3/4-10UNC	2BX	3102103161	5P	125	33	-	64	14	11	14	3	4
3/4-16UNF	2BX	3102103164	5P	110	24	-	56	14	11	14	3	4
7/8-9UNC	2BX	3102103181	5P	140	33	-	71	18	14.5	17	3	4
7/8-14UNF	2BX	3102103184	5P	125	24	-	64	18	14.5	17	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

PO

Spiral Pointed Taps



Specification

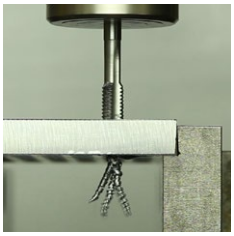
HSS

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

Product Features

- The chips from the tap's cutting chamfer are pushed forward. This is optimal for through hole tapping where there are no obstructions created by the chip.
- Straight flutes are shallow so the taps strength is very high.



Chips discharge of a PO tap

Comparison of a PO and + PO tap

PO For low-speed machining on drilling machines and CNC machining centers

Standard tap series PO for through holes.

Old Name	New Name	Size Range
N-PO	PO	M1.2～M50

The PO and +PO use similar wording but have different meanings.

+PO For CNC Machining center at medium speed machining. Synchronous feed is recommended.

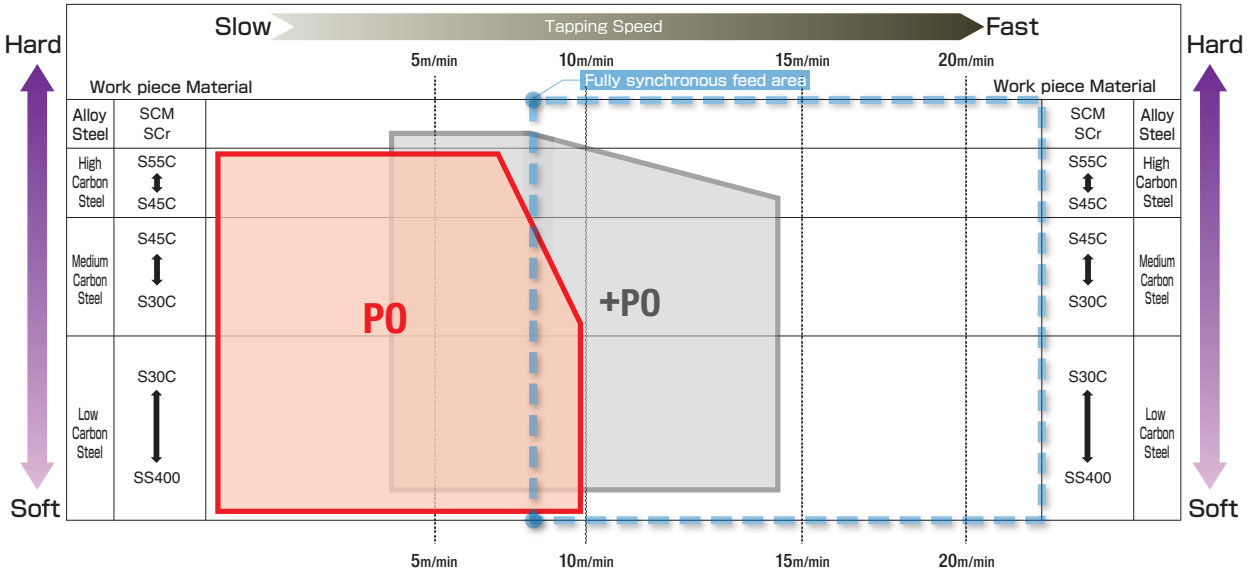
Plus series + PO for through holes.

Old Name	New Name	Size Range
N+PO	+PO	M3～M6

The PO and +PO use similar wording but have different meanings.

・Both are general-purpose spiral point taps developed for the processing environment of our customers.

Application chart

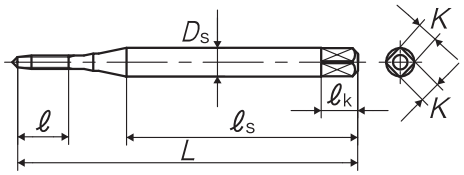


It is an image diagram of a processable range.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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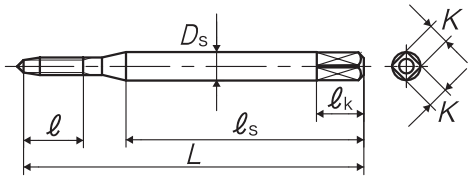

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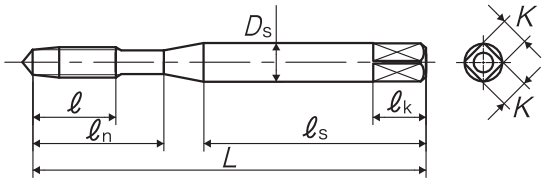
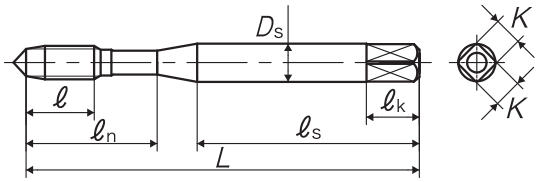


TYPE: 4



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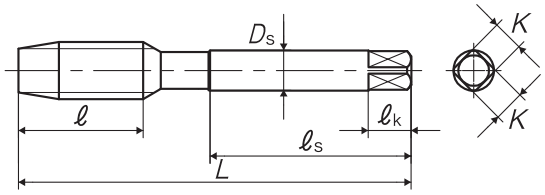

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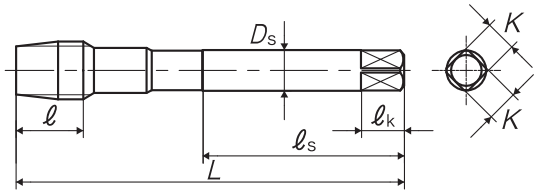

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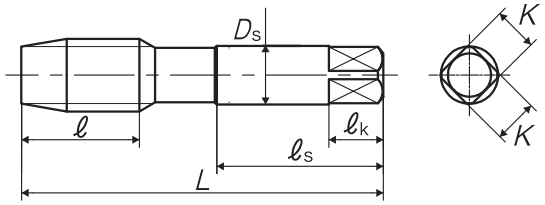
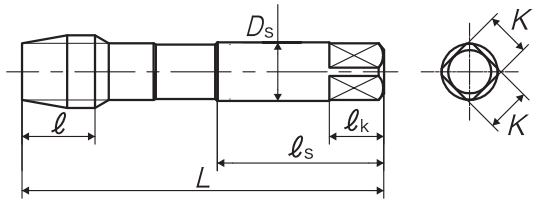


TYPE: 8



Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Oversize

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M1.2 × 0.25	P1	POP1.2B	5P	36	4.5	-	24	3	2.5	5	2	1	¥ 3,770
M1.4 × 0.3	P1	POP1.4C	5P	36	5.4	-	24	3	2.5	5	2	1	¥ 3,080
M1.4 × 0.3	P2	POQ1.4C	5P	36	5.4	-	24	3	2.5	5	2	1	¥ 3,080
M1.4 × 0.3	P3	POR1.4C	5P	36	5.4	-	24	3	2.5	5	2	1	¥ 3,080 ※
M1.6 × 0.35	P2	POQ1.6D	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940
M1.6 × 0.35	P3	POR1.6D	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940 ※
M1.7 × 0.35	P2	POQ1.7D	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940
M1.7 × 0.35	P3	POR1.7D	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940
M1.7 × 0.35	P4	POS1.7D	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940 ※
M1.8 × 0.35	P2	POQ1.8D	5P	42	6.3	-	27	3	2.5	5	2	2	¥ 2,940 ※
M2 × 0.4	P2	POQ2.0E	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,350
M2 × 0.4	P3	POR2.0E	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,350
M2 × 0.4	P4	POS2.0E	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,350
M2 × 0.25	P1	POP2.0B	5P	42	4.5	12	27	3	2.5	5	3	4	¥ 3,600 ※
M2.2 × 0.45	P2	POQ2.2F	5P	42	8.1	12	27	3	2.5	5	3	3	¥ 2,140
M2.2 × 0.25	P2	POQ2.2B	5P	42	4.5	12	27	3	2.5	5	3	4	¥ 3,600 ※
M2.3 × 0.4	P2	POQ2.3E	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,140
M2.3 × 0.4	P3	POR2.3E	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,140
M2.3 × 0.4	P4	POS2.3E	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,140 ※
M2.5 × 0.45	P2	POQ2.5F	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,800
M2.5 × 0.45	P3	POR2.5F	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,800
M2.5 × 0.45	P4	POS2.5F	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,800 ※
M2.5 × 0.35	P2	POQ2.5D	5P	46	6.3	14	29	3	2.5	5	3	4	¥ 2,650 ※
M2.6 × 0.45	P2	POQ2.6F	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,800
M2.6 × 0.45	P3	POR2.6F	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,800
M2.6 × 0.45	P4	POS2.6F	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,800 ※
M2.6 × 0.35	P2	POQ2.6D	5P	46	6.3	14	29	3	2.5	5	3	4	¥ 2,650 ※
M3 × 0.5	P2	POQ3.0G	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,260
M3 × 0.5	P3	POR3.0G	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,260
M3 × 0.5	P4	POS3.0G	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,260
3M0.6	P2	POQ3.0H	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,260 ※
M3 × 0.35	P2	POQ3.0D	5P	46	6.5	14	26	4	3.2	6	3	4	¥ 2,150 ※
M3.5 × 0.6	P2	POQ3.5H	5P	52	11	16	29	5	4	7	3	3	¥ 1,260
M3.5 × 0.6	P3	POR3.5H	5P	52	11	16	29	5	4	7	3	3	¥ 1,260 ※
M3.5 × 0.6	P4	POS3.5H	5P	52	11	16	29	5	4	7	3	3	¥ 1,260 ※
M3.5 × 0.35	P2	POQ3.5D	5P	52	6.5	16	29	5	4	7	3	4	¥ 2,150 ※
M4 × 0.7	P2	POQ4.0I	5P	52	11	17	29	5	4	7	3	3	¥ 1,260
M4 × 0.7	P3	POR4.0I	5P	52	11	17	29	5	4	7	3	3	¥ 1,260
M4 × 0.7	P4	POS4.0I	5P	52	11	17	29	5	4	7	3	3	¥ 1,260
4M0.75	P2	POQ4.0J	5P	52	11	17	29	5	4	7	3	3	¥ 1,260 ※
M4 × 0.5	P2	POQ4.0G	5P	52	9	17	29	5	4	7	3	4	¥ 1,850
M4.5 × 0.75	P2	POQ4.5J	5P	60	13	21	33	5.5	4.5	7	3	3	¥ 1,270 ※
M4.5 × 0.5	P2	POQ4.5G	5P	60	9	21	33	5.5	4.5	7	3	4	¥ 1,850 ※
M5 × 0.8	P2	POQ5.0K	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,270
M5 × 0.8	P3	POR5.0K	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,270
M5 × 0.8	P4	POS5.0K	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,270
5M0.9	P2	POQ5.0L	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,270 ※
M5 × 0.5	P2	POQ5.0G	5P	60	9	22	33	5.5	4.5	7	3	4	¥ 1,850

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M5.5 × 0.9	P2	POQ5.5L	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,400 ※
M5.5 × 0.5	P2	POQ5.5G	5P	62	9	26	33	6	4.5	7	3	4	¥ 1,970 ※
M6 × 1	P2	POQ6.0M	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,400
M6 × 1	P3	POR6.0M	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,400
M6 × 1	P4	POS6.0M	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,400
M6 × 0.75	P2	POQ6.0J	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,970
M6 × 0.75	P3	POR6.0J	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,970 ※
M6 × 0.5	P2	POQ6.0G	5P	62	9	26	33	6	4.5	7	3	4	¥ 1,970 ※
M7 × 1	P2	POQ7.0M	5P	70	19	-	36	6.2	5	8	3	5	¥ 1,670
M7 × 1	P3	POR7.0M	5P	70	19	-	36	6.2	5	8	3	5	¥ 1,670 ※
M7 × 0.75	P2	POQ7.0J	5P	70	19	-	36	6.2	5	8	3	5	¥ 2,470 ※
M7 × 0.75	P3	POR7.0J	5P	70	19	-	36	6.2	5	8	3	5	¥ 2,470 ※
M7 × 0.5	P2	POQ7.0G	5P	70	10	-	36	6.2	5	8	3	6	¥ 3,080 ※
M8 × 1.25	P3	POR8.0N	5P	70	19	-	36	6.2	5	8	3	5	¥ 1,920
M8 × 1.25	P4	POS8.0N	5P	70	19	-	36	6.2	5	8	3	5	¥ 1,920
M8 × 1	P3	POR8.0M	5P	70	19	-	36	6.2	5	8	3	5	¥ 2,180
M8 × 1	P4	POS8.0M	5P	70	19	-	36	6.2	5	8	3	5	¥ 2,180 ※
M8 × 0.75	P3	POR8.0J	5P	70	19	-	36	6.2	5	8	3	5	¥ 2,470
M8 × 0.5	P2	POQ8.0G	5P	70	10	-	36	6.2	5	8	3	6	¥ 3,080 ※
M9 × 1.25	P3	POR9.0N	5P	75	23	-	38	7	5.5	8	3	5	¥ 2,440 ※
M9 × 1	P3	POR9.0M	5P	75	23	-	38	7	5.5	8	3	5	¥ 2,900 ※
M9 × 0.75	P3	POR9.0J	5P	75	13	-	38	7	5.5	8	3	6	¥ 3,530 ※
M9 × 0.5	P2	POQ9.0G	5P	75	11	-	38	7	5.5	8	3	6	¥ 3,840 ※
M10 × 1.5	P3	POR010O	5P	75	23	-	38	7	5.5	8	3	5	¥ 2,440
M10 × 1.5	P4	POS010O	5P	75	23	-	38	7	5.5	8	3	5	¥ 2,440
M10 × 1.25	P3	POR010N	5P	75	23	-	38	7	5.5	8	3	5	¥ 2,440
M10 × 1.25	P4	POS010N	5P	75	23	-	38	7	5.5	8	3	5	¥ 2,440 ※
M10 × 1	P3	POR010M	5P	75	23	-	38	7	5.5	8	3	5	¥ 2,900
M10 × 1	P4	POS010M	5P	75	23	-	38	7	5.5	8	3	5	¥ 2,900 ※
M10 × 0.75	P3	POR010J	5P	75	13	-	38	7	5.5	8	3	6	¥ 3,530 ※
M10 × 0.5	P2	POQ010G	5P	75	11	-	38	7	5.5	8	3	6	¥ 3,840 ※
M11 × 1.5	P4	POS011O	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,460 ※
M11 × 1.25	P3	POR011N	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,460 ※
M11 × 1	P3	POR011M	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 4,070 ※
M11 × 0.75	P3	POR011J	5P	82	14	-	42	8.5	6.5	9	3	6	¥ 5,190 ※
M11 × 0.5	P2	POQ011G	5P	82	12	-	42	8.5	6.5	9	3	6	¥ 5,190 ※
M12 × 1.75	P4	POS012P	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,460
M12 × 1.75	P5	POT012P	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,460 ※
M12 × 1.75	P6	POU012P	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,460 ※
M12 × 1.5	P3	POR012O	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,460
M12 × 1.5	P4	POS012O	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,460 ※
M12 × 1.5	P5	POT012O	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,460 ※
M12 × 1.25	P4	POS012N	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,460
M12 × 1.25	P5	POT012N	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,460 ※
M12 × 1	P3	POR012M	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 4,070
M12 × 1	P4	POS012M	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 4,070 ※
M12 × 0.75	P3	POR012J	5P	82	14	-	42	8.5	6.5	9	3	6	¥ 5,190 ※
M12 × 0.5	P2	POQ012G	5P	82	12	-	42	8.5	6.5	9	3	6	¥ 5,190 ※
M13 × 1.75	P4	POS013P	5P	88	26	-	45	10.5	8	11	3	5	¥ 5,480 ※
M13 × 1.5	P3	POR013O	5P	88	26	-	45	10.5	8	11	3	5	¥ 5,480 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M13 × 1	P3	POR013M	5P	88	26	-	45	10.5	8	11	3	5	¥ 5,480 ※
M13 × 0.75	P3	POR013J	5P	88	14	-	45	10.5	8	11	3	6	¥ 7,010 ※
M13 × 0.5	P2	POQ013G	5P	88	12	-	45	10.5	8	11	3	6	¥ 7,010 ※
M14 × 2	P4	POS014Q	5P	88	26	-	45	10.5	8	11	3	5	¥ 4,720
M14 × 2	P5	POT014Q	5P	88	26	-	45	10.5	8	11	3	5	¥ 4,720 ※
M14 × 1.5	P3	POR014O	5P	88	26	-	45	10.5	8	11	3	5	¥ 4,720
M14 × 1.5	P4	POS014O	5P	88	26	-	45	10.5	8	11	3	5	¥ 4,720 ※
M14 × 1.5	P5	POT014O	5P	88	26	-	45	10.5	8	11	3	5	¥ 4,720 ※
M14 × 1.25	P3	POR014N	5P	88	26	-	45	10.5	8	11	3	5	¥ 5,480 ※
M14 × 1	P3	POR014M	5P	88	26	-	45	10.5	8	11	3	5	¥ 5,480
M14 × 1	P4	POS014M	5P	88	26	-	45	10.5	8	11	3	5	¥ 5,480 ※
M14 × 0.75	P3	POR014J	5P	88	15	-	45	10.5	8	11	3	6	¥ 7,010 ※
M14 × 0.5	P2	POQ014G	5P	88	12	-	45	10.5	8	11	3	6	¥ 7,010 ※
M15 × 2	P4	POS015Q	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310 ※
M15 × 1.5	P3	POR015O	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310 ※
M15 × 1	P3	POR015M	5P	95	26	-	48	12.5	10	13	3	5	¥ 7,520 ※
M16 × 2	P4	POS016Q	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310
M16 × 2	P5	POT016Q	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310 ※
M16 × 2	P6	POU016Q	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310 ※
M16 × 1.5	P3	POR016O	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310
M16 × 1.5	P4	POS016O	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310 ※
M16 × 1.5	P5	POT016O	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310 ※
M16 × 1.25	P3	POR016N	5P	95	26	-	48	12.5	10	13	3	5	¥ 7,520 ※
M16 × 1	P3	POR016M	5P	95	26	-	48	12.5	10	13	3	5	¥ 7,520
M17 × 1.5	P4	POS017O	5P	100	33	-	51	14	11	14	3	5	¥ 8,430 ※
M17 × 1	P4	POS017M	5P	100	18	-	51	14	11	14	3	6	¥ 10,900 ※
M18 × 2.5	P4	POS018R	5P	100	33	-	51	14	11	14	3	5	¥ 8,430
M18 × 2.5	P5	POT018R	5P	100	33	-	51	14	11	14	3	5	¥ 8,430 ※
M18 × 2	P4	POS018Q	5P	100	33	-	51	14	11	14	3	5	¥ 8,430 ※
M18 × 1.5	P4	POS018O	5P	100	33	-	51	14	11	14	3	5	¥ 8,430
M18 × 1.5	P5	POT018O	5P	100	33	-	51	14	11	14	3	5	¥ 8,430 ※
M18 × 1.25	P3	POR018N	5P	100	33	-	51	14	11	14	3	5	¥ 10,900 ※
M18 × 1	P3	POR018M	5P	100	18	-	51	14	11	14	3	6	¥ 10,900
M19 × 1.5	P4	POS019O	5P	105	33	-	50	15	12	15	3	7	¥ 11,500 ※
M19 × 1	P3	POR019M	5P	105	18	-	50	15	12	15	3	8	¥ 14,600 ※
M20 × 2.5	P4	POS020R	5P	105	33	-	50	15	12	15	3	7	¥ 11,500
M20 × 2.5	P5	POT020R	5P	105	33	-	50	15	12	15	3	7	¥ 11,500 ※
M20 × 2.5	P6	POU020R	5P	105	33	-	50	15	12	15	3	7	¥ 11,500 ※
M20 × 2	P4	POS020Q	5P	105	33	-	50	15	12	15	3	7	¥ 11,500 ※
M20 × 1.5	P4	POS020O	5P	105	33	-	50	15	12	15	3	7	¥ 11,500
M20 × 1.5	P5	POT020O	5P	105	33	-	50	15	12	15	3	7	¥ 11,500 ※
M20 × 1	P3	POR020M	5P	105	18	-	50	15	12	15	3	8	¥ 14,600
M22 × 2.5	P4	POS022R	5P	115	33	-	55	17	13	16	3	7	¥ 14,700
M22 × 2.5	P5	POT022R	5P	115	33	-	55	17	13	16	3	7	¥ 14,700 ※
M22 × 2	P4	POS022Q	5P	115	33	-	55	17	13	16	3	7	¥ 14,700 ※
M22 × 1.5	P4	POS022O	5P	115	33	-	55	17	13	16	3	7	¥ 14,700
M22 × 1.5	P5	POT022O	5P	115	33	-	55	17	13	16	3	7	¥ 14,700 ※
M22 × 1	P3	POR022M	5P	115	19	-	55	17	13	16	3	8	¥ 19,000 ※
M24 × 3	P4	POS024S	5P	120	39	-	55	19	15	18	3	7	¥ 18,300
M24 × 3	P5	POT024S	5P	120	39	-	55	19	15	18	3	7	¥ 18,300 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M24 × 3	P6	POU024S	5P	120	39	-	55	19	15	18	3	7	¥ 18,300 ※
M24 × 2	P4	POS024Q	5P	120	39	-	55	19	15	18	3	7	¥ 18,300
M24 × 1.5	P4	POS024O	5P	120	39	-	55	19	15	18	3	7	¥ 18,300
M24 × 1.5	P5	POT024O	5P	120	39	-	55	19	15	18	3	7	¥ 18,300 ※
M24 × 1	P3	POR024M	5P	120	19	-	55	19	15	18	3	8	¥ 23,400 ※
M25 × 2	P4	POS025Q	5P	125	39	-	58	19	15	18	3	7	¥ 23,700 ※
M25 × 1.5	P4	POS025O	5P	125	39	-	58	19	15	18	3	7	¥ 23,700
M25 × 1	P3	POR025M	5P	125	20	-	58	19	15	18	3	8	¥ 28,100 ※
M26 × 3	P4	POS026S	5P	130	39	-	60	20	15	18	4	7	¥ 25,500 ※
M26 × 2	P4	POS026Q	5P	130	39	-	60	20	15	18	4	7	¥ 25,500 ※
M26 × 1.5	P4	POS026O	5P	130	39	-	60	20	15	18	4	7	¥ 25,500
M26 × 1	P3	POR026M	5P	130	20	-	60	20	15	18	4	8	¥ 31,400 ※
M27 × 3	P4	POS027S	5P	130	39	-	60	20	15	18	4	7	¥ 25,500
M27 × 2	P4	POS027Q	5P	130	39	-	60	20	15	18	4	7	¥ 25,500 ※
M27 × 1.5	P4	POS027O	5P	130	39	-	60	20	15	18	4	7	¥ 25,500
M27 × 1	P3	POR027M	5P	130	20	-	60	20	15	18	4	8	¥ 31,400 ※
M28 × 2	P4	POS028Q	5P	135	46	-	62	23	17	20	4	7	¥ 32,500 ※
M28 × 1.5	P4	POS028O	5P	135	46	-	62	23	17	20	4	7	¥ 32,500 ※
M28 × 1	P3	POR028M	5P	135	20	-	62	23	17	20	4	8	¥ 40,600 ※
M30 × 3.5	P5	POT030T	5P	135	46	-	62	23	17	20	4	7	¥ 32,500
M30 × 3	P4	POS030S	5P	135	46	-	62	23	17	20	4	7	¥ 32,500 ※
M30 × 2	P4	POS030Q	5P	135	46	-	62	23	17	20	4	7	¥ 32,500
M30 × 1.5	P4	POS030O	5P	135	46	-	62	23	17	20	4	7	¥ 32,500
M30 × 1	P3	POR030M	5P	135	21	-	62	23	17	20	4	8	¥ 40,600 ※
M32 × 3	P4	POMS032S	5P	145	46	-	67	24	19	22	4	7	¥ 37,800 ※
M32 × 2	P4	POMS032Q	5P	145	46	-	67	24	19	22	4	7	¥ 37,800 ※
M32 × 1.5	P4	POMS032O	5P	145	46	-	67	24	19	22	4	7	¥ 37,800 ※
M33 × 3.5	P5	POMT033T	5P	145	46	-	67	25	19	22	4	7	¥ 37,800
M33 × 3	P4	POMS033S	5P	145	46	-	67	25	19	22	4	7	¥ 37,800 ※
M33 × 2	P4	POMS033Q	5P	145	46	-	67	25	19	22	4	7	¥ 37,800 ※
M33 × 1.5	P4	POMS033O	5P	145	46	-	67	25	19	22	4	7	¥ 37,800 ※
M34 × 2	P4	POMS034Q	5P	155	52	-	71	28	21	24	4	7	¥ 43,800 ※
M34 × 1.5	P4	POMS034O	5P	155	26	-	71	28	21	24	4	8	¥ 43,800 ※
M35 × 2	P4	POMS035Q	5P	155	52	-	71	28	21	24	4	7	¥ 43,800 ※
M35 × 1.5	P4	POMS035O	5P	155	26	-	71	28	21	24	4	8	¥ 43,800 ※
M36 × 4	P5	POMT036U	5P	155	52	-	71	28	21	24	4	7	¥ 43,800
M36 × 3	P4	POMS036S	5P	155	52	-	71	28	21	24	4	7	¥ 43,800 ※
M36 × 2	P4	POMS036Q	5P	155	52	-	71	28	21	24	4	7	¥ 43,800 ※
M36 × 1.5	P4	POMS036O	5P	155	26	-	71	28	21	24	4	8	¥ 43,800 ※
M38 × 2	P4	POMS038Q	5P	165	52	-	76	30	23	26	4	7	¥ 50,200 ※
M38 × 1.5	P4	POMS038O	5P	165	26	-	76	30	23	26	4	8	¥ 50,200 ※
M39 × 4	P5	POMT039U	5P	165	52	-	76	30	23	26	4	7	¥ 50,200 ※
M39 × 3	P4	POMS039S	5P	165	52	-	76	30	23	26	4	7	¥ 50,200 ※
M39 × 2	P4	POMS039Q	5P	165	52	-	76	30	23	26	4	7	¥ 50,200 ※
M39 × 1.5	P4	POMS039O	5P	165	26	-	76	30	23	26	4	8	¥ 50,200 ※
M40 × 3	P4	POMS040S	5P	175	59	-	81	32	26	30	4	7	¥ 61,100 ※
M40 × 2	P4	POMS040Q	5P	175	59	-	81	32	26	30	4	7	¥ 61,100 ※
M40 × 1.5	P4	POMS040O	5P	175	27	-	81	32	26	30	4	8	¥ 61,100 ※
M42 × 4.5	P5	POMT042V	5P	175	59	-	81	32	26	30	4	7	¥ 61,100 ※
M42 × 3	P4	POMS042S	5P	175	59	-	81	32	26	30	4	7	¥ 61,100 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M42 × 2	P4	POMS042Q	5P	175	59	-	81	32	26	30	4	7	¥ 61,100 ※
M42 × 1.5	P4	POMS042O	5P	175	27	-	81	32	26	30	4	8	¥ 61,100 ※
M45 × 4.5	P5	POMT045V	5P	180	59	-	83	35	26	30	4	7	¥ 70,700 ※
M45 × 3	P4	POMS045S	5P	180	59	-	83	35	26	30	4	7	¥ 70,700 ※
M45 × 2	P4	POMS045Q	5P	180	59	-	83	35	26	30	4	7	¥ 70,700 ※
M45 × 1.5	P4	POMS045O	5P	180	27	-	83	35	26	30	4	8	¥ 70,700 ※
M48 × 5	P5	POMT048W	5P	185	65	-	85	38	29	32	4	7	¥ 88,400 ※
M48 × 3	P4	POMS048S	5P	185	65	-	85	38	29	32	4	7	¥ 88,400 ※
M48 × 2	P4	POMS048Q	5P	185	65	-	85	38	29	32	4	7	¥ 88,400 ※
M48 × 1.5	P4	POMS048O	5P	185	28	-	85	38	29	32	4	8	¥ 88,400 ※
M50 × 1.5	P4	POS0500	5P	145	45	-	81	40	32	35	4	7	¥ 96,000 ※
For Unified Threads													
No.0-80UNF	P1	POPUN0B	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 3,490 ※
No.1-64UNC	P1	POPUN1D	5P	42	7.2	-	27	3	2.5	5	2	2	¥ 3,490 ※
No.1-72UNF	P1	POPUN1C	5P	42	7.2	-	27	3	2.5	5	2	2	¥ 3,490 ※
No.2-56UNC	P1	POPUN2E	5P	42	8.1	12	27	3	2.5	5	3	3	¥ 2,460
No.2-64UNF	P1	POPUN2D	5P	42	8.1	12	27	3	2.5	5	3	3	¥ 2,460 ※
No.3-48UNC	P1	POPUN3F	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 2,080 ※
No.3-56UNF	P1	POPUN3E	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 2,080 ※
No.4-40UNC	P2	POQUN4H	5P	46	9	14	25	4	3.2	6	3	3	¥ 1,590
No.4-48UNF	P1	POPUN4F	5P	46	9	14	25	4	3.2	6	3	3	¥ 1,590 ※
No.5-40UNC	P2	POQUN5H	5P	52	11	16	28	5	4	7	3	3	¥ 1,480 ※
No.5-44UNF	P1	POPUN5G	5P	52	11	16	28	5	4	7	3	3	¥ 1,480 ※
No.6-32UNC	P2	POQUN6J	5P	52	11	17	27	5	4	7	3	3	¥ 1,480
No.6-40UNF	P2	POQUN6H	5P	52	11	17	27	5	4	7	3	3	¥ 1,480 ※
No.8-32UNC	P2	POQUN8J	5P	60	13	22	31	5.5	4.5	7	3	3	¥ 1,490
No.8-36UNF	P2	POQUN8I	5P	60	13	22	31	5.5	4.5	7	3	3	¥ 1,490 ※
No.10-24UNC	P2	POQUNAM	5P	60	13	22	32	5.5	4.5	7	3	3	¥ 1,490
No.10-32UNF	P2	POQUNAJ	5P	60	13	22	32	5.5	4.5	7	3	3	¥ 1,490
No.12-24UNC	P2	POQUNCM	5P	62	15	26	32	6	4.5	7	3	3	¥ 1,600 ※
No.12-28UNF	P2	POQUNCK	5P	62	15	26	32	6	4.5	7	3	3	¥ 1,600 ※
1/4-20UNC	P2	POQU04N	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,600
1/4-28UNF	P2	POQU04K	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,600
1/4-32UNEF	P2	POQU04J	5P	62	15	26	33	6	4.5	7	3	3	¥ 2,370 ※
5/16-18UNC	P3	PORU05O	5P	70	19	-	36	6.2	5	8	3	5	¥ 2,210
5/16-24UNF	P2	POQU05M	5P	70	19	-	36	6.2	5	8	3	5	¥ 2,210
5/16-32UNEF	P2	POQU05J	5P	70	19	-	36	6.2	5	8	3	5	¥ 3,080 ※
3/8-16UNC	P3	PORU06P	5P	75	23	-	38	7	5.5	8	3	5	¥ 2,830
3/8-24UNF	P2	POQU06M	5P	75	23	-	38	7	5.5	8	3	5	¥ 2,830
3/8-32UNEF	P2	POQU06J	5P	75	13	-	38	7	5.5	8	3	6	¥ 3,530 ※
7/16-14UNC	P3	PORU07Q	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,990 ※
7/16-20UNF	P3	PORU07N	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,990
7/16-28UNEF	P2	POQU07K	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 5,190 ※
1/2-13UNC	P3	PORU08R	5P	88	26	-	45	10.5	8	11	3	5	¥ 4,230
1/2-20UNF	P3	PORU08N	5P	88	26	-	45	10.5	8	11	3	5	¥ 4,230
1/2-28UNEF	P2	POQU08K	5P	88	26	-	45	10.5	8	11	3	5	¥ 6,240 ※
9/16-12UNC	P3	PORU09S	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310 ※
9/16-18UNF	P3	PORU09O	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
5/8-11UNC	P3	PORU10U	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310 ※
5/8-18UNF	P3	PORU10O	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310 ※
5/8-24UNEF	P3	PORU10M	5P	95	26	-	48	12.5	10	13	3	5	¥ 9,030 ※
3/4-10UNC	P4	POSU12V	5P	105	33	-	50	15	12	15	3	7	¥ 11,500 ※
3/4-16UNF	P3	PORU12P	5P	105	33	-	50	15	12	15	3	7	¥ 11,500
3/4-20UNEF	P3	PORU12N	5P	105	33	-	50	15	12	15	3	7	¥ 14,600 ※
7/8-9UNC	P4	POSU14W	5P	115	33	-	55	17	13	16	3	7	¥ 16,200 ※
7/8-14UNF	P3	PORU14Q	5P	115	33	-	55	17	13	16	3	7	¥ 16,200 ※
1 -8UNC	P4	POSU16X	5P	125	39	-	58	19	15	18	3	7	¥ 23,700 ※
1 -12UNF	P4	POSU16S	5P	125	39	-	58	19	15	18	3	7	¥ 23,700 ※
1 -14UNS	P4	POSU16Q	5P	125	39	-	58	19	15	18	3	7	¥ 31,400 ※
1 1/8-7UNC	P4	POSU18Y	5P	135	46	-	62	23	17	20	4	7	¥ 32,500 ※
1 1/8-12UNF	P4	POSU18S	5P	135	46	-	62	23	17	20	4	7	¥ 32,500 ※
1 1/4-7UNC	P4	POMSU20Y	5P	145	46	-	67	24	19	22	4	7	¥ 37,800 ※
1 1/4-12UNF	P4	POMSU20S	5P	145	46	-	67	24	19	22	4	7	¥ 37,800 ※
1 3/8-6UNC	P5	POMTU22Z	5P	155	52	-	71	28	21	24	4	7	¥ 43,800 ※
1 3/8-12UNF	P4	POMSU22S	5P	155	52	-	71	28	21	24	4	7	¥ 43,800 ※
1 1/2-6UNC	P5	POMTU24Z	5P	165	52	-	76	30	23	26	4	7	¥ 62,700 ※
1 1/2-12UNF	P4	POMSU24S	5P	165	52	-	76	30	23	26	4	7	¥ 62,700 ※
For Whitworth Threads													
1/8W40	P2	POQW02H	5P	52	11	16	28	5	4	7	3	3	¥ 1,840 ※
5/32W32	P2	POQW2HJ	5P	52	11	17	29	5	4	7	3	3	¥ 1,480 ※
3/16W24	P2	POQW03M	5P	60	13	21	32	5.5	4.5	7	3	3	¥ 1,490
7/32W24	P2	POQW3HM	5P	62	15	26	32	6	4.5	7	3	3	¥ 1,600 ※
1/4W20	P3	PORW04N	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,600
5/16W18	P3	PORW05O	5P	70	19	-	36	6.2	5	8	3	5	¥ 2,210
3/8W16	P3	PORW06P	5P	75	23	-	38	7	5.5	8	3	5	¥ 2,830
7/16W14	P3	PORW07Q	5P	82	26	-	42	8.5	6.5	9	3	5	¥ 3,990 ※
1/2W12	P3	PORW08S	5P	88	26	-	45	10.5	8	11	3	5	¥ 4,230
9/16W12	P3	PORW09S	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310 ※
5/8W11	P3	PORW10U	5P	95	26	-	48	12.5	10	13	3	5	¥ 6,310
3/4W10	P4	POSW12V	5P	105	33	-	50	15	12	15	3	7	¥ 11,500
7/8W9	P4	POSW14W	5P	115	33	-	55	17	13	16	3	7	¥ 16,200 ※
1 W8	P4	POSW16X	5P	125	39	-	58	19	15	18	3	7	¥ 23,700 ※
1 1/8W7	P4	POSW18Y	5P	135	46	-	62	23	17	20	4	7	¥ 32,500 ※
1 1/4W7	P4	POMSW20Y	5P	145	46	-	67	24	19	22	4	7	¥ 37,800 ※
1 3/8W6	P5	POMTW22Z	5P	155	52	-	71	28	21	24	4	7	¥ 43,800 ※
1 1/2W6	P5	POMTW24Z	5P	165	52	-	76	30	23	26	4	7	¥ 62,700 ※
2 W4 1/2	P5	POTW329	5P	195	70	-	85	40	32	35	4	7	¥138,000 ※
For Screw Threads used on Sewing Machines													
3/32SM56	P1	POPS06E	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 2,500 ※
1/8SM40	P2	POQS08H	5P	52	11	16	28	5	4	7	3	3	¥ 1,840 ※
1/8SM44	P2	POQS08G	5P	52	11	16	28	5	4	7	3	3	¥ 1,840 ※
9/64SM40	P2	POQS09H	5P	52	11	16	29	5	4	7	3	3	¥ 1,840 ※
11/64SM40	P2	POQS11H	5P	60	13	21	33	5.5	4.5	7	3	3	¥ 1,790 ※
3/16SM28	P2	POQS12K	5P	60	13	21	32	5.5	4.5	7	3	3	¥ 1,790 ※
3/16SM32	P2	POQS12J	5P	60	13	21	32	5.5	4.5	7	3	3	¥ 1,790 ※
7/32SM32	P2	POQS14J	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,920 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
15/64SM28	P2	POQS15K	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,920 ※
1/4SM24	P2	POQS16M	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,920 ※
1/4SM40	P2	POQS16H	5P	62	8.6	26	33	6	4.5	7	3	4	¥ 2,760 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

PO

Spiral Pointed Taps



Specification

HSS

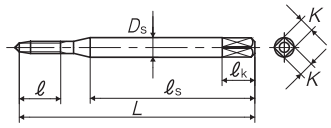


Recommended Tapping Speed depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

■The PO taps push the chips forward and discharge them in the direction of tapping. These taps cut a stable thread with few problems due to chips, making them ideal for through hole machining.

TYPE:1



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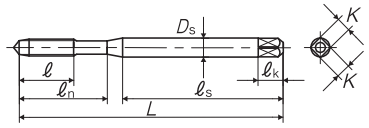

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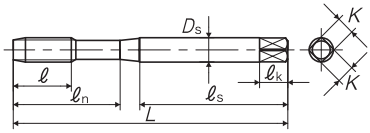

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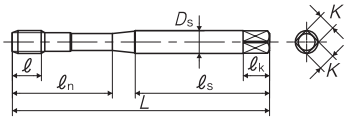

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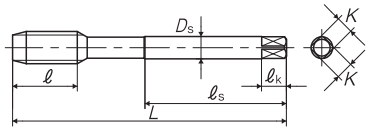

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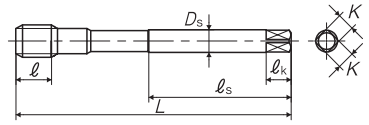

Segment : 1E

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	D3	PS2.0E3NEB	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
M2.2 × 0.45	D3	PS2.2F3NEB	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
M2.5 × 0.45	D3	PS2.5F3NEB	5P	2.205	0.354	0.693	1.28	0.141	0.11	0.187	3	2
M2.6 × 0.45	D3	PS2.6F3NEB	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
M3 × 0.5	D3	PS3.0G3NEB	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
M3.5 × 0.6	D4	PS3.5H4NEB	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
M4 × 0.7	D4	PS4.0I4NEB	5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	2
M5 × 0.8	D4	PS5.0K4NEB	5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M6 × 1	D5	PS6.0M5NEB	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
M7 × 1	D5	PS7.0M5NEB	5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M7 × 0.75	D4	PS7.0J4NEB	5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M7 × 0.5	D4	PS7.0G4NEB	5P	3.543	0.394	1.339	1.831	0.318	0.238	0.375	3	4
M8 × 1.25	D5	PS8.0N5NEB	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 1	D5	PS8.0M5NEB	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 0.75	D4	PS8.0J4NEB	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 0.5	D4	PS8.0G4NEB	5P	3.543	0.394	1.378	1.831	0.318	0.238	0.375	3	4
M9 × 1.25	D5	PS9.0N5NEB	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
M9 × 1	D5	PS9.0M5NEB	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
M10 × 1.5	D6	PS010O6NEB	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 1.25	D5	PS010N5NEB	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M10 × 1	D5	PS010M5NEB	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 0.75	D4	PS010J4NEB	5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	3	4
M11 × 1.5	D6	PS01106NEB	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
M12 × 1.75	D6	PS012P6NEB	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M12 × 1.5	D6	PS01206NEB	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M12 × 1.25	D6	PS012N6NEB	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M12 × 1	D5	PS012M5NEB	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M14 × 2	D7	PS014Q7NEB	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M14 × 1.5	D6	PS01406NEB	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M14 × 1.25	D6	PS014N6NEB	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M14 × 1	D5	PS014M5NEB	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M16 × 2	D7	PS016Q7NEB	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
M16 × 1.5	D6	PS01606NEB	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
M16 × 1	D5	PS016M5NEB	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
M18 × 2.5	D7	PS018R7NEB	5P	4.921	1.299	-	2.52	0.542	0.406	0.625	3	5
M18 × 2	D7	PS018Q7NEB	5P	4.921	1.299	-	2.52	0.542	0.406	0.625	3	5
M18 × 1.5	D6	PS01806NEB	5P	4.921	0.945	-	2.52	0.542	0.406	0.625	3	6
M18 × 1	D5	PS018M5NEB	5P	4.921	0.945	-	2.52	0.542	0.406	0.625	3	6
M20 × 2.5	D7	PS020R7NEB	5P	5.512	1.299	-	2.795	0.652	0.489	0.687	3	5
M20 × 2	D7	PS020Q7NEB	5P	5.512	1.299	-	2.795	0.652	0.489	0.687	3	5
M20 × 1.5	D6	PS02006NEB	5P	5.512	0.945	-	2.795	0.652	0.489	0.687	3	6
M20 × 1	D5	PS020M5NEB	5P	5.512	0.945	-	2.795	0.652	0.489	0.687	3	6
M22 × 2.5	D7	PS022R7NEB	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
M22 × 2	D7	PS022Q7NEB	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
M22 × 1.5	D6	PS02206NEB	5P	5.512	0.945	-	2.795	0.697	0.523	0.75	3	6
M22 × 1	D5	PS022M5NEB	5P	5.512	0.945	-	2.795	0.697	0.523	0.75	3	6
M24 × 3	D8	PS024S8NEB	5P	6.299	1.457	-	3.228	0.76	0.57	0.75	3	5
M24 × 2	D7	PS024Q7NEB	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	3	6
M24 × 1.5	D6	PS02406NEB	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	3	6
M24 × 1	D5	PS024M5NEB	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	3	6
M25 × 1.5	D6	PS02506NEB	5P	6.299	1.063	-	3.228	0.8	0.6	0.812	3	6
M26 × 1.5	D6	PS02606NEB	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 3	D8	PS027S8NEB	5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
M27 × 2	D7	PS027Q7NEB	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1.5	D6	PS02706NEB	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1	D5	PS027M5NEB	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 2	D7	PS028Q7NEB	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1.5	D6	PS02806NEB	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1	D5	PS028M5NEB	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M30 × 3.5	D9	PS030T9NEB	5P	7.087	1.732	-	3.622	1.021	0.766	1	4	5
M30 × 2	D7	PS030Q7NEB	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1.5	D6	PS03006NEB	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1	D5	PS030M5NEB	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M32 × 2	D7	PS032Q7NEB	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1.5	D6	PS03206NEB	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1	D5	PS032M5NEB	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M33 × 3.5	D9	PS033T9NEB	5P	7.087	1.732	-	3.622	1.108	0.831	1.062	4	5
M33 × 2	D7	PS033Q7NEB	5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1.5	D6	PS03306NEB	5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1	D5	PS033M5NEB	5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M36 × 4	D9	PS036U9NEB	5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 3	D8	PS036S8NEB	5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 2	D7	PS036Q7NEB	5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1.5	D6	PS036O6NEB	5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1	D5	PS036M5NEB	5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M39 × 4	D9	PS039U9NEB	5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 3	D8	PS039S8NEB	5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 2	D7	PS039Q7NEB	5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1.5	D6	PS039O6NEB	5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1	D5	PS039M5NEB	5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M42 × 4.5	D10	PS042V0NEB	5P	7.874	2.047	-	4.016	1.43	1.072	1.25	4	5
M42 × 2	D7	PS042Q7NEB	5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1.5	D6	PS042O6NEB	5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1	D5	PS042M5NEB	5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M45 × 4.5	D10	PS045V0NEB	5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 3	D8	PS045S8NEB	5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 2	D7	PS045Q7NEB	5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1.5	D6	PS045O6NEB	5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1	D5	PS045M5NEB	5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M48 × 5	D11	PS048W-NEB	5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 3	D9	PS048S9NEB	5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 2	D7	PS048Q7NEB	5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1.5	D7	PS048O7NEB	5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1	D6	PS048M6NEB	5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
For Unified Threads												
No.0-80UNF	GH1	PSUN0B1NEB	5P	1.772	0.236	-	1.161	0.141	0.11	0.187	2	1
No.0-80UNF	GH2	PSUN0B2NEB	5P	1.772	0.236	-	1.161	0.141	0.11	0.187	2	1
No.1-64UNC	GH1	PSUN1D1NEB	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-64UNC	GH2	PSUN1D2NEB	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-72UNF	GH1	PSUN1C1NEB	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-72UNF	GH2	PSUN1C2NEB	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.2-56UNC	GH1	PSUN2E1NEB	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.2-56UNC	GH2	PSUN2E2NEB	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.2-64UNF	GH1	PSUN2D1NEB	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.2-64UNF	GH2	PSUN2D2NEB	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.3-48UNC	GH1	PSUN3F1NEB	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.3-48UNC	GH2	PSUN3F2NEB	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.3-56UNF	GH1	PSUN3E1NEB	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.3-56UNF	GH2	PSUN3E2NEB	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.4-40UNC	GH2	PSUN4H2NEB	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.4-40UNC	GH3	PSUN4H3NEB	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.4-48UNF	GH1	PSUN4F1NEB	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.4-48UNF	GH2	PSUN4F2NEB	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.5-40UNC	GH2	PSUN5H2NEB	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-40UNC	GH3	PSUN5H3NEB	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-44UNF	GH1	PSUN5G1NEB	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-44UNF	GH2	PSUN5G2NEB	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-44UNF	GH3	PSUN5G3NEB	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.6-32UNC	GH2	PSUN6J2NEB	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	2	2
No.6-32UNC	GH3	PSUN6J3NEB	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	2	2

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.6-40UNF	GH2	PSUN6H2NEB	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	2	2
No.6-40UNF	GH3	PSUN6H3NEB	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	2	2
No.8-32UNC	GH2	PSUN8J2NEB	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	2	2
No.8-32UNC	GH3	PSUN8J3NEB	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	2	2
No.8-36UNF	GH2	PSUN8I2NEB	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	2	2
No.8-36UNF	GH3	PSUN8I3NEB	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	2	2
No.10-24UNC	GH2	PSUNAM2NEB	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	2	2
No.10-24UNC	GH3	PSUNAM3NEB	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	2	2
No.10-32UNF	GH2	PSUNAJ2NEB	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	2	2
No.10-32UNF	GH3	PSUNAJ3NEB	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	2	2
No.12-24UNC	GH2	PSUNCM2NEB	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	2	2
No.12-24UNC	GH3	PSUNCM3NEB	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	2	2
No.12-28UNF	GH2	PSUNCK2NEB	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	2	2
No.12-28UNF	GH3	PSUNCK3NEB	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	2	2
1/4-20UNC	GH3	PSU04N3NEB	4.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-20UNC	GH4	PSU04N4NEB	4.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	PSU04N5NEB	4.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH2	PSU04K2NEB	4.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	PSU04K3NEB	4.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	PSU04K4NEB	4.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	PSU05O3NEB	4.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-18UNC	GH4	PSU05O4NEB	4.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	PSU05O5NEB	4.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	PSU05M3NEB	4.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	PSU05M4NEB	4.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	PSU06P3NEB	4.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	PSU06P5NEB	4.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	PSU06M3NEB	4.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	PSU06M4NEB	4.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
7/16-14UNC	GH4	PSU07Q4NEB	4.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-14UNC	GH5	PSU07Q5NEB	4.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-20UNF	GH3	PSU07N3NEB	4.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-20UNF	GH4	PSU07N4NEB	4.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-20UNF	GH5	PSU07N5NEB	4.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
1/2-13UNC	GH3	PSU08R3NEB	4.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-13UNC	GH4	PSU08R4NEB	4.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-13UNC	GH5	PSU08R5NEB	4.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH3	PSU08N3NEB	4.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH4	PSU08N4NEB	4.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH5	PSU08N5NEB	4.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
9/16-12UNC	GH3	PSU09S3NEB	4.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-12UNC	GH4	PSU09S4NEB	4.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-12UNC	GH5	PSU09S5NEB	4.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-18UNF	GH3	PSU09O3NEB	4.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-18UNF	GH4	PSU09O4NEB	4.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-18UNF	GH5	PSU09O5NEB	4.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
5/8-11UNC	GH3	PSU10U3NEB	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-11UNC	GH4	PSU10U4NEB	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-11UNC	GH5	PSU10U5NEB	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-11UNC	GH6	PSU10U6NEB	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
5/8-18UNF	GH3	PSU1003NEB	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-18UNF	GH4	PSU1004NEB	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-18UNF	GH5	PSU1005NEB	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
3/4-10UNC	GH5	PSU12V5NEB	4.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	3	5
3/4-10UNC	GH6	PSU12V6NEB	4.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	3	5
3/4-16UNF	GH3	PSU12P3NEB	4.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	3	5
3/4-16UNF	GH4	PSU12P4NEB	4.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	3	5
3/4-16UNF	GH5	PSU12P5NEB	4.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	3	5
7/8-9UNC	GH4	PSU14W4NEB	4.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
7/8-9UNC	GH5	PSU14W5NEB	4.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
7/8-9UNC	GH6	PSU14W6NEB	4.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
7/8-14UNF	GH4	PSU14Q4NEB	4.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
7/8-14UNF	GH6	PSU14Q6NEB	4.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
1 -8UNC	GH4	PSU16X4NEB	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 -8UNC	GH5	PSU16X5NEB	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 -8UNC	GH6	PSU16X6NEB	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 -8UNC	GH7	PSU16X7NEB	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 -12UNF	GH4	PSU16S4NEB	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 -12UNF	GH5	PSU16S5NEB	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 -12UNF	GH6	PSU16S6NEB	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 1/8-7UNC	GH6	PSU18Y6NEB	4.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-7UNC	GH7	PSU18Y7NEB	4.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH5	PSU18S5NEB	4.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH6	PSU18S6NEB	4.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/4-7UNC	GH6	PSU20Y6NEB	4.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-7UNC	GH8	PSU20Y8NEB	4.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-12UNF	GH5	PSU20S5NEB	4.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-12UNF	GH6	PSU20S6NEB	4.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 3/8-6UNC	GH6	PSU22Z6NEB	4.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-6UNC	GH8	PSU22Z8NEB	4.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-12UNF	GH5	PSU22S5NEB	4.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-12UNF	GH6	PSU22S6NEB	4.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 1/2-6UNC	GH6	PSU24Z6NEB	4.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-6UNC	GH8	PSU24Z8NEB	4.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-12UNF	GH5	PSU24S5NEB	4.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-12UNF	GH7	PSU24S7NEB	4.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

PO

Spiral Pointed Taps



Specification

HSS



■The PO taps push the chips forward and discharge them in the direction of tapping. These taps cut a stable thread with few problems due to chips, making them ideal for through hole machining.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

Segment : 1F (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2	PD2.0EANEB	5P	45	8	-	32	2.8	2.1	5	3	1
M2.2 × 0.45	ISO2	PD2.2FANEB	5P	45	9	-	32	2.8	2.1	5	3	1
M2.3 × 0.4	ISO2	PD2.3EANEB	5P	45	9	-	32	2.8	2.1	5	3	1
M2.5 × 0.45	ISO2	PD2.5FANEB	5P	50	8	15	33	2.8	2.1	5	3	2
M2.6 × 0.45	ISO2	PD2.6FANEB	5P	50	8	15	33	2.8	2.1	5	3	2
M3 × 0.5	ISO2	PD3.0GANEB	5P	56	9	18	34	3.5	2.7	6	3	2
M3 × 0.5	ISO3	PD3.0GMNEB	5P	56	9	18	34	3.5	2.7	6	3	2
M3.5 × 0.6	ISO2	PD3.5HANEB	5P	56	11	20	32	4	3	6	3	2
M3.5 × 0.6	ISO3	PD3.5HMNEB	5P	56	11	20	32	4	3	6	3	2
M4 × 0.7	ISO2	PD4.0IANEB	5P	63	13	21	38	4.5	3.4	6	3	2
M4 × 0.7	ISO2	PG4.0IANEB	5P	63	13	-	-	2.8	2.1	5	3	3
M4 × 0.7	ISO3	PD4.0IMNEB	5P	63	13	21	38	4.5	3.4	6	3	2
M4 × 0.5	ISO2	PM4.0GANEB	5P	63	9	-	-	2.8	2.1	5	3	3
M5 × 0.8	ISO2	PD5.0KANEB	5P	70	14	25	39	6	4.9	8	3	2
M5 × 0.8	ISO2	PG5.0KANEB	5P	70	14	-	-	3.5	2.7	6	3	3
M5 × 0.8	ISO3	PD5.0KMNEB	5P	70	14	25	39	6	4.9	8	3	2
M5 × 0.5	ISO2	PM5.0GANEB	5P	70	11	-	-	3.5	2.7	6	3	3
M6 × 1	ISO2	PD6.0MANEB	5P	80	15	30	45	6	4.9	8	3	2
M6 × 1	ISO2	PG6.0MANEB	5P	80	15	-	-	4.5	3.4	6	3	3
M6 × 1	ISO3	PD6.0MMNEB	5P	80	15	30	45	6	4.9	8	3	2
M6 × 0.75	ISO2	PM6.0JANEB	5P	80	13	-	-	4.5	3.4	6	3	3
M6 × 0.5	ISO2	PM6.0GANEB	5P	80	13	-	-	4.5	3.4	6	3	3
M7 × 1	ISO2	PD7.0MANEB	5P	80	15	30	45	7	5.5	8	3	4
M7 × 0.75	ISO2	PM7.0JANEB	5P	80	13	-	41	5.5	4.3	7	3	5
M7 × 0.5	ISO2	PM7.0GANEB	5P	80	13	-	41	5.5	4.3	7	3	5

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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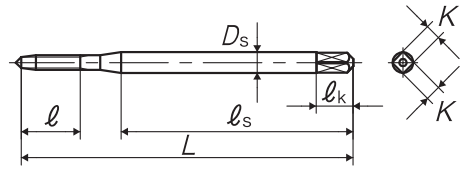

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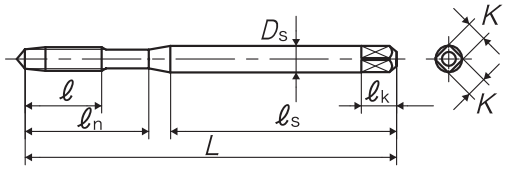

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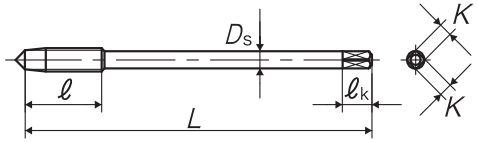

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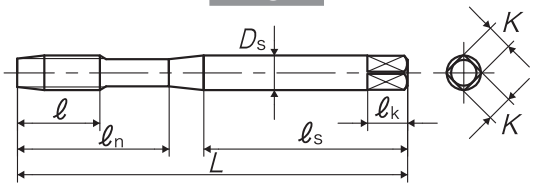

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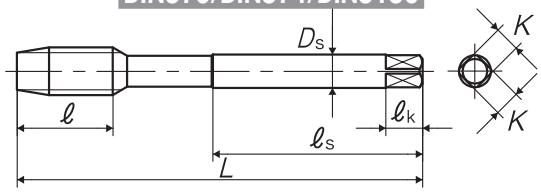


Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M8 × 1.25	ISO2	PD8.0NANEB	5P	90	19	35	47	8	6.2	9	3	4
M8 × 1.25	ISO2	PG8.0NANEB	5P	90	19	-	46	6	4.9	8	3	5
M8 × 1.25	ISO3	PD8.0NMNEB	5P	90	19	35	47	8	6.2	9	3	4
M8 × 1	ISO2	PM8.0MANEB	5P	90	19	-	46	6	4.9	8	3	5
M8 × 0.75	ISO2	PM8.0JANEB	5P	80	19	-	41	6	4.9	8	3	5
M8 × 0.5	ISO2	PM8.0GANEB	5P	80	19	-	41	6	4.9	8	3	5
M9 × 1.25	ISO2	PD9.0NANEB	5P	90	19	35	48	9	7	10	3	4
M9 × 1.25	ISO2	PG9.0NANEB	5P	90	19	-	46	7	5.5	8	3	5
M9 × 1	ISO2	PM9.0MANEB	5P	90	19	-	46	7	5.5	8	3	5
M10 × 1.5	ISO2	PD010OANEB	5P	100	23	39	52.5	10	8	11	3	4
M10 × 1.5	ISO2	PG010OANEB	5P	100	23	-	51	7	5.5	8	3	5
M10 × 1.5	ISO3	PD010OMNEB	5P	100	23	39	52.5	10	8	11	3	4
M10 × 1.25	ISO2	PM010NANEB	5P	100	23	-	51	7	5.5	8	3	5
M10 × 1	ISO2	PM010MANEB	5P	90	19	-	46	7	5.5	8	3	5
M10 × 0.75	ISO2	PM010JANEB	5P	90	19	-	46	7	5.5	8	3	5
M11 × 1.5	ISO2	PG011OANEB	5P	100	23	-	51	8	6.2	9	3	5
M12 × 1.75	ISO2	PG012PANEB	5P	110	26	-	56	9	7	10	3	5
M12 × 1.75	ISO3	PG012PMNEB	5P	110	26	-	56	9	7	10	3	5
M12 × 1.5	ISO2	PM012OANEB	5P	100	21	-	51	9	7	10	3	5
M12 × 1.25	ISO2	PM012NANEB	5P	100	21	-	51	9	7	10	3	5
M12 × 1	ISO2	PM012MANEB	5P	100	21	-	51	9	7	10	3	5
M14 × 2	ISO2	PG014QANEB	5P	110	26	-	56	11	9	12	3	5
M14 × 2	ISO3	PG014QMNEB	5P	110	26	-	56	11	9	12	3	5
M14 × 1.5	ISO2	PM014OANEB	5P	100	21	-	51	11	9	12	3	5
M14 × 1.25	ISO2	PM014NANEB	5P	100	21	-	51	11	9	12	3	5
M14 × 1	ISO2	PM014MANEB	5P	100	21	-	51	11	9	12	3	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M16 × 2	ISO2	PG016QANEB	5P	110	26	-	56	12	9	12	3	5
M16 × 2	ISO3	PG016QMNEB	5P	110	26	-	56	12	9	12	3	5
M16 × 1.5	ISO2	PM016OANEB	5P	100	21	-	51	12	9	12	3	5
M16 × 1	ISO2	PM016MANEB	5P	100	21	-	51	12	9	12	3	5
M18 × 2.5	ISO2	PG018RANEB	5P	125	33	-	64	14	11	14	3	5
M18 × 2	ISO2	PM018QANEB	5P	125	33	-	64	14	11	14	3	5
M18 × 1.5	ISO2	PM018OANEB	5P	110	24	-	56	14	11	14	3	5
M18 × 1	ISO2	PM018MANEB	5P	110	24	-	56	14	11	14	3	5
M20 × 2.5	ISO2	PG020RANEB	5P	140	33	-	71	16	12	15	3	5
M20 × 2	ISO2	PM020QANEB	5P	140	33	-	71	16	12	15	3	5
M20 × 1.5	ISO2	PM020OANEB	5P	125	24	-	64	16	12	15	3	5
M20 × 1	ISO2	PM020MANEB	5P	125	24	-	64	16	12	15	3	5
M22 × 2.5	ISO2	PG022RANEB	5P	140	33	-	71	18	14.5	17	3	5
M22 × 2	ISO2	PM022QANEB	5P	140	33	-	71	18	14.5	17	3	5
M22 × 1.5	ISO2	PM022OANEB	5P	125	24	-	64	18	14.5	17	3	5
M22 × 1	ISO2	PM022MANEB	5P	125	24	-	64	18	14.5	17	3	5
M24 × 3	ISO2	PG024SANEB	5P	160	37	-	82	18	14.5	17	3	5
M24 × 2	ISO2	PM024QANEB	5P	140	27	-	71	18	14.5	17	3	5
M24 × 1.5	ISO2	PM024OANEB	5P	140	27	-	71	18	14.5	17	3	5
M24 × 1	ISO2	PM024MANEB	5P	140	27	-	71	18	14.5	17	3	5
M25 × 1.5	ISO2	PM025OANEB	5P	140	27	-	71	18	14.5	17	3	5
M26 × 1.5	ISO2	PM026OANEB	5P	140	27	-	71	18	14.5	17	4	5
M27 × 3	ISO2	PG027SANEB	5P	160	37	-	82	20	16	19	4	5
M27 × 2	ISO2	PM027QANEB	5P	140	27	-	71	20	16	19	4	5
M27 × 1.5	ISO2	PM027OANEB	5P	140	27	-	71	20	16	19	4	5
M27 × 1	ISO2	PM027MANEB	5P	140	27	-	71	20	16	19	4	5
M28 × 2	ISO2	PM028QANEB	5P	140	27	-	71	20	16	19	4	5
M28 × 1.5	ISO2	PM028OANEB	5P	140	27	-	71	20	16	19	4	5
M28 × 1	ISO2	PM028MANEB	5P	140	27	-	71	20	16	19	4	5
M30 × 3.5	ISO2	PG030TANEB	5P	180	44	-	92	22	18	21	4	5
M30 × 2	ISO2	PM030QANEB	5P	150	27	-	77	22	18	21	4	5
M30 × 1.5	ISO2	PM030OANEB	5P	150	27	-	77	22	18	21	4	5
M30 × 1	ISO2	PM030MANEB	5P	150	27	-	77	22	18	21	4	5
M32 × 2	ISO2	PM032QANEB	5P	150	27	-	77	22	18	21	4	5
M32 × 1.5	ISO2	PM032OANEB	5P	150	27	-	77	22	18	21	4	5
M32 × 1	ISO2	PM032MANEB	5P	150	27	-	77	22	18	21	4	5
M33 × 3.5	ISO2	PG033TANEB	5P	180	46	-	92	25	20	23	4	5
M33 × 2	ISO2	PM033QANEB	5P	160	29	-	82	25	20	23	4	5
M33 × 1.5	ISO2	PM033OANEB	5P	160	29	-	82	25	20	23	4	5
M33 × 1	ISO2	PM033MANEB	5P	160	29	-	82	25	20	23	4	5
M36 × 4	ISO2	PG036UANEB	5P	200	52	-	102	28	22	25	4	5
M36 × 3	ISO2	PM036SANEB	5P	200	52	-	102	28	22	25	4	5
M36 × 2	ISO2	PM036QANEB	5P	170	29	-	87	28	22	25	4	5
M36 × 1.5	ISO2	PM036OANEB	5P	170	29	-	87	28	22	25	4	5
M36 × 1	ISO2	PM036MANEB	5P	170	29	-	87	28	22	25	4	5
M39 × 4	ISO2	PG039UANEB	5P	200	52	-	102	32	24	27	4	5
M39 × 2	ISO2	PM039QANEB	5P	170	29	-	87	32	24	27	4	5
M39 × 1.5	ISO2	PM039OANEB	5P	170	29	-	87	32	24	27	4	5
M39 × 1	ISO2	PM039MANEB	5P	170	29	-	87	32	24	27	4	5
M42 × 4.5	ISO2	PG042VANEB	5P	200	59	-	102	32	24	27	4	5

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M42 × 2	ISO2	PM042QANEB	5P	170	29	-	87	32	24	27	4	5
M42 × 1.5	ISO2	PM042OANEB	5P	170	29	-	87	32	24	27	4	5
M42 × 1	ISO2	PM042MANEB	5P	170	29	-	87	32	24	27	4	5
M45 × 4.5	ISO2	PG045VANEB	5P	220	59	-	112	36	29	32	4	5
M45 × 3	ISO2	PM045SANEB	5P	200	49	-	102	36	29	32	4	5
M45 × 2	ISO2	PM045QANEB	5P	180	31	-	92	36	29	32	4	5
M45 × 1.5	ISO2	PM045OANEB	5P	180	31	-	92	36	29	32	4	5
M45 × 1	ISO2	PM045MANEB	5P	180	31	-	92	36	29	32	4	5
M48 × 5	ISO2	PG048WANEB	5P	250	65	-	128	36	29	32	4	5
M48 × 3	ISO2	PM048SANEB	5P	225	49	-	115	36	29	32	4	5
M48 × 2	ISO2	PM048QANEB	5P	190	31	-	97	36	29	32	4	5
M48 × 1.5	ISO2	PM048OANEB	5P	190	31	-	97	36	29	32	4	5
M48 × 1	ISO2	PM048MANEB	5P	190	31	-	97	36	29	32	4	5
For Unified Threads												
No.4-40UNC	2B	PDUN4HXNEB	5P	56	9	18	34	3.5	2.7	6	3	2
No.4-48UNF	2B	PDUN4FXNEB	5P	56	9	18	34	3.5	2.7	6	3	2
No.5-40UNC	2B	PDUN5HXNEB	5P	56	11	18	34	3.5	2.7	6	3	2
No.5-44UNF	2B	PDUN5GXNEB	5P	56	11	18	34	3.5	2.7	6	3	2
No.6-32UNC	2B	PDUN6JXNEB	5P	56	11	19	32	4	3	6	3	2
No.6-40UNF	2B	PDUN6HXNEB	5P	56	11	19	32	4	3	6	3	2
No.8-32UNC	2B	PDUN8JXNEB	5P	63	13	21	38	4.5	3.4	6	3	2
No.8-36UNF	2B	PDUN8IXNEB	5P	63	13	21	38	4.5	3.4	6	3	2
No.10-24UNC	2B	PDUNAMXNEB	5P	70	14	24	39	6	4.9	8	3	2
No.10-32UNF	2B	PDUNAJXNEB	5P	70	14	24	39	6	4.9	8	3	2
No.12-24UNC	2B	PDUNCMXNEB	5P	80	15	28	45	6	4.9	8	3	2
No.12-28UNF	2B	PDUNCKXNEB	5P	80	15	28	45	6	4.9	8	3	2
1/4-20UNC	2B	PDU04NXNEB	5P	80	15	30	42	7	5.5	8	3	2
1/4-28UNF	2B	PDU04KXNEB	5P	80	15	30	42	7	5.5	8	3	2
5/16-18UNC	2B	PDU05OXNEB	5P	90	19	35	47	8	6.2	9	3	4
5/16-24UNF	2B	PMU05MXNEB	5P	90	19	-	46	6	4.9	8	3	5
3/8-16UNC	2B	PDU06PXNEB	5P	100	23	39	54.5	9	7	10	3	4
3/8-24UNF	2B	PMU06MXNEB	5P	100	23	-	51	7	5.5	8	3	5
7/16-14UNC	2B	PGU07QXNEB	5P	100	23	-	51	8	6.2	9	3	5
7/16-20UNF	2B	PMU07NXNEB	5P	100	23	-	51	8	6.2	9	3	5
1/2-13UNC	2B	PGU08RXNEB	5P	110	26	-	56	9	7	10	3	5
1/2-20UNF	2B	PMU08NXNEB	5P	100	21	-	51	9	7	10	3	5
9/16-12UNC	2B	PGU09SXNEB	5P	110	26	-	56	11	9	12	3	5
9/16-18UNF	2B	PMU09OXNEB	5P	100	21	-	51	11	9	12	3	5
5/8-11UNC	2B	PGU10UXNEB	5P	110	26	-	56	12	9	12	3	5
5/8-18UNF	2B	PMU10OXNEB	5P	100	21	-	51	12	9	12	3	5
3/4-10UNC	2B	PGU12VXNEB	5P	125	33	-	64	14	11	14	3	5
3/4-16UNF	2B	PMU12PXNEB	5P	110	24	-	56	14	11	14	3	5
7/8-9UNC	2B	PGU14WXNEB	5P	140	33	-	71	18	14.5	17	3	5
7/8-14UNF	2B	PMU14QXNEB	5P	125	24	-	64	18	14.5	17	3	5
1 -8UNC	2B	PGU16XXNEB	5P	160	37	-	82	18	14.5	17	3	5
1 -12UNF	2B	PMU16SXNEB	5P	140	27	-	71	18	14.5	17	3	5
1 1/8-7UNC	2B	PGU18YXNEB	5P	180	44	-	92	22	18	21	4	5
1 1/8-12UNF	2B	PMU18SXNEB	5P	150	27	-	77	22	18	21	4	5
1 1/4-7UNC	2B	PGU20YXNEB	5P	180	49	-	92	22	18	21	4	5
1 1/4-12UNF	2B	PMU20SXNEB	5P	150	27	-	77	22	18	21	4	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
1 3/8-6UNC	2B	PGU22ZXNEB	5P	200	55	-	102	28	22	25	4	5
1 3/8-12UNF	2B	PMU22SXNEB	5P	170	29	-	87	28	20	23	4	5
1 1/2-6UNC	2B	PGU24ZXNEB	5P	200	59	-	102	32	24	27	4	5
1 1/2-12UNF	2B	PMU24SXNEB	5P	170	29	-	87	32	24	27	4	5
1 3/4-5UNC	2B	PGU280XNEB	5P	220	65	-	112	36	29	32	4	5
1 3/4-12UN	2B	PMU28SXNEB	5P	180	31	-	92	36	29	32	4	5
For G Threads												
G 1/16-28	-	PVG0010NEB	5P	90	19	-	46	6	4.9	8	3	5
G 1/8-28	-	PVG0020NEB	5P	90	19	-	46	7	5.5	8	3	5
G 1/4-19	-	PVG0040NEB	5P	100	21	-	51	11	9	12	3	5
G 3/8-19	-	PVG0060NEB	5P	100	21	-	51	12	9	12	3	5
G 1/2-14	-	PVG0080NEB	5P	125	24	-	64	16	12	15	3	5
G 5/8-14	-	PVG0100NEB	5P	125	24	-	64	18	14.5	17	3	5
G 3/4-14	-	PVG0120NEB	5P	140	27	-	71	20	16	19	4	5
G 7/8-14	-	PVG0140NEB	5P	150	27	-	77	22	18	21	4	5
G 1 -11	-	PVG0160NEB	5P	160	29	-	82	25	20	23	4	5
G 1 1/8-11	-	PVG0180NEB	5P	170	29	-	87	28	22	25	4	5
G 1 1/4-11	-	PVG0200NEB	5P	170	29	-	87	32	24	27	4	5
G 1 1/2-11	-	PVG0240NEB	5P	190	31	-	97	36	29	32	4	5

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

+PO

Plus Series Spiral Pointed Taps



Specification

HSS

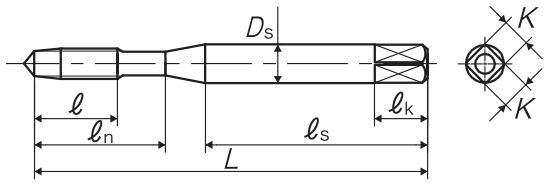


■The +PO is a spiral pointed tap for through hole tapping and is suitable for synchronous feed processing in middle to high tapping speed.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
10~15 (m/min)	10~15 (m/min)

TYPE : 1



Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	PNPQ3.0G	5P	46	9	14	26	4	3.2	6	3	1	¥ 1,260
M3.5 × 0.6	P2	PNPQ3.5H	5P	52	11	16	29	5	4	7	3	1	¥ 1,260
M4 × 0.7	P2	PNPQ4.0I	5P	52	11	17	29	5	4	7	3	1	¥ 1,260
M5 × 0.8	P2	PNPQ5.0K	5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,270
M6 × 1	P2	PNPQ6.0M	5P	62	15	26	33	6	4.5	7	3	1	¥ 1,400

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

IPO

Spiral Pointed Taps for General Purpose



Specification

HSS | OX Oxide | <2D

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼
~5 (m/min)



Blister Pack

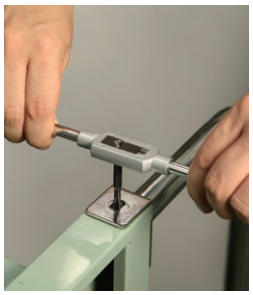
Product Features

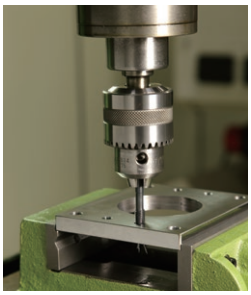
- IPO is the best tap for through holes to be used with lower cutting speed on drilling machines.
- Use for threading of the iron (SPC or SS400) products used in our daily life.
- Surface treated. Oxidization, the most suitable surface treatment for iron products.
- Suitable for internal thread cutting in small quantity, such as tapping of test pieces.
- Having spiral points in the chamfer portion, IPO ejects chips forward in the tapping direction and is for through hole use.


Tapping for through holes

How to use IPO

- Start tapping after boring holes corresponding to the thread size by using drills.
- In the case of tapping with drilling machines, recommended tapping speed is slower than 5m/min.
- During tapping, please use tapping oil.


When hand tapping, always use tap wrench


Machine tapping with drilling machine

■Table for bored and drilled hole sizes unit:mm

Size	Minor Diameter of Internal Thread Size			Drill Size	Thread Engagement
	Minimum Tolerance	Maximum Tolerance			
		6H (2nd Class)	7H (3rd Class)		
M3 × 0.5	2.459	2.599	2.639	2.6 (2.5)	74% (92%)
M4 × 0.7	3.242	3.422	3.466	3.4 (3.3)	79% (92%)
M5 × 0.8	4.134	4.344	4.384	4.3 (4.2)	81% (92%)
M6 × 1	4.917	5.153	5.217	5.1 (5.0)	83% (92%)
M8 × 1.25	6.647	6.912	6.982	6.9 (6.8)	91% (89%)
M10 × 1.5	8.376	8.676	8.751	8.6 (8.5)	86% (92%)

note1) Recommended drill sizes shown in this table are for internal threads of 7H class (3rd class), and are selected from the standard drills available in the market.

note2) Drill sizes shown in brackets in this table are for such case as the drilling has oversize cutting tendency or for internal threads of 6H class (2nd class).

[Related products]

Shank adjuster

- For deep hole tappings, please use shank adjusters.
- There is only a one touch motion required to detach and attach the I series taps (IHT/ISP/IPO) from or to the shank adjuster.

*For details of shank adjuster, refer to ⑦-77

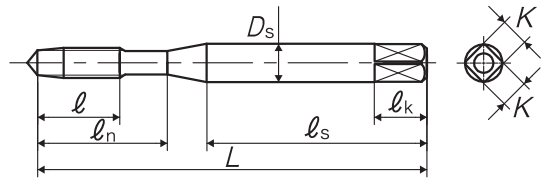


Think threads with YAMAWA

Obtainable from video site shown in right

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



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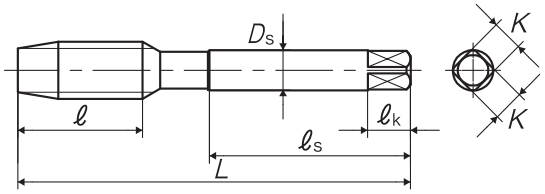


Blister Pack

Segment : 1E

Size	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads												
M3 × 0.5	PI73.0GBP	5P	46	9	14	26	4	3.2	6	3	1	¥ 795
M4 × 0.7	PI74.0IBP	5P	52	11	17	29	5	4	7	3	1	¥ 825
M5 × 0.8	PI75.0KBP	5P	60	13	22	33	5.5	4.5	7	3	1	¥ 835
M6 × 1	PI76.0MBP	5P	62	15	26	33	6	4.5	7	3	1	¥ 880
M8 × 1.25	PI78.0NBP	5P	70	19	-	36	6.2	5	8	3	2	¥ 1,330
M10 × 1.5	PI7010OBP	5P	75	23	-	38	7	5.5	8	3	2	¥ 1,670

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

IPO



Spiral Pointed Taps for General Purpose

Specification

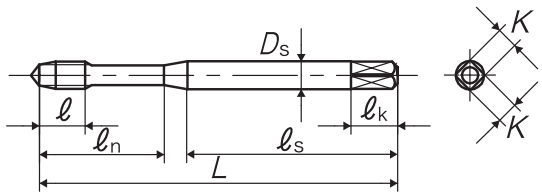
HSS | OX Oxide | <2D

■Suitable for low speed tapping of steels. For manual use and drilling machine use.

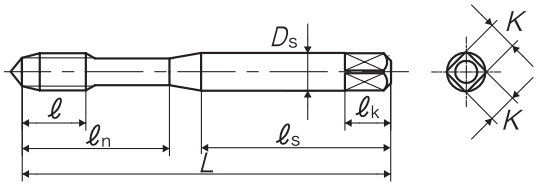
Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼 ~5 (m/min)

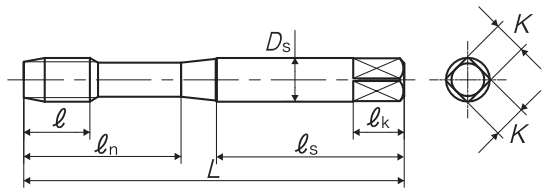
TYPE : 1



TYPE : 2



TYPE : 3



Segment : 1E

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
No.6-32UNC	-	VAUN6JXHEX	4.5P	2	0.374	0.669	1.201	0.141	0.11	0.187	2	1
No.8-32UNC	-	VAUN8JXHEX	4.5P	2.125	0.374	0.866	1.339	0.168	0.131	0.25	2	1
No.10-24UNC	-	VAUNAMXHEX	4.5P	2.375	0.512	0.866	1.339	0.194	0.152	0.25	2	1
1/4-20UNC	-	VAU04NXHEX	4.5P	2.5	0.591	1.024	1.22	0.255	0.191	0.312	2	2
5/16-18UNC	-	VAU05OXHEX	4.5P	2.718	0.669	1.004	1.378	0.318	0.238	0.375	3	3
3/8-16UNC	-	VAU06PXHEX	4.5P	2.937	0.748	1.059	1.496	0.381	0.286	0.437	3	3
For Unified Threads (In blister package)												
No.6-32UNC	-	VAUN6JXHEXR	4.5P	2	0.374	0.669	1.201	0.141	0.11	0.187	2	1
No.8-32UNC	-	VAUN8JXHEXR	4.5P	2.125	0.374	0.866	1.339	0.168	0.131	0.25	2	1
No.10-24UNC	-	VAUNAMXHEXR	4.5P	2.375	0.512	0.866	1.339	0.194	0.152	0.25	2	1
1/4-20UNC	-	VAU04NXHEXR	4.5P	2.5	0.591	1.024	1.22	0.255	0.191	0.312	2	2
5/16-18UNC	-	VAU05OXHEXR	4.5P	2.718	0.669	1.004	1.378	0.318	0.238	0.375	3	3
3/8-16UNC	-	VAU06PXHEXR	4.5P	2.937	0.748	1.059	1.496	0.381	0.286	0.437	3	3

Blister Package





※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

PO OX

Spiral Pointed Taps, Oxidized



Specification

HSS | OX Oxide



■The +PO is a spiral pointed tap for through hole tapping and is suitable for synchronous feed processing in middle to high thread processing of soft steel materials whose chips easily weld to the taps thread such as low carbon steels.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

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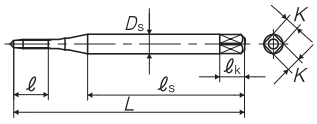

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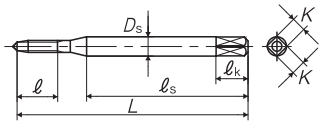

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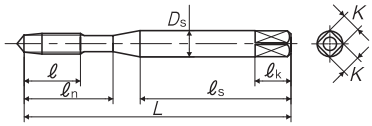

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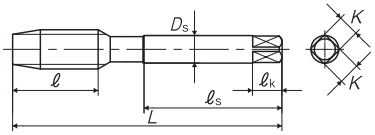

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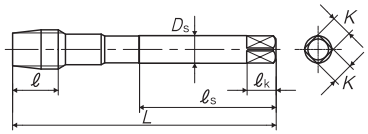

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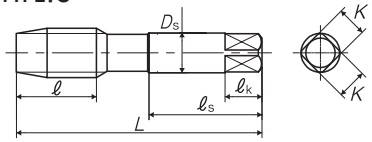


Oversize

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M1.4 × 0.3	P1	POP1.4CX	5P	36	5.4	-	24	3	2.5	5	2	1	¥ 3,390 ※
M1.4 × 0.3	P2	POQ1.4CX	5P	36	5.4	-	24	3	2.5	5	2	1	¥ 3,390 ※
M1.6 × 0.35	P2	POQ1.6DX	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 3,240 ※
M1.7 × 0.35	P2	POQ1.7DX	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 3,240 ※
M2 × 0.4	P2	POQ2.0EX	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,590
M2 × 0.4	P3	POR2.0EX	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,590 ※
M2.3 × 0.4	P2	POQ2.3EX	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,360 ※
M2.5 × 0.45	P2	POQ2.5FX	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,980 ※
M2.6 × 0.45	P2	POQ2.6FX	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,980 ※
M2.6 × 0.45	P3	POR2.6FX	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,980 ※
M3 × 0.5	P2	POQ3.0GX	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,390
M3 × 0.5	P3	POR3.0GX	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,390 ※
3M0.6	P2	POQ3.0HX	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,390 ※
M3.5 × 0.6	P2	POQ3.5HX	5P	52	11	16	29	5	4	7	3	3	¥ 1,390 ※
M4 × 0.7	P2	POQ4.0IX	5P	52	11	17	29	5	4	7	3	3	¥ 1,390
M4 × 0.7	P3	POR4.0IX	5P	52	11	17	29	5	4	7	3	3	¥ 1,390 ※
4M0.75	P2	POQ4.0JX	5P	52	11	17	29	5	4	7	3	3	¥ 1,390 ※
M5 × 0.8	P2	POQ5.0KX	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,400
M5 × 0.8	P3	POR5.0KX	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,400 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO OX Spiral Pointed Taps, Oxidized

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
5M0.9	P2	POQ5.0LX	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,400 ※
M6 × 1	P2	POQ6.0MX	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,540
M6 × 1	P3	POR6.0MX	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,540 ※
M6 × 1	P4	POS6.0MX	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,540 ※
M7 × 1	P2	POQ7.0MX	5P	70	19	-	36	6.2	5	8	3	4	¥ 1,840 ※
M8 × 1.25	P3	POR8.0NX	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,120
M8 × 1.25	P4	POS8.0NX	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,120 ※
M8 × 1	P3	POR8.0MX	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,400 ※
M8 × 0.5	P2	POQ8.0GX	5P	70	10	-	36	6.2	5	8	3	5	¥ 3,390 ※
M10 × 1.5	P3	POR010OX	5P	75	23	-	38	7	5.5	8	3	4	¥ 2,690
M10 × 1.5	P4	POS010OX	5P	75	23	-	38	7	5.5	8	3	4	¥ 2,690 ※
M10 × 1.25	P3	POR010NX	5P	75	23	-	38	7	5.5	8	3	4	¥ 2,690 ※
M10 × 1	P3	POR010MX	5P	75	23	-	38	7	5.5	8	3	4	¥ 3,190 ※
M10 × 1	P4	POS010MX	5P	75	23	-	38	7	5.5	8	3	4	¥ 3,190 ※
M12 × 1.75	P4	POS012PX	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,810
M12 × 1.5	P3	POR012OX	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,810 ※
M12 × 1.25	P4	POS012NX	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,810 ※
M14 × 2	P4	POS014QX	5P	88	26	-	45	10.5	8	11	3	4	¥ 5,200 ※
M14 × 1.5	P3	POR014OX	5P	88	26	-	45	10.5	8	11	3	4	¥ 5,200 ※
M14 × 1.25	P3	POR014NX	5P	88	26	-	45	10.5	8	11	3	4	¥ 6,030 ※
M14 × 1	P3	POR014MX	5P	88	26	-	45	10.5	8	11	3	4	¥ 6,030 ※
M16 × 2	P4	POS016QX	5P	95	26	-	48	12.5	10	13	3	4	¥ 6,950
M16 × 1.5	P3	POR016OX	5P	95	26	-	48	12.5	10	13	3	4	¥ 6,950 ※
M18 × 2.5	P4	POS018RX	5P	100	33	-	51	14	11	14	3	4	¥ 9,280 ※
M18 × 2	P4	POS018QX	5P	100	33	-	51	14	11	14	3	4	¥ 9,280 ※
M18 × 1.5	P4	POS018OX	5P	100	33	-	51	14	11	14	3	4	¥ 9,280 ※
M20 × 2.5	P4	POS020RX	5P	105	33	-	50	15	12	15	3	6	¥ 12,700
M20 × 1.5	P4	POS020OX	5P	105	33	-	50	15	12	15	3	6	¥ 12,700 ※
M22 × 2.5	P4	POS022RX	5P	115	33	-	55	17	13	16	3	6	¥ 16,200 ※
M22 × 1.5	P4	POS022OX	5P	115	33	-	55	17	13	16	3	6	¥ 16,200 ※
M24 × 3	P4	POS024SX	5P	120	39	-	55	19	15	18	3	6	¥ 20,200 ※
M25 × 1.5	P4	POS025OX	5P	125	39	-	58	19	15	18	3	6	¥ 26,100 ※
M26 × 3	P4	POS026SX	5P	130	39	-	60	20	15	18	4	6	¥ 28,100 ※
M27 × 3	P4	POS027SX	5P	130	39	-	60	20	15	18	4	6	¥ 28,100 ※
M30 × 3.5	P5	POT030TX	5P	135	46	-	62	23	17	20	4	6	¥ 35,800 ※
M30 × 3	P4	POS030SX	5P	135	46	-	62	23	17	20	4	6	¥ 35,800 ※
M32 × 2	P4	POMS032QX	5P	145	46	-	67	24	19	22	4	6	¥ 41,600 ※
M32 × 1.5	P4	POMS032OX	5P	145	46	-	67	24	19	22	4	6	¥ 41,600 ※
M33 × 3.5	P5	POMT033TX	5P	145	46	-	67	25	19	22	4	6	¥ 41,600 ※
M33 × 3	P4	POMS033SX	5P	145	46	-	67	25	19	22	4	6	¥ 41,600 ※
M36 × 4	P5	POMT036UX	5P	155	52	-	71	28	21	24	4	6	¥ 48,200 ※
M36 × 3	P4	POMS036SX	5P	155	52	-	71	28	21	24	4	6	¥ 48,200 ※
M42 × 4.5	P5	POMT042VX	5P	175	59	-	81	32	26	30	4	6	¥ 67,300 ※
For Unified Threads													
No.0-80UNF	P1	POPUN0BX	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 3,840 ※
No.2-56UNC	P1	POPUN2EX	5P	42	8.1	12	27	3	2.5	5	3	3	¥ 2,710 ※
No.4-40UNC	P2	POQUN4HX	5P	46	9	14	25	4	3.2	6	3	3	¥ 1,750 ※
No.5-40UNC	P2	POQUN5HX	5P	52	11	16	28	5	4	7	3	3	¥ 1,630 ※
No.6-32UNC	P2	POQUN6JX	5P	52	11	17	27	5	4	7	3	3	¥ 1,630 ※
No.6-40UNF	P2	POQUN6HX	5P	52	11	17	27	5	4	7	3	3	¥ 1,630 ※
No.8-32UNC	P2	POQUN8JX	5P	60	13	22	31	5.5	4.5	7	3	3	¥ 1,640 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO OX Spiral Pointed Taps, Oxidized

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
No.10-24UNC	P2	POQUNAMX	5P	60	13	22	32	5.5	4.5	7	3	3	¥ 1,640 ※
No.10-32UNF	P2	POQUNAJX	5P	60	13	22	32	5.5	4.5	7	3	3	¥ 1,640 ※
No.12-24UNC	P2	POQUNCMX	5P	62	15	26	32	6	4.5	7	3	3	¥ 1,760 ※
No.12-28UNF	P2	POQUNCKX	5P	62	15	26	32	6	4.5	7	3	3	¥ 1,760 ※
1/4-20UNC	P2	POQU04NX	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,760 ※
1/4-28UNF	P2	POQU04KX	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,760 ※
5/16-18UNC	P3	PORU05OX	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,440 ※
5/16-24UNF	P2	POQU05MX	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,440 ※
3/8-16UNC	P3	PORU06PX	5P	75	23	-	38	7	5.5	8	3	4	¥ 3,120 ※
3/8-24UNF	P2	POQU06MX	5P	75	23	-	38	7	5.5	8	3	4	¥ 3,120 ※
7/16-14UNC	P3	PORU07QX	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 4,390 ※
7/16-20UNF	P3	PORU07NX	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 4,390 ※
1/2-13UNC	P3	PORU08RX	5P	88	26	-	45	10.5	8	11	3	4	¥ 4,660 ※
1/2-20UNF	P3	PORU08NX	5P	88	26	-	45	10.5	8	11	3	4	¥ 4,660 ※
9/16-18UNF	P3	PORU09OX	5P	95	26	-	48	12.5	10	13	3	4	¥ 6,950 ※
5/8-11UNC	P3	PORU10UX	5P	95	26	-	48	12.5	10	13	3	4	¥ 6,950 ※
5/8-18UNF	P3	PORU10OX	5P	95	26	-	48	12.5	10	13	3	4	¥ 6,950 ※
3/4-10UNC	P4	POSU12VX	5P	105	33	-	50	15	12	15	3	6	¥ 12,700 ※
3/4-16UNF	P3	PORU12PX	5P	105	33	-	50	15	12	15	3	6	¥ 12,700 ※
7/8-9UNC	P4	POSU14WX	5P	115	33	-	55	17	13	16	3	6	¥ 17,900 ※
7/8-14UNF	P3	PORU14QX	5P	115	33	-	55	17	13	16	3	6	¥ 17,900 ※
1 -8UNC	P4	POSU16XX	5P	125	39	-	58	19	15	18	3	6	¥ 26,100 ※
1 3/8-12UNF	P4	POMSU22SX	5P	155	52	-	71	28	21	24	4	6	¥ 48,200 ※
1 1/2-12UNF	P4	POMSU24SX	5P	165	52	-	76	30	23	26	4	6	¥ 69,000 ※
				For Whitworth Threads									
1/8W40	P2	POQW02HX	5P	52	11	16	28	5	4	7	3	3	¥ 2,030 ※
5/32W32	P2	POQW2HJX	5P	52	11	17	29	5	4	7	3	3	¥ 1,630 ※
3/16W24	P2	POQW03MX	5P	60	13	21	32	5.5	4.5	7	3	3	¥ 1,640 ※
1/4W20	P3	PORW04NX	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,760 ※
5/16W18	P3	PORW05OX	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,440 ※
3/8W16	P3	PORW06PX	5P	75	23	-	38	7	5.5	8	3	4	¥ 3,120 ※
7/16W14	P3	PORW07QX	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 4,390 ※
1/2W12	P3	PORW08SX	5P	88	26	-	45	10.5	8	11	3	4	¥ 4,660 ※
5/8W11	P3	PORW10UX	5P	95	26	-	48	12.5	10	13	3	4	¥ 6,950 ※
3/4W10	P4	POSW12VX	5P	105	33	-	50	15	12	15	3	6	¥ 12,700 ※
7/8W9	P4	POSW14WX	5P	115	33	-	55	17	13	16	3	6	¥ 17,900 ※
1 W8	P4	POSW16XX	5P	125	39	-	58	19	15	18	3	6	¥ 26,100 ※
1 1/4W7	P4	POMSW20YX	5P	145	46	-	67	24	19	22	4	6	¥ 41,600 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO OX



Spiral Pointed Taps, Oxidized

Specification

HSS | OX Oxide

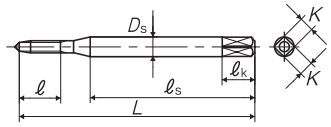


■The +PO is a spiral pointed tap for through hole tapping and is suitable for synchronous feed processing in middle to high thread processing of soft steel materials whose chips easily weld to the taps thread such as low carbon steels.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE:1



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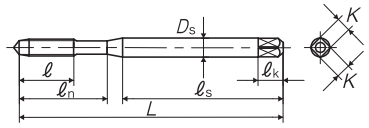

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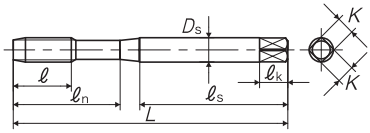

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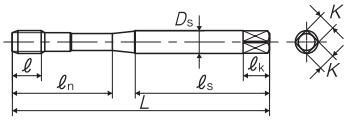

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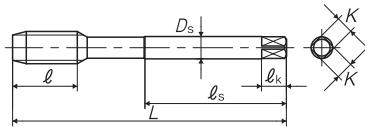

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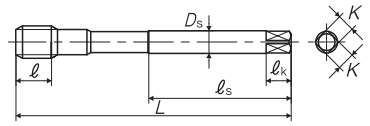

Segment : 1E

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	D3	PS2.0E3NEX	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
M2.2 × 0.45	D3	PS2.2F3NEX	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
M2.5 × 0.45	D3	PS2.5F3NEX	5P	2.205	0.354	0.693	1.28	0.141	0.11	0.187	3	2
M2.6 × 0.45	D3	PS2.6F3NEX	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
M3 × 0.5	D3	PS3.0G3NEX	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
M3.5 × 0.6	D4	PS3.5H4NEX	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
M4 × 0.7	D4	PS4.0I4NEX	5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	2
M5 × 0.8	D4	PS5.0K4NEX	5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M6 × 1	D5	PS6.0M5NEX	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
M7 × 1	D5	PS7.0M5NEX	5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M7 × 0.75	D4	PS7.0J4NEX	5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M7 × 0.5	D4	PS7.0G4NEX	5P	3.543	0.394	1.339	1.831	0.318	0.238	0.375	3	4
M8 × 1.25	D5	PS8.0N5NEX	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 1	D5	PS8.0M5NEX	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 0.75	D4	PS8.0J4NEX	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 0.5	D4	PS8.0G4NEX	5P	3.543	0.394	1.378	1.831	0.318	0.238	0.375	3	4
M9 × 1.25	D5	PS9.0N5NEX	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
M9 × 1	D5	PS9.0M5NEX	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
M10 × 1.5	D6	PS010O6NEX	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 1.25	D5	PS010N5NEX	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M10 × 1	D5	PS010M5NEX	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	3
M10 × 0.75	D4	PS010J4NEX	5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	3	4
M11 × 1.5	D6	PS011O6NEX	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
M12 × 1.75	D6	PS012P6NEX	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M12 × 1.5	D6	PS012O6NEX	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M12 × 1.25	D6	PS012N6NEX	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M12 × 1	D5	PS012M5NEX	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
M14 × 2	D7	PS014Q7NEX	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M14 × 1.5	D6	PS014O6NEX	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M14 × 1.25	D6	PS014N6NEX	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M14 × 1	D5	PS014M5NEX	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
M16 × 2	D7	PS016Q7NEX	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
M16 × 1.5	D6	PS016O6NEX	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
M16 × 1	D5	PS016M5NEX	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
M18 × 2.5	D7	PS018R7NEX	5P	4.921	1.299	-	2.52	0.542	0.406	0.625	3	5
M18 × 2	D7	PS018Q7NEX	5P	4.921	1.299	-	2.52	0.542	0.406	0.625	3	5
M18 × 1.5	D6	PS018O6NEX	5P	4.921	0.945	-	2.52	0.542	0.406	0.625	3	6
M18 × 1	D5	PS018M5NEX	5P	4.921	0.945	-	2.52	0.542	0.406	0.625	3	6
M20 × 2.5	D7	PS020R7NEX	5P	5.512	1.299	-	2.795	0.652	0.489	0.687	3	5
M20 × 2	D7	PS020Q7NEX	5P	5.512	1.299	-	2.795	0.652	0.489	0.687	3	5
M20 × 1.5	D6	PS020O6NEX	5P	5.512	0.945	-	2.795	0.652	0.489	0.687	3	6
M20 × 1	D5	PS020M5NEX	5P	5.512	0.945	-	2.795	0.652	0.489	0.687	3	6
M22 × 2.5	D7	PS022R7NEX	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
M22 × 2	D7	PS022Q7NEX	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
M22 × 1.5	D6	PS022O6NEX	5P	5.512	0.945	-	2.795	0.697	0.523	0.75	3	6
M22 × 1	D5	PS022M5NEX	5P	5.512	0.945	-	2.795	0.697	0.523	0.75	3	6
M24 × 3	D8	PS024S8NEX	5P	6.299	1.457	-	3.228	0.76	0.57	0.75	3	5
M24 × 2	D7	PS024Q7NEX	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	3	6
M24 × 1.5	D6	PS024O6NEX	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	3	6
M24 × 1	D5	PS024M5NEX	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	3	6
M25 × 1.5	D6	PS025O6NEX	5P	6.299	1.063	-	3.228	0.8	0.6	0.812	3	6
M26 × 1.5	D6	PS026O6NEX	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 3	D8	PS027S8NEX	5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
M27 × 2	D7	PS027Q7NEX	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1.5	D6	PS027O6NEX	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1	D5	PS027M5NEX	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 2	D7	PS028Q7NEX	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1.5	D6	PS028O6NEX	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1	D5	PS028M5NEX	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M30 × 3.5	D9	PS030T9NEX	5P	7.087	1.732	-	3.622	1.021	0.766	1	4	5
M30 × 2	D7	PS030Q7NEX	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M30 × 1.5	D6	PS030O6NEX	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M30 × 1	D5	PS030M5NEX	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 2	D7	PS032Q7NEX	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1.5	D6	PS032O6NEX	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1	D5	PS032M5NEX	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M33 × 3.5	D9	PS033T9NEX	5P	7.087	1.732	-	3.622	1.108	0.831	1.062	4	5
M33 × 2	D7	PS033Q7NEX	5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1.5	D6	PS033O6NEX	5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1	D5	PS033M5NEX	5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO OX Spiral Pointed Taps, Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M36 × 4	D9	PS036U9NEX	5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 3	D8	PS036S8NEX	5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 2	D7	PS036Q7NEX	5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1.5	D6	PS036O6NEX	5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1	D5	PS036M5NEX	5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M39 × 4	D9	PS039U9NEX	5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 3	D8	PS039S8NEX	5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 2	D7	PS039Q7NEX	5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1.5	D6	PS039O6NEX	5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1	D5	PS039M5NEX	5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M42 × 4.5	D10	PS042V0NEX	5P	7.874	2.047	-	4.016	1.43	1.072	1.25	4	5
M42 × 2	D7	PS042Q7NEX	5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1.5	D6	PS042O6NEX	5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1	D5	PS042M5NEX	5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M45 × 4.5	D10	PS045V0NEX	5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 3	D8	PS045S8NEX	5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 2	D7	PS045Q7NEX	5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1.5	D6	PS045O6NEX	5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1	D5	PS045M5NEX	5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M48 × 5	D11	PS048W-NEX	5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 3	D9	PS048S9NEX	5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 2	D7	PS048Q7NEX	5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1.5	D7	PS048O7NEX	5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1	D6	PS048M6NEX	5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
For Unified Threads												
No.0-80UNF	GH1	PSUN0B1NEX	5P	1.772	0.236	-	1.161	0.141	0.11	0.187	2	1
No.0-80UNF	GH2	PSUN0B2NEX	5P	1.772	0.236	-	1.161	0.141	0.11	0.187	2	1
No.1-64UNC	GH1	PSUN1D1NEX	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-64UNC	GH2	PSUN1D2NEX	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-72UNF	GH1	PSUN1C1NEX	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-72UNF	GH2	PSUN1C2NEX	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.2-56UNC	GH1	PSUN2E1NEX	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.2-56UNC	GH2	PSUN2E2NEX	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.2-64UNF	GH1	PSUN2D1NEX	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.2-64UNF	GH2	PSUN2D2NEX	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	2	1
No.3-48UNC	GH1	PSUN3F1NEX	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.3-48UNC	GH2	PSUN3F2NEX	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.3-56UNF	GH1	PSUN3E1NEX	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.3-56UNF	GH2	PSUN3E2NEX	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	2	2
No.4-40UNC	GH2	PSUN4H2NEX	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.4-40UNC	GH3	PSUN4H3NEX	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.4-48UNF	GH1	PSUN4F1NEX	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.4-48UNF	GH2	PSUN4F2NEX	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	2
No.5-40UNC	GH2	PSUN5H2NEX	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-40UNC	GH3	PSUN5H3NEX	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-44UNF	GH1	PSUN5G1NEX	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-44UNF	GH2	PSUN5G2NEX	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.5-44UNF	GH3	PSUN5G3NEX	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	2	2
No.6-32UNC	GH2	PSUN6J2NEX	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	2	2
No.6-32UNC	GH3	PSUN6J3NEX	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	2	2

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO OX Spiral Pointed Taps, Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.6-40UNF	GH2	PSUN6H2NEX	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	2	2
No.6-40UNF	GH3	PSUN6H3NEX	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	2	2
No.8-32UNC	GH2	PSUN8J2NEX	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	2	2
No.8-32UNC	GH3	PSUN8J3NEX	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	2	2
No.8-36UNF	GH2	PSUN8I2NEX	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	2	2
No.8-36UNF	GH3	PSUN8I3NEX	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	2	2
No.10-24UNC	GH2	PSUNAM2NEX	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	2	2
No.10-24UNC	GH3	PSUNAM3NEX	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	2	2
No.10-32UNF	GH2	PSUNAJ2NEX	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	2	2
No.10-32UNF	GH3	PSUNAJ3NEX	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	2	2
No.12-24UNC	GH2	PSUNCM2NEX	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	2	2
No.12-24UNC	GH3	PSUNCM3NEX	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	2	2
No.12-28UNF	GH2	PSUNCK2NEX	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	2	2
No.12-28UNF	GH3	PSUNCK3NEX	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	2	2
1/4-20UNC	GH3	PSU04N3NEX	4.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-20UNC	GH4	PSU04N4NEX	4.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	PSU04N5NEX	4.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH2	PSU04K2NEX	4.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	PSU04K3NEX	4.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	PSU04K4NEX	4.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	PSU05O3NEX	4.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-18UNC	GH4	PSU05O4NEX	4.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	PSU05O5NEX	4.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	PSU05M3NEX	4.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	PSU05M4NEX	4.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	PSU06P3NEX	4.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	PSU06P5NEX	4.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	PSU06M3NEX	4.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	PSU06M4NEX	4.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	3
7/16-14UNC	GH4	PSU07Q4NEX	4.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-14UNC	GH5	PSU07Q5NEX	4.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-20UNF	GH3	PSU07N3NEX	4.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-20UNF	GH4	PSU07N4NEX	4.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
7/16-20UNF	GH5	PSU07N5NEX	4.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	5
1/2-13UNC	GH3	PSU08R3NEX	4.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-13UNC	GH4	PSU08R4NEX	4.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-13UNC	GH5	PSU08R5NEX	4.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH3	PSU08N3NEX	4.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH4	PSU08N4NEX	4.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
1/2-20UNF	GH5	PSU08N5NEX	4.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	5
9/16-12UNC	GH3	PSU09S3NEX	4.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-12UNC	GH4	PSU09S4NEX	4.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-12UNC	GH5	PSU09S5NEX	4.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-18UNF	GH3	PSU09O3NEX	4.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-18UNF	GH4	PSU09O4NEX	4.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
9/16-18UNF	GH5	PSU09O5NEX	4.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	5
5/8-11UNC	GH3	PSU10U3NEX	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-11UNC	GH4	PSU10U4NEX	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-11UNC	GH5	PSU10U5NEX	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-11UNC	GH6	PSU10U6NEX	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO OX Spiral Pointed Taps, Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
5/8-18UNF	GH3	PSU1003NEX	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-18UNF	GH4	PSU1004NEX	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
5/8-18UNF	GH5	PSU1005NEX	4.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	5
3/4-10UNC	GH5	PSU12V5NEX	4.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	3	5
3/4-10UNC	GH6	PSU12V6NEX	4.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	3	5
3/4-16UNF	GH3	PSU12P3NEX	4.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	3	5
3/4-16UNF	GH4	PSU12P4NEX	4.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	3	5
3/4-16UNF	GH5	PSU12P5NEX	4.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	3	5
7/8-9UNC	GH4	PSU14W4NEX	4.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
7/8-9UNC	GH5	PSU14W5NEX	4.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
7/8-9UNC	GH6	PSU14W6NEX	4.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
7/8-14UNF	GH4	PSU14Q4NEX	4.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
7/8-14UNF	GH6	PSU14Q6NEX	4.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	3	5
1 -8UNC	GH4	PSU16X4NEX	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 -8UNC	GH5	PSU16X5NEX	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 -8UNC	GH6	PSU16X6NEX	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 -8UNC	GH7	PSU16X7NEX	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 -12UNF	GH4	PSU16S4NEX	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 -12UNF	GH5	PSU16S5NEX	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 -12UNF	GH6	PSU16S6NEX	4.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	3	5
1 1/8-7UNC	GH6	PSU18Y6NEX	4.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-7UNC	GH7	PSU18Y7NEX	4.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH5	PSU18S5NEX	4.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH6	PSU18S6NEX	4.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/4-7UNC	GH6	PSU20Y6NEX	4.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-7UNC	GH8	PSU20Y8NEX	4.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-12UNF	GH5	PSU20S5NEX	4.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-12UNF	GH6	PSU20S6NEX	4.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 3/8-6UNC	GH6	PSU22Z6NEX	4.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-6UNC	GH8	PSU22Z8NEX	4.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-12UNF	GH5	PSU22S5NEX	4.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-12UNF	GH6	PSU22S6NEX	4.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 1/2-6UNC	GH6	PSU24Z6NEX	4.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-6UNC	GH8	PSU24Z8NEX	4.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-12UNF	GH5	PSU24S5NEX	4.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-12UNF	GH7	PSU24S7NEX	4.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

PO OX



Spiral Pointed Taps, Oxidized

Specification

HSS | OX Oxide



■The +PO is a spiral pointed tap for through hole tapping and is suitable for synchronous feed processing in middle to high thread processing of soft steel materials whose chips easily weld to the taps thread such as low carbon steels.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

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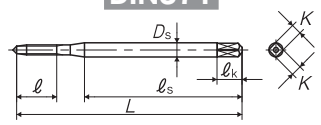

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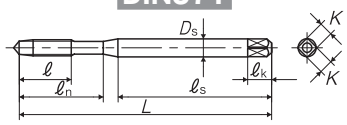

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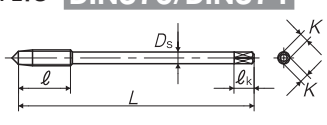

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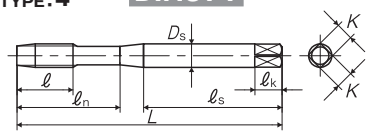

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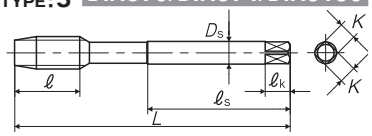

Segment : 1F (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2	PD2.0EANEX	5P	45	8	-	32	2.8	2.1	5	3	1
M2.2 × 0.45	ISO2	PD2.2FANEX	5P	45	9	-	32	2.8	2.1	5	3	1
M2.3 × 0.4	ISO2	PD2.3EANEX	5P	45	9	-	32	2.8	2.1	5	3	1
M2.5 × 0.45	ISO2	PD2.5FANEX	5P	50	8	15	33	2.8	2.1	5	3	2
M2.6 × 0.45	ISO2	PD2.6FANEX	5P	50	8	15	33	2.8	2.1	5	3	2
M3 × 0.5	ISO2	PD3.0GANEX	5P	56	9	18	34	3.5	2.7	6	3	2
M3 × 0.5	ISO3	PD3.0GMNEX	5P	56	9	18	34	3.5	2.7	6	3	2
M3.5 × 0.6	ISO2	PD3.5HANEX	5P	56	11	20	32	4	3	6	3	2
M4 × 0.7	ISO2	PD4.0IANEX	5P	63	13	21	38	4.5	3.4	6	3	2
M4 × 0.7	ISO2	PG4.0IANEX	5P	63	13	-	-	2.8	2.1	5	3	3
M4 × 0.7	ISO3	PD4.0IMNEX	5P	63	13	21	38	4.5	3.4	6	3	2
M4 × 0.5	ISO2	PM4.0GANEX	5P	63	9	-	-	2.8	2.1	5	3	3
M5 × 0.8	ISO2	PD5.0KANEX	5P	70	14	25	39	6	4.9	8	3	2
M5 × 0.8	ISO2	PG5.0KANEX	5P	70	14	-	-	3.5	2.7	6	3	3
M5 × 0.8	ISO3	PD5.0KMNEX	5P	70	14	25	39	6	4.9	8	3	2
M5 × 0.5	ISO2	PM5.0GANEX	5P	70	11	-	-	3.5	2.7	6	3	3
M6 × 1	ISO2	PD6.0MANEX	5P	80	15	30	45	6	4.9	8	3	2
M6 × 1	ISO2	PG6.0MANEX	5P	80	15	-	-	4.5	3.4	6	3	3
M6 × 1	ISO3	PD6.0MMNEX	5P	80	15	30	45	6	4.9	8	3	2
M6 × 0.75	ISO2	PM6.0JANEX	5P	80	13	-	-	4.5	3.4	6	3	3

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO OX Spiral Pointed Taps, Oxidized

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M6 × 0.5	ISO2	PM6.0GANEX	5P	80	13	-	-	4.5	3.4	6	3	3
M7 × 1	ISO2	PD7.0MANEX	5P	80	15	30	45	7	5.5	8	3	4
M7 × 0.75	ISO2	PM7.0JANEX	5P	80	13	-	41	5.5	4.3	7	3	5
M7 × 0.5	ISO2	PM7.0GANEX	5P	80	13	-	41	5.5	4.3	7	3	5
M8 × 1.25	ISO2	PD8.0NANEX	5P	90	19	35	47	8	6.2	9	3	4
M8 × 1.25	ISO2	PG8.0NANEX	5P	90	19	-	46	6	4.9	8	3	5
M8 × 1.25	ISO3	PD8.0NMNEX	5P	90	19	35	47	8	6.2	9	3	4
M8 × 1	ISO2	PM8.0MANEX	5P	90	19	-	46	6	4.9	8	3	5
M8 × 0.75	ISO2	PM8.0JANEX	5P	80	19	-	41	6	4.9	8	3	5
M8 × 0.5	ISO2	PM8.0GANEX	5P	80	19	-	41	6	4.9	8	3	5
M9 × 1.25	ISO2	PD9.0NANEX	5P	90	19	35	48	9	7	10	3	4
M9 × 1.25	ISO2	PG9.0NANEX	5P	90	19	-	46	7	5.5	8	3	5
M9 × 1	ISO2	PM9.0MANEX	5P	90	19	-	46	7	5.5	8	3	5
M10 × 1.5	ISO2	PD0100ANEX	5P	100	23	39	52.5	10	8	11	3	4
M10 × 1.5	ISO2	PG0100ANEX	5P	100	23	-	51	7	5.5	8	3	5
M10 × 1.5	ISO3	PD0100MNEX	5P	100	23	39	52.5	10	8	11	3	4
M10 × 1.25	ISO2	PM010NANEX	5P	100	23	-	51	7	5.5	8	3	5
M10 × 1	ISO2	PM010MANEX	5P	90	19	-	46	7	5.5	8	3	5
M10 × 0.75	ISO2	PM010JANEX	5P	90	19	-	46	7	5.5	8	3	5
M11 × 1.5	ISO2	PG011OANEX	5P	100	23	-	51	8	6.2	9	3	5
M12 × 1.75	ISO2	PG012PANEX	5P	110	26	-	56	9	7	10	3	5
M12 × 1.75	ISO3	PG012PMNEX	5P	110	26	-	56	9	7	10	3	5
M12 × 1.5	ISO2	PM012OANEX	5P	100	21	-	51	9	7	10	3	5
M12 × 1.25	ISO2	PM012NANEX	5P	100	21	-	51	9	7	10	3	5
M12 × 1	ISO2	PM012MANEX	5P	100	21	-	51	9	7	10	3	5
M14 × 2	ISO2	PG014QANEX	5P	110	26	-	56	11	9	12	3	5
M14 × 2	ISO3	PG014QMNEX	5P	110	26	-	56	11	9	12	3	5
M14 × 1.5	ISO2	PM014OANEX	5P	100	21	-	51	11	9	12	3	5
M14 × 1.25	ISO2	PM014NANEX	5P	100	21	-	51	11	9	12	3	5
M14 × 1	ISO2	PM014MANEX	5P	100	21	-	51	11	9	12	3	5
M16 × 2	ISO2	PG016QANEX	5P	110	26	-	56	12	9	12	3	5
M16 × 2	ISO3	PG016QMNEX	5P	110	26	-	56	12	9	12	3	5
M16 × 1.5	ISO2	PM016OANEX	5P	100	21	-	51	12	9	12	3	5
M16 × 1	ISO2	PM016MANEX	5P	100	21	-	51	12	9	12	3	5
M18 × 2.5	ISO2	PG018RANEX	5P	125	33	-	64	14	11	14	3	5
M18 × 2	ISO2	PM018QANEX	5P	125	33	-	64	14	11	14	3	5
M18 × 1.5	ISO2	PM018OANEX	5P	110	24	-	56	14	11	14	3	5
M18 × 1	ISO2	PM018MANEX	5P	110	24	-	56	14	11	14	3	5
M20 × 2.5	ISO2	PG020RANEX	5P	140	33	-	71	16	12	15	3	5
M20 × 2	ISO2	PM020QANEX	5P	140	33	-	71	16	12	15	3	5
M20 × 1.5	ISO2	PM020OANEX	5P	125	24	-	64	16	12	15	3	5
M20 × 1	ISO2	PM020MANEX	5P	125	24	-	64	16	12	15	3	5
M22 × 2.5	ISO2	PG022RANEX	5P	140	33	-	71	18	14.5	17	3	5
M22 × 2	ISO2	PM022QANEX	5P	140	33	-	71	18	14.5	17	3	5
M22 × 1.5	ISO2	PM022OANEX	5P	125	24	-	64	18	14.5	17	3	5
M22 × 1	ISO2	PM022MANEX	5P	125	24	-	64	18	14.5	17	3	5
M24 × 3	ISO2	PG024SANEX	5P	160	37	-	82	18	14.5	17	3	5
M24 × 2	ISO2	PM024QANEX	5P	140	27	-	71	18	14.5	17	3	5
M24 × 1.5	ISO2	PM024OANEX	5P	140	27	-	71	18	14.5	17	3	5
M24 × 1	ISO2	PM024MANEX	5P	140	27	-	71	18	14.5	17	3	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO OX Spiral Pointed Taps, Oxidized

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M25 × 1.5	ISO2	PM025OANEX	5P	140	27	-	71	18	14.5	17	3	5
M26 × 1.5	ISO2	PM026OANEX	5P	140	27	-	71	18	14.5	17	4	5
M27 × 3	ISO2	PG027SANEX	5P	160	37	-	82	20	16	19	4	5
M27 × 2	ISO2	PM027QANEX	5P	140	27	-	71	20	16	19	4	5
M27 × 1.5	ISO2	PM027OANEX	5P	140	27	-	71	20	16	19	4	5
M27 × 1	ISO2	PM027MANEX	5P	140	27	-	71	20	16	19	4	5
M28 × 2	ISO2	PM028QANEX	5P	140	27	-	71	20	16	19	4	5
M28 × 1.5	ISO2	PM028OANEX	5P	140	27	-	71	20	16	19	4	5
M28 × 1	ISO2	PM028MANEX	5P	140	27	-	71	20	16	19	4	5
M30 × 3.5	ISO2	PG030TANEX	5P	180	44	-	92	22	18	21	4	5
M30 × 2	ISO2	PM030QANEX	5P	150	27	-	77	22	18	21	4	5
M30 × 1.5	ISO2	PM030OANEX	5P	150	27	-	77	22	18	21	4	5
M30 × 1	ISO2	PM030MANEX	5P	150	27	-	77	22	18	21	4	5
M32 × 2	ISO2	PM032QANEX	5P	150	27	-	77	22	18	21	4	5
M32 × 1.5	ISO2	PM032OANEX	5P	150	27	-	77	22	18	21	4	5
M32 × 1	ISO2	PM032MANEX	5P	150	27	-	77	22	18	21	4	5
M33 × 3.5	ISO2	PG033TANEX	5P	180	46	-	92	25	20	23	4	5
M33 × 2	ISO2	PM033QANEX	5P	160	29	-	82	25	20	23	4	5
M33 × 1.5	ISO2	PM033OANEX	5P	160	29	-	82	25	20	23	4	5
M33 × 1	ISO2	PM033MANEX	5P	160	29	-	82	25	20	23	4	5
M36 × 4	ISO2	PG036UANEX	5P	200	52	-	102	28	22	25	4	5
M36 × 3	ISO2	PM036SANEX	5P	200	52	-	102	28	22	25	4	5
M36 × 2	ISO2	PM036QANEX	5P	170	29	-	87	28	22	25	4	5
M36 × 1.5	ISO2	PM036OANEX	5P	170	29	-	87	28	22	25	4	5
M36 × 1	ISO2	PM036MANEX	5P	170	29	-	87	28	22	25	4	5
M39 × 4	ISO2	PG039UANEX	5P	200	52	-	102	32	24	27	4	5
M39 × 2	ISO2	PM039QANEX	5P	170	29	-	87	32	24	27	4	5
M39 × 1.5	ISO2	PM039OANEX	5P	170	29	-	87	32	24	27	4	5
M39 × 1	ISO2	PM039MANEX	5P	170	29	-	87	32	24	27	4	5
M42 × 4.5	ISO2	PG042VANEX	5P	200	59	-	102	32	24	27	4	5
M42 × 2	ISO2	PM042QANEX	5P	170	29	-	87	32	24	27	4	5
M42 × 1.5	ISO2	PM042OANEX	5P	170	29	-	87	32	24	27	4	5
M42 × 1	ISO2	PM042MANEX	5P	170	29	-	87	32	24	27	4	5
M45 × 4.5	ISO2	PG045VANEX	5P	220	59	-	112	36	29	32	4	5
M45 × 3	ISO2	PM045SANEX	5P	200	49	-	102	36	29	32	4	5
M45 × 2	ISO2	PM045QANEX	5P	180	31	-	92	36	29	32	4	5
M45 × 1.5	ISO2	PM045OANEX	5P	180	31	-	92	36	29	32	4	5
M45 × 1	ISO2	PM045MANEX	5P	180	31	-	92	36	29	32	4	5
M48 × 5	ISO2	PG048WANEX	5P	250	65	-	128	36	29	32	4	5
M48 × 3	ISO2	PM048SANEX	5P	225	49	-	115	36	29	32	4	5
M48 × 2	ISO2	PM048QANEX	5P	190	31	-	97	36	29	32	4	5
M48 × 1.5	ISO2	PM048OANEX	5P	190	31	-	97	36	29	32	4	5
M48 × 1	ISO2	PM048MANEX	5P	190	31	-	97	36	29	32	4	5
For Unified Threads												
No.4-40UNC	2B	PDUN4HXNEX	5P	56	9	18	34	3.5	2.7	6	3	2
No.4-48UNF	2B	PDUN4FXNEX	5P	56	9	18	34	3.5	2.7	6	3	2
No.5-40UNC	2B	PDUN5HXNEX	5P	56	11	18	34	3.5	2.7	6	3	2
No.5-44UNF	2B	PDUN5GXNEX	5P	56	11	18	34	3.5	2.7	6	3	2
No.6-32UNC	2B	PDUN6JXNEX	5P	56	11	19	32	4	3	6	3	2
No.6-40UNF	2B	PDUN6HXNEX	5P	56	11	19	32	4	3	6	3	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO OX Spiral Pointed Taps, Oxidized

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
No.8-32UNC	2B	PDUN8JXNEX	5P	63	13	21	38	4.5	3.4	6	3	2
No.8-36UNF	2B	PDUN8IXNEX	5P	63	13	21	38	4.5	3.4	6	3	2
No.10-24UNC	2B	PDUNAMXNEX	5P	70	14	24	39	6	4.9	8	3	2
No.10-32UNF	2B	PDUNAJXNEX	5P	70	14	24	39	6	4.9	8	3	2
No.12-24UNC	2B	PDUNCMXNEX	5P	80	15	28	45	6	4.9	8	3	2
No.12-28UNF	2B	PDUNCKXNEX	5P	80	15	28	45	6	4.9	8	3	2
1/4-20UNC	2B	PDU04NXNEX	5P	80	15	30	42	7	5.5	8	3	2
1/4-28UNF	2B	PDU04KXNEX	5P	80	15	30	42	7	5.5	8	3	2
5/16-18UNC	2B	PDU05OXNEX	5P	90	19	35	47	8	6.2	9	3	4
5/16-24UNF	2B	PMU05MXNEX	5P	90	19	-	46	6	4.9	8	3	5
3/8-16UNC	2B	PDU06PXNEX	5P	100	23	39	54.5	9	7	10	3	4
3/8-24UNF	2B	PMU06MXNEX	5P	100	23	-	51	7	5.5	8	3	5
7/16-14UNC	2B	PGU07QXNEX	5P	100	23	-	51	8	6.2	9	3	5
7/16-20UNF	2B	PMU07NXNEX	5P	100	23	-	51	8	6.2	9	3	5
1/2-13UNC	2B	PGU08RXNEX	5P	110	26	-	56	9	7	10	3	5
1/2-20UNF	2B	PMU08NXNEX	5P	100	21	-	51	9	7	10	3	5
9/16-12UNC	2B	PGU09SXNEX	5P	110	26	-	56	11	9	12	3	5
9/16-18UNF	2B	PMU09OXNEX	5P	100	21	-	51	11	9	12	3	5
5/8-11UNC	2B	PGU10UXNEX	5P	110	26	-	56	12	9	12	3	5
5/8-18UNF	2B	PMU10OXNEX	5P	100	21	-	51	12	9	12	3	5
3/4-10UNC	2B	PGU12VXNEX	5P	125	33	-	64	14	11	14	3	5
3/4-16UNF	2B	PMU12PXNEX	5P	110	24	-	56	14	11	14	3	5
7/8-9UNC	2B	PGU14WXNEX	5P	140	33	-	71	18	14.5	17	3	5
7/8-14UNF	2B	PMU14QXNEX	5P	125	24	-	64	18	14.5	17	3	5
1 -8UNC	2B	PGU16XXNEX	5P	160	37	-	82	18	14.5	17	3	5
1 -12UNF	2B	PMU16SXNEX	5P	140	27	-	71	18	14.5	17	3	5
1 1/8-7UNC	2B	PGU18YXNEX	5P	180	44	-	92	22	18	21	4	5
1 1/8-12UNF	2B	PMU18SXNEX	5P	150	27	-	77	22	18	21	4	5
1 1/4-7UNC	2B	PGU20YXNEX	5P	180	49	-	92	22	18	21	4	5
1 1/4-12UNF	2B	PMU20SXNEX	5P	150	27	-	77	22	18	21	4	5
1 3/8-6UNC	2B	PGU22ZXNEX	5P	200	55	-	102	28	22	25	4	5
1 3/8-12UNF	2B	PMU22SXNEX	5P	170	29	-	87	28	20	23	4	5
1 1/2-6UNC	2B	PGU24ZXNEX	5P	200	59	-	102	32	24	27	4	5
1 1/2-12UNF	2B	PMU24SXNEX	5P	170	29	-	87	32	24	27	4	5
1 3/4-5UNC	2B	PGU280XNEX	5P	220	65	-	112	36	29	32	4	5
1 3/4-12UN	2B	PMU28SXNEX	5P	180	31	-	92	36	29	32	4	5
				For G Threads								
G 1/16-28	-	PVG0010NEX	5P	90	19	-	46	6	4.9	8	3	5
G 1/8-28	-	PVG0020NEX	5P	90	19	-	46	7	5.5	8	3	5
G 1/4-19	-	PVG0040NEX	5P	100	21	-	51	11	9	12	3	5
G 3/8-19	-	PVG0060NEX	5P	100	21	-	51	12	9	12	3	5
G 1/2-14	-	PVG0080NEX	5P	125	24	-	64	16	12	15	3	5
G 5/8-14	-	PVG0100NEX	5P	125	24	-	64	18	14.5	17	3	5
G 3/4-14	-	PVG0120NEX	5P	140	27	-	71	20	16	19	4	5
G 7/8-14	-	PVG0140NEX	5P	150	27	-	77	22	18	21	4	5
G 1 -11	-	PVG0160NEX	5P	160	29	-	82	25	20	23	4	5
G 1 1/8-11	-	PVG0180NEX	5P	170	29	-	87	28	22	25	4	5
G 1 1/4-11	-	PVG0200NEX	5P	170	29	-	87	32	24	27	4	5
G 1 1/2-11	-	PVG0240NEX	5P	190	31	-	97	36	29	32	4	5

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

PO LH

Spiral Pointed Taps for Left Hand Threads



Specification

HSS



LH
Left hand

■The PO LH is a spiral pointed tap for left hand threads in through hole tapping.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

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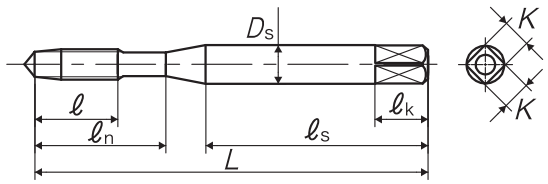

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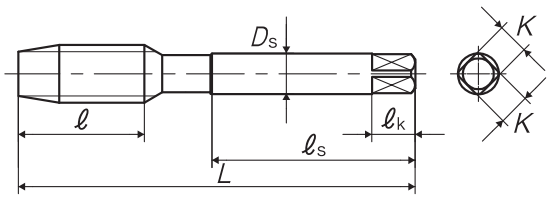

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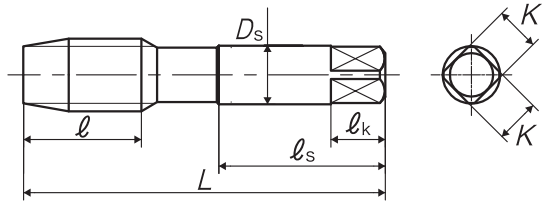

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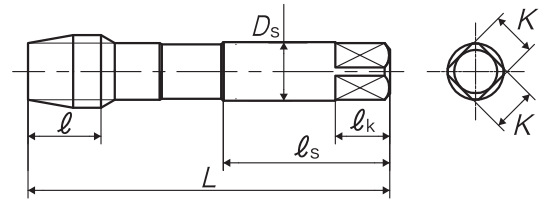

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	POQ3.0G--L	5P	46	9	14	26	4	3.2	6	3	1	¥ 1,640 ※
M4 × 0.7	P2	POQ4.0I--L	5P	52	11	17	29	5	4	7	3	1	¥ 1,640 ※
M5 × 0.8	P2	POQ5.0K--L	5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,660 ※
M6 × 1	P2	POQ6.0M--L	5P	62	15	26	33	6	4.5	7	3	1	¥ 1,820 ※
M8 × 1.25	P3	POR8.0N--L	5P	70	19	-	36	6.2	5	8	3	2	¥ 2,500 ※
M8 × 1	P3	POR8.0M--L	5P	70	19	-	36	6.2	5	8	3	2	¥ 2,840 ※
M10 × 1.5	P3	POR010O--L	5P	75	23	-	38	7	5.5	8	3	2	¥ 3,180 ※
M10 × 1.25	P3	POR010N--L	5P	75	23	-	38	7	5.5	8	3	2	¥ 3,180 ※
M10 × 1	P3	POR010M--L	5P	75	23	-	38	7	5.5	8	3	2	¥ 3,770 ※
M12 × 1.75	P4	POS012P--L	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,500 ※
M12 × 1.5	P3	POR012O--L	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,500 ※
M12 × 1.25	P4	POS012N--L	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,500 ※
M12 × 1	P3	POR012M--L	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 5,300 ※
M14 × 2	P4	POS014Q--L	5P	88	26	-	45	10.5	8	11	3	2	¥ 6,140 ※
M14 × 1.5	P3	POR014O--L	5P	88	26	-	45	10.5	8	11	3	2	¥ 6,140 ※
M16 × 2	P4	POS016Q--L	5P	95	26	-	48	12.5	10	13	3	2	¥ 8,210 ※
M16 × 1.5	P3	POR016O--L	5P	95	26	-	48	12.5	10	13	3	2	¥ 8,210 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO LH Spiral Pointed Taps for Left Hand Threads

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M18 × 2.5	P4	POS018R--L	5P	100	33	-	51	14	11	14	3	2	¥ 11,000 ※
M18 × 1.5	P4	POS018O--L	5P	100	33	-	51	14	11	14	3	2	¥ 11,000 ※
M20 × 2.5	P4	POS020R--L	5P	105	33	-	50	15	12	15	3	3	¥ 15,000 ※
M20 × 1.5	P4	POS020O--L	5P	105	33	-	50	15	12	15	3	3	¥ 15,000 ※
M20 × 1	P3	POR020M--L	5P	105	18	-	50	15	12	15	3	4	¥ 19,000 ※
M22 × 2.5	P4	POS022R--L	5P	115	33	-	55	17	13	16	3	3	¥ 19,200 ※
M22 × 1.5	P4	POS022O--L	5P	115	33	-	55	17	13	16	3	3	¥ 19,200 ※
M24 × 3	P4	POS024S--L	5P	120	39	-	55	19	15	18	3	3	¥ 23,800 ※
M24 × 1.5	P4	POS024O--L	5P	120	39	-	55	19	15	18	3	3	¥ 23,800 ※
M27 × 3	P4	POS027S--L	5P	130	39	-	60	20	15	18	4	3	¥ 33,200 ※
M27 × 1.5	P4	POS027O--L	5P	130	39	-	60	20	15	18	4	3	¥ 33,200 ※
M30 × 3.5	P5	POT030T--L	5P	135	46	-	62	23	17	20	4	3	¥ 42,300 ※
M30 × 1.5	P4	POS030O--L	5P	135	46	-	62	23	17	20	4	3	¥ 42,300 ※
For Unified Threads													
1/4-20UNC	P2	POQU04N--L	5P	62	15	26	33	6	4.5	7	3	1	¥ 2,080 ※
1/4-28UNF	P2	POQU04K--L	5P	62	15	26	33	6	4.5	7	3	1	¥ 2,080 ※
5/16-18UNC	P3	PORU05O--L	5P	70	19	-	36	6.2	5	8	3	2	¥ 2,880 ※
5/16-24UNF	P2	POQU05M--L	5P	70	19	-	36	6.2	5	8	3	2	¥ 2,880 ※
3/8-16UNC	P3	PORU06P--L	5P	75	23	-	38	7	5.5	8	3	2	¥ 3,680 ※
3/8-24UNF	P2	POQU06M--L	5P	75	23	-	38	7	5.5	8	3	2	¥ 3,680 ※
7/16-14UNC	P3	PORU07Q--L	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 5,190 ※
7/16-20UNF	P3	PORU07N--L	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 5,190 ※
1/2-13UNC	P3	PORU08R--L	5P	88	26	-	45	10.5	8	11	3	2	¥ 5,500 ※
1/2-20UNF	P3	PORU08N--L	5P	88	26	-	45	10.5	8	11	3	2	¥ 5,500 ※
For Whitworth Threads													
1/4W20	P3	PORW04N--L	5P	62	15	26	33	6	4.5	7	3	1	¥ 2,080 ※
5/16W18	P3	PORW05O--L	5P	70	19	-	36	6.2	5	8	3	2	¥ 2,880 ※
3/8W16	P3	PORW06P--L	5P	75	23	-	38	7	5.5	8	3	2	¥ 3,680 ※
1/2W12	P3	PORW08S--L	5P	88	26	-	45	10.5	8	11	3	2	¥ 5,500 ※
5/8W11	P3	PORW10U--L	5P	95	26	-	48	12.5	10	13	3	2	¥ 8,210 ※
3/4W10	P4	POSW12V--L	5P	105	33	-	50	15	12	15	3	3	¥ 15,000 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

PO V

Spiral Pointed Taps, Coated



Specification

HSS Coating



■Adopting the optimum coating for the tapping condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

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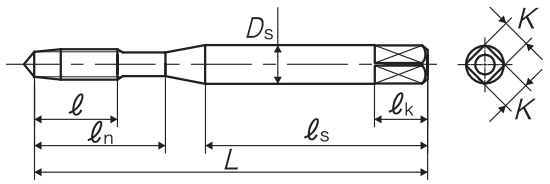

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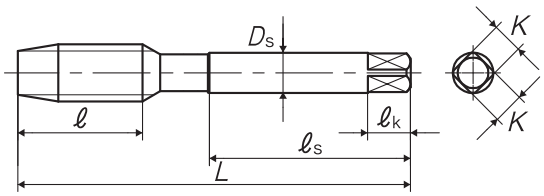

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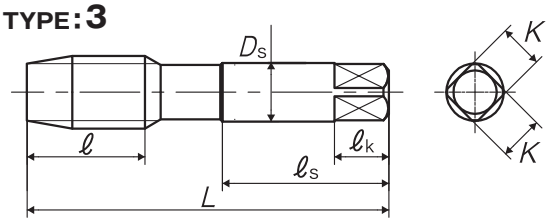

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P2	VPOQ2.0E	5P	42	7.2	12	27	3	2.5	5	3	1	¥ 3,920 ※
M2.5 × 0.45	P2	VPOQ2.5F	5P	46	8.1	14	29	3	2.5	5	3	1	¥ 3,420 ※
M2.6 × 0.45	P2	VPOQ2.6F	5P	46	8.1	14	29	3	2.5	5	3	1	¥ 3,420 ※
M3 × 0.5	P2	VPOQ3.0G	5P	46	9	14	26	4	3.2	6	3	1	¥ 2,970
M4 × 0.7	P2	VPOQ4.0I	5P	52	11	17	29	5	4	7	3	1	¥ 2,970
M5 × 0.8	P2	VPOQ5.0K	5P	60	13	22	33	5.5	4.5	7	3	1	¥ 2,980
M6 × 1	P2	VPOQ6.0M	5P	62	15	26	33	6	4.5	7	3	1	¥ 3,000
M8 × 1.25	P3	VPOR8.0N	5P	70	19	-	36	6.2	5	8	3	2	¥ 3,910
M10 × 1.5	P3	VPOR010O	5P	75	23	-	38	7	5.5	8	3	2	¥ 4,680
M10 × 1.25	P3	VPOR010N	5P	75	23	-	38	7	5.5	8	3	2	¥ 4,680
M12 × 1.75	P4	VPOS012P	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 6,130
M12 × 1.5	P3	VPOR012O	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 6,130
M12 × 1.25	P4	VPOS012N	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 6,130
M14 × 2	P4	VPOS014Q	5P	88	26	-	45	10.5	8	11	3	2	¥ 7,850 ※
M18 × 2.5	P4	VPOS018R	5P	100	33	-	51	14	11	14	3	2	¥ 13,700 ※
M20 × 2.5	P4	VPOS020R	5P	105	33	-	50	15	12	15	3	3	¥ 17,100 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

PO V

Spiral Pointed Taps, Coated



Specification

HSS Coating



■Adopting the optimum coating for the tapping condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

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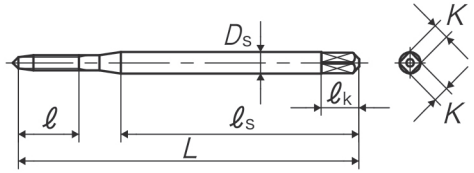

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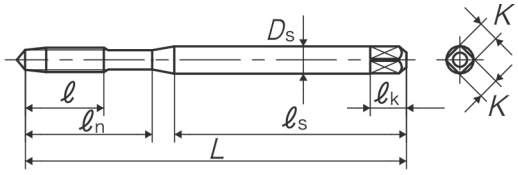

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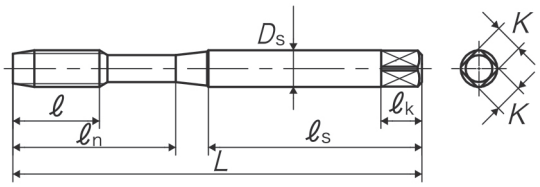

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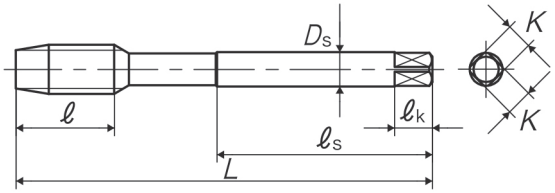

Segment : 1F (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2	96302.0TI	5P	45	8	-	32	2.8	2.1	5	3	1
M2.5 × 0.45	ISO2	96302.5TI	5P	50	8	15	33	2.8	2.1	5	3	2
M3 × 0.5	ISO2	96303.0TI	5P	56	9	18	34	3.5	2.7	6	3	2
M3 × 0.5	ISO3	96303.06GTI	5P	56	9	18	34	3.5	2.7	6	3	2
M3.5 × 0.6	ISO2	96303.5TI	5P	56	11	20	32	4	3	6	3	2
M4 × 0.7	ISO2	96304.0TI	5P	63	13	21	38	4.5	3.4	6	3	2
M4 × 0.7	ISO3	96304.06GTI	5P	63	13	21	38	4.5	3.4	6	3	2
M5 × 0.8	ISO2	96305.0TI	5P	70	14	25	39	6	4.9	8	3	2
M5 × 0.8	ISO3	96305.06GTI	5P	70	14	25	39	6	4.9	8	3	2
M6 × 1	ISO2	96306.0TI	5P	80	15	30	45	6	4.9	8	3	2
M6 × 1	ISO3	96306.06GTI	5P	80	15	30	45	6	4.9	8	3	2
M8 × 1.25	ISO2	96308.0TI	5P	90	19	35	47	8	6.2	9	3	3
M8 × 1.25	ISO3	96308.06GTI	5P	90	19	35	47	8	6.2	9	3	3
M8 × 1	ISO2	98308.0MTI	5P	90	19	-	46	6	4.9	8	3	4
M10 × 1.5	ISO2	9630010TI	5P	100	23	39	52.5	10	8	11	3	3
M10 × 1.5	ISO3	96300106GTI	5P	100	23	39	52.5	10	8	11	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M10 × 1.25	ISO2	9830010NTI	5P	100	23	-	51	7	5.5	8	3	4
M10 × 1	ISO2	9830010MTI	5P	90	19	-	46	7	5.5	8	3	4
M12 × 1.75	ISO2	9730012TI	5P	110	26	-	56	9	7	10	3	4
M12 × 1.5	ISO2	9830012OTI	5P	100	21	-	51	9	7	10	3	4
M12 × 1.25	ISO2	9830012NTI	5P	100	21	-	51	9	7	10	3	4
M14 × 2	ISO2	9730014TI	5P	110	26	-	56	11	9	12	3	4
M14 × 1.5	ISO2	9830014OTI	5P	100	21	-	51	11	9	12	3	4
M16 × 2	ISO2	9730016TI	5P	110	26	-	56	12	9	12	3	4
M16 × 1.5	ISO2	9830016OTI	5P	100	21	-	51	12	9	12	3	4
M18 × 2.5	ISO2	9730018TI	5P	125	33	-	64	14	11	14	3	4
M18 × 1.5	ISO2	9830018OTI	5P	110	24	-	56	14	11	14	3	4
M20 × 2.5	ISO2	9730020TI	5P	140	33	-	71	16	12	15	3	4
M20 × 1.5	ISO2	9830020OTI	5P	125	24	-	64	16	12	15	3	4
M22 × 2.5	ISO2	9730022TI	5P	140	33	-	71	18	14.5	17	3	4
M24 × 3	ISO2	9730024TI	5P	160	37	-	82	18	14.5	17	3	4
For G Threads												
G 1/8-28	-	9930R02TI	5P	90	19	-	46	7	5.5	8	3	4
G 1/4-19	-	9930R04TI	5P	100	21	-	51	11	9	12	3	4
G 3/8-19	-	9930R06TI	5P	100	21	-	51	12	9	12	3	4
G 1/2-14	-	9930R08TI	5P	125	24	-	64	16	12	15	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-PO

Long Shank Spiral Pointed Taps



Specification

HSS



■Long shank spiral pointed taps for tapping threads in deep holes that cannot be reached with a standard overall length.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

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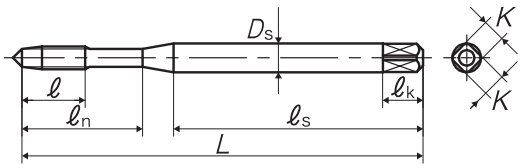

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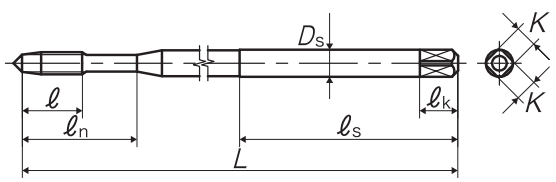

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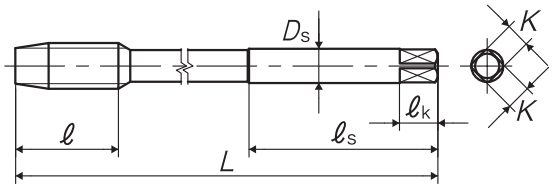

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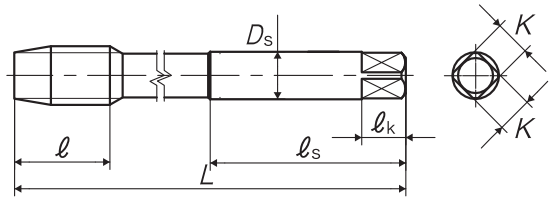

Oversize

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P2	POFQ2.0EL07	5P	70	7.2	15	52	3	2.5	5	3	1	¥ 4,060 ※
M2.3 × 0.4	P2	POFQ2.3EL07	5P	70	7.2	15	52	3	2.5	5	3	1	¥ 3,650 ※
M2.5 × 0.45	P2	POFQ2.5FL07	5P	70	8.1	15	52	3	2.5	5	3	1	¥ 3,200 ※
M2.6 × 0.45	P2	POFQ2.6FL07	5P	70	8.1	15	52	3	2.5	5	3	1	¥ 3,200 ※
M3 × 0.5	P2	POFQ3.0GL07	5P	70	9	18	46	4	3.2	6	3	1	¥ 2,490 ※
M3 × 0.5	P2	POFQ3.0GL10	5P	100	9	18	40	4	3.2	6	3	2	¥ 3,610
M3 × 0.5	P2	POFQ3.0GL12	5P	120	9	18	40	4	3.2	6	3	2	¥ 4,330 ※
M3 × 0.5	P2	POFQ3.0GL15	5P	150	9	18	40	4	3.2	6	3	2	¥ 6,810
M3 × 0.5	P3	POFR3.0GL10	5P	100	9	18	40	4	3.2	6	3	2	¥ 3,610 ※
M3 × 0.5	P3	POFR3.0GL15	5P	150	9	18	40	4	3.2	6	3	2	¥ 6,810 ※
M4 × 0.7	P2	POFQ4.0IL07	5P	70	11	21	43	5	4	7	3	1	¥ 2,170 ※
M4 × 0.7	P2	POFQ4.0IL10	5P	100	11	21	40	5	4	7	3	2	¥ 3,300
M4 × 0.7	P2	POFQ4.0IL12	5P	120	11	21	40	5	4	7	3	2	¥ 4,080 ※
M4 × 0.7	P2	POFQ4.0IL15	5P	150	11	21	40	5	4	7	3	2	¥ 6,290

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M4 × 0.7	P3	POFR4.0IL10	5P	100	11	21	40	5	4	7	3	2	¥ 3,300 ※
M4 × 0.7	P3	POFR4.0IL15	5P	150	11	21	40	5	4	7	3	2	¥ 6,290 ※
M5 × 0.8	P2	POFQ5.0KL10	5P	100	13	25	40	5.5	4.5	7	3	2	¥ 2,890
M5 × 0.8	P2	POFQ5.0KL12	5P	120	13	25	40	5.5	4.5	7	3	2	¥ 3,600 ※
M5 × 0.8	P2	POFQ5.0KL15	5P	150	13	25	40	5.5	4.5	7	3	2	¥ 4,890
M5 × 0.8	P3	POFR5.0KL10	5P	100	13	25	40	5.5	4.5	7	3	2	¥ 2,890 ※
M5 × 0.8	P3	POFR5.0KL15	5P	150	13	25	40	5.5	4.5	7	3	2	¥ 4,890 ※
M5 × 0.8	P4	POFS5.0KL15	5P	150	13	25	40	5.5	4.5	7	3	2	¥ 4,890 ※
M6 × 1	P2	POFQ6.0ML10	5P	100	15	30	40	6	4.5	7	3	2	¥ 2,470
M6 × 1	P2	POFQ6.0ML12	5P	120	15	30	40	6	4.5	7	3	2	¥ 3,180 ※
M6 × 1	P2	POFQ6.0ML15	5P	150	15	30	40	6	4.5	7	3	2	¥ 4,360
M6 × 1	P2	POFQ6.0ML20	5P	200	15	30	40	6	4.5	7	3	2	¥ 6,030 ※
M6 × 1	P3	POFR6.0ML10	5P	100	15	30	40	6	4.5	7	3	2	¥ 2,470 ※
M6 × 1	P3	POFR6.0ML15	5P	150	15	30	40	6	4.5	7	3	2	¥ 4,360 ※
M6 × 1	P4	POFS6.0ML15	5P	150	15	30	40	6	4.5	7	3	2	¥ 4,360 ※
M8 × 1.25	P3	POR8.0NL10	5P	100	19	-	50	6.2	5	8	3	3	¥ 3,140
M8 × 1.25	P3	POR8.0NL12	5P	120	19	-	50	6.2	5	8	3	3	¥ 3,890 ※
M8 × 1.25	P3	POR8.0NL15	5P	150	19	-	50	6.2	5	8	3	3	¥ 5,350
M8 × 1.25	P3	POR8.0NL20	5P	200	19	-	50	6.2	5	8	3	3	¥ 7,920 ※
M8 × 1.25	P4	POS8.0NL15	5P	150	19	-	50	6.2	5	8	3	3	¥ 5,350 ※
M8 × 1	P3	POR8.0ML10	5P	100	19	-	50	6.2	5	8	3	3	¥ 3,380 ※
M8 × 1	P3	POR8.0ML12	5P	120	19	-	50	6.2	5	8	3	3	¥ 4,380 ※
M8 × 1	P3	POR8.0ML15	5P	150	19	-	50	6.2	5	8	3	3	¥ 5,590 ※
M10 × 1.5	P3	POR0100L10	5P	100	23	-	50	7	5.5	8	3	3	¥ 3,810
M10 × 1.5	P3	POR0100L12	5P	120	23	-	50	7	5.5	8	3	3	¥ 4,520 ※
M10 × 1.5	P3	POR0100L15	5P	150	23	-	50	7	5.5	8	3	3	¥ 6,220
M10 × 1.5	P3	POR0100L20	5P	200	23	-	50	7	5.5	8	3	3	¥ 8,650 ※
M10 × 1.5	P4	POS0100L15	5P	150	23	-	50	7	5.5	8	3	3	¥ 6,220 ※
M10 × 1.25	P3	POR010NL10	5P	100	23	-	50	7	5.5	8	3	3	¥ 3,810
M10 × 1.25	P3	POR010NL12	5P	120	23	-	50	7	5.5	8	3	3	¥ 4,520 ※
M10 × 1.25	P3	POR010NL15	5P	150	23	-	50	7	5.5	8	3	3	¥ 6,220
M10 × 1.25	P3	POR010NL20	5P	200	23	-	50	7	5.5	8	3	3	¥ 8,650 ※
M10 × 1.25	P4	POS010NL15	5P	150	23	-	50	7	5.5	8	3	3	¥ 6,220 ※
M10 × 1	P3	POR010ML10	5P	100	23	-	50	7	5.5	8	3	3	¥ 4,120 ※
M10 × 1	P3	POR010ML12	5P	120	23	-	50	7	5.5	8	3	3	¥ 4,730 ※
M10 × 1	P3	POR010ML15	5P	150	23	-	50	7	5.5	8	3	3	¥ 7,020 ※
M12 × 1.75	P4	POS012PL10	5P	100	26	-	50	8.5	6.5	9	3	3	¥ 4,670 ※
M12 × 1.75	P4	POS012PL12	5P	120	26	-	50	8.5	6.5	9	3	3	¥ 5,420 ※
M12 × 1.75	P4	POS012PL15	5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,790
M12 × 1.75	P4	POS012PL20	5P	200	26	-	50	8.5	6.5	9	3	3	¥ 10,900
M12 × 1.75	P5	POT012PL15	5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,790 ※
M12 × 1.5	P3	POR0120L10	5P	100	26	-	50	8.5	6.5	9	3	3	¥ 4,670 ※
M12 × 1.5	P3	POR0120L12	5P	120	26	-	50	8.5	6.5	9	3	3	¥ 5,420 ※
M12 × 1.5	P3	POR0120L15	5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,790 ※
M12 × 1.5	P3	POR0120L20	5P	200	26	-	50	8.5	6.5	9	3	3	¥ 10,900 ※
M12 × 1.5	P4	POS0120L15	5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,790 ※
M12 × 1.25	P4	POS012NL10	5P	100	26	-	50	8.5	6.5	9	3	3	¥ 4,670 ※
M12 × 1.25	P4	POS012NL12	5P	120	26	-	50	8.5	6.5	9	3	3	¥ 5,420 ※
M12 × 1.25	P4	POS012NL15	5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,790 ※
M12 × 1.25	P4	POS012NL20	5P	200	26	-	50	8.5	6.5	9	3	3	¥ 10,900 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-PO Long Shank Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M12 × 1.25	P5	POT012NL15	5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,790 ※
M12 × 1	P3	POR012ML10	5P	100	26	-	50	8.5	6.5	9	3	3	¥ 5,680 ※
M12 × 1	P3	POR012ML15	5P	150	26	-	50	8.5	6.5	9	3	3	¥ 9,650 ※
M14 × 2	P4	POS014QL12	5P	120	26	-	60	10.5	8	11	3	3	¥ 7,140 ※
M14 × 2	P4	POS014QL15	5P	150	26	-	60	10.5	8	11	3	3	¥ 9,760
M14 × 2	P4	POS014QL20	5P	200	26	-	60	10.5	8	11	3	3	¥ 13,100 ※
M14 × 2	P5	POT014QL15	5P	150	26	-	60	10.5	8	11	3	3	¥ 9,760 ※
M14 × 1.5	P3	POR014QL12	5P	120	26	-	60	10.5	8	11	3	3	¥ 7,140 ※
M14 × 1.5	P3	POR014QL15	5P	150	26	-	60	10.5	8	11	3	3	¥ 9,760 ※
M14 × 1.5	P3	POR014QL20	5P	200	26	-	60	10.5	8	11	3	3	¥ 13,100 ※
M14 × 1.5	P4	POS014QL15	5P	150	26	-	60	10.5	8	11	3	3	¥ 9,760 ※
M16 × 2	P4	POS016QL15	5P	150	26	-	60	12.5	10	13	3	3	¥ 10,600
M16 × 2	P4	POS016QL20	5P	200	26	-	60	12.5	10	13	3	3	¥ 14,000
M16 × 2	P4	POS016QL25	5P	250	26	-	60	12.5	10	13	3	3	¥ 17,400 ※
M16 × 2	P5	POT016QL15	5P	150	26	-	60	12.5	10	13	3	3	¥ 10,600 ※
M16 × 1.5	P3	POR016QL15	5P	150	26	-	60	12.5	10	13	3	3	¥ 10,600
M16 × 1.5	P3	POR016QL20	5P	200	26	-	60	12.5	10	13	3	3	¥ 14,000 ※
M18 × 2.5	P4	POS018RL15	5P	150	33	-	70	14	11	14	3	3	¥ 14,500
M18 × 2.5	P4	POS018RL20	5P	200	33	-	70	14	11	14	3	3	¥ 18,200 ※
M18 × 2.5	P5	POT018RL15	5P	150	33	-	70	14	11	14	3	3	¥ 14,500 ※
M18 × 2	P4	POS018QL20	5P	200	33	-	70	14	11	14	3	3	¥ 18,200 ※
M18 × 1.5	P4	POS018QL15	5P	150	33	-	70	14	11	14	3	3	¥ 14,500 ※
M18 × 1.5	P4	POS018QL20	5P	200	33	-	70	14	11	14	3	3	¥ 18,200 ※
M20 × 2.5	P4	POS020RL15	5P	150	33	-	70	15	12	15	3	4	¥ 18,600
M20 × 2.5	P4	POS020RL20	5P	200	33	-	70	15	12	15	3	4	¥ 23,200
M20 × 2.5	P4	POS020RL25	5P	250	33	-	70	15	12	15	3	4	¥ 29,500 ※
M20 × 2.5	P5	POT020RL15	5P	150	33	-	70	15	12	15	3	4	¥ 18,600 ※
M20 × 2	P4	POS020QL20	5P	200	33	-	70	15	12	15	3	4	¥ 23,200 ※
M20 × 1.5	P4	POS020QL15	5P	150	33	-	70	15	12	15	3	4	¥ 18,600
M20 × 1.5	P4	POS020QL20	5P	200	33	-	70	15	12	15	3	4	¥ 23,200 ※
M22 × 2.5	P4	POS022RL15	5P	150	33	-	70	17	13	16	3	4	¥ 20,700 ※
M22 × 2.5	P4	POS022RL20	5P	200	33	-	70	17	13	16	3	4	¥ 25,700 ※
M22 × 2.5	P4	POS022RL25	5P	250	33	-	70	17	13	16	3	4	¥ 31,700 ※
M22 × 2	P4	POS022QL20	5P	200	33	-	70	17	13	16	3	4	¥ 25,700 ※
M22 × 1.5	P4	POS022QL15	5P	150	33	-	70	17	13	16	3	4	¥ 20,700
M22 × 1.5	P4	POS022QL20	5P	200	33	-	70	17	13	16	3	4	¥ 25,700 ※
M24 × 3	P4	POS024SL15	5P	150	39	-	80	19	15	18	3	4	¥ 24,100
M24 × 3	P4	POS024SL20	5P	200	39	-	80	19	15	18	3	4	¥ 28,900
M24 × 3	P4	POS024SL25	5P	250	39	-	80	19	15	18	3	4	¥ 36,600 ※
M24 × 2	P4	POS024QL20	5P	200	39	-	80	19	15	18	3	4	¥ 28,900 ※
M24 × 1.5	P4	POS024QL15	5P	150	39	-	80	19	15	18	3	4	¥ 24,100 ※
M24 × 1.5	P4	POS024QL20	5P	200	39	-	80	19	15	18	3	4	¥ 28,900 ※
M27 × 3	P4	POS027SL20	5P	200	39	-	80	20	15	18	4	4	¥ 32,100 ※
M27 × 3	P4	POS027SL25	5P	250	39	-	80	20	15	18	4	4	¥ 41,600 ※
M27 × 2	P4	POS027QL25	5P	250	39	-	80	20	15	18	4	4	¥ 41,600 ※
M27 × 1.5	P4	POS027QL20	5P	200	39	-	80	20	15	18	4	4	¥ 32,100 ※
M27 × 1.5	P4	POS027QL25	5P	250	39	-	80	20	15	18	4	4	¥ 41,600 ※
M30 × 3.5	P5	POT030TL20	5P	200	46	-	80	23	17	20	4	4	¥ 41,200 ※
M30 × 3.5	P5	POT030TL25	5P	250	46	-	80	23	17	20	4	4	¥ 52,300 ※
M30 × 3.5	P5	POT030TL30	5P	300	46	-	80	23	17	20	4	4	¥ 60,100 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-PO Long Shank Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M30 × 3	P4	POS030SL25	5P	250	46	-	80	23	17	20	4	4	¥ 52,300 ※
M30 × 2	P4	POS030QL25	5P	250	46	-	80	23	17	20	4	4	¥ 52,300 ※
M30 × 1.5	P4	POS030OL20	5P	200	46	-	80	23	17	20	4	4	¥ 41,200 ※
M30 × 1.5	P4	POS030OL25	5P	250	46	-	80	23	17	20	4	4	¥ 52,300 ※
For Unified Threads													
1/4-20UNC	P2	POFQU04NL10	5P	100	15	30	40	6	4.5	7	3	2	¥ 2,680 ※
1/4-20UNC	P2	POFQU04NL15	5P	150	15	30	40	6	4.5	7	3	2	¥ 4,330 ※
1/4-28UNF	P2	POFQU04KL10	5P	100	15	30	40	6	4.5	7	3	2	¥ 2,680 ※
1/4-28UNF	P2	POFQU04KL15	5P	150	15	30	40	6	4.5	7	3	2	¥ 4,330 ※
5/16-18UNC	P3	PORU05OL10	5P	100	19	-	50	6.2	5	8	3	3	¥ 3,190 ※
5/16-18UNC	P3	PORU05OL15	5P	150	19	-	50	6.2	5	8	3	3	¥ 5,330 ※
5/16-24UNF	P2	POQU05ML10	5P	100	19	-	50	6.2	5	8	3	3	¥ 3,190 ※
5/16-24UNF	P2	POQU05ML15	5P	150	19	-	50	6.2	5	8	3	3	¥ 5,330 ※
3/8-16UNC	P3	PORU06PL10	5P	100	23	-	50	7	5.5	8	3	3	¥ 3,890 ※
3/8-16UNC	P3	PORU06PL15	5P	150	23	-	50	7	5.5	8	3	3	¥ 6,320 ※
3/8-24UNF	P2	POQU06ML10	5P	100	23	-	50	7	5.5	8	3	3	¥ 3,890 ※
3/8-24UNF	P2	POQU06ML15	5P	150	23	-	50	7	5.5	8	3	3	¥ 6,320 ※
7/16-14UNC	P3	PORU07QL15	5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,480 ※
7/16-20UNF	P3	PORU07NL15	5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,480 ※
1/2-13UNC	P3	PORU08RL15	5P	150	26	-	60	10.5	8	11	3	3	¥ 7,920 ※
1/2-13UNC	P3	PORU08RL20	5P	200	26	-	60	10.5	8	11	3	3	¥ 11,300 ※
1/2-20UNF	P3	PORU08NL15	5P	150	26	-	60	10.5	8	11	3	3	¥ 7,920 ※
1/2-20UNF	P3	PORU08NL20	5P	200	26	-	60	10.5	8	11	3	3	¥ 11,300 ※
5/8-11UNC	P3	PORU10UL15	5P	150	26	-	60	12.5	10	13	3	3	¥ 10,900 ※
5/8-11UNC	P3	PORU10UL20	5P	200	26	-	60	12.5	10	13	3	3	¥ 14,200 ※
5/8-18UNF	P3	PORU10OL15	5P	150	26	-	60	12.5	10	13	3	3	¥ 10,900 ※
5/8-18UNF	P3	PORU10OL20	5P	200	26	-	60	12.5	10	13	3	3	¥ 14,200 ※
3/4-10UNC	P4	POSU12VL15	5P	150	33	-	70	15	12	15	3	4	¥ 18,900 ※
3/4-10UNC	P4	POSU12VL20	5P	200	33	-	70	15	12	15	3	4	¥ 24,100 ※
3/4-16UNF	P3	PORU12PL15	5P	150	33	-	70	15	12	15	3	4	¥ 18,900 ※
3/4-16UNF	P3	PORU12PL20	5P	200	33	-	70	15	12	15	3	4	¥ 24,100 ※
7/8-9UNC	P4	POSU14WL20	5P	200	33	-	70	17	13	16	3	4	¥ 25,700 ※
7/8-14UNF	P3	PORU14QL20	5P	200	33	-	70	17	13	16	3	4	¥ 25,700 ※
1 -8UNC	P4	POSU16XL15	5P	150	39	-	80	19	15	18	3	4	¥ 24,500 ※
1 -8UNC	P4	POSU16XL20	5P	200	39	-	80	19	15	18	3	4	¥ 30,500 ※
1 -12UNF	P4	POSU16SL20	5P	200	39	-	80	19	15	18	3	4	¥ 30,500 ※
For Whitworth Threads													
1/4W20	P3	POFRW04NL10	5P	100	15	30	40	6	4.5	7	3	2	¥ 2,680 ※
1/4W20	P3	POFRW04NL15	5P	150	15	30	40	6	4.5	7	3	2	¥ 4,330 ※
5/16W18	P3	PORW05OL10	5P	100	19	-	50	6.2	5	8	3	3	¥ 3,190 ※
5/16W18	P3	PORW05OL15	5P	150	19	-	50	6.2	5	8	3	3	¥ 5,330 ※
3/8W16	P3	PORW06PL10	5P	100	23	-	50	7	5.5	8	3	3	¥ 3,890 ※
3/8W16	P3	PORW06PL15	5P	150	23	-	50	7	5.5	8	3	3	¥ 6,320 ※
7/16W14	P3	PORW07QL15	5P	150	26	-	50	8.5	6.5	9	3	3	¥ 7,480 ※
1/2W12	P3	PORW08SL15	5P	150	26	-	60	10.5	8	11	3	3	¥ 7,920 ※
1/2W12	P3	PORW08SL20	5P	200	26	-	60	10.5	8	11	3	3	¥ 11,300 ※
5/8W11	P3	PORW10UL15	5P	150	26	-	60	12.5	10	13	3	3	¥ 10,900 ※
5/8W11	P3	PORW10UL20	5P	200	26	-	60	12.5	10	13	3	3	¥ 14,200 ※
3/4W10	P4	POSW12VL15	5P	150	33	-	70	15	12	15	3	4	¥ 18,900 ※
3/4W10	P4	POSW12VL20	5P	200	33	-	70	15	12	15	3	4	¥ 24,100 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-PO Long Shank Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
7/8W9	P4	POSW14WL15	5P	150	33	-	70	17	13	16	3	4	¥ 21,100 ※
7/8W9	P4	POSW14WL20	5P	200	33	-	70	17	13	16	3	4	¥ 25,700 ※
1 W8	P4	POSW16XL15	5P	150	39	-	80	19	15	18	3	4	¥ 24,500 ※
1 W8	P4	POSW16XL20	5P	200	39	-	80	19	15	18	3	4	¥ 30,500 ※

※ = Specified Distribution Items. Made to order products.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-PO V



Long Shank Spiral Pointed Taps, Coated

Specification

HSS | Coating



■Long shank coated spiral fluted taps for tapping threads in deep holes that cannot be reached with a standard overall length.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

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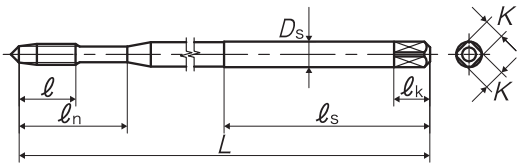

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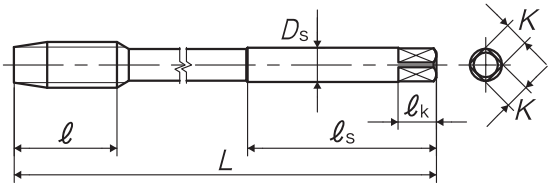

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	VPOFQ3.0GL10	5P	100	9	18	40	4	3.2	6	3	1	¥ 5,600
M4 × 0.7	P2	VPOFQ4.0IL10	5P	100	11	21	40	5	4	7	3	1	¥ 5,250
M5 × 0.8	P2	VPOFQ5.0KL10	5P	100	13	25	40	5.5	4.5	7	3	1	¥ 4,910
M6 × 1	P2	VPOFQ6.0ML10	5P	100	15	30	40	6	4.5	7	3	1	¥ 4,460
M6 × 1	P2	VPOFQ6.0ML15	5P	150	15	30	40	6	4.5	7	3	1	¥ 6,220 ※
M8 × 1.25	P3	VPOR8.0NL10	5P	100	19	-	50	6.2	5	8	3	2	¥ 5,470
M8 × 1.25	P3	VPOR8.0NL15	5P	150	19	-	50	6.2	5	8	3	2	¥ 7,560
M10 × 1.5	P3	VPOR010OL15	5P	150	23	-	50	7	5.5	8	3	2	¥ 8,770
M10 × 1.25	P3	VPOR010NL15	5P	150	23	-	50	7	5.5	8	3	2	¥ 8,770 ※
M12 × 1.75	P4	VPOS012PL15	5P	150	26	-	50	8.5	6.5	9	3	2	¥ 11,100
M12 × 1.5	P3	VPOR012OL15	5P	150	26	-	50	8.5	6.5	9	3	2	¥ 11,100 ※
M12 × 1.25	P4	VPOS012NL15	5P	150	26	-	50	8.5	6.5	9	3	2	¥ 11,100 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-PO-K



Long Shank Spiral Pointed Taps with Long Neck

Specification

HSS

■Long shank spiral pointed taps with long neck for tapping threads in deep holes that cannot be reached with a standard overall length. The long neck enables deep hole tapping.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

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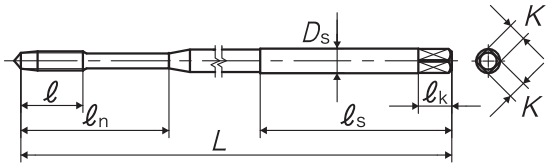


Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	PY3.0GQFEBE	4.5P	100	9	28	40	4	3.2	6	3	1	¥ 3,610 ※
M3 × 0.5	P2	PY3.0GQFEBF	4.5P	120	9	28	40	4	3.2	6	3	1	¥ 4,330 ※
M3 × 0.5	P2	PY3.0GQFEBG	4.5P	150	9	28	40	4	3.2	6	3	1	¥ 6,810 ※
M4 × 0.7	P2	PY4.0IQFEBE	4.5P	100	11	31	40	5	4	7	3	1	¥ 3,300 ※
M4 × 0.7	P2	PY4.0IQFEBF	4.5P	120	11	31	40	5	4	7	3	1	¥ 4,080 ※
M4 × 0.7	P2	PY4.0IQFEBG	4.5P	150	11	31	40	5	4	7	3	1	¥ 6,290 ※
M5 × 0.8	P2	PY5.0KQFEBE	4.5P	100	13	38	40	5.5	4.5	7	3	1	¥ 2,890 ※
M5 × 0.8	P2	PY5.0KQFEBF	4.5P	120	13	38	40	5.5	4.5	7	3	1	¥ 3,600 ※
M5 × 0.8	P2	PY5.0KQFEBG	4.5P	150	13	38	40	5.5	4.5	7	3	1	¥ 4,890 ※
M6 × 1	P2	PY6.0MQFEBE	4.5P	100	15	45	40	6	4.5	7	3	1	¥ 2,470 ※
M6 × 1	P2	PY6.0MQFEBF	4.5P	120	15	45	40	6	4.5	7	3	1	¥ 3,180 ※
M6 × 1	P2	PY6.0MQFEBG	4.5P	150	15	45	40	6	4.5	7	3	1	¥ 4,360 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

SU+PO
SU-PO

Spiral Pointed Taps for Stainless Steels



Specification

HSS | OX Oxide



・Product Name and Size.

SU+PO	～M2.6
SU−PO	M3～, all U, all W

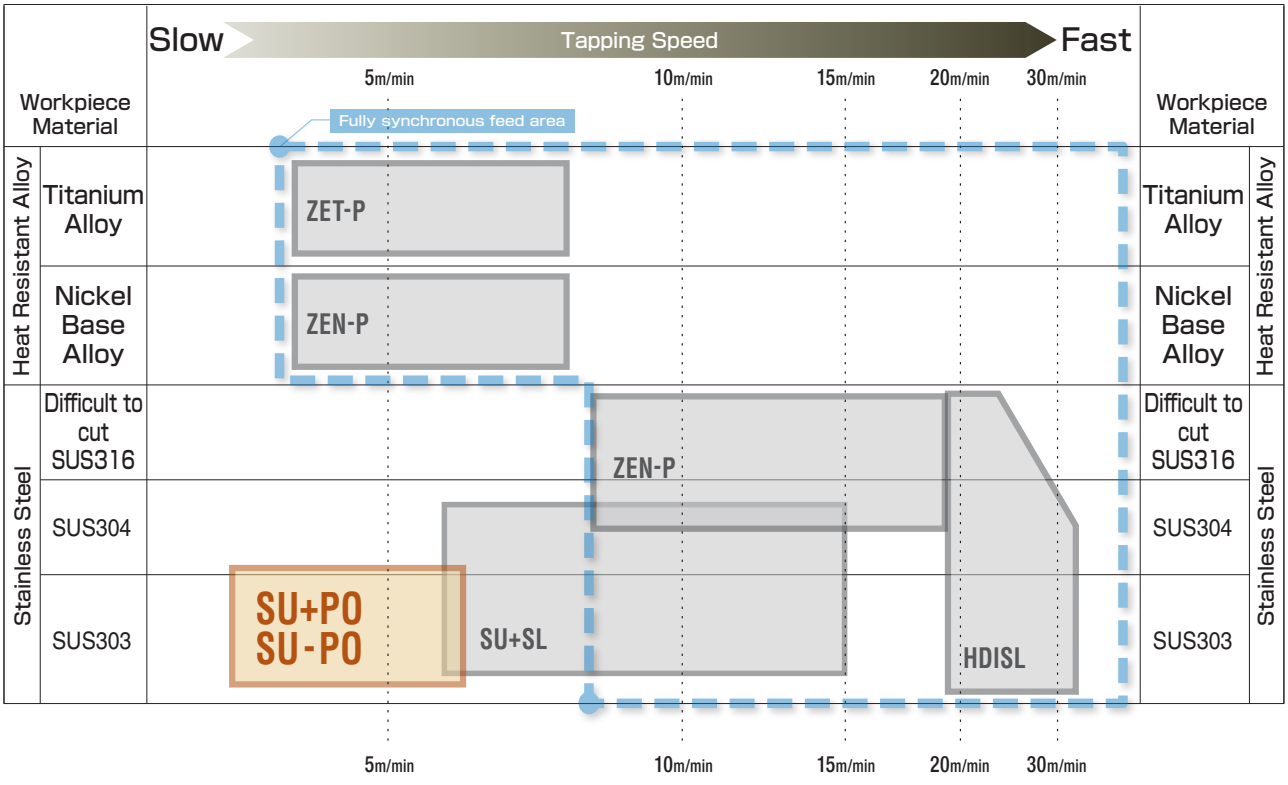
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)

Product Features

●The SU+PO/SU-PO taps are designed for stainless steel that causes work harden easily. The cutting geometry is also suited for tapping through holes in chromium steel and molybdenum steel.
●To prevent chip welding, the tap's surface is oxidized.

Comparison chart



Speed range for the SU+PO/SU-PO taps.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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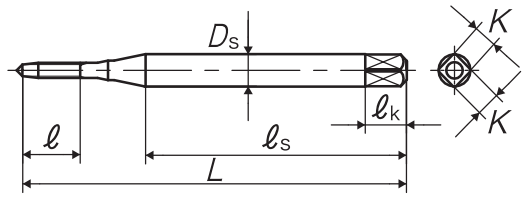

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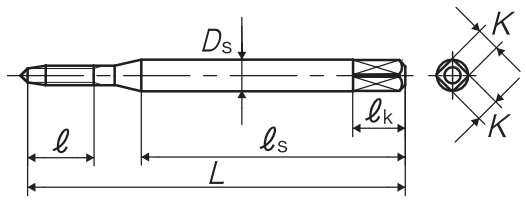

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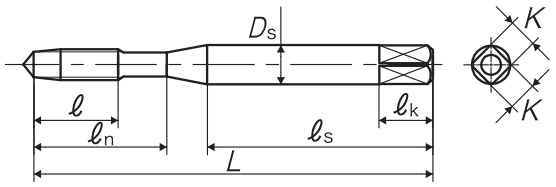

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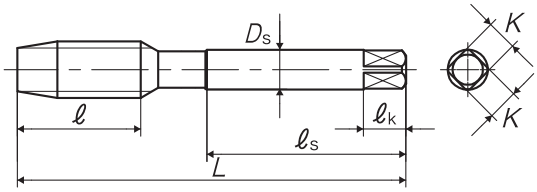

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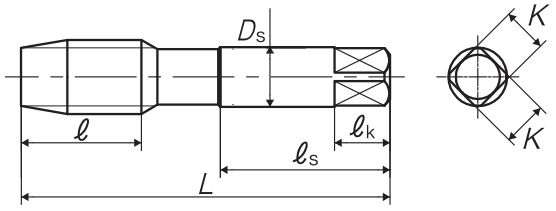

SU+PO Spiral Pointed Taps for Stainless Steels

Oversize

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M1.4 × 0.3	P1	PUPP1.4C	5P	36	5.4	-	24	3	2.5	5	2	1	¥ 3,550 ※
M1.6 × 0.35	P2	PUPQ1.6D	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 3,390 ※
M1.7 × 0.35	P2	PUPQ1.7D	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 3,390 ※
M2 × 0.4	P2	PUPQ2.0E	5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,710
M2 × 0.4	P3	PUPR2.0E	5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,710 ※
M2.3 × 0.4	P2	PUPQ2.3E	5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,470
M2.3 × 0.4	P3	PUPR2.3E	5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,470 ※
M2.5 × 0.45	P2	PUPQ2.5F	5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,070
M2.5 × 0.45	P3	PUPR2.5F	5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,070 ※
M2.6 × 0.45	P2	PUPQ2.6F	5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,070
M2.6 × 0.45	P3	PUPR2.6F	5P	46	8.1	14	29	3	2.5	5	2	3	¥ 2,070 ※

SU-PO Spiral Pointed Taps for Stainless Steels

Oversize

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	PUMQ3.0G	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,450
M3 × 0.5	P3	PUMR3.0G	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,450 ※
M3 × 0.5	P4	PUMS3.0G	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,450 ※
3M0.6	P2	PUMQ3.0H	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,450 ※
M3.5 × 0.6	P2	PUMQ3.5H	5P	52	11	16	29	5	4	7	3	3	¥ 1,450
M4 × 0.7	P2	PUMQ4.0I	5P	52	11	17	29	5	4	7	3	3	¥ 1,450
M4 × 0.7	P3	PUMR4.0I	5P	52	11	17	29	5	4	7	3	3	¥ 1,450 ※
M4 × 0.7	P4	PUMS4.0I	5P	52	11	17	29	5	4	7	3	3	¥ 1,450 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SU-PO Spiral Pointed Taps for Stainless Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
4M0.75	P2	PUMQ4.0J	5P	52	11	17	29	5	4	7	3	3	¥ 1,450 ※
M5 × 0.8	P2	PUMQ5.0K	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,470
M5 × 0.8	P3	PUMR5.0K	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,470 ※
M5 × 0.8	P4	PUMS5.0K	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,470 ※
5M0.9	P2	PUMQ5.0L	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,470 ※
M6 × 1	P2	PUMQ6.0M	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,610
M6 × 1	P3	PUMR6.0M	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,610 ※
M6 × 1	P4	PUMS6.0M	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,610 ※
M6 × 0.75	P2	PUMQ6.0J	5P	62	15	26	33	6	4.5	7	3	3	¥ 2,270 ※
M7 × 1	P2	PUMQ7.0M	5P	70	19	-	36	6.2	5	8	3	4	¥ 1,930 ※
M8 × 1.25	P3	PUMR8.0N	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,210
M8 × 1.25	P4	PUMS8.0N	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,210 ※
M8 × 1.25	P5	PUMT8.0N	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,210 ※
M8 × 1	P3	PUMR8.0M	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,510
M10 × 1.5	P3	PUMR0100	5P	75	23	-	38	7	5.5	8	3	4	¥ 2,810
M10 × 1.5	P4	PUMS0100	5P	75	23	-	38	7	5.5	8	3	4	¥ 2,810 ※
M10 × 1.5	P5	PUMT0100	5P	75	23	-	38	7	5.5	8	3	4	¥ 2,810 ※
M10 × 1.25	P3	PUMR010N	5P	75	23	-	38	7	5.5	8	3	4	¥ 2,810
M10 × 1.25	P4	PUMS010N	5P	75	23	-	38	7	5.5	8	3	4	¥ 2,810 ※
M10 × 1	P3	PUMR010M	5P	75	23	-	38	7	5.5	8	3	4	¥ 3,340 ※
M12 × 1.75	P4	PUMS012P	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980
M12 × 1.75	P5	PUMT012P	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980 ※
M12 × 1.5	P3	PUMR012O	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980 ※
M12 × 1.5	P5	PUMT012O	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980 ※
M12 × 1.25	P4	PUMS012N	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980
M12 × 1.25	P5	PUMT012N	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,980 ※
M12 × 1	P3	PUMR012M	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 4,690 ※
M14 × 2	P4	PUMS014Q	5P	88	26	-	45	10.5	8	11	3	4	¥ 5,430
M14 × 2	P5	PUMT014Q	5P	88	26	-	45	10.5	8	11	3	4	¥ 5,430 ※
M14 × 1.5	P3	PUMR014O	5P	88	26	-	45	10.5	8	11	3	4	¥ 5,430
M14 × 1.5	P5	PUMT014O	5P	88	26	-	45	10.5	8	11	3	4	¥ 5,430 ※
M14 × 1	P3	PUMR014M	5P	88	26	-	45	10.5	8	11	3	4	¥ 6,310 ※
M15 × 1.5	P3	PUMR015O	5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
M15 × 1	P3	PUMR015M	5P	95	26	-	48	12.5	10	13	3	4	¥ 8,650 ※
M16 × 2	P4	PUMS016Q	5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260
M16 × 2	P5	PUMT016Q	5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
M16 × 2	P6	PUMU016Q	5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
M16 × 1.5	P3	PUMR016O	5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260
M16 × 1.5	P5	PUMT016O	5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
M16 × 1	P3	PUMR016M	5P	95	26	-	48	12.5	10	13	3	4	¥ 8,650 ※
M18 × 2.5	P4	PUMS018R	5P	100	33	-	51	14	11	14	3	4	¥ 9,700 ※
M18 × 2.5	P5	PUMT018R	5P	100	33	-	51	14	11	14	3	4	¥ 9,700 ※
M18 × 2.5	P6	PUMU018R	5P	100	33	-	51	14	11	14	3	4	¥ 9,700 ※
M18 × 1.5	P4	PUMS018O	5P	100	33	-	51	14	11	14	3	4	¥ 9,700 ※
M18 × 1.5	P5	PUMT018O	5P	100	33	-	51	14	11	14	3	4	¥ 9,700 ※
M20 × 2.5	P4	PUMS020R	5P	105	33	-	50	15	12	15	3	5	¥ 13,300
M20 × 2.5	P5	PUMT020R	5P	105	33	-	50	15	12	15	3	5	¥ 13,300 ※
M20 × 2.5	P6	PUMU020R	5P	105	33	-	50	15	12	15	3	5	¥ 13,300 ※
M20 × 1.5	P4	PUMS0200	5P	105	33	-	50	15	12	15	3	5	¥ 13,300 ※
M20 × 1.5	P5	PUMT0200	5P	105	33	-	50	15	12	15	3	5	¥ 13,300 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SU-PO Spiral Pointed Taps for Stainless Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M22 × 2.5	P4	PUMS022R	5P	115	33	-	55	17	13	16	3	5	¥ 17,000 ※
M22 × 2.5	P5	PUMT022R	5P	115	33	-	55	17	13	16	3	5	¥ 17,000 ※
M22 × 2.5	P6	PUMU022R	5P	115	33	-	55	17	13	16	3	5	¥ 17,000 ※
M22 × 1.5	P4	PUMS022O	5P	115	33	-	55	17	13	16	3	5	¥ 17,000 ※
M22 × 1.5	P5	PUMT022O	5P	115	33	-	55	17	13	16	3	5	¥ 17,000 ※
M24 × 3	P4	PUMS024S	5P	120	39	-	55	19	15	18	3	5	¥ 21,100
M24 × 3	P5	PUMT024S	5P	120	39	-	55	19	15	18	3	5	¥ 21,100 ※
M24 × 3	P6	PUMU024S	5P	120	39	-	55	19	15	18	3	5	¥ 21,100 ※
M24 × 1.5	P4	PUMS024O	5P	120	39	-	55	19	15	18	3	5	¥ 21,100 ※
M27 × 3	P4	PUMS027S	5P	130	39	-	60	20	15	18	4	5	¥ 29,400 ※
M27 × 1.5	P4	PUMS027O	5P	130	39	-	60	20	15	18	4	5	¥ 29,400 ※
M30 × 3.5	P5	PUMT030T	5P	135	46	-	62	23	17	20	4	5	¥ 37,400 ※
M30 × 1.5	P4	PUMS030O	5P	135	46	-	62	23	17	20	4	5	¥ 37,400 ※
M33 × 3.5	P5	PUMT033T	5P	145	46	-	67	25	19	22	4	5	¥ 43,500 ※
M36 × 4	P5	PUMT036U	5P	155	52	-	71	28	21	24	4	5	¥ 50,400 ※
M39 × 4	P5	PUMT039U	5P	165	52	-	76	30	23	26	4	5	¥ 57,800 ※
M42 × 4.5	P5	PUMT042V	5P	175	59	-	81	32	26	30	4	5	¥ 70,300 ※
For Unified Threads													
No.2-56UNC	P1	PUMPUN2E	5P	42	8.1	12	27	3	2.5	5	2	3	¥ 2,830 ※
No.4-40UNC	P2	PUMQUN4H	5P	46	9	14	25	4	3.2	6	2	3	¥ 1,830 ※
No.4-48UNF	P1	PUMPUN4F	5P	46	9	14	25	4	3.2	6	2	3	¥ 1,830 ※
No.5-40UNC	P2	PUMQUN5H	5P	52	11	16	28	5	4	7	3	3	¥ 1,710 ※
No.5-44UNF	P1	PUMPUN5G	5P	52	11	16	28	5	4	7	3	3	¥ 1,710 ※
No.6-32UNC	P2	PUMQUN6J	5P	52	11	17	27	5	4	7	3	3	¥ 1,710 ※
No.6-40UNF	P2	PUMQUN6H	5P	52	11	17	27	5	4	7	3	3	¥ 1,710 ※
No.8-32UNC	P2	PUMQUN8J	5P	60	13	22	31	5.5	4.5	7	3	3	¥ 1,720 ※
No.8-36UNF	P2	PUMQUN8I	5P	60	13	22	31	5.5	4.5	7	3	3	¥ 1,720 ※
No.10-24UNC	P2	PUMQUNAM	5P	60	13	22	32	5.5	4.5	7	3	3	¥ 1,720 ※
No.10-32UNF	P2	PUMQUNAJ	5P	60	13	22	32	5.5	4.5	7	3	3	¥ 1,720 ※
1/4-20UNC	P2	PUMQU04N	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,840 ※
1/4-28UNF	P2	PUMQU04K	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,840 ※
5/16-18UNC	P3	PUMRU05O	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,550 ※
5/16-24UNF	P2	PUMQU05M	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,550 ※
3/8-16UNC	P3	PUMRU06P	5P	75	23	-	38	7	5.5	8	3	4	¥ 3,260 ※
3/8-24UNF	P2	PUMQU06M	5P	75	23	-	38	7	5.5	8	3	4	¥ 3,260 ※
7/16-14UNC	P3	PUMRU07Q	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 4,590 ※
7/16-20UNF	P3	PUMRU07N	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 4,590 ※
1/2-13UNC	P3	PUMRU08R	5P	88	26	-	45	10.5	8	11	3	4	¥ 4,870 ※
1/2-20UNF	P3	PUMRU08N	5P	88	26	-	45	10.5	8	11	3	4	¥ 4,870 ※
9/16-18UNF	P3	PUMRU09O	5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
5/8-11UNC	P3	PUMRU10U	5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
For Whitworth Threads													
3/16W24	P2	PUMQW03M	5P	60	13	21	32	5.5	4.5	7	3	3	¥ 1,720 ※
1/4W20	P3	PUMRW04N	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,840 ※
5/16W18	P3	PUMRW05O	5P	70	19	-	36	6.2	5	8	3	4	¥ 2,550 ※
3/8W16	P3	PUMRW06P	5P	75	23	-	38	7	5.5	8	3	4	¥ 3,260 ※
7/16W14	P3	PUMRW07Q	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 4,590 ※
1/2W12	P3	PUMRW08S	5P	88	26	-	45	10.5	8	11	3	4	¥ 4,870 ※
5/8W11	P3	PUMRW10U	5P	95	26	-	48	12.5	10	13	3	4	¥ 7,260 ※
3/4W10	P4	PUMSW12V	5P	105	33	-	50	15	12	15	3	5	¥ 13,300 ※
1 W8	P4	PUMSW16X	5P	125	39	-	58	19	15	18	3	5	¥ 27,300 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX SS PO



Spiral Pointed Taps for Stainless Steels

Specification

HSS | OX Oxide



■Suitable for stainless steels tending to cause work harden and sticky, as well as chrome steels and molybdenum steels. Through hole use.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)

Segment : 1F

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads											
M3 × 0.5	D3	Y72615	4.5P	1.937	0.374	0.625	0.141	0.11	0.187	3	1
M3.5 × 0.6	D4	Y72616	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
M4 × 0.7	D4	Y72617	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
M5 × 0.8	D4	Y72619	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
M6 × 1	D5	Y72620	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
M7 × 1	D5	Y72621	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
M8 × 1.25	D5	Y72623	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
M8 × 1	D5	Y72622	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
M10 × 1.5	D6	Y72625	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
M10 × 1.25	D5	Y72624	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
M12 × 1.75	D6	Y72627	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
M12 × 1.25	D5	Y72626	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
M14 × 2	D7	Y72629	4.5P	3.593	0.984	-	0.429	0.322	0.5	3	4
M14 × 1.5	D6	Y72628	4.5P	3.593	0.984	-	0.429	0.322	0.5	3	4
M16 × 2	D7	Y72631	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
M16 × 1.5	D6	Y72630	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
M18 × 2.5	D7	Y72633	4.5P	4.031	1.083	-	0.542	0.406	0.625	3	4
M18 × 1.5	D6	Y72632	4.5P	4.031	1.083	-	0.542	0.406	0.625	3	4
For Unified Threads											
No.2-56UNC	GH2	Y82623	4.5P	1.75	0.256	0.437	0.141	0.11	0.187	2	1
No.2-56UNC	GH3	Y82624	4.5P	1.75	0.256	0.437	0.141	0.11	0.187	2	1
No.3-48UNC	GH2	Y82600	4.5P	1.812	0.295	0.5	0.141	0.11	0.187	2	1
No.4-40UNC	GH2	Y82601	4.5P	1.875	0.335	0.562	0.141	0.11	0.187	2	1
No.4-40UNC	GH3	Y82602	4.5P	1.875	0.335	0.562	0.141	0.11	0.187	2	1
No.4-40UNC	GH4	Y82612	4.5P	1.875	0.335	0.562	0.141	0.11	0.187	2	1
No.4-40UNC	GH5	Y82634	4.5P	1.875	0.335	0.562	0.141	0.11	0.187	2	1
No.4-48UNF	GH2	Y82683	4.5P	1.875	0.335	0.562	0.141	0.11	0.187	2	1
No.5-40UNC	GH2	Y82603	4.5P	1.937	0.374	0.625	0.141	0.11	0.187	3	1
No.6-32UNC	GH2	Y82604	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y82605	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH4	Y82608	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH5	Y82635	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

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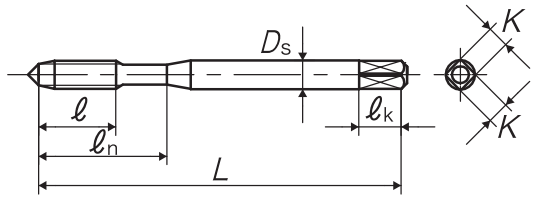

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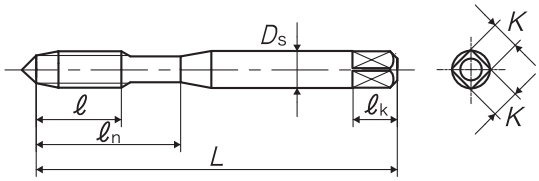

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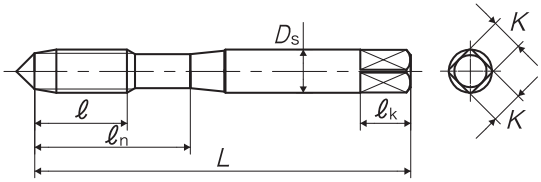

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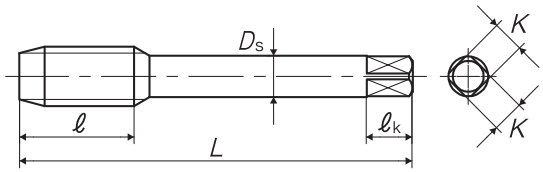

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.6-32UNC	GH6	Y82659	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH7	Y82665	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.6-40UNF	GH2	Y82684	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.6-40UNF	GH3	Y82642	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.8-32UNC	GH2	Y82606	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH3	Y82607	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH4	Y82629	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH5	Y82637	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH6	Y82660	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH7	Y82667	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-36UNF	GH2	Y82686	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.10-24UNC	GH3	Y82609	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH5	Y82639	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH6	Y82690	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH7	Y82669	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH2	Y82611	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y82610	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH4	Y82630	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH5	Y82640	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH6	Y82661	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH7	Y82670	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.12-24UNC	GH3	Y82688	4.5P	2.375	0.571	0.937	0.22	0.165	0.281	3	1
No.12-28UNF	GH3	Y82689	4.5P	2.375	0.571	0.937	0.22	0.165	0.281	3	1
1/4-20UNC	GH3	Y82613	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	Y82643	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH6	Y82590	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH7	Y82673	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y82614	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	Y82631	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH5	Y82644	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH6	Y82662	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH7	Y82674	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	Y82615	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3

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Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX SS PO Spiral Pointed Taps for Stainless Steels

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
5/16-18UNC	GH5	Y82645	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH7	Y82675	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y82616	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	Y82632	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH5	Y82646	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH6	Y82663	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH7	Y82676	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	Y82617	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	Y82647	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH7	Y82668	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y82618	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	Y82633	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH5	Y82648	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH6	Y82664	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH7	Y82678	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	Y82619	4.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH5	Y82649	4.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y82620	4.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	Y82650	4.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH6	Y82691	4.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH7	Y82680	4.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	Y82621	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH5	Y82651	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH7	Y82681	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y82622	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH5	Y82652	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH6	Y82692	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH7	Y82682	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH9	Y82685	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
9/16-12UNC	GH3	Y82653	4.5P	3.593	0.984	-	0.429	0.322	0.5	3	4
9/16-18UNF	GH3	Y82654	4.5P	3.593	0.984	-	0.429	0.322	0.5	3	4
9/16-18UNF	GH5	Y82666	4.5P	3.593	0.984	-	0.429	0.322	0.5	3	4
5/8-11UNC	GH3	Y82625	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-11UNC	GH5	Y82655	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH3	Y82626	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH4	Y82636	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH5	Y82656	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH6	Y82694	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH7	Y82591	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
3/4-10UNC	GH3	Y82627	4.5P	4.25	1.201	-	0.59	0.422	0.687	3	4
3/4-10UNC	GH5	Y82657	4.5P	4.25	1.201	-	0.59	0.422	0.687	3	4
3/4-16UNF	GH3	Y82628	4.5P	4.25	1.201	-	0.59	0.422	0.687	3	4
3/4-16UNF	GH5	Y82658	4.5P	4.25	1.201	-	0.59	0.422	0.687	3	4
3/4-16UNF	GH7	Y82592	4.5P	4.25	1.201	-	0.59	0.422	0.687	3	4
7/8-9UNC	GH4	Y82695	4.5P	4.687	1.339	-	0.697	0.523	0.75	3	4
7/8-14UNF	GH4	Y82696	4.5P	4.687	1.339	-	0.697	0.523	0.75	3	4
7/8-14UNF	GH6	Y82699	4.5P	4.687	1.339	-	0.697	0.523	0.75	3	4
1 -8UNC	GH4	Y82697	4.5P	5.125	1.496	-	0.8	0.6	0.812	3	4
1 -12UNF	GH4	Y82679	4.5P	5.125	1.496	-	0.8	0.6	0.812	3	4
1 1/8-7UNC	GH6	Y82700	4.5P	5.437	1.535	-	0.896	0.672	0.875	4	4

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX SS PO Spiral Pointed Taps for Stainless Steels

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
1 1/8-12UNF	GH5	Y82701	4.5P	5.437	1.535	-	0.896	0.672	0.875	4	4
1 1/4-7UNC	GH6	Y82702	4.5P	5.75	1.535	-	1.021	0.766	1	4	4
1 1/4-12UNF	GH5	Y82703	4.5P	5.75	1.535	-	1.021	0.766	1	4	4
1 3/8-6UNC	GH6	Y82705	4.5P	6.062	1.811	-	1.108	0.831	1.062	4	4
1 3/8-12UNF	GH5	Y82706	4.5P	6.062	1.811	-	1.108	0.831	1.062	4	4
1 1/2-6UNC	GH6	Y82707	4.5P	6.375	1.811	-	1.233	0.925	1.125	4	4
1 1/2-12UNF	GH5	Y82708	4.5P	6.375	1.811	-	1.233	0.925	1.125	4	4
1 3/4-5UNC	GH7	Y82709	4.5P	7	1.929	-	1.43	1.072	1.25	4	4
2 -4 1/2UNC	GH7	Y82710	4.5P	7.625	1.929	-	1.644	1.233	1.375	4	4

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

PO-VA



Spiral Pointed Taps for Stainless Steels

Specification

HSS | OX Oxide



■Suitable for stainless steels tending to cause work harden and sticky, as well as chrome steels and molybdenum steels. Through hole use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~15 (m/min)	~15 (m/min)	~15 (m/min)	~15 (m/min)	~10 (m/min)

Segment : 1F (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2X	PD2.0EBGEX	4.5P	45	8	-	32	2.8	2.1	5	2	1
M2.5 × 0.45	ISO2X	PD2.5FBGEX	4.5P	50	8	15	33	2.8	2.1	5	2	2
M3 × 0.5	ISO2X	PD3.0GBGEX	4.5P	56	9	18	34	3.5	2.7	6	3	2
M4 × 0.7	ISO2X	PD4.0IBGEX	4.5P	63	13	21	38	4.5	3.4	6	3	2
M5 × 0.8	ISO2X	PD5.0KBGEX	4.5P	70	14	25	39	6	4.9	8	3	2
M6 × 1	ISO2X	PD6.0MBGEX	4.5P	80	15	30	45	6	4.9	8	3	2
M8 × 1.25	ISO2X	PD8.0NBGEX	4.5P	90	19	35	47	8	6.2	9	3	3
M8 × 1.25	ISO2X	PG8.0NBGEX	4.5P	90	19	-	46	6	4.9	8	3	4
M8 × 1	ISO2X	PM8.0MBGEX	4.5P	90	19	-	46	6	4.9	8	3	4
M8 × 1	ISO3	PM8.0MMGEX	4.5P	90	19	-	46	6	4.9	8	3	4
M10 × 1.5	ISO2X	PD010OBGEX	4.5P	100	23	39	52.5	10	8	11	3	3
M10 × 1.5	ISO2X	PG010OBGEX	4.5P	100	23	-	51	7	5.5	8	3	4
M10 × 1.25	ISO2X	PM010NBGEX	4.5P	100	23	-	51	7	5.5	8	3	4
M10 × 1	ISO2X	PM010MBGEX	4.5P	90	19	-	46	7	5.5	8	3	4
M12 × 1.75	ISO2X	PG012PBGEX	4.5P	110	26	-	56	9	7	10	3	4
M12 × 1.5	ISO2X	PM012OBGEX	4.5P	100	21	-	51	9	7	10	3	4
M12 × 1.25	ISO2X	PM012NBGEX	4.5P	100	21	-	51	9	7	10	3	4
M12 × 1	ISO2X	PM012MBGEX	4.5P	100	21	-	51	9	7	10	3	4
M14 × 2	ISO2X	PG014QBGEX	4.5P	110	26	-	56	11	9	12	3	4
M14 × 1.5	ISO2X	PM014OBGEX	4.5P	100	21	-	51	11	9	12	3	4
M16 × 2	ISO2X	PG016QBGEX	4.5P	110	26	-	56	12	9	12	3	4
M16 × 1.5	ISO2X	PM016OBGEX	4.5P	100	21	-	51	12	9	12	3	4
M18 × 2.5	ISO2X	PG018RBGEX	4.5P	125	33	-	64	14	11	14	3	4
M18 × 1.5	ISO2X	PM018OBGEX	4.5P	110	24	-	56	14	11	14	3	4
M20 × 2.5	ISO2X	PG020RBGEX	4.5P	140	33	-	71	16	12	15	3	4
M20 × 1.5	ISO2X	PM020OBGEX	4.5P	125	24	-	64	16	12	15	3	4
M22 × 2.5	ISO2X	PG022RBGEX	4.5P	140	33	-	71	18	14.5	17	3	4
M22 × 1.5	ISO2X	PM022OBGEX	4.5P	125	24	-	64	18	14.5	17	3	4
M24 × 3	ISO2X	PG024SBGEX	4.5P	160	37	-	82	18	14.5	17	3	4
M24 × 1.5	ISO2X	PM024OBGEX	4.5P	140	27	-	71	18	14.5	17	3	4
M27 × 3	ISO2X	PG027SBGEX	4.5P	160	37	-	82	20	16	19	4	4
M30 × 3.5	ISO2X	PG030TBGEX	4.5P	180	44	-	92	22	18	21	4	4

Think threads with YAMAWA

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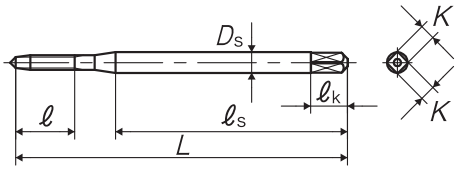
Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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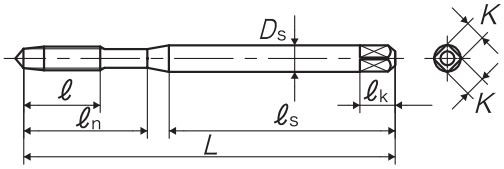

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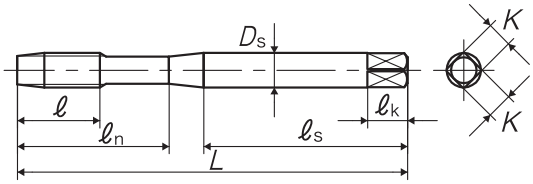

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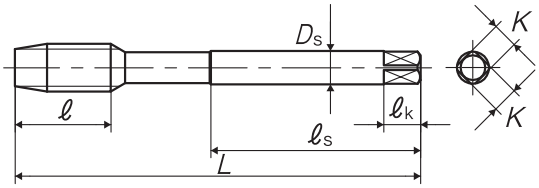

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M36 × 4	ISO2X	PG036UBGEX	4.5P	200	52	-	102	28	22	25	4	4
For Unified Threads												
No.4-40UNC	2BX	PDUN4HYGEX	4.5P	56	9	18	34	3.5	2.7	6	3	2
No.6-32UNC	2BX	PDUN6JYGEX	4.5P	56	11	19	32	4	3	6	3	2
No.8-32UNC	2BX	PDUN8JYGEX	4.5P	63	13	21	38	4.5	3.4	6	3	2
No.10-24UNC	2BX	PDUNAMYGEX	4.5P	70	14	24	39	6	4.9	8	3	2
No.10-32UNF	2BX	PDUNAJYGEX	4.5P	70	14	24	39	6	4.9	8	3	2
1/4-20UNC	2BX	PDU04NYGEX	4.5P	80	15	30	42	7	5.5	8	3	2
1/4-28UNF	2BX	PDU04KYGEX	4.5P	80	15	30	42	7	5.5	8	3	2
5/16-18UNC	2BX	PDU05OYGEX	4.5P	90	19	35	47	8	6.2	9	3	3
5/16-24UNF	2BX	PMU05MYGEX	4.5P	90	19	-	46	6	4.9	8	3	4
3/8-16UNC	2BX	PDU06PYGEX	4.5P	100	23	39	54.5	9	7	10	3	3
3/8-24UNF	2BX	PMU06MYGEX	4.5P	100	23	-	51	7	5.5	8	3	4
7/16-14UNC	2BX	PGU07QYGEX	4.5P	100	23	-	51	8	6.2	9	3	4
1/2-13UNC	2BX	PGU08RYGEX	4.5P	110	26	-	56	9	7	10	3	4
1/2-20UNF	2BX	PMU08NYGEX	4.5P	100	21	-	51	9	7	10	3	4
9/16-12UNC	2BX	PGU09SYGEX	4.5P	110	26	-	56	11	9	12	3	4
9/16-18UNF	2BX	PMU09OYGEX	4.5P	100	21	-	51	11	9	12	3	4
5/8-11UNC	2BX	PGU10UYGEX	4.5P	110	26	-	56	12	9	12	3	4
5/8-18UNF	2BX	PMU10OYGEX	4.5P	100	21	-	51	12	9	12	3	4
3/4-10UNC	2BX	PGU12VYGEX	4.5P	125	33	-	64	14	11	14	3	4
3/4-16UNF	2BX	PMU12PYGEX	4.5P	110	24	-	56	14	11	14	3	4
7/8-9UNC	2BX	PGU14WYGEX	4.5P	140	33	-	71	18	14.5	17	3	4
7/8-14UNF	2BX	PMU14QYGEX	4.5P	125	24	-	64	18	14.5	17	3	4
1 -8UNC	2BX	PGU16XYGEX	4.5P	160	37	-	82	18	14.5	17	3	4
1 -12UNF	2BX	PMU16SYGEX	4.5P	140	27	-	71	18	14.5	17	3	4
For G Threads												
G 1/8-28	-	PVG0020GEX	4.5P	90	19	-	46	7	5.5	8	3	4
G 1/4-19	-	PVG0040GEX	4.5P	100	21	-	51	11	9	12	3	4
G 3/8-19	-	PVG0060GEX	4.5P	100	21	-	51	12	9	12	3	4
G 1/2-14	-	PVG0080GEX	4.5P	125	24	-	64	16	12	15	3	4
G 3/4-14	-	PVG0120GEX	4.5P	140	27	-	71	20	16	19	4	4
G 1 -11	-	PVG0160GEX	4.5P	160	29	-	82	25	20	23	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO-VA



Spiral Pointed Taps for Stainless Steels, Coated

Specification

HSS Coating



■Suitable for stainless steels tending to cause work harden and sticky, as well as chrome steels and molybdenum steels. Through hole use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~15 (m/min)	~15 (m/min)	~15 (m/min)	~15 (m/min)	~10 (m/min)

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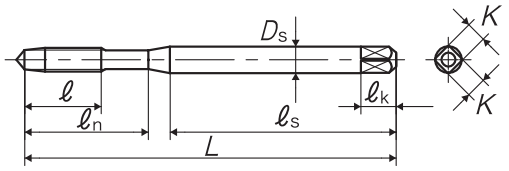

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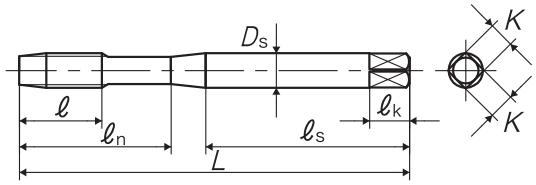

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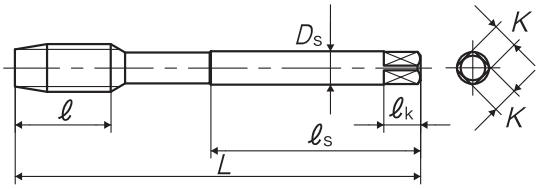

Segment : 1F

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	
For Metric Threads													
M3 × 0.5	ISO2X	PD3.0GBGET	4.5P	56	9	18	34	3.5	2.7	6	3	1	▲
M4 × 0.7	ISO2X	PD4.0IBGET	4.5P	63	13	21	38	4.5	3.4	6	3	1	▲
M5 × 0.8	ISO2X	PD5.0KBGET	4.5P	70	14	25	39	6	4.9	8	3	1	▲
M6 × 1	ISO2X	PD6.0MBGET	4.5P	80	15	30	45	6	4.9	8	3	1	▲
M8 × 1.25	ISO2X	PD8.0NBGET	4.5P	90	19	35	47	8	6.2	9	3	2	▲
M10 × 1.5	ISO2X	PD010OBGET	4.5P	100	23	39	52.5	10	8	11	3	2	▲
M12 × 1.75	ISO2X	PG012PBGET	4.5P	110	26	-	56	9	7	10	3	3	▲
M14 × 2	ISO2X	PG014QBGET	4.5P	110	26	-	56	11	9	12	3	3	▲
M16 × 2	ISO2X	PG016QBGET	4.5P	110	26	-	56	12	9	12	3	3	▲
M20 × 2.5	ISO2X	PG020RBGET	4.5P	140	33	-	71	16	12	15	3	3	▲

Note: Products marked with an ▲ in the stock column are available while supplies last.

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-SU-S-PO



Long Shank Short Spiral Pointed Taps for Stainless Steels

Specification

HSS | OX Oxide



■Long shank spiral pointed tap suitable for stainless steels tending to cause work harden and sticky, as well as chrome steels and molybdenum steels. Through hole use. Tapping of rather deep holes is possible.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Stainless steels ステンレス鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	~5 (m/min)

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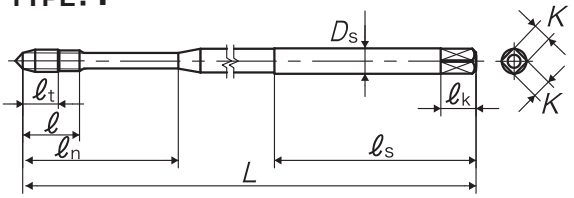

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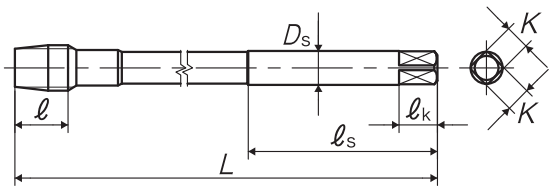

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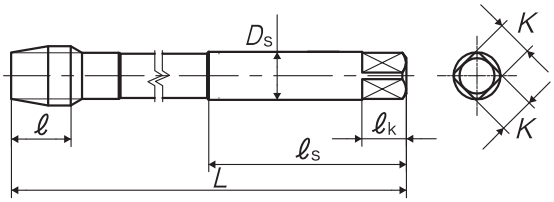

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M3 × 0.5	P2	PY3.0GQGEXES	4.5P	100	5	9	28	40	4	3.2	6	3	1	¥ 4,160 ※
M4 × 0.7	P2	PY4.0IQGEXES	4.5P	100	7	11	31	40	5	4	7	3	1	¥ 3,800 ※
M4 × 0.7	P2	PY4.0IQGEXGS	4.5P	150	7	11	31	40	5	4	7	3	1	¥ 7,240 ※
M5 × 0.8	P2	PY5.0KQGEXES	4.5P	100	9	13	38	40	5.5	4.5	7	3	1	¥ 3,330 ※
M5 × 0.8	P2	PY5.0KQGEXGS	4.5P	150	9	13	38	40	5.5	4.5	7	3	1	¥ 5,630 ※
M6 × 1	P2	PY6.0MQGEXES	4.5P	100	11	15	45	40	6	4.5	7	3	1	¥ 2,850 ※
M6 × 1	P2	PY6.0MQGEXGS	4.5P	150	11	15	45	40	6	4.5	7	3	1	¥ 5,020 ※
M8 × 1.25	P3	PY8.0NRGEXES	5P	100	-	12	-	50	6.2	5	8	3	2	¥ 3,620 ※
M8 × 1.25	P3	PY8.0NRGEXGS	5P	150	-	12	-	50	6.2	5	8	3	2	¥ 6,160 ※
M10 × 1.5	P3	PY010ORGEXES	5P	100	-	13	-	50	7	5.5	8	3	2	¥ 4,390 ※
M10 × 1.5	P3	PY010ORGEXGS	5P	150	-	13	-	50	7	5.5	8	3	2	¥ 7,160 ※
M10 × 1.25	P3	PY010NRGEXGS	5P	150	-	13	-	50	7	5.5	8	3	2	¥ 7,160 ※
M12 × 1.75	P4	PY012PSGEXES	5P	100	-	15	-	50	8.5	6.5	9	3	2	¥ 5,380 ※
M12 × 1.75	P4	PY012PSGEXGS	5P	150	-	15	-	50	8.5	6.5	9	3	2	¥ 8,960 ※
M12 × 1.5	P3	PY012ORGEXGS	5P	150	-	15	-	50	8.5	6.5	9	3	2	¥ 8,960 ※
M12 × 1.25	P4	PY012NSGEXGS	5P	150	-	15	-	50	8.5	6.5	9	3	2	¥ 8,960 ※
M14 × 2	P4	PY014QSGEXGS	5P	150	-	18	-	60	10.5	8	11	3	2	¥ 11,300 ※
M14 × 1.5	P3	PY014ORGEXGS	5P	150	-	14	-	60	10.5	8	11	3	2	¥ 11,300 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-SU-S-PO Long Shank Short Spiral Pointed Taps for Stainless Steels

Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M16 × 2	P4	PY016QSGEXGS	5P	150	-	18	-	60	12.5	10	13	3	2	¥ 12,200 ※
M16 × 2	P4	PY016QSGEXKS	5P	200	-	18	-	60	12.5	10	13	3	2	¥ 16,100 ※
M16 × 1.5	P3	PY016ORGEXGS	5P	150	-	14	-	60	12.5	10	13	3	2	¥ 12,200 ※
M16 × 1.5	P3	PY016ORGEXKS	5P	200	-	14	-	60	12.5	10	13	3	2	¥ 16,100 ※
M18 × 2.5	P4	PY018RSGEXKS	5P	200	-	20	-	70	14	11	14	3	2	¥ 21,000 ※
M18 × 1.5	P4	PY018OSGEXKS	5P	200	-	14	-	70	14	11	14	3	2	¥ 21,000 ※
M20 × 2.5	P4	PY020RSGEXGS	5P	150	-	20	-	70	15	12	15	3	3	¥ 21,400 ※
M20 × 2.5	P4	PY020RSGEXKS	5P	200	-	20	-	70	15	12	15	3	3	¥ 26,700 ※
M20 × 1.5	P4	PY020OSGEXGS	5P	150	-	14	-	70	15	12	15	3	3	¥ 21,400 ※
M20 × 1.5	P4	PY020OSGEXKS	5P	200	-	14	-	70	15	12	15	3	3	¥ 26,700 ※
M22 × 2.5	P4	PY022RSGEXKS	5P	200	-	20	-	70	17	13	16	3	3	¥ 29,600 ※
M22 × 1.5	P4	PY022OSGEXKS	5P	200	-	14	-	70	17	13	16	3	3	¥ 29,600 ※
M24 × 3	P4	PY024SSGEXKS	5P	200	-	25	-	80	19	15	18	3	3	¥ 33,300 ※
M24 × 1.5	P4	PY024OSGEXKS	5P	200	-	18	-	80	19	15	18	3	3	¥ 33,300 ※

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX SS PO 6"

Long Shank Spiral Pointed Taps for Stainless Steels



Specification

HSS | OX Oxide



■Suitable for stainless steels tending to cause work harden and sticky, as well as chrome steels and molybdenum steels. Through hole use.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Stainless steels ステンレス鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	~5 (m/min)

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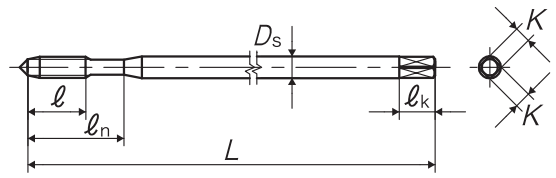

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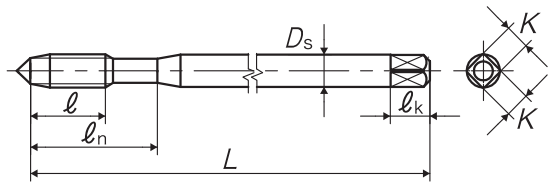

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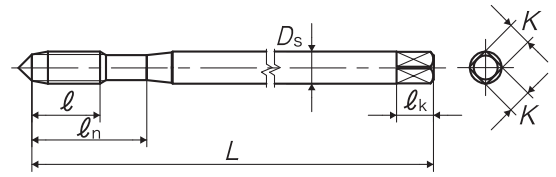

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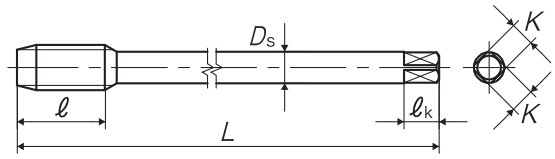


Segment : 1F

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads											
No.2-56UNC	GH2	Y82523	4.5P	6	0.256	0.437	0.141	0.11	0.187	2	1
No.3-48UNC	GH2	Y82500	4.5P	6	0.295	0.5	0.141	0.11	0.187	2	1
No.4-40UNC	GH2	Y82501	4.5P	6	0.335	0.562	0.141	0.11	0.187	2	1
No.6-32UNC	GH3	Y82505	4.5P	6	0.413	0.687	0.141	0.11	0.187	3	1
No.8-32UNC	GH3	Y82507	4.5P	6	0.453	0.75	0.168	0.131	0.25	3	1
No.10-24UNC	GH3	Y82509	4.5P	6	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y82510	4.5P	6	0.531	0.875	0.194	0.152	0.25	3	1
1/4-20UNC	GH3	Y82513	4.5P	6	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y82514	4.5P	6	0.591	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	Y82515	4.5P	6	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y82516	4.5P	6	0.669	1.125	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	Y82517	4.5P	6	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y82518	4.5P	6	0.748	1.25	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	Y82519	4.5P	6	0.866	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y82520	4.5P	6	0.866	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	Y82521	4.5P	6	0.984	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y82522	4.5P	6	0.984	-	0.367	0.275	0.437	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

S-PO

Short Spiral Pointed Taps for Deep Hole Use



Specification

HSS | OX Oxide



■S-PO is the spiral pointed tap having short thread portion which reduces friction and makes smooth coolant supply, and is suitable for such deep holes which are deeper than 2.5 times of the nominal dia.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

Oversize

Segment : 1E

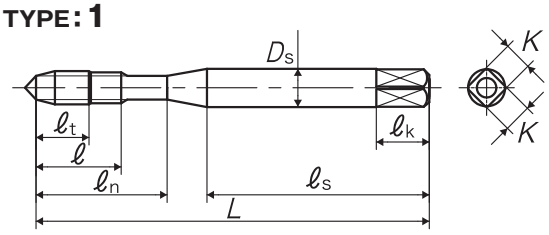
Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M2 × 0.4	P2	PSMQ2.0E	5P	42	4	7.2	12	27	3	2.5	5	2	1	¥ 2,710
M2 × 0.4	P3	PSMR2.0E	5P	42	4	7.2	12	27	3	2.5	5	2	1	¥ 2,710 ※
M2.3 × 0.4	P2	PSMQ2.3E	5P	42	4	7.2	12	27	3	2.5	5	2	1	¥ 2,470 ※
M2.5 × 0.45	P2	PSMQ2.5F	5P	46	4	8.1	14	29	3	2.5	5	2	1	¥ 2,070 ※
M2.6 × 0.45	P2	PSMQ2.6F	5P	46	4	8.1	14	29	3	2.5	5	2	1	¥ 2,070 ※
M2.6 × 0.45	P3	PSMR2.6F	5P	46	4	8.1	14	29	3	2.5	5	2	1	¥ 2,070 ※
M3 × 0.5	P2	PSMQ3.0G	5P	46	5	9	14	26	4	3.2	6	3	1	¥ 1,450
M3 × 0.5	P3	PSMR3.0G	5P	46	5	9	14	26	4	3.2	6	3	1	¥ 1,450 ※
3M0.6	P2	PSMQ3.0H	5P	46	5	9	14	26	4	3.2	6	3	1	¥ 1,450 ※
M3.5 × 0.6	P2	PSMQ3.5H	5P	52	7	11	16	29	5	4	7	3	1	¥ 1,450 ※
M4 × 0.7	P2	PSMQ4.0I	5P	52	7	11	17	29	5	4	7	3	1	¥ 1,450
M4 × 0.7	P3	PSMR4.0I	5P	52	7	11	17	29	5	4	7	3	1	¥ 1,450 ※
M4 × 0.7	P4	PSMS4.0I	5P	52	7	11	17	29	5	4	7	3	1	¥ 1,450 ※
4M0.75	P2	PSMQ4.0J	5P	52	7	11	17	29	5	4	7	3	1	¥ 1,450 ※
M5 × 0.8	P2	PSMQ5.0K	5P	60	9	13	22	33	5.5	4.5	7	3	1	¥ 1,470
M5 × 0.8	P3	PSMR5.0K	5P	60	9	13	22	33	5.5	4.5	7	3	1	¥ 1,470 ※
M5 × 0.8	P4	PSMS5.0K	5P	60	9	13	22	33	5.5	4.5	7	3	1	¥ 1,470 ※
5M0.9	P2	PSMQ5.0L	5P	60	9	13	22	33	5.5	4.5	7	3	1	¥ 1,470 ※
M6 × 1	P2	PSMQ6.0M	5P	62	11	15	26	33	6	4.5	7	3	1	¥ 1,610
M6 × 1	P3	PSMR6.0M	5P	62	11	15	26	33	6	4.5	7	3	1	¥ 1,610 ※
M6 × 1	P4	PSMS6.0M	5P	62	11	15	26	33	6	4.5	7	3	1	¥ 1,610 ※
M8 × 1.25	P3	PSMR8.0N	5P	70	-	12	-	36	6.2	5	8	3	2	¥ 2,210
M8 × 1.25	P4	PSMS8.0N	5P	70	-	12	-	36	6.2	5	8	3	2	¥ 2,210 ※
M8 × 1	P3	PSMR8.0M	5P	70	-	12	-	36	6.2	5	8	3	2	¥ 2,510 ※
M10 × 1.5	P3	PSMR010O	5P	75	-	13	-	38	7	5.5	8	3	2	¥ 2,810
M10 × 1.5	P4	PSMS010O	5P	75	-	13	-	38	7	5.5	8	3	2	¥ 2,810 ※
M10 × 1.25	P3	PSMR010N	5P	75	-	13	-	38	7	5.5	8	3	2	¥ 2,810 ※
M10 × 1.25	P4	PSMS010N	5P	75	-	13	-	38	7	5.5	8	3	2	¥ 2,810 ※
M10 × 1	P3	PSMR010M	5P	75	-	13	-	38	7	5.5	8	3	2	¥ 3,340
M12 × 1.75	P4	PSMS012P	5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 3,980
M12 × 1.75	P5	PSMT012P	5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 3,980 ※
M12 × 1.5	P3	PSMR012O	5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 3,980 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Chamfer + full thread	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓt	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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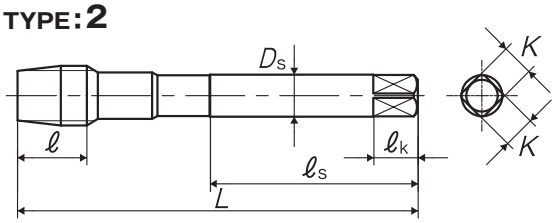

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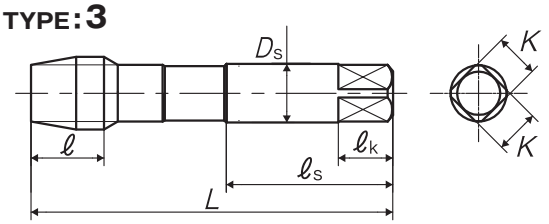


Size	Class	Code	Chamfer	L (mm)	ℓt (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M12 × 1.5	P5	PSMT012O	5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 3,980 ※
M12 × 1.25	P4	PSMS012N	5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 3,980
M12 × 1.25	P5	PSMT012N	5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 3,980 ※
M12 × 1	P3	PSMR012M	5P	82	-	15	-	42	8.5	6.5	9	3	2	¥ 4,690 ※
M14 × 2	P4	PSMS014Q	5P	88	-	18	-	45	10.5	8	11	3	2	¥ 5,430
M14 × 2	P5	PSMT014Q	5P	88	-	18	-	45	10.5	8	11	3	2	¥ 5,430 ※
M14 × 1.5	P3	PSMR014O	5P	88	-	14	-	45	10.5	8	11	3	2	¥ 5,430
M14 × 1.5	P5	PSMT014O	5P	88	-	14	-	45	10.5	8	11	3	2	¥ 5,430 ※
M16 × 2	P4	PSMS016Q	5P	95	-	18	-	48	12.5	10	13	3	2	¥ 7,260
M16 × 2	P5	PSMT016Q	5P	95	-	18	-	48	12.5	10	13	3	2	¥ 7,260 ※
M16 × 1.5	P3	PSMR016O	5P	95	-	14	-	48	12.5	10	13	3	2	¥ 7,260 ※
M16 × 1.5	P5	PSMT016O	5P	95	-	14	-	48	12.5	10	13	3	2	¥ 7,260 ※
M18 × 2.5	P4	PSMS018R	5P	100	-	20	-	51	14	11	14	3	2	¥ 9,700 ※
M18 × 2.5	P5	PSMT018R	5P	100	-	20	-	51	14	11	14	3	2	¥ 9,700 ※
M18 × 1.5	P4	PSMS018O	5P	100	-	14	-	51	14	11	14	3	2	¥ 9,700 ※
M18 × 1.5	P5	PSMT018O	5P	100	-	14	-	51	14	11	14	3	2	¥ 9,700 ※
M20 × 2.5	P4	PSMS020R	5P	105	-	20	-	50	15	12	15	3	3	¥ 13,300
M20 × 2.5	P5	PSMT020R	5P	105	-	20	-	50	15	12	15	3	3	¥ 13,300 ※
M20 × 1.5	P4	PSMS020O	5P	105	-	14	-	50	15	12	15	3	3	¥ 13,300 ※
M20 × 1.5	P5	PSMT020O	5P	105	-	14	-	50	15	12	15	3	3	¥ 13,300 ※
M22 × 2.5	P4	PSMS022R	5P	115	-	20	-	55	17	13	16	3	3	¥ 17,000 ※
M22 × 1.5	P4	PSMS022O	5P	115	-	14	-	55	17	13	16	3	3	¥ 17,000 ※
M24 × 3	P4	PSMS024S	5P	120	-	25	-	55	19	15	18	3	3	¥ 21,100 ※
M24 × 1.5	P4	PSMS024O	5P	120	-	18	-	55	19	15	18	3	3	¥ 21,100 ※
M27 × 3	P4	PSMS027S	5P	130	-	25	-	60	20	15	18	4	3	¥ 29,400 ※
M27 × 1.5	P4	PSMS027O	5P	130	-	20	-	60	20	15	18	4	3	¥ 29,400 ※
M30 × 3.5	P5	PSMT030T	5P	135	-	30	-	62	23	17	20	4	3	¥ 37,400 ※
M30 × 1.5	P4	PSMS030O	5P	135	-	20	-	62	23	17	20	4	3	¥ 37,400 ※
M33 × 3.5	P5	PSMT033T	5P	145	-	30	-	67	25	19	22	4	3	¥ 43,500 ※
M36 × 4	P5	PSMT036U	5P	155	-	40	-	71	28	21	24	4	3	¥ 50,400 ※
M39 × 4	P5	PSMT039U	5P	165	-	40	-	76	30	23	26	4	3	¥ 57,800 ※
M42 × 4.5	P5	PSMT042V	5P	175	-	40	-	81	32	26	30	4	3	¥ 70,300 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

HC+PO
HC-PO



Spiral Pointed Taps for High Carbon Steels

Specification

HSS



Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Thermal refined steels 調質鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

25~35HRC

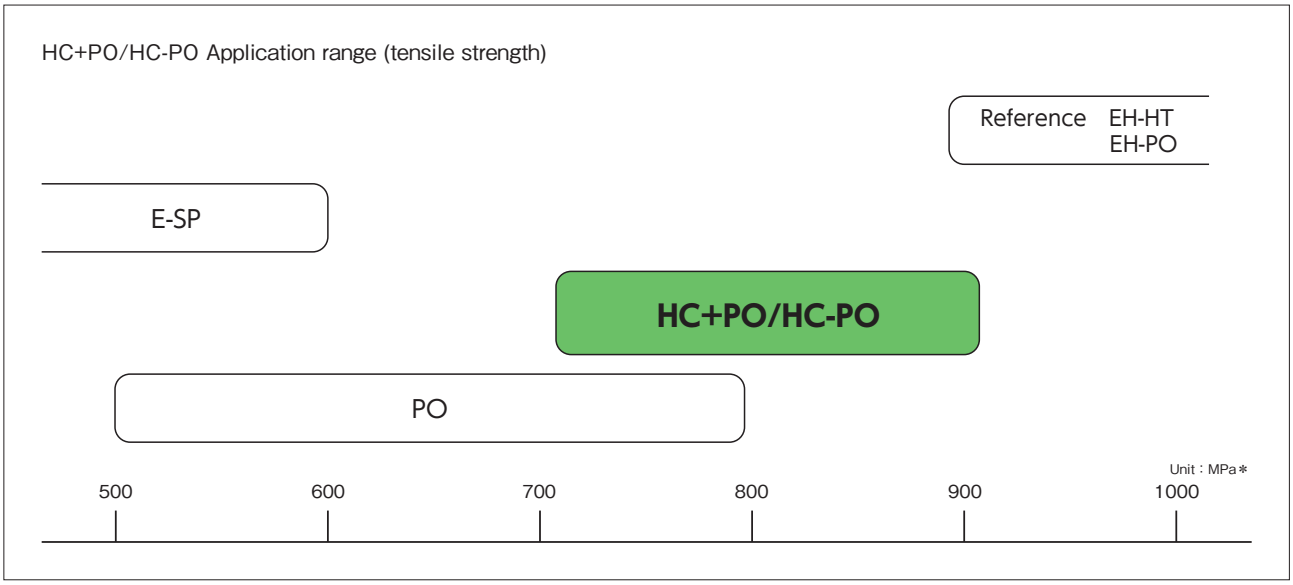
・Product Name and Size.

HC+PO	~M2.6
HC-PO	M3~

Product Features

●The HC+PO/HC-PO is a spiral pointed tap suitable for the tapping medium and high hardness workpiece materials up to 35 HRC in high carbon steel such as S55C.

Product system chart (tensile strength)



*1MPa=1N/mm²≒1Kgf/mm²÷9.8

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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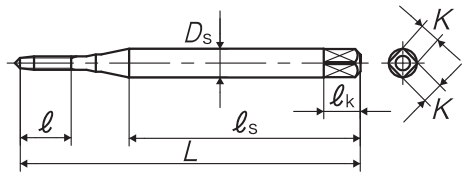

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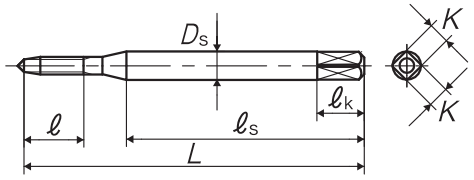

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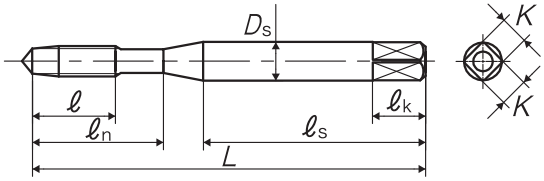

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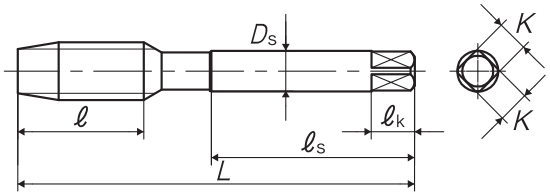

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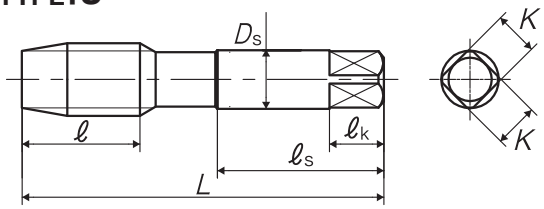


HC+PO Spiral Pointed Taps for High Carbon Steels

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M1.4 × 0.3	P1	PCPP1.4C	5P	36	5.4	-	24	3	2.5	5	2	1	¥ 3,080
M1.6 × 0.35	P2	PCPQ1.6D	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940
M1.7 × 0.35	P2	PCPQ1.7D	5P	36	6.3	-	24	3	2.5	5	2	2	¥ 2,940
M2 × 0.4	P2	PCPQ2.0E	5P	42	7.2	12	27	3	2.5	5	2	3	¥ 2,350
M2.5 × 0.45	P2	PCPQ2.5F	5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,800
M2.6 × 0.45	P2	PCPQ2.6F	5P	46	8.1	14	29	3	2.5	5	2	3	¥ 1,800

HC-PO Spiral Pointed Taps for High Carbon Steels

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	PCMQ3.0G	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,260
M4 × 0.7	P2	PCMQ4.0I	5P	52	11	17	29	5	4	7	3	3	¥ 1,260
M5 × 0.8	P2	PCMQ5.0K	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,270
M6 × 1	P2	PCMQ6.0M	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,400
M8 × 1.25	P3	PCMR8.0N	5P	70	19	-	36	6.2	5	8	3	4	¥ 1,920
M10 × 1.5	P3	PCMR010O	5P	75	23	-	38	7	5.5	8	3	4	¥ 2,440
M10 × 1.25	P3	PCMR010N	5P	75	23	-	38	7	5.5	8	3	4	¥ 2,440 ※
M12 × 1.75	P4	PCMS012P	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,460
M12 × 1.5	P3	PCMR012O	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,460 ※
M12 × 1.25	P4	PCMS012N	5P	82	26	-	42	8.5	6.5	9	3	4	¥ 3,460 ※
M14 × 2	P4	PCMS014Q	5P	88	26	-	45	10.5	8	11	3	4	¥ 4,720 ※
M14 × 1.5	P3	PCMR014O	5P	88	26	-	45	10.5	8	11	3	4	¥ 4,720 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HC-PO Spiral Pointed Taps for High Carbon Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M16 × 2	P4	PCMS016Q	5P	95	26	-	48	12.5	10	13	3	4	¥ 6,310 ※
M16 × 1.5	P3	PCMR016O	5P	95	26	-	48	12.5	10	13	3	4	¥ 6,310 ※
M18 × 2.5	P4	PCMS018R	5P	100	33	-	51	14	11	14	3	4	¥ 8,430 ※
M18 × 1.5	P4	PCMS018O	5P	100	33	-	51	14	11	14	3	4	¥ 8,430 ※
M20 × 2.5	P4	PCMS020R	5P	105	33	-	50	15	12	15	3	5	¥ 11,500 ※
M20 × 1.5	P4	PCMS020O	5P	105	33	-	50	15	12	15	3	5	¥ 11,500 ※
M22 × 2.5	P4	PCMS022R	5P	115	33	-	55	17	13	16	3	5	¥ 14,700 ※
M24 × 3	P4	PCMS024S	5P	120	39	-	55	19	15	18	3	5	¥ 18,300 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

HC-PO OX



Oxidized Spiral Pointed Taps for High Carbon Steels

Specification

HSS | OX Oxide

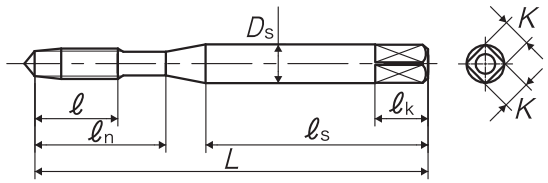


■The HC-PO OX is a spiral pointed tap suitable for tapping high carbon steel such as S55C.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Thermal refined steels 調質鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)
		25~35HRC

TYPE: 1



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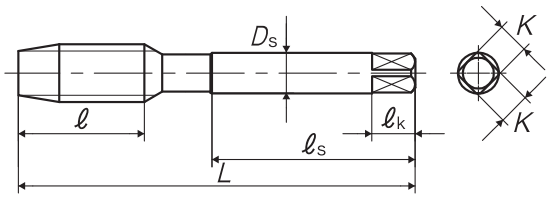

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P2	PCMQ6.0MX	5P	62	15	26	33	6	4.5	7	3	1	¥ 1,540
M8 × 1.25	P3	PCMR8.0NX	5P	70	19	-	36	6.2	5	8	3	2	¥ 2,120
M8 × 1	P3	PCMR8.0MX	5P	70	19	-	36	6.2	5	8	3	2	¥ 2,400 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

AL-PO

Spiral Pointed Taps for Aluminum



Specification

HSS | NI Nitride



■In tapping of aluminum die casting and aluminum casting, AL-PO solves chip jamming and chip clogging trouble, and eliminates torn threads.

Recommended Tapping Speed depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Bronze 青銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

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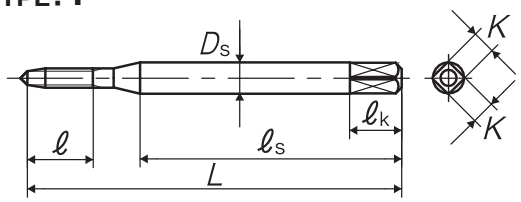

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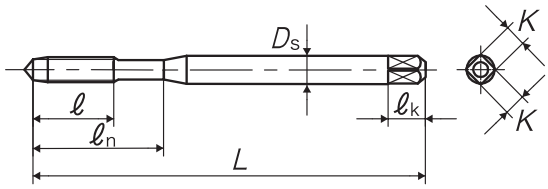

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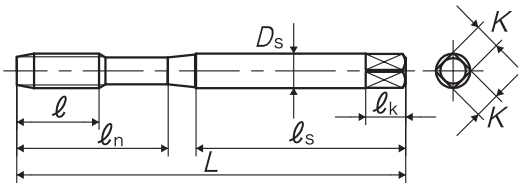

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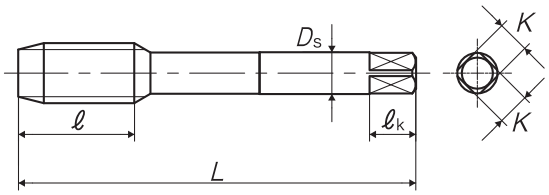


Segment : 1F

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads											
M3 × 0.5	D3	386228M	5P	2.205	0.433	0.736	0.141	0.11	0.187	3	2
M3.5 × 0.6	D4	386229M	5P	2.205	0.433	0.748	0.141	0.11	0.187	3	2
M4 × 0.7	D4	386230M	5P	2.48	0.512	0.815	0.168	0.131	0.25	3	2
M5 × 0.8	D4	386231M	5P	2.756	0.551	0.984	0.194	0.152	0.25	3	2
M6 × 1	D5	386232M	5P	3.15	0.591	1.181	0.255	0.191	0.312	3	2
M7 × 1	D5	386233M	5P	3.543	0.748	1.339	0.318	0.238	0.375	3	3
M8 × 1.25	D5	386235M	5P	3.543	0.748	1.378	0.318	0.238	0.375	3	3
M8 × 1	D5	386234M	5P	3.543	0.748	1.378	0.318	0.238	0.375	3	3
M10 × 1.5	D6	386237M	5P	3.937	0.906	1.535	0.381	0.286	0.437	3	3
M10 × 1.25	D5	386236M	5P	3.937	0.906	1.535	0.381	0.286	0.437	3	3
M12 × 1.75	D6	386240M	5P	4.331	1.024	-	0.367	0.275	0.437	3	4
M12 × 1.5	D5	386239M	5P	4.331	1.024	-	0.367	0.275	0.437	3	4
M12 × 1.25	D5	386238M	5P	4.331	1.024	-	0.367	0.275	0.437	3	4
For Unified Threads											
No.2-56UNC	GH2	386200M	5P	1.772	0.314	-	0.141	0.11	0.187	2	1
No.4-40UNC	GH2	386201M	5P	2.205	0.354	0.709	0.141	0.11	0.187	2	2
No.5-40UNC	GH2	386202M	5P	2.205	0.433	0.736	0.141	0.11	0.187	3	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.6-32UNC	GH3	386203M	5P	2.205	0.433	0.748	0.141	0.11	0.187	3	2
No.8-32UNC	GH3	386204M	5P	2.48	0.512	0.827	0.168	0.131	0.25	3	2
No.10-24UNC	GH3	386205M	5P	2.756	0.551	0.945	0.194	0.152	0.25	3	2
No.10-32UNF	GH3	386206M	5P	2.756	0.551	0.945	0.194	0.152	0.25	3	2
1/4-20UNC	GH3	386207M	5P	3.15	0.591	1.181	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	386208M	5P	3.15	0.591	1.181	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	386209M	5P	3.15	0.591	1.181	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	386211M	5P	3.15	0.591	1.181	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	386212M	5P	3.543	0.748	1.378	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	386213M	5P	3.543	0.748	1.378	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	386214M	5P	3.543	0.748	1.378	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	386215M	5P	3.543	0.748	1.378	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	386216M	5P	3.937	0.906	1.535	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	386217M	5P	3.937	0.906	1.535	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	386218M	5P	3.937	0.906	1.535	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	386219M	5P	3.937	0.906	1.535	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	386220M	5P	3.937	0.906	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH5	386221M	5P	3.937	0.906	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	386222M	5P	3.937	0.906	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	386223M	5P	3.937	0.906	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	386224M	5P	4.331	1.024	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH5	386225M	5P	4.331	1.024	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	386226M	5P	4.331	1.024	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH5	386227M	5P	4.331	1.024	-	0.367	0.275	0.437	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

EH-PO



Spiral Pointed Taps for Hard-to-Machine Materials

Specification



Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼
5~10 (m/min)	5~10 (m/min)	~5 (m/min)
	25~35HRC	35~45HRC

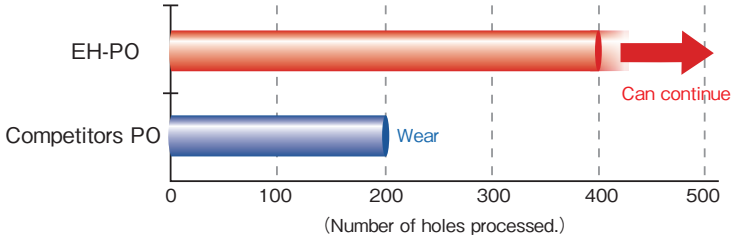
Product Features

- The EH-PO taps are suitable for high hardness materials from 30 to 45 HRC in high carbon steel, alloy steel forging, tempering material and mold materials.
- Tool life is greatly improved using a cutting edge shape suitable for difficult to machine materials. The tap exhibits excellent wear resistance.
- For through hole applications.

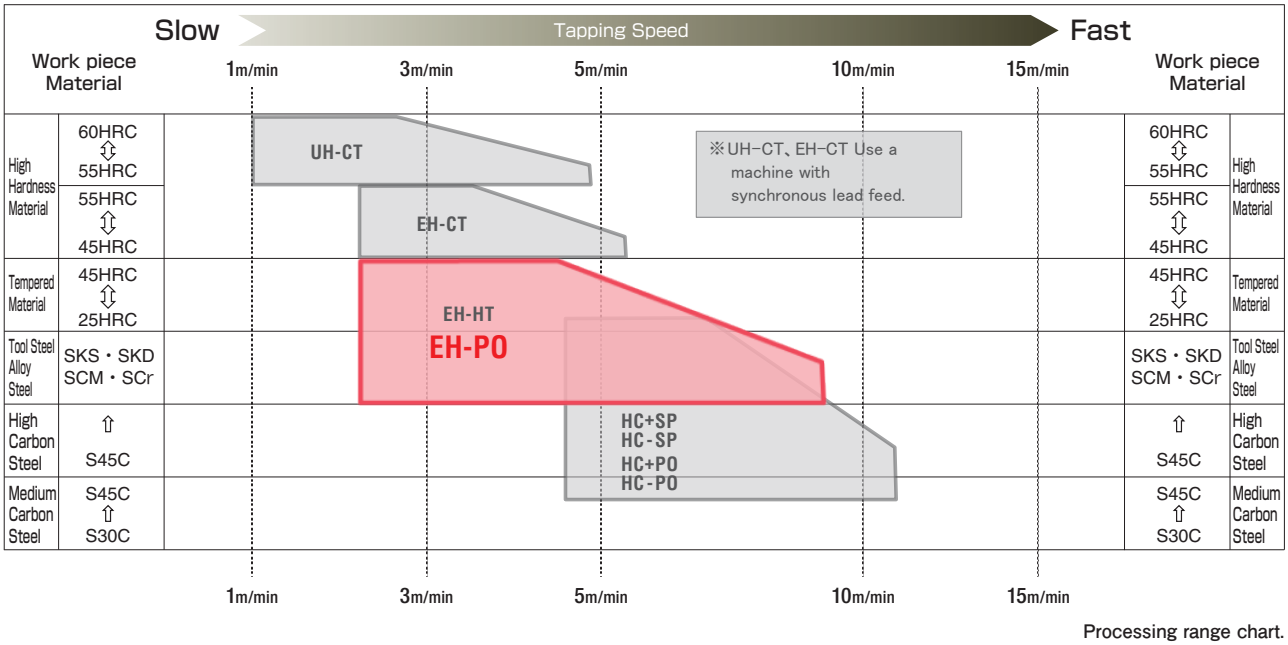
Tapping Data

Processing conditions [M10×1.25 P4]

Workpiece Material	S55C/A hub
Bored Hole Size	ϕ8.8
Tapping Length	11mm (Through hole)
Tapping Speed	10m/min
Machinery Type	Vertical machining center (asynchronous)
Holder	With tension
Tapping Fluid	Water soluble cutting fluid



Recommendation chart



Processing range chart.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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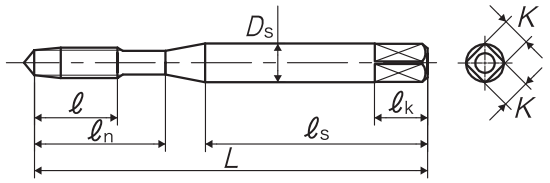

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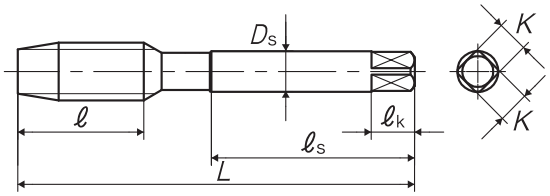

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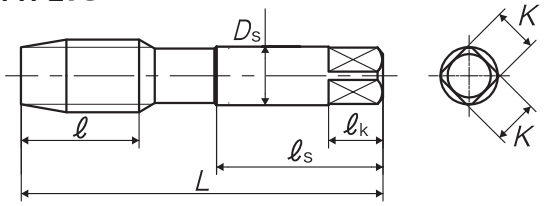

Segment : 1F

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P3	EPHMR3.0G	4.5P	46	9	14	26	4	3.2	6	3	1	¥ 1,770
M4 × 0.7	P3	EPHMR4.0I	4.5P	52	11	17	29	5	4	7	3	1	¥ 1,770
M5 × 0.8	P3	EPHMR5.0K	4.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,780
M6 × 1	P3	EPHMR6.0M	4.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,960
M8 × 1.25	P4	EPHMS8.0N	4.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,690
M10 × 1.5	P4	EPHMS010O	4.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,420
M10 × 1.25	P4	EPHMS010N	4.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,420
M12 × 1.75	P4	EPHMS012P	4.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,850
M12 × 1.5	P4	EPHMS012O	4.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,850 ※
M12 × 1.25	P4	EPHMS012N	4.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,850 ※
M14 × 2	P5	EPHMT014Q	4.5P	88	26	-	45	10.5	8	11	3	2	¥ 6,610 ※
M14 × 1.5	P4	EPHMS014O	4.5P	88	26	-	45	10.5	8	11	3	2	¥ 6,610
M16 × 2	P5	EPHMT016Q	4.5P	95	26	-	48	12.5	10	13	3	2	¥ 8,840
M16 × 1.5	P4	EPHMS016O	4.5P	95	26	-	48	12.5	10	13	3	2	¥ 8,840 ※
M18 × 2.5	P5	EPHMT018R	4.5P	100	33	-	51	14	11	14	3	2	¥ 11,900 ※
M18 × 1.5	P4	EPHMS018O	4.5P	100	33	-	51	14	11	14	3	2	¥ 11,900 ※
M20 × 2.5	P5	EPHMT020R	4.5P	105	33	-	50	15	12	15	3	3	¥ 16,100 ※
M20 × 1.5	P4	EPHMS020O	4.5P	105	33	-	50	15	12	15	3	3	¥ 16,100 ※
M22 × 2.5	P5	EPHMT022R	4.5P	115	33	-	55	17	13	16	3	3	¥ 20,600 ※
M22 × 1.5	P4	EPHMS022O	4.5P	115	33	-	55	17	13	16	3	3	¥ 20,600 ※
M24 × 3	P5	EPHMT024S	4.5P	120	39	-	55	19	15	18	3	3	¥ 25,700 ※
M24 × 1.5	P4	EPHMS024O	4.5P	120	39	-	55	19	15	18	3	3	¥ 25,700 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

EH-PO



Spiral Pointed Taps for Hard-to-Machine Materials

Specification

HSS-Co



■Spiral pointed tap suitable for high hardness steels of 30 ～ 45HRC such as forgings and thermal refined steels of high carbon steels and alloy steels, and die steels. Through hole use.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼
5~10 (m/min)	5~10 (m/min)	~5 (m/min)
	25~35HRC	35~45HRC

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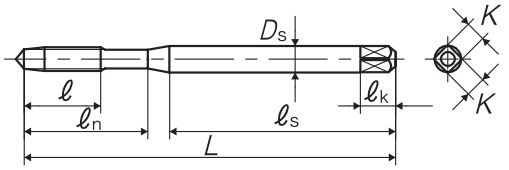

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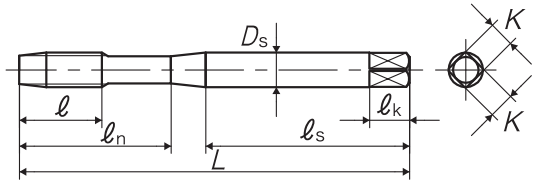

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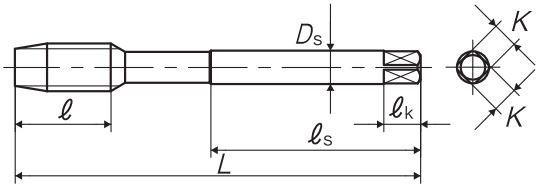


Segment : 1F

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2X	PD3.0GBDCB	4.5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	PD4.0IBDCB	4.5P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	PD5.0KBDCB	4.5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	PD6.0MBDCB	4.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	PD8.0NBDCB	4.5P	90	19	35	47	8	6.2	9	3	2
M8 × 1	ISO2X	PM8.0MBDCB	4.5P	90	19	-	46	6	4.9	8	3	3
M10 × 1.5	ISO2X	PD010OBDCB	4.5P	100	23	39	52.5	10	8	11	3	2
M10 × 1.25	ISO2X	PM010NBDCB	4.5P	100	23	-	51	7	5.5	8	3	3
M10 × 1	ISO2X	PM010MBDCB	4.5P	90	19	-	46	7	5.5	8	3	3
M12 × 1.75	ISO2X	PG012PBDCB	4.5P	110	26	-	56	9	7	10	3	3
M12 × 1.5	ISO2X	PM012OBDCB	4.5P	100	21	-	51	9	7	10	3	3
M12 × 1.25	ISO2X	PM012NBDCB	4.5P	100	21	-	51	9	7	10	3	3
M14 × 2	ISO2X	PG014QBDCB	4.5P	110	26	-	56	11	9	12	3	3
M14 × 1.5	ISO2X	PM014OBDCB	4.5P	100	21	-	51	11	9	12	3	3
M16 × 2	ISO2X	PG016QBDCB	4.5P	110	26	-	56	12	9	12	3	3
M16 × 1.5	ISO2X	PM016OBDCB	4.5P	100	21	-	51	12	9	12	3	3
M18 × 2.5	ISO2X	PG018RBDCB	4.5P	125	33	-	64	14	11	14	3	3
M18 × 1.5	ISO2X	PM018OBDCB	4.5P	110	24	-	56	14	11	14	3	3
M20 × 2.5	ISO2X	PG020RBDCB	4.5P	140	33	-	71	16	12	15	3	3
M20 × 1.5	ISO2X	PM020OBDCB	4.5P	125	24	-	64	16	12	15	3	3
M22 × 2.5	ISO2X	PG022RBDCB	4.5P	140	33	-	71	18	14.5	17	3	3
M24 × 3	ISO2X	PG024SBDCB	4.5P	160	37	-	82	18	14.5	17	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

ZEN-P



Spiral Pointed Taps for Nickel Base Alloys

Specification

HSS-P | NX Nitride+Oxide |  | Synchro nized

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Nickel base alloys ニッケル基合金
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

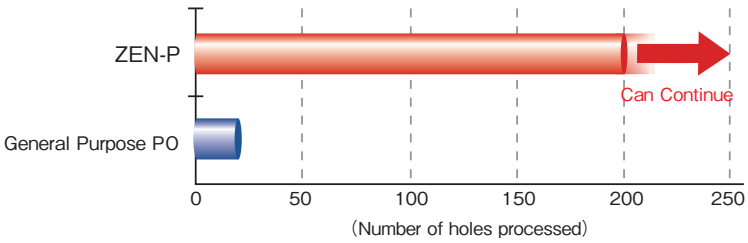
Product Features

- The tap is produced from high grade powder high speed steel material that has excellent heat resistance and abrasion resistance properties.
- Cutting edge geometry is designed to accommodate for thread shrinkage and the high temperature of difficult to machine materials.
- Utilizes the appropriate flute shape and rake angles for nickel base alloy to allow a smooth discharge of chips.
- YAMAWA uses the ideal surface treatment to prevent chip welding and abrasion.
- Compensating for diameter shrinkage of the internal screw thread, the tap is produced moderately oversize.

Tapping Data

Tapping Condition [M6×1]

Workpiece Material	Hastelloy C-276
Bored Hole Size	ϕ5.0
Tapping Length	10mm
Tapping Speed	5m/min
Machinery Type	CNC tapping machine
Tapping Fluid	Water soluble cutting fluid



Characteristics of nickel base alloys.

- Nickel based alloys have much better corrosion resistance and heat resistance than steel. In general, nickel based alloys are much more difficult to process than steels and stainless steels. Nickel based alloys include A286, inconels, hastelloys, Waspaloys and more. There are many kinds of nickel based alloys, but one of the more difficult ones to cut is inconel 718.

Types of problems tapping nickel based alloys.

- Nickel based alloys have a high temperature strength and thermal diffusion is small. Abrasion occurs quickly on the taps cutting edge.
- The internal thread diameters tend to spring back and may cause shrinkage and the tap may be crimped causing breakage.
- The material causes chip welding on the cutting chamfer and the flank surface of the tap's threads. The finished surface of the internal screw thread produced from nickel based alloys can become rough and coarse.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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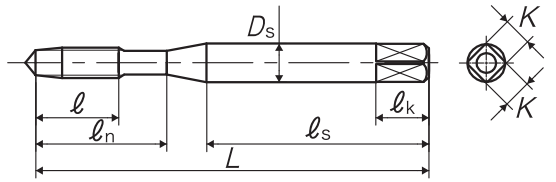

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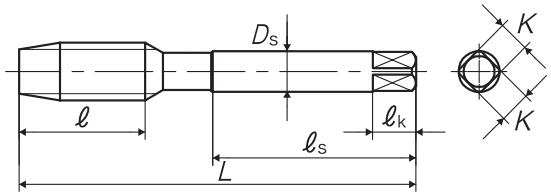

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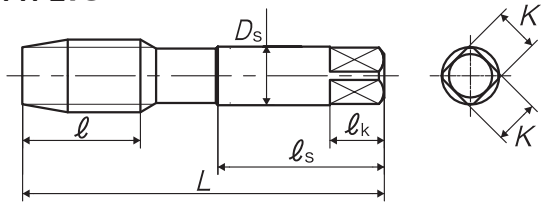


Segment : 1F

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P3	ZENPMR3.0G	4.5P	46	9	14	26	4	3.2	6	3	1	¥ 2,520
M4 × 0.7	P3	ZENPMR4.0I	4.5P	52	11	17	29	5	4	7	3	1	¥ 2,520
M5 × 0.8	P3	ZENPMR5.0K	4.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 2,540
M6 × 1	P3	ZENPMR6.0M	4.5P	62	15	26	33	6	4.5	7	3	1	¥ 2,800
M8 × 1.25	P4	ZENPMS8.0N	4.5P	70	19	-	36	6.2	5	8	3	2	¥ 3,840
M10 × 1.5	P4	ZENPMS010O	4.5P	75	23	-	38	7	5.5	8	3	2	¥ 4,880
M10 × 1.25	P4	ZENPMS010N	4.5P	75	23	-	38	7	5.5	8	3	2	¥ 4,880 ※
M12 × 1.75	P5	ZENPMT012P	4.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 6,920
M12 × 1.5	P4	ZENPMS012O	4.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 6,920 ※
M12 × 1.25	P5	ZENPMT012N	4.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 6,920 ※
M14 × 2	P5	ZENPMT014Q	4.5P	88	26	-	45	10.5	8	11	3	2	¥ 9,440 ※
M14 × 1.5	P4	ZENPMS014O	4.5P	88	26	-	45	10.5	8	11	3	2	¥ 9,440 ※
M16 × 2	P5	ZENPMT016Q	4.5P	95	26	-	48	12.5	10	13	3	2	¥ 12,700 ※
M16 × 1.5	P4	ZENPMS016O	4.5P	95	26	-	48	12.5	10	13	3	2	¥ 12,700 ※
M18 × 2.5	P5	ZENPMT018R	4.5P	100	33	-	51	14	11	14	3	2	¥ 16,900 ※
M18 × 1.5	P5	ZENPMT018O	4.5P	100	33	-	51	14	11	14	3	2	¥ 16,900 ※
M20 × 2.5	P5	ZENPMT020R	4.5P	105	33	-	50	15	12	15	3	3	¥ 23,000 ※
M20 × 1.5	P5	ZENPMT020O	4.5P	105	33	-	50	15	12	15	3	3	¥ 23,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX NI PO



Spiral Pointed Taps for Nickel Base Alloys

Specification

HSS-P | NX Nitride+Oxide |  | Synchro nized

■ZELX NI PO is the spiral pointed tap for nickel base alloys which, with nickel as main composition, have much higher corrosion resistance and much higher heat resistance than steels.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Nickel base alloys ニッケル基合金
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

Segment : 1F

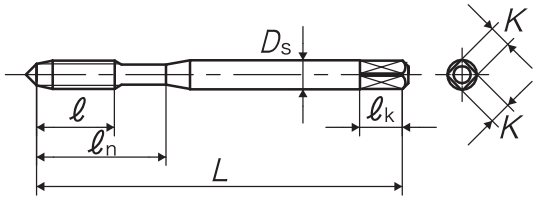
Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads											
M2.5 × 0.45	D3	Y87320	4.5P	1.812	0.295	0.5	0.141	0.11	0.187	2	1
M3 × 0.5	D3	Y87321	4.5P	1.937	0.374	0.625	0.141	0.11	0.187	3	1
M3.5 × 0.6	D4	Y87322	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
M4 × 0.7	D4	Y87323	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
M5 × 0.8	D4	Y87324	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
M6 × 1	D5	Y87325	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
M7 × 1	D5	Y87326	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
M8 × 1.25	D5	Y87328	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
M8 × 1	D5	Y87327	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
M10 × 1.5	D6	Y87330	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
M10 × 1.25	D5	Y87329	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
M12 × 1.75	D6	Y87332	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
M12 × 1.25	D5	Y87331	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
For Unified Threads											
No.2-56UNC	GH2	Y85523	4.5P	1.75	0.256	0.437	0.141	0.11	0.187	2	1
No.4-40UNC	GH2	Y85501	4.5P	1.875	0.335	0.562	0.141	0.11	0.187	2	1
No.4-40UNC	GH3	Y85502	4.5P	1.875	0.335	0.562	0.141	0.11	0.187	2	1
No.4-40UNC	GH4	Y85504	4.5P	1.875	0.335	0.562	0.141	0.11	0.187	2	1
No.5-40UNC	GH2	Y85503	4.5P	1.937	0.374	0.625	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y85505	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH4	Y85524	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH5	Y85535	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH7	Y85511	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.6-40UNF	GH2	Y85512	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.8-32UNC	GH3	Y85507	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH4	Y85529	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH5	Y85537	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH6	Y85560	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH7	Y85567	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.10-24UNC	GH3	Y85509	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH5	Y85539	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH2	Y85541	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

TYPE: 1



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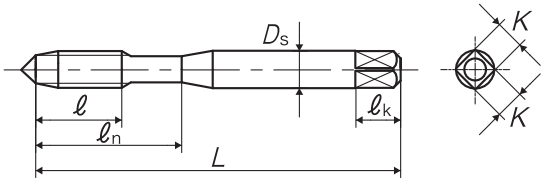

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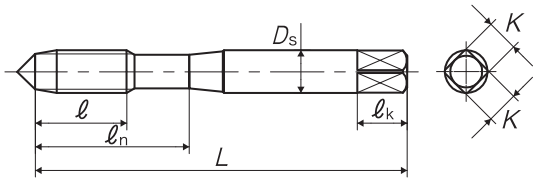

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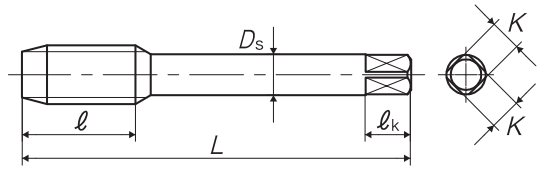


Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.10-32UNF	GH3	Y85510	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH4	Y85530	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH5	Y85540	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH6	Y85561	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH7	Y85570	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
1/4-20UNC	GH3	Y85513	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH5	Y85543	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y85514	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	Y85531	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH5	Y85544	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH6	Y85562	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH7	Y85574	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	Y85515	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH5	Y85545	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH7	Y85553	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y85516	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	Y85532	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH5	Y85546	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH6	Y85563	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH7	Y85576	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	Y85517	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH5	Y85547	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y85518	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	Y85533	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH5	Y85548	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH6	Y85564	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH7	Y85578	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	Y85519	4.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH5	Y85549	4.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y85520	4.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	Y85550	4.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	Y85521	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX NI PO Spiral Pointed Taps for Nickel Base Alloys

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
1/2-13UNC	GH5	Y85551	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH7	Y85581	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y85522	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH5	Y85552	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH7	Y85582	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
5/8-11UNC	GH3	Y85525	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-11UNC	GH5	Y85555	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-11UNC	GH7	Y85585	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH3	Y85526	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH5	Y85556	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH7	Y85586	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
3/4-10UNC	GH3	Y85527	4.5P	4.25	1.201	-	0.59	0.442	0.687	3	4
3/4-10UNC	GH5	Y85557	4.5P	4.25	1.201	-	0.59	0.442	0.687	3	4
3/4-16UNF	GH3	Y85528	4.5P	4.25	1.201	-	0.59	0.442	0.687	3	4
3/4-16UNF	GH5	Y85558	4.5P	4.25	1.201	-	0.59	0.442	0.687	3	4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

ZEN-P



Spiral Pointed Taps for Nickel Base Alloys

Specification

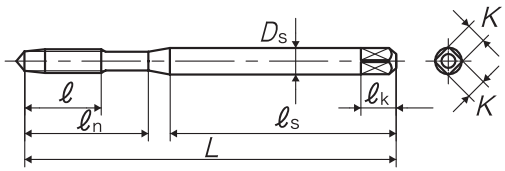
HSS-P | NX Nitride+Oxide |  | Synchro nized

■ZEN-P is the spiral pointed tap for nickel base alloys which, with nickel as main composition, have much higher corrosion resistance and much higher heat resistance than steels.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Nickel base alloys ニッケル基合金
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE : 1



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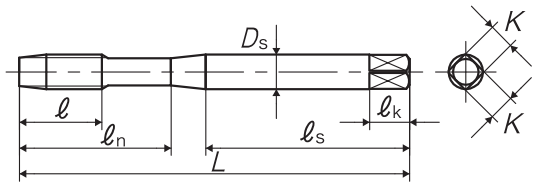

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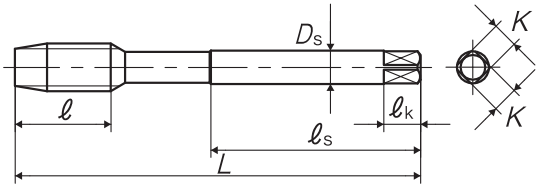

Segment : 1F

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2X	PD3.0GBJPW	4.5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	PD4.0IBJPW	4.5P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	PD5.0KBJPW	4.5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	PD6.0MBJPW	4.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	PD8.0NBJPW	4.5P	90	19	35	47	8	6.2	9	3	2
M10 × 1.5	ISO2X	PD010OBJPW	4.5P	100	23	39	52.5	10	8	11	3	2
M10 × 1.25	ISO2X	PM010NBJPW	4.5P	100	23	-	51	7	5.5	8	3	3
M12 × 1.75	ISO2X	PG012PBJPW	4.5P	110	26	-	56	9	7	10	3	3
M12 × 1.5	ISO2X	PM012OBJPW	4.5P	100	21	-	51	9	7	10	3	3
M12 × 1.25	ISO2X	PM012NBJPW	4.5P	100	21	-	51	9	7	10	3	3
M14 × 2	ISO2X	PG014QBJPW	4.5P	110	26	-	56	11	9	12	3	3
M14 × 1.5	ISO2X	PM014OBJPW	4.5P	100	21	-	51	11	9	12	3	3
M16 × 2	ISO2X	PG016QBJPW	4.5P	110	26	-	56	12	9	12	3	3
M16 × 1.5	ISO2X	PM016OBJPW	4.5P	100	21	-	51	12	9	12	3	3
M18 × 2.5	ISO2X	PG018RBJPW	4.5P	125	33	-	64	14	11	14	3	3
M20 × 2.5	ISO2X	PG020RBJPW	4.5P	140	33	-	71	16	12	15	3	3
M22 × 2.5	ISO2X	PG022RBJPW	4.5P	140	33	-	71	18	14.5	17	3	3
M24 × 3	ISO2X	PG024SBJPW	4.5P	160	37	-	82	18	14.5	17	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ZEN-P Spiral Pointed Taps for Nickel Base Alloys

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Unified Threads												
No.6-32UNC	2BX	PDUN6JYJPW	4.5P	56	11	19	32	4	3	6	3	1
No.8-32UNC	2BX	PDUN8JYJPW	4.5P	63	13	21	38	4.5	3.4	6	3	1
No.10-24UNC	2BX	PDUNAMYJPW	4.5P	70	14	24	39	6	4.9	8	3	1
No.10-32UNF	2BX	PDUNAJYJPW	4.5P	70	14	24	39	6	4.9	8	3	1
1/4-20UNC	2BX	PDU04NYJPW	4.5P	80	15	30	42	7	5.5	8	3	1
1/4-28UNF	2BX	PDU04KYJPW	4.5P	80	15	30	42	7	5.5	8	3	1
5/16-18UNC	2BX	PDU050YJPW	4.5P	90	19	35	47	8	6.2	9	3	2
5/16-24UNF	2BX	PMU05MYJPW	4.5P	90	19	-	46	6	4.9	8	3	3
3/8-16UNC	2BX	PDU06PYJPW	4.5P	100	23	39	54.5	9	7	10	3	2
3/8-24UNF	2BX	PMU06MYJPW	4.5P	100	23	-	51	7	5.5	8	3	3
1/2-13UNC	2BX	PGU08RYJPW	4.5P	110	26	-	56	9	7	10	3	3
1/2-20UNF	2BX	PMU08NYJPW	4.5P	100	21	-	51	9	7	10	3	3
5/8-11UNC	2BX	PGU10UYJPW	4.5P	110	26	-	56	12	9	12	3	3
5/8-18UNF	2BX	PMU100YJPW	4.5P	100	21	-	51	12	9	12	3	3
3/4-10UNC	2BX	PGU12VYJPW	4.5P	125	33	-	64	14	11	14	3	3
3/4-16UNF	2BX	PMU12PYJPW	4.5P	110	24	-	56	14	11	14	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

PM-PO



Spiral Pointed Taps for Hard-to-Machine Materials

■Spiral pointed tap suitable for high hardness steels of 35～45HRC such as forgings and thermal refined steels of high carbon steels and alloy steels, and die steel. Through hole use.

Specification

HSS-P



Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼
5~10 (m/min)	5~10 (m/min)	~5 (m/min)
	25～35HRC	35～45HRC

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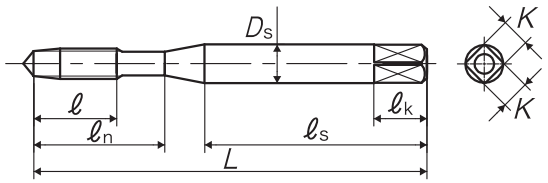

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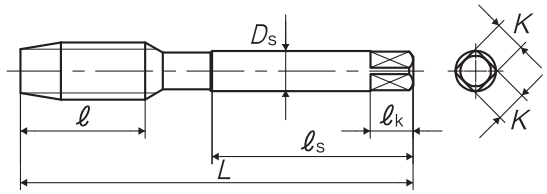

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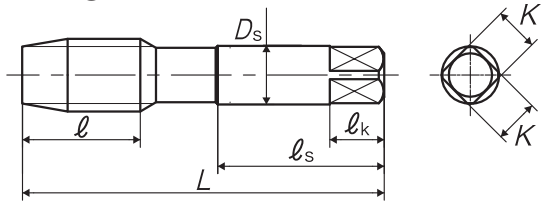

Segment : 1F

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P3	PY3.0GRDPB	5.5P	46	9	14	26	4	3.2	6	3	1	¥ 1,770 ※
M4 × 0.7	P3	PY4.0IRDPB	5.5P	52	11	17	29	5	4	7	3	1	¥ 1,770 ※
M5 × 0.8	P3	PY5.0KRDPB	5.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,780 ※
M6 × 1	P3	PY6.0MRDPB	5.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,960 ※
M8 × 1.25	P4	PY8.0NSDPB	5.5P	70	19	-	36	6.2	5	8	3	2	¥ 2,690 ※
M10 × 1.5	P4	PY010OSDPB	5.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,420 ※
M10 × 1.25	P4	PY010NSDPB	5.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,420 ※
M12 × 1.75	P4	PY012PSDPB	5.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,850 ※
M12 × 1.5	P4	PY012OSDPB	5.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,850 ※
M12 × 1.25	P4	PY012NSDPB	5.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,850 ※
M14 × 2	P5	PY014QTDPB	5.5P	88	26	-	45	10.5	8	11	3	2	¥ 6,610 ※
M14 × 1.5	P4	PY014OSDPB	5.5P	88	26	-	45	10.5	8	11	3	2	¥ 6,610 ※
M16 × 2	P5	PY016QTDPB	5.5P	95	26	-	48	12.5	10	13	3	2	¥ 8,840 ※
M16 × 1.5	P4	PY016OSDPB	5.5P	95	26	-	48	12.5	10	13	3	2	¥ 8,840 ※
M18 × 2.5	P5	PY018RTDPB	5.5P	100	33	-	51	14	11	14	3	2	¥ 11,900 ※
M18 × 1.5	P4	PY018OSDPB	5.5P	100	33	-	51	14	11	14	3	2	¥ 11,900 ※
M20 × 2.5	P5	PY020RTDPB	5.5P	105	33	-	50	15	12	15	3	3	¥ 16,100 ※
M20 × 1.5	P4	PY020OSDPB	5.5P	105	33	-	50	15	12	15	3	3	¥ 16,100 ※
M22 × 2.5	P5	PY022RTDPB	5.5P	115	33	-	55	17	13	16	3	3	¥ 20,600 ※
M22 × 1.5	P4	PY022OSDPB	5.5P	115	33	-	55	17	13	16	3	3	¥ 20,600 ※
M24 × 3	P5	PY024STDPB	5.5P	120	39	-	55	19	15	18	3	3	¥ 25,700 ※
M24 × 1.5	P4	PY024OSDPB	5.5P	120	39	-	55	19	15	18	3	3	¥ 25,700 ※
M27 × 3	P5	PY027STDPB	5.5P	130	39	-	60	20	15	18	4	3	¥ 35,700 ※
M27 × 1.5	P4	PY027OSDPB	5.5P	130	39	-	60	20	15	18	4	3	¥ 35,700 ※
M30 × 3.5	P5	PY030TTDPB	5.5P	135	46	-	62	23	17	20	4	3	¥ 45,500 ※
M30 × 1.5	P4	PY030OSDPB	5.5P	135	46	-	62	23	17	20	4	3	¥ 45,500 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PM-PO Spiral Pointed Taps for Hard-to-Machine Materials

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Unified Threads													
No.6-32UNC	P2	PYUN6JQDPB	5.5P	52	11	17	27	5	4	7	2	1	¥ 2,080 ※
No.6-40UNF	P2	PYUN6HQDPB	5.5P	52	11	17	27	5	4	7	2	1	¥ 2,080 ※
No.8-32UNC	P2	PYUN8JQDPB	5.5P	60	13	22	31	5.5	4.5	7	2	1	¥ 2,090 ※
No.8-36UNF	P2	PYUN8IQDPB	5.5P	60	13	22	31	5.5	4.5	7	2	1	¥ 2,090 ※
No.10-24UNC	P2	PYUNAMQDPB	5.5P	60	13	22	32	5.5	4.5	7	2	1	¥ 2,090 ※
No.10-32UNF	P2	PYUNAJQDPB	5.5P	60	13	22	32	5.5	4.5	7	2	1	¥ 2,090 ※
No.12-24UNC	P2	PYUNCMQDPB	5.5P	62	15	26	32	6	4.5	7	2	1	¥ 2,240 ※
No.12-28UNF	P2	PYUNCKQDPB	5.5P	62	15	26	32	6	4.5	7	2	1	¥ 2,240 ※
1/4-20UNC	P3	PYU04NRDPB	5.5P	62	15	26	33	6	4.5	7	3	1	¥ 2,240 ※
1/4-28UNF	P3	PYU04KRDPB	5.5P	62	15	26	33	6	4.5	7	3	1	¥ 2,240 ※
5/16-18UNC	P3	PYU05ORDPB	5.5P	70	19	-	36	6.2	5	8	3	2	¥ 3,100 ※
5/16-24UNF	P3	PYU05MRDPB	5.5P	70	19	-	36	6.2	5	8	3	2	¥ 3,100 ※
3/8-16UNC	P4	PYU06PSDPB	5.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,970 ※
3/8-24UNF	P3	PYU06MRDPB	5.5P	75	23	-	38	7	5.5	8	3	2	¥ 3,970 ※
7/16-14UNC	P4	PYU07QSDPB	5.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 5,590 ※
7/16-20UNF	P3	PYU07NRDPB	5.5P	82	26	-	42	8.5	6.5	9	3	2	¥ 5,590 ※
1/2-13UNC	P4	PYU08RSDPB	5.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,930 ※
1/2-20UNF	P4	PYU08NSDPB	5.5P	88	26	-	45	10.5	8	11	3	2	¥ 5,930 ※
9/16-12UNC	P4	PYU09SSDPB	5.5P	95	26	-	48	12.5	10	13	3	2	¥ 8,840 ※
9/16-18UNF	P4	PYU09OSDPB	5.5P	95	26	-	48	12.5	10	13	3	2	¥ 8,840 ※
5/8-11UNC	P5	PYU10UTDPB	5.5P	95	26	-	48	12.5	10	13	3	2	¥ 8,840 ※
5/8-18UNF	P4	PYU10OSDPB	5.5P	95	26	-	48	12.5	10	13	3	2	¥ 8,840 ※
3/4-10UNC	P5	PYU12VTDPB	5.5P	105	33	-	50	15	12	15	3	3	¥ 16,100 ※
3/4-16UNF	P4	PYU12PSDPB	5.5P	105	33	-	50	15	12	15	3	3	¥ 16,100 ※
7/8-9UNC	P5	PYU14WTDPB	5.5P	115	33	-	55	17	13	16	3	3	¥ 22,700 ※
7/8-14UNF	P4	PYU14QSDPB	5.5P	115	33	-	55	17	13	16	3	3	¥ 22,700 ※
1 -8UNC	P6	PYU16XUDPB	5.5P	125	39	-	58	19	15	18	3	3	¥ 33,200 ※
1 -12UNF	P5	PYU16STDPB	5.5P	125	39	-	58	19	15	18	3	3	¥ 33,200 ※

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ANSI

PM-PO



Spiral Pointed Taps for Hard-to-Machine Materials

Specification

HSS-P



■Spiral pointed tap suitable for high hardness steels of 35～45HRC such as forgings and thermal refined steels of high carbon steels and alloy steels, and die steel. Through hole use.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼
5~10 (m/min)	5~10 (m/min)	~5 (m/min)
	25～35HRC	35～45HRC

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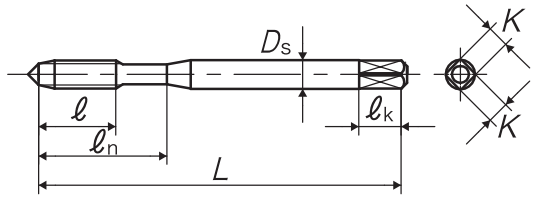

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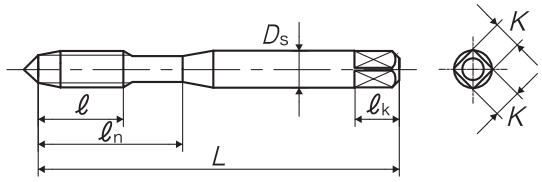

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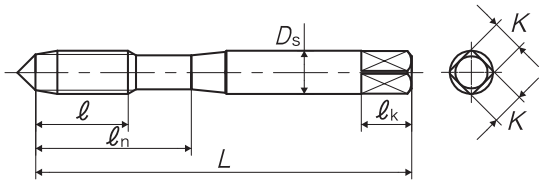

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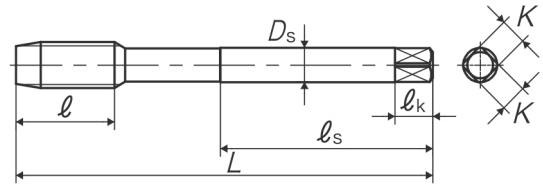

Segment : 1F

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads											
No.6-32UNC	GH3	PAUN6J3DPB	5.5P	2	0.413	0.687	0.141	0.11	0.187	2	1
No.6-40UNF	GH3	PAUN6H3DPB	5.5P	2	0.413	0.687	0.141	0.11	0.187	2	1
No.8-32UNC	GH3	PAUN8J3DPB	5.5P	2.125	0.453	0.75	0.168	0.131	0.25	2	1
No.8-36UNF	GH3	PAUN8I3DPB	5.5P	2.125	0.453	0.75	0.168	0.131	0.25	2	1
No.10-24UNC	GH3	PAUNAM3DPB	5.5P	2.375	0.531	0.875	0.194	0.152	0.25	2	1
No.10-32UNF	GH3	PAUNAJ3DPB	5.5P	2.375	0.531	0.875	0.194	0.152	0.25	2	1
No.12-24UNC	GH3	PAUNCM3DPB	5.5P	2.375	0.571	0.937	0.22	0.165	0.281	2	1
No.12-28UNF	GH3	PAUNCK3DPB	5.5P	2.375	0.571	0.937	0.22	0.165	0.281	2	1
1/4-20UNC	GH4	PAU04N4DPB	5.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	PAU04K4DPB	5.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH5	PAU05O5DPB	5.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH5	PAU05M5DPB	5.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
3/8-16UNC	GH6	PAU06P6DPB	5.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH5	PAU06M5DPB	5.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
7/16-14UNC	GH6	PAU07Q6DPB	5.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	PAU07N5DPB	5.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH6	PAU08R6DPB	5.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH6	PAU08N6DPB	5.5P	3.375	0.984	-	0.367	0.275	0.437	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

PM-PO Spiral Pointed Taps for Hard-to-Machine Materials

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
9/16-12UNC	GH6	PAU09S6DPB	5.5P	3.593	0.984	-	0.429	0.322	0.5	3	4
9/16-18UNF	GH6	PAU09O6DPB	5.5P	3.593	0.984	-	0.429	0.322	0.5	3	4
5/8-11UNC	GH7	PAU10U7DPB	5.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
5/8-18UNF	GH6	PAU10O6DPB	5.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
3/4-10UNC	GH7	PAU12V7DPB	5.5P	4.25	1.201	-	0.59	0.442	0.687	3	4
3/4-16UNF	GH6	PAU12P6DPB	5.5P	4.25	1.201	-	0.59	0.442	0.687	3	4
7/8-9UNC	GH7	PAU14W7DPB	5.5P	4.687	1.339	-	0.697	0.523	0.75	3	4
7/8-14UNF	GH6	PAU14Q6DPB	5.5P	4.687	1.339	-	0.697	0.523	0.75	3	4
1 -8UNC	GH8	PAU16X8DPB	5.5P	5.125	1.496	-	0.8	0.6	0.812	3	4
1 -12UNF	GH7	PAU16S7DPB	5.5P	5.125	1.496	-	0.8	0.6	0.812	3	4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

PM-PO



Spiral Pointed Taps for Hard-to-Machine Materials

Specification

HSS-P



■Spiral pointed tap suitable for high hardness steels of 35 ～ 45HRC such as forgings and thermal refined steels of high carbon steels and alloy steels, and die steel. Through hole use.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼
5~10 (m/min)	5~10 (m/min)	~5 (m/min)
	25~35HRC	35~45HRC

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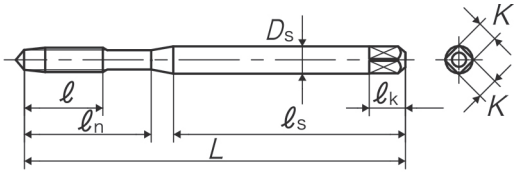

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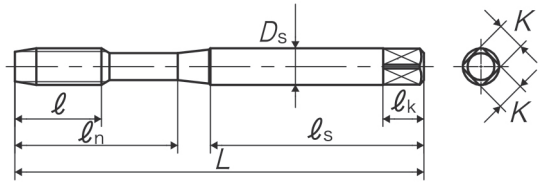

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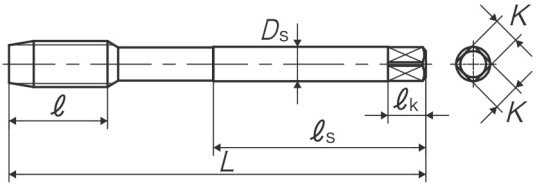

Segment : 1F

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2X	PD3.0GBDPB	5.5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	PD4.0IBDPB	5.5P	63	13	21	38	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	PD5.0KBDPB	5.5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	PD6.0MBDPB	5.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	PD8.0NBDPB	5.5P	90	19	35	47	8	6.2	9	3	2
M10 × 1.5	ISO2X	PD010OBDPB	5.5P	100	23	39	52.5	10	8	11	3	2
M10 × 1.25	ISO2X	PM010NBDPB	5.5P	100	23	-	51	7	5.5	8	3	3
M12 × 1.75	ISO2X	PG012PBDPB	5.5P	110	26	-	56	9	7	10	3	3
M12 × 1.5	ISO2X	PM012OBDPB	5.5P	100	21	-	51	9	7	10	3	3
M12 × 1.25	ISO2X	PM012NBDPB	5.5P	100	21	-	51	9	7	10	3	3
M14 × 2	ISO2X	PG014QBDPB	5.5P	110	26	-	56	11	9	12	3	3
M14 × 1.5	ISO2X	PM014OBDPB	5.5P	100	21	-	51	11	9	12	3	3
M16 × 2	ISO2X	PG016QBDPB	5.5P	110	26	-	56	12	9	12	3	3
M16 × 1.5	ISO2X	PM016OBDPB	5.5P	100	21	-	51	12	9	12	3	3
M18 × 2.5	ISO2X	PG018RBDPB	5.5P	125	33	-	64	14	11	14	3	3
M18 × 1.5	ISO2X	PM018OBDPB	5.5P	110	24	-	56	14	11	14	3	3
M20 × 2.5	ISO2X	PG020RBDPB	5.5P	140	33	-	71	16	12	15	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PM-PO Spiral Pointed Taps for Hard-to-Machine Materials

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M20 × 1.5	ISO2X	PM020OBDPB	5.5P	125	24	-	64	16	12	15	3	3
M22 × 2.5	ISO2X	PG022RBDPB	5.5P	140	33	-	71	18	14.5	17	3	3
M22 × 1.5	ISO2X	PM022OBDPB	5.5P	125	24	-	64	18	14.5	17	3	3
M24 × 3	ISO2X	PG024SBDPB	5.5P	160	37	-	82	18	14.5	17	3	3
M24 × 1.5	ISO2X	PM024OBDPB	5.5P	140	27	-	71	18	14.5	17	3	3
M27 × 3	ISO2X	PG027SBDPB	5.5P	160	37	-	82	20	16	19	4	3
M27 × 1.5	ISO2X	PM027OBDPB	5.5P	140	27	-	71	20	16	19	4	3
M30 × 3.5	ISO2X	PG030TBDPB	5.5P	180	44	-	92	22	18	21	4	3
M30 × 1.5	ISO2X	PM030OBDPB	5.5P	150	27	-	77	22	18	21	4	3
For Unified Threads												
No.6-32UNC	2B	PDUN6JXDPB	5.5P	56	11	19	32	4	3	6	3	1
No.6-40UNF	2B	PDUN6HXDPB	5.5P	56	11	19	32	4	3	6	3	1
No.8-32UNC	2B	PDUN8JXDPB	5.5P	63	13	21	38	4.5	3.4	6	3	1
No.8-36UNF	2B	PDUN8IXDPB	5.5P	63	13	21	38	4.5	3.4	6	3	1
No.10-24UNC	2B	PDUNAMXDPB	5.5P	70	14	24	39	6	4.9	8	3	1
No.10-32UNF	2B	PDUNAJXDPB	5.5P	70	14	24	39	6	4.9	8	3	1
No.12-24UNC	2B	PDUNCMXDPB	5.5P	80	15	28	45	6	4.9	8	3	1
No.12-28UNF	2B	PDUNCKXDPB	5.5P	80	15	28	45	6	4.9	8	3	1
1/4-20UNC	2BX	PDU04NYDPB	5.5P	80	15	30	42	7	5.5	8	3	1
1/4-28UNF	2BX	PDU04KYDPB	5.5P	80	15	30	42	7	5.5	8	3	1
5/16-18UNC	2BX	PDU05OYDPB	5.5P	90	19	35	47	8	6.2	9	3	2
5/16-24UNF	2BX	PMU05MYDPB	5.5P	90	19	-	46	6	4.9	8	3	3
3/8-16UNC	2BX	PDU06PYDPB	5.5P	100	23	39	54.5	9	7	10	3	2
3/8-24UNF	2BX	PMU06MYDPB	5.5P	100	23	-	51	7	5.5	8	3	3
7/16-14UNC	2BX	PGU07QYDPB	5.5P	100	23	-	51	8	6.2	9	3	3
7/16-20UNF	2BX	PMU07NYDPB	5.5P	100	23	-	51	8	6.2	9	3	3
1/2-13UNC	2BX	PGU08RYDPB	5.5P	110	26	-	56	9	7	10	3	3
1/2-20UNF	2BX	PMU08NYDPB	5.5P	100	21	-	51	9	7	10	3	3
9/16-12UNC	2BX	PGU09SYDPB	5.5P	110	26	-	56	11	9	12	3	3
9/16-18UNF	2BX	PMU09OYDPB	5.5P	100	21	-	51	11	9	12	3	3
5/8-11UNC	2BX	PGU10UYDPB	5.5P	110	26	-	56	12	9	12	3	3
5/8-18UNF	2BX	PMU10OYDPB	5.5P	100	21	-	51	12	9	12	3	3
3/4-10UNC	2BX	PGU12VYDPB	5.5P	125	33	-	64	14	11	14	3	3
3/4-16UNF	2BX	PMU12PYDPB	5.5P	110	24	-	56	14	11	14	3	3
7/8-9UNC	2BX	PGU14WYDPB	5.5P	140	33	-	71	18	14.5	17	3	3
7/8-14UNF	2BX	PMU14QYDPB	5.5P	125	24	-	64	18	14.5	17	3	3
1-8UNC	2BX	PGU16XYDPB	5.5P	160	37	-	82	18	14.5	17	3	3
1-12UNF	2BX	PMU16SYDPB	5.5P	140	27	-	71	18	14.5	17	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-PM-PO



Long Shank Spiral Pointed Taps for Hard-to-Machine Materials

Specification



■Long shank spiral pointed tap suitable for high hardness steels of 35 ~ 45HRC such as forgings and thermal refined steels of high carbon steels and alloy steels, and die steel. Through hole use.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼
5~10 (m/min)	5~10 (m/min)	~5 (m/min)
	25~35HRC	35~45HRC

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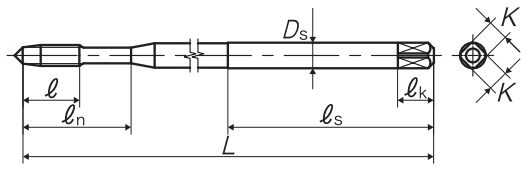

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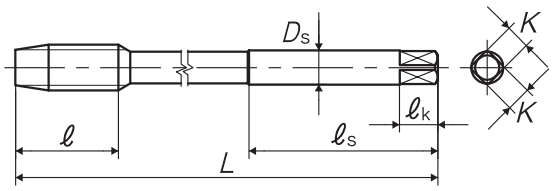

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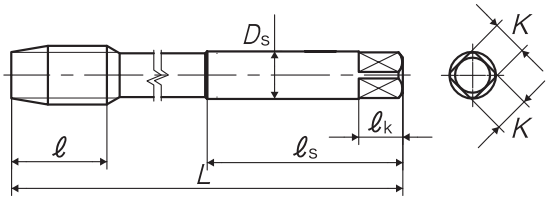

Segment : 1F

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P3	P43.0GRDPBE	5.5P	100	9	18	40	4	3.2	6	3	1	¥ 5,060 ※
M4 × 0.7	P3	P44.0IRDPBE	5.5P	100	11	21	40	5	4	7	3	1	¥ 4,620 ※
M5 × 0.8	P3	P45.0KRDPBE	5.5P	100	13	25	40	5.5	4.5	7	3	1	¥ 4,050 ※
M6 × 1	P3	P46.0MRDPBE	5.5P	100	15	30	40	6	4.5	7	3	1	¥ 3,460 ※
M6 × 1	P3	P46.0MRDPBG	5.5P	150	15	30	40	6	4.5	7	3	1	¥ 6,110 ※
M8 × 1.25	P4	PY8.0NSDPBE	5.5P	100	19	-	50	6.2	5	8	3	2	¥ 4,400 ※
M8 × 1.25	P4	PY8.0NSDPBG	5.5P	150	19	-	50	6.2	5	8	3	2	¥ 7,490 ※
M10 × 1.5	P4	PY010OSDPBG	5.5P	150	23	-	50	7	5.5	8	3	2	¥ 8,710 ※
M10 × 1.25	P4	PY010NSDPBG	5.5P	150	23	-	50	7	5.5	8	3	2	¥ 8,710 ※
M12 × 1.75	P4	PY012PSDPBG	5.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 11,000 ※
M12 × 1.5	P4	PY012OSDPBG	5.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 11,000 ※
M12 × 1.25	P4	PY012NSDPBG	5.5P	150	26	-	50	8.5	6.5	9	3	2	¥ 11,000 ※
M14 × 2	P5	PY014QTDPBG	5.5P	150	26	-	60	10.5	8	11	3	2	¥ 13,700 ※
M14 × 1.5	P4	PY014OSDPBG	5.5P	150	26	-	60	10.5	8	11	3	2	¥ 13,700 ※
M16 × 2	P5	PY016QTDPBG	5.5P	150	26	-	60	12.5	10	13	3	2	¥ 14,900 ※
M16 × 1.5	P4	PY016OSDPBG	5.5P	150	26	-	60	12.5	10	13	3	2	¥ 14,900 ※
M18 × 2.5	P5	PY018RTDPBG	5.5P	150	33	-	70	14	11	14	3	2	¥ 20,300 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-PM-PO Long Shank Spiral Pointed Taps for Hard-to-Machine Materials

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M18 × 1.5	P4	PY018OSDPBG	5.5P	150	33	-	70	14	11	14	3	2	¥ 20,300 ※
M20 × 2.5	P5	PY020RTDPBG	5.5P	150	33	-	70	15	12	15	3	3	¥ 26,100 ※
M20 × 1.5	P4	PY020OSDPBG	5.5P	150	33	-	70	15	12	15	3	3	¥ 26,100 ※
M22 × 2.5	P5	PY022RTDPBK	5.5P	200	33	-	70	17	13	16	3	3	¥ 36,000 ※
M22 × 1.5	P4	PY022OSDPBK	5.5P	200	33	-	70	17	13	16	3	3	¥ 36,000 ※
M24 × 3	P5	PY024STDPBK	5.5P	200	39	-	80	19	15	18	3	3	¥ 40,500 ※
M24 × 1.5	P4	PY024OSDPBK	5.5P	200	39	-	80	19	15	18	3	3	¥ 40,500 ※
M27 × 3	P5	PY027STDPBK	5.5P	200	39	-	80	20	15	18	4	3	¥ 45,000 ※
M27 × 1.5	P4	PY027OSDPBK	5.5P	200	39	-	80	20	15	18	4	3	¥ 45,000 ※
M30 × 3.5	P5	PY030TTDPBK	5.5P	200	46	-	80	23	17	20	4	3	¥ 57,700 ※
M30 × 1.5	P4	PY030OSDPBK	5.5P	200	46	-	80	23	17	20	4	3	¥ 57,700 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

MC-PO



Spiral Pointed Taps with Internal Coolant

Specification

HSS

■Adopting internal coolant (radial through type) realizing sufficient coolant supply to the cutting area, MC-PO spiral pointed tap ensures a long tool life and internal threads with good surface finish.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

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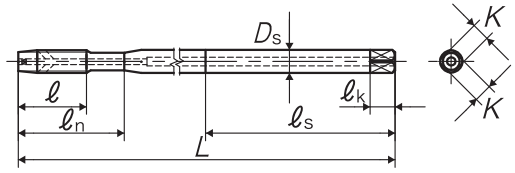

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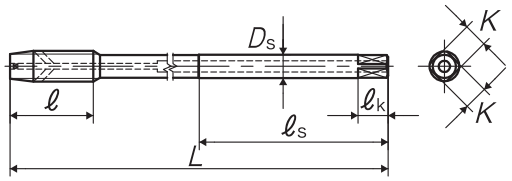

Segment : 1E

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P2	MPHQ6.0ML10	5P	100	19	30	40	6	4.5	7	3	1	¥ 3,390 ※▲
M6 × 1	P2	MPHQ6.0ML15	5P	150	19	30	40	6	4.5	7	3	1	¥ 5,790 ※▲
M8 × 1.25	P3	MPHR8.0NL10	5P	100	22	-	50	6.2	5	8	3	2	¥ 4,390 ※▲
M8 × 1.25	P3	MPHR8.0NL15	5P	150	22	-	50	6.2	5	8	3	2	¥ 7,230 ※▲
M10 × 1.5	P3	MPHR010OL10	5P	100	24	-	50	7	5.5	8	3	2	¥ 5,340 ※▲
M10 × 1.5	P3	MPHR010OL15	5P	150	24	-	50	7	5.5	8	3	2	¥ 8,440 ※▲
M10 × 1.25	P3	MPHR010NL10	5P	100	24	-	50	7	5.5	8	3	2	¥ 5,340 ※▲
M10 × 1.25	P3	MPHR010NL15	5P	150	24	-	50	7	5.5	8	3	2	¥ 8,440 ※▲
M12 × 1.75	P4	MPHS012PL10	5P	100	29	-	50	8.5	6.5	9	3	2	¥ 6,550 ※▲
M12 × 1.75	P4	MPHS012PL15	5P	150	29	-	50	8.5	6.5	9	3	2	¥ 10,600 ※▲
M12 × 1.75	P4	MPHS012PL20	5P	200	29	-	50	8.5	6.5	9	3	2	¥ 14,200 ※▲
M12 × 1.5	P3	MPHR012OL10	5P	100	29	-	50	8.5	6.5	9	3	2	¥ 6,550 ※▲
M12 × 1.5	P3	MPHR012OL15	5P	150	29	-	50	8.5	6.5	9	3	2	¥ 10,600 ※▲
M12 × 1.5	P3	MPHR012OL20	5P	200	29	-	50	8.5	6.5	9	3	2	¥ 14,200 ※▲
M12 × 1.25	P4	MPHS012NL10	5P	100	24	-	50	8.5	6.5	9	3	2	¥ 6,550 ※▲
M12 × 1.25	P4	MPHS012NL15	5P	150	24	-	50	8.5	6.5	9	3	2	¥ 10,600 ※▲
M12 × 1.25	P4	MPHS012NL20	5P	200	24	-	50	8.5	6.5	9	3	2	¥ 14,200 ※▲
M14 × 2	P4	MPHS014QL15	5P	150	30	-	60	10.5	8	11	3	2	¥ 13,500 ※▲
M14 × 2	P4	MPHS014QL20	5P	200	30	-	60	10.5	8	11	3	2	¥ 17,300 ※▲
M14 × 1.5	P3	MPHR014OL15	5P	150	30	-	60	10.5	8	11	3	2	¥ 13,500 ※▲
M14 × 1.5	P3	MPHR014OL20	5P	200	30	-	60	10.5	8	11	3	2	¥ 17,300 ※▲
M16 × 2	P4	MPHS016QL15	5P	150	32	-	60	12.5	10	13	3	2	¥ 14,600 ※▲
M16 × 2	P4	MPHS016QL20	5P	200	32	-	60	12.5	10	13	3	2	¥ 18,000 ※▲
M16 × 1.5	P3	MPHR016OL15	5P	150	32	-	60	12.5	10	13	3	2	¥ 14,600 ※▲

Remarks: Products marked with ▲ in the MSRP column are subject to availability.

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

MC-PO Spiral Pointed Taps with Internal Coolant

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M16 × 1.5	P3	MPHR0160L20	5P	200	32	-	60	12.5	10	13	3	2	¥ 18,000 ※▲
M18 × 2.5	P4	MPHS018RL15	5P	150	37	-	70	14	11	14	3	2	¥ 16,800 ※▲
M18 × 2.5	P4	MPHS018RL20	5P	200	37	-	70	14	11	14	3	2	¥ 21,900 ※▲
M18 × 1.5	P4	MPHS0180L15	5P	150	29	-	70	14	11	14	3	2	¥ 16,800 ※▲
M18 × 1.5	P4	MPHS0180L20	5P	200	29	-	70	14	11	14	3	2	¥ 21,900 ※▲
M20 × 2.5	P4	MPHS020RL15	5P	150	37	-	70	15	12	15	3	2	¥ 21,400 ※▲
M20 × 2.5	P4	MPHS020RL20	5P	200	37	-	70	15	12	15	3	2	¥ 28,100 ※▲
M20 × 1.5	P4	MPHS0200L15	5P	150	29	-	70	15	12	15	3	2	¥ 21,400 ※▲
M20 × 1.5	P4	MPHS0200L20	5P	200	29	-	70	15	12	15	3	2	¥ 28,100 ※▲
M22 × 2.5	P4	MPHS022RL15	5P	150	38	-	70	17	13	16	3	2	¥ 24,000 ※▲
M22 × 2.5	P4	MPHS022RL20	5P	200	38	-	70	17	13	16	3	2	¥ 31,200 ※▲
M22 × 1.5	P4	MPHS0220L15	5P	150	33	-	70	17	13	16	3	2	¥ 24,000 ※▲
M22 × 1.5	P4	MPHS0220L20	5P	200	33	-	70	17	13	16	3	2	¥ 31,200 ※▲
M24 × 3	P4	MPHS024SL15	5P	150	45	-	80	19	15	18	3	2	¥ 28,100 ※▲
M24 × 3	P4	MPHS024SL20	5P	200	45	-	80	19	15	18	3	2	¥ 35,100 ※▲
M24 × 1.5	P4	MPHS0240L15	5P	150	35	-	80	19	15	18	3	2	¥ 28,100 ※▲
M24 × 1.5	P4	MPHS0240L20	5P	200	35	-	80	19	15	18	3	2	¥ 35,100 ※▲
M27 × 3	P4	MPHS027SL20	5P	200	45	-	80	20	15	18	4	2	¥ 39,600 ※▲
M27 × 3	P4	MPHS027SL25	5P	250	45	-	80	20	15	18	4	2	¥ 53,300 ※▲
M27 × 1.5	P4	MPHS0270L20	5P	200	37	-	80	20	15	18	4	2	¥ 39,600 ※▲
M27 × 1.5	P4	MPHS0270L25	5P	250	37	-	80	20	15	18	4	2	¥ 53,300 ※▲
M30 × 3.5	P5	MPHT030TL20	5P	200	48	-	80	23	17	20	4	2	¥ 50,900 ※▲
M30 × 3.5	P5	MPHT030TL25	5P	250	48	-	80	23	17	20	4	2	¥ 67,300 ※▲
M30 × 1.5	P4	MPHS0300L20	5P	200	37	-	80	23	17	20	4	2	¥ 50,900 ※▲
M30 × 1.5	P4	MPHS0300L25	5P	250	37	-	80	23	17	20	4	2	¥ 67,300 ※▲

Remarks: Products marked with ▲ in the MSRP column are subject to availability.

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

JIS • ANSI • DIN

LINE UP

④ HAND TAP SERIES

	JIS	ANSI	DIN
HT	④-3	④-29	④-38
IHT	④-51	④-53	
HT OX		④-55	
HT LH	④-65		
LS-HT	④-73		
LS-HT LH	④-84		
LS-HT V	④-86		
SU-HT	④-89		
FC-HT	④-93		
HT-CI		④-96	
GG-HT			④-98
GG-HT (Coating)			④-100
GGST			④-102
GGST CH			④-104
GG-HT-OH			④-106
GG-HT-OH (Coating)			④-107
LA-HT	④-109		④-112
AXE-HT	④-113	④-115	④-116
MG-HT	④-117		
PL1	④-119		
PL2	④-121		
EH-HT	④-123	④-126	④-128
ZELX MOLD		④-127	
RE-HT	④-131		
MS+TR	④-136		
MC-HT	④-137		



・For improvement, spec may change without advance notice.

Selection chart of taps

Tapping conditions	Hand tapping/Machining, in low-speed tapping area								Machining, in low-speed tapping area			
Product symbol	IHT		HT	LS-HT	HT LH	LS-HT LH	MS+TR		LS-HT V		MC-HT	FC-HT	
Tap material / Surface treatment	HSS	OX	HSS	HSS	HSS	HSS	HSS		HSS	Coating	HSS	HSS	NI
Name	I series		For general use	Long, for general use	For general use For left-hand threads	Long, for general use For left-hand threads	For miniature threads		Long, coated		With oil hole	For cast iron	
													
Bored Hole Shape													
For Metric Threads	④-52		④-5	④-73	④-66	④-84			④-86		④-137	④-94	
For Unified Threads			④-21	④-81	④-71								
For Whitworth Threads			④-25	④-82	④-72								
For Screw Threads used on Sewing Machines			④-27										
Pipe Threads													
American Pipe Threads													
For Miniature Threads							④-136						
For Trapezoidal Threads													

～S25C	Low carbon steels	◆	◎	◆	○	◆	○	◆	○	◆	○	◆	○			◆	○		
S25C～S45C	Medium carbon steels	◆	○	◆	◎	◆	◎	◆	◎	◆	◎			◆◆	○	◆	◎		
S45C～	High carbon steels			◆	○	◆	○	◆	○	◆	○			◆◆	◎	◆	○		
SCM	Alloy steels													◆◆	○				
25～35HRC	Heat treated steel																		
35～45HRC	Heat treated steel																		
45～55HRC	Heat treated steel																		
55～63HRC	Heat treated steel																		
SUS	Stainless steels (SUS)																		
SKD	Tool steels																		
SC	Cast steels																		
FC	Cast irons																	◆	◎
FCD	Ductile cast irons																	◆	○
Cu	Copper																		
Bs	Brass											◆	◎						
BsC	Brass castings																		
PB	Bronze																		
AL	Wrought aluminum																		
AC, ADC	Wrought aluminum																		
Mg	Magnesium alloy die castings																		
ZDC	Zinc alloy die castings																		
	Titanium alloys																		
	Nickel base alloys																		
	Thermosetting plastic																		
	Thermoplastic resin																		

Think threads with YAMAWA

Recommended tap ◎: Most suitable tap ○: Suitable tap

Recommended tapping fluid ◆: Insoluble ◆: Water-soluble

Machining, in low/middle speed tapping area																
	LA-HT		AXE-HT		MG-HT	PL1		PL2		RE-HT		SU-HT		EH-HT	
	HSS	NI	HSS-P	Coating	HSS	HSS	NI	HSS	NI	HSS	OX	HSS	OX	HSS-Co	
	For die casting		AXE tap		For magnesium alloys	For plastics		For thermoplastic resins		For cleaning threads		For stainless steel		For hard-to-machine materials	
															
	④-110		④-114		④-118	④-120		④-122		④-132		④-90		④-124	
												④-91			
												④-92			
										◆	○	◆	◎		
										◆	○	◆	○		
										◆	○				
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	◆	◎	◆	◎	◆	◎									
							◆	◎	◆	○					
									◆	◎					

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

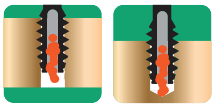
HT

Hand Taps



Specification

HSS



Recommended Tapping Speeds depending on Materials

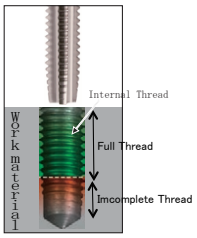
Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

Product Features

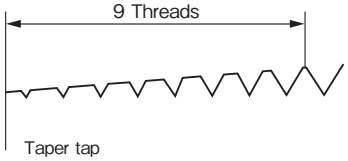
- Suitable for workpiece materials where the chips are powdery or where the chips are produced as a small curl.
- The cutting edge strength is high.
- It is easy to resharpen.

Working part of the cutting chamfer

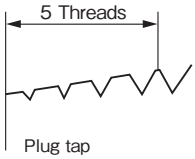
- The tap cuts an internal thread with the chamfer section.
- The chamfer section is tapered towards the tip to facilitate cutting into a prepared hole.
- Since the cutting chamfer portion of the tap has incomplete threads, the tapped internal threads also have imperfect threads as shown on the right.
  (Please be aware that the component will not have perfect threads unless all of the chamfer portion is passed through the designated thread length.)



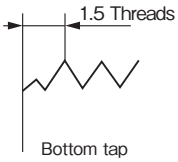
Difference in length of chamfer portion.



The cutting chamfer length of the taper tap is 9 threads long. The taper tap is used first because the long chamfer gradually cuts the full thread height easily with a small metal removal per thread pitch. However, in blind holes, the nine thread chamfer portion leaves a large number of incomplete threads that must be removed with a different tap. When tapping a through hole the full cutting chamfer length can be fed through the hole to complete all the threads.



The cutting chamfer length of a plug (middle) tap is 5 threads long. The plug (middle) tap is used after a taper tap to lengthen the number of full threads in a blind hole. The plug (middle) tap will produce 5 incomplete threads. When tapping a blind hole, the taps are used in the order of a taper tap → a plug (middle) tap and → a bottom tap. The plug tap is used after the taper tap and before the bottom tap. The plug tap can be used as a starter tap if necessary.



The cutting chamfer length of a bottom tap is 1.5 threads long. The bottom tap is used after the plug (middle) tap to lengthen the number of full threads in a blind hole. The bottom tap is difficult to use manually to start the thread cutting process. The bottom tap can create full threads to within 1.5 threads of the bottom of a blind hole.

In the past, it was common for hand taps to be used manually in sets of three chamfer lengths (taper, plug (middle) and bottom) for the same diameter and pitch thread. Today, most methods of thread processing on tapping machines, drilling machines, CNC machines and special machines allow for the use of just one type of tap chamfer length to be used that best suits the components requirements. This saves time while producing quality threads with just one tap. Therefore, due to the decrease in demands for the taper tap, YAMAWA stopped production of taper taps in March 2013.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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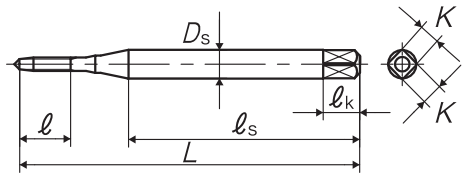

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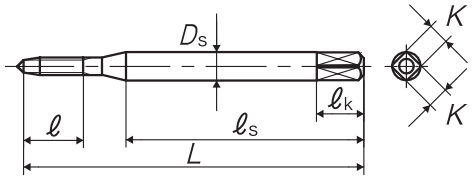

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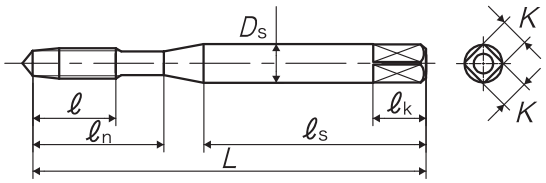

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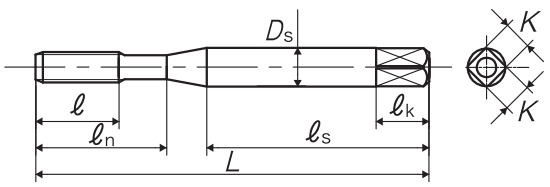

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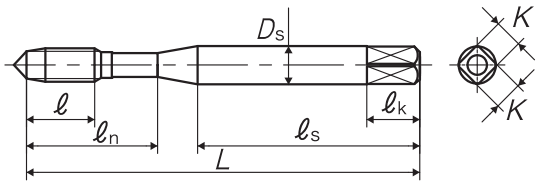

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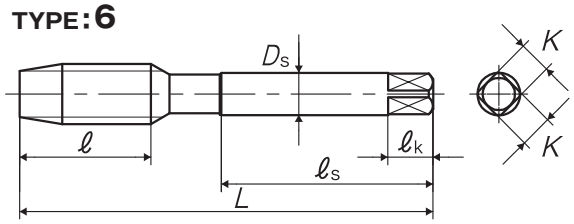
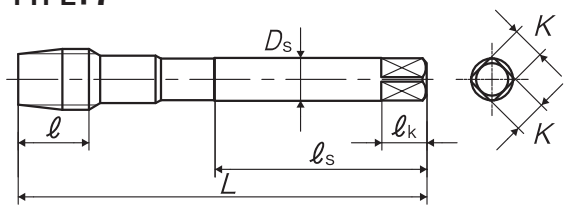
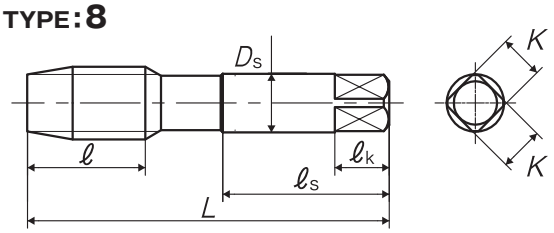


TYPE: 7



TYPE: 8



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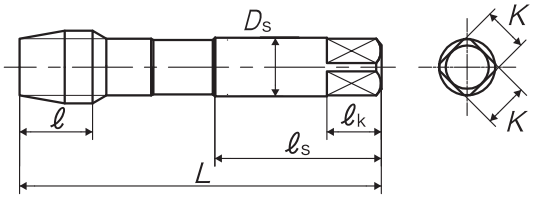
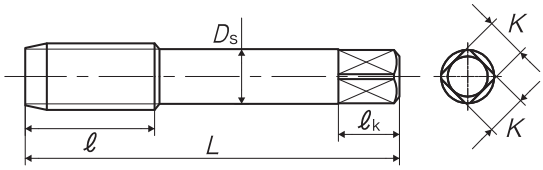


TYPE: 10



Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Oversize

Segment : 1A

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M1 × 0.25	P1	TNMP1.0B5	5P	36	4.5	-	24	3	2.5	5	3	1	¥ 3,420
M1 × 0.25	P1	TNMP1.0B1	1.5P	36	4.5	-	24	3	2.5	5	3	1	¥ 3,420
M1 × 0.2	P1	TNMP1.0A5	5P	36	3.6	-	24	3	2.5	5	3	1	¥ 4,760 ※
M1 × 0.2	P1	TNMP1.0A1	1.5P	36	3.6	-	24	3	2.5	5	3	1	¥ 4,760 ※
M1.1 × 0.25	P1	TNMP1.1B5	5P	36	4.5	-	24	3	2.5	5	3	1	¥ 3,420
M1.1 × 0.25	P1	TNMP1.1B1	1.5P	36	4.5	-	24	3	2.5	5	3	1	¥ 3,420
M1.1 × 0.2	P1	TNMP1.1A5	5P	36	3.6	-	24	3	2.5	5	3	1	¥ 4,760 ※
M1.1 × 0.2	P1	TNMP1.1A1	1.5P	36	3.6	-	24	3	2.5	5	3	1	¥ 4,760 ※
M1.2 × 0.25	P1	TNMP1.2B5	5P	36	4.5	-	24	3	2.5	5	3	1	¥ 3,420
M1.2 × 0.25	P1	TNMP1.2B1	1.5P	36	4.5	-	24	3	2.5	5	3	1	¥ 3,420
M1.2 × 0.25	P3	TNMR1.2B5	5P	36	4.5	-	24	3	2.5	5	3	1	¥ 3,420 ※
M1.2 × 0.25	P3	TNMR1.2B1	1.5P	36	4.5	-	24	3	2.5	5	3	1	¥ 3,420 ※
M1.2 × 0.2	P1	TNMP1.2A5	5P	36	3.6	-	24	3	2.5	5	3	1	¥ 4,760 ※
M1.2 × 0.2	P1	TNMP1.2A1	1.5P	36	3.6	-	24	3	2.5	5	3	1	¥ 4,760 ※
M1.4 × 0.3	P1	TNMP1.4C5	5P	36	5.4	-	24	3	2.5	5	3	1	¥ 2,800
M1.4 × 0.3	P1	TNMP1.4C1	1.5P	36	5.4	-	24	3	2.5	5	3	1	¥ 2,800
M1.4 × 0.3	P3	TNMR1.4C5	5P	36	5.4	-	24	3	2.5	5	3	1	¥ 2,800 ※
M1.4 × 0.3	P3	TNMR1.4C1	1.5P	36	5.4	-	24	3	2.5	5	3	1	¥ 2,800 ※
M1.4 × 0.2	P1	TNMP1.4A5	5P	36	3.6	-	24	3	2.5	5	3	1	¥ 4,200 ※
M1.4 × 0.2	P1	TNMP1.4A1	1.5P	36	3.6	-	24	3	2.5	5	3	1	¥ 4,200 ※
M1.6 × 0.35	P2	TNMQ1.6D5	5P	36	6.3	-	24	3	2.5	5	3	2	¥ 2,670
M1.6 × 0.35	P2	TNMQ1.6D1	1.5P	36	6.3	-	24	3	2.5	5	3	2	¥ 2,670
M1.6 × 0.2	P1	TNMP1.6A5	5P	36	3.6	-	24	3	2.5	5	3	2	¥ 3,900 ※
M1.6 × 0.2	P1	TNMP1.6A1	1.5P	36	3.6	-	24	3	2.5	5	3	2	¥ 3,900 ※
M1.7 × 0.35	P1	TNMP1.7D5	5P	36	6.3	-	24	3	2.5	5	3	2	¥ 2,670
M1.7 × 0.35	P1	TNMP1.7D1	1.5P	36	6.3	-	24	3	2.5	5	3	2	¥ 2,670
M1.7 × 0.35	P3	TNMR1.7D5	5P	36	6.3	-	24	3	2.5	5	3	2	¥ 2,670 ※
M1.7 × 0.35	P3	TNMR1.7D1	1.5P	36	6.3	-	24	3	2.5	5	3	2	¥ 2,670 ※
M1.7 × 0.2	P1	TNMP1.7A5	5P	36	3.6	-	24	3	2.5	5	3	2	¥ 3,900 ※
M1.7 × 0.2	P1	TNMP1.7A1	1.5P	36	3.6	-	24	3	2.5	5	3	2	¥ 3,900 ※
M1.8 × 0.35	P2	TNMQ1.8D5	5P	42	6.3	-	27	3	2.5	5	3	2	¥ 2,670 ※
M1.8 × 0.35	P2	TNMQ1.8D1	1.5P	42	6.3	-	27	3	2.5	5	3	2	¥ 2,670 ※
M1.8 × 0.2	P1	TNMP1.8A5	5P	42	3.6	-	27	3	2.5	5	3	2	¥ 3,900 ※
M1.8 × 0.2	P1	TNMP1.8A1	1.5P	42	3.6	-	27	3	2.5	5	3	2	¥ 3,900 ※
M2 × 0.4	P1	TNMP2.0E5	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,140
M2 × 0.4	P1	TNMP2.0E1	1.5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,140
M2 × 0.4	P3	TNMR2.0E5	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,140
M2 × 0.4	P3	TNMR2.0E1	1.5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,140
M2 × 0.4	P4	TNMS2.0E5	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,140 ※
M2 × 0.4	P4	TNMS2.0E1	1.5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,140 ※
M2 × 0.25	P1	TNMP2.0B5	5P	42	4.5	12	27	3	2.5	5	3	5	¥ 3,280
M2 × 0.25	P1	TNMP2.0B1	1.5P	42	4.5	12	27	3	2.5	5	3	5	¥ 3,280
M2.2 × 0.45	P2	TNMQ2.2F5	5P	42	8.1	12	27	3	2.5	5	3	3	¥ 1,940
M2.2 × 0.45	P2	TNMQ2.2F1	1.5P	42	8.1	12	27	3	2.5	5	3	3	¥ 1,940
M2.2 × 0.25	P1	TNMP2.2B5	5P	42	4.5	12	27	3	2.5	5	3	5	¥ 3,280 ※
M2.2 × 0.25	P1	TNMP2.2B1	1.5P	42	4.5	12	27	3	2.5	5	3	5	¥ 3,280 ※
M2.3 × 0.4	P1	TNMP2.3E5	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 1,940
M2.3 × 0.4	P1	TNMP2.3E1	1.5P	42	7.2	12	27	3	2.5	5	3	3	¥ 1,940

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M2.3 × 0.4	P3	TNMR2.3E5	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 1,940 ※
M2.3 × 0.4	P3	TNMR2.3E1	1.5P	42	7.2	12	27	3	2.5	5	3	3	¥ 1,940 ※
M2.3 × 0.4	P4	TNMS2.3E5	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 1,940 ※
M2.3 × 0.4	P4	TNMS2.3E1	1.5P	42	7.2	12	27	3	2.5	5	3	3	¥ 1,940 ※
M2.3 × 0.25	P1	TNMP2.3B5	5P	42	4.5	12	27	3	2.5	5	3	5	¥ 3,280 ※
M2.3 × 0.25	P1	TNMP2.3B1	1.5P	42	4.5	12	27	3	2.5	5	3	5	¥ 3,280 ※
M2.5 × 0.45	P2	TNMQ2.5F5	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,640
M2.5 × 0.45	P2	TNMQ2.5F1	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,640
M2.5 × 0.45	P3	TNMR2.5F5	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,640
M2.5 × 0.45	P3	TNMR2.5F1	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,640
M2.5 × 0.45	P4	TNMS2.5F5	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,640 ※
M2.5 × 0.45	P4	TNMS2.5F1	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,640 ※
M2.5 × 0.35	P2	TNMQ2.5D5	5P	46	6.3	14	29	3	2.5	5	3	5	¥ 2,410 ※
M2.5 × 0.35	P2	TNMQ2.5D1	1.5P	46	6.3	14	29	3	2.5	5	3	5	¥ 2,410 ※
M2.6 × 0.45	P1	TNMP2.6F5	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,640
M2.6 × 0.45	P1	TNMP2.6F1	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,640
M2.6 × 0.45	P3	TNMR2.6F5	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,640
M2.6 × 0.45	P3	TNMR2.6F1	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,640
M2.6 × 0.45	P4	TNMS2.6F5	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,640 ※
M2.6 × 0.45	P4	TNMS2.6F1	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,640 ※
M2.6 × 0.35	P2	TNMQ2.6D5	5P	46	6.3	14	29	3	2.5	5	3	5	¥ 2,410 ※
M2.6 × 0.35	P2	TNMQ2.6D1	1.5P	46	6.3	14	29	3	2.5	5	3	5	¥ 2,410 ※
M3 × 0.5	P2	TNMQ3.0G5	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,150
M3 × 0.5	P2	TNMQ3.0G1	1.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,150
M3 × 0.5	P3	TNMR3.0G5	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,150
M3 × 0.5	P3	TNMR3.0G1	1.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,150
M3 × 0.5	P4	TNMS3.0G5	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,150 ※
M3 × 0.5	P4	TNMS3.0G1	1.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,150 ※
M3 × 0.5	P5	TNMT3.0G5	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,150 ※
M3 × 0.5	P5	TNMT3.0G1	1.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,150 ※
3M0.6	P2	TNMQ3.0H5	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,150
3M0.6	P2	TNMQ3.0H1	1.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,150
M3 × 0.35	P2	TNMQ3.0D5	5P	46	6.5	14	26	4	3.2	6	3	5	¥ 1,950
M3 × 0.35	P2	TNMQ3.0D1	1.5P	46	6.5	14	26	4	3.2	6	3	5	¥ 1,950
M3.5 × 0.6	P2	TNMQ3.5H5	5P	52	11	16	29	5	4	7	3	3	¥ 1,150
M3.5 × 0.6	P2	TNMQ3.5H1	1.5P	52	11	16	29	5	4	7	3	3	¥ 1,150
M3.5 × 0.6	P3	TNMR3.5H5	5P	52	11	16	29	5	4	7	3	3	¥ 1,150 ※
M3.5 × 0.6	P3	TNMR3.5H1	1.5P	52	11	16	29	5	4	7	3	3	¥ 1,150 ※
M3.5 × 0.6	P4	TNMS3.5H5	5P	52	11	16	29	5	4	7	3	3	¥ 1,150 ※
M3.5 × 0.6	P4	TNMS3.5H1	1.5P	52	11	16	29	5	4	7	3	3	¥ 1,150 ※
M3.5 × 0.35	P2	TNMQ3.5D5	5P	52	6.5	16	29	5	4	7	3	5	¥ 1,950
M3.5 × 0.35	P2	TNMQ3.5D1	1.5P	52	6.5	16	29	5	4	7	3	5	¥ 1,950
M4 × 0.7	P2	TNMQ4.0I5	5P	52	11	17	29	5	4	7	3	3	¥ 1,150
M4 × 0.7	P2	TNMQ4.0I1	1.5P	52	11	17	29	5	4	7	3	3	¥ 1,150
M4 × 0.7	P3	TNMR4.0I53	5P	52	11	17	29	5	4	7	3	3	¥ 1,150
M4 × 0.7	P3	TNMR4.0I13	1.5P	52	11	17	29	5	4	7	3	3	¥ 1,150
M4 × 0.7	P4	TNMS4.0I53	5P	52	11	17	29	5	4	7	3	3	¥ 1,150 ※
M4 × 0.7	P4	TNMS4.0I13	1.5P	52	11	17	29	5	4	7	3	3	¥ 1,150 ※
M4 × 0.7	P5	TNMT4.0I53	5P	52	11	17	29	5	4	7	3	3	¥ 1,150 ※
M4 × 0.7	P5	TNMT4.0I13	1.5P	52	11	17	29	5	4	7	3	3	¥ 1,150 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
4M0.75	P2	TNMQ4.0J53	5P	52	11	17	29	5	4	7	3	3	¥ 1,150
4M0.75	P2	TNMQ4.0J13	1.5P	52	11	17	29	5	4	7	3	3	¥ 1,150
M4 × 0.5	P2	TNMQ4.0G5	5P	52	9	17	29	5	4	7	4	5	¥ 1,680
M4 × 0.5	P2	TNMQ4.0G1	1.5P	52	9	17	29	5	4	7	4	5	¥ 1,680
M4.5 × 0.75	P2	TNMQ4.5J53	5P	60	13	21	33	5.5	4.5	7	3	3	¥ 1,160
M4.5 × 0.75	P2	TNMQ4.5J13	1.5P	60	13	21	33	5.5	4.5	7	3	3	¥ 1,160
M4.5 × 0.5	P2	TNMQ4.5G5	5P	60	9	21	33	5.5	4.5	7	4	5	¥ 1,680 ※
M4.5 × 0.5	P2	TNMQ4.5G1	1.5P	60	9	21	33	5.5	4.5	7	4	5	¥ 1,680 ※
M5 × 0.8	P3	TNMR5.0K5	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,160
M5 × 0.8	P3	TNMR5.0K1	1.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,160
M5 × 0.8	P3	TNMR5.0K1F	1.5P	60	13	22	33	5.5	4.5	7	3	4	¥ 1,160
M5 × 0.8	P4	TNMS5.0K53	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,160 ※
M5 × 0.8	P4	TNMS5.0K13	1.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,160 ※
M5 × 0.8	P4	TNMS5.0K13F	1.5P	60	13	22	33	5.5	4.5	7	3	4	¥ 1,160 ※
M5 × 0.8	P5	TNMT5.0K53	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,160 ※
M5 × 0.8	P5	TNMT5.0K13	1.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,160 ※
5M0.9	P2	TNMQ5.0L53	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,160
5M0.9	P2	TNMQ5.0L13	1.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,160
M5 × 0.75	P2	TNMQ5.0J5	5P	60	13	22	33	5.5	4.5	7	4	3	¥ 1,680 ※
M5 × 0.75	P2	TNMQ5.0J1	1.5P	60	13	22	33	5.5	4.5	7	4	3	¥ 1,680 ※
M5 × 0.5	P2	TNMQ5.0G5	5P	60	9	22	33	5.5	4.5	7	4	5	¥ 1,680
M5 × 0.5	P2	TNMQ5.0G1	1.5P	60	9	22	33	5.5	4.5	7	4	5	¥ 1,680
M5 × 0.5	P3	TNMR5.0G5	5P	60	9	22	33	5.5	4.5	7	4	5	¥ 1,680 ※
M5 × 0.5	P3	TNMR5.0G1	1.5P	60	9	22	33	5.5	4.5	7	4	5	¥ 1,680 ※
M5.5 × 0.9	P2	TNMQ5.5L5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,270 ※
M5.5 × 0.9	P2	TNMQ5.5L1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,270 ※
M5.5 × 0.75	P2	TNMQ5.5J5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,790 ※
M5.5 × 0.75	P2	TNMQ5.5J1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,790 ※
M5.5 × 0.5	P2	TNMQ5.5G5	5P	62	9	26	33	6	4.5	7	4	5	¥ 1,790 ※
M5.5 × 0.5	P2	TNMQ5.5G1	1.5P	62	9	26	33	6	4.5	7	4	5	¥ 1,790 ※
M6 × 1	P2	TNMQ6.0M5	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,270
M6 × 1	P2	TNMQ6.0M1	1.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,270
M6 × 1	P2	TNMQ6.0M1F	1.5P	62	15	26	33	6	4.5	7	3	4	¥ 1,270
M6 × 1	P3	TNMR6.0M53	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,270
M6 × 1	P3	TNMR6.0M13	1.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,270
M6 × 1	P3	TNMR6.0M13F	1.5P	62	15	26	33	6	4.5	7	3	4	¥ 1,270
M6 × 1	P4	TNMS6.0M53	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,270
M6 × 1	P4	TNMS6.0M13	1.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,270
M6 × 1	P4	TNMS6.0M13F	1.5P	62	15	26	33	6	4.5	7	3	4	¥ 1,270
M6 × 1	P5	TNMT6.0M53	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,270 ※
M6 × 1	P5	TNMT6.0M13	1.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,270 ※
M6 × 0.75	P2	TNMQ6.0J5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,790
M6 × 0.75	P2	TNMQ6.0J1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,790
M6 × 0.75	P3	TNMR6.0J5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,790 ※
M6 × 0.75	P3	TNMR6.0J1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,790 ※
M6 × 0.75	P4	TNMS6.0J5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,790 ※
M6 × 0.75	P4	TNMS6.0J1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,790 ※
M6 × 0.5	P2	TNMQ6.0G5	5P	62	9	26	33	6	4.5	7	4	5	¥ 1,790
M6 × 0.5	P2	TNMQ6.0G1	1.5P	62	9	26	33	6	4.5	7	4	5	¥ 1,790

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M6.5 × 0.5	P2	TNMQ6.5G5	5P	70	10	-	36	6.2	5	8	4	7	¥ 2,800 ※
M6.5 × 0.5	P2	TNMQ6.5G1	1.5P	70	10	-	36	6.2	5	8	4	7	¥ 2,800 ※
M7 × 1	P2	TNMQ7.0M5T	5P	70	19	-	36	6.2	5	8	3	6	¥ 1,520 ※
M7 × 1	P2	TNMQ7.0M1T	1.5P	70	19	-	36	6.2	5	8	3	6	¥ 1,520 ※
M7 × 1	P2	TNMQ7.0M5	5P	70	19	-	36	6.2	5	8	4	6	¥ 1,520
M7 × 1	P2	TNMQ7.0M1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 1,520
M7 × 1	P3	TNMR7.0M5	5P	70	19	-	36	6.2	5	8	4	6	¥ 1,520 ※
M7 × 1	P3	TNMR7.0M1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 1,520 ※
M7 × 1	P4	TNMS7.0M5	5P	70	19	-	36	6.2	5	8	4	6	¥ 1,520 ※
M7 × 1	P4	TNMS7.0M1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 1,520 ※
M7 × 0.75	P2	TNMQ7.0J5	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,250
M7 × 0.75	P2	TNMQ7.0J1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,250
M7 × 0.5	P2	TNMQ7.0G5	5P	70	10	-	36	6.2	5	8	4	7	¥ 2,800 ※
M7 × 0.5	P2	TNMQ7.0G1	1.5P	70	10	-	36	6.2	5	8	4	7	¥ 2,800 ※
M7.5 × 0.5	P2	TNMQ7.5G5	5P	70	10	-	36	6.2	5	8	4	7	¥ 2,800 ※
M7.5 × 0.5	P2	TNMQ7.5G1	1.5P	70	10	-	36	6.2	5	8	4	7	¥ 2,800 ※
M8 × 1.25	P3	TNMR8.0N5	5P	70	19	-	36	6.2	5	8	3	6	¥ 1,740
M8 × 1.25	P3	TNMR8.0N1	1.5P	70	19	-	36	6.2	5	8	3	6	¥ 1,740
M8 × 1.25	P3	TNMR8.0N5F	5P	70	19	-	36	6.2	5	8	4	6	¥ 1,740
M8 × 1.25	P3	TNMR8.0N1F	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 1,740
M8 × 1.25	P4	TNMS8.0N5F	5P	70	19	-	36	6.2	5	8	4	6	¥ 1,740
M8 × 1.25	P4	TNMS8.0N1F	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 1,740
M8 × 1.25	P5	TNMT8.0N5F	5P	70	19	-	36	6.2	5	8	4	6	¥ 1,740 ※
M8 × 1.25	P5	TNMT8.0N1F	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 1,740 ※
M8 × 1	P2	TNMQ8.0M5T	5P	70	19	-	36	6.2	5	8	3	6	¥ 1,980 ※
M8 × 1	P2	TNMQ8.0M1T	1.5P	70	19	-	36	6.2	5	8	3	6	¥ 1,980 ※
M8 × 1	P2	TNMQ8.0M5	5P	70	19	-	36	6.2	5	8	4	6	¥ 1,980
M8 × 1	P2	TNMQ8.0M1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 1,980
M8 × 1	P3	TNMR8.0M5	5P	70	19	-	36	6.2	5	8	4	6	¥ 1,980 ※
M8 × 1	P3	TNMR8.0M1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 1,980 ※
M8 × 1	P4	TNMS8.0M5	5P	70	19	-	36	6.2	5	8	4	6	¥ 1,980 ※
M8 × 1	P4	TNMS8.0M1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 1,980 ※
M8 × 0.75	P2	TNMQ8.0J5	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,250
M8 × 0.75	P2	TNMQ8.0J1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,250
M8 × 0.5	P2	TNMQ8.0G5	5P	70	10	-	36	6.2	5	8	4	7	¥ 2,800
M8 × 0.5	P2	TNMQ8.0G1	1.5P	70	10	-	36	6.2	5	8	4	7	¥ 2,800
M8.5 × 1	P2	TNMQ8.5M5	5P	75	23	-	38	7	5.5	8	4	6	¥ 3,210 ※
M8.5 × 1	P2	TNMQ8.5M1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 3,210 ※
M8.5 × 0.75	P2	TNMQ8.5J5	5P	75	13	-	38	7	5.5	8	4	7	¥ 3,210 ※
M8.5 × 0.75	P2	TNMQ8.5J1	1.5P	75	13	-	38	7	5.5	8	4	7	¥ 3,210 ※
M8.5 × 0.5	P2	TNMQ8.5G5	5P	75	11	-	38	7	5.5	8	4	7	¥ 3,490 ※
M8.5 × 0.5	P2	TNMQ8.5G1	1.5P	75	11	-	38	7	5.5	8	4	7	¥ 3,490 ※
M9 × 1.25	P3	TNMR9.0N5	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220 ※
M9 × 1.25	P3	TNMR9.0N1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220 ※
M9 × 1	P2	TNMQ9.0M5	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,640
M9 × 1	P2	TNMQ9.0M1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,640
M9 × 0.75	P2	TNMQ9.0J5	5P	75	13	-	38	7	5.5	8	4	7	¥ 3,210
M9 × 0.75	P2	TNMQ9.0J1	1.5P	75	13	-	38	7	5.5	8	4	7	¥ 3,210
M9 × 0.5	P2	TNMQ9.0G5	5P	75	11	-	38	7	5.5	8	4	7	¥ 3,490 ※
M9 × 0.5	P2	TNMQ9.0G1	1.5P	75	11	-	38	7	5.5	8	4	7	¥ 3,490 ※

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M9.5 × 1	P2	TNMQ9.5M5	5P	75	23	-	38	7	5.5	8	4	6	¥ 3,210 ※
M9.5 × 1	P2	TNMQ9.5M1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 3,210 ※
M9.5 × 0.75	P2	TNMQ9.5J5	5P	75	13	-	38	7	5.5	8	4	7	¥ 3,210 ※
M9.5 × 0.75	P2	TNMQ9.5J1	1.5P	75	13	-	38	7	5.5	8	4	7	¥ 3,210 ※
M9.5 × 0.5	P2	TNMQ9.5G5	5P	75	11	-	38	7	5.5	8	4	7	¥ 3,490 ※
M9.5 × 0.5	P2	TNMQ9.5G1	1.5P	75	11	-	38	7	5.5	8	4	7	¥ 3,490 ※
M10 × 1.5	P3	TNMR01005T	5P	75	23	-	38	7	5.5	8	3	6	¥ 2,220
M10 × 1.5	P3	TNMR01001T	1.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,220
M10 × 1.5	P3	TNMR01005	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220
M10 × 1.5	P3	TNMR01001	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220
M10 × 1.5	P4	TNMS01005	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220 ※
M10 × 1.5	P4	TNMS01001	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220 ※
M10 × 1.5	P5	TNMT01005	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220 ※
M10 × 1.5	P5	TNMT01001	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220 ※
M10 × 1.25	P3	TNMR010N5T	5P	75	23	-	38	7	5.5	8	3	6	¥ 2,220 ※
M10 × 1.25	P3	TNMR010N1T	1.5P	75	23	-	38	7	5.5	8	3	6	¥ 2,220 ※
M10 × 1.25	P3	TNMR010N5	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220
M10 × 1.25	P3	TNMR010N1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220
M10 × 1.25	P4	TNMS010N5	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220 ※
M10 × 1.25	P4	TNMS010N1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220 ※
M10 × 1.25	P5	TNMT010N5	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220 ※
M10 × 1.25	P5	TNMT010N1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,220 ※
M10 × 1	P3	TNMR010M5	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,640
M10 × 1	P3	TNMR010M1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,640
M10 × 1	P4	TNMS010M5	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,640 ※
M10 × 1	P4	TNMS010M1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,640 ※
M10 × 0.75	P3	TNMR010J5	5P	75	13	-	38	7	5.5	8	4	7	¥ 3,210
M10 × 0.75	P3	TNMR010J1	1.5P	75	13	-	38	7	5.5	8	4	7	¥ 3,210
M10 × 0.5	P2	TNMQ010G5	5P	75	11	-	38	7	5.5	8	4	7	¥ 3,490
M10 × 0.5	P2	TNMQ010G1	1.5P	75	11	-	38	7	5.5	8	4	7	¥ 3,490
M11 × 1.5	P4	TNMS01105	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M11 × 1.5	P4	TNMS01101	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M11 × 1.25	P3	TNMR011N5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M11 × 1.25	P3	TNMR011N1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M11 × 1	P3	TNMR011M5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,700
M11 × 1	P3	TNMR011M1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,700
M11 × 0.75	P3	TNMR011J5	5P	82	14	-	42	8.5	6.5	9	4	7	¥ 4,720 ※
M11 × 0.75	P3	TNMR011J1	1.5P	82	14	-	42	8.5	6.5	9	4	7	¥ 4,720 ※
M11 × 0.5	P2	TNMQ011G5	5P	82	12	-	42	8.5	6.5	9	4	7	¥ 4,720 ※
M11 × 0.5	P2	TNMQ011G1	1.5P	82	12	-	42	8.5	6.5	9	4	7	¥ 4,720 ※
M12 × 1.75	P3	TNMR012P5T	5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,150 ※
M12 × 1.75	P3	TNMR012P1T	1.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,150 ※
M12 × 1.75	P3	TNMR012P5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150
M12 × 1.75	P3	TNMR012P1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150
M12 × 1.75	P4	TNMS012P5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M12 × 1.75	P4	TNMS012P1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M12 × 1.75	P5	TNMT012P5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M12 × 1.75	P5	TNMT012P1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M12 × 1.5	P3	TNMR012O5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150
M12 × 1.5	P3	TNMR012O1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150
M12 × 1.5	P4	TNMS012O5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M12 × 1.5	P4	TNMS012O1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M12 × 1.5	P5	TNMT012O5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M12 × 1.5	P5	TNMT012O1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M12 × 1.25	P4	TNMS012N5T	5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,150 ※
M12 × 1.25	P4	TNMS012N1T	1.5P	82	26	-	42	8.5	6.5	9	3	6	¥ 3,150 ※
M12 × 1.25	P4	TNMS012N5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150
M12 × 1.25	P4	TNMS012N1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150
M12 × 1.25	P5	TNMT012N5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M12 × 1.25	P5	TNMT012N1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,150 ※
M12 × 1	P3	TNMR012M5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,700
M12 × 1	P3	TNMR012M1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,700
M12 × 1	P4	TNMS012M5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,700 ※
M12 × 1	P4	TNMS012M1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,700 ※
M12 × 0.75	P3	TNMR012J5	5P	82	14	-	42	8.5	6.5	9	4	7	¥ 4,720 ※
M12 × 0.75	P3	TNMR012J1	1.5P	82	14	-	42	8.5	6.5	9	4	7	¥ 4,720 ※
M12 × 0.5	P2	TNMQ012G5	5P	82	12	-	42	8.5	6.5	9	4	7	¥ 4,720
M12 × 0.5	P2	TNMQ012G1	1.5P	82	12	-	42	8.5	6.5	9	4	7	¥ 4,720
M13 × 1.75	P3	TNMR013P5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990 ※
M13 × 1.75	P3	TNMR013P1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990 ※
M13 × 1.5	P3	TNMR013O5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990 ※
M13 × 1.5	P3	TNMR013O1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990 ※
M13 × 1.25	P4	TNMS013N5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990 ※
M13 × 1.25	P4	TNMS013N1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990 ※
M13 × 1	P3	TNMR013M5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990
M13 × 1	P3	TNMR013M1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990
M13 × 0.75	P3	TNMR013J5	5P	88	14	-	45	10.5	8	11	4	7	¥ 6,370 ※
M13 × 0.75	P3	TNMR013J1	1.5P	88	14	-	45	10.5	8	11	4	7	¥ 6,370 ※
M13 × 0.5	P2	TNMQ013G5	5P	88	12	-	45	10.5	8	11	4	7	¥ 6,370 ※
M13 × 0.5	P2	TNMQ013G1	1.5P	88	12	-	45	10.5	8	11	4	7	¥ 6,370 ※
M14 × 2	P3	TNMR014Q5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,290
M14 × 2	P3	TNMR014Q1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,290
M14 × 2	P4	TNMS014Q5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,290 ※
M14 × 2	P4	TNMS014Q1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,290 ※
M14 × 2	P5	TNMT014Q5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,290 ※
M14 × 2	P5	TNMT014Q1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,290 ※
M14 × 1.75	P3	TNMR014P5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990 ※
M14 × 1.75	P3	TNMR014P1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990 ※
M14 × 1.5	P3	TNMR014O5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,290
M14 × 1.5	P3	TNMR014O1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,290
M14 × 1.5	P4	TNMS014O5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,290 ※
M14 × 1.5	P4	TNMS014O1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,290 ※
M14 × 1.5	P5	TNMT014O5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,290 ※
M14 × 1.5	P5	TNMT014O1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,290 ※
M14 × 1.25	P4	TNMS014N5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990
M14 × 1.25	P4	TNMS014N1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M14 × 1	P3	TNMR014M5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990
M14 × 1	P3	TNMR014M1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990
M14 × 1	P4	TNMS014M5	5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990 ※
M14 × 1	P4	TNMS014M1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 4,990 ※
M14 × 0.75	P3	TNMR014J5	5P	88	15	-	45	10.5	8	11	4	7	¥ 6,370 ※
M14 × 0.75	P3	TNMR014J1	1.5P	88	15	-	45	10.5	8	11	4	7	¥ 6,370 ※
M14 × 0.5	P2	TNMQ014G5	5P	88	12	-	45	10.5	8	11	4	7	¥ 6,370
M14 × 0.5	P2	TNMQ014G1	1.5P	88	12	-	45	10.5	8	11	4	7	¥ 6,370
M15 × 2	P3	TNMR015Q5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
M15 × 2	P3	TNMR015Q1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
M15 × 1.5	P3	TNMR015O5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740
M15 × 1.5	P3	TNMR015O1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740
M15 × 1.25	P4	TNMS015N5	5P	95	26	-	48	12.5	10	13	4	6	¥ 6,840 ※
M15 × 1.25	P4	TNMS015N1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 6,840 ※
M15 × 1	P3	TNMR015M5	5P	95	26	-	48	12.5	10	13	4	6	¥ 6,840
M15 × 1	P3	TNMR015M1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 6,840
M15 × 0.75	P3	TNMR015J5	5P	95	15	-	48	12.5	10	13	4	7	¥ 9,000 ※
M15 × 0.75	P3	TNMR015J1	1.5P	95	15	-	48	12.5	10	13	4	7	¥ 9,000 ※
M15 × 0.5	P2	TNMQ015G5	5P	95	13	-	48	12.5	10	13	4	7	¥ 9,000 ※
M15 × 0.5	P2	TNMQ015G1	1.5P	95	13	-	48	12.5	10	13	4	7	¥ 9,000 ※
M16 × 2	P3	TNMR016Q5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740
M16 × 2	P3	TNMR016Q1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740
M16 × 2	P4	TNMS016Q5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
M16 × 2	P4	TNMS016Q1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
M16 × 2	P5	TNMT016Q5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
M16 × 2	P5	TNMT016Q1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
M16 × 1.5	P3	TNMR016O5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740
M16 × 1.5	P3	TNMR016O1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740
M16 × 1.5	P4	TNMS016O5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
M16 × 1.5	P4	TNMS016O1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
M16 × 1.5	P5	TNMT016O5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
M16 × 1.5	P5	TNMT016O1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
M16 × 1.25	P4	TNMS016N5	5P	95	26	-	48	12.5	10	13	4	6	¥ 6,840 ※
M16 × 1.25	P4	TNMS016N1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 6,840 ※
M16 × 1	P3	TNMR016M5	5P	95	26	-	48	12.5	10	13	4	6	¥ 6,840
M16 × 1	P3	TNMR016M1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 6,840
M16 × 1	P4	TNMS016M5	5P	95	26	-	48	12.5	10	13	4	6	¥ 6,840 ※
M16 × 1	P4	TNMS016M1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 6,840 ※
M16 × 0.75	P3	TNMR016J5	5P	95	15	-	48	12.5	10	13	4	7	¥ 9,000 ※
M16 × 0.75	P3	TNMR016J1	1.5P	95	15	-	48	12.5	10	13	4	7	¥ 9,000 ※
M16 × 0.5	P2	TNMQ016G5	5P	95	13	-	48	12.5	10	13	4	7	¥ 9,000 ※
M16 × 0.5	P2	TNMQ016G1	1.5P	95	13	-	48	12.5	10	13	4	7	¥ 9,000 ※
M17 × 2	P3	TNMR017Q5	5P	100	33	-	51	14	11	14	4	6	¥ 7,660 ※
M17 × 2	P3	TNMR017Q1	1.5P	100	33	-	51	14	11	14	4	6	¥ 7,660 ※
M17 × 1.5	P4	TNMS017O5	5P	100	33	-	51	14	11	14	4	6	¥ 7,660 ※
M17 × 1.5	P4	TNMS017O1	1.5P	100	33	-	51	14	11	14	4	6	¥ 7,660 ※
M17 × 1.25	P4	TNMS017N5	5P	100	33	-	51	14	11	14	4	6	¥ 9,790 ※
M17 × 1.25	P4	TNMS017N1	1.5P	100	33	-	51	14	11	14	4	6	¥ 9,790 ※
M17 × 1	P3	TNMR017M5	5P	100	18	-	51	14	11	14	4	7	¥ 9,790
M17 × 1	P3	TNMR017M1	1.5P	100	18	-	51	14	11	14	4	7	¥ 9,790

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M17 × 0.75	P3	TNMR017J5	5P	100	16	-	51	14	11	14	4	7	¥ 12,800 ※
M17 × 0.75	P3	TNMR017J1	1.5P	100	16	-	51	14	11	14	4	7	¥ 12,800 ※
M17 × 0.5	P2	TNMQ017G5	5P	100	13	-	51	14	11	14	4	7	¥ 12,800 ※
M17 × 0.5	P2	TNMQ017G1	1.5P	100	13	-	51	14	11	14	4	7	¥ 12,800 ※
M18 × 2.5	P4	TNMS018R5	5P	100	33	-	51	14	11	14	4	6	¥ 7,660
M18 × 2.5	P4	TNMS018R1	1.5P	100	33	-	51	14	11	14	4	6	¥ 7,660
M18 × 2.5	P5	TNMT018R5	5P	100	33	-	51	14	11	14	4	6	¥ 7,660 ※
M18 × 2.5	P5	TNMT018R1	1.5P	100	33	-	51	14	11	14	4	6	¥ 7,660 ※
M18 × 2	P4	TNMS018Q5	5P	100	33	-	51	14	11	14	4	6	¥ 7,660
M18 × 2	P4	TNMS018Q1	1.5P	100	33	-	51	14	11	14	4	6	¥ 7,660
M18 × 1.5	P3	TNMR018O5	5P	100	33	-	51	14	11	14	4	6	¥ 7,660
M18 × 1.5	P3	TNMR018O1	1.5P	100	33	-	51	14	11	14	4	6	¥ 7,660
M18 × 1.5	P4	TNMS018O5	5P	100	33	-	51	14	11	14	4	6	¥ 7,660 ※
M18 × 1.5	P4	TNMS018O1	1.5P	100	33	-	51	14	11	14	4	6	¥ 7,660 ※
M18 × 1.5	P5	TNMT018O5	5P	100	33	-	51	14	11	14	4	6	¥ 7,660 ※
M18 × 1.5	P5	TNMT018O1	1.5P	100	33	-	51	14	11	14	4	6	¥ 7,660 ※
M18 × 1.25	P4	TNMS018N5	5P	100	33	-	51	14	11	14	4	6	¥ 9,790 ※
M18 × 1.25	P4	TNMS018N1	1.5P	100	33	-	51	14	11	14	4	6	¥ 9,790 ※
M18 × 1	P3	TNMR018M5	5P	100	18	-	51	14	11	14	4	7	¥ 9,790
M18 × 1	P3	TNMR018M1	1.5P	100	18	-	51	14	11	14	4	7	¥ 9,790
M18 × 0.75	P3	TNMR018J5	5P	100	16	-	51	14	11	14	4	7	¥ 12,800 ※
M18 × 0.75	P3	TNMR018J1	1.5P	100	16	-	51	14	11	14	4	7	¥ 12,800 ※
M18 × 0.5	P2	TNMQ018G5	5P	100	13	-	51	14	11	14	4	7	¥ 12,800 ※
M18 × 0.5	P2	TNMQ018G1	1.5P	100	13	-	51	14	11	14	4	7	¥ 12,800 ※
M19 × 2.5	P4	TNMS019R5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
M19 × 2.5	P4	TNMS019R1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
M19 × 2	P4	TNMS019Q5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
M19 × 2	P4	TNMS019Q1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
M19 × 1.5	P3	TNMR019O5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
M19 × 1.5	P3	TNMR019O1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
M19 × 1	P3	TNMR019M5	5P	105	18	-	50	15	12	15	4	9	¥ 13,200 ※
M19 × 1	P3	TNMR019M1	1.5P	105	18	-	50	15	12	15	4	9	¥ 13,200 ※
M19 × 0.75	P3	TNMR019J5	5P	105	14	-	50	15	12	15	4	9	¥ 16,900 ※
M19 × 0.75	P3	TNMR019J1	1.5P	105	14	-	50	15	12	15	4	9	¥ 16,900 ※
M19 × 0.5	P2	TNMQ019G5	5P	105	14	-	50	15	12	15	4	9	¥ 16,900 ※
M19 × 0.5	P2	TNMQ019G1	1.5P	105	14	-	50	15	12	15	4	9	¥ 16,900 ※
M20 × 2.5	P4	TNMS020R5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400
M20 × 2.5	P4	TNMS020R1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400
M20 × 2.5	P5	TNMT020R5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
M20 × 2.5	P5	TNMT020R1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
M20 × 2	P4	TNMS020Q5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400
M20 × 2	P4	TNMS020Q1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400
M20 × 1.5	P3	TNMR020O5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400
M20 × 1.5	P3	TNMR020O1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400
M20 × 1.5	P4	TNMS020O5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
M20 × 1.5	P4	TNMS020O1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
M20 × 1.5	P5	TNMT020O5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
M20 × 1.5	P5	TNMT020O1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
M20 × 1.25	P4	TNMS020N5	5P	105	18	-	50	15	12	15	4	9	¥ 13,200 ※
M20 × 1.25	P4	TNMS020N1	1.5P	105	18	-	50	15	12	15	4	9	¥ 13,200 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M20 × 1	P3	TNMR020M5	5P	105	18	-	50	15	12	15	4	9	¥ 13,200
M20 × 1	P3	TNMR020M1	1.5P	105	18	-	50	15	12	15	4	9	¥ 13,200
M20 × 0.75	P3	TNMR020J5	5P	105	14	-	50	15	12	15	4	9	¥ 16,900 ※
M20 × 0.75	P3	TNMR020J1	1.5P	105	14	-	50	15	12	15	4	9	¥ 16,900 ※
M20 × 0.5	P2	TNMQ020G5	5P	105	14	-	50	15	12	15	4	9	¥ 16,900 ※
M20 × 0.5	P2	TNMQ020G1	1.5P	105	14	-	50	15	12	15	4	9	¥ 16,900 ※
M21 × 2	P4	TNMS021Q5	5P	115	33	-	55	17	13	16	4	8	¥ 13,400 ※
M21 × 2	P4	TNMS021Q1	1.5P	115	33	-	55	17	13	16	4	8	¥ 13,400 ※
M21 × 1.5	P3	TNMR021O5	5P	115	33	-	55	17	13	16	4	8	¥ 13,400 ※
M21 × 1.5	P3	TNMR021O1	1.5P	115	33	-	55	17	13	16	4	8	¥ 13,400 ※
M21 × 1	P3	TNMR021M5	5P	115	19	-	55	17	13	16	4	9	¥ 17,300 ※
M21 × 1	P3	TNMR021M1	1.5P	115	19	-	55	17	13	16	4	9	¥ 17,300 ※
M22 × 2.5	P4	TNMS022R5	5P	115	33	-	55	17	13	16	4	8	¥ 13,400
M22 × 2.5	P4	TNMS022R1	1.5P	115	33	-	55	17	13	16	4	8	¥ 13,400
M22 × 2.5	P5	TNMT022R5	5P	115	33	-	55	17	13	16	4	8	¥ 13,400 ※
M22 × 2.5	P5	TNMT022R1	1.5P	115	33	-	55	17	13	16	4	8	¥ 13,400 ※
M22 × 2	P4	TNMS022Q5	5P	115	33	-	55	17	13	16	4	8	¥ 13,400
M22 × 2	P4	TNMS022Q1	1.5P	115	33	-	55	17	13	16	4	8	¥ 13,400
M22 × 1.5	P3	TNMR022O5	5P	115	33	-	55	17	13	16	4	8	¥ 13,400
M22 × 1.5	P3	TNMR022O1	1.5P	115	33	-	55	17	13	16	4	8	¥ 13,400
M22 × 1.5	P4	TNMS022O5	5P	115	33	-	55	17	13	16	4	8	¥ 13,400 ※
M22 × 1.5	P4	TNMS022O1	1.5P	115	33	-	55	17	13	16	4	8	¥ 13,400 ※
M22 × 1.5	P5	TNMT022O5	5P	115	33	-	55	17	13	16	4	8	¥ 13,400 ※
M22 × 1.5	P5	TNMT022O1	1.5P	115	33	-	55	17	13	16	4	8	¥ 13,400 ※
M22 × 1.25	P4	TNMS022N5	5P	115	19	-	55	17	13	16	4	9	¥ 17,300 ※
M22 × 1.25	P4	TNMS022N1	1.5P	115	19	-	55	17	13	16	4	9	¥ 17,300 ※
M22 × 1	P3	TNMR022M5	5P	115	19	-	55	17	13	16	4	9	¥ 17,300
M22 × 1	P3	TNMR022M1	1.5P	115	19	-	55	17	13	16	4	9	¥ 17,300
M22 × 0.75	P3	TNMR022J5	5P	115	14	-	55	17	13	16	4	9	¥ 20,600 ※
M22 × 0.75	P3	TNMR022J1	1.5P	115	14	-	55	17	13	16	4	9	¥ 20,600 ※
M22 × 0.5	P2	TNMQ022G5	5P	115	14	-	55	17	13	16	4	9	¥ 20,600 ※
M22 × 0.5	P2	TNMQ022G1	1.5P	115	14	-	55	17	13	16	4	9	¥ 20,600 ※
M23 × 2	P4	TNMS023Q5	5P	120	39	-	55	19	15	18	4	8	¥ 16,700 ※
M23 × 2	P4	TNMS023Q1	1.5P	120	39	-	55	19	15	18	4	8	¥ 16,700 ※
M23 × 1.5	P3	TNMR023O5	5P	120	39	-	55	19	15	18	4	8	¥ 16,700 ※
M23 × 1.5	P3	TNMR023O1	1.5P	120	39	-	55	19	15	18	4	8	¥ 16,700 ※
M23 × 1	P3	TNMR023M5	5P	120	19	-	55	19	15	18	4	9	¥ 21,300 ※
M23 × 1	P3	TNMR023M1	1.5P	120	19	-	55	19	15	18	4	9	¥ 21,300 ※
M24 × 3	P4	TNMS024S5	5P	120	39	-	55	19	15	18	4	8	¥ 16,700
M24 × 3	P4	TNMS024S1	1.5P	120	39	-	55	19	15	18	4	8	¥ 16,700
M24 × 3	P5	TNMT024S5	5P	120	39	-	55	19	15	18	4	8	¥ 16,700 ※
M24 × 3	P5	TNMT024S1	1.5P	120	39	-	55	19	15	18	4	8	¥ 16,700 ※
M24 × 2	P4	TNMS024Q5	5P	120	39	-	55	19	15	18	4	8	¥ 16,700
M24 × 2	P4	TNMS024Q1	1.5P	120	39	-	55	19	15	18	4	8	¥ 16,700
M24 × 1.5	P3	TNMR024O5	5P	120	39	-	55	19	15	18	4	8	¥ 16,700
M24 × 1.5	P3	TNMR024O1	1.5P	120	39	-	55	19	15	18	4	8	¥ 16,700
M24 × 1.5	P4	TNMS024O5	5P	120	39	-	55	19	15	18	4	8	¥ 16,700 ※
M24 × 1.5	P4	TNMS024O1	1.5P	120	39	-	55	19	15	18	4	8	¥ 16,700 ※
M24 × 1.5	P5	TNMT024O5	5P	120	39	-	55	19	15	18	4	8	¥ 16,700 ※
M24 × 1.5	P5	TNMT024O1	1.5P	120	39	-	55	19	15	18	4	8	¥ 16,700 ※

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M24 × 1.25	P4	TNMS024N5	5P	120	19	-	55	19	15	18	4	9	¥ 21,300 ※
M24 × 1.25	P4	TNMS024N1	1.5P	120	19	-	55	19	15	18	4	9	¥ 21,300 ※
M24 × 1	P3	TNMR024M5	5P	120	19	-	55	19	15	18	4	9	¥ 21,300
M24 × 1	P3	TNMR024M1	1.5P	120	19	-	55	19	15	18	4	9	¥ 21,300
M24 × 0.75	P3	TNMR024J5	5P	120	15	-	55	19	15	18	4	9	¥ 26,000 ※
M24 × 0.75	P3	TNMR024J1	1.5P	120	15	-	55	19	15	18	4	9	¥ 26,000 ※
M24 × 0.5	P2	TNMQ024G5	5P	120	15	-	55	19	15	18	4	9	¥ 26,000 ※
M24 × 0.5	P2	TNMQ024G1	1.5P	120	15	-	55	19	15	18	4	9	¥ 26,000 ※
M25 × 3	P4	TNMS025S5	5P	125	39	-	58	19	15	18	4	8	¥ 21,600 ※
M25 × 3	P4	TNMS025S1	1.5P	125	39	-	58	19	15	18	4	8	¥ 21,600 ※
M25 × 2	P4	TNMS025Q5	5P	125	39	-	58	19	15	18	4	8	¥ 21,600
M25 × 2	P4	TNMS025Q1	1.5P	125	39	-	58	19	15	18	4	8	¥ 21,600
M25 × 1.5	P3	TNMR025O5	5P	125	39	-	58	19	15	18	4	8	¥ 21,600
M25 × 1.5	P3	TNMR025O1	1.5P	125	39	-	58	19	15	18	4	8	¥ 21,600
M25 × 1	P3	TNMR025M5	5P	125	20	-	58	19	15	18	4	9	¥ 25,500
M25 × 1	P3	TNMR025M1	1.5P	125	20	-	58	19	15	18	4	9	¥ 25,500
M26 × 3	P4	TNMS026S5	5P	130	39	-	60	20	15	18	4	8	¥ 23,200 ※
M26 × 3	P4	TNMS026S1	1.5P	130	39	-	60	20	15	18	4	8	¥ 23,200 ※
M26 × 2	P4	TNMS026Q5	5P	130	39	-	60	20	15	18	4	8	¥ 23,200 ※
M26 × 2	P4	TNMS026Q1	1.5P	130	39	-	60	20	15	18	4	8	¥ 23,200 ※
M26 × 1.5	P3	TNMR026O5	5P	130	39	-	60	20	15	18	4	8	¥ 23,200
M26 × 1.5	P3	TNMR026O1	1.5P	130	39	-	60	20	15	18	4	8	¥ 23,200
M26 × 1	P3	TNMR026M5	5P	130	20	-	60	20	15	18	4	9	¥ 28,600 ※
M26 × 1	P3	TNMR026M1	1.5P	130	20	-	60	20	15	18	4	9	¥ 28,600 ※
M27 × 3	P4	TNMS027S5	5P	130	39	-	60	20	15	18	4	8	¥ 23,200
M27 × 3	P4	TNMS027S1	1.5P	130	39	-	60	20	15	18	4	8	¥ 23,200
M27 × 2	P5	TNMT027Q5	5P	130	39	-	60	20	15	18	4	8	¥ 23,200
M27 × 2	P5	TNMT027Q1	1.5P	130	39	-	60	20	15	18	4	8	¥ 23,200
M27 × 1.5	P3	TNMR027O5	5P	130	39	-	60	20	15	18	4	8	¥ 23,200
M27 × 1.5	P3	TNMR027O1	1.5P	130	39	-	60	20	15	18	4	8	¥ 23,200
M27 × 1	P3	TNMR027M5	5P	130	20	-	60	20	15	18	4	9	¥ 28,600
M27 × 1	P3	TNMR027M1	1.5P	130	20	-	60	20	15	18	4	9	¥ 28,600
M28 × 3	P4	TNMS028S5	5P	135	46	-	62	23	17	20	4	8	¥ 29,500 ※
M28 × 3	P4	TNMS028S1	1.5P	135	46	-	62	23	17	20	4	8	¥ 29,500 ※
M28 × 2	P4	TNMS028Q5	5P	135	46	-	62	23	17	20	4	8	¥ 29,500
M28 × 2	P4	TNMS028Q1	1.5P	135	46	-	62	23	17	20	4	8	¥ 29,500
M28 × 1.5	P3	TNMR028O5	5P	135	46	-	62	23	17	20	4	8	¥ 29,500
M28 × 1.5	P3	TNMR028O1	1.5P	135	46	-	62	23	17	20	4	8	¥ 29,500
M28 × 1	P3	TNMR028M5	5P	135	20	-	62	23	17	20	4	9	¥ 36,900
M28 × 1	P3	TNMR028M1	1.5P	135	20	-	62	23	17	20	4	9	¥ 36,900
M29 × 1.5	P3	TNMR029O5	5P	135	46	-	62	23	17	20	4	8	¥ 29,500 ※
M29 × 1.5	P3	TNMR029O1	1.5P	135	46	-	62	23	17	20	4	8	¥ 29,500 ※
M30 × 3.5	P4	TNMS030T5	5P	135	46	-	62	23	17	20	4	8	¥ 29,500
M30 × 3.5	P4	TNMS030T1	1.5P	135	46	-	62	23	17	20	4	8	¥ 29,500
M30 × 3	P5	TNMT030S5	5P	135	46	-	62	23	17	20	4	8	¥ 29,500
M30 × 3	P5	TNMT030S1	1.5P	135	46	-	62	23	17	20	4	8	¥ 29,500
M30 × 2	P4	TNMS030Q5	5P	135	46	-	62	23	17	20	4	8	¥ 29,500
M30 × 2	P4	TNMS030Q1	1.5P	135	46	-	62	23	17	20	4	8	¥ 29,500
M30 × 1.5	P3	TNMR030O5	5P	135	46	-	62	23	17	20	4	8	¥ 29,500
M30 × 1.5	P3	TNMR030O1	1.5P	135	46	-	62	23	17	20	4	8	¥ 29,500

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M30 × 1	P3	TNMR030M5	5P	135	21	-	62	23	17	20	4	9	¥ 36,900
M30 × 1	P3	TNMR030M1	1.5P	135	21	-	62	23	17	20	4	9	¥ 36,900
M32 × 3.5	P4	TNMS032T5	5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
M32 × 3.5	P4	TNMS032T1	1.5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
M32 × 3	P5	TNMT032S5	5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
M32 × 3	P5	TNMT032S1	1.5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
M32 × 2	P4	TNMS032Q5	5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
M32 × 2	P4	TNMS032Q1	1.5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
M32 × 1.5	P4	TNMS032O5	5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
M32 × 1.5	P4	TNMS032O1	1.5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
M32 × 1	P3	TNMR032M5	5P	145	21	-	67	24	19	22	4	9	¥ 42,400 ※
M32 × 1	P3	TNMR032M1	1.5P	145	21	-	67	24	19	22	4	9	¥ 42,400 ※
M33 × 3.5	P4	TNMS033T5	5P	145	46	-	67	25	19	22	4	8	¥ 34,400
M33 × 3.5	P4	TNMS033T1	1.5P	145	46	-	67	25	19	22	4	8	¥ 34,400
M33 × 3	P5	TNMT033S5	5P	145	46	-	67	25	19	22	4	8	¥ 34,400 ※
M33 × 3	P5	TNMT033S1	1.5P	145	46	-	67	25	19	22	4	8	¥ 34,400 ※
M33 × 2	P4	TNMS033Q5	5P	145	46	-	67	25	19	22	4	8	¥ 34,400 ※
M33 × 2	P4	TNMS033Q1	1.5P	145	46	-	67	25	19	22	4	8	¥ 34,400 ※
M33 × 1.5	P4	TNMS033O5	5P	145	46	-	67	25	19	22	4	8	¥ 34,400 ※
M33 × 1.5	P4	TNMS033O1	1.5P	145	46	-	67	25	19	22	4	8	¥ 34,400 ※
M33 × 1	P3	TNMR033M5	5P	145	21	-	67	25	19	22	4	9	¥ 42,400 ※
M33 × 1	P3	TNMR033M1	1.5P	145	21	-	67	25	19	22	4	9	¥ 42,400 ※
M34 × 3	P5	TNMT034S5	5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
M34 × 3	P5	TNMT034S1	1.5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
M34 × 2	P4	TNMS034Q5	5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
M34 × 2	P4	TNMS034Q1	1.5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
M34 × 1.5	P4	TNMS034O5	5P	155	26	-	71	28	21	24	4	9	¥ 39,900 ※
M34 × 1.5	P4	TNMS034O1	1.5P	155	26	-	71	28	21	24	4	9	¥ 39,900 ※
M34 × 1	P3	TNMR034M5	5P	155	26	-	71	28	21	24	4	9	¥ 47,200 ※
M34 × 1	P3	TNMR034M1	1.5P	155	26	-	71	28	21	24	4	9	¥ 47,200 ※
M35 × 3	P5	TNMT035S5	5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
M35 × 3	P5	TNMT035S1	1.5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
M35 × 2	P5	TNMT035Q5	5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
M35 × 2	P5	TNMT035Q1	1.5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
M35 × 1.5	P4	TNMS035O5	5P	155	26	-	71	28	21	24	4	9	¥ 39,900 ※
M35 × 1.5	P4	TNMS035O1	1.5P	155	26	-	71	28	21	24	4	9	¥ 39,900 ※
M35 × 1	P3	TNMR035M5	5P	155	26	-	71	28	21	24	4	9	¥ 47,200 ※
M35 × 1	P3	TNMR035M1	1.5P	155	26	-	71	28	21	24	4	9	¥ 47,200 ※
M36 × 4	P5	TNMT036U5	5P	155	52	-	71	28	21	24	4	8	¥ 39,900
M36 × 4	P5	TNMT036U1	1.5P	155	52	-	71	28	21	24	4	8	¥ 39,900
M36 × 3	P5	TNMT036S5	5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
M36 × 3	P5	TNMT036S1	1.5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
M36 × 2	P4	TNMS036Q5	5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
M36 × 2	P4	TNMS036Q1	1.5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
M36 × 1.5	P4	TNMS036O5	5P	155	26	-	71	28	21	24	4	9	¥ 39,900 ※
M36 × 1.5	P4	TNMS036O1	1.5P	155	26	-	71	28	21	24	4	9	¥ 39,900 ※
M36 × 1	P3	TNMR036M5	5P	155	26	-	71	28	21	24	4	9	¥ 47,200 ※
M36 × 1	P3	TNMR036M1	1.5P	155	26	-	71	28	21	24	4	9	¥ 47,200 ※
M37 × 1.5	P4	TNMS037O5	5P	165	26	-	76	30	23	26	4	9	¥ 45,700 ※
M37 × 1.5	P4	TNMS037O1	1.5P	165	26	-	76	30	23	26	4	9	¥ 45,700 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M38 × 3	P5	TNMT038S5	5P	165	52	-	76	30	23	26	4	8	¥ 45,700 ※
M38 × 3	P5	TNMT038S1	1.5P	165	52	-	76	30	23	26	4	8	¥ 45,700 ※
M38 × 2	P4	TNMS038Q5	5P	165	52	-	76	30	23	26	4	8	¥ 45,700 ※
M38 × 2	P4	TNMS038Q1	1.5P	165	52	-	76	30	23	26	4	8	¥ 45,700 ※
M38 × 1.5	P4	TNMS038O5	5P	165	26	-	76	30	23	26	4	9	¥ 45,700 ※
M38 × 1.5	P4	TNMS038O1	1.5P	165	26	-	76	30	23	26	4	9	¥ 45,700 ※
M38 × 1	P3	TNMR038M5	5P	165	26	-	76	30	23	26	4	9	¥ 53,500 ※
M38 × 1	P3	TNMR038M1	1.5P	165	26	-	76	30	23	26	4	9	¥ 53,500 ※
M39 × 4	P5	TNMT039U5	5P	165	52	-	76	30	23	26	4	8	¥ 45,700
M39 × 4	P5	TNMT039U1	1.5P	165	52	-	76	30	23	26	4	8	¥ 45,700
M39 × 3	P5	TNMT039S5	5P	165	52	-	76	30	23	26	4	8	¥ 45,700 ※
M39 × 3	P5	TNMT039S1	1.5P	165	52	-	76	30	23	26	4	8	¥ 45,700 ※
M39 × 2	P5	TNMT039Q5	5P	165	52	-	76	30	23	26	4	8	¥ 45,700 ※
M39 × 2	P5	TNMT039Q1	1.5P	165	52	-	76	30	23	26	4	8	¥ 45,700 ※
M39 × 1.5	P4	TNMS039O5	5P	165	26	-	76	30	23	26	4	9	¥ 45,700 ※
M39 × 1.5	P4	TNMS039O1	1.5P	165	26	-	76	30	23	26	4	9	¥ 45,700 ※
M39 × 1	P3	TNMR039M5	5P	165	26	-	76	30	23	26	4	9	¥ 53,500 ※
M39 × 1	P3	TNMR039M1	1.5P	165	26	-	76	30	23	26	4	9	¥ 53,500 ※
M40 × 4	P5	TNMT040U5	5P	175	59	-	81	32	26	30	4	8	¥ 55,600 ※
M40 × 4	P5	TNMT040U1	1.5P	175	59	-	81	32	26	30	4	8	¥ 55,600 ※
M40 × 3	P5	TNMT040S5	5P	175	59	-	81	32	26	30	4	8	¥ 55,600 ※
M40 × 3	P5	TNMT040S1	1.5P	175	59	-	81	32	26	30	4	8	¥ 55,600 ※
M40 × 2	P4	TNMS040Q5	5P	175	59	-	81	32	26	30	4	8	¥ 55,600 ※
M40 × 2	P4	TNMS040Q1	1.5P	175	59	-	81	32	26	30	4	8	¥ 55,600 ※
M40 × 1.5	P4	TNMS040O5	5P	175	27	-	81	32	26	30	4	9	¥ 55,600 ※
M40 × 1.5	P4	TNMS040O1	1.5P	175	27	-	81	32	26	30	4	9	¥ 55,600 ※
M40 × 1	P3	TNMR040M5	5P	175	27	-	81	32	26	30	4	9	¥ 63,900 ※
M40 × 1	P3	TNMR040M1	1.5P	175	27	-	81	32	26	30	4	9	¥ 63,900 ※
M42 × 4.5	P5	TNMT042V5	5P	175	59	-	81	32	26	30	4	8	¥ 55,600
M42 × 4.5	P5	TNMT042V1	1.5P	175	59	-	81	32	26	30	4	8	¥ 55,600
M42 × 4	P6	TNMU042U5	5P	175	59	-	81	32	26	30	4	8	¥ 55,600 ※
M42 × 4	P6	TNMU042U1	1.5P	175	59	-	81	32	26	30	4	8	¥ 55,600 ※
M42 × 3	P5	TNMT042S5	5P	175	59	-	81	32	26	30	4	8	¥ 55,600 ※
M42 × 3	P5	TNMT042S1	1.5P	175	59	-	81	32	26	30	4	8	¥ 55,600 ※
M42 × 2	P4	TNMS042Q5	5P	175	59	-	81	32	26	30	4	8	¥ 55,600 ※
M42 × 2	P4	TNMS042Q1	1.5P	175	59	-	81	32	26	30	4	8	¥ 55,600 ※
M42 × 1.5	P4	TNMS042O5	5P	175	27	-	81	32	26	30	4	9	¥ 55,600 ※
M42 × 1.5	P4	TNMS042O1	1.5P	175	27	-	81	32	26	30	4	9	¥ 55,600 ※
M42 × 1	P3	TNMR042M5	5P	175	27	-	81	32	26	30	4	9	¥ 63,900 ※
M42 × 1	P3	TNMR042M1	1.5P	175	27	-	81	32	26	30	4	9	¥ 63,900 ※
M44 × 4	P6	TNMU044U5	5P	180	59	-	83	35	26	30	4	8	¥ 64,400 ※
M44 × 4	P6	TNMU044U1	1.5P	180	59	-	83	35	26	30	4	8	¥ 64,400 ※
M44 × 3	P5	TNMT044S5	5P	180	59	-	83	35	26	30	4	8	¥ 64,400 ※
M44 × 3	P5	TNMT044S1	1.5P	180	59	-	83	35	26	30	4	8	¥ 64,400 ※
M44 × 2	P4	TNMS044Q5	5P	180	59	-	83	35	26	30	4	8	¥ 64,400 ※
M44 × 2	P4	TNMS044Q1	1.5P	180	59	-	83	35	26	30	4	8	¥ 64,400 ※
M44 × 1.5	P4	TNMS044O5	5P	180	27	-	83	35	26	30	4	9	¥ 64,400 ※
M44 × 1.5	P4	TNMS044O1	1.5P	180	27	-	83	35	26	30	4	9	¥ 64,400 ※
M44 × 1	P3	TNMR044M5	5P	180	27	-	83	35	26	30	4	9	¥ 77,700 ※
M44 × 1	P3	TNMR044M1	1.5P	180	27	-	83	35	26	30	4	9	¥ 77,700 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M45 × 4.5	P5	TNMT045V5	5P	180	59	-	83	35	26	30	4	8	¥ 64,400
M45 × 4.5	P5	TNMT045V1	1.5P	180	59	-	83	35	26	30	4	8	¥ 64,400
M45 × 4	P6	TNMU045U5	5P	180	59	-	83	35	26	30	4	8	¥ 64,400 ※
M45 × 4	P6	TNMU045U1	1.5P	180	59	-	83	35	26	30	4	8	¥ 64,400 ※
M45 × 3	P5	TNMT045S5	5P	180	59	-	83	35	26	30	4	8	¥ 64,400 ※
M45 × 3	P5	TNMT045S1	1.5P	180	59	-	83	35	26	30	4	8	¥ 64,400 ※
M45 × 2	P4	TNMS045Q5	5P	180	59	-	83	35	26	30	4	8	¥ 64,400 ※
M45 × 2	P4	TNMS045Q1	1.5P	180	59	-	83	35	26	30	4	8	¥ 64,400 ※
M45 × 1.5	P4	TNMS045O5	5P	180	27	-	83	35	26	30	4	9	¥ 64,400 ※
M45 × 1.5	P4	TNMS045O1	1.5P	180	27	-	83	35	26	30	4	9	¥ 64,400 ※
M45 × 1	P3	TNMR045M5	5P	180	27	-	83	35	26	30	4	9	¥ 77,700 ※
M45 × 1	P3	TNMR045M1	1.5P	180	27	-	83	35	26	30	4	9	¥ 77,700 ※
M46 × 4	P6	TNMU046U5	5P	185	65	-	85	38	29	32	4	8	¥ 77,800 ※
M46 × 4	P6	TNMU046U1	1.5P	185	65	-	85	38	29	32	4	8	¥ 77,800 ※
M46 × 3	P6	TNMU046S5	5P	185	65	-	85	38	29	32	4	8	¥ 77,800 ※
M46 × 3	P6	TNMU046S1	1.5P	185	65	-	85	38	29	32	4	8	¥ 77,800 ※
M46 × 2	P4	TNMS046Q5	5P	185	65	-	85	38	29	32	4	8	¥ 77,800 ※
M46 × 2	P4	TNMS046Q1	1.5P	185	65	-	85	38	29	32	4	8	¥ 77,800 ※
M46 × 1.5	P4	TNMS046O5	5P	185	28	-	85	38	29	32	4	9	¥ 77,800 ※
M46 × 1.5	P4	TNMS046O1	1.5P	185	28	-	85	38	29	32	4	9	¥ 77,800 ※
M48 × 5	P5	TNMT048W5	5P	185	65	-	85	38	29	32	4	8	¥ 80,400
M48 × 5	P5	TNMT048W1	1.5P	185	65	-	85	38	29	32	4	8	¥ 80,400
M48 × 4	P6	TNMU048U5	5P	185	65	-	85	38	29	32	4	8	¥ 80,400 ※
M48 × 4	P6	TNMU048U1	1.5P	185	65	-	85	38	29	32	4	8	¥ 80,400 ※
M48 × 3	P6	TNMU048S5	5P	185	65	-	85	38	29	32	4	8	¥ 80,400 ※
M48 × 3	P6	TNMU048S1	1.5P	185	65	-	85	38	29	32	4	8	¥ 80,400 ※
M48 × 2	P4	TNMS048Q5	5P	185	65	-	85	38	29	32	4	8	¥ 80,400 ※
M48 × 2	P4	TNMS048Q1	1.5P	185	65	-	85	38	29	32	4	8	¥ 80,400 ※
M48 × 1.5	P4	TNMS048O5	5P	185	28	-	85	38	29	32	4	9	¥ 80,400 ※
M48 × 1.5	P4	TNMS048O1	1.5P	185	28	-	85	38	29	32	4	9	¥ 80,400 ※
M48 × 1	P3	TNMR048M5	5P	185	28	-	85	38	29	32	4	9	¥ 97,000 ※
M48 × 1	P3	TNMR048M1	1.5P	185	28	-	85	38	29	32	4	9	¥ 97,000 ※
M50 × 5	II	TH2050W5	5P	195	90	-	-	40	32	35	4	10	¥ 87,400 ※
M50 × 5	II	TH2050W1	1.5P	195	90	-	-	40	32	35	4	10	¥ 87,400 ※
M50 × 4	II	TH2050U5	5P	180	80	-	-	40	32	35	4	10	¥ 87,400 ※
M50 × 4	II	TH2050U1	1.5P	180	80	-	-	40	32	35	4	10	¥ 87,400 ※
M50 × 3	II	TH2050S5	5P	180	80	-	-	40	32	35	4	10	¥ 87,400 ※
M50 × 3	II	TH2050S1	1.5P	180	80	-	-	40	32	35	4	10	¥ 87,400 ※
M50 × 2	II	TH2050Q5	5P	130	45	-	-	40	32	35	4	10	¥ 87,400 ※
M50 × 2	II	TH2050Q1	1.5P	130	45	-	-	40	32	35	4	10	¥ 87,400 ※
M50 × 1.5	II	TH2050O5	5P	130	45	-	-	40	32	35	4	10	¥ 87,400 ※
M50 × 1.5	II	TH2050O1	1.5P	130	45	-	-	40	32	35	4	10	¥ 87,400 ※
M50 × 1	II	TH2050M5	5P	130	30	-	-	40	32	35	4	10	¥104,000 ※
M50 × 1	II	TH2050M1	1.5P	130	30	-	-	40	32	35	4	10	¥104,000 ※
M52 × 5	II	TH2052W5	5P	195	90	-	-	42	32	35	4	10	¥ 99,200 ※
M52 × 5	II	TH2052W1	1.5P	195	90	-	-	42	32	35	4	10	¥ 99,200 ※
M52 × 4	II	TH2052U5	5P	180	80	-	-	42	32	35	4	10	¥ 95,600 ※
M52 × 4	II	TH2052U1	1.5P	180	80	-	-	42	32	35	4	10	¥ 95,600 ※
M52 × 3	II	TH2052S5	5P	180	80	-	-	42	32	35	4	10	¥ 95,600 ※
M52 × 3	II	TH2052S1	1.5P	180	80	-	-	42	32	35	4	10	¥ 95,600 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M52 × 2	II	TH2052Q5	5P	130	50	-	-	42	32	35	4	10	¥ 92,500 ※
M52 × 2	II	TH2052Q1	1.5P	130	50	-	-	42	32	35	4	10	¥ 92,500 ※
M52 × 1.5	II	TH2052O5	5P	130	45	-	-	42	32	35	4	10	¥ 92,500 ※
M52 × 1.5	II	TH2052O1	1.5P	130	45	-	-	42	32	35	4	10	¥ 92,500 ※
M55 × 4	II	TH2055U5	5P	180	80	-	-	44	35	38	4	10	¥102,000 ※
M55 × 4	II	TH2055U1	1.5P	180	80	-	-	44	35	38	4	10	¥102,000 ※
M55 × 3	II	TH2055S5	5P	180	80	-	-	44	35	38	4	10	¥102,000 ※
M55 × 3	II	TH2055S1	1.5P	180	80	-	-	44	35	38	4	10	¥102,000 ※
M55 × 2	II	TH2055Q5	5P	135	50	-	-	44	35	38	4	10	¥101,000 ※
M55 × 2	II	TH2055Q1	1.5P	135	50	-	-	44	35	38	4	10	¥101,000 ※
M55 × 1.5	II	TH2055O5	5P	135	45	-	-	44	35	38	4	10	¥101,000 ※
M55 × 1.5	II	TH2055O1	1.5P	135	45	-	-	44	35	38	4	10	¥101,000 ※
M56 × 5.5	II	TH2056X5	5P	205	95	-	-	44	35	38	4	10	¥114,000 ※
M56 × 5.5	II	TH2056X1	1.5P	205	95	-	-	44	35	38	4	10	¥114,000 ※
M56 × 4	II	TH2056U5	5P	180	80	-	-	44	35	38	4	10	¥107,000 ※
M56 × 4	II	TH2056U1	1.5P	180	80	-	-	44	35	38	4	10	¥107,000 ※
M56 × 3	II	TH2056S5	5P	180	80	-	-	44	35	38	4	10	¥107,000 ※
M56 × 3	II	TH2056S1	1.5P	180	80	-	-	44	35	38	4	10	¥107,000 ※
M56 × 2	II	TH2056Q5	5P	135	50	-	-	44	35	38	4	10	¥103,000 ※
M56 × 2	II	TH2056Q1	1.5P	135	50	-	-	44	35	38	4	10	¥103,000 ※
M56 × 1.5	II	TH2056O5	5P	135	45	-	-	44	35	38	4	10	¥103,000 ※
M56 × 1.5	II	TH2056O1	1.5P	135	45	-	-	44	35	38	4	10	¥103,000 ※
M58 × 4	II	TH2058U5	5P	180	80	-	-	46	35	38	4	10	¥121,000 ※
M58 × 4	II	TH2058U1	1.5P	180	80	-	-	46	35	38	4	10	¥121,000 ※
M58 × 3	II	TH2058S5	5P	180	80	-	-	46	35	38	4	10	¥121,000 ※
M58 × 3	II	TH2058S1	1.5P	180	80	-	-	46	35	38	4	10	¥121,000 ※
M58 × 2	II	TH2058Q5	5P	135	50	-	-	46	35	38	4	10	¥112,000 ※
M58 × 2	II	TH2058Q1	1.5P	135	50	-	-	46	35	38	4	10	¥112,000 ※
M58 × 1.5	II	TH2058O5	5P	135	45	-	-	46	35	38	4	10	¥112,000 ※
M58 × 1.5	II	TH2058O1	1.5P	135	45	-	-	46	35	38	4	10	¥112,000 ※
M60 × 5.5	II	TH2060X5	5P	215	100	-	-	46	35	38	4	10	¥138,000 ※
M60 × 5.5	II	TH2060X1	1.5P	215	100	-	-	46	35	38	4	10	¥138,000 ※
M60 × 4	II	TH2060U5	5P	185	85	-	-	46	35	38	4	10	¥128,000 ※
M60 × 4	II	TH2060U1	1.5P	185	85	-	-	46	35	38	4	10	¥128,000 ※
M60 × 3	II	TH2060S5	5P	185	85	-	-	46	35	38	4	10	¥128,000 ※
M60 × 3	II	TH2060S1	1.5P	185	85	-	-	46	35	38	4	10	¥128,000 ※
M60 × 2	II	TH2060Q5	5P	140	55	-	-	46	35	38	4	10	¥116,000 ※
M60 × 2	II	TH2060Q1	1.5P	140	55	-	-	46	35	38	4	10	¥116,000 ※
M60 × 1.5	II	TH2060O5	5P	140	45	-	-	46	35	38	4	10	¥116,000 ※
M60 × 1.5	II	TH2060O1	1.5P	140	45	-	-	46	35	38	4	10	¥116,000 ※
M62 × 4	II	TH2062U5	5P	185	85	-	-	48	38	42	4	10	¥143,000 ※
M62 × 4	II	TH2062U1	1.5P	185	85	-	-	48	38	42	4	10	¥143,000 ※
M62 × 3	II	TH2062S5	5P	185	85	-	-	48	38	42	4	10	¥143,000 ※
M62 × 3	II	TH2062S1	1.5P	185	85	-	-	48	38	42	4	10	¥143,000 ※
M62 × 2	II	TH2062Q5	5P	140	55	-	-	48	38	42	4	10	¥128,000 ※
M62 × 2	II	TH2062Q1	1.5P	140	55	-	-	48	38	42	4	10	¥128,000 ※
M62 × 1.5	II	TH2062O5	5P	140	45	-	-	48	38	42	4	10	¥128,000 ※
M62 × 1.5	II	TH2062O1	1.5P	140	45	-	-	48	38	42	4	10	¥128,000 ※
M64 × 6	II	TH2064Y5	5P	225	105	-	-	48	38	42	4	10	¥164,000 ※
M64 × 6	II	TH2064Y1	1.5P	225	105	-	-	48	38	42	4	10	¥164,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M64 × 4	II	TH2064U5	5P	185	85	-	-	48	38	42	4	10	¥151,000 ※
M64 × 4	II	TH2064U1	1.5P	185	85	-	-	48	38	42	4	10	¥151,000 ※
M64 × 3	II	TH2064S5	5P	185	85	-	-	48	38	42	4	10	¥151,000 ※
M64 × 3	II	TH2064S1	1.5P	185	85	-	-	48	38	42	4	10	¥151,000 ※
M64 × 2	II	TH2064Q5	5P	140	55	-	-	48	38	42	4	10	¥137,000 ※
M64 × 2	II	TH2064Q1	1.5P	140	55	-	-	48	38	42	4	10	¥137,000 ※
M64 × 1.5	II	TH2064O5	5P	140	45	-	-	48	38	42	4	10	¥137,000 ※
M64 × 1.5	II	TH2064O1	1.5P	140	45	-	-	48	38	42	4	10	¥137,000 ※
M65 × 6	II	TH2065Y5	5P	225	105	-	-	50	38	42	4	10	¥170,000 ※
M65 × 6	II	TH2065Y1	1.5P	225	105	-	-	50	38	42	4	10	¥170,000 ※
M65 × 4	II	TH2065U5	5P	185	85	-	-	50	38	42	4	10	¥153,000 ※
M65 × 4	II	TH2065U1	1.5P	185	85	-	-	50	38	42	4	10	¥153,000 ※
M65 × 3	II	TH2065S5	5P	185	85	-	-	50	38	42	4	10	¥153,000 ※
M65 × 3	II	TH2065S1	1.5P	185	85	-	-	50	38	42	4	10	¥153,000 ※
M65 × 2	II	TH2065Q5	5P	140	55	-	-	50	38	42	4	10	¥143,000 ※
M65 × 2	II	TH2065Q1	1.5P	140	55	-	-	50	38	42	4	10	¥143,000 ※
M65 × 1.5	II	TH2065O5	5P	140	45	-	-	50	38	42	4	10	¥143,000 ※
M65 × 1.5	II	TH2065O1	1.5P	140	45	-	-	50	38	42	4	10	¥143,000 ※
M68 × 6	II	TH2068Y5	5P	235	110	-	-	52	41	44	4	10	¥189,000 ※
M68 × 6	II	TH2068Y1	1.5P	235	110	-	-	52	41	44	4	10	¥189,000 ※
M68 × 4	II	TH2068U5	5P	190	85	-	-	52	41	44	4	10	¥170,000 ※
M68 × 4	II	TH2068U1	1.5P	190	85	-	-	52	41	44	4	10	¥170,000 ※
M68 × 3	II	TH2068S5	5P	190	85	-	-	52	41	44	4	10	¥170,000 ※
M68 × 3	II	TH2068S1	1.5P	190	85	-	-	52	41	44	4	10	¥170,000 ※
M68 × 2	II	TH2068Q5	5P	140	55	-	-	52	41	44	4	10	¥159,000 ※
M68 × 2	II	TH2068Q1	1.5P	140	55	-	-	52	41	44	4	10	¥159,000 ※
M68 × 1.5	II	TH2068O5	5P	140	45	-	-	52	41	44	4	10	¥159,000 ※
M68 × 1.5	II	TH2068O1	1.5P	140	45	-	-	52	41	44	4	10	¥159,000 ※
M70 × 6	II	TH2070Y5	5P	240	115	-	-	55	41	44	4	10	¥199,000 ※
M70 × 6	II	TH2070Y1	1.5P	240	115	-	-	55	41	44	4	10	¥199,000 ※
M70 × 4	II	TH2070U5	5P	190	85	-	-	55	41	44	4	10	¥180,000 ※
M70 × 4	II	TH2070U1	1.5P	190	85	-	-	55	41	44	4	10	¥180,000 ※
M70 × 3	II	TH2070S5	5P	190	85	-	-	55	41	44	4	10	¥180,000 ※
M70 × 3	II	TH2070S1	1.5P	190	85	-	-	55	41	44	4	10	¥180,000 ※
M70 × 2	II	TH2070Q5	5P	140	55	-	-	55	41	44	4	10	¥167,000 ※
M70 × 2	II	TH2070Q1	1.5P	140	55	-	-	55	41	44	4	10	¥167,000 ※
M70 × 1.5	II	TH2070O5	5P	140	45	-	-	55	41	44	4	10	¥167,000 ※
M70 × 1.5	II	TH2070O1	1.5P	140	45	-	-	55	41	44	4	10	¥167,000 ※
M72 × 6	II	TH2072Y5	5P	240	115	-	-	55	41	44	4	10	¥219,000 ※
M72 × 6	II	TH2072Y1	1.5P	240	115	-	-	55	41	44	4	10	¥219,000 ※
M72 × 4	II	TH2072U5	5P	190	85	-	-	55	41	44	4	10	¥200,000 ※
M72 × 4	II	TH2072U1	1.5P	190	85	-	-	55	41	44	4	10	¥200,000 ※
M72 × 3	II	TH2072S5	5P	190	85	-	-	55	41	44	4	10	¥200,000 ※
M72 × 3	II	TH2072S1	1.5P	190	85	-	-	55	41	44	4	10	¥200,000 ※
M72 × 2	II	TH2072Q5	5P	140	55	-	-	55	41	44	4	10	¥185,000 ※
M72 × 2	II	TH2072Q1	1.5P	140	55	-	-	55	41	44	4	10	¥185,000 ※
M72 × 1.5	II	TH2072O5	5P	140	45	-	-	55	41	44	4	10	¥185,000 ※
M72 × 1.5	II	TH2072O1	1.5P	140	45	-	-	55	41	44	4	10	¥185,000 ※
M75 × 6	II	TH2075Y5	5P	240	115	-	-	58	46	50	4	10	¥226,000 ※
M75 × 6	II	TH2075Y1	1.5P	240	115	-	-	58	46	50	4	10	¥226,000 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M75 × 4	II	TH2075U5	5P	190	85	-	-	58	46	50	4	10	¥211,000 ※
M75 × 4	II	TH2075U1	1.5P	190	85	-	-	58	46	50	4	10	¥211,000 ※
M75 × 3	II	TH2075S5	5P	190	85	-	-	58	46	50	4	10	¥211,000 ※
M75 × 3	II	TH2075S1	1.5P	190	85	-	-	58	46	50	4	10	¥211,000 ※
M75 × 2	II	TH2075Q5	5P	145	55	-	-	58	46	50	4	10	¥197,000 ※
M75 × 2	II	TH2075Q1	1.5P	145	55	-	-	58	46	50	4	10	¥197,000 ※
M75 × 1.5	II	TH2075O5	5P	145	50	-	-	58	46	50	4	10	¥197,000 ※
M75 × 1.5	II	TH2075O1	1.5P	145	50	-	-	58	46	50	4	10	¥197,000 ※
M76 × 6	II	TH2076Y5	5P	240	115	-	-	58	46	50	4	10	¥238,000 ※
M76 × 6	II	TH2076Y1	1.5P	240	115	-	-	58	46	50	4	10	¥238,000 ※
M76 × 4	II	TH2076U5	5P	190	85	-	-	58	46	50	4	10	¥220,000 ※
M76 × 4	II	TH2076U1	1.5P	190	85	-	-	58	46	50	4	10	¥220,000 ※
M76 × 3	II	TH2076S5	5P	190	85	-	-	58	46	50	4	10	¥220,000 ※
M76 × 3	II	TH2076S1	1.5P	190	85	-	-	58	46	50	4	10	¥220,000 ※
M76 × 2	II	TH2076Q5	5P	145	55	-	-	58	46	50	4	10	¥205,000 ※
M76 × 2	II	TH2076Q1	1.5P	145	55	-	-	58	46	50	4	10	¥205,000 ※
M76 × 1.5	II	TH2076O5	5P	145	50	-	-	58	46	50	4	10	¥205,000 ※
M76 × 1.5	II	TH2076O1	1.5P	145	50	-	-	58	46	50	4	10	¥205,000 ※
M78 × 3	II	TH2078S5	5P	190	85	-	-	58	46	50	6	10	¥238,000 ※
M78 × 3	II	TH2078S1	1.5P	190	85	-	-	58	46	50	6	10	¥238,000 ※
M78 × 2	II	TH2078Q5	5P	150	55	-	-	58	46	50	6	10	¥221,000 ※
M78 × 2	II	TH2078Q1	1.5P	150	55	-	-	58	46	50	6	10	¥221,000 ※
M80 × 6	II	TH2080Y5	5P	245	115	-	-	58	46	50	6	10	¥277,000 ※
M80 × 6	II	TH2080Y1	1.5P	245	115	-	-	58	46	50	6	10	¥277,000 ※
M80 × 4	II	TH2080U5	5P	190	85	-	-	58	46	50	6	10	¥247,000 ※
M80 × 4	II	TH2080U1	1.5P	190	85	-	-	58	46	50	6	10	¥247,000 ※
M80 × 3	II	TH2080S5	5P	190	85	-	-	58	46	50	6	10	¥247,000 ※
M80 × 3	II	TH2080S1	1.5P	190	85	-	-	58	46	50	6	10	¥247,000 ※
M80 × 2	II	TH2080Q5	5P	145	55	-	-	58	46	50	6	10	¥234,000 ※
M80 × 2	II	TH2080Q1	1.5P	145	55	-	-	58	46	50	6	10	¥234,000 ※
M80 × 1.5	II	TH2080O5	5P	145	50	-	-	58	46	50	6	10	¥234,000 ※
M80 × 1.5	II	TH2080O1	1.5P	145	50	-	-	58	46	50	6	10	¥234,000 ※
M82 × 2	II	TH2082Q5	5P	145	55	-	-	58	46	50	6	10	¥254,000 ※
M82 × 2	II	TH2082Q1	1.5P	145	55	-	-	58	46	50	6	10	¥254,000 ※
M85 × 6	II	TH2085Y5	5P	245	115	-	-	60	46	50	6	10	¥314,000 ※
M85 × 6	II	TH2085Y1	1.5P	245	115	-	-	60	46	50	6	10	¥314,000 ※
M85 × 4	II	TH2085U5	5P	190	85	-	-	60	46	50	6	10	¥277,000 ※
M85 × 4	II	TH2085U1	1.5P	190	85	-	-	60	46	50	6	10	¥277,000 ※
M85 × 3	II	TH2085S5	5P	190	85	-	-	60	46	50	6	10	¥277,000 ※
M85 × 3	II	TH2085S1	1.5P	190	85	-	-	60	46	50	6	10	¥277,000 ※
M85 × 2	II	TH2085Q5	5P	150	55	-	-	60	46	50	6	10	¥270,000 ※
M85 × 2	II	TH2085Q1	1.5P	150	55	-	-	60	46	50	6	10	¥270,000 ※
M90 × 6	II	TH2090Y5	5P	250	120	-	-	60	46	50	6	10	¥362,000 ※
M90 × 6	II	TH2090Y1	1.5P	250	120	-	-	60	46	50	6	10	¥362,000 ※
M90 × 4	II	TH2090U5	5P	195	90	-	-	60	46	50	6	10	¥326,000 ※
M90 × 4	II	TH2090U1	1.5P	195	90	-	-	60	46	50	6	10	¥326,000 ※
M90 × 3	II	TH2090S5	5P	195	90	-	-	60	46	50	6	10	¥326,000 ※
M90 × 3	II	TH2090S1	1.5P	195	90	-	-	60	46	50	6	10	¥326,000 ※
M90 × 2	II	TH2090Q5	5P	155	60	-	-	60	46	50	6	10	¥308,000 ※
M90 × 2	II	TH2090Q1	1.5P	155	60	-	-	60	46	50	6	10	¥308,000 ※

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M95 × 6	II	TH2095Y5	5P	250	120	-	-	65	50	52	6	10	¥409,000 ※
M95 × 6	II	TH2095Y1	1.5P	250	120	-	-	65	50	52	6	10	¥409,000 ※
M95 × 4	II	TH2095U5	5P	200	90	-	-	65	50	52	6	10	¥373,000 ※
M95 × 4	II	TH2095U1	1.5P	200	90	-	-	65	50	52	6	10	¥373,000 ※
M95 × 3	II	TH2095S5	5P	200	90	-	-	65	50	52	6	10	¥373,000 ※
M95 × 3	II	TH2095S1	1.5P	200	90	-	-	65	50	52	6	10	¥373,000 ※
M95 × 2	II	TH2095Q5	5P	155	60	-	-	65	50	52	6	10	¥353,000 ※
M95 × 2	II	TH2095Q1	1.5P	155	60	-	-	65	50	52	6	10	¥353,000 ※
M100 × 6	II	TH2100Y5	5P	250	120	-	-	65	50	52	6	10	¥461,000 ※
M100 × 6	II	TH2100Y1	1.5P	250	120	-	-	65	50	52	6	10	¥461,000 ※
M100 × 4	II	TH2100U5	5P	200	90	-	-	65	50	52	6	10	¥425,000 ※
M100 × 4	II	TH2100U1	1.5P	200	90	-	-	65	50	52	6	10	¥425,000 ※
M100 × 3	II	TH2100S5	5P	200	90	-	-	65	50	52	6	10	¥425,000 ※
M100 × 3	II	TH2100S1	1.5P	200	90	-	-	65	50	52	6	10	¥425,000 ※
M100 × 2	II	TH2100Q5	5P	155	60	-	-	65	50	52	6	10	¥397,000 ※
M100 × 2	II	TH2100Q1	1.5P	155	60	-	-	65	50	52	6	10	¥397,000 ※
For Unified Threads													
No.0-80UNF	P1	TNMPUN0B5	5P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,170
No.0-80UNF	P1	TNMPUN0B1	1.5P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,170
No.1-64UNC	P1	TNMPUN1D5	5P	42	7.2	-	27	3	2.5	5	3	2	¥ 3,170 ※
No.1-64UNC	P1	TNMPUN1D1	1.5P	42	7.2	-	27	3	2.5	5	3	2	¥ 3,170 ※
No.1-72UNF	P1	TNMPUN1C5	5P	42	7.2	-	27	3	2.5	5	3	2	¥ 3,170
No.1-72UNF	P1	TNMPUN1C1	1.5P	42	7.2	-	27	3	2.5	5	3	2	¥ 3,170
No.2-56UNC	P1	TNMPUN2E5	5P	42	8.1	12	27	3	2.5	5	3	3	¥ 2,230
No.2-56UNC	P1	TNMPUN2E1	1.5P	42	8.1	12	27	3	2.5	5	3	3	¥ 2,230
No.2-64UNF	P1	TNMPUN2D5	5P	42	8.1	12	27	3	2.5	5	3	3	¥ 2,230 ※
No.2-64UNF	P1	TNMPUN2D1	1.5P	42	8.1	12	27	3	2.5	5	3	3	¥ 2,230 ※
No.3-48UNC	P1	TNMPUN3F5	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,890 ※
No.3-48UNC	P1	TNMPUN3F1	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,890 ※
No.3-56UNF	P1	TNMPUN3E5	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,890 ※
No.3-56UNF	P1	TNMPUN3E1	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,890 ※
No.4-40UNC	P2	TNMQUN4H5	5P	46	9	14	25	4	3.2	6	3	3	¥ 1,440
No.4-40UNC	P2	TNMQUN4H1	1.5P	46	9	14	25	4	3.2	6	3	3	¥ 1,440
No.4-40UNC	P3	TNMRUN4H5	5P	46	9	14	25	4	3.2	6	3	3	¥ 1,440 ※
No.4-40UNC	P3	TNMRUN4H1	1.5P	46	9	14	25	4	3.2	6	3	3	¥ 1,440 ※
No.4-48UNF	P1	TNMPUN4F5	5P	46	9	14	25	4	3.2	6	3	3	¥ 1,440 ※
No.4-48UNF	P1	TNMPUN4F1	1.5P	46	9	14	25	4	3.2	6	3	3	¥ 1,440 ※
No.4-48UNF	P3	TNMRUN4F5	5P	46	9	14	25	4	3.2	6	3	3	¥ 1,440 ※
No.4-48UNF	P3	TNMRUN4F1	1.5P	46	9	14	25	4	3.2	6	3	3	¥ 1,440 ※
No.5-40UNC	P2	TNMQUN5H5	5P	52	11	16	28	5	4	7	3	3	¥ 1,340 ※
No.5-40UNC	P2	TNMQUN5H1	1.5P	52	11	16	28	5	4	7	3	3	¥ 1,340 ※
No.5-40UNC	P3	TNMRUN5H5	5P	52	11	16	28	5	4	7	3	3	¥ 1,340 ※
No.5-40UNC	P3	TNMRUN5H1	1.5P	52	11	16	28	5	4	7	3	3	¥ 1,340 ※
No.5-44UNF	P1	TNMPUN5G5	5P	52	11	16	28	5	4	7	3	3	¥ 1,340 ※
No.5-44UNF	P1	TNMPUN5G1	1.5P	52	11	16	28	5	4	7	3	3	¥ 1,340 ※
No.5-44UNF	P3	TNMRUN5G5	5P	52	11	16	28	5	4	7	3	3	¥ 1,340 ※
No.5-44UNF	P3	TNMRUN5G1	1.5P	52	11	16	28	5	4	7	3	3	¥ 1,340 ※
No.6-32UNC	P2	TNMQUN6J5	5P	52	11	17	27	5	4	7	3	3	¥ 1,340
No.6-32UNC	P2	TNMQUN6J1	1.5P	52	11	17	27	5	4	7	3	3	¥ 1,340
No.6-32UNC	P3	TNMRUN6J5	5P	52	11	17	27	5	4	7	3	3	¥ 1,340 ※

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
No.6-32UNC	P3	TNMRUN6J1	1.5P	52	11	17	27	5	4	7	3	3	¥ 1,340 ※
No.6-40UNF	P2	TNMQUN6H5	5P	52	11	17	27	5	4	7	3	3	¥ 1,340 ※
No.6-40UNF	P2	TNMQUN6H1	1.5P	52	11	17	27	5	4	7	3	3	¥ 1,340 ※
No.6-40UNF	P3	TNMRUN6H5	5P	52	11	17	27	5	4	7	3	3	¥ 1,340 ※
No.6-40UNF	P3	TNMRUN6H1	1.5P	52	11	17	27	5	4	7	3	3	¥ 1,340 ※
No.8-32UNC	P2	TNMQUN8J5	5P	60	13	22	31	5.5	4.5	7	4	3	¥ 1,350
No.8-32UNC	P2	TNMQUN8J1	1.5P	60	13	22	31	5.5	4.5	7	4	3	¥ 1,350
No.8-32UNC	P3	TNMRUN8J5	5P	60	13	22	31	5.5	4.5	7	4	3	¥ 1,350 ※
No.8-32UNC	P3	TNMRUN8J1	1.5P	60	13	22	31	5.5	4.5	7	4	3	¥ 1,350 ※
No.8-32UNC	P4	TNMSUN8J5	5P	60	13	22	31	5.5	4.5	7	4	3	¥ 1,350 ※
No.8-32UNC	P4	TNMSUN8J1	1.5P	60	13	22	31	5.5	4.5	7	4	3	¥ 1,350 ※
No.8-36UNF	P2	TNMQUN8I5	5P	60	13	22	31	5.5	4.5	7	4	3	¥ 1,350 ※
No.8-36UNF	P2	TNMQUN8I1	1.5P	60	13	22	31	5.5	4.5	7	4	3	¥ 1,350 ※
No.8-36UNF	P3	TNMRUN8I5	5P	60	13	22	31	5.5	4.5	7	4	3	¥ 1,350 ※
No.8-36UNF	P3	TNMRUN8I1	1.5P	60	13	22	31	5.5	4.5	7	4	3	¥ 1,350 ※
No.10-24UNC	P2	TNMQUNAM5	5P	60	13	22	32	5.5	4.5	7	4	3	¥ 1,350
No.10-24UNC	P2	TNMQUNAM1	1.5P	60	13	22	32	5.5	4.5	7	4	3	¥ 1,350
No.10-24UNC	P3	TNMRUNAM5	5P	60	13	22	32	5.5	4.5	7	4	3	¥ 1,350 ※
No.10-24UNC	P3	TNMRUNAM1	1.5P	60	13	22	32	5.5	4.5	7	4	3	¥ 1,350 ※
No.10-32UNF	P2	TNMQUNAJ5	5P	60	13	22	32	5.5	4.5	7	4	3	¥ 1,350
No.10-32UNF	P2	TNMQUNAJ1	1.5P	60	13	22	32	5.5	4.5	7	4	3	¥ 1,350
No.10-32UNF	P3	TNMRUNAJ5	5P	60	13	22	32	5.5	4.5	7	4	3	¥ 1,350 ※
No.10-32UNF	P3	TNMRUNAJ1	1.5P	60	13	22	32	5.5	4.5	7	4	3	¥ 1,350 ※
No.12-24UNC	P2	TNMQUNCM5	5P	62	15	26	32	6	4.5	7	4	3	¥ 1,450 ※
No.12-24UNC	P2	TNMQUNCM1	1.5P	62	15	26	32	6	4.5	7	4	3	¥ 1,450 ※
No.12-24UNC	P3	TNMRUNCM5	5P	62	15	26	32	6	4.5	7	4	3	¥ 1,450 ※
No.12-28UNF	P2	TNMQUNCK5	5P	62	15	26	32	6	4.5	7	4	3	¥ 1,450 ※
No.12-28UNF	P2	TNMQUNCK1	1.5P	62	15	26	32	6	4.5	7	4	3	¥ 1,450 ※
No.12-28UNF	P3	TNMRUNCK5	5P	62	15	26	32	6	4.5	7	4	3	¥ 1,450 ※
No.12-28UNF	P3	TNMRUNCK1	1.5P	62	15	26	32	6	4.5	7	4	3	¥ 1,450 ※
No.12-32UNEF	P2	TNMQUNCJ5	5P	62	15	26	32	6	4.5	7	4	3	¥ 2,160 ※
No.12-32UNEF	P2	TNMQUNCJ1	1.5P	62	15	26	32	6	4.5	7	4	3	¥ 2,160 ※
1/4-20UNC	P2	TNMQU04N5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,450
1/4-20UNC	P2	TNMQU04N1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,450
1/4-20UNC	P3	TNMRU04N5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,450 ※
1/4-20UNC	P3	TNMRU04N1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,450 ※
1/4-20UNC	P4	TNMSU04N5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,450 ※
1/4-20UNC	P4	TNMSU04N1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,450 ※
1/4-28UNF	P2	TNMQU04K5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,450
1/4-28UNF	P2	TNMQU04K1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,450
1/4-28UNF	P4	TNMSU04K5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,450 ※
1/4-28UNF	P4	TNMSU04K1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,450 ※
1/4-32UNEF	P2	TNMQU04J5	5P	62	15	26	33	6	4.5	7	4	3	¥ 2,160 ※
1/4-32UNEF	P2	TNMQU04J1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 2,160 ※
5/16-18UNC	P3	TNMRU05O5	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,010
5/16-18UNC	P3	TNMRU05O1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,010
5/16-18UNC	P4	TNMSU05O5	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,010 ※
5/16-18UNC	P4	TNMSU05O1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,010 ※
5/16-24UNF	P2	TNMQU05M5	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,010
5/16-24UNF	P2	TNMQU05M1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,010

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
5/16-24UNF	P4	TNMSU05M5	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,010 ※
5/16-24UNF	P4	TNMSU05M1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,010 ※
5/16-32UNEF	P2	TNMQU05J5	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,800 ※
5/16-32UNEF	P2	TNMQU05J1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,800 ※
3/8-16UNC	P3	TNMRU06P5	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,580
3/8-16UNC	P3	TNMRU06P1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,580
3/8-16UNC	P4	TNMSU06P5	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,580 ※
3/8-16UNC	P4	TNMSU06P1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,580 ※
3/8-24UNF	P3	TNMRU06M5	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,580
3/8-24UNF	P3	TNMRU06M1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,580
3/8-24UNF	P4	TNMSU06M5	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,580 ※
3/8-24UNF	P4	TNMSU06M1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,580 ※
3/8-32UNEF	P2	TNMQU06J5	5P	75	13	-	38	7	5.5	8	4	7	¥ 3,210 ※
3/8-32UNEF	P2	TNMQU06J1	1.5P	75	13	-	38	7	5.5	8	4	7	¥ 3,210 ※
7/16-14UNC	P3	TNMRU07Q5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,620
7/16-14UNC	P3	TNMRU07Q1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,620
7/16-14UNC	P4	TNMSU07Q5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,620 ※
7/16-14UNC	P4	TNMSU07Q1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,620 ※
7/16-20UNF	P3	TNMRU07N5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,620
7/16-20UNF	P3	TNMRU07N1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,620
7/16-20UNF	P4	TNMSU07N5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,620 ※
7/16-20UNF	P4	TNMSU07N1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,620 ※
7/16-24UNS	P3	TNMRU07M5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,720 ※
7/16-24UNS	P3	TNMRU07M1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,720 ※
7/16-28UNEF	P2	TNMQU07K5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,720 ※
7/16-28UNEF	P2	TNMQU07K1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,720 ※
1/2-13UNC	P3	TNMRU08R5	5P	88	26	-	45	10.5	8	11	4	6	¥ 3,840
1/2-13UNC	P3	TNMRU08R1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 3,840
1/2-13UNC	P4	TNMSU08R5	5P	88	26	-	45	10.5	8	11	4	6	¥ 3,840 ※
1/2-13UNC	P4	TNMSU08R1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 3,840 ※
1/2-20UNF	P3	TNMRU08N5	5P	88	26	-	45	10.5	8	11	4	6	¥ 3,840
1/2-20UNF	P3	TNMRU08N1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 3,840
1/2-20UNF	P4	TNMSU08N5	5P	88	26	-	45	10.5	8	11	4	6	¥ 3,840 ※
1/2-20UNF	P4	TNMSU08N1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 3,840 ※
1/2-24UNS	P3	TNMRU08M5	5P	88	26	-	45	10.5	8	11	4	6	¥ 5,680 ※
1/2-24UNS	P3	TNMRU08M1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 5,680 ※
1/2-28UNEF	P2	TNMQU08K5	5P	88	26	-	45	10.5	8	11	4	6	¥ 5,680 ※
1/2-28UNEF	P2	TNMQU08K1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 5,680 ※
1/2-32UN	P2	TNMQU08J5	5P	88	14	-	45	10.5	8	11	4	7	¥ 5,680 ※
1/2-32UN	P2	TNMQU08J1	1.5P	88	14	-	45	10.5	8	11	4	7	¥ 5,680 ※
9/16-12UNC	P3	TNMRU09S5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
9/16-12UNC	P3	TNMRU09S1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
9/16-18UNF	P3	TNMRU09O5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740
9/16-18UNF	P3	TNMRU09O1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740
9/16-18UNF	P4	TNMSU09O5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
9/16-18UNF	P4	TNMSU09O1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
9/16-20UN	P3	TNMRU09N5	5P	95	26	-	48	12.5	10	13	4	6	¥ 8,210 ※
9/16-20UN	P3	TNMRU09N1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 8,210 ※
9/16-24UNEF	P3	TNMRU09M5	5P	95	26	-	48	12.5	10	13	4	6	¥ 8,210 ※
9/16-24UNEF	P3	TNMRU09M1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 8,210 ※

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
5/8-11UNC	P4	TNMSU10U5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740
5/8-11UNC	P4	TNMSU10U1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740
5/8-18UNF	P3	TNMRU10O5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740
5/8-18UNF	P3	TNMRU10O1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740
5/8-18UNF	P4	TNMSU10O5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
5/8-18UNF	P4	TNMSU10O1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
5/8-20UN	P3	TNMRU10N5	5P	95	26	-	48	12.5	10	13	4	6	¥ 8,210 ※
5/8-20UN	P3	TNMRU10N1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 8,210 ※
5/8-24UNEF	P3	TNMRU10M5	5P	95	26	-	48	12.5	10	13	4	6	¥ 8,210 ※
5/8-24UNEF	P3	TNMRU10M1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 8,210 ※
3/4-10UNC	P4	TNMSU12V5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400
3/4-10UNC	P4	TNMSU12V1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400
3/4-16UNF	P3	TNMRU12P5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400
3/4-16UNF	P3	TNMRU12P1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400
3/4-16UNF	P4	TNMSU12P5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
3/4-16UNF	P4	TNMSU12P1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
3/4-20UNEF	P3	TNMRU12N5	5P	105	33	-	50	15	12	15	4	8	¥ 13,200 ※
3/4-20UNEF	P3	TNMRU12N1	1.5P	105	33	-	50	15	12	15	4	8	¥ 13,200 ※
7/8-9UNC	P4	TNMSU14W5	5P	115	33	-	55	17	13	16	4	8	¥ 14,800
7/8-9UNC	P4	TNMSU14W1	1.5P	115	33	-	55	17	13	16	4	8	¥ 14,800
7/8-14UNF	P4	TNMSU14Q5	5P	115	33	-	55	17	13	16	4	8	¥ 14,800
7/8-14UNF	P4	TNMSU14Q1	1.5P	115	33	-	55	17	13	16	4	8	¥ 14,800
7/8-20UNEF	P3	TNMRU14N5	5P	115	33	-	55	17	13	16	4	8	¥ 20,600 ※
7/8-20UNEF	P3	TNMRU14N1	1.5P	115	33	-	55	17	13	16	4	8	¥ 20,600 ※
1 -8UNC	P4	TNMSU16X5	5P	125	39	-	58	19	15	18	4	8	¥ 21,600
1 -8UNC	P4	TNMSU16X1	1.5P	125	39	-	58	19	15	18	4	8	¥ 21,600
1 -12UNF	P4	TNMSU16S5	5P	125	39	-	58	19	15	18	4	8	¥ 21,600
1 -12UNF	P4	TNMSU16S1	1.5P	125	39	-	58	19	15	18	4	8	¥ 21,600
1 -14UNS	P4	TNMSU16Q5	5P	125	39	-	58	19	15	18	4	8	¥ 28,600 ※
1 -14UNS	P4	TNMSU16Q1	1.5P	125	39	-	58	19	15	18	4	8	¥ 28,600 ※
1 -20UNEF	P3	TNMRU16N5	5P	125	39	-	58	19	15	18	4	8	¥ 28,600 ※
1 -20UNEF	P3	TNMRU16N1	1.5P	125	39	-	58	19	15	18	4	8	¥ 28,600 ※
1 1/16-12UN	P4	TNMSU17S5	5P	130	39	-	60	20	15	18	4	8	¥ 28,600 ※
1 1/16-12UN	P4	TNMSU17S1	1.5P	130	39	-	60	20	15	18	4	8	¥ 28,600 ※
1 1/16-14UNS	P4	TNMSU17Q5	5P	130	39	-	60	20	15	18	4	8	¥ 28,600 ※
1 1/16-14UNS	P4	TNMSU17Q1	1.5P	130	39	-	60	20	15	18	4	8	¥ 28,600 ※
1 1/8-7UNC	P5	TNMTU18Y5	5P	135	46	-	62	23	17	20	4	8	¥ 29,500 ※
1 1/8-7UNC	P5	TNMTU18Y1	1.5P	135	46	-	62	23	17	20	4	8	¥ 29,500 ※
1 1/8-8UN	P5	TNMTU18X5	5P	135	46	-	62	23	17	20	4	8	¥ 35,400 ※
1 1/8-8UN	P5	TNMTU18X1	1.5P	135	46	-	62	23	17	20	4	8	¥ 35,400 ※
1 1/8-12UNF	P4	TNMSU18S5	5P	135	46	-	62	23	17	20	4	8	¥ 29,500 ※
1 1/8-12UNF	P4	TNMSU18S1	1.5P	135	46	-	62	23	17	20	4	8	¥ 29,500 ※
1 3/16-12UN	P4	TNMSU19S5	5P	145	46	-	67	24	19	22	4	8	¥ 35,400 ※
1 3/16-12UN	P4	TNMSU19S1	1.5P	145	46	-	67	24	19	22	4	8	¥ 35,400 ※
1 1/4-7UNC	P5	TNMTU20Y5	5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
1 1/4-7UNC	P5	TNMTU20Y1	1.5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
1 1/4-8UN	P5	TNMTU20X5	5P	145	46	-	67	24	19	22	4	8	¥ 41,200 ※
1 1/4-8UN	P5	TNMTU20X1	1.5P	145	46	-	67	24	19	22	4	8	¥ 41,200 ※
1 1/4-12UNF	P4	TNMSU20S5	5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
1 1/4-12UNF	P4	TNMSU20S1	1.5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
1 5/16-12UN	P4	TNMSU21S5	5P	155	52	-	71	28	21	24	4	8	¥ 41,200 ※
1 5/16-12UN	P4	TNMSU21S1	1.5P	155	52	-	71	28	21	24	4	8	¥ 41,200 ※
1 3/8-6UNC	P5	TNMTU22Z5	5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
1 3/8-6UNC	P5	TNMTU22Z1	1.5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
1 3/8-8UN	P5	TNMTU22X5	5P	155	52	-	71	28	21	24	4	8	¥ 47,900 ※
1 3/8-8UN	P5	TNMTU22X1	1.5P	155	52	-	71	28	21	24	4	8	¥ 47,900 ※
1 3/8-12UNF	P4	TNMSU22S5	5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
1 3/8-12UNF	P4	TNMSU22S1	1.5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
1 1/2-6UNC	P5	TNMTU24Z5	5P	165	52	-	76	30	23	26	4	8	¥ 57,100 ※
1 1/2-6UNC	P5	TNMTU24Z1	1.5P	165	52	-	76	30	23	26	4	8	¥ 57,100 ※
1 1/2-8UN	P5	TNMTU24X5	5P	165	52	-	76	30	23	26	4	8	¥ 57,100 ※
1 1/2-8UN	P5	TNMTU24X1	1.5P	165	52	-	76	30	23	26	4	8	¥ 57,100 ※
1 1/2-12UNF	P4	TNMSU24S5	5P	165	52	-	76	30	23	26	4	8	¥ 57,100 ※
1 1/2-12UNF	P4	TNMSU24S1	1.5P	165	52	-	76	30	23	26	4	8	¥ 57,100 ※
1 5/8-5UNS	P5	TNMTU2605	5P	175	59	-	81	32	26	30	4	8	¥ 58,500 ※
1 5/8-5UNS	P5	TNMTU2601	1.5P	175	59	-	81	32	26	30	4	8	¥ 58,500 ※
1 5/8-8UN	P5	TNMTU26X5	5P	175	59	-	81	32	26	30	4	8	¥ 66,900 ※
1 5/8-8UN	P5	TNMTU26X1	1.5P	175	59	-	81	32	26	30	4	8	¥ 66,900 ※
1 5/8-12UN	P4	TNMSU26S5	5P	175	59	-	81	32	26	30	4	8	¥ 66,900 ※
1 5/8-12UN	P4	TNMSU26S1	1.5P	175	59	-	81	32	26	30	4	8	¥ 66,900 ※
1 3/4-5UNC	P6	TNMUU2805	5P	180	59	-	83	35	26	30	4	8	¥ 79,600 ※
1 3/4-5UNC	P6	TNMUU2801	1.5P	180	59	-	83	35	26	30	4	8	¥ 79,600 ※
1 3/4-8UN	P5	TNMTU28X5	5P	180	59	-	83	35	26	30	4	8	¥ 79,600 ※
1 3/4-8UN	P5	TNMTU28X1	1.5P	180	59	-	83	35	26	30	4	8	¥ 79,600 ※
1 3/4-12UN	P4	TNMSU28S5	5P	180	59	-	83	35	26	30	4	8	¥ 79,600 ※
1 3/4-12UN	P4	TNMSU28S1	1.5P	180	59	-	83	35	26	30	4	8	¥ 79,600 ※
1 7/8-8UN	P5	TNMTU30X5	5P	185	65	-	85	38	29	32	4	8	¥ 92,200 ※
1 7/8-8UN	P5	TNMTU30X1	1.5P	185	65	-	85	38	29	32	4	8	¥ 92,200 ※
1 7/8-12UN	P4	TNMSU30S5	5P	185	65	-	85	38	29	32	4	8	¥ 92,200 ※
1 7/8-12UN	P4	TNMSU30S1	1.5P	185	65	-	85	38	29	32	4	8	¥ 92,200 ※
2 -4 1/2UNC	II	TH2U3295	5P	195	92	-	-	40	32	35	4	10	¥126,000 ※
2 -4 1/2UNC	II	TH2U3291	1.5P	195	92	-	-	40	32	35	4	10	¥126,000 ※
2 -8UN	II	TH2U32X5	5P	180	80	-	-	40	32	35	4	10	¥126,000 ※
2 -8UN	II	TH2U32X1	1.5P	180	80	-	-	40	32	35	4	10	¥126,000 ※
2 -12UN	II	TH2U32S5	5P	130	45	-	-	40	32	35	4	10	¥126,000 ※
2 -12UN	II	TH2U32S1	1.5P	130	45	-	-	40	32	35	4	10	¥126,000 ※
2 1/4-8UN	II	TH2U36X5	5P	180	80	-	-	44	35	38	4	10	¥138,000 ※
2 1/4-8UN	II	TH2U36X1	1.5P	180	80	-	-	44	35	38	4	10	¥138,000 ※
2 1/2-8UN	II	TH2U40X5	5P	185	85	-	-	48	38	42	4	10	¥189,000 ※
2 1/2-8UN	II	TH2U40X1	1.5P	185	85	-	-	48	38	42	4	10	¥189,000 ※
2 3/4-8UN	II	TH2U44X5	5P	190	85	-	-	55	41	44	4	10	¥233,000 ※
2 3/4-8UN	II	TH2U44X1	1.5P	190	85	-	-	55	41	44	4	10	¥233,000 ※
3 -8UN	II	TH2U48X5	5P	190	85	-	-	58	46	50	4	10	¥279,000 ※
3 -8UN	II	TH2U48X1	1.5P	190	85	-	-	58	46	50	4	10	¥279,000 ※
For Whitworth Threads													
1/16W60	P2	TNMQW01-5	5P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,060 ※
1/16W60	P2	TNMQW01-1	1.5P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,060 ※
3/32W48	P2	TNMQW1HF5	5P	46	8.1	14	28	3	2.5	5	3	3	¥ 1,890 ※
3/32W48	P2	TNMQW1HF1	1.5P	46	8.1	14	28	3	2.5	5	3	3	¥ 1,890 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
1/8W40	P2	TNMQW02H5	5P	52	11	16	28	5	4	7	3	3	¥ 1,660 ※
1/8W40	P2	TNMQW02H1	1.5P	52	11	16	28	5	4	7	3	3	¥ 1,660 ※
5/32W32	P2	TNMQW2HJ5	5P	52	11	17	29	5	4	7	4	3	¥ 1,340 ※
5/32W32	P2	TNMQW2HJ1	1.5P	52	11	17	29	5	4	7	4	3	¥ 1,340 ※
3/16W24	P3	TNMRW03M5	5P	60	13	21	32	5.5	4.5	7	4	3	¥ 1,350 ※
3/16W24	P3	TNMRW03M1	1.5P	60	13	21	32	5.5	4.5	7	4	3	¥ 1,350 ※
7/32W24	P3	TNMRW3HM5	5P	62	15	26	32	6	4.5	7	4	3	¥ 1,450 ※
7/32W24	P3	TNMRW3HM1	1.5P	62	15	26	32	6	4.5	7	4	3	¥ 1,450 ※
1/4W20	P3	TNMRW04N5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,450 ※
1/4W20	P3	TNMRW04N1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,450 ※
5/16W18	P3	TNMRW05O5T	5P	70	19	-	36	6.2	5	8	3	6	¥ 2,010 ※
5/16W18	P3	TNMRW05O1T	1.5P	70	19	-	36	6.2	5	8	3	6	¥ 2,010 ※
5/16W18	P3	TNMRW05O5	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,010 ※
5/16W18	P3	TNMRW05O1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,010 ※
3/8W16	P3	TNMRW06P5	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,580 ※
3/8W16	P3	TNMRW06P1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,580 ※
7/16W14	P4	TNMSW07Q5	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,620 ※
7/16W14	P4	TNMSW07Q1	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 3,620 ※
1/2W12	P4	TNMSW08S5	5P	88	26	-	45	10.5	8	11	4	6	¥ 3,840 ※
1/2W12	P4	TNMSW08S1	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 3,840 ※
9/16W12	P4	TNMSW09S5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
9/16W12	P4	TNMSW09S1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
5/8W11	P4	TNMSW10U5	5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
5/8W11	P4	TNMSW10U1	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 5,740 ※
3/4W10	P4	TNMSW12V5	5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
3/4W10	P4	TNMSW12V1	1.5P	105	33	-	50	15	12	15	4	8	¥ 10,400 ※
7/8W9	P5	TNMTW14W5	5P	115	33	-	55	17	13	16	4	8	¥ 14,800 ※
7/8W9	P5	TNMTW14W1	1.5P	115	33	-	55	17	13	16	4	8	¥ 14,800 ※
1 W8	P5	TNMTW16X5	5P	125	39	-	58	19	15	18	4	8	¥ 21,600 ※
1 W8	P5	TNMTW16X1	1.5P	125	39	-	58	19	15	18	4	8	¥ 21,600 ※
1 1/8W7	P5	TNMTW18Y5	5P	135	46	-	62	23	17	20	4	8	¥ 29,500 ※
1 1/8W7	P5	TNMTW18Y1	1.5P	135	46	-	62	23	17	20	4	8	¥ 29,500 ※
1 1/4W7	P5	TNMTW20Y5	5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
1 1/4W7	P5	TNMTW20Y1	1.5P	145	46	-	67	24	19	22	4	8	¥ 34,400 ※
1 3/8W6	P6	TNMUW22Z5	5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
1 3/8W6	P6	TNMUW22Z1	1.5P	155	52	-	71	28	21	24	4	8	¥ 39,900 ※
1 1/2W6	P6	TNMUW24Z5	5P	165	52	-	76	30	23	26	4	8	¥ 57,100 ※
1 1/2W6	P6	TNMUW24Z1	1.5P	165	52	-	76	30	23	26	4	8	¥ 57,100 ※
1 5/8W5	P6	TNMUW2605	5P	175	59	-	81	32	26	30	4	8	¥ 58,500 ※
1 5/8W5	P6	TNMUW2601	1.5P	175	59	-	81	32	26	30	4	8	¥ 58,500 ※
1 3/4W5	P6	TNMUW2805	5P	180	59	-	83	35	26	30	4	8	¥ 79,600 ※
1 3/4W5	P6	TNMUW2801	1.5P	180	59	-	83	35	26	30	4	8	¥ 79,600 ※
1 7/8W4 1/2	P6	TNMUW3095	5P	185	65	-	85	38	29	32	4	8	¥ 92,200 ※
1 7/8W4 1/2	P6	TNMUW3091	1.5P	185	65	-	85	38	29	32	4	8	¥ 92,200 ※
2 W4 1/2	II	TH2W3295	5P	195	92	-	-	40	32	35	4	10	¥126,000 ※
2 W4 1/2	II	TH2W3291	1.5P	195	92	-	-	40	32	35	4	10	¥126,000 ※
2 1/4W4	II	TH2W3685	5P	210	100	-	-	44	35	38	4	10	¥138,000 ※
2 1/4W4	II	TH2W3681	1.5P	210	100	-	-	44	35	38	4	10	¥138,000 ※
2 1/2W4	II	TH2W4085	5P	225	105	-	-	48	38	42	4	10	¥189,000 ※
2 1/2W4	II	TH2W4081	1.5P	225	105	-	-	48	38	42	4	10	¥189,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
2 3/4W3 1/2	II	TH2W4475	5P	240	115	-	-	55	41	44	4	10	¥233,000 ※
2 3/4W3 1/2	II	TH2W4471	1.5P	240	115	-	-	55	41	44	4	10	¥233,000 ※
3 W3 1/2	II	TH2W4875	5P	250	120	-	-	58	46	50	4	10	¥279,000 ※
3 W3 1/2	II	TH2W4871	1.5P	250	120	-	-	58	46	50	4	10	¥279,000 ※
3 1/4W3 1/4	II	TH2W52-5	5P	265	125	-	-	58	46	50	6	10	¥367,000 ※
3 1/4W3 1/4	II	TH2W52-1	1.5P	265	125	-	-	58	46	50	6	10	¥367,000 ※
3 1/2W3 1/4	II	TH2W56-5	5P	275	130	-	-	60	46	50	6	10	¥423,000 ※
3 1/2W3 1/4	II	TH2W56-1	1.5P	275	130	-	-	60	46	50	6	10	¥423,000 ※
3 3/4W3	II	TH2W6065	5P	285	135	-	-	65	50	52	6	10	¥475,000 ※
3 3/4W3	II	TH2W6061	1.5P	285	135	-	-	65	50	52	6	10	¥475,000 ※
4 W3	II	TH2W6465	5P	295	135	-	-	65	50	52	6	10	¥550,000 ※
4 W3	II	TH2W6461	1.5P	295	135	-	-	65	50	52	6	10	¥550,000 ※
For Screw Threads used on Sewing Machines													
1/16SM80	P1	TNMPS04B5	5P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,730 ※
1/16SM80	P1	TNMPS04B1	1.5P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,730 ※
5/64SM64	P1	TNMPS05D5	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 3,000 ※
5/64SM64	P1	TNMPS05D1	1.5P	42	7.2	12	27	3	2.5	5	3	3	¥ 3,000 ※
3/32SM56	P1	TNMPS06E5	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 2,270 ※
3/32SM56	P1	TNMPS06E1	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 2,270 ※
3/32SM100	P1	TNMPS06A5	5P	46	3.4	14	29	3	2.5	5	3	5	¥ 3,400 ※
3/32SM100	P1	TNMPS06A1	1.5P	46	3.4	14	29	3	2.5	5	3	5	¥ 3,400 ※
1/8SM40	P2	TNMQS08H5	5P	52	11	16	28	5	4	7	3	3	¥ 1,660 ※
1/8SM40	P2	TNMQS08H1	1.5P	52	11	16	28	5	4	7	3	3	¥ 1,660 ※
1/8SM44	P2	TNMQS08G5	5P	52	11	16	28	5	4	7	3	3	¥ 1,660 ※
1/8SM44	P2	TNMQS08G1	1.5P	52	11	16	28	5	4	7	3	3	¥ 1,660 ※
9/64SM40	P2	TNMQS09H5	5P	52	11	16	29	5	4	7	3	3	¥ 1,660 ※
9/64SM40	P2	TNMQS09H1	1.5P	52	11	16	29	5	4	7	3	3	¥ 1,660 ※
11/64SM32	P2	TNMQS11J5	5P	60	13	21	33	5.5	4.5	7	4	3	¥ 1,630 ※
11/64SM32	P2	TNMQS11J1	1.5P	60	13	21	33	5.5	4.5	7	4	3	¥ 1,630 ※
11/64SM40	P2	TNMQS11H5	5P	60	13	21	33	5.5	4.5	7	4	3	¥ 1,630 ※
11/64SM40	P2	TNMQS11H1	1.5P	60	13	21	33	5.5	4.5	7	4	3	¥ 1,630 ※
3/16SM24	P2	TNMQS12M5	5P	60	13	21	32	5.5	4.5	7	4	3	¥ 1,630 ※
3/16SM24	P2	TNMQS12M1	1.5P	60	13	21	32	5.5	4.5	7	4	3	¥ 1,630 ※
3/16SM28	P2	TNMQS12K5	5P	60	13	21	32	5.5	4.5	7	4	3	¥ 1,630 ※
3/16SM28	P2	TNMQS12K1	1.5P	60	13	21	32	5.5	4.5	7	4	3	¥ 1,630 ※
3/16SM32	P2	TNMQS12J5	5P	60	13	21	32	5.5	4.5	7	4	3	¥ 1,630 ※
3/16SM32	P2	TNMQS12J1	1.5P	60	13	21	32	5.5	4.5	7	4	3	¥ 1,630 ※
3/16SM40	P2	TNMQS12H5	5P	60	13	21	32	5.5	4.5	7	4	3	¥ 2,350 ※
3/16SM40	P2	TNMQS12H1	1.5P	60	13	21	32	5.5	4.5	7	4	3	¥ 2,350 ※
15/64SM28	P2	TNMQS15K5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,750 ※
15/64SM28	P2	TNMQS15K1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,750 ※
1/4SM24	P2	TNMQS16M5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,750 ※
1/4SM24	P2	TNMQS16M1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,750 ※
1/4SM28	P2	TNMQS16K5	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,750 ※
1/4SM28	P2	TNMQS16K1	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,750 ※
1/4SM40	P2	TNMQS16H5	5P	62	8.6	26	33	6	4.5	7	4	5	¥ 2,510 ※
1/4SM40	P2	TNMQS16H1	1.5P	62	8.6	26	33	6	4.5	7	4	5	¥ 2,510 ※
9/32SM28	P2	TNMQS18K5	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,780 ※
9/32SM28	P2	TNMQS18K1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,780 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
5/16SM24	P2	TNMQS20M5	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,010 ※
5/16SM24	P2	TNMQS20M1	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,010 ※
11/32SM28	P2	TNMQS22K5	5P	75	23	-	38	7	5.5	8	4	6	¥ 3,110 ※
11/32SM28	P2	TNMQS22K1	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 3,110 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

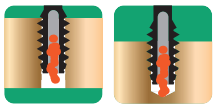
HT

Hand Taps



Specification

HSS



Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

■The HT taps produce a chip that is relatively small and is stored in the taps flutes. The HT taps have a high cutting edge strength and can be used on a wide varity of machines from manual drilling machines and machining centers.

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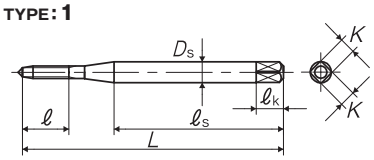

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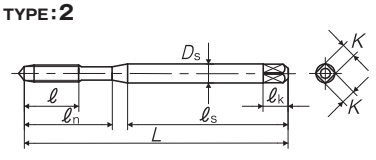

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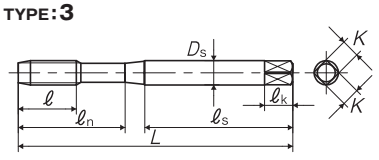

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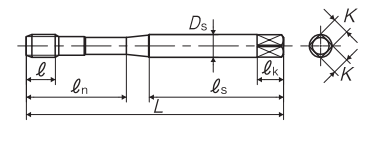

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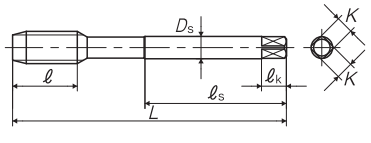

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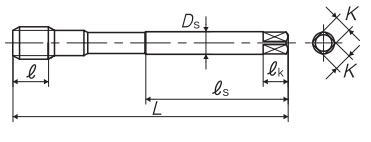

Segment : 1A

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	D3	TS2.0E3NEB5	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
M2 × 0.4	D3	TS2.0E3NEBA	1.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
M2.2 × 0.45	D3	TS2.2F3NEB5	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
M2.2 × 0.45	D3	TS2.2F3NEBA	1.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
M2.5 × 0.45	D3	TS2.5F3NEB5	5P	2.205	0.354	0.693	1.28	0.141	0.11	0.187	3	2
M2.5 × 0.45	D3	TS2.5F3NEBA	1.5P	2.205	0.354	0.693	1.28	0.141	0.11	0.187	3	2
M2.6 × 0.45	D3	TS2.6F3NEB5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
M2.6 × 0.45	D3	TS2.6F3NEBA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
M3 × 0.5	D3	TS3.0G3NEB5	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
M3 × 0.5	D3	TS3.0G3NEBA	1.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
M3.5 × 0.6	D4	TS3.5H4NEB5	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
M3.5 × 0.6	D4	TS3.5H4NEBA	1.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M4 × 0.7	D4	TS4.0I4NEB5	5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	2
M4 × 0.7	D4	TS4.0I4NEBA	1.5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	2
M5 × 0.8	D4	TS5.0K4NEB5	5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M5 × 0.8	D4	TS5.0K4NEBA	1.5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M6 × 1	D5	TS6.0M5NEB5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
M6 × 1	D5	TS6.0M5NEBA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
M7 × 1	D5	TS7.0M5NEB5	5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M7 × 1	D5	TS7.0M5NEBA	1.5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M7 × 0.75	D4	TS7.0J4NEB5	5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	4	3
M7 × 0.75	D4	TS7.0J4NEBA	1.5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	4	3
M7 × 0.5	D4	TS7.0G4NEB5	5P	3.543	0.394	1.339	1.831	0.318	0.238	0.375	4	4
M7 × 0.5	D4	TS7.0G4NEBA	1.5P	3.543	0.394	1.339	1.831	0.318	0.238	0.375	4	4
M8 × 1.25	D5	TS8.0N5NEB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 1.25	D5	TS8.0N5NEBA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 1	D5	TS8.0M5NEB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
M8 × 1	D5	TS8.0M5NEBA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
M8 × 0.75	D4	TS8.0J4NEB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
M8 × 0.75	D4	TS8.0J4NEBA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
M8 × 0.5	D4	TS8.0G4NEB5	5P	3.543	0.394	1.378	1.831	0.318	0.238	0.375	4	4
M8 × 0.5	D4	TS8.0G4NEBA	1.5P	3.543	0.394	1.378	1.831	0.318	0.238	0.375	4	4
M9 × 1.25	D5	TS9.0N5NEB5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
M9 × 1.25	D5	TS9.0N5NEBA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
M9 × 1	D5	TS9.0M5NEB5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
M9 × 1	D5	TS9.0M5NEBA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
M10 × 1.5	D6	TS010O6NEB5	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	3
M10 × 1.5	D6	TS010O6NEBA	1.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	3
M10 × 1.25	D5	TS010N5NEB5	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	3
M10 × 1.25	D5	TS010N5NEBA	1.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	3
M10 × 1	D5	TS010M5NEB5	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	3
M10 × 1	D5	TS010M5NEBA	1.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	3
M10 × 0.75	D4	TS010J4NEB5	5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	4	4
M10 × 0.75	D4	TS010J4NEBA	1.5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	4	4
M11 × 1.5	D6	TS011O6NEB5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
M11 × 1.5	D6	TS011O6NEBA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
M12 × 1.75	D6	TS012P6NEB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1.75	D6	TS012P6NEBA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1.5	D6	TS012O6NEB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1.5	D6	TS012O6NEBA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1.25	D6	TS012N6NEB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1.25	D6	TS012N6NEBA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1	D5	TS012M5NEB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1	D5	TS012M5NEBA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M14 × 2	D7	TS014Q7NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 2	D7	TS014Q7NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 1.5	D6	TS014O6NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 1.5	D6	TS014O6NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 1.25	D6	TS014N6NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 1.25	D6	TS014N6NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 1	D5	TS014M5NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 1	D5	TS014M5NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M16 × 2	D7	TS016Q7NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
M16 × 2	D7	TS016Q7NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
M16 × 1.5	D6	TS016O6NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
M16 × 1.5	D6	TS016O6NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
M16 × 1	D5	TS016M5NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
M16 × 1	D5	TS016M5NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
M18 × 2.5	D7	TS018R7NEB5	5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	5
M18 × 2.5	D7	TS018R7NEBA	1.5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	5
M18 × 2	D7	TS018Q7NEB5	5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	5
M18 × 2	D7	TS018Q7NEBA	1.5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	5
M18 × 1.5	D6	TS018O6NEB5	5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	6
M18 × 1.5	D6	TS018O6NEBA	1.5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	6
M18 × 1	D5	TS018M5NEB5	5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	6
M18 × 1	D5	TS018M5NEBA	1.5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	6
M20 × 2.5	D7	TS020R7NEB5	5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	5
M20 × 2.5	D7	TS020R7NEBA	1.5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	5
M20 × 2	D7	TS020Q7NEB5	5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	5
M20 × 2	D7	TS020Q7NEBA	1.5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	5
M20 × 1.5	D6	TS020O6NEB5	5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	6
M20 × 1.5	D6	TS020O6NEBA	1.5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	6
M20 × 1	D5	TS020M5NEB5	5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	6
M20 × 1	D5	TS020M5NEBA	1.5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	6
M22 × 2.5	D7	TS022R7NEB5	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
M22 × 2.5	D7	TS022R7NEBA	1.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
M22 × 2	D7	TS022Q7NEB5	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
M22 × 2	D7	TS022Q7NEBA	1.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
M22 × 1.5	D6	TS022O6NEB5	5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	6
M22 × 1.5	D6	TS022O6NEBA	1.5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	6
M22 × 1	D5	TS022M5NEB5	5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	6
M22 × 1	D5	TS022M5NEBA	1.5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	6
M24 × 3	D8	TS024S8NEB5	5P	6.299	1.457	-	3.228	0.76	0.57	0.75	4	5
M24 × 3	D8	TS024S8NEBA	1.5P	6.299	1.457	-	3.228	0.76	0.57	0.75	4	5
M24 × 2	D7	TS024Q7NEB5	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 2	D7	TS024Q7NEBA	1.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 1.5	D6	TS024O6NEB5	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 1.5	D6	TS024O6NEBA	1.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 1	D5	TS024M5NEB5	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 1	D5	TS024M5NEBA	1.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M25 × 1.5	D6	TS025O6NEB5	5P	6.299	1.063	-	3.228	0.8	0.6	0.812	4	6
M25 × 1.5	D6	TS025O6NEBA	1.5P	6.299	1.063	-	3.228	0.8	0.6	0.812	4	6
M26 × 1.5	D6	TS026O6NEB5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M26 × 1.5	D6	TS026O6NEBA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 3	D8	TS027S8NEB5	5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
M27 × 3	D8	TS027S8NEBA	1.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
M27 × 2	D7	TS027Q7NEB5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 2	D7	TS027Q7NEBA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1.5	D6	TS027O6NEB5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1.5	D6	TS027O6NEBA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1	D5	TS027M5NEB5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1	D5	TS027M5NEBA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M28 × 2	D7	TS028Q7NEB5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 2	D7	TS028Q7NEBA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1.5	D6	TS028O6NEB5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1.5	D6	TS028O6NEBA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1	D5	TS028M5NEB5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1	D5	TS028M5NEBA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M30 × 3.5	D9	TS030T9NEB5	5P	7.087	1.732	-	3.622	1.021	0.766	1	4	5
M30 × 3.5	D9	TS030T9NEBA	1.5P	7.087	1.732	-	3.622	1.021	0.766	1	4	5
M30 × 2	D7	TS030Q7NEB5	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 2	D7	TS030Q7NEBA	1.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1.5	D6	TS030O6NEB5	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1.5	D6	TS030O6NEBA	1.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1	D5	TS030M5NEB5	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1	D5	TS030M5NEBA	1.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M32 × 2	D7	TS032Q7NEB5	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 2	D7	TS032Q7NEBA	1.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1.5	D6	TS032O6NEB5	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1.5	D6	TS032O6NEBA	1.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1	D5	TS032M5NEB5	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1	D5	TS032M5NEBA	1.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M33 × 3.5	D9	TS033T9NEB5	5P	7.087	1.732	-	3.622	1.108	0.831	1.062	4	5
M33 × 3.5	D9	TS033T9NEBA	1.5P	7.087	1.732	-	3.622	1.108	0.831	1.062	4	5
M33 × 2	D7	TS033Q7NEB5	5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 2	D7	TS033Q7NEBA	1.5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1.5	D6	TS033O6NEB5	5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1.5	D6	TS033O6NEBA	1.5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1	D5	TS033M5NEB5	5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1	D5	TS033M5NEBA	1.5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M36 × 4	D9	TS036U9NEB5	5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 4	D9	TS036U9NEBA	1.5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 3	D8	TS036S8NEB5	5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 3	D8	TS036S8NEBA	1.5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 2	D7	TS036Q7NEB5	5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 2	D7	TS036Q7NEBA	1.5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1.5	D6	TS036O6NEB5	5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1.5	D6	TS036O6NEBA	1.5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1	D5	TS036M5NEB5	5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1	D5	TS036M5NEBA	1.5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M39 × 4	D9	TS039U9NEB5	5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 4	D9	TS039U9NEBA	1.5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 3	D8	TS039S8NEB5	5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 3	D8	TS039S8NEBA	1.5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 2	D7	TS039Q7NEB5	5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 2	D7	TS039Q7NEBA	1.5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1.5	D6	TS039O6NEB5	5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1.5	D6	TS039O6NEBA	1.5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1	D5	TS039M5NEB5	5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1	D5	TS039M5NEBA	1.5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M42 × 4.5	D10	TS042V0NEB5	5P	7.874	2.047	-	4.016	1.43	1.072	1.25	4	5
M42 × 4.5	D10	TS042V0NEBA	1.5P	7.874	2.047	-	4.016	1.43	1.072	1.25	4	5

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M42 × 2	D7	TS042Q7NEB5	5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 2	D7	TS042Q7NEBA	1.5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1.5	D6	TS042O6NEB5	5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1.5	D6	TS042O6NEBA	1.5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1	D5	TS042M5NEB5	5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1	D5	TS042M5NEBA	1.5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M45 × 4.5	D10	TS045V0NEB5	5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 4.5	D10	TS045V0NEBA	1.5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 3	D8	TS045S8NEB5	5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 3	D8	TS045S8NEBA	1.5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 2	D7	TS045Q7NEB5	5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 2	D7	TS045Q7NEBA	1.5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1.5	D6	TS045O6NEB5	5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1.5	D6	TS045O6NEBA	1.5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1	D5	TS045M5NEB5	5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1	D5	TS045M5NEBA	1.5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M48 × 5	D11	TS048W-NEB5	5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 5	D11	TS048W-NEBA	1.5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 3	D9	TS048S9NEB5	5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 3	D9	TS048S9NEBA	1.5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 2	D7	TS048Q7NEB5	5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 2	D7	TS048Q7NEBA	1.5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1.5	D7	TS048O7NEB5	5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1.5	D7	TS048O7NEBA	1.5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1	D6	TS048M6NEB5	5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1	D6	TS048M6NEBA	1.5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
For Unified Threads												
No.0-80UNF	GH1	TSUN0B1NEB5	5P	1.772	0.236	-	1.161	0.141	0.11	0.187	2	1
No.0-80UNF	GH1	TSUN0B1NEBA	1.5P	1.772	0.236	-	1.161	0.141	0.11	0.187	2	1
No.0-80UNF	GH2	TSUN0B2NEB5	5P	1.772	0.236	-	1.161	0.141	0.11	0.187	2	1
No.0-80UNF	GH2	TSUN0B2NEBA	1.5P	1.772	0.236	-	1.161	0.141	0.11	0.187	2	1
No.1-64UNC	GH1	TSUN1D1NEB5	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-64UNC	GH1	TSUN1D1NEBA	1.5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-64UNC	GH2	TSUN1D2NEB5	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-64UNC	GH2	TSUN1D2NEBA	1.5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-72UNF	GH1	TSUN1C1NEB5	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-72UNF	GH1	TSUN1C1NEBA	1.5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-72UNF	GH2	TSUN1C2NEB5	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-72UNF	GH2	TSUN1C2NEBA	1.5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.2-56UNC	GH1	TSUN2E1NEB5	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-56UNC	GH1	TSUN2E1NEBA	1.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-56UNC	GH2	TSUN2E2NEB5	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-56UNC	GH2	TSUN2E2NEBA	1.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-64UNF	GH1	TSUN2D1NEB5	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-64UNF	GH1	TSUN2D1NEBA	1.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-64UNF	GH2	TSUN2D2NEB5	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-64UNF	GH2	TSUN2D2NEBA	1.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.3-48UNC	GH1	TSUN3F1NEB5	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-48UNC	GH1	TSUN3F1NEBA	1.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2

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L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.3-48UNC	GH2	TSUN3F2NEB5	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-48UNC	GH2	TSUN3F2NEBA	1.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-56UNF	GH1	TSUN3E1NEB5	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-56UNF	GH1	TSUN3E1NEBA	1.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-56UNF	GH2	TSUN3E2NEB5	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-56UNF	GH2	TSUN3E2NEBA	1.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.4-40UNC	GH2	TSUN4H2NEB5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-40UNC	GH2	TSUN4H2NEBA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-40UNC	GH3	TSUN4H3NEB5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-40UNC	GH3	TSUN4H3NEBA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-48UNF	GH1	TSUN4F1NEB5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-48UNF	GH1	TSUN4F1NEBA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-48UNF	GH2	TSUN4F2NEB5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-48UNF	GH2	TSUN4F2NEBA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.5-40UNC	GH2	TSUN5H2NEB5	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-40UNC	GH2	TSUN5H2NEBA	1.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-40UNC	GH3	TSUN5H3NEB5	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-40UNC	GH3	TSUN5H3NEBA	1.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-44UNF	GH1	TSUN5G1NEB5	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-44UNF	GH1	TSUN5G1NEBA	1.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-44UNF	GH2	TSUN5G2NEB5	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-44UNF	GH2	TSUN5G2NEBA	1.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-44UNF	GH3	TSUN5G3NEB5	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-44UNF	GH3	TSUN5G3NEBA	1.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH2	TSUN6J2NEB5	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH2	TSUN6J2NEBA	1.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH3	TSUN6J3NEB5	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH3	TSUN6J3NEBA	1.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-40UNF	GH2	TSUN6H2NEB5	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-40UNF	GH2	TSUN6H2NEBA	1.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-40UNF	GH3	TSUN6H3NEB5	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-40UNF	GH3	TSUN6H3NEBA	1.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.8-32UNC	GH2	TSUN8J2NEB5	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	GH2	TSUN8J2NEBA	1.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	GH3	TSUN8J3NEB5	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	GH3	TSUN8J3NEBA	1.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	GH2	TSUN8I2NEB5	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	GH2	TSUN8I2NEBA	1.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	GH3	TSUN8I3NEB5	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	GH3	TSUN8I3NEBA	1.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.10-24UNC	GH2	TSUNAM2NEB5	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	GH2	TSUNAM2NEBA	1.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	GH3	TSUNAM3NEB5	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	GH3	TSUNAM3NEBA	1.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	GH2	TSUNAJ2NEB5	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	GH2	TSUNAJ2NEBA	1.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	GH3	TSUNAJ3NEB5	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	GH3	TSUNAJ3NEBA	1.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.12-24UNC	GH2	TSUNCM2NEB5	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-24UNC	GH2	TSUNCM2NEBA	1.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.12-24UNC	GH3	TSUNCM3NEB5	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-24UNC	GH3	TSUNCM3NEBA	1.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	GH2	TSUNCK2NEB5	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	GH2	TSUNCK2NEBA	1.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	GH3	TSUNCK3NEB5	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	GH3	TSUNCK3NEBA	1.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
1/4-20UNC	GH3	TSU04N3NEB5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	GH3	TSU04N3NEBA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	GH4	TSU04N4NEB5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	GH4	TSU04N4NEBA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	GH5	TSU04N5NEB5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	GH5	TSU04N5NEBA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	GH2	TSU04K2NEB5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	GH2	TSU04K2NEBA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	GH3	TSU04K3NEB5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	GH3	TSU04K3NEBA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	GH4	TSU04K4NEB5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	GH4	TSU04K4NEBA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
5/16-18UNC	GH3	TSU05O3NEB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-18UNC	GH3	TSU05O3NEBA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-18UNC	GH4	TSU05O4NEB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-18UNC	GH4	TSU05O4NEBA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-18UNC	GH5	TSU05O5NEB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-18UNC	GH5	TSU05O5NEBA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-24UNF	GH3	TSU05M3NEB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-24UNF	GH3	TSU05M3NEBA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-24UNF	GH4	TSU05M4NEB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-24UNF	GH4	TSU05M4NEBA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
3/8-16UNC	GH3	TSU06P3NEB5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-16UNC	GH3	TSU06P3NEBA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-16UNC	GH5	TSU06P5NEB5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-16UNC	GH5	TSU06P5NEBA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-24UNF	GH3	TSU06M3NEB5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-24UNF	GH3	TSU06M3NEBA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-24UNF	GH4	TSU06M4NEB5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-24UNF	GH4	TSU06M4NEBA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
7/16-14UNC	GH4	TSU07Q4NEB5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-14UNC	GH4	TSU07Q4NEBA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-14UNC	GH5	TSU07Q5NEB5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-14UNC	GH5	TSU07Q5NEBA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-20UNF	GH3	TSU07N3NEB5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-20UNF	GH3	TSU07N3NEBA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-20UNF	GH4	TSU07N4NEB5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-20UNF	GH4	TSU07N4NEBA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
1/2-13UNC	GH3	TSU08R3NEB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-13UNC	GH3	TSU08R3NEBA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-13UNC	GH4	TSU08R4NEB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-13UNC	GH4	TSU08R4NEBA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-13UNC	GH5	TSU08R5NEB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-13UNC	GH5	TSU08R5NEBA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5

Think threads with YAMAWA

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L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
1/2-20UNF	GH3	TSU08N3NEB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-20UNF	GH3	TSU08N3NEBA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-20UNF	GH4	TSU08N4NEB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-20UNF	GH4	TSU08N4NEBA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-20UNF	GH5	TSU08N5NEB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-20UNF	GH5	TSU08N5NEBA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
9/16-12UNC	GH3	TSU09S3NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-12UNC	GH3	TSU09S3NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-12UNC	GH4	TSU09S4NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-12UNC	GH4	TSU09S4NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-12UNC	GH5	TSU09S5NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-12UNC	GH5	TSU09S5NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-18UNF	GH3	TSU09O3NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-18UNF	GH3	TSU09O3NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-18UNF	GH4	TSU09O4NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-18UNF	GH4	TSU09O4NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-18UNF	GH5	TSU09O5NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-18UNF	GH5	TSU09O5NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
5/8-11UNC	GH3	TSU10U3NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH3	TSU10U3NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH4	TSU10U4NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH4	TSU10U4NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH5	TSU10U5NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH5	TSU10U5NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH6	TSU10U6NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH6	TSU10U6NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-18UNF	GH3	TSU10O3NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-18UNF	GH3	TSU10O3NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-18UNF	GH4	TSU10O4NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-18UNF	GH4	TSU10O4NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-18UNF	GH5	TSU10O5NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-18UNF	GH5	TSU10O5NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
3/4-10UNC	GH3	TSU12V3NEB5	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH3	TSU12V3NEBA	1.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH5	TSU12V5NEB5	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH5	TSU12V5NEBA	1.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH6	TSU12V6NEB5	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH6	TSU12V6NEBA	1.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH3	TSU12P3NEB5	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH3	TSU12P3NEBA	1.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH4	TSU12P4NEB5	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH4	TSU12P4NEBA	1.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH5	TSU12P5NEB5	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH5	TSU12P5NEBA	1.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
7/8-9UNC	GH5	TSU14W5NEB5	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-9UNC	GH5	TSU14W5NEBA	1.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-9UNC	GH6	TSU14W6NEB5	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-9UNC	GH6	TSU14W6NEBA	1.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH4	TSU14Q4NEB5	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH4	TSU14Q4NEBA	1.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5

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HT Hand Taps

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7/8-14UNF	GH6	TSU14Q6NEB5	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH6	TSU14Q6NEBA	1.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
1 -8UNC	GH4	TSU16X4NEB5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH4	TSU16X4NEBA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH5	TSU16X5NEB5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH5	TSU16X5NEBA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH6	TSU16X6NEB5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH6	TSU16X6NEBA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH7	TSU16X7NEB5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH7	TSU16X7NEBA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH4	TSU16S4NEB5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH4	TSU16S4NEBA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH5	TSU16S5NEB5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH5	TSU16S5NEBA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH6	TSU16S6NEB5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH6	TSU16S6NEBA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 1/8-7UNC	GH6	TSU18Y6NEB5	5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-7UNC	GH6	TSU18Y6NEBA	1.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-7UNC	GH7	TSU18Y7NEB5	5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-7UNC	GH7	TSU18Y7NEBA	1.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH5	TSU18S5NEB5	5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH5	TSU18S5NEBA	1.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH6	TSU18S6NEB5	5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH6	TSU18S6NEBA	1.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/4-7UNC	GH6	TSU20Y6NEB5	5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-7UNC	GH6	TSU20Y6NEBA	1.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-7UNC	GH8	TSU20Y8NEB5	5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-7UNC	GH8	TSU20Y8NEBA	1.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-12UNF	GH5	TSU20S5NEB5	5P	7.087	1.929	-	3.622	1.021	0.766	1	6	5
1 1/4-12UNF	GH5	TSU20S5NEBA	1.5P	7.087	1.929	-	3.622	1.021	0.766	1	6	5
1 1/4-12UNF	GH6	TSU20S6NEB5	5P	7.087	1.929	-	3.622	1.021	0.766	1	6	5
1 1/4-12UNF	GH6	TSU20S6NEBA	1.5P	7.087	1.929	-	3.622	1.021	0.766	1	6	5
1 3/8-6UNC	GH6	TSU22Z6NEB5	5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-6UNC	GH6	TSU22Z6NEBA	1.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-6UNC	GH8	TSU22Z8NEB5	5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-6UNC	GH8	TSU22Z8NEBA	1.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-12UNF	GH5	TSU22S5NEB5	5P	7.874	2.165	-	4.016	1.108	0.831	1.062	6	5
1 3/8-12UNF	GH5	TSU22S5NEBA	1.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	6	5
1 3/8-12UNF	GH6	TSU22S6NEB5	5P	7.874	2.165	-	4.016	1.108	0.831	1.062	6	5
1 3/8-12UNF	GH6	TSU22S6NEBA	1.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	6	5
1 1/2-6UNC	GH6	TSU24Z6NEB5	5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-6UNC	GH6	TSU24Z6NEBA	1.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-6UNC	GH8	TSU24Z8NEB5	5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-6UNC	GH8	TSU24Z8NEBA	1.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-12UNF	GH5	TSU24S5NEB5	5P	7.874	2.323	-	4.016	1.233	0.925	1.125	6	5
1 1/2-12UNF	GH5	TSU24S5NEBA	1.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	6	5
1 1/2-12UNF	GH7	TSU24S7NEB5	5P	7.874	2.323	-	4.016	1.233	0.925	1.125	6	5
1 1/2-12UNF	GH7	TSU24S7NEBA	1.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	6	5

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

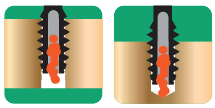
HT

Hand Taps



Specification

HSS



■The HT taps produce a chip that is relatively small and is stored in the taps flutes. The HT taps have a high cutting edge strength and can be used on a wide varity of machines from manual drilling machines and machining centers.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

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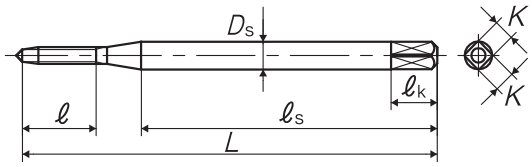

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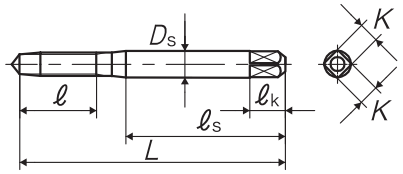

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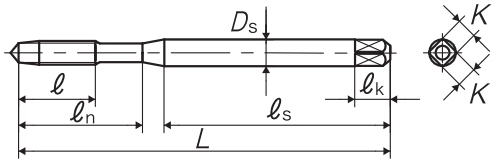

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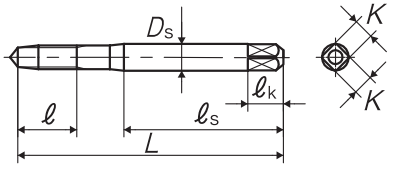

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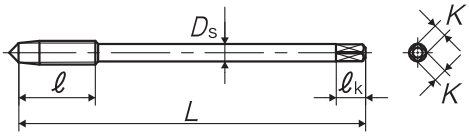

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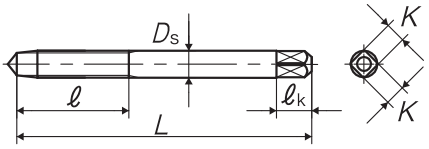

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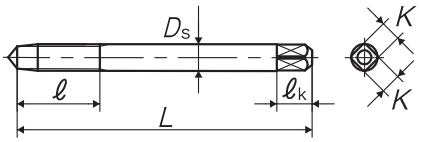

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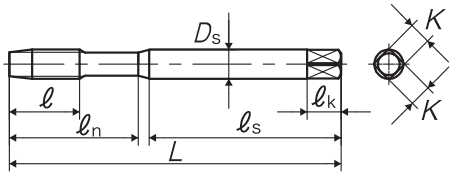

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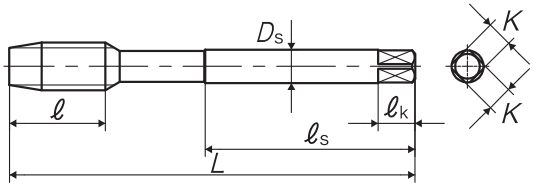

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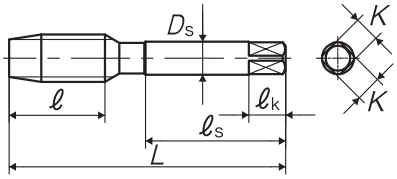

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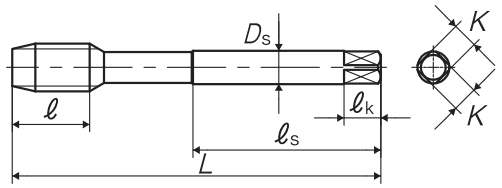
Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

TYPE: 11



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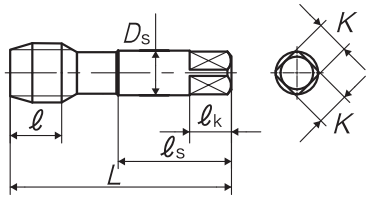

Segment : 1B (Pg,G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2	TD2.0EANEBC	2.5P	45	8	-	32	2.8	2.1	5	3	1
M2 × 0.4	ISO2	TQ2.0EANEB2	F	36	8	-	21	2.8	2.1	5	3	2
M2 × 0.4	ISO2	TQ2.0EANEBU	M	36	8	-	21	2.8	2.1	5	3	2
M2 × 0.4	ISO2	TQ2.0EANEB5	V	36	8	-	21	2.8	2.1	5	3	2
M2 × 0.4	ISO2	61102.0S	SET	36	8	-	21	2.8	2.1	5	3	2
M2.2 × 0.45	ISO2	TQ2.2FANEB2	F	36	9	-	21	2.8	2.1	5	3	2
M2.2 × 0.45	ISO2	TQ2.2FANEBU	M	36	9	-	21	2.8	2.1	5	3	2
M2.2 × 0.45	ISO2	TQ2.2FANEB5	V	36	9	-	21	2.8	2.1	5	3	2
M2.2 × 0.45	ISO2	61102.2S	SET	36	9	-	21	2.8	2.1	5	3	2
M2.3 × 0.4	ISO2	TQ2.3EANEB2	F	36	9	-	21	2.8	2.1	5	3	2
M2.3 × 0.4	ISO2	TQ2.3EANEBU	M	36	9	-	21	2.8	2.1	5	3	2
M2.3 × 0.4	ISO2	TQ2.3EANEB5	V	36	9	-	21	2.8	2.1	5	3	2
M2.3 × 0.4	ISO2	61102.3S	SET	36	9	-	21	2.8	2.1	5	3	2
M2.5 × 0.45	ISO2	TD2.5FANEBC	2.5P	50	8	-	33	2.8	2.1	5	3	3
M2.5 × 0.45	ISO2	TQ2.5FANEB2	F	40	9	-	27	2.8	2.1	5	3	2
M2.5 × 0.45	ISO2	TQ2.5FANEBU	M	40	9	-	27	2.8	2.1	5	3	2
M2.5 × 0.45	ISO2	TQ2.5FANEB5	V	40	9	-	27	2.8	2.1	5	3	2
M2.5 × 0.45	ISO2	61102.5S	SET	40	9	-	27	2.8	2.1	5	3	2
M2.6 × 0.45	ISO2	TQ2.6FANEB2	F	40	9	-	27	2.8	2.1	5	3	2
M2.6 × 0.45	ISO2	TQ2.6FANEBU	M	40	9	-	27	2.8	2.1	5	3	2
M2.6 × 0.45	ISO2	TQ2.6FANEB5	V	40	9	-	27	2.8	2.1	5	3	2
M2.6 × 0.45	ISO2	61102.6S	SET	40	9	-	27	2.8	2.1	5	3	2
M3 × 0.5	ISO2	TD3.0GANEBC	2.5P	56	9	-	34	3.5	2.7	6	3	3
M3 × 0.5	ISO2	TQ3.0GANEB2	F	40	11	-	24	3.5	2.7	6	3	2
M3 × 0.5	ISO2	TQ3.0GANEBU	M	40	11	-	24	3.5	2.7	6	3	2
M3 × 0.5	ISO2	TQ3.0GANEB5	V	40	11	-	24	3.5	2.7	6	3	2
M3 × 0.5	ISO2	61103.0S	SET	40	11	-	24	3.5	2.7	6	3	2
M3 × 0.35	ISO2	TR3.0DANEB2	F	40	9	-	24	3.5	2.7	6	3	4
M3 × 0.35	ISO2	TR3.0DANEB5	V	40	9	-	24	3.5	2.7	6	3	4
M3 × 0.35	ISO2	62113.0DS	SET	40	9	-	24	3.5	2.7	6	3	4
M3.5 × 0.6	ISO2	TQ3.5HANEB2	F	45	13	-	26	4	3	6	3	2
M3.5 × 0.6	ISO2	TQ3.5HANEBU	M	45	13	-	26	4	3	6	3	2
M3.5 × 0.6	ISO2	TQ3.5HANEB5	V	45	13	-	26	4	3	6	3	2
M3.5 × 0.6	ISO2	61103.5S	SET	45	13	-	26	4	3	6	3	2
M3.5 × 0.35	ISO2	TR3.5DANEB2	F	45	10	-	26	4	3	6	3	4
M3.5 × 0.35	ISO2	TR3.5DANEB5	V	45	10	-	26	4	3	6	3	4
M4 × 0.7	ISO2	TD4.0IANEBC	2.5P	63	13	-	38	4.5	3.4	6	3	3
M4 × 0.7	ISO2	TQ4.0IANEB2	F	45	13	-	27	4.5	3.4	6	3	2
M4 × 0.7	ISO2	TQ4.0IANEBU	M	45	13	-	27	4.5	3.4	6	3	2
M4 × 0.7	ISO2	TQ4.0IANEB5	V	45	13	-	27	4.5	3.4	6	3	2
M4 × 0.7	ISO2	61104.0S	SET	45	13	-	27	4.5	3.4	6	3	2

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M4 × 0.5	ISO2	TR4.0GANEB2	F	45	10	-	27	4.5	3.4	6	3	4
M4 × 0.5	ISO2	TR4.0GANEB5	V	45	10	-	27	4.5	3.4	6	3	4
M4 × 0.5	ISO2	62114.0GS	SET	45	10	-	27	4.5	3.4	6	3	4
M4.5 × 0.75	ISO2	TQ4.5JANEB2	F	50	16	-	24	6	4.9	8	3	2
M4.5 × 0.75	ISO2	TQ4.5JANEBU	M	50	16	-	24	6	4.9	8	3	2
M4.5 × 0.75	ISO2	TQ4.5JANEB5	V	50	16	-	24	6	4.9	8	3	2
M4.5 × 0.75	ISO2	61104.5S	SET	50	16	-	24	6	4.9	8	3	2
M5 × 0.8	ISO2	TD5.0KANEBC	2.5P	70	14	-	39	6	4.9	8	3	3
M5 × 0.8	ISO2	TQ5.0KANEB2	F	50	16	-	24	6	4.9	8	3	2
M5 × 0.8	ISO2	TQ5.0KANEBU	M	50	16	-	24	6	4.9	8	3	2
M5 × 0.8	ISO2	TQ5.0KANEB5	V	50	16	-	24	6	4.9	8	3	2
M5 × 0.8	ISO2	61105.0S	SET	50	16	-	24	6	4.9	8	3	2
M5 × 0.5	ISO2	TR5.0GANEB2	F	50	12	-	24	6	4.9	8	3	4
M5 × 0.5	ISO2	TR5.0GANEB5	V	50	12	-	24	6	4.9	8	3	4
M5 × 0.5	ISO2	62115.0GS	SET	50	12	-	24	6	4.9	8	3	4
M6 × 1	ISO2	TD6.0MANEBC	2.5P	80	15	-	45	6	4.9	8	3	3
M6 × 1	ISO2	TG6.0MANEBC	2.5P	80	15	-	-	4.5	3.4	6	3	5
M6 × 1	ISO2	TQ6.0MANEB2	F	50	19	-	-	6	4.9	8	3	6
M6 × 1	ISO2	TQ6.0MANEBU	M	50	19	-	-	6	4.9	8	3	6
M6 × 1	ISO2	TQ6.0MANEB5	V	50	19	-	-	6	4.9	8	3	6
M6 × 1	ISO2	61106.0S	SET	50	19	-	-	6	4.9	8	3	6
M6 × 0.75	ISO2	TR6.0JANEB2	F	50	14	-	-	6	4.9	8	3	7
M6 × 0.75	ISO2	TR6.0JANEB5	V	50	14	-	-	6	4.9	8	3	7
M6 × 0.75	ISO2	62116.0JS	SET	50	14	-	-	6	4.9	8	3	7
M6 × 0.5	ISO2	TR6.0GANEB2	F	50	14	-	-	6	4.9	8	3	7
M6 × 0.5	ISO2	TR6.0GANEB5	V	50	14	-	-	6	4.9	8	3	7
M6 × 0.5	ISO2	62116.0GS	SET	50	14	-	-	6	4.9	8	3	7
M7 × 1	ISO2	TD7.0MANEBC	2.5P	80	15	-	45	7	5.5	8	3	8
M7 × 1	ISO2	TQ7.0MANEB2	F	50	15	-	26	6	4.9	8	4	10
M7 × 1	ISO2	TQ7.0MANEBU	M	50	15	-	26	6	4.9	8	4	10
M7 × 1	ISO2	TQ7.0MANEB5	V	50	15	-	26	6	4.9	8	4	10
M7 × 1	ISO2	61107.0S	SET	50	15	-	26	6	4.9	8	4	10
M7 × 0.75	ISO2	TR7.0JANEB2	F	50	13	-	26	6	4.9	8	4	10
M7 × 0.75	ISO2	TR7.0JANEB5	V	50	13	-	26	6	4.9	8	4	10
M7 × 0.75	ISO2	62117.0JS	SET	50	13	-	26	6	4.9	8	4	10
M8 × 1.25	ISO2	TD8.0NANEBC	2.5P	90	19	-	47	8	6.2	9	3	8
M8 × 1.25	ISO2	TG8.0NANEBC	2.5P	90	19	-	46	6	4.9	8	3	9
M8 × 1.25	ISO2	TQ8.0NANEB2	F	56	19	-	29	6	4.9	8	4	10
M8 × 1.25	ISO2	TQ8.0NANEBU	M	56	19	-	29	6	4.9	8	4	10
M8 × 1.25	ISO2	TQ8.0NANEB5	V	56	19	-	29	6	4.9	8	4	10
M8 × 1.25	ISO2	61108.0S	SET	56	19	-	29	6	4.9	8	4	10
M8 × 1	ISO2	TM8.0MANEBC	2.5P	90	19	-	46	6	4.9	8	3	11
M8 × 1	ISO2	TR8.0MANEB2	F	56	19	-	29	6	4.9	8	3	10
M8 × 1	ISO2	TR8.0MANEB5	V	56	19	-	29	6	4.9	8	4	10
M8 × 1	ISO2	62118.0MS	SET	56	19	-	29	6	4.9	8	4	10
M8 × 0.75	ISO2	TR8.0JANEB2	F	50	15	-	26	6	4.9	8	4	10
M8 × 0.75	ISO2	TR8.0JANEB5	V	50	15	-	26	6	4.9	8	4	10
M8 × 0.75	ISO2	62118.0JS	SET	50	15	-	26	6	4.9	8	4	10
M8 × 0.5	ISO2	TR8.0GANEB2	F	50	15	-	26	6	4.9	8	4	10
M8 × 0.5	ISO2	TR8.0GANEB5	V	50	15	-	26	6	4.9	8	4	10

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M8 × 0.5	ISO2	62118.0GS	SET	50	15	-	26	6	4.9	8	4	10
M9 × 1.25	ISO2	TD9.0NANEBC	2.5P	90	19	-	48	9	7	10	3	8
M9 × 1.25	ISO2	TQ9.0NANEB2	F	63	19	-	32	7	5.5	8	4	10
M9 × 1.25	ISO2	TQ9.0NANEBU	M	63	19	-	32	7	5.5	8	4	10
M9 × 1.25	ISO2	TQ9.0NANEB5	V	63	19	-	32	7	5.5	8	4	10
M9 × 1.25	ISO2	61109.0S	SET	63	19	-	32	7	5.5	8	4	10
M9 × 1	ISO2	TR9.0MANEB2	F	63	19	-	32	7	5.5	8	4	10
M9 × 1	ISO2	TR9.0MANEB5	V	63	19	-	32	7	5.5	8	4	10
M9 × 1	ISO2	62119.0MS	SET	63	19	-	32	7	5.5	8	4	10
M9 × 0.75	ISO2	TR9.0JANEB2	F	56	19	-	29	7	5.5	8	4	10
M9 × 0.75	ISO2	TR9.0JANEB5	V	56	19	-	29	7	5.5	8	4	10
M9 × 0.75	ISO2	62119.0JS	SET	56	19	-	29	7	5.5	8	4	10
M10 × 1.5	ISO2	TD0100ANEBC	2.5P	100	23	-	52.5	10	8	11	3	8
M10 × 1.5	ISO2	TG0100ANEBC	2.5P	100	23	-	51	7	5.5	8	3	9
M10 × 1.5	ISO2	TQ0100ANEB2	F	70	23	-	36	7	5.5	8	4	10
M10 × 1.5	ISO2	TQ0100ANEBU	M	70	23	-	36	7	5.5	8	4	10
M10 × 1.5	ISO2	TQ0100ANEB5	V	70	23	-	36	7	5.5	8	4	10
M10 × 1.5	ISO2	6110010S	SET	70	23	-	36	7	5.5	8	4	10
M10 × 1.25	ISO2	TM010NANEBC	2.5P	100	23	-	51	7	5.5	8	3	11
M10 × 1.25	ISO2	TR010NANEB2	F	70	23	-	36	7	5.5	8	4	10
M10 × 1.25	ISO2	TR010NANEB5	V	70	23	-	36	7	5.5	8	4	10
M10 × 1.25	ISO2	6211010NS	SET	70	23	-	36	7	5.5	8	4	10
M10 × 1	ISO2	TM010MANEBC	2.5P	90	19	-	46	7	5.5	8	3	11
M10 × 1	ISO2	TR010MANEB2	F	63	19	-	32	7	5.5	8	4	10
M10 × 1	ISO2	TR010MANEB5	V	63	19	-	32	7	5.5	8	4	10
M10 × 1	ISO2	6211010MS	SET	63	19	-	32	7	5.5	8	4	10
M10 × 0.75	ISO2	TR010JANEB2	F	63	19	-	32	7	5.5	8	4	10
M10 × 0.75	ISO2	TR010JANEB5	V	63	19	-	32	7	5.5	8	4	10
M10 × 0.75	ISO2	6211010JS	SET	63	19	-	32	7	5.5	8	4	10
M10 × 0.5	ISO2	TR010GANEB2	F	63	19	-	32	7	5.5	8	4	10
M10 × 0.5	ISO2	TR010GANEB5	V	63	19	-	32	7	5.5	8	4	10
M10 × 0.5	ISO2	6211010GS	SET	63	19	-	32	7	5.5	8	4	10
M11 × 1.5	ISO2	TQ0110ANEB2	F	70	23	-	36	8	6.2	9	4	10
M11 × 1.5	ISO2	TQ0110ANEBU	M	70	23	-	36	8	6.2	9	4	10
M11 × 1.5	ISO2	TQ0110ANEB5	V	70	23	-	36	8	6.2	9	4	10
M12 × 1.75	ISO2	TG012PANEBC	2.5P	110	26	-	56	9	7	10	3	9
M12 × 1.75	ISO2	TQ012PANEB2	F	75	26	-	38	9	7	10	4	10
M12 × 1.75	ISO2	TQ012PANEBU	M	75	26	-	38	9	7	10	4	10
M12 × 1.75	ISO2	TQ012PANEB5	V	75	26	-	38	9	7	10	4	10
M12 × 1.75	ISO2	6110012S	SET	75	26	-	38	9	7	10	4	10
M12 × 1.5	ISO2	TM0120ANEBC	2.5P	100	21	-	51	9	7	10	3	11
M12 × 1.5	ISO2	TR0120ANEB2	F	70	21	-	36	9	7	10	4	10
M12 × 1.5	ISO2	TR0120ANEB5	V	70	21	-	36	9	7	10	4	10
M12 × 1.5	ISO2	62110120S	SET	70	21	-	36	9	7	10	4	10
M12 × 1.25	ISO2	TM012NANEBC	2.5P	100	21	-	51	9	7	10	3	11
M12 × 1.25	ISO2	TR012NANEB2	F	70	21	-	36	9	7	10	4	10
M12 × 1.25	ISO2	TR012NANEB5	V	70	21	-	36	9	7	10	4	10
M12 × 1.25	ISO2	6211012NS	SET	70	21	-	36	9	7	10	4	10
M12 × 1	ISO2	TM012MANEBC	2.5P	100	21	-	51	9	7	10	3	11

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M12 × 1	ISO2	TR012MANEB2	F	70	21	-	36	9	7	10	4	10
M12 × 1	ISO2	TR012MANEB5	V	70	21	-	36	9	7	10	4	10
M12 × 1	ISO2	6211012MS	SET	70	21	-	36	9	7	10	4	10
M14 × 2	ISO2	TG014QANEBC	2.5P	110	26	-	56	11	9	12	3	9
M14 × 2	ISO2	TQ014QANEB2	F	80	26	-	41	11	9	12	4	10
M14 × 2	ISO2	TQ014QANEBU	M	80	26	-	41	11	9	12	4	10
M14 × 2	ISO2	TQ014QANEB5	V	80	26	-	41	11	9	12	4	10
M14 × 2	ISO2	6110014S	SET	80	26	-	41	11	9	12	4	10
M14 × 1.5	ISO2	TM014OANEBC	2.5P	100	21	-	51	11	9	12	3	11
M14 × 1.5	ISO2	TR014OANEB2	F	70	21	-	36	11	9	12	4	10
M14 × 1.5	ISO2	TR014OANEB5	V	70	21	-	36	11	9	12	4	10
M14 × 1.5	ISO2	6211014OS	SET	70	21	-	36	11	9	12	4	10
M14 × 1.25	ISO2	TR014NANEB2	F	70	21	-	36	11	9	12	4	10
M14 × 1.25	ISO2	TR014NANEB5	V	70	21	-	36	11	9	12	4	10
M14 × 1.25	ISO2	6211014NS	SET	70	21	-	36	11	9	12	4	10
M14 × 1	ISO2	TM014MANEBC	2.5P	100	21	-	51	11	9	12	3	11
M14 × 1	ISO2	TR014MANEB2	F	70	21	-	36	11	9	12	4	10
M14 × 1	ISO2	TR014MANEB5	V	70	21	-	36	11	9	12	4	10
M14 × 1	ISO2	6211014MS	SET	70	21	-	36	11	9	12	4	10
M16 × 2	ISO2	TG016QANEBC	2.5P	110	26	-	56	12	9	12	3	9
M16 × 2	ISO2	TQ016QANEB2	F	80	26	-	41	12	9	12	4	10
M16 × 2	ISO2	TQ016QANEBU	M	80	26	-	41	12	9	12	4	10
M16 × 2	ISO2	TQ016QANEB5	V	80	26	-	41	12	9	12	4	10
M16 × 2	ISO2	6110016S	SET	80	26	-	41	12	9	12	4	10
M16 × 1.5	ISO2	TM016OANEBC	2.5P	100	21	-	51	12	9	12	3	11
M16 × 1.5	ISO2	TR016OANEB2	F	70	21	-	36	12	9	12	4	10
M16 × 1.5	ISO2	TR016OANEB5	V	70	21	-	36	12	9	12	4	10
M16 × 1.5	ISO2	6211016OS	SET	70	21	-	36	12	9	12	4	10
M16 × 1	ISO2	TM016MANEBC	2.5P	100	21	-	51	12	9	12	3	11
M16 × 1	ISO2	TR016MANEB2	F	70	21	-	36	12	9	12	4	10
M16 × 1	ISO2	TR016MANEB5	V	70	21	-	36	12	9	12	4	10
M16 × 1	ISO2	6211016MS	SET	70	21	-	36	12	9	12	4	10
M18 × 2.5	ISO2	TQ018RANEB2	F	95	33	-	48	14	11	14	4	10
M18 × 2.5	ISO2	TQ018RANEBU	M	95	33	-	48	14	11	14	4	10
M18 × 2.5	ISO2	TQ018RANEB5	V	95	33	-	48	14	11	14	4	10
M18 × 2.5	ISO2	6110018S	SET	95	33	-	48	14	11	14	4	10
M18 × 2	ISO2	TM018QANEBC	2.5P	125	33	-	64	14	11	14	3	11
M18 × 2	ISO2	TR018QANEB2	F	80	21	-	41	14	11	14	4	10
M18 × 2	ISO2	TR018QANEB5	V	80	21	-	41	14	11	14	4	10
M18 × 2	ISO2	6211018QS	SET	80	21	-	41	14	11	14	4	10
M18 × 1.5	ISO2	TM018OANEBC	2.5P	110	24	-	56	14	11	14	3	11
M18 × 1.5	ISO2	TR018OANEB2	F	80	21	-	41	14	11	14	4	10
M18 × 1.5	ISO2	TR018OANEB5	V	80	21	-	41	14	11	14	4	10
M18 × 1.5	ISO2	6211018OS	SET	80	21	-	41	14	11	14	4	10
M18 × 1	ISO2	TM018MANEBC	2.5P	110	24	-	56	14	11	14	3	11
M18 × 1	ISO2	TR018MANEB2	F	80	21	-	41	14	11	14	4	10
M18 × 1	ISO2	TR018MANEB5	V	80	21	-	41	14	11	14	4	10
M18 × 1	ISO2	6211018MS	SET	80	21	-	41	14	11	14	4	10
M20 × 2.5	ISO2	TQ020RANEB2	F	95	33	-	48	16	12	15	4	10
M20 × 2.5	ISO2	TQ020RANEBU	M	95	33	-	48	16	12	15	4	10

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L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M20 × 2.5	ISO2	TQ020RANEB5	V	95	33	-	48	16	12	15	4	10
M20 × 2.5	ISO2	6110020S	SET	95	33	-	48	16	12	15	4	10
M20 × 2	ISO2	TM020QANEBC	2.5P	140	33	-	71	16	12	15	3	11
M20 × 2	ISO2	TR020QANEB2	F	80	21	-	41	16	12	15	4	10
M20 × 2	ISO2	TR020QANEB5	V	80	21	-	41	16	12	15	4	10
M20 × 2	ISO2	6211020QS	SET	80	21	-	41	16	12	15	4	10
M20 × 1.5	ISO2	TM020OANEBC	2.5P	125	24	-	64	16	12	15	3	11
M20 × 1.5	ISO2	TR020OANEB2	F	80	21	-	41	16	12	15	4	10
M20 × 1.5	ISO2	TR020OANEB5	V	80	21	-	41	16	12	15	4	10
M20 × 1.5	ISO2	6211020OS	SET	80	21	-	41	16	12	15	4	10
M20 × 1	ISO2	TM020MANEBC	2.5P	125	24	-	64	16	12	15	3	11
M20 × 1	ISO2	TR020MANEB2	F	80	21	-	41	16	12	15	4	10
M20 × 1	ISO2	TR020MANEB5	V	80	21	-	41	16	12	15	4	10
M20 × 1	ISO2	6211020MS	SET	80	21	-	41	16	12	15	4	10
M22 × 2.5	ISO2	TQ022RANEB2	F	100	33	-	51	18	14.5	17	4	10
M22 × 2.5	ISO2	TQ022RANEBU	M	100	33	-	51	18	14.5	17	4	10
M22 × 2.5	ISO2	TQ022RANEB5	V	100	33	-	51	18	14.5	17	4	10
M22 × 2.5	ISO2	6110022S	SET	100	33	-	51	18	14.5	17	4	10
M22 × 2	ISO2	TR022QANEB2	F	80	21	-	41	18	14.5	17	4	10
M22 × 2	ISO2	TR022QANEB5	V	80	21	-	41	18	14.5	17	4	10
M22 × 2	ISO2	6211022QS	SET	80	21	-	41	18	14.5	17	4	10
M22 × 1.5	ISO2	TM022OANEBC	2.5P	125	24	-	64	18	14.5	17	3	11
M22 × 1.5	ISO2	TR022OANEB2	F	80	21	-	41	18	14.5	17	4	10
M22 × 1.5	ISO2	TR022OANEB5	V	80	21	-	41	18	14.5	17	4	10
M22 × 1.5	ISO2	6211022OS	SET	80	21	-	41	18	14.5	17	4	10
M22 × 1	ISO2	TR022MANEB2	F	80	21	-	41	18	14.5	17	4	10
M22 × 1	ISO2	TR022MANEB5	V	80	21	-	41	18	14.5	17	4	10
M22 × 1	ISO2	6211022MS	SET	80	21	-	41	18	14.5	17	4	10
M24 × 3	ISO2	TG024SANEBC	2.5P	160	37	-	82	18	14.5	17	3	9
M24 × 3	ISO2	TQ024SANEB2	F	110	39	-	56	18	14.5	17	4	10
M24 × 3	ISO2	TQ024SANEBU	M	110	39	-	56	18	14.5	17	4	10
M24 × 3	ISO2	TQ024SANEB5	V	110	39	-	56	18	14.5	17	4	10
M24 × 3	ISO2	6110024S	SET	110	39	-	56	18	14.5	17	4	10
M24 × 2	ISO2	TM024QANEBC	2.5P	140	27	-	71	18	14.5	17	3	11
M24 × 2	ISO2	TR024QANEB2	F	90	21	-	46	18	14.5	17	4	10
M24 × 2	ISO2	TR024QANEB5	V	90	21	-	46	18	14.5	17	4	10
M24 × 2	ISO2	6211024QS	SET	90	21	-	46	18	14.5	17	4	10
M24 × 1.5	ISO2	TM024OANEBC	2.5P	140	27	-	71	18	14.5	17	3	11
M24 × 1.5	ISO2	TR024OANEB2	F	90	21	-	46	18	14.5	17	4	10
M24 × 1.5	ISO2	TR024OANEB5	V	90	21	-	46	18	14.5	17	4	10
M24 × 1.5	ISO2	6211024OS	SET	90	21	-	46	18	14.5	17	4	10
M24 × 1	ISO2	TM024MANEBC	2.5P	140	27	-	71	18	14.5	17	3	11
M24 × 1	ISO2	TR024MANEB2	F	90	21	-	46	18	14.5	17	4	10
M24 × 1	ISO2	TR024MANEB5	V	90	21	-	46	18	14.5	17	4	10
M24 × 1	ISO2	6211024MS	SET	90	21	-	46	18	14.5	17	4	10
M25 × 2	ISO2	TR025QANEB2	F	90	21	-	46	18	14.5	17	4	10
M25 × 2	ISO2	TR025QANEB5	V	90	21	-	46	18	14.5	17	4	10
M25 × 2	ISO2	6211025QS	SET	90	21	-	46	18	14.5	17	4	10
M25 × 1.5	ISO2	TM025OANEBC	2.5P	140	27	-	71	18	14.5	17	4	11

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L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M25 × 1.5	ISO2	TR025OANEB2	F	90	21	-	46	18	14.5	17	4	10
M25 × 1.5	ISO2	TR025OANEB5	V	90	21	-	46	18	14.5	17	4	10
M25 × 1.5	ISO2	6211025OS	SET	90	21	-	46	18	14.5	17	4	10
M26 × 1.5	ISO2	TM026OANEBC	2.5P	140	27	-	71	18	14.5	17	4	11
M26 × 1.5	ISO2	TR026OANEB2	F	90	21	-	46	18	14.5	17	4	10
M26 × 1.5	ISO2	TR026OANEB5	V	90	21	-	46	18	14.5	17	4	10
M26 × 1.5	ISO2	6211026OS	SET	90	21	-	46	18	14.5	17	4	10
M27 × 3	ISO2	TG027SANEBC	2.5P	160	37	-	82	20	16	19	4	9
M27 × 3	ISO2	TQ027SANEB2	F	110	39	-	56	20	16	19	4	10
M27 × 3	ISO2	TQ027SANEBU	M	110	39	-	56	20	16	19	4	10
M27 × 3	ISO2	TQ027SANEB5	V	110	39	-	56	20	16	19	4	10
M27 × 3	ISO2	6110027S	SET	110	39	-	56	20	16	19	4	10
M27 × 2	ISO2	TM027QANEBC	2.5P	140	27	-	71	20	16	19	4	11
M27 × 2	ISO2	TR027QANEB2	F	90	21	-	46	20	16	19	4	10
M27 × 2	ISO2	TR027QANEB5	V	90	21	-	46	20	16	19	4	10
M27 × 2	ISO2	6211027QS	SET	90	21	-	46	20	16	19	4	10
M27 × 1.5	ISO2	TR027OANEB2	F	90	21	-	46	20	16	19	4	10
M27 × 1.5	ISO2	TR027OANEB5	V	90	21	-	46	20	16	19	4	10
M27 × 1.5	ISO2	6211027OS	SET	90	21	-	46	20	16	19	4	10
M28 × 2	ISO2	TR028QANEB2	F	90	21	-	46	20	16	19	4	10
M28 × 2	ISO2	TR028QANEB5	V	90	21	-	46	20	16	19	4	10
M28 × 2	ISO2	6211028QS	SET	90	21	-	46	20	16	19	4	10
M28 × 1.5	ISO2	TM028OANEBC	2.5P	140	27	-	71	20	16	19	4	11
M28 × 1.5	ISO2	TR028OANEB2	F	90	21	-	46	20	16	19	4	10
M28 × 1.5	ISO2	TR028OANEB5	V	90	21	-	46	20	16	19	4	10
M28 × 1.5	ISO2	6211028OS	SET	90	21	-	46	20	16	19	4	10
M30 × 3.5	ISO2	TG030TANEBC	2.5P	180	44	-	92	22	18	21	4	9
M30 × 3.5	ISO2	TQ030TANEB2	F	125	46	-	64	22	18	21	4	10
M30 × 3.5	ISO2	TQ030TANEBU	M	125	46	-	64	22	18	21	4	10
M30 × 3.5	ISO2	TQ030TANEB5	V	125	46	-	64	22	18	21	4	10
M30 × 3.5	ISO2	6110030S	SET	125	46	-	64	22	18	21	4	10
M30 × 2	ISO2	TM030QANEBC	2.5P	150	27	-	77	22	18	21	4	11
M30 × 2	ISO2	TR030QANEB2	F	90	21	-	46	22	18	21	4	10
M30 × 2	ISO2	TR030QANEB5	V	90	21	-	46	22	18	21	4	10
M30 × 1.5	ISO2	TM030OANEBC	2.5P	150	27	-	77	22	18	21	4	11
M30 × 1.5	ISO2	TR030OANEB2	F	90	21	-	46	22	18	21	4	10
M30 × 1.5	ISO2	TR030OANEB5	V	90	21	-	46	22	18	21	4	10
M30 × 1.5	ISO2	6211030OS	SET	90	21	-	46	22	18	21	4	10
M30 × 1	ISO2	TM030MANEBC	2.5P	150	27	-	77	22	18	21	4	11
M30 × 1	ISO2	TR030MANEB2	F	90	21	-	46	22	18	21	4	10
M30 × 1	ISO2	TR030MANEB5	V	90	21	-	46	22	18	21	4	10
M30 × 1	ISO2	6211030MS	SET	90	21	-	46	22	18	21	4	10
M32 × 2	ISO2	TM032QANEBC	2.5P	150	27	-	77	22	18	21	4	11
M32 × 2	ISO2	TR032QANEB2	F	90	21	-	46	22	18	21	4	10
M32 × 2	ISO2	TR032QANEB5	V	90	21	-	46	22	18	21	4	10
M32 × 1.5	ISO2	TM032OANEBC	2.5P	150	27	-	77	22	18	21	4	11
M32 × 1.5	ISO2	TR032OANEB2	F	90	21	-	46	22	18	21	4	10

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L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M32 × 1.5	ISO2	TR032OANEB5	V	90	21	-	46	22	18	21	4	10
M33 × 3.5	ISO2	TG033TANEBC	2.5P	180	46	-	92	25	20	23	4	9
M33 × 3.5	ISO2	TQ033TANEB2	F	125	46	-	64	25	20	23	4	10
M33 × 3.5	ISO2	TQ033TANEBU	M	125	46	-	64	25	20	23	4	10
M33 × 3.5	ISO2	TQ033TANEB5	V	125	46	-	64	25	20	23	4	10
M33 × 3	ISO2	TR033SANEB2	F	125	39	-	64	25	20	23	4	10
M33 × 3	ISO2	TR033SANEB5	V	125	39	-	64	25	20	23	4	10
M33 × 2	ISO2	TM033QANEBC	2.5P	160	29	-	82	25	20	23	4	11
M33 × 2	ISO2	TR033QANEB2	F	100	24	-	51	25	20	23	4	10
M33 × 2	ISO2	TR033QANEB5	V	100	24	-	51	25	20	23	4	10
M33 × 1.5	ISO2	TM033OANEBC	2.5P	160	29	-	82	25	20	23	4	11
M33 × 1.5	ISO2	TR033OANEB2	F	100	24	-	51	25	20	23	4	10
M33 × 1.5	ISO2	TR033OANEB5	V	100	24	-	51	25	20	23	4	10
M34 × 1.5	ISO2	TR034OANEB2	F	100	24	-	51	28	22	25	4	10
M34 × 1.5	ISO2	TR034OANEB5	V	100	24	-	51	28	22	25	4	10
M35 × 1.5	ISO2	TR035OANEB2	F	100	24	-	51	28	22	25	4	10
M35 × 1.5	ISO2	TR035OANEB5	V	100	24	-	51	28	22	25	4	10
M36 × 4	ISO2	TG036UANEBC	2.5P	200	52	-	102	28	22	25	4	9
M36 × 4	ISO2	TQ036UANEB2	F	150	52	-	77	28	22	25	4	10
M36 × 4	ISO2	TQ036UANEBU	M	150	52	-	77	28	22	25	4	10
M36 × 4	ISO2	TQ036UANEB5	V	150	52	-	77	28	22	25	4	10
M36 × 3	ISO2	TR036SANEB2	F	125	39	-	64	28	22	25	4	10
M36 × 3	ISO2	TR036SANEB5	V	125	39	-	64	28	22	25	4	10
M36 × 2	ISO2	TM036QANEBC	2.5P	170	29	-	87	28	22	25	4	11
M36 × 2	ISO2	TR036QANEB2	F	125	39	-	64	28	22	25	4	10
M36 × 2	ISO2	TR036QANEB5	V	125	39	-	64	28	22	25	4	10
M36 × 1.5	ISO2	TM036OANEBC	2.5P	170	29	-	87	28	22	25	4	11
M36 × 1.5	ISO2	TR036OANEB2	F	100	24	-	51	28	22	25	4	10
M36 × 1.5	ISO2	TR036OANEB5	V	100	24	-	51	28	22	25	4	10
M38 × 1.5	ISO2	TR038OANEB2	F	100	24	-	51	28	22	25	4	10
M38 × 1.5	ISO2	TR038OANEB5	V	100	24	-	51	28	22	25	4	10
M39 × 4	ISO2	TG039UANEBC	2.5P	200	52	-	102	32	24	27	4	9
M39 × 4	ISO2	TQ039UANEB2	F	150	52	-	77	32	24	27	4	10
M39 × 4	ISO2	TQ039UANEBU	M	150	52	-	77	32	24	27	4	10
M39 × 4	ISO2	TQ039UANEB5	V	150	52	-	77	32	24	27	4	10
M39 × 2	ISO2	TM039QANEBC	2.5P	170	29	-	87	32	24	27	4	11
M39 × 2	ISO2	TR039QANEB2	F	125	39	-	64	32	24	27	4	10
M39 × 2	ISO2	TR039QANEB5	V	125	39	-	64	32	24	27	4	10
M39 × 1.5	ISO2	TM039OANEBC	2.5P	170	29	-	87	32	24	27	4	11
M39 × 1.5	ISO2	TR039OANEB2	F	110	24	-	56	32	24	27	4	10
M39 × 1.5	ISO2	TR039OANEB5	V	110	24	-	56	32	24	27	4	10
M40 × 2	ISO2	TR040QANEB2	F	125	39	-	64	32	24	27	4	10
M40 × 2	ISO2	TR040QANEB5	V	125	39	-	64	32	24	27	4	10
M40 × 1.5	ISO2	TR040OANEB2	F	110	24	-	56	32	24	27	4	10
M40 × 1.5	ISO2	TR040OANEB5	V	110	24	-	56	32	24	27	4	10
M42 × 4.5	ISO2	TG042VANEBC	2.5P	200	59	-	102	32	24	27	4	9
M42 × 4.5	ISO2	TQ042VANEB2	F	150	59	-	77	32	24	27	4	10
M42 × 4.5	ISO2	TQ042VANEBU	M	150	59	-	77	32	24	27	4	10
M42 × 4.5	ISO2	TQ042VANEB5	V	150	59	-	77	32	24	27	4	10
M42 × 2	ISO2	TM042QANEBC	2.5P	170	29	-	87	32	24	27	4	11

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M42 × 2	ISO2	TR042QANEB2	F	125	39	-	64	32	24	27	4	10
M42 × 2	ISO2	TR042QANEB5	V	125	39	-	64	32	24	27	4	10
M42 × 1.5	ISO2	TM042OANEBC	2.5P	170	29	-	87	32	24	27	4	11
M42 × 1.5	ISO2	TR042OANEB2	F	110	24	-	56	32	24	27	4	10
M42 × 1.5	ISO2	TR042OANEB5	V	110	24	-	56	32	24	27	4	10
M45 × 4.5	ISO2	TG045VANEBC	2.5P	220	59	-	112	36	29	32	4	9
M45 × 4.5	ISO2	TQ045VANEB2	F	160	59	-	82	36	29	32	4	10
M45 × 4.5	ISO2	TQ045VANEBU	M	160	59	-	82	36	29	32	4	10
M45 × 4.5	ISO2	TQ045VANEB5	V	160	59	-	82	36	29	32	4	10
M45 × 3	ISO2	TM045SANEBC	2.5P	200	49	-	102	36	29	32	4	11
M45 × 3	ISO2	TR045SANEB2	F	125	39	-	64	36	29	32	4	10
M45 × 3	ISO2	TR045SANEB5	V	125	39	-	64	36	29	32	4	10
M45 × 2	ISO2	TM045QANEBC	2.5P	180	31	-	92	36	29	32	4	11
M45 × 2	ISO2	TR045QANEB2	F	125	39	-	64	36	29	32	4	10
M45 × 2	ISO2	TR045QANEB5	V	125	39	-	64	36	29	32	4	10
M45 × 1.5	ISO2	TM045OANEBC	2.5P	180	31	-	92	36	29	32	4	11
M45 × 1.5	ISO2	TR045OANEB2	F	110	24	-	56	36	29	32	4	10
M45 × 1.5	ISO2	TR045OANEB5	V	110	24	-	56	36	29	32	4	10
M48 × 5	ISO2	TG048WANEBC	2.5P	250	65	-	128	36	29	32	4	9
M48 × 5	ISO2	TQ048WANEB2	F	180	65	-	92	36	29	32	4	10
M48 × 5	ISO2	TQ048WANEBU	M	180	65	-	92	36	29	32	4	10
M48 × 5	ISO2	TQ048WANEB5	V	180	65	-	92	36	29	32	4	10
M48 × 3	ISO2	TM048SANEBC	2.5P	225	49	-	115	36	29	32	4	11
M48 × 3	ISO2	TR048SANEB2	F	140	39	-	71	36	29	32	4	10
M48 × 3	ISO2	TR048SANEB5	V	140	39	-	71	36	29	32	4	10
M48 × 2	ISO2	TM048QANEBC	2.5P	190	31	-	97	36	29	32	4	11
M48 × 2	ISO2	TR048QANEB2	F	140	39	-	71	36	29	32	4	10
M48 × 2	ISO2	TR048QANEB5	V	140	39	-	71	36	29	32	4	10
M48 × 1.5	ISO2	TM048OANEBC	2.5P	190	31	-	97	36	29	32	4	11
M48 × 1.5	ISO2	TR048OANEB2	F	140	39	-	71	36	29	32	4	10
M48 × 1.5	ISO2	TR048OANEB5	V	140	39	-	71	36	29	32	4	10
For Unified Threads												
No.4-40UNC	2B	TDUN4HXNEBC	2.5P	56	9	18	34	3.5	2.7	6	3	3
No.4-48UNF	2B	TDUN4FXNEBC	2.5P	56	9	18	34	3.5	2.7	6	3	3
No.5-40UNC	2B	TDUN5HXNEBC	2.5P	56	11	18	34	3.5	2.7	6	3	3
No.5-44UNF	2B	TDUN5GXNEBC	2.5P	56	11	18	34	3.5	2.7	6	3	3
No.6-32UNC	2B	TDUN6JXNEBC	2.5P	56	11	19	32	4	3	6	3	3
No.6-40UNF	2B	TDUN6HXNEBC	2.5P	56	11	19	32	4	3	6	3	3
No.8-32UNC	2B	TDUN8JXNEBC	2.5P	63	13	21	38	4.5	3.4	6	3	3
No.8-36UNF	2B	TDUN8IXNEBC	2.5P	63	13	21	38	4.5	3.4	6	3	3
No.10-24UNC	2B	TDUNAMXNEBC	2.5P	70	14	24	39	6	4.9	8	3	3
No.10-32UNF	2B	TDUNAJXNEBC	2.5P	70	14	24	39	6	4.9	8	3	3
No.12-24UNC	2B	TDUNCMXNEBC	2.5P	80	15	28	45	6	4.9	8	3	3
No.12-28UNF	2B	TDUNCKXNEBC	2.5P	80	15	28	45	6	4.9	8	3	3
1/4-20UNC	2B	TDU04NXNEBC	2.5P	80	15	30	42	7	5.5	8	3	3
1/4-28UNF	2B	TDU04KXNEBC	2.5P	80	15	30	42	7	5.5	8	3	3
5/16-18UNC	2B	TDU05OXNEBC	2.5P	90	19	35	47	8	6.2	9	4	8
5/16-24UNF	2B	TMU05MXNEBC	2.5P	90	19	-	46	6	4.9	8	4	11
3/8-16UNC	2B	TDU06PXNEBC	2.5P	100	23	39	54.5	9	7	10	4	8

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L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
3/8-24UNF	2B	TMU06MXNEBC	2.5P	100	23	-	51	7	5.5	8	4	11
7/16-14UNC	2B	TGU07QXNEBC	2.5P	100	23	-	51	8	6.2	9	4	9
7/16-20UNF	2B	TMU07NXNEBC	2.5P	100	23	-	51	8	6.2	9	4	11
1/2-13UNC	2B	TGU08RXNEBC	2.5P	110	26	-	56	9	7	10	4	9
1/2-20UNF	2B	TMU08NXNEBC	2.5P	100	21	-	51	9	7	10	4	11
9/16-12UNC	2B	TGU09SXNEBC	2.5P	110	26	-	56	11	9	12	4	9
9/16-18UNF	2B	TMU09OXNEBC	2.5P	100	21	-	51	11	9	12	4	11
5/8-11UNC	2B	TGU10UXNEBC	2.5P	110	26	-	56	12	9	12	4	9
5/8-18UNF	2B	TMU10OXNEBC	2.5P	100	21	-	51	12	9	12	4	11
3/4-10UNC	2B	TGU12VXNEBC	2.5P	125	33	-	64	14	11	14	4	9
3/4-16UNF	2B	TMU12PXNEBC	2.5P	110	24	-	56	14	11	14	4	11
7/8-9UNC	2B	TGU14WXNEBC	2.5P	140	33	-	71	18	14.5	17	4	9
7/8-14UNF	2B	TMU14QXNEBC	2.5P	125	24	-	64	18	14.5	17	4	11
1 -8UNC	2B	TGU16XXNEBC	2.5P	160	37	-	82	18	14.5	17	4	9
1 -12UNF	2B	TMU16SXNEBC	2.5P	140	27	-	71	18	14.5	17	4	11
1 1/8-7UNC	2B	TGU18YXNEBC	2.5P	180	44	-	92	22	18	21	4	9
1 1/8-12UNF	2B	TMU18SXNEBC	2.5P	150	27	-	77	22	18	21	4	11
1 1/4-7UNC	2B	TGU20YXNEBC	2.5P	180	49	-	92	22	18	21	4	9
1 1/4-12UNF	2B	TMU20SXNEBC	2.5P	150	27	-	77	22	18	21	4	11
1 3/8-6UNC	2B	TGU22ZXNEBC	2.5P	200	55	-	102	28	22	25	4	9
1 3/8-12UNF	2B	TMU22SXNEBC	2.5P	170	29	-	87	28	22	25	4	11
1 1/2-6UNC	2B	TGU24ZXNEBC	2.5P	200	59	-	102	32	24	27	4	9
1 1/2-12UNF	2B	TMU24SXNEBC	2.5P	170	29	-	87	32	24	27	4	11
1 3/4-5UNC	2B	TGU28OXNEBC	2.5P	220	65	-	112	36	29	32	4	9
1 3/4-12UN	2B	TMU28SXNEBC	2.5P	180	31	-	92	36	29	32	4	11
For Whitworth Threads												
3/32W48	-	TPW1HF0NEB2	F	36	10	-	21	2.8	2.1	5	3	2
3/32W48	-	TPW1HF0NEBU	M	36	10	-	21	2.8	2.1	5	3	2
3/32W48	-	TPW1HF0NEB5	V	36	10	-	21	2.8	2.1	5	3	2
1/8W40	-	TPW02H0NEB2	F	40	11	-	25	3.5	2.7	6	3	2
1/8W40	-	TPW02H0NEBU	M	40	11	-	25	3.5	2.7	6	3	2
1/8W40	-	TPW02H0NEB5	V	40	11	-	25	3.5	2.7	6	3	2
5/32W32	-	TPW2HJ0NEB2	F	45	13	-	27	4.5	3.4	6	3	2
5/32W32	-	TPW2HJ0NEBU	M	45	13	-	27	4.5	3.4	6	3	2
5/32W32	-	TPW2HJ0NEB5	V	45	13	-	27	4.5	3.4	6	3	2
3/16W24	-	TPW03M0NEB2	F	50	17	-	26	5.5	4.3	7	3	2
3/16W24	-	TPW03M0NEBU	M	50	17	-	26	5.5	4.3	7	3	2
3/16W24	-	TPW03M0NEB5	V	50	17	-	26	5.5	4.3	7	3	2
1/4W20	-	TPW04N0NEB2	F	56	21	-	-	6	4.9	8	3	6
1/4W20	-	TPW04N0NEBU	M	56	21	-	-	6	4.9	8	3	6
1/4W20	-	TPW04N0NEB5	V	56	21	-	-	6	4.9	8	3	6
5/16W18	-	TPW05O0NEB2	F	63	19	-	32	6	4.9	8	4	10
5/16W18	-	TPW05O0NEBU	M	63	19	-	32	6	4.9	8	4	10
5/16W18	-	TPW05O0NEB5	V	63	19	-	32	6	4.9	8	4	10
3/8W16	-	TPW06P0NEB2	F	70	23	-	36	7	5.5	8	4	10
3/8W16	-	TPW06P0NEBU	M	70	23	-	36	7	5.5	8	4	10
3/8W16	-	TPW06P0NEB5	V	70	23	-	36	7	5.5	8	4	10
7/16W14	-	TPW07Q0NEB2	F	70	23	-	36	8	6.2	9	4	10
7/16W14	-	TPW07Q0NEBU	M	70	23	-	36	8	6.2	9	4	10

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L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
7/16W14	-	TPW07Q0NEB5	V	70	23	-	36	8	6.2	9	4	10
1/2W12	-	TPW08S0NEB2	F	80	26	-	41	9	7	10	4	10
1/2W12	-	TPW08S0NEBU	M	80	26	-	41	9	7	10	4	10
1/2W12	-	TPW08S0NEB5	V	80	26	-	41	9	7	10	4	10
9/16W12	-	TPW09S0NEB2	F	80	26	-	41	11	9	12	4	10
9/16W12	-	TPW09S0NEBU	M	80	26	-	41	11	9	12	4	10
9/16W12	-	TPW09S0NEB5	V	80	26	-	41	11	9	12	4	10
5/8W11	-	TPW10U0NEB2	F	90	26	-	46	12	9	12	4	10
5/8W11	-	TPW10U0NEBU	M	90	26	-	46	12	9	12	4	10
5/8W11	-	TPW10U0NEB5	V	90	26	-	46	12	9	12	4	10
3/4W10	-	TPW12V0NEB2	F	95	33	-	48	14	11	14	4	10
3/4W10	-	TPW12V0NEBU	M	95	33	-	48	14	11	14	4	10
3/4W10	-	TPW12V0NEB5	V	95	33	-	48	14	11	14	4	10
7/8W9	-	TPW14W0NEB2	F	100	33	-	51	18	14.5	17	4	10
7/8W9	-	TPW14W0NEBU	M	100	33	-	51	18	14.5	17	4	10
7/8W9	-	TPW14W0NEB5	V	100	33	-	51	18	14.5	17	4	10
1 W8	-	TPW16X0NEB2	F	110	39	-	56	20	16	19	4	10
1 W8	-	TPW16X0NEBU	M	110	39	-	56	20	16	19	4	10
1 W8	-	TPW16X0NEB5	V	110	39	-	56	20	16	19	4	10
1 1/8W7	-	TPW18Y0NEB2	F	125	46	-	64	22	18	21	4	10
1 1/8W7	-	TPW18Y0NEBU	M	125	46	-	64	22	18	21	4	10
1 1/8W7	-	TPW18Y0NEB5	V	125	46	-	64	22	18	21	4	10
1 1/4W7	-	TPW20Y0NEB2	F	125	46	-	64	22	18	21	4	10
1 1/4W7	-	TPW20Y0NEBU	M	125	46	-	64	22	18	21	4	10
1 1/4W7	-	TPW20Y0NEB5	V	125	46	-	64	22	18	21	4	10
1 3/8W6	-	TPW22Z0NEB2	F	150	52	-	77	28	22	25	4	10
1 3/8W6	-	TPW22Z0NEBU	M	150	52	-	77	28	22	25	4	10
1 3/8W6	-	TPW22Z0NEB5	V	150	52	-	77	28	22	25	4	10
1 1/2W6	-	TPW24Z0NEB2	F	150	55	-	77	32	24	27	4	10
1 1/2W6	-	TPW24Z0NEBU	M	150	55	-	77	32	24	27	4	10
1 1/2W6	-	TPW24Z0NEB5	V	150	55	-	77	32	24	27	4	10
1 5/8W5	-	TPW2600NEB2	F	150	66	-	77	32	24	27	4	10
1 5/8W5	-	TPW2600NEBU	M	150	66	-	77	32	24	27	4	10
1 5/8W5	-	TPW2600NEB5	V	150	66	-	77	32	24	27	4	10
1 3/4W5	-	TPW2800NEB2	F	160	66	-	82	36	29	32	4	10
1 3/4W5	-	TPW2800NEBU	M	160	66	-	82	36	29	32	4	10
1 3/4W5	-	TPW2800NEB5	V	160	66	-	82	36	29	32	4	10
For Pg Threads												
Pg 7-20	-	TYPG070NEBU	3.5P	70	21	-	36	9	7	10	4	12
Pg 9-18	-	TYPG090NEBU	3.5P	70	21	-	36	12	9	12	4	12
Pg 11-18	-	TYPG110NEBU	3.5P	80	21	-	41	14	11	14	4	12
Pg 13.5-18	-	TYPG130NEBU	3.5P	80	21	-	41	16	12	15	4	12
Pg 16-18	-	TYPG160NEBU	3.5P	80	21	-	41	18	14.5	17	4	12
Pg 21-16	-	TYPG210NEBU	3.5P	90	21	-	46	22	18	21	4	12
Pg 29-16	-	TYPG290NEBU	3.5P	100	24	-	51	28	22	25	4	12
Pg 36-16	-	TYPG360NEBU	3.5P	140	39	-	71	36	29	32	4	12
For PF Threads												
G 1/16-28	-	TVG0010NEBC	2.5P	90	19	-	46	6	4.9	8	3	11
G 1/16-28	-	T9G0010NEB2	F	56	19	-	29	6	4.9	8	4	12
G 1/16-28	-	T9G0010NEB5	V	56	19	-	29	6	4.9	8	4	12

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HT Hand Taps

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G 1/8-28	-	TVG0020NEBC	2.5P	90	19	-	46	7	5.5	8	3	11
G 1/8-28	-	T9G0020NEB2	F	63	19	-	32	7	5.5	8	4	12
G 1/8-28	-	T9G0020NEB5	V	63	19	-	32	7	5.5	8	4	12
G 1/8-28	-	6412G02S	SET	63	19	-	32	7	5.5	8	4	12
G 1/4-19	-	TVG0040NEBC	2.5P	100	21	-	51	11	9	12	3	11
G 1/4-19	-	T9G0040NEB2	F	70	21	-	36	11	9	12	4	12
G 1/4-19	-	T9G0040NEB5	V	70	21	-	36	11	9	12	4	12
G 1/4-19	-	6412G04S	SET	70	21	-	36	11	9	12	4	12
G 3/8-19	-	TVG0060NEBC	2.5P	100	21	-	51	12	9	12	3	11
G 3/8-19	-	T9G0060NEB2	F	70	21	-	36	12	9	12	4	12
G 3/8-19	-	T9G0060NEB5	V	70	21	-	36	12	9	12	4	12
G 3/8-19	-	6412G06S	SET	70	21	-	36	12	9	12	4	12
G 1/2-14	-	TVG0080NEBC	2.5P	125	24	-	64	16	12	15	3	11
G 1/2-14	-	T9G0080NEB2	F	80	21	-	41	16	12	15	4	12
G 1/2-14	-	T9G0080NEB5	V	80	21	-	41	16	12	15	4	12
G 1/2-14	-	6412G08S	SET	80	21	-	41	16	12	15	4	12
G 5/8-14	-	TVG0100NEBC	2.5P	125	24	-	64	18	14.5	17	4	11
G 5/8-14	-	T9G0100NEB2	F	80	21	-	41	18	14.5	17	4	12
G 5/8-14	-	T9G0100NEB5	V	80	21	-	41	18	14.5	17	4	12
G 3/4-14	-	TVG0120NEBC	2.5P	140	27	-	71	20	16	19	4	11
G 3/4-14	-	T9G0120NEB2	F	90	21	-	46	20	16	19	4	12
G 3/4-14	-	T9G0120NEB5	V	90	21	-	46	20	16	19	4	12
G 3/4-14	-	6412G12S	SET	90	21	-	46	20	16	19	4	12
G 7/8-14	-	TVG0140NEBC	2.5P	150	27	-	77	22	18	21	4	11
G 7/8-14	-	T9G0140NEB2	F	90	21	-	46	22	18	21	4	12
G 7/8-14	-	T9G0140NEB5	V	90	21	-	46	22	18	21	4	12
G 1 -11	-	TVG0160NEBC	2.5P	160	29	-	82	25	20	23	4	11
G 1 -11	-	T9G0160NEB2	F	100	24	-	51	25	20	23	4	12
G 1 -11	-	T9G0160NEB5	V	100	24	-	51	25	20	23	4	12
G 1 -11	-	6412G16S	SET	100	24	-	51	25	20	23	4	12
G 1 1/8-11	-	TVG0180NEBC	2.5P	170	29	-	87	28	22	25	4	11
G 1 1/8-11	-	T9G0180NEB2	F	125	39	-	64	28	22	25	4	12
G 1 1/8-11	-	T9G0180NEB5	V	125	39	-	64	28	22	25	4	12
G 1 1/4-11	-	TVG0200NEBC	2.5P	170	29	-	87	32	24	27	4	11
G 1 1/4-11	-	T9G0200NEB2	F	125	39	-	64	32	24	27	4	12
G 1 1/4-11	-	T9G0200NEB5	V	125	39	-	64	32	24	27	4	12
G 1 1/2-11	-	TVG0240NEBC	2.5P	190	31	-	97	36	29	32	6	11
G 1 1/2-11	-	T9G0240NEB2	F	140	39	-	71	36	29	32	6	12
G 1 1/2-11	-	T9G0240NEB5	V	140	39	-	71	36	29	32	6	12

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

IHT

Hand Taps for General Purpose



Specification

HSS | OX Oxide | <2D

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
~5 (m/min)	~5 (m/min)



Blister Pack

Product Features

- IHT is for hand tapping and for re-threading, and is used for both through hole and blind hole.
- Use for threading of the iron (SPC or SS400) products used in our daily life.
- Surface treated. Oxidization, the most suitable surface treatment for iron products.
- Suitable for internal thread cutting in small quantity, such as tapping of test pieces.
- The 5 thread chamfer is recommended for through holes and 2 thread chamfer is recommeded for blind holes.



Through hole = 5 thread type



Blind hole = 2 thread type

How to use IHT

- Start tapping after boring holes corresponding to the thread size by using drills (note: For drill sizes, refer to drill sizes shown in the bored hole size table.)
- On hand tapping, operate tapping in an upright position parallel to bored holes by using tap wrenches.
- During tapping, please use tapping oil.



When hand tapping, always use tap wrench



Machine tapping with drilling machine

■Table for bored and drilled hole sizes

unit:mm

Size	Minor Diameter of Internal Thread Size			Drill Size	Thread Engagement
	Minimum Tolerance	Maximum Tolerance			
		6H (2nd Class)	7H (3rd Class)		
M3 × 0.5	2.459	2.599	2.639	2.6 (2.5)	74% (92%)
M4 × 0.7	3.242	3.422	3.466	3.4 (3.3)	79% (92%)
M5 × 0.8	4.134	4.344	4.384	4.3 (4.2)	81% (92%)
M6 × 1	4.917	5.153	5.217	5.1 (5.0)	83% (92%)
M8 × 1.25	6.647	6.912	6.982	6.9 (6.8)	91% (89%)
M10 × 1.5	8.376	8.676	8.751	8.6 (8.5)	86% (92%)

note1) Recommended drill sizes shown in this table are for internal threads of 7H class (3rd class), and are selected from the standard drills available in the market.

note2) Drill sizes shown in brackets in this table are for such case as the drilling has oversize cutting tendency or for internal threads of 6H class (2nd class).

[Related products]

Shank adjuster

- For deep hole tappings, please use shank adjusters.
- There is only a one touch motion required to detach and attach the I series taps (IHT/ISP/IPO) from or to the shank adjuster.

*For details of shank adjuster, refer to ⑦-77



Think threads with YAMAWA

Obtainable from video site shown in right

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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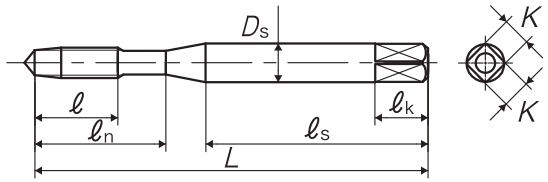

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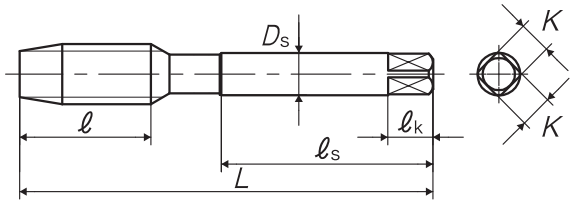

Blister Pack

Segment : 1A

Size	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads												
M3 × 0.5	HI73.0G5BP	5P	46	9	14	26	4	3.2	6	3	1	¥ 725
M3 × 0.5	HI73.0G2BP	2P	46	9	14	26	4	3.2	6	3	1	¥ 725
M4 × 0.7	HI74.0I5BP	5P	52	11	17	29	5	4	7	3	1	¥ 675
M4 × 0.7	HI74.0I2BP	2P	52	11	17	29	5	4	7	3	1	¥ 675
M5 × 0.8	HI75.0K5BP	5P	60	13	22	33	5.5	4.5	7	3	1	¥ 725
M5 × 0.8	HI75.0K2BP	2P	60	13	22	33	5.5	4.5	7	3	1	¥ 725
M6 × 1	HI76.0M5BP	5P	62	15	26	33	6	4.5	7	3	1	¥ 790
M6 × 1	HI76.0M2BP	2P	62	15	26	33	6	4.5	7	3	1	¥ 790
M8 × 1.25	HI78.0N5BP	5P	70	19	-	36	6.2	5	8	3	2	¥ 1,190
M8 × 1.25	HI78.0N2BP	2P	70	19	-	36	6.2	5	8	3	2	¥ 1,190
M10 × 1.5	HI701005BP	5P	75	23	-	38	7	5.5	8	3	2	¥ 1,510
M10 × 1.5	HI701002BP	2P	75	23	-	38	7	5.5	8	3	2	¥ 1,510

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

IHT



Hand Taps for General Purpose

Specification

HSS | OX Oxide | <2D

■Suitable for low speed tapping of steels.
For manual use and drilling machine use.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
~5 (m/min)	~5 (m/min)

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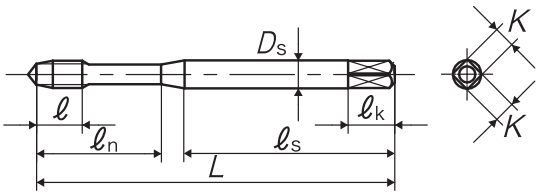

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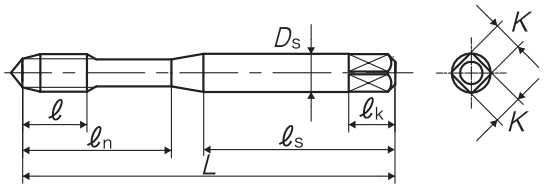

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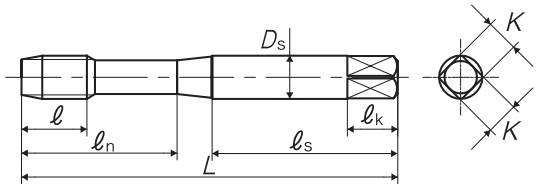


Segment : 1A

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
No.6-32UNC	-	IAUN6JXHEX5	5P	2	0.374	0.669	1.201	0.141	0.11	0.187	3	1
No.6-32UNC	-	IAUN6JXHEX2	2P	2	0.374	0.669	1.201	0.141	0.11	0.187	3	1
No.8-32UNC	-	IAUN8JXHEX5	5P	2.125	0.374	0.866	1.339	0.168	0.131	0.25	3	1
No.8-32UNC	-	IAUN8JXHEX2	2P	2.125	0.374	0.866	1.339	0.168	0.131	0.25	3	1
No.10-24UNC	-	IAUNAMXHEX5	5P	2.375	0.512	0.866	1.339	0.194	0.152	0.25	3	1
No.10-24UNC	-	IAUNAMXHEX2	2P	2.375	0.512	0.866	1.339	0.194	0.152	0.25	3	1
1/4-20UNC	-	IAU04NXHEX5	5P	2.5	0.591	1.024	1.22	0.255	0.191	0.312	3	2
1/4-20UNC	-	IAU04NXHEX2	2P	2.5	0.591	1.024	1.22	0.255	0.191	0.312	3	2
5/16-18UNC	-	IAU05OXHEX5	5P	2.718	0.669	1.004	1.378	0.318	0.238	0.375	3	3
5/16-18UNC	-	IAU05OXHEX2	2P	2.718	0.669	1.004	1.378	0.318	0.238	0.375	3	3
3/8-16UNC	-	IAU06PXHEX5	5P	2.937	0.748	1.059	1.496	0.381	0.286	0.437	3	3
3/8-16UNC	-	IAU06PXHEX2	2P	2.937	0.748	1.059	1.496	0.381	0.286	0.437	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads (In blister package)												
No.6-32UNC	-	IAUN6JXHEX5R	5P	2	0.374	0.669	1.201	0.141	0.11	0.187	3	1
No.6-32UNC	-	IAUN6JXHEX2R	2P	2	0.374	0.669	1.201	0.141	0.11	0.187	3	1
No.8-32UNC	-	IAUN8JXHEX5R	5P	2.125	0.374	0.866	1.339	0.168	0.131	0.25	3	1
No.8-32UNC	-	IAUN8JXHEX2R	2P	2.125	0.374	0.866	1.339	0.168	0.131	0.25	3	1
No.10-24UNC	-	IAUNAMXHEX5R	5P	2.375	0.512	0.866	1.339	0.194	0.152	0.25	3	1
No.10-24UNC	-	IAUNAMXHEX2R	2P	2.375	0.512	0.866	1.339	0.194	0.152	0.25	3	1
1/4-20UNC	-	IAU04NXHEX5R	5P	2.5	0.591	1.024	1.22	0.255	0.191	0.312	3	2
1/4-20UNC	-	IAU04NXHEX2R	2P	2.5	0.591	1.024	1.22	0.255	0.191	0.312	3	2
5/16-18UNC	-	IAU05OXHEX5R	5P	2.718	0.669	1.004	1.378	0.318	0.238	0.375	3	3
5/16-18UNC	-	IAU05OXHEX2R	2P	2.718	0.669	1.004	1.378	0.318	0.238	0.375	3	3
3/8-16UNC	-	IAU06PXHEX5R	5P	2.937	0.748	1.059	1.496	0.381	0.286	0.437	3	3
3/8-16UNC	-	IAU06PXHEX2R	2P	2.937	0.748	1.059	1.496	0.381	0.286	0.437	3	3

Blister Package





※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

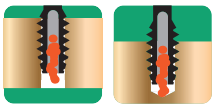
HT OX

Hand Taps, Oxidized



Specification

HSS | OX Oxide



Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

■The HT OX taps are a hand tap with an oxidation treatment for preventing chip welding on the surface of the taps thread portion. It is suitable for thread processing of soft steel materials that easily welds to the taps thread such as low carbon steels.

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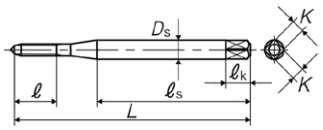

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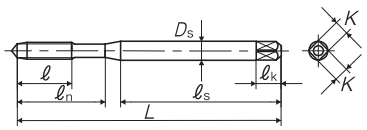

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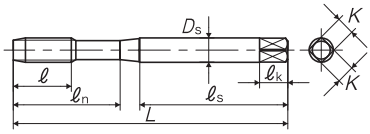

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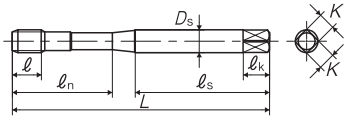

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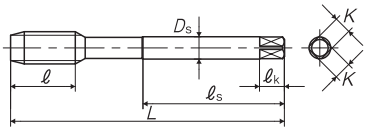

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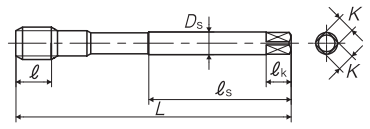

Segment : 1A

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	D3	TS2.0E3NEX5	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
M2 × 0.4	D3	TS2.0E3NEXA	1.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
M2.2 × 0.45	D3	TS2.2F3NEX5	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
M2.2 × 0.45	D3	TS2.2F3NEXA	1.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
M2.5 × 0.45	D3	TS2.5F3NEX5	5P	2.205	0.354	0.693	1.28	0.141	0.11	0.187	3	2
M2.5 × 0.45	D3	TS2.5F3NEXA	1.5P	2.205	0.354	0.693	1.28	0.141	0.11	0.187	3	2
M2.6 × 0.45	D3	TS2.6F3NEX5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
M2.6 × 0.45	D3	TS2.6F3NEXA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
M3 × 0.5	D3	TS3.0G3NEX5	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
M3 × 0.5	D3	TS3.0G3NEXA	1.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
M3.5 × 0.6	D4	TS3.5H4NEX5	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
M3.5 × 0.6	D4	TS3.5H4NEXA	1.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
M4 × 0.7	D4	TS4.0I4NEX5	5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	2
M4 × 0.7	D4	TS4.0I4NEXA	1.5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	2
M5 × 0.8	D4	TS5.0K4NEX5	5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M5 × 0.8	D4	TS5.0K4NEXA	1.5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	2
M6 × 1	D5	TS6.0M5NEX5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2
M6 × 1	D5	TS6.0M5NEXA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M7 × 1	D5	TS7.0M5NEX5	5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M7 × 1	D5	TS7.0M5NEXA	1.5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	3	3
M7 × 0.75	D4	TS7.0J4NEX5	5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	4	3
M7 × 0.75	D4	TS7.0J4NEXA	1.5P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	4	3
M7 × 0.5	D4	TS7.0G4NEX5	5P	3.543	0.394	1.339	1.831	0.318	0.238	0.375	4	4
M7 × 0.5	D4	TS7.0G4NEXA	1.5P	3.543	0.394	1.339	1.831	0.318	0.238	0.375	4	4
M8 × 1.25	D5	TS8.0N5NEX5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 1.25	D5	TS8.0N5NEXA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	3
M8 × 1	D5	TS8.0M5NEX5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
M8 × 1	D5	TS8.0M5NEXA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
M8 × 0.75	D4	TS8.0J4NEX5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
M8 × 0.75	D4	TS8.0J4NEXA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
M8 × 0.5	D4	TS8.0G4NEX5	5P	3.543	0.394	1.378	1.831	0.318	0.238	0.375	4	4
M8 × 0.5	D4	TS8.0G4NEXA	1.5P	3.543	0.394	1.378	1.831	0.318	0.238	0.375	4	4
M9 × 1.25	D5	TS9.0N5NEX5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
M9 × 1.25	D5	TS9.0N5NEXA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
M9 × 1	D5	TS9.0M5NEX5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
M9 × 1	D5	TS9.0M5NEXA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
M10 × 1.5	D6	TS010O6NEX5	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	3
M10 × 1.5	D6	TS010O6NEXA	1.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	3
M10 × 1.25	D5	TS010N5NEX5	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	3
M10 × 1.25	D5	TS010N5NEXA	1.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	3
M10 × 1	D5	TS010M5NEX5	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	3
M10 × 1	D5	TS010M5NEXA	1.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	3
M10 × 0.75	D4	TS010J4NEX5	5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	4	4
M10 × 0.75	D4	TS010J4NEXA	1.5P	3.937	0.512	1.535	2.126	0.381	0.286	0.437	4	4
M11 × 1.5	D6	TS011O6NEX5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
M11 × 1.5	D6	TS011O6NEXA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
M12 × 1.75	D6	TS012P6NEX5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1.75	D6	TS012P6NEXA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1.5	D6	TS012O6NEX5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1.5	D6	TS012O6NEXA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1.25	D6	TS012N6NEX5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1.25	D6	TS012N6NEXA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1	D5	TS012M5NEX5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M12 × 1	D5	TS012M5NEXA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
M14 × 2	D7	TS014Q7NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 2	D7	TS014Q7NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 1.5	D6	TS014O6NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 1.5	D6	TS014O6NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 1.25	D6	TS014N6NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 1.25	D6	TS014N6NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 1	D5	TS014M5NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M14 × 1	D5	TS014M5NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
M16 × 2	D7	TS016Q7NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
M16 × 2	D7	TS016Q7NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
M16 × 1.5	D6	TS016O6NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
M16 × 1.5	D6	TS016O6NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
M16 × 1	D5	TS016M5NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
M16 × 1	D5	TS016M5NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT OX Hand Taps, Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M18 × 2.5	D7	TS018R7NEX5	5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	5
M18 × 2.5	D7	TS018R7NEXA	1.5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	5
M18 × 2	D7	TS018Q7NEX5	5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	5
M18 × 2	D7	TS018Q7NEXA	1.5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	5
M18 × 1.5	D6	TS018O6NEX5	5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	6
M18 × 1.5	D6	TS018O6NEXA	1.5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	6
M18 × 1	D5	TS018M5NEX5	5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	6
M18 × 1	D5	TS018M5NEXA	1.5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	6
M20 × 2.5	D7	TS020R7NEX5	5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	5
M20 × 2.5	D7	TS020R7NEXA	1.5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	5
M20 × 2	D7	TS020Q7NEX5	5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	5
M20 × 2	D7	TS020Q7NEXA	1.5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	5
M20 × 1.5	D6	TS020O6NEX5	5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	6
M20 × 1.5	D6	TS020O6NEXA	1.5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	6
M20 × 1	D5	TS020M5NEX5	5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	6
M20 × 1	D5	TS020M5NEXA	1.5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	6
M22 × 2.5	D7	TS022R7NEX5	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
M22 × 2.5	D7	TS022R7NEXA	1.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
M22 × 2	D7	TS022Q7NEX5	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
M22 × 2	D7	TS022Q7NEXA	1.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
M22 × 1.5	D6	TS022O6NEX5	5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	6
M22 × 1.5	D6	TS022O6NEXA	1.5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	6
M22 × 1	D5	TS022M5NEX5	5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	6
M22 × 1	D5	TS022M5NEXA	1.5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	6
M24 × 3	D8	TS024S8NEX5	5P	6.299	1.457	-	3.228	0.76	0.57	0.75	4	5
M24 × 3	D8	TS024S8NEXA	1.5P	6.299	1.457	-	3.228	0.76	0.57	0.75	4	5
M24 × 2	D7	TS024Q7NEX5	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 2	D7	TS024Q7NEXA	1.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 1.5	D6	TS024O6NEX5	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 1.5	D6	TS024O6NEXA	1.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 1	D5	TS024M5NEX5	5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M24 × 1	D5	TS024M5NEXA	1.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	6
M25 × 1.5	D6	TS025O6NEX5	5P	6.299	1.063	-	3.228	0.8	0.6	0.812	4	6
M25 × 1.5	D6	TS025O6NEXA	1.5P	6.299	1.063	-	3.228	0.8	0.6	0.812	4	6
M26 × 1.5	D6	TS026O6NEX5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M26 × 1.5	D6	TS026O6NEXA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 3	D8	TS027S8NEX5	5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
M27 × 3	D8	TS027S8NEXA	1.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
M27 × 2	D7	TS027Q7NEX5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 2	D7	TS027Q7NEXA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1.5	D6	TS027O6NEX5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1.5	D6	TS027O6NEXA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1	D5	TS027M5NEX5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M27 × 1	D5	TS027M5NEXA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 2	D7	TS028Q7NEX5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 2	D7	TS028Q7NEXA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1.5	D6	TS028O6NEX5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1.5	D6	TS028O6NEXA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1	D5	TS028M5NEX5	5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6
M28 × 1	D5	TS028M5NEXA	1.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	6

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT OX Hand Taps, Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M30 × 3.5	D9	TS030T9NEX5	5P	7.087	1.732	-	3.622	1.021	0.766	1	4	5
M30 × 3.5	D9	TS030T9NEXA	1.5P	7.087	1.732	-	3.622	1.021	0.766	1	4	5
M30 × 2	D7	TS030Q7NEX5	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 2	D7	TS030Q7NEXA	1.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1.5	D6	TS030O6NEX5	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1.5	D6	TS030O6NEXA	1.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1	D5	TS030M5NEX5	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M30 × 1	D5	TS030M5NEXA	1.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	6
M32 × 2	D7	TS032Q7NEX5	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 2	D7	TS032Q7NEXA	1.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1.5	D6	TS032O6NEX5	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1.5	D6	TS032O6NEXA	1.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1	D5	TS032M5NEX5	5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M32 × 1	D5	TS032M5NEXA	1.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	5
M33 × 3.5	D9	TS033T9NEX5	5P	7.087	1.732	-	3.622	1.108	0.831	1.062	4	5
M33 × 3.5	D9	TS033T9NEXA	1.5P	7.087	1.732	-	3.622	1.108	0.831	1.062	4	5
M33 × 2	D7	TS033Q7NEX5	5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 2	D7	TS033Q7NEXA	1.5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1.5	D6	TS033O6NEX5	5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1.5	D6	TS033O6NEXA	1.5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1	D5	TS033M5NEX5	5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M33 × 1	D5	TS033M5NEXA	1.5P	7.087	1.142	-	3.622	1.108	0.831	1.062	4	6
M36 × 4	D9	TS036U9NEX5	5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 4	D9	TS036U9NEXA	1.5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 3	D8	TS036S8NEX5	5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 3	D8	TS036S8NEXA	1.5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	5
M36 × 2	D7	TS036Q7NEX5	5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 2	D7	TS036Q7NEXA	1.5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1.5	D6	TS036O6NEX5	5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1.5	D6	TS036O6NEXA	1.5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1	D5	TS036M5NEX5	5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M36 × 1	D5	TS036M5NEXA	1.5P	7.874	1.142	-	4.016	1.233	0.925	1.125	4	6
M39 × 4	D9	TS039U9NEX5	5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 4	D9	TS039U9NEXA	1.5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 3	D8	TS039S8NEX5	5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 3	D8	TS039S8NEXA	1.5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	5
M39 × 2	D7	TS039Q7NEX5	5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 2	D7	TS039Q7NEXA	1.5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1.5	D6	TS039O6NEX5	5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1.5	D6	TS039O6NEXA	1.5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1	D5	TS039M5NEX5	5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M39 × 1	D5	TS039M5NEXA	1.5P	7.874	1.142	-	4.016	1.305	0.979	1.125	4	6
M42 × 4.5	D10	TS042V0NEX5	5P	7.874	2.047	-	4.016	1.43	1.072	1.25	4	5
M42 × 4.5	D10	TS042V0NEXA	1.5P	7.874	2.047	-	4.016	1.43	1.072	1.25	4	5
M42 × 2	D7	TS042Q7NEX5	5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 2	D7	TS042Q7NEXA	1.5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1.5	D6	TS042O6NEX5	5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1.5	D6	TS042O6NEXA	1.5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1	D5	TS042M5NEX5	5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6
M42 × 1	D5	TS042M5NEXA	1.5P	7.874	1.142	-	4.016	1.43	1.072	1.25	4	6

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT OX Hand Taps, Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M45 × 4.5	D10	TS045V0NEX5	5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 4.5	D10	TS045V0NEXA	1.5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 3	D8	TS045S8NEX5	5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 3	D8	TS045S8NEXA	1.5P	8.661	2.323	-	4.409	1.519	1.139	1.25	4	5
M45 × 2	D7	TS045Q7NEX5	5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 2	D7	TS045Q7NEXA	1.5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1.5	D6	TS045O6NEX5	5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1.5	D6	TS045O6NEXA	1.5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1	D5	TS045M5NEX5	5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M45 × 1	D5	TS045M5NEXA	1.5P	8.661	1.22	-	4.409	1.519	1.139	1.25	4	6
M48 × 5	D11	TS048W-NEX5	5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 5	D11	TS048W-NEXA	1.5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 3	D9	TS048S9NEX5	5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 3	D9	TS048S9NEXA	1.5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	5
M48 × 2	D7	TS048Q7NEX5	5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 2	D7	TS048Q7NEXA	1.5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1.5	D7	TS048O7NEX5	5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1.5	D7	TS048O7NEXA	1.5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1	D6	TS048M6NEX5	5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
M48 × 1	D6	TS048M6NEXA	1.5P	9.843	1.22	-	5.039	1.644	1.233	1.375	4	6
For Unified Threads												
No.0-80UNF	GH1	TSUN0B1NEX5	5P	1.772	0.236	-	1.161	0.141	0.11	0.187	2	1
No.0-80UNF	GH1	TSUN0B1NEXA	1.5P	1.772	0.236	-	1.161	0.141	0.11	0.187	2	1
No.0-80UNF	GH2	TSUN0B2NEX5	5P	1.772	0.236	-	1.161	0.141	0.11	0.187	2	1
No.0-80UNF	GH2	TSUN0B2NEXA	1.5P	1.772	0.236	-	1.161	0.141	0.11	0.187	2	1
No.1-64UNC	GH1	TSUN1D1NEX5	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-64UNC	GH1	TSUN1D1NEXA	1.5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-64UNC	GH2	TSUN1D2NEX5	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-64UNC	GH2	TSUN1D2NEXA	1.5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-72UNF	GH1	TSUN1C1NEX5	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-72UNF	GH1	TSUN1C1NEXA	1.5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-72UNF	GH2	TSUN1C2NEX5	5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.1-72UNF	GH2	TSUN1C2NEXA	1.5P	1.772	0.276	-	1.161	0.141	0.11	0.187	2	1
No.2-56UNC	GH1	TSUN2E1NEX5	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-56UNC	GH1	TSUN2E1NEXA	1.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-56UNC	GH2	TSUN2E2NEX5	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-56UNC	GH2	TSUN2E2NEXA	1.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-64UNF	GH1	TSUN2D1NEX5	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-64UNF	GH1	TSUN2D1NEXA	1.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-64UNF	GH2	TSUN2D2NEX5	5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.2-64UNF	GH2	TSUN2D2NEXA	1.5P	1.772	0.314	-	1.161	0.141	0.11	0.187	3	1
No.3-48UNC	GH1	TSUN3F1NEX5	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-48UNC	GH1	TSUN3F1NEXA	1.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-48UNC	GH2	TSUN3F2NEX5	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-48UNC	GH2	TSUN3F2NEXA	1.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-56UNF	GH1	TSUN3E1NEX5	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-56UNF	GH1	TSUN3E1NEXA	1.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-56UNF	GH2	TSUN3E2NEX5	5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2
No.3-56UNF	GH2	TSUN3E2NEXA	1.5P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	3	2

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT OX Hand Taps, Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.4-40UNC	GH2	TSUN4H2NEX5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-40UNC	GH2	TSUN4H2NEXA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-40UNC	GH3	TSUN4H3NEX5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-40UNC	GH3	TSUN4H3NEXA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-48UNF	GH1	TSUN4F1NEX5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-48UNF	GH1	TSUN4F1NEXA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-48UNF	GH2	TSUN4F2NEX5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.4-48UNF	GH2	TSUN4F2NEXA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	2
No.5-40UNC	GH2	TSUN5H2NEX5	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-40UNC	GH2	TSUN5H2NEXA	1.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-40UNC	GH3	TSUN5H3NEX5	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-40UNC	GH3	TSUN5H3NEXA	1.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-44UNF	GH1	TSUN5G1NEX5	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-44UNF	GH1	TSUN5G1NEXA	1.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-44UNF	GH2	TSUN5G2NEX5	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-44UNF	GH2	TSUN5G2NEXA	1.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-44UNF	GH3	TSUN5G3NEX5	5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.5-44UNF	GH3	TSUN5G3NEXA	1.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH2	TSUN6J2NEX5	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH2	TSUN6J2NEXA	1.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH3	TSUN6J3NEX5	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-32UNC	GH3	TSUN6J3NEXA	1.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-40UNF	GH2	TSUN6H2NEX5	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-40UNF	GH2	TSUN6H2NEXA	1.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-40UNF	GH3	TSUN6H3NEX5	5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.6-40UNF	GH3	TSUN6H3NEXA	1.5P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	3	2
No.8-32UNC	GH2	TSUN8J2NEX5	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	GH2	TSUN8J2NEXA	1.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	GH3	TSUN8J3NEX5	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	GH3	TSUN8J3NEXA	1.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	GH2	TSUN8I2NEX5	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	GH2	TSUN8I2NEXA	1.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	GH3	TSUN8I3NEX5	5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	GH3	TSUN8I3NEXA	1.5P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.10-24UNC	GH2	TSUNAM2NEX5	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	GH2	TSUNAM2NEXA	1.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	GH3	TSUNAM3NEX5	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	GH3	TSUNAM3NEXA	1.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	GH2	TSUNAJ2NEX5	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	GH2	TSUNAJ2NEXA	1.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	GH3	TSUNAJ3NEX5	5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	GH3	TSUNAJ3NEXA	1.5P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.12-24UNC	GH2	TSUNCM2NEX5	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-24UNC	GH2	TSUNCM2NEXA	1.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-24UNC	GH3	TSUNCM3NEX5	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-24UNC	GH3	TSUNCM3NEXA	1.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	GH2	TSUNCK2NEX5	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	GH2	TSUNCK2NEXA	1.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	GH3	TSUNCK3NEX5	5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	GH3	TSUNCK3NEXA	1.5P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT OX Hand Taps, Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
1/4-20UNC	GH3	TSU04N3NEX5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	GH3	TSU04N3NEXA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	GH4	TSU04N4NEX5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	GH4	TSU04N4NEXA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	GH5	TSU04N5NEX5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	GH5	TSU04N5NEXA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	GH2	TSU04K2NEX5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	GH2	TSU04K2NEXA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	GH3	TSU04K3NEX5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	GH3	TSU04K3NEXA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	GH4	TSU04K4NEX5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	GH4	TSU04K4NEXA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
5/16-18UNC	GH3	TSU0503NEX5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-18UNC	GH3	TSU0503NEXA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-18UNC	GH4	TSU0504NEX5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-18UNC	GH4	TSU0504NEXA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-18UNC	GH5	TSU0505NEX5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-18UNC	GH5	TSU0505NEXA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-24UNF	GH3	TSU05M3NEX5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-24UNF	GH3	TSU05M3NEXA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-24UNF	GH4	TSU05M4NEX5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
5/16-24UNF	GH4	TSU05M4NEXA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	3
3/8-16UNC	GH3	TSU06P3NEX5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-16UNC	GH3	TSU06P3NEXA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-16UNC	GH5	TSU06P5NEX5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-16UNC	GH5	TSU06P5NEXA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-24UNF	GH3	TSU06M3NEX5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-24UNF	GH3	TSU06M3NEXA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-24UNF	GH4	TSU06M4NEX5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
3/8-24UNF	GH4	TSU06M4NEXA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	3
7/16-14UNC	GH4	TSU07Q4NEX5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-14UNC	GH4	TSU07Q4NEXA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-14UNC	GH5	TSU07Q5NEX5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-14UNC	GH5	TSU07Q5NEXA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-20UNF	GH3	TSU07N3NEX5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-20UNF	GH3	TSU07N3NEXA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-20UNF	GH4	TSU07N4NEX5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
7/16-20UNF	GH4	TSU07N4NEXA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	5
1/2-13UNC	GH3	TSU08R3NEX5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-13UNC	GH3	TSU08R3NEXA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-13UNC	GH4	TSU08R4NEX5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-13UNC	GH4	TSU08R4NEXA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-13UNC	GH5	TSU08R5NEX5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-13UNC	GH5	TSU08R5NEXA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-20UNF	GH3	TSU08N3NEX5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-20UNF	GH3	TSU08N3NEXA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-20UNF	GH4	TSU08N4NEX5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-20UNF	GH4	TSU08N4NEXA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-20UNF	GH5	TSU08N5NEX5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5
1/2-20UNF	GH5	TSU08N5NEXA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	5

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT OX Hand Taps, Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
9/16-12UNC	GH3	TSU09S3NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-12UNC	GH3	TSU09S3NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-12UNC	GH4	TSU09S4NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-12UNC	GH4	TSU09S4NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-12UNC	GH5	TSU09S5NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-12UNC	GH5	TSU09S5NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-18UNF	GH3	TSU09O3NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-18UNF	GH3	TSU09O3NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-18UNF	GH4	TSU09O4NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-18UNF	GH4	TSU09O4NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-18UNF	GH5	TSU09O5NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
9/16-18UNF	GH5	TSU09O5NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	5
5/8-11UNC	GH3	TSU10U3NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH3	TSU10U3NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH4	TSU10U4NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH4	TSU10U4NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH5	TSU10U5NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH5	TSU10U5NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH6	TSU10U6NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-11UNC	GH6	TSU10U6NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-18UNF	GH3	TSU10O3NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-18UNF	GH3	TSU10O3NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-18UNF	GH4	TSU10O4NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-18UNF	GH4	TSU10O4NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-18UNF	GH5	TSU10O5NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
5/8-18UNF	GH5	TSU10O5NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	5
3/4-10UNC	GH3	TSU12V3NEX5	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH3	TSU12V3NEXA	1.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH5	TSU12V5NEX5	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH5	TSU12V5NEXA	1.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH6	TSU12V6NEX5	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-10UNC	GH6	TSU12V6NEXA	1.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH3	TSU12P3NEX5	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH3	TSU12P3NEXA	1.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH4	TSU12P4NEX5	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH4	TSU12P4NEXA	1.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH5	TSU12P5NEX5	5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
3/4-16UNF	GH5	TSU12P5NEXA	1.5P	4.921	1.299	-	2.52	0.59	0.442	0.687	4	5
7/8-9UNC	GH5	TSU14W5NEX5	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-9UNC	GH5	TSU14W5NEXA	1.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-9UNC	GH6	TSU14W6NEX5	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-9UNC	GH6	TSU14W6NEXA	1.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH4	TSU14Q4NEX5	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH4	TSU14Q4NEXA	1.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH6	TSU14Q6NEX5	5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5
7/8-14UNF	GH6	TSU14Q6NEXA	1.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	5

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Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT OX Hand Taps, Oxidized

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
1 -8UNC	GH4	TSU16X4NEX5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH4	TSU16X4NEXA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH5	TSU16X5NEX5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH5	TSU16X5NEXA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH6	TSU16X6NEX5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH6	TSU16X6NEXA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH7	TSU16X7NEX5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -8UNC	GH7	TSU16X7NEXA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH4	TSU16S4NEX5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH4	TSU16S4NEXA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH5	TSU16S5NEX5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH5	TSU16S5NEXA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH6	TSU16S6NEX5	5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 -12UNF	GH6	TSU16S6NEXA	1.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	5
1 1/8-7UNC	GH6	TSU18Y6NEX5	5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-7UNC	GH6	TSU18Y6NEXA	1.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-7UNC	GH7	TSU18Y7NEX5	5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-7UNC	GH7	TSU18Y7NEXA	1.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH5	TSU18S5NEX5	5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH5	TSU18S5NEXA	1.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH6	TSU18S6NEX5	5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/8-12UNF	GH6	TSU18S6NEXA	1.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	5
1 1/4-7UNC	GH6	TSU20Y6NEX5	5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-7UNC	GH6	TSU20Y6NEXA	1.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-7UNC	GH8	TSU20Y8NEX5	5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-7UNC	GH8	TSU20Y8NEXA	1.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	5
1 1/4-12UNF	GH5	TSU20S5NEX5	5P	7.087	1.929	-	3.622	1.021	0.766	1	6	5
1 1/4-12UNF	GH5	TSU20S5NEXA	1.5P	7.087	1.929	-	3.622	1.021	0.766	1	6	5
1 1/4-12UNF	GH6	TSU20S6NEX5	5P	7.087	1.929	-	3.622	1.021	0.766	1	6	5
1 1/4-12UNF	GH6	TSU20S6NEXA	1.5P	7.087	1.929	-	3.622	1.021	0.766	1	6	5
1 3/8-6UNC	GH6	TSU22Z6NEX5	5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-6UNC	GH6	TSU22Z6NEXA	1.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-6UNC	GH8	TSU22Z8NEX5	5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-6UNC	GH8	TSU22Z8NEXA	1.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	5
1 3/8-12UNF	GH5	TSU22S5NEX5	5P	7.874	2.165	-	4.016	1.108	0.831	1.062	6	5
1 3/8-12UNF	GH5	TSU22S5NEXA	1.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	6	5
1 3/8-12UNF	GH6	TSU22S6NEX5	5P	7.874	2.165	-	4.016	1.108	0.831	1.062	6	5
1 3/8-12UNF	GH6	TSU22S6NEXA	1.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	6	5
1 1/2-6UNC	GH6	TSU24Z6NEX5	5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-6UNC	GH6	TSU24Z6NEXA	1.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-6UNC	GH8	TSU24Z8NEX5	5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-6UNC	GH8	TSU24Z8NEXA	1.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	5
1 1/2-12UNF	GH5	TSU24S5NEX5	5P	7.874	2.323	-	4.016	1.233	0.925	1.125	6	5
1 1/2-12UNF	GH5	TSU24S5NEXA	1.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	6	5
1 1/2-12UNF	GH7	TSU24S7NEX5	5P	7.874	2.323	-	4.016	1.233	0.925	1.125	6	5
1 1/2-12UNF	GH7	TSU24S7NEXA	1.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	6	5

Think threads with YAMAWA

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MEMO

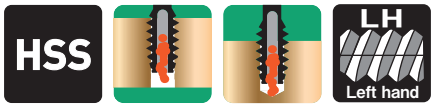
Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT LH

Hand Taps for Left Hand Threads



Specification



■The HT LH is a hand tap for left thread tapping.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

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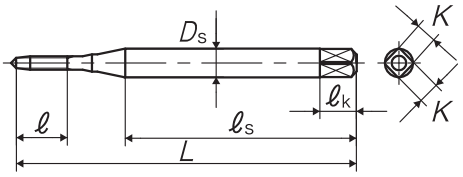

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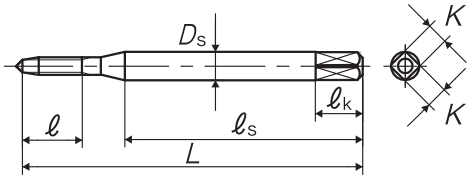

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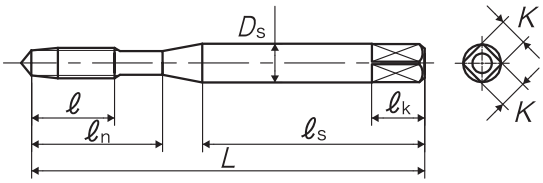

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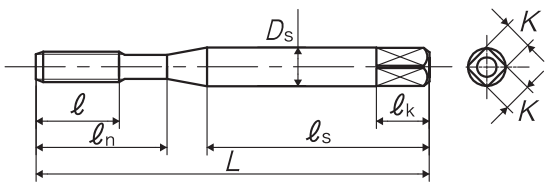

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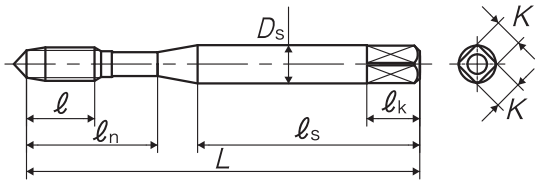

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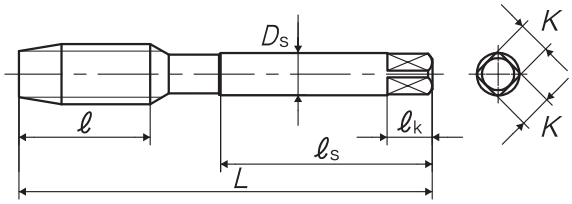

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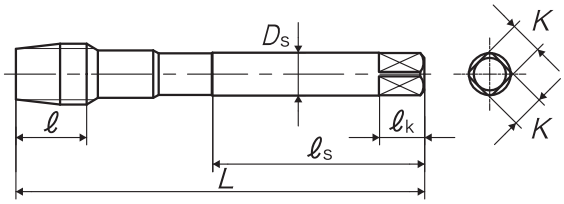

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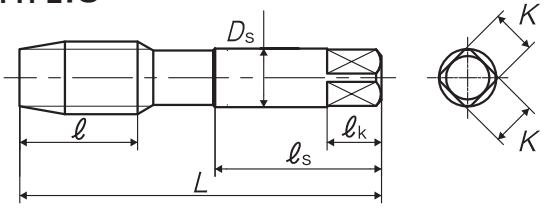

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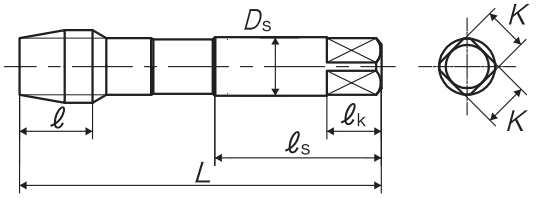

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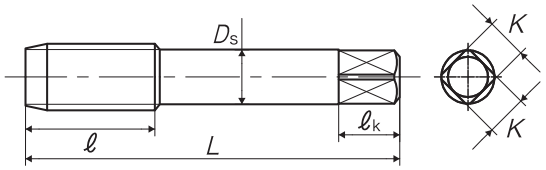

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Segment : 1A

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M1 × 0.25	P1	TNMP1.0B5-L	5P	36	4.5	-	24	3	2.5	5	3	1	¥ 4,450 ※
M1 × 0.25	P1	TNMP1.0B1-L	1.5P	36	4.5	-	24	3	2.5	5	3	1	¥ 4,450 ※
M1.2 × 0.25	P1	TNMP1.2B5-L	5P	36	4.5	-	24	3	2.5	5	3	1	¥ 4,450 ※
M1.2 × 0.25	P1	TNMP1.2B1-L	1.5P	36	4.5	-	24	3	2.5	5	3	1	¥ 4,450 ※
M1.4 × 0.3	P1	TNMP1.4C5-L	5P	36	5.4	-	24	3	2.5	5	3	1	¥ 3,640 ※
M1.4 × 0.3	P1	TNMP1.4C1-L	1.5P	36	5.4	-	24	3	2.5	5	3	1	¥ 3,640 ※
M1.6 × 0.35	P2	TNMQ1.6D5-L	5P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,480 ※
M1.6 × 0.35	P2	TNMQ1.6D1-L	1.5P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,480 ※
M1.7 × 0.35	P1	TNMP1.7D5-L	5P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,480 ※
M1.7 × 0.35	P1	TNMP1.7D1-L	1.5P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,480 ※
M2 × 0.4	P1	TNMP2.0E5-L	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,790 ※
M2 × 0.4	P1	TNMP2.0E1-L	1.5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,790 ※
M2.3 × 0.4	P1	TNMP2.3E5-L	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,530 ※
M2.3 × 0.4	P1	TNMP2.3E1-L	1.5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,530 ※
M2.5 × 0.45	P2	TNMQ2.5F5-L	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 2,140 ※
M2.5 × 0.45	P2	TNMQ2.5F1-L	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 2,140 ※
M2.6 × 0.45	P1	TNMP2.6F5-L	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 2,140 ※
M2.6 × 0.45	P1	TNMP2.6F1-L	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 2,140 ※
M3 × 0.5	P2	TNMQ3.0G5-L	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,500
M3 × 0.5	P2	TNMQ3.0G1-L	1.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,500
3M0.6	P2	TNMQ3.0H5-L	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,500 ※
3M0.6	P2	TNMQ3.0H1-L	1.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,500 ※
M3 × 0.35	P2	TNMQ3.0D5-L	5P	46	6.5	14	26	4	3.2	6	3	5	¥ 2,540 ※
M3 × 0.35	P2	TNMQ3.0D1-L	1.5P	46	6.5	14	26	4	3.2	6	3	5	¥ 2,540 ※
M3.5 × 0.6	P2	TNMQ3.5H5-L	5P	52	11	16	29	5	4	7	3	3	¥ 1,500 ※
M3.5 × 0.6	P2	TNMQ3.5H1-L	1.5P	52	11	16	29	5	4	7	3	3	¥ 1,500 ※
M4 × 0.7	P2	TNMQ4.0I53-L	5P	52	11	17	29	5	4	7	3	3	¥ 1,500
M4 × 0.7	P2	TNMQ4.0I13-L	1.5P	52	11	17	29	5	4	7	3	3	¥ 1,500
4M0.75	P2	TNMQ4.0J53-L	5P	52	11	17	29	5	4	7	3	3	¥ 1,500 ※
4M0.75	P2	TNMQ4.0J13-L	1.5P	52	11	17	29	5	4	7	3	3	¥ 1,500 ※
M4 × 0.5	P2	TNMQ4.0G5-L	5P	52	9	17	29	5	4	7	4	5	¥ 2,190 ※
M4 × 0.5	P2	TNMQ4.0G1-L	1.5P	52	9	17	29	5	4	7	4	5	¥ 2,190 ※
M5 × 0.8	P3	TNMR5.0K53-L	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,510
M5 × 0.8	P3	TNMR5.0K13-L	1.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,510
M5 × 0.8	P3	TNMR5.0K13FL	1.5P	60	13	22	33	5.5	4.5	7	3	4	¥ 1,510
5M0.9	P2	TNMQ5.0L53-L	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,510 ※
5M0.9	P2	TNMQ5.0L13-L	1.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,510 ※
M5 × 0.5	P2	TNMQ5.0G5-L	5P	60	9	22	33	5.5	4.5	7	4	5	¥ 2,190 ※
M5 × 0.5	P2	TNMQ5.0G1-L	1.5P	60	9	22	33	5.5	4.5	7	4	5	¥ 2,190 ※
M6 × 1	P2	TNMQ6.0M53-L	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,660
M6 × 1	P2	TNMQ6.0M13-L	1.5P	62	15	26	33	6	4.5	7	3	3	¥ 1,660
M6 × 1	P2	TNMQ6.0M13FL	1.5P	62	15	26	33	6	4.5	7	3	4	¥ 1,660
M6 × 0.75	P2	TNMQ6.0J5-L	5P	62	15	26	33	6	4.5	7	4	3	¥ 2,330 ※
M6 × 0.75	P2	TNMQ6.0J1-L	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 2,330 ※
M6 × 0.5	P2	TNMQ6.0G5-L	5P	62	9	26	33	6	4.5	7	4	5	¥ 2,330 ※
M6 × 0.5	P2	TNMQ6.0G1-L	1.5P	62	9	26	33	6	4.5	7	4	5	¥ 2,330 ※
M7 × 1	P2	TNMQ7.0M5-L	5P	70	19	-	36	6.2	5	8	4	6	¥ 1,980 ※
M7 × 1	P2	TNMQ7.0M1-L	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 1,980 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT LH Hand Taps for Left Hand Threads

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M7 × 0.75	P2	TNMQ7.0J5-L	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,930 ※
M7 × 0.75	P2	TNMQ7.0J1-L	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,930 ※
M8 × 1.25	P3	TNMR8.0N5TL	5P	70	19	-	36	6.2	5	8	3	6	¥ 2,270 ※
M8 × 1.25	P3	TNMR8.0N1TL	1.5P	70	19	-	36	6.2	5	8	3	6	¥ 2,270 ※
M8 × 1.25	P3	TNMR8.0N5-L	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,270
M8 × 1.25	P3	TNMR8.0N1-L	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,270
M8 × 1	P2	TNMQ8.0M5-L	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,580 ※
M8 × 1	P2	TNMQ8.0M1-L	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,580 ※
M8 × 0.75	P2	TNMQ8.0J5-L	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,930 ※
M8 × 0.75	P2	TNMQ8.0J1-L	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,930 ※
M8 × 0.5	P2	TNMQ8.0G5-L	5P	70	10	-	36	6.2	5	8	4	7	¥ 3,640 ※
M8 × 0.5	P2	TNMQ8.0G1-L	1.5P	70	10	-	36	6.2	5	8	4	7	¥ 3,640 ※
M9 × 1.25	P3	TNMR9.0N5-L	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,890 ※
M9 × 1.25	P3	TNMR9.0N1-L	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,890 ※
M9 × 1	P2	TNMQ9.0M5-L	5P	75	23	-	38	7	5.5	8	4	6	¥ 3,440 ※
M9 × 1	P2	TNMQ9.0M1-L	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 3,440 ※
M9 × 0.75	P2	TNMQ9.0J5-L	5P	75	13	-	38	7	5.5	8	4	7	¥ 4,180 ※
M9 × 0.75	P2	TNMQ9.0J1-L	1.5P	75	13	-	38	7	5.5	8	4	7	¥ 4,180 ※
M10 × 1.5	P3	TNMR010O5-L	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,890
M10 × 1.5	P3	TNMR010O1-L	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,890
M10 × 1.25	P3	TNMR010N5-L	5P	75	23	-	38	7	5.5	8	4	6	¥ 2,890
M10 × 1.25	P3	TNMR010N1-L	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 2,890
M10 × 1	P3	TNMR010M5-L	5P	75	23	-	38	7	5.5	8	4	6	¥ 3,440 ※
M10 × 1	P3	TNMR010M1-L	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 3,440 ※
M11 × 1.5	P4	TNMS011O5-L	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,100 ※
M11 × 1.5	P4	TNMS011O1-L	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,100 ※
M11 × 1.25	P3	TNMR011N5-L	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,100 ※
M11 × 1.25	P3	TNMR011N1-L	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,100 ※
M11 × 1	P3	TNMR011M5-L	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,810 ※
M11 × 1	P3	TNMR011M1-L	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,810 ※
M12 × 1.75	P3	TNMR012P5-L	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,100
M12 × 1.75	P3	TNMR012P1-L	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,100
M12 × 1.5	P3	TNMR012O5-L	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,100
M12 × 1.5	P3	TNMR012O1-L	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,100
M12 × 1.25	P4	TNMS012N5-L	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,100
M12 × 1.25	P4	TNMS012N1-L	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,100
M12 × 1	P3	TNMR012M5-L	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,810 ※
M12 × 1	P3	TNMR012M1-L	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,810 ※
M13 × 1.5	P3	TNMR013O5-L	5P	88	26	-	45	10.5	8	11	4	6	¥ 6,490 ※
M13 × 1.5	P3	TNMR013O1-L	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 6,490 ※
M13 × 1.25	P4	TNMS013N5-L	5P	88	26	-	45	10.5	8	11	4	6	¥ 6,490 ※
M13 × 1.25	P4	TNMS013N1-L	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 6,490 ※
M13 × 1	P3	TNMR013M5-L	5P	88	26	-	45	10.5	8	11	4	6	¥ 6,490 ※
M13 × 1	P3	TNMR013M1-L	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 6,490 ※
M14 × 2	P3	TNMR014Q5-L	5P	88	26	-	45	10.5	8	11	4	6	¥ 5,580
M14 × 2	P3	TNMR014Q1-L	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 5,580
M14 × 1.5	P3	TNMR014O5-L	5P	88	26	-	45	10.5	8	11	4	6	¥ 5,580
M14 × 1.5	P3	TNMR014O1-L	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 5,580
M14 × 1.25	P4	TNMS014N5-L	5P	88	26	-	45	10.5	8	11	4	6	¥ 6,490 ※
M14 × 1.25	P4	TNMS014N1-L	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 6,490 ※

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT LH Hand Taps for Left Hand Threads

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M14 × 1	P3	TNMR014M5-L	5P	88	26	-	45	10.5	8	11	4	6	¥ 6,490 ※
M14 × 1	P3	TNMR014M1-L	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 6,490 ※
M15 × 1.5	P3	TNMR015O5-L	5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470 ※
M15 × 1.5	P3	TNMR015O1-L	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470 ※
M15 × 1.25	P4	TNMS015N5-L	5P	95	26	-	48	12.5	10	13	4	6	¥ 8,900 ※
M15 × 1.25	P4	TNMS015N1-L	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 8,900 ※
M15 × 1	P3	TNMR015M5-L	5P	95	26	-	48	12.5	10	13	4	6	¥ 8,900 ※
M15 × 1	P3	TNMR015M1-L	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 8,900 ※
M16 × 2	P3	TNMR016Q5-L	5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470
M16 × 2	P3	TNMR016Q1-L	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470
M16 × 1.5	P3	TNMR016O5-L	5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470
M16 × 1.5	P3	TNMR016O1-L	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470
M16 × 1.25	P4	TNMS016N5-L	5P	95	26	-	48	12.5	10	13	4	6	¥ 8,900 ※
M16 × 1.25	P4	TNMS016N1-L	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 8,900 ※
M16 × 1	P3	TNMR016M5-L	5P	95	26	-	48	12.5	10	13	4	6	¥ 8,900 ※
M16 × 1	P3	TNMR016M1-L	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 8,900 ※
M17 × 2	P3	TNMR017Q5-L	5P	100	33	-	51	14	11	14	4	6	¥ 9,960 ※
M17 × 2	P3	TNMR017Q1-L	1.5P	100	33	-	51	14	11	14	4	6	¥ 9,960 ※
M17 × 1.5	P4	TNMS017O5-L	5P	100	33	-	51	14	11	14	4	6	¥ 9,960 ※
M17 × 1.5	P4	TNMS017O1-L	1.5P	100	33	-	51	14	11	14	4	6	¥ 9,960 ※
M17 × 1	P3	TNMR017M5-L	5P	100	18	-	51	14	11	14	4	7	¥ 12,800 ※
M17 × 1	P3	TNMR017M1-L	1.5P	100	18	-	51	14	11	14	4	7	¥ 12,800 ※
M18 × 2.5	P4	TNMS018R5-L	5P	100	33	-	51	14	11	14	4	6	¥ 9,960 ※
M18 × 2.5	P4	TNMS018R1-L	1.5P	100	33	-	51	14	11	14	4	6	¥ 9,960 ※
M18 × 2	P4	TNMS018Q5-L	5P	100	33	-	51	14	11	14	4	6	¥ 9,960 ※
M18 × 2	P4	TNMS018Q1-L	1.5P	100	33	-	51	14	11	14	4	6	¥ 9,960 ※
M18 × 1.5	P3	TNMR018O5-L	5P	100	33	-	51	14	11	14	4	6	¥ 9,960
M18 × 1.5	P3	TNMR018O1-L	1.5P	100	33	-	51	14	11	14	4	6	¥ 9,960
M18 × 1	P3	TNMR018M5-L	5P	100	18	-	51	14	11	14	4	7	¥ 12,800 ※
M18 × 1	P3	TNMR018M1-L	1.5P	100	18	-	51	14	11	14	4	7	¥ 12,800 ※
M19 × 2	P4	TNMS019Q5-L	5P	105	33	-	50	15	12	15	4	8	¥ 13,600 ※
M19 × 2	P4	TNMS019Q1-L	1.5P	105	33	-	50	15	12	15	4	8	¥ 13,600 ※
M19 × 1.5	P3	TNMR019O5-L	5P	105	33	-	50	15	12	15	4	8	¥ 13,600 ※
M19 × 1.5	P3	TNMR019O1-L	1.5P	105	33	-	50	15	12	15	4	8	¥ 13,600 ※
M19 × 1	P3	TNMR019M5-L	5P	105	18	-	50	15	12	15	4	9	¥ 17,200 ※
M19 × 1	P3	TNMR019M1-L	1.5P	105	18	-	50	15	12	15	4	9	¥ 17,200 ※
M20 × 2.5	P4	TNMS020R5-L	5P	105	33	-	50	15	12	15	4	8	¥ 13,600
M20 × 2.5	P4	TNMS020R1-L	1.5P	105	33	-	50	15	12	15	4	8	¥ 13,600
M20 × 2	P4	TNMS020Q5-L	5P	105	33	-	50	15	12	15	4	8	¥ 13,600 ※
M20 × 2	P4	TNMS020Q1-L	1.5P	105	33	-	50	15	12	15	4	8	¥ 13,600 ※
M20 × 1.5	P3	TNMR020O5-L	5P	105	33	-	50	15	12	15	4	8	¥ 13,600
M20 × 1.5	P3	TNMR020O1-L	1.5P	105	33	-	50	15	12	15	4	8	¥ 13,600
M20 × 1	P3	TNMR020M5-L	5P	105	18	-	50	15	12	15	4	9	¥ 17,200 ※
M20 × 1	P3	TNMR020M1-L	1.5P	105	18	-	50	15	12	15	4	9	¥ 17,200 ※
M21 × 2	P4	TNMS021Q5-L	5P	115	33	-	55	17	13	16	4	8	¥ 17,500 ※
M21 × 2	P4	TNMS021Q1-L	1.5P	115	33	-	55	17	13	16	4	8	¥ 17,500 ※
M21 × 1.5	P3	TNMR021O5-L	5P	115	33	-	55	17	13	16	4	8	¥ 17,500 ※
M21 × 1.5	P3	TNMR021O1-L	1.5P	115	33	-	55	17	13	16	4	8	¥ 17,500 ※
M21 × 1	P3	TNMR021M5-L	5P	115	19	-	55	17	13	16	4	9	¥ 22,500 ※
M21 × 1	P3	TNMR021M1-L	1.5P	115	19	-	55	17	13	16	4	9	¥ 22,500 ※

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT LH Hand Taps for Left Hand Threads

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M22 × 2.5	P4	TNMS022R5-L	5P	115	33	-	55	17	13	16	4	8	¥ 17,500 ※
M22 × 2.5	P4	TNMS022R1-L	1.5P	115	33	-	55	17	13	16	4	8	¥ 17,500 ※
M22 × 2	P4	TNMS022Q5-L	5P	115	33	-	55	17	13	16	4	8	¥ 17,500 ※
M22 × 2	P4	TNMS022Q1-L	1.5P	115	33	-	55	17	13	16	4	8	¥ 17,500 ※
M22 × 1.5	P3	TNMR022O5-L	5P	115	33	-	55	17	13	16	4	8	¥ 17,500 ※
M22 × 1.5	P3	TNMR022O1-L	1.5P	115	33	-	55	17	13	16	4	8	¥ 17,500 ※
M22 × 1	P3	TNMR022M5-L	5P	115	19	-	55	17	13	16	4	9	¥ 22,500 ※
M22 × 1	P3	TNMR022M1-L	1.5P	115	19	-	55	17	13	16	4	9	¥ 22,500 ※
M23 × 1.5	P3	TNMR023O5-L	5P	120	39	-	55	19	15	18	4	8	¥ 21,800 ※
M23 × 1.5	P3	TNMR023O1-L	1.5P	120	39	-	55	19	15	18	4	8	¥ 21,800 ※
M23 × 1	P3	TNMR023M5-L	5P	120	19	-	55	19	15	18	4	9	¥ 27,700 ※
M23 × 1	P3	TNMR023M1-L	1.5P	120	19	-	55	19	15	18	4	9	¥ 27,700 ※
M24 × 3	P4	TNMS024S5-L	5P	120	39	-	55	19	15	18	4	8	¥ 21,800
M24 × 3	P4	TNMS024S1-L	1.5P	120	39	-	55	19	15	18	4	8	¥ 21,800
M24 × 2	P4	TNMS024Q5-L	5P	120	39	-	55	19	15	18	4	8	¥ 21,800 ※
M24 × 2	P4	TNMS024Q1-L	1.5P	120	39	-	55	19	15	18	4	8	¥ 21,800 ※
M24 × 1.5	P3	TNMR024O5-L	5P	120	39	-	55	19	15	18	4	8	¥ 21,800 ※
M24 × 1.5	P3	TNMR024O1-L	1.5P	120	39	-	55	19	15	18	4	8	¥ 21,800 ※
M24 × 1	P3	TNMR024M5-L	5P	120	19	-	55	19	15	18	4	9	¥ 27,700 ※
M24 × 1	P3	TNMR024M1-L	1.5P	120	19	-	55	19	15	18	4	9	¥ 27,700 ※
M25 × 3	P4	TNMS025S5-L	5P	125	39	-	58	19	15	18	4	8	¥ 28,100 ※
M25 × 3	P4	TNMS025S1-L	1.5P	125	39	-	58	19	15	18	4	8	¥ 28,100 ※
M25 × 2	P4	TNMS025Q5-L	5P	125	39	-	58	19	15	18	4	8	¥ 28,100 ※
M25 × 2	P4	TNMS025Q1-L	1.5P	125	39	-	58	19	15	18	4	8	¥ 28,100 ※
M25 × 1.5	P3	TNMR025O5-L	5P	125	39	-	58	19	15	18	4	8	¥ 28,100 ※
M25 × 1.5	P3	TNMR025O1-L	1.5P	125	39	-	58	19	15	18	4	8	¥ 28,100 ※
M25 × 1	P3	TNMR025M5-L	5P	125	20	-	58	19	15	18	4	9	¥ 33,200 ※
M25 × 1	P3	TNMR025M1-L	1.5P	125	20	-	58	19	15	18	4	9	¥ 33,200 ※
M26 × 2	P4	TNMS026Q5-L	5P	130	39	-	60	20	15	18	4	8	¥ 30,200 ※
M26 × 2	P4	TNMS026Q1-L	1.5P	130	39	-	60	20	15	18	4	8	¥ 30,200 ※
M26 × 1.5	P3	TNMR026O5-L	5P	130	39	-	60	20	15	18	4	8	¥ 30,200 ※
M26 × 1.5	P3	TNMR026O1-L	1.5P	130	39	-	60	20	15	18	4	8	¥ 30,200 ※
M26 × 1	P3	TNMR026M5-L	5P	130	20	-	60	20	15	18	4	9	¥ 37,200 ※
M26 × 1	P3	TNMR026M1-L	1.5P	130	20	-	60	20	15	18	4	9	¥ 37,200 ※
M27 × 3	P4	TNMS027S5-L	5P	130	39	-	60	20	15	18	4	8	¥ 30,200 ※
M27 × 3	P4	TNMS027S1-L	1.5P	130	39	-	60	20	15	18	4	8	¥ 30,200 ※
M27 × 2	P5	TNMT027Q5-L	5P	130	39	-	60	20	15	18	4	8	¥ 30,200 ※
M27 × 2	P5	TNMT027Q1-L	1.5P	130	39	-	60	20	15	18	4	8	¥ 30,200 ※
M27 × 1.5	P3	TNMR027O5-L	5P	130	39	-	60	20	15	18	4	8	¥ 30,200 ※
M27 × 1.5	P3	TNMR027O1-L	1.5P	130	39	-	60	20	15	18	4	8	¥ 30,200 ※
M27 × 1	P3	TNMR027M5-L	5P	130	20	-	60	20	15	18	4	9	¥ 37,200 ※
M27 × 1	P3	TNMR027M1-L	1.5P	130	20	-	60	20	15	18	4	9	¥ 37,200 ※
M28 × 2	P4	TNMS028Q5-L	5P	135	46	-	62	23	17	20	4	8	¥ 38,400 ※
M28 × 2	P4	TNMS028Q1-L	1.5P	135	46	-	62	23	17	20	4	8	¥ 38,400 ※
M28 × 1.5	P3	TNMR028O5-L	5P	135	46	-	62	23	17	20	4	8	¥ 38,400 ※
M28 × 1.5	P3	TNMR028O1-L	1.5P	135	46	-	62	23	17	20	4	8	¥ 38,400 ※
M28 × 1	P3	TNMR028M5-L	5P	135	20	-	62	23	17	20	4	9	¥ 48,000 ※
M28 × 1	P3	TNMR028M1-L	1.5P	135	20	-	62	23	17	20	4	9	¥ 48,000 ※
M30 × 3.5	P4	TNMS030T5-L	5P	135	46	-	62	23	17	20	4	8	¥ 38,400
M30 × 3.5	P4	TNMS030T1-L	1.5P	135	46	-	62	23	17	20	4	8	¥ 38,400

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT LH Hand Taps for Left Hand Threads

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M30 × 3	P5	TNMT030S5-L	5P	135	46	-	62	23	17	20	4	8	¥ 38,400 ※
M30 × 3	P5	TNMT030S1-L	1.5P	135	46	-	62	23	17	20	4	8	¥ 38,400 ※
M30 × 2	P4	TNMS030Q5-L	5P	135	46	-	62	23	17	20	4	8	¥ 38,400 ※
M30 × 2	P4	TNMS030Q1-L	1.5P	135	46	-	62	23	17	20	4	8	¥ 38,400 ※
M30 × 1.5	P3	TNMR030O5-L	5P	135	46	-	62	23	17	20	4	8	¥ 38,400 ※
M30 × 1.5	P3	TNMR030O1-L	1.5P	135	46	-	62	23	17	20	4	8	¥ 38,400 ※
M30 × 1	P3	TNMR030M5-L	5P	135	21	-	62	23	17	20	4	9	¥ 48,000 ※
M30 × 1	P3	TNMR030M1-L	1.5P	135	21	-	62	23	17	20	4	9	¥ 48,000 ※
M32 × 2	P4	TNMS032Q5-L	5P	145	46	-	67	24	19	22	4	8	¥ 44,800 ※
M32 × 2	P4	TNMS032Q1-L	1.5P	145	46	-	67	24	19	22	4	8	¥ 44,800 ※
M32 × 1.5	P4	TNMS032O5-L	5P	145	46	-	67	24	19	22	4	8	¥ 44,800 ※
M32 × 1.5	P4	TNMS032O1-L	1.5P	145	46	-	67	24	19	22	4	8	¥ 44,800 ※
M33 × 3.5	P4	TNMS033T5-L	5P	145	46	-	67	25	19	22	4	8	¥ 44,800 ※
M33 × 3.5	P4	TNMS033T1-L	1.5P	145	46	-	67	25	19	22	4	8	¥ 44,800 ※
M33 × 3	P5	TNMT033S5-L	5P	145	46	-	67	25	19	22	4	8	¥ 44,800 ※
M33 × 3	P5	TNMT033S1-L	1.5P	145	46	-	67	25	19	22	4	8	¥ 44,800 ※
M33 × 2	P4	TNMS033Q5-L	5P	145	46	-	67	25	19	22	4	8	¥ 44,800 ※
M33 × 2	P4	TNMS033Q1-L	1.5P	145	46	-	67	25	19	22	4	8	¥ 44,800 ※
M33 × 1.5	P4	TNMS033O5-L	5P	145	46	-	67	25	19	22	4	8	¥ 44,800 ※
M33 × 1.5	P4	TNMS033O1-L	1.5P	145	46	-	67	25	19	22	4	8	¥ 44,800 ※
M34 × 2	P4	TNMS034Q5-L	5P	155	52	-	71	28	21	24	4	8	¥ 51,900 ※
M34 × 2	P4	TNMS034Q1-L	1.5P	155	52	-	71	28	21	24	4	8	¥ 51,900 ※
M34 × 1.5	P4	TNMS034O5-L	5P	155	26	-	71	28	21	24	4	9	¥ 51,900 ※
M34 × 1.5	P4	TNMS034O1-L	1.5P	155	26	-	71	28	21	24	4	9	¥ 51,900 ※
M35 × 2	P5	TNMT035Q5-L	5P	155	52	-	71	28	21	24	4	8	¥ 51,900 ※
M35 × 2	P5	TNMT035Q1-L	1.5P	155	52	-	71	28	21	24	4	8	¥ 51,900 ※
M35 × 1.5	P4	TNMS035O5-L	5P	155	26	-	71	28	21	24	4	9	¥ 51,900 ※
M35 × 1.5	P4	TNMS035O1-L	1.5P	155	26	-	71	28	21	24	4	9	¥ 51,900 ※
M36 × 4	P5	TNMT036U5-L	5P	155	52	-	71	28	21	24	4	8	¥ 51,900 ※
M36 × 4	P5	TNMT036U1-L	1.5P	155	52	-	71	28	21	24	4	8	¥ 51,900 ※
M36 × 3	P5	TNMT036S5-L	5P	155	52	-	71	28	21	24	4	8	¥ 51,900 ※
M36 × 3	P5	TNMT036S1-L	1.5P	155	52	-	71	28	21	24	4	8	¥ 51,900 ※
M36 × 2	P4	TNMS036Q5-L	5P	155	52	-	71	28	21	24	4	8	¥ 51,900 ※
M36 × 2	P4	TNMS036Q1-L	1.5P	155	52	-	71	28	21	24	4	8	¥ 51,900 ※
M36 × 1.5	P4	TNMS036O5-L	5P	155	26	-	71	28	21	24	4	9	¥ 51,900 ※
M36 × 1.5	P4	TNMS036O1-L	1.5P	155	26	-	71	28	21	24	4	9	¥ 51,900 ※
M38 × 2	P4	TNMS038Q5-L	5P	165	52	-	76	30	23	26	4	8	¥ 59,500 ※
M38 × 2	P4	TNMS038Q1-L	1.5P	165	52	-	76	30	23	26	4	8	¥ 59,500 ※
M38 × 1.5	P4	TNMS038O5-L	5P	165	26	-	76	30	23	26	4	9	¥ 59,500 ※
M38 × 1.5	P4	TNMS038O1-L	1.5P	165	26	-	76	30	23	26	4	9	¥ 59,500 ※
M39 × 4	P5	TNMT039U5-L	5P	165	52	-	76	30	23	26	4	8	¥ 59,500 ※
M39 × 4	P5	TNMT039U1-L	1.5P	165	52	-	76	30	23	26	4	8	¥ 59,500 ※
M39 × 3	P5	TNMT039S5-L	5P	165	52	-	76	30	23	26	4	8	¥ 59,500 ※
M39 × 3	P5	TNMT039S1-L	1.5P	165	52	-	76	30	23	26	4	8	¥ 59,500 ※
M39 × 2	P5	TNMT039Q5-L	5P	165	52	-	76	30	23	26	4	8	¥ 59,500 ※
M39 × 2	P5	TNMT039Q1-L	1.5P	165	52	-	76	30	23	26	4	8	¥ 59,500 ※
M39 × 1.5	P4	TNMS039O5-L	5P	165	26	-	76	30	23	26	4	9	¥ 59,500 ※
M39 × 1.5	P4	TNMS039O1-L	1.5P	165	26	-	76	30	23	26	4	9	¥ 59,500 ※
M40 × 3	P5	TNMT040S5-L	5P	175	59	-	81	32	26	30	4	8	¥ 72,300 ※
M40 × 3	P5	TNMT040S1-L	1.5P	175	59	-	81	32	26	30	4	8	¥ 72,300 ※
M40 × 2	P4	TNMS040Q5-L	5P	175	59	-	81	32	26	30	4	8	¥ 72,300 ※
M40 × 2	P4	TNMS040Q1-L	1.5P	175	59	-	81	32	26	30	4	8	¥ 72,300 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT LH Hand Taps for Left Hand Threads

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M40 × 1.5	P4	TNMS04005-L	5P	175	27	-	81	32	26	30	4	9	¥ 72,300 ※
M40 × 1.5	P4	TNMS04001-L	1.5P	175	27	-	81	32	26	30	4	9	¥ 72,300 ※
M42 × 4.5	P5	TNMT042V5-L	5P	175	59	-	81	32	26	30	4	8	¥ 72,300 ※
M42 × 4.5	P5	TNMT042V1-L	1.5P	175	59	-	81	32	26	30	4	8	¥ 72,300 ※
M42 × 3	P5	TNMT042S5-L	5P	175	59	-	81	32	26	30	4	8	¥ 72,300 ※
M42 × 3	P5	TNMT042S1-L	1.5P	175	59	-	81	32	26	30	4	8	¥ 72,300 ※
M42 × 2	P4	TNMS042Q5-L	5P	175	59	-	81	32	26	30	4	8	¥ 72,300 ※
M42 × 2	P4	TNMS042Q1-L	1.5P	175	59	-	81	32	26	30	4	8	¥ 72,300 ※
M42 × 1.5	P4	TNMS04205-L	5P	175	27	-	81	32	26	30	4	9	¥ 72,300 ※
M42 × 1.5	P4	TNMS04201-L	1.5P	175	27	-	81	32	26	30	4	9	¥ 72,300 ※
M45 × 4.5	P5	TNMT045V5-L	5P	180	59	-	83	35	26	30	4	8	¥ 83,800 ※
M45 × 4.5	P5	TNMT045V1-L	1.5P	180	59	-	83	35	26	30	4	8	¥ 83,800 ※
M45 × 3	P5	TNMT045S5-L	5P	180	59	-	83	35	26	30	4	8	¥ 83,800 ※
M45 × 3	P5	TNMT045S1-L	1.5P	180	59	-	83	35	26	30	4	8	¥ 83,800 ※
M45 × 2	P4	TNMS045Q5-L	5P	180	59	-	83	35	26	30	4	8	¥ 83,800 ※
M45 × 2	P4	TNMS045Q1-L	1.5P	180	59	-	83	35	26	30	4	8	¥ 83,800 ※
M45 × 1.5	P4	TNMS04505-L	5P	180	27	-	83	35	26	30	4	9	¥ 83,800 ※
M45 × 1.5	P4	TNMS04501-L	1.5P	180	27	-	83	35	26	30	4	9	¥ 83,800 ※
M48 × 5	P5	TNMT048W5-L	5P	185	65	-	85	38	29	32	4	8	¥105,000 ※
M48 × 5	P5	TNMT048W1-L	1.5P	185	65	-	85	38	29	32	4	8	¥105,000 ※
M48 × 3	P6	TNMU048S5-L	5P	185	65	-	85	38	29	32	4	8	¥105,000 ※
M48 × 3	P6	TNMU048S1-L	1.5P	185	65	-	85	38	29	32	4	8	¥105,000 ※
M48 × 2	P4	TNMS048Q5-L	5P	185	65	-	85	38	29	32	4	8	¥105,000 ※
M48 × 2	P4	TNMS048Q1-L	1.5P	185	65	-	85	38	29	32	4	8	¥105,000 ※
M48 × 1.5	P4	TNMS04805-L	5P	185	28	-	85	38	29	32	4	9	¥105,000 ※
M48 × 1.5	P4	TNMS04801-L	1.5P	185	28	-	85	38	29	32	4	9	¥105,000 ※
M50 × 3	II	TH2050S5-L	5P	180	80	-	-	40	32	35	4	10	¥114,000 ※
M50 × 3	II	TH2050S1-L	1.5P	180	80	-	-	40	32	35	4	10	¥114,000 ※
M50 × 2	II	TH2050Q5-L	5P	130	45	-	-	40	32	35	4	10	¥114,000 ※
M50 × 2	II	TH2050Q1-L	1.5P	130	45	-	-	40	32	35	4	10	¥114,000 ※
M50 × 1.5	II	TH205005-L	5P	130	45	-	-	40	32	35	4	10	¥114,000 ※
M50 × 1.5	II	TH205001-L	1.5P	130	45	-	-	40	32	35	4	10	¥114,000 ※
For Unified Threads													
No.5-40UNC	P2	TNMQUN5H5-L	5P	52	11	16	28	5	4	7	3	3	¥ 1,750 ※
No.5-40UNC	P2	TNMQUN5H1-L	1.5P	52	11	16	28	5	4	7	3	3	¥ 1,750 ※
No.10-24UNC	P2	TNMQUNAM5-L	5P	60	13	22	32	5.5	4.5	7	4	3	¥ 1,760 ※
No.10-24UNC	P2	TNMQUNAM1-L	1.5P	60	13	22	32	5.5	4.5	7	4	3	¥ 1,760 ※
No.12-28UNF	P2	TNMQUNCK5-L	5P	62	15	26	32	6	4.5	7	4	3	¥ 1,890 ※
No.12-28UNF	P2	TNMQUNCK1-L	1.5P	62	15	26	32	6	4.5	7	4	3	¥ 1,890 ※
1/4-28UNF	P2	TNMQU04K5-L	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,890 ※
1/4-28UNF	P2	TNMQU04K1-L	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,890 ※
5/16-24UNF	P2	TNMQU05M5-L	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,620 ※
5/16-24UNF	P2	TNMQU05M1-L	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,620 ※
7/16-20UNF	P3	TNMRU07N5-L	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,710 ※
7/16-20UNF	P3	TNMRU07N1-L	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,710 ※
9/16-18UNF	P3	TNMRU09O5-L	5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470 ※
9/16-18UNF	P3	TNMRU09O1-L	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470 ※
5/8-11UNC	P4	TNMSU10U5-L	5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470 ※
5/8-11UNC	P4	TNMSU10U1-L	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470 ※
5/8-18UNF	P3	TNMRU10O5-L	5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470 ※
5/8-18UNF	P3	TNMRU10O1-L	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470 ※

Think threads with YAMAWA

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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT LH Hand Taps for Left Hand Threads

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
3/4-16UNF	P3	TNMRU12P5-L	5P	105	33	-	50	15	12	15	4	8	¥ 13,600 ※
7/8-9UNC	P4	TNMSU14W5-L	5P	115	33	-	55	17	13	16	4	8	¥ 19,300 ※
7/8-9UNC	P4	TNMSU14W1-L	1.5P	115	33	-	55	17	13	16	4	8	¥ 19,300 ※
1 -8UNC	P4	TNMSU16X5-L	5P	125	39	-	58	19	15	18	4	8	¥ 28,100 ※
1 -8UNC	P4	TNMSU16X1-L	1.5P	125	39	-	58	19	15	18	4	8	¥ 28,100 ※
1 -12UNF	P4	TNMSU16S5-L	5P	125	39	-	58	19	15	18	4	8	¥ 28,100 ※
1 -12UNF	P4	TNMSU16S1-L	1.5P	125	39	-	58	19	15	18	4	8	¥ 28,100 ※
For Whitworth Threads													
1/8W40	P2	TNMQW02H5-L	5P	52	11	16	28	5	4	7	3	3	¥ 2,160 ※
1/8W40	P2	TNMQW02H1-L	1.5P	52	11	16	28	5	4	7	3	3	¥ 2,160 ※
3/16W24	P3	TNMRW03M5-L	5P	60	13	21	32	5.5	4.5	7	4	3	¥ 1,760 ※
3/16W24	P3	TNMRW03M1-L	1.5P	60	13	21	32	5.5	4.5	7	4	3	¥ 1,760 ※
1/4W20	P3	TNMRW04N5-L	5P	62	15	26	33	6	4.5	7	4	3	¥ 1,890 ※
1/4W20	P3	TNMRW04N1-L	1.5P	62	15	26	33	6	4.5	7	4	3	¥ 1,890 ※
5/16W18	P3	TNMRW05O5-L	5P	70	19	-	36	6.2	5	8	4	6	¥ 2,620 ※
5/16W18	P3	TNMRW05O1-L	1.5P	70	19	-	36	6.2	5	8	4	6	¥ 2,620 ※
3/8W16	P3	TNMRW06P5-L	5P	75	23	-	38	7	5.5	8	4	6	¥ 3,360 ※
3/8W16	P3	TNMRW06P1-L	1.5P	75	23	-	38	7	5.5	8	4	6	¥ 3,360 ※
7/16W14	P4	TNMSW07Q5-L	5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,710 ※
7/16W14	P4	TNMSW07Q1-L	1.5P	82	26	-	42	8.5	6.5	9	4	6	¥ 4,710 ※
1/2W12	P4	TNMSW08S5-L	5P	88	26	-	45	10.5	8	11	4	6	¥ 5,000 ※
1/2W12	P4	TNMSW08S1-L	1.5P	88	26	-	45	10.5	8	11	4	6	¥ 5,000 ※
9/16W12	P4	TNMSW09S5-L	5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470 ※
9/16W12	P4	TNMSW09S1-L	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470 ※
5/8W11	P4	TNMSW10U5-L	5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470 ※
5/8W11	P4	TNMSW10U1-L	1.5P	95	26	-	48	12.5	10	13	4	6	¥ 7,470 ※
3/4W10	P4	TNMSW12V5-L	5P	105	33	-	50	15	12	15	4	8	¥ 13,600 ※
3/4W10	P4	TNMSW12V1-L	1.5P	105	33	-	50	15	12	15	4	8	¥ 13,600 ※
7/8W9	P5	TNMTW14W5-L	5P	115	33	-	55	17	13	16	4	8	¥ 19,300 ※
7/8W9	P5	TNMTW14W1-L	1.5P	115	33	-	55	17	13	16	4	8	¥ 19,300 ※
1 W8	P5	TNMTW16X5-L	5P	125	39	-	58	19	15	18	4	8	¥ 28,100 ※
1 W8	P5	TNMTW16X1-L	1.5P	125	39	-	58	19	15	18	4	8	¥ 28,100 ※
1 1/8W7	P5	TNMTW18Y5-L	5P	135	46	-	62	23	17	20	4	8	¥ 38,400 ※
1 1/8W7	P5	TNMTW18Y1-L	1.5P	135	46	-	62	23	17	20	4	8	¥ 38,400 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-HT

Long Shank Hand Taps



Specification

HSS





■Long shank hand taps for tapping threads in deep holes that cannot be reached with a standard overall length.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

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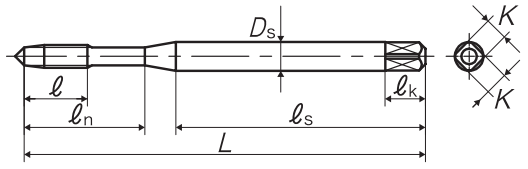

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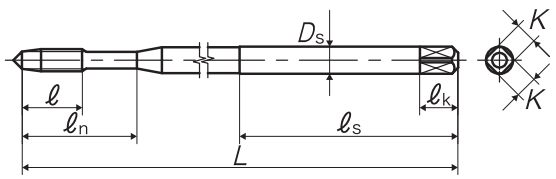

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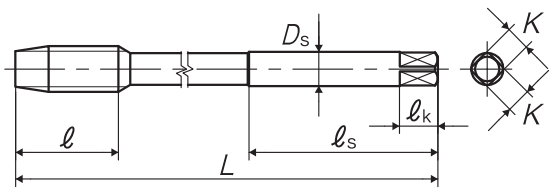

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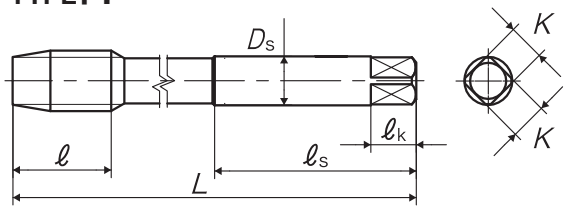


Oversize

Segment : 1A

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P1	TNFP2.0E507	5P	70	7.2	15	52	3	2.5	5	3	1	¥ 3,690 ※
M2 × 0.4	P1	TNFP2.0E107	1.5P	70	7.2	15	52	3	2.5	5	3	1	¥ 3,690 ※
M2.3 × 0.4	P1	TNFP2.3E507	5P	70	7.2	15	52	3	2.5	5	3	1	¥ 3,310 ※
M2.3 × 0.4	P1	TNFP2.3E107	1.5P	70	7.2	15	52	3	2.5	5	3	1	¥ 3,310 ※
M2.5 × 0.45	P1	TNFP2.5F507	5P	70	8.1	15	52	3	2.5	5	3	1	¥ 2,920 ※
M2.5 × 0.45	P1	TNFP2.5F107	1.5P	70	8.1	15	52	3	2.5	5	3	1	¥ 2,920 ※
M2.6 × 0.45	P1	TNFP2.6F507	5P	70	8.1	15	52	3	2.5	5	3	1	¥ 2,920 ※
M2.6 × 0.45	P1	TNFP2.6F107	1.5P	70	8.1	15	52	3	2.5	5	3	1	¥ 2,920 ※
M3 × 0.5	P1	TNFP3.0G507	5P	70	9	18	46	4	3.2	6	3	1	¥ 2,260 ※
M3 × 0.5	P1	TNFP3.0G510	5P	100	9	18	40	4	3.2	6	3	2	¥ 3,290
M3 × 0.5	P1	TNFP3.0G512	5P	120	9	18	40	4	3.2	6	3	2	¥ 3,940 ※
M3 × 0.5	P1	TNFP3.0G515	5P	150	9	18	40	4	3.2	6	3	2	¥ 6,190 ※
M3 × 0.5	P1	TNFP3.0G107	1.5P	70	9	18	46	4	3.2	6	3	1	¥ 2,260 ※
M3 × 0.5	P1	TNFP3.0G110	1.5P	100	9	18	40	4	3.2	6	3	2	¥ 3,290

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M3 × 0.5	P1	TNFP3.0G112	1.5P	120	9	18	40	4	3.2	6	3	2	¥ 3,940 ※
M3 × 0.5	P1	TNFP3.0G115	1.5P	150	9	18	40	4	3.2	6	3	2	¥ 6,190 ※
M3 × 0.5	P3	TNFR3.0G510	5P	100	9	18	40	4	3.2	6	3	2	¥ 3,290 ※
M3 × 0.5	P3	TNFR3.0G515	5P	150	9	18	40	4	3.2	6	3	2	¥ 6,190 ※
M3 × 0.5	P3	TNFR3.0G110	1.5P	100	9	18	40	4	3.2	6	3	2	¥ 3,290 ※
M3 × 0.5	P3	TNFR3.0G115	1.5P	150	9	18	40	4	3.2	6	3	2	¥ 6,190 ※
M4 × 0.7	P2	TNFQ4.0I507	5P	70	11	21	43	5	4	7	3	1	¥ 1,990 ※
M4 × 0.7	P2	TNFQ4.0I510	5P	100	11	21	40	5	4	7	3	2	¥ 3,000
M4 × 0.7	P2	TNFQ4.0I512	5P	120	11	21	40	5	4	7	3	2	¥ 3,710 ※
M4 × 0.7	P2	TNFQ4.0I515	5P	150	11	21	40	5	4	7	3	2	¥ 5,720
M4 × 0.7	P2	TNFQ4.0I107	1.5P	70	11	21	43	5	4	7	3	1	¥ 1,990 ※
M4 × 0.7	P2	TNFQ4.0I110	1.5P	100	11	21	40	5	4	7	3	2	¥ 3,000
M4 × 0.7	P2	TNFQ4.0I112	1.5P	120	11	21	40	5	4	7	3	2	¥ 3,710 ※
M4 × 0.7	P2	TNFQ4.0I115	1.5P	150	11	21	40	5	4	7	3	2	¥ 5,720
M4 × 0.7	P3	TNFR4.0I510	5P	100	11	21	40	5	4	7	3	2	¥ 3,000 ※
M4 × 0.7	P3	TNFR4.0I515	5P	150	11	21	40	5	4	7	3	2	¥ 5,720 ※
M4 × 0.7	P3	TNFR4.0I110	1.5P	100	11	21	40	5	4	7	3	2	¥ 3,000 ※
M4 × 0.7	P3	TNFR4.0I115	1.5P	150	11	21	40	5	4	7	3	2	¥ 5,720 ※
M5 × 0.8	P2	TNFQ5.0K507	5P	70	14	25	40	5.5	4.5	7	3	1	¥ 1,800 ※
M5 × 0.8	P2	TNFQ5.0K510	5P	100	13	25	40	5.5	4.5	7	3	2	¥ 2,640
M5 × 0.8	P2	TNFQ5.0K512	5P	120	13	25	40	5.5	4.5	7	3	2	¥ 3,280 ※
M5 × 0.8	P2	TNFQ5.0K515	5P	150	13	25	40	5.5	4.5	7	3	2	¥ 4,450
M5 × 0.8	P2	TNFQ5.0K107	1.5P	70	14	25	40	5.5	4.5	7	3	1	¥ 1,800 ※
M5 × 0.8	P2	TNFQ5.0K110	1.5P	100	13	25	40	5.5	4.5	7	3	2	¥ 2,640
M5 × 0.8	P2	TNFQ5.0K112	1.5P	120	13	25	40	5.5	4.5	7	3	2	¥ 3,280 ※
M5 × 0.8	P2	TNFQ5.0K115	1.5P	150	13	25	40	5.5	4.5	7	3	2	¥ 4,450
M5 × 0.8	P3	TNFR5.0K510	5P	100	13	25	40	5.5	4.5	7	3	2	¥ 2,640 ※
M5 × 0.8	P3	TNFR5.0K515	5P	150	13	25	40	5.5	4.5	7	3	2	¥ 4,450 ※
M5 × 0.8	P3	TNFR5.0K110	1.5P	100	13	25	40	5.5	4.5	7	3	2	¥ 2,640 ※
M5 × 0.8	P3	TNFR5.0K115	1.5P	150	13	25	40	5.5	4.5	7	3	2	¥ 4,450 ※
M6 × 1	P2	TNFQ6.0M510	5P	100	15	30	40	6	4.5	7	3	2	¥ 2,240
M6 × 1	P2	TNFQ6.0M512	5P	120	15	30	40	6	4.5	7	3	2	¥ 2,890
M6 × 1	P2	TNFQ6.0M515	5P	150	15	30	40	6	4.5	7	3	2	¥ 3,970
M6 × 1	P2	TNFQ6.0M520	5P	200	15	30	40	6	4.5	7	3	2	¥ 5,490 ※
M6 × 1	P2	TNFQ6.0M110	1.5P	100	15	30	40	6	4.5	7	3	2	¥ 2,240
M6 × 1	P2	TNFQ6.0M112	1.5P	120	15	30	40	6	4.5	7	3	2	¥ 2,890
M6 × 1	P2	TNFQ6.0M115	1.5P	150	15	30	40	6	4.5	7	3	2	¥ 3,970
M6 × 1	P2	TNFQ6.0M120	1.5P	200	15	30	40	6	4.5	7	3	2	¥ 5,490 ※
M6 × 1	P3	TNFR6.0M510	5P	100	15	30	40	6	4.5	7	3	2	¥ 2,240 ※
M6 × 1	P3	TNFR6.0M515	5P	150	15	30	40	6	4.5	7	3	2	¥ 3,970 ※
M6 × 1	P3	TNFR6.0M110	1.5P	100	15	30	40	6	4.5	7	3	2	¥ 2,240 ※
M6 × 1	P3	TNFR6.0M115	1.5P	150	15	30	40	6	4.5	7	3	2	¥ 3,970 ※
M8 × 1.25	P2	TNMQ8.0N510	5P	100	19	-	50	6.2	5	8	4	3	¥ 2,860
M8 × 1.25	P2	TNMQ8.0N512	5P	120	19	-	50	6.2	5	8	4	3	¥ 3,540
M8 × 1.25	P2	TNMQ8.0N515	5P	150	19	-	50	6.2	5	8	4	3	¥ 4,870
M8 × 1.25	P2	TNMQ8.0N520	5P	200	19	-	50	6.2	5	8	4	3	¥ 7,210
M8 × 1.25	P2	TNMQ8.0N110	1.5P	100	19	-	50	6.2	5	8	4	3	¥ 2,860
M8 × 1.25	P2	TNMQ8.0N112	1.5P	120	19	-	50	6.2	5	8	4	3	¥ 3,540
M8 × 1.25	P2	TNMQ8.0N115	1.5P	150	19	-	50	6.2	5	8	4	3	¥ 4,870
M8 × 1.25	P2	TNMQ8.0N120	1.5P	200	19	-	50	6.2	5	8	4	3	¥ 7,210

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-HT Long Shank Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M8 × 1.25	P3	TNMR8.0N510	5P	100	19	-	50	6.2	5	8	4	3	¥ 2,860 ※
M8 × 1.25	P3	TNMR8.0N515	5P	150	19	-	50	6.2	5	8	4	3	¥ 4,870 ※
M8 × 1.25	P3	TNMR8.0N520	5P	200	19	-	50	6.2	5	8	4	3	¥ 7,210 ※
M8 × 1.25	P3	TNMR8.0N110	1.5P	100	19	-	50	6.2	5	8	4	3	¥ 2,860 ※
M8 × 1.25	P3	TNMR8.0N115	1.5P	150	19	-	50	6.2	5	8	4	3	¥ 4,870 ※
M8 × 1.25	P3	TNMR8.0N120	1.5P	200	19	-	50	6.2	5	8	4	3	¥ 7,210 ※
M8 × 1	P2	TNMQ8.0M510	5P	100	19	-	50	6.2	5	8	4	3	¥ 3,070 ※
M8 × 1	P2	TNMQ8.0M512	5P	120	19	-	50	6.2	5	8	4	3	¥ 3,990 ※
M8 × 1	P2	TNMQ8.0M515	5P	150	19	-	50	6.2	5	8	4	3	¥ 5,090 ※
M8 × 1	P2	TNMQ8.0M110	1.5P	100	19	-	50	6.2	5	8	4	3	¥ 3,070 ※
M8 × 1	P2	TNMQ8.0M112	1.5P	120	19	-	50	6.2	5	8	4	3	¥ 3,990 ※
M8 × 1	P2	TNMQ8.0M115	1.5P	150	19	-	50	6.2	5	8	4	3	¥ 5,090 ※
M10 × 1.5	P2	TNMQ0100510	5P	100	23	-	50	7	5.5	8	4	3	¥ 3,470
M10 × 1.5	P2	TNMQ0100512	5P	120	23	-	50	7	5.5	8	4	3	¥ 4,110
M10 × 1.5	P2	TNMQ0100515	5P	150	23	-	50	7	5.5	8	4	3	¥ 5,670
M10 × 1.5	P2	TNMQ0100520	5P	200	23	-	50	7	5.5	8	4	3	¥ 7,870
M10 × 1.5	P2	TNMQ0100525	5P	250	23	-	50	7	5.5	8	4	3	¥ 10,200 ※
M10 × 1.5	P2	TNMQ0100110	1.5P	100	23	-	50	7	5.5	8	4	3	¥ 3,470
M10 × 1.5	P2	TNMQ0100112	1.5P	120	23	-	50	7	5.5	8	4	3	¥ 4,110
M10 × 1.5	P2	TNMQ0100115	1.5P	150	23	-	50	7	5.5	8	4	3	¥ 5,670
M10 × 1.5	P2	TNMQ0100120	1.5P	200	23	-	50	7	5.5	8	4	3	¥ 7,870
M10 × 1.5	P2	TNMQ0100125	1.5P	250	23	-	50	7	5.5	8	4	3	¥ 10,200 ※
M10 × 1.5	P3	TNMR0100510	5P	100	23	-	50	7	5.5	8	4	3	¥ 3,470 ※
M10 × 1.5	P3	TNMR0100515	5P	150	23	-	50	7	5.5	8	4	3	¥ 5,670 ※
M10 × 1.5	P3	TNMR0100520	5P	200	23	-	50	7	5.5	8	4	3	¥ 7,870 ※
M10 × 1.5	P3	TNMR0100110	1.5P	100	23	-	50	7	5.5	8	4	3	¥ 3,470 ※
M10 × 1.5	P3	TNMR0100115	1.5P	150	23	-	50	7	5.5	8	4	3	¥ 5,670 ※
M10 × 1.5	P3	TNMR0100120	1.5P	200	23	-	50	7	5.5	8	4	3	¥ 7,870 ※
M10 × 1.5	P4	TNMS0100510	5P	100	23	-	50	7	5.5	8	4	3	¥ 3,470 ※
M10 × 1.5	P4	TNMS0100515	5P	150	23	-	50	7	5.5	8	4	3	¥ 5,670 ※
M10 × 1.5	P4	TNMS0100110	1.5P	100	23	-	50	7	5.5	8	4	3	¥ 3,470 ※
M10 × 1.5	P4	TNMS0100115	1.5P	150	23	-	50	7	5.5	8	4	3	¥ 5,670 ※
M10 × 1.25	P2	TNMQ010N510	5P	100	23	-	50	7	5.5	8	4	3	¥ 3,470
M10 × 1.25	P2	TNMQ010N512	5P	120	23	-	50	7	5.5	8	4	3	¥ 4,110
M10 × 1.25	P2	TNMQ010N515	5P	150	23	-	50	7	5.5	8	4	3	¥ 5,670
M10 × 1.25	P2	TNMQ010N520	5P	200	23	-	50	7	5.5	8	4	3	¥ 7,870 ※
M10 × 1.25	P2	TNMQ010N110	1.5P	100	23	-	50	7	5.5	8	4	3	¥ 3,470
M10 × 1.25	P2	TNMQ010N112	1.5P	120	23	-	50	7	5.5	8	4	3	¥ 4,110
M10 × 1.25	P2	TNMQ010N115	1.5P	150	23	-	50	7	5.5	8	4	3	¥ 5,670
M10 × 1.25	P2	TNMQ010N120	1.5P	200	23	-	50	7	5.5	8	4	3	¥ 7,870 ※
M10 × 1.25	P3	TNMR010N510	5P	100	23	-	50	7	5.5	8	4	3	¥ 3,470 ※
M10 × 1.25	P3	TNMR010N515	5P	150	23	-	50	7	5.5	8	4	3	¥ 5,670 ※
M10 × 1.25	P3	TNMR010N110	1.5P	100	23	-	50	7	5.5	8	4	3	¥ 3,470 ※
M10 × 1.25	P3	TNMR010N115	1.5P	150	23	-	50	7	5.5	8	4	3	¥ 5,670 ※
M10 × 1.25	P4	TNMS010N510	5P	100	23	-	50	7	5.5	8	4	3	¥ 3,470 ※
M10 × 1.25	P4	TNMS010N515	5P	150	23	-	50	7	5.5	8	4	3	¥ 5,670 ※
M10 × 1.25	P4	TNMS010N110	1.5P	100	23	-	50	7	5.5	8	4	3	¥ 3,470 ※
M10 × 1.25	P4	TNMS010N115	1.5P	150	23	-	50	7	5.5	8	4	3	¥ 5,670 ※
M10 × 1	P2	TNMQ010M510	5P	100	23	-	50	7	5.5	8	4	3	¥ 3,760 ※
M10 × 1	P2	TNMQ010M512	5P	120	23	-	50	7	5.5	8	4	3	¥ 4,310 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-HT Long Shank Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M10 × 1	P2	TNMQ010M515	5P	150	23	-	50	7	5.5	8	4	3	¥ 6,380 ※
M10 × 1	P2	TNMQ010M110	1.5P	100	23	-	50	7	5.5	8	4	3	¥ 3,760 ※
M10 × 1	P2	TNMQ010M112	1.5P	120	23	-	50	7	5.5	8	4	3	¥ 4,310 ※
M10 × 1	P2	TNMQ010M115	1.5P	150	23	-	50	7	5.5	8	4	3	¥ 6,380 ※
M12 × 1.75	P2	TNMQ012P510	5P	100	26	-	50	8.5	6.5	9	4	3	¥ 4,250
M12 × 1.75	P2	TNMQ012P512	5P	120	26	-	50	8.5	6.5	9	4	3	¥ 4,930
M12 × 1.75	P2	TNMQ012P515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090
M12 × 1.75	P2	TNMQ012P520	5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760
M12 × 1.75	P2	TNMQ012P525	5P	250	26	-	50	8.5	6.5	9	4	3	¥ 12,700 ※
M12 × 1.75	P2	TNMQ012P110	1.5P	100	26	-	50	8.5	6.5	9	4	3	¥ 4,250
M12 × 1.75	P2	TNMQ012P112	1.5P	120	26	-	50	8.5	6.5	9	4	3	¥ 4,930
M12 × 1.75	P2	TNMQ012P115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090
M12 × 1.75	P2	TNMQ012P120	1.5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760
M12 × 1.75	P2	TNMQ012P125	1.5P	250	26	-	50	8.5	6.5	9	4	3	¥ 12,700 ※
M12 × 1.75	P3	TNMR012P515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.75	P3	TNMR012P520	5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760 ※
M12 × 1.75	P3	TNMR012P115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.75	P3	TNMR012P120	1.5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760 ※
M12 × 1.75	P4	TNMS012P515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.75	P4	TNMS012P520	5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760 ※
M12 × 1.75	P4	TNMS012P115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.75	P4	TNMS012P120	1.5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760 ※
M12 × 1.5	P2	TNMQ0120510	5P	100	26	-	50	8.5	6.5	9	4	3	¥ 4,250 ※
M12 × 1.5	P2	TNMQ0120512	5P	120	26	-	50	8.5	6.5	9	4	3	¥ 4,930 ※
M12 × 1.5	P2	TNMQ0120515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.5	P2	TNMQ0120520	5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760 ※
M12 × 1.5	P2	TNMQ0120110	1.5P	100	26	-	50	8.5	6.5	9	4	3	¥ 4,250 ※
M12 × 1.5	P2	TNMQ0120112	1.5P	120	26	-	50	8.5	6.5	9	4	3	¥ 4,930 ※
M12 × 1.5	P2	TNMQ0120115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.5	P2	TNMQ0120120	1.5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760 ※
M12 × 1.5	P3	TNMR0120515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.5	P3	TNMR0120115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.5	P4	TNMS0120515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.5	P4	TNMS0120520	5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760 ※
M12 × 1.5	P4	TNMS0120115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.5	P4	TNMS0120120	1.5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760 ※
M12 × 1.25	P2	TNMQ012N510	5P	100	26	-	50	8.5	6.5	9	4	3	¥ 4,250
M12 × 1.25	P2	TNMQ012N512	5P	120	26	-	50	8.5	6.5	9	4	3	¥ 4,930 ※
M12 × 1.25	P2	TNMQ012N515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090
M12 × 1.25	P2	TNMQ012N520	5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760 ※
M12 × 1.25	P2	TNMQ012N110	1.5P	100	26	-	50	8.5	6.5	9	4	3	¥ 4,250
M12 × 1.25	P2	TNMQ012N112	1.5P	120	26	-	50	8.5	6.5	9	4	3	¥ 4,930 ※
M12 × 1.25	P2	TNMQ012N115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090
M12 × 1.25	P2	TNMQ012N120	1.5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760 ※
M12 × 1.25	P3	TNMR012N515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.25	P3	TNMR012N115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.25	P4	TNMS012N515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.25	P4	TNMS012N520	5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760 ※
M12 × 1.25	P4	TNMS012N115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 7,090 ※
M12 × 1.25	P4	TNMS012N120	1.5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,760 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-HT Long Shank Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M12 × 1	P2	TNMQ012M510	5P	100	26	-	50	8.5	6.5	9	4	3	¥ 5,160 ※
M12 × 1	P2	TNMQ012M512	5P	120	26	-	50	8.5	6.5	9	4	3	¥ 5,830 ※
M12 × 1	P2	TNMQ012M515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 8,780 ※
M12 × 1	P2	TNMQ012M110	1.5P	100	26	-	50	8.5	6.5	9	4	3	¥ 5,160 ※
M12 × 1	P2	TNMQ012M112	1.5P	120	26	-	50	8.5	6.5	9	4	3	¥ 5,830 ※
M12 × 1	P2	TNMQ012M115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 8,780 ※
M14 × 2	P2	TNMQ014Q512	5P	120	26	-	60	10.5	8	11	4	3	¥ 6,490 ※
M14 × 2	P2	TNMQ014Q515	5P	150	26	-	60	10.5	8	11	4	3	¥ 8,880
M14 × 2	P2	TNMQ014Q520	5P	200	26	-	60	10.5	8	11	4	3	¥ 11,900 ※
M14 × 2	P2	TNMQ014Q525	5P	250	26	-	60	10.5	8	11	4	3	¥ 15,100 ※
M14 × 2	P2	TNMQ014Q112	1.5P	120	26	-	60	10.5	8	11	4	3	¥ 6,490 ※
M14 × 2	P2	TNMQ014Q115	1.5P	150	26	-	60	10.5	8	11	4	3	¥ 8,880
M14 × 2	P2	TNMQ014Q120	1.5P	200	26	-	60	10.5	8	11	4	3	¥ 11,900 ※
M14 × 2	P2	TNMQ014Q125	1.5P	250	26	-	60	10.5	8	11	4	3	¥ 15,100 ※
M14 × 2	P3	TNMR014Q515	5P	150	26	-	60	10.5	8	11	4	3	¥ 8,880 ※
M14 × 2	P3	TNMR014Q520	5P	200	26	-	60	10.5	8	11	4	3	¥ 11,900 ※
M14 × 2	P3	TNMR014Q115	1.5P	150	26	-	60	10.5	8	11	4	3	¥ 8,880 ※
M14 × 2	P3	TNMR014Q120	1.5P	200	26	-	60	10.5	8	11	4	3	¥ 11,900 ※
M14 × 1.5	P2	TNMQ014O512	5P	120	26	-	60	10.5	8	11	4	3	¥ 6,490 ※
M14 × 1.5	P2	TNMQ014O515	5P	150	26	-	60	10.5	8	11	4	3	¥ 8,880
M14 × 1.5	P2	TNMQ014O520	5P	200	26	-	60	10.5	8	11	4	3	¥ 11,900 ※
M14 × 1.5	P2	TNMQ014O112	1.5P	120	26	-	60	10.5	8	11	4	3	¥ 6,490 ※
M14 × 1.5	P2	TNMQ014O115	1.5P	150	26	-	60	10.5	8	11	4	3	¥ 8,880
M14 × 1.5	P2	TNMQ014O120	1.5P	200	26	-	60	10.5	8	11	4	3	¥ 11,900 ※
M14 × 1.5	P3	TNMR014O515	5P	150	26	-	60	10.5	8	11	4	3	¥ 8,880 ※
M14 × 1.5	P3	TNMR014O115	1.5P	150	26	-	60	10.5	8	11	4	3	¥ 8,880 ※
M14 × 1	P2	TNMQ014M515	5P	150	26	-	60	10.5	8	11	4	3	¥ 10,100 ※
M14 × 1	P2	TNMQ014M115	1.5P	150	26	-	60	10.5	8	11	4	3	¥ 10,100 ※
M16 × 2	P2	TNMQ016Q515	5P	150	26	-	60	12.5	10	13	4	3	¥ 9,640
M16 × 2	P2	TNMQ016Q520	5P	200	26	-	60	12.5	10	13	4	3	¥ 12,700
M16 × 2	P2	TNMQ016Q525	5P	250	26	-	60	12.5	10	13	4	3	¥ 15,800 ※
M16 × 2	P2	TNMQ016Q115	1.5P	150	26	-	60	12.5	10	13	4	3	¥ 9,640
M16 × 2	P2	TNMQ016Q120	1.5P	200	26	-	60	12.5	10	13	4	3	¥ 12,700
M16 × 2	P2	TNMQ016Q125	1.5P	250	26	-	60	12.5	10	13	4	3	¥ 15,800 ※
M16 × 2	P3	TNMR016Q515	5P	150	26	-	60	12.5	10	13	4	3	¥ 9,640 ※
M16 × 2	P3	TNMR016Q520	5P	200	26	-	60	12.5	10	13	4	3	¥ 12,700 ※
M16 × 2	P3	TNMR016Q115	1.5P	150	26	-	60	12.5	10	13	4	3	¥ 9,640 ※
M16 × 2	P3	TNMR016Q120	1.5P	200	26	-	60	12.5	10	13	4	3	¥ 12,700 ※
M16 × 1.5	P2	TNMQ016O512	5P	120	26	-	60	12.5	10	13	4	3	¥ 7,750 ※
M16 × 1.5	P2	TNMQ016O515	5P	150	26	-	60	12.5	10	13	4	3	¥ 9,640
M16 × 1.5	P2	TNMQ016O520	5P	200	26	-	60	12.5	10	13	4	3	¥ 12,700 ※
M16 × 1.5	P2	TNMQ016O112	1.5P	120	26	-	60	12.5	10	13	4	3	¥ 7,750 ※
M16 × 1.5	P2	TNMQ016O115	1.5P	150	26	-	60	12.5	10	13	4	3	¥ 9,640
M16 × 1.5	P2	TNMQ016O120	1.5P	200	26	-	60	12.5	10	13	4	3	¥ 12,700 ※
M16 × 1.5	P3	TNMR016O515	5P	150	26	-	60	12.5	10	13	4	3	¥ 9,640 ※
M16 × 1.5	P3	TNMR016O115	1.5P	150	26	-	60	12.5	10	13	4	3	¥ 9,640 ※
M16 × 1	P2	TNMQ016M515	5P	150	26	-	60	12.5	10	13	4	3	¥ 13,400 ※
M16 × 1	P2	TNMQ016M115	1.5P	150	26	-	60	12.5	10	13	4	3	¥ 13,400 ※
M18 × 2.5	P3	TNMR018R515	5P	150	33	-	70	14	11	14	4	3	¥ 13,100 ※
M18 × 2.5	P3	TNMR018R520	5P	200	33	-	70	14	11	14	4	3	¥ 16,700 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-HT Long Shank Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M18 × 2.5	P3	TNMR018R525	5P	250	33	-	70	14	11	14	4	3	¥ 20,300 ※
M18 × 2.5	P3	TNMR018R115	1.5P	150	33	-	70	14	11	14	4	3	¥ 13,100 ※
M18 × 2.5	P3	TNMR018R120	1.5P	200	33	-	70	14	11	14	4	3	¥ 16,700 ※
M18 × 2.5	P3	TNMR018R125	1.5P	250	33	-	70	14	11	14	4	3	¥ 20,300 ※
M18 × 2.5	P4	TNMS018R515	5P	150	33	-	70	14	11	14	4	3	¥ 13,100 ※
M18 × 2.5	P4	TNMS018R520	5P	200	33	-	70	14	11	14	4	3	¥ 16,700 ※
M18 × 2.5	P4	TNMS018R115	1.5P	150	33	-	70	14	11	14	4	3	¥ 13,100 ※
M18 × 2.5	P4	TNMS018R120	1.5P	200	33	-	70	14	11	14	4	3	¥ 16,700 ※
M18 × 2	P3	TNMR018Q520	5P	200	33	-	70	14	11	14	4	3	¥ 16,700 ※
M18 × 2	P3	TNMR018Q120	1.5P	200	33	-	70	14	11	14	4	3	¥ 16,700 ※
M18 × 1.5	P2	TNMQ018O515	5P	150	33	-	70	14	11	14	4	3	¥ 13,100
M18 × 1.5	P2	TNMQ018O520	5P	200	33	-	70	14	11	14	4	3	¥ 16,700 ※
M18 × 1.5	P2	TNMQ018O115	1.5P	150	33	-	70	14	11	14	4	3	¥ 13,100
M18 × 1.5	P2	TNMQ018O120	1.5P	200	33	-	70	14	11	14	4	3	¥ 16,700 ※
M18 × 1.5	P3	TNMR018O515	5P	150	33	-	70	14	11	14	4	3	¥ 13,100 ※
M18 × 1.5	P3	TNMR018O115	1.5P	150	33	-	70	14	11	14	4	3	¥ 13,100 ※
M20 × 2.5	P3	TNMR020R515	5P	150	33	-	70	15	12	15	4	4	¥ 16,900
M20 × 2.5	P3	TNMR020R520	5P	200	33	-	70	15	12	15	4	4	¥ 21,100
M20 × 2.5	P3	TNMR020R525	5P	250	33	-	70	15	12	15	4	4	¥ 26,900 ※
M20 × 2.5	P3	TNMR020R115	1.5P	150	33	-	70	15	12	15	4	4	¥ 16,900
M20 × 2.5	P3	TNMR020R120	1.5P	200	33	-	70	15	12	15	4	4	¥ 21,100
M20 × 2.5	P3	TNMR020R125	1.5P	250	33	-	70	15	12	15	4	4	¥ 26,900 ※
M20 × 2.5	P4	TNMS020R515	5P	150	33	-	70	15	12	15	4	4	¥ 16,900 ※
M20 × 2.5	P4	TNMS020R520	5P	200	33	-	70	15	12	15	4	4	¥ 21,100 ※
M20 × 2.5	P4	TNMS020R115	1.5P	150	33	-	70	15	12	15	4	4	¥ 16,900 ※
M20 × 2.5	P4	TNMS020R120	1.5P	200	33	-	70	15	12	15	4	4	¥ 21,100 ※
M20 × 2	P3	TNMR020Q520	5P	200	33	-	70	15	12	15	4	4	¥ 21,100 ※
M20 × 2	P3	TNMR020Q120	1.5P	200	33	-	70	15	12	15	4	4	¥ 21,100 ※
M20 × 1.5	P3	TNMR020O515	5P	150	33	-	70	15	12	15	4	4	¥ 16,900
M20 × 1.5	P3	TNMR020O520	5P	200	33	-	70	15	12	15	4	4	¥ 21,100 ※
M20 × 1.5	P3	TNMR020O115	1.5P	150	33	-	70	15	12	15	4	4	¥ 16,900
M20 × 1.5	P3	TNMR020O120	1.5P	200	33	-	70	15	12	15	4	4	¥ 21,100 ※
M20 × 1.5	P4	TNMS020O515	5P	150	33	-	70	15	12	15	4	4	¥ 16,900 ※
M20 × 1.5	P4	TNMS020O115	1.5P	150	33	-	70	15	12	15	4	4	¥ 16,900 ※
M22 × 2.5	P3	TNMR022R515	5P	150	33	-	70	17	13	16	4	4	¥ 18,900 ※
M22 × 2.5	P3	TNMR022R520	5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※
M22 × 2.5	P3	TNMR022R525	5P	250	33	-	70	17	13	16	4	4	¥ 28,900 ※
M22 × 2.5	P3	TNMR022R115	1.5P	150	33	-	70	17	13	16	4	4	¥ 18,900 ※
M22 × 2.5	P3	TNMR022R120	1.5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※
M22 × 2.5	P3	TNMR022R125	1.5P	250	33	-	70	17	13	16	4	4	¥ 28,900 ※
M22 × 2.5	P4	TNMS022R515	5P	150	33	-	70	17	13	16	4	4	¥ 18,900 ※
M22 × 2.5	P4	TNMS022R520	5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※
M22 × 2.5	P4	TNMS022R115	1.5P	150	33	-	70	17	13	16	4	4	¥ 18,900 ※
M22 × 2.5	P4	TNMS022R120	1.5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※
M22 × 2	P3	TNMR022Q520	5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※
M22 × 2	P3	TNMR022Q120	1.5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※
M22 × 1.5	P3	TNMR022O515	5P	150	33	-	70	17	13	16	4	4	¥ 18,900 ※
M22 × 1.5	P3	TNMR022O520	5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※
M22 × 1.5	P3	TNMR022O115	1.5P	150	33	-	70	17	13	16	4	4	¥ 18,900 ※
M22 × 1.5	P3	TNMR022O120	1.5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-HT Long Shank Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M24 × 3	P3	TNMR024S515	5P	150	39	-	80	19	15	18	4	4	¥ 22,000
M24 × 3	P3	TNMR024S520	5P	200	39	-	80	19	15	18	4	4	¥ 26,300
M24 × 3	P3	TNMR024S525	5P	250	39	-	80	19	15	18	4	4	¥ 33,400 ※
M24 × 3	P3	TNMR024S115	1.5P	150	39	-	80	19	15	18	4	4	¥ 22,000
M24 × 3	P3	TNMR024S120	1.5P	200	39	-	80	19	15	18	4	4	¥ 26,300
M24 × 3	P3	TNMR024S125	1.5P	250	39	-	80	19	15	18	4	4	¥ 33,400 ※
M24 × 3	P4	TNMS024S515	5P	150	39	-	80	19	15	18	4	4	¥ 22,000 ※
M24 × 3	P4	TNMS024S520	5P	200	39	-	80	19	15	18	4	4	¥ 26,300 ※
M24 × 3	P4	TNMS024S115	1.5P	150	39	-	80	19	15	18	4	4	¥ 22,000 ※
M24 × 3	P4	TNMS024S120	1.5P	200	39	-	80	19	15	18	4	4	¥ 26,300 ※
M24 × 2	P3	TNMR024Q520	5P	200	39	-	80	19	15	18	4	4	¥ 26,300 ※
M24 × 2	P3	TNMR024Q120	1.5P	200	39	-	80	19	15	18	4	4	¥ 26,300 ※
M24 × 1.5	P3	TNMR024O515	5P	150	39	-	80	19	15	18	4	4	¥ 22,000
M24 × 1.5	P3	TNMR024O520	5P	200	39	-	80	19	15	18	4	4	¥ 26,300 ※
M24 × 1.5	P3	TNMR024O115	1.5P	150	39	-	80	19	15	18	4	4	¥ 22,000
M24 × 1.5	P3	TNMR024O120	1.5P	200	39	-	80	19	15	18	4	4	¥ 26,300 ※
M27 × 3	P3	TNMR027S520	5P	200	39	-	80	20	15	18	4	4	¥ 29,200 ※
M27 × 3	P3	TNMR027S525	5P	250	39	-	80	20	15	18	4	4	¥ 37,800 ※
M27 × 3	P3	TNMR027S120	1.5P	200	39	-	80	20	15	18	4	4	¥ 29,200 ※
M27 × 3	P3	TNMR027S125	1.5P	250	39	-	80	20	15	18	4	4	¥ 37,800 ※
M27 × 2	P3	TNMR027Q520	5P	200	39	-	80	20	15	18	4	4	¥ 29,200 ※
M27 × 2	P3	TNMR027Q525	5P	250	39	-	80	20	15	18	4	4	¥ 37,800 ※
M27 × 2	P3	TNMR027Q120	1.5P	200	39	-	80	20	15	18	4	4	¥ 29,200 ※
M27 × 2	P3	TNMR027Q125	1.5P	250	39	-	80	20	15	18	4	4	¥ 37,800 ※
M27 × 1.5	P3	TNMR027O520	5P	200	39	-	80	20	15	18	4	4	¥ 29,200 ※
M27 × 1.5	P3	TNMR027O525	5P	250	39	-	80	20	15	18	4	4	¥ 37,800 ※
M27 × 1.5	P3	TNMR027O120	1.5P	200	39	-	80	20	15	18	4	4	¥ 29,200 ※
M27 × 1.5	P3	TNMR027O125	1.5P	250	39	-	80	20	15	18	4	4	¥ 37,800 ※
M30 × 3.5	P4	TNMS030T520	5P	200	46	-	80	23	17	20	4	4	¥ 37,500 ※
M30 × 3.5	P4	TNMS030T525	5P	250	46	-	80	23	17	20	4	4	¥ 47,600 ※
M30 × 3.5	P4	TNMS030T530	5P	300	46	-	80	23	17	20	4	4	¥ 54,700 ※
M30 × 3.5	P4	TNMS030T120	1.5P	200	46	-	80	23	17	20	4	4	¥ 37,500 ※
M30 × 3.5	P4	TNMS030T125	1.5P	250	46	-	80	23	17	20	4	4	¥ 47,600 ※
M30 × 3.5	P4	TNMS030T130	1.5P	300	46	-	80	23	17	20	4	4	¥ 54,700 ※
M30 × 3	P3	TNMR030S520	5P	200	46	-	80	23	17	20	4	4	¥ 37,500 ※
M30 × 3	P3	TNMR030S525	5P	250	46	-	80	23	17	20	4	4	¥ 47,600 ※
M30 × 3	P3	TNMR030S120	1.5P	200	46	-	80	23	17	20	4	4	¥ 37,500 ※
M30 × 3	P3	TNMR030S125	1.5P	250	46	-	80	23	17	20	4	4	¥ 47,600 ※
M30 × 2	P3	TNMR030Q520	5P	200	46	-	80	23	17	20	4	4	¥ 37,500 ※
M30 × 2	P3	TNMR030Q525	5P	250	46	-	80	23	17	20	4	4	¥ 47,600 ※
M30 × 2	P3	TNMR030Q120	1.5P	200	46	-	80	23	17	20	4	4	¥ 37,500 ※
M30 × 2	P3	TNMR030Q125	1.5P	250	46	-	80	23	17	20	4	4	¥ 47,600 ※
M30 × 1.5	P3	TNMR030O520	5P	200	46	-	80	23	17	20	4	4	¥ 37,500 ※
M30 × 1.5	P3	TNMR030O525	5P	250	46	-	80	23	17	20	4	4	¥ 47,600 ※
M30 × 1.5	P3	TNMR030O120	1.5P	200	46	-	80	23	17	20	4	4	¥ 37,500 ※
M30 × 1.5	P3	TNMR030O125	1.5P	250	46	-	80	23	17	20	4	4	¥ 47,600 ※
M33 × 3.5	P4	L25033T5-S	5P	250	51	-	80	25	19	22	4	4	¥ 54,600 ※
M33 × 3.5	P4	L25033T1-S	1.5P	250	51	-	80	25	19	22	4	4	¥ 54,600 ※
M33 × 3	P3	L25033S5-R	5P	250	51	-	80	25	19	22	4	4	¥ 54,600 ※
M33 × 3	P3	L25033S1-R	1.5P	250	51	-	80	25	19	22	4	4	¥ 54,600 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-HT Long Shank Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M33 × 2	P3	L25033Q5-R	5P	250	45	-	80	25	19	22	4	4	¥ 54,600 ※
M33 × 2	P3	L25033Q1-R	1.5P	250	45	-	80	25	19	22	4	4	¥ 54,600 ※
M33 × 1.5	P3	L2503305-R	5P	250	45	-	80	25	19	22	4	4	¥ 54,600 ※
M33 × 1.5	P3	L2503301-R	1.5P	250	45	-	80	25	19	22	4	4	¥ 54,600 ※
M36 × 4	P4	L25036U5-S	5P	250	57	-	100	28	21	24	4	4	¥ 56,700 ※
M36 × 4	P4	L30036U5-S	5P	300	57	-	100	28	21	24	4	4	¥ 65,700 ※
M36 × 4	P4	L25036U1-S	1.5P	250	57	-	100	28	21	24	4	4	¥ 56,700 ※
M36 × 4	P4	L30036U1-S	1.5P	300	57	-	100	28	21	24	4	4	¥ 65,700 ※
M36 × 3	P3	L25036S5-R	5P	250	57	-	100	28	21	24	4	4	¥ 56,700 ※
M36 × 3	P3	L25036S1-R	1.5P	250	57	-	100	28	21	24	4	4	¥ 56,700 ※
M36 × 2	P3	L25036Q5-R	5P	250	45	-	100	28	21	24	4	4	¥ 56,700 ※
M36 × 2	P3	L25036Q1-R	1.5P	250	45	-	100	28	21	24	4	4	¥ 56,700 ※
M36 × 1.5	P3	L2503605-R	5P	250	45	-	100	28	21	24	4	4	¥ 56,700 ※
M36 × 1.5	P3	L2503601-R	1.5P	250	45	-	100	28	21	24	4	4	¥ 56,700 ※
M39 × 4	P4	L30039U5-S	5P	300	60	-	100	30	23	26	4	4	¥ 71,300 ※
M39 × 4	P4	L30039U1-S	1.5P	300	60	-	100	30	23	26	4	4	¥ 71,300 ※
M39 × 3	P3	L25039S5-R	5P	250	60	-	100	30	23	26	4	4	¥ 67,100 ※
M39 × 3	P3	L25039S1-R	1.5P	250	60	-	100	30	23	26	4	4	¥ 67,100 ※
M39 × 2	P3	L25039Q5-R	5P	250	45	-	100	30	23	26	4	4	¥ 67,100 ※
M39 × 2	P3	L25039Q1-R	1.5P	250	45	-	100	30	23	26	4	4	¥ 67,100 ※
M39 × 1.5	P3	L2503905-R	5P	250	45	-	100	30	23	26	4	4	¥ 67,100 ※
M39 × 1.5	P3	L2503901-R	1.5P	250	45	-	100	30	23	26	4	4	¥ 67,100 ※
M40 × 3	P3	L25040S5-R	5P	250	60	-	100	30	23	26	4	4	¥ 68,300 ※
M40 × 3	P3	L30040S5-R	5P	300	60	-	100	30	23	26	4	4	¥ 82,200 ※
M40 × 3	P3	L25040S1-R	1.5P	250	60	-	100	30	23	26	4	4	¥ 68,300 ※
M40 × 3	P3	L30040S1-R	1.5P	300	60	-	100	30	23	26	4	4	¥ 82,200 ※
M40 × 2	P3	L25040Q5-R	5P	250	45	-	100	30	23	26	4	4	¥ 68,300 ※
M40 × 2	P3	L30040Q5-R	5P	300	45	-	100	30	23	26	4	4	¥ 82,200 ※
M40 × 2	P3	L25040Q1-R	1.5P	250	45	-	100	30	23	26	4	4	¥ 68,300 ※
M40 × 2	P3	L30040Q1-R	1.5P	300	45	-	100	30	23	26	4	4	¥ 82,200 ※
M40 × 1.5	P3	L2504005-R	5P	250	45	-	100	30	23	26	4	4	¥ 68,300 ※
M40 × 1.5	P3	L3004005-R	5P	300	45	-	100	30	23	26	4	4	¥ 82,200 ※
M40 × 1.5	P3	L2504001-R	1.5P	250	45	-	100	30	23	26	4	4	¥ 68,300 ※
M40 × 1.5	P3	L3004001-R	1.5P	300	45	-	100	30	23	26	4	4	¥ 82,200 ※
M42 × 4.5	P4	L25042V5-S	5P	250	60	-	100	32	26	30	4	4	¥ 76,000 ※
M42 × 4.5	P4	L30042V5-S	5P	300	60	-	100	32	26	30	4	4	¥ 87,400 ※
M42 × 4.5	P4	L25042V1-S	1.5P	250	60	-	100	32	26	30	4	4	¥ 76,000 ※
M42 × 4.5	P4	L30042V1-S	1.5P	300	60	-	100	32	26	30	4	4	¥ 87,400 ※
M42 × 3	P3	L25042S5-R	5P	250	60	-	100	32	26	30	4	4	¥ 76,000 ※
M42 × 3	P3	L30042S5-R	5P	300	60	-	100	32	26	30	4	4	¥ 87,400 ※
M42 × 3	P3	L25042S1-R	1.5P	250	60	-	100	32	26	30	4	4	¥ 76,000 ※
M42 × 3	P3	L30042S1-R	1.5P	300	60	-	100	32	26	30	4	4	¥ 87,400 ※
M42 × 2	P3	L25042Q5-R	5P	250	45	-	100	32	26	30	4	4	¥ 76,000 ※
M42 × 2	P3	L30042Q5-R	5P	300	45	-	100	32	26	30	4	4	¥ 87,400 ※
M42 × 2	P3	L25042Q1-R	1.5P	250	45	-	100	32	26	30	4	4	¥ 76,000 ※
M42 × 2	P3	L30042Q1-R	1.5P	300	45	-	100	32	26	30	4	4	¥ 87,400 ※
M42 × 1.5	P3	L2504205-R	5P	250	45	-	100	32	26	30	4	4	¥ 76,000 ※
M42 × 1.5	P3	L3004205-R	5P	300	45	-	100	32	26	30	4	4	¥ 87,400 ※
M42 × 1.5	P3	L2504201-R	1.5P	250	45	-	100	32	26	30	4	4	¥ 76,000 ※
M42 × 1.5	P3	L3004201-R	1.5P	300	45	-	100	32	26	30	4	4	¥ 87,400 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-HT Long Shank Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M45 × 4.5	P4	L30045V5-S	5P	300	67	-	100	35	26	30	4	4	¥ 98,700 ※
M45 × 4.5	P4	L30045V1-S	1.5P	300	67	-	100	35	26	30	4	4	¥ 98,700 ※
M45 × 3	P3	L30045S5-R	5P	300	67	-	100	35	26	30	4	4	¥ 98,700 ※
M45 × 3	P3	L30045S1-R	1.5P	300	67	-	100	35	26	30	4	4	¥ 98,700 ※
M45 × 2	P3	L30045Q5-R	5P	300	45	-	100	35	26	30	4	4	¥ 98,700 ※
M45 × 2	P3	L30045Q1-R	1.5P	300	45	-	100	35	26	30	4	4	¥ 98,700 ※
M45 × 1.5	P3	L3004505-R	5P	300	45	-	100	35	26	30	4	4	¥ 98,700 ※
M45 × 1.5	P3	L3004501-R	1.5P	300	45	-	100	35	26	30	4	4	¥ 98,700 ※
M48 × 5	P4	L30048W5-S	5P	300	67	-	120	38	29	32	4	4	¥107,000 ※
M48 × 5	P4	L30048W1-S	1.5P	300	67	-	120	38	29	32	4	4	¥107,000 ※
M48 × 3	P3	L30048S5-R	5P	300	67	-	120	38	29	32	4	4	¥107,000 ※
M48 × 3	P3	L30048S1-R	1.5P	300	67	-	120	38	29	32	4	4	¥107,000 ※
M48 × 2	P3	L30048Q5-R	5P	300	45	-	120	38	29	32	4	4	¥107,000 ※
M48 × 2	P3	L30048Q1-R	1.5P	300	45	-	120	38	29	32	4	4	¥107,000 ※
M48 × 1.5	P3	L3004805-R	5P	300	45	-	120	38	29	32	4	4	¥107,000 ※
M48 × 1.5	P3	L3004801-R	1.5P	300	45	-	120	38	29	32	4	4	¥107,000 ※
For Unified Threads													
1/4-20UNC	P2	TNFQU04N515	5P	150	15	30	40	6	4.5	7	3	2	¥ 3,940 ※
1/4-20UNC	P2	TNFQU04N520	5P	200	15	30	40	6	4.5	7	3	2	¥ 5,490 ※
1/4-20UNC	P2	TNFQU04N115	1.5P	150	15	30	40	6	4.5	7	3	2	¥ 3,940 ※
1/4-20UNC	P2	TNFQU04N120	1.5P	200	15	30	40	6	4.5	7	3	2	¥ 5,490 ※
1/4-28UNF	P2	TNFQU04K515	5P	150	15	30	40	6	4.5	7	3	2	¥ 3,940 ※
1/4-28UNF	P2	TNFQU04K520	5P	200	15	30	40	6	4.5	7	3	2	¥ 5,490 ※
1/4-28UNF	P2	TNFQU04K115	1.5P	150	15	30	40	6	4.5	7	3	2	¥ 3,940 ※
1/4-28UNF	P2	TNFQU04K120	1.5P	200	15	30	40	6	4.5	7	3	2	¥ 5,490 ※
5/16-18UNC	P2	TNMQU050515	5P	150	19	-	50	6.2	5	8	4	3	¥ 4,860 ※
5/16-18UNC	P2	TNMQU050520	5P	200	19	-	50	6.2	5	8	4	3	¥ 7,340 ※
5/16-18UNC	P2	TNMQU050115	1.5P	150	19	-	50	6.2	5	8	4	3	¥ 4,860 ※
5/16-18UNC	P2	TNMQU050120	1.5P	200	19	-	50	6.2	5	8	4	3	¥ 7,340 ※
5/16-24UNF	P2	TNMQU05M515	5P	150	19	-	50	6.2	5	8	4	3	¥ 4,860 ※
5/16-24UNF	P2	TNMQU05M520	5P	200	19	-	50	6.2	5	8	4	3	¥ 7,340 ※
5/16-24UNF	P2	TNMQU05M115	1.5P	150	19	-	50	6.2	5	8	4	3	¥ 4,860 ※
5/16-24UNF	P2	TNMQU05M120	1.5P	200	19	-	50	6.2	5	8	4	3	¥ 7,340 ※
3/8-16UNC	P2	TNMQU06P515	5P	150	23	-	50	7	5.5	8	4	3	¥ 5,750 ※
3/8-16UNC	P2	TNMQU06P520	5P	200	23	-	50	7	5.5	8	4	3	¥ 8,320 ※
3/8-16UNC	P2	TNMQU06P115	1.5P	150	23	-	50	7	5.5	8	4	3	¥ 5,750 ※
3/8-16UNC	P2	TNMQU06P120	1.5P	200	23	-	50	7	5.5	8	4	3	¥ 8,320 ※
3/8-24UNF	P2	TNMQU06M515	5P	150	23	-	50	7	5.5	8	4	3	¥ 5,750 ※
3/8-24UNF	P2	TNMQU06M520	5P	200	23	-	50	7	5.5	8	4	3	¥ 8,320 ※
3/8-24UNF	P2	TNMQU06M115	1.5P	150	23	-	50	7	5.5	8	4	3	¥ 5,750 ※
3/8-24UNF	P2	TNMQU06M120	1.5P	200	23	-	50	7	5.5	8	4	3	¥ 8,320 ※
7/16-14UNC	P3	TNMRU07Q515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 6,800 ※
7/16-14UNC	P3	TNMRU07Q520	5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,880 ※
7/16-14UNC	P3	TNMRU07Q115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 6,800 ※
7/16-20UNF	P2	TNMQU07N515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 6,800 ※
7/16-20UNF	P2	TNMQU07N520	5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,880 ※
7/16-20UNF	P2	TNMQU07N115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 6,800 ※
7/16-20UNF	P2	TNMQU07N120	1.5P	200	26	-	50	8.5	6.5	9	4	3	¥ 9,880 ※
1/2-13UNC	P3	TNMRU08R515	5P	150	26	-	60	10.5	8	11	4	3	¥ 7,210 ※
1/2-13UNC	P3	TNMRU08R520	5P	200	26	-	60	10.5	8	11	4	3	¥ 10,200 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-HT Long Shank Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
1/2-13UNC	P3	TNMRU08R115	1.5P	150	26	-	60	10.5	8	11	4	3	¥ 7,210 ※
1/2-13UNC	P3	TNMRU08R120	1.5P	200	26	-	60	10.5	8	11	4	3	¥ 10,200 ※
1/2-20UNF	P2	TNMQU08N515	5P	150	26	-	60	10.5	8	11	4	3	¥ 7,210 ※
1/2-20UNF	P2	TNMQU08N520	5P	200	26	-	60	10.5	8	11	4	3	¥ 10,200 ※
1/2-20UNF	P2	TNMQU08N115	1.5P	150	26	-	60	10.5	8	11	4	3	¥ 7,210 ※
1/2-20UNF	P2	TNMQU08N120	1.5P	200	26	-	60	10.5	8	11	4	3	¥ 10,200 ※
9/16-18UNF	P2	TNMQU09O515	5P	150	26	-	60	12.5	10	13	4	3	¥ 9,000 ※
9/16-18UNF	P2	TNMQU09O115	1.5P	150	26	-	60	12.5	10	13	4	3	¥ 9,000 ※
5/8-11UNC	P3	TNMRU10U515	5P	150	26	-	60	12.5	10	13	4	3	¥ 9,790 ※
5/8-11UNC	P3	TNMRU10U520	5P	200	26	-	60	12.5	10	13	4	3	¥ 12,900 ※
5/8-11UNC	P3	TNMRU10U115	1.5P	150	26	-	60	12.5	10	13	4	3	¥ 9,790 ※
5/8-11UNC	P3	TNMRU10U120	1.5P	200	26	-	60	12.5	10	13	4	3	¥ 12,900 ※
5/8-18UNF	P2	TNMQU10O515	5P	150	26	-	60	12.5	10	13	4	3	¥ 9,790 ※
5/8-18UNF	P2	TNMQU10O115	1.5P	150	26	-	60	12.5	10	13	4	3	¥ 9,790 ※
3/4-10UNC	P3	TNMRU12V515	5P	150	33	-	70	15	12	15	4	4	¥ 17,200 ※
3/4-10UNC	P3	TNMRU12V520	5P	200	33	-	70	15	12	15	4	4	¥ 22,000 ※
3/4-10UNC	P3	TNMRU12V115	1.5P	150	33	-	70	15	12	15	4	4	¥ 17,200 ※
3/4-10UNC	P3	TNMRU12V120	1.5P	200	33	-	70	15	12	15	4	4	¥ 22,000 ※
3/4-16UNF	P3	TNMRU12P515	5P	150	33	-	70	15	12	15	4	4	¥ 17,200 ※
3/4-16UNF	P3	TNMRU12P520	5P	200	33	-	70	15	12	15	4	4	¥ 22,000 ※
3/4-16UNF	P3	TNMRU12P115	1.5P	150	33	-	70	15	12	15	4	4	¥ 17,200 ※
3/4-16UNF	P3	TNMRU12P120	1.5P	200	33	-	70	15	12	15	4	4	¥ 22,000 ※
7/8-9UNC	P3	TNMRU14W520	5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※
7/8-9UNC	P3	TNMRU14W120	1.5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※
7/8-14UNF	P3	TNMRU14Q115	1.5P	150	33	-	70	17	13	16	4	4	¥ 19,200 ※
7/8-14UNF	P3	TNMRU14Q120	1.5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※
1 -8UNC	P3	TNMRU16X515	5P	150	39	-	80	19	15	18	4	4	¥ 22,300 ※
1 -8UNC	P3	TNMRU16X520	5P	200	39	-	80	19	15	18	4	4	¥ 27,800 ※
1 -8UNC	P3	TNMRU16X525	5P	250	39	-	80	19	15	18	4	4	¥ 33,100 ※
1 -8UNC	P3	TNMRU16X115	1.5P	150	39	-	80	19	15	18	4	4	¥ 22,300 ※
1 -8UNC	P3	TNMRU16X120	1.5P	200	39	-	80	19	15	18	4	4	¥ 27,800 ※
1 -8UNC	P3	TNMRU16X125	1.5P	250	39	-	80	19	15	18	4	4	¥ 33,100 ※
1 -12UNF	P3	TNMRU16S515	5P	150	39	-	80	19	15	18	4	4	¥ 22,300 ※
1 -12UNF	P3	TNMRU16S115	1.5P	150	39	-	80	19	15	18	4	4	¥ 22,300 ※
For Whitworth Threads													
1/4W20	P2	TNFQW04N515	5P	150	15	30	40	6	4.5	7	3	2	¥ 3,940 ※
1/4W20	P2	TNFQW04N115	1.5P	150	15	30	40	6	4.5	7	3	2	¥ 3,940 ※
5/16W18	P2	TNMQW05O515	5P	150	19	-	50	6.2	5	8	4	3	¥ 4,860 ※
5/16W18	P2	TNMQW05O520	5P	200	19	-	50	6.2	5	8	4	3	¥ 7,340 ※
5/16W18	P2	TNMQW05O115	1.5P	150	19	-	50	6.2	5	8	4	3	¥ 4,860 ※
5/16W18	P2	TNMQW05O120	1.5P	200	19	-	50	6.2	5	8	4	3	¥ 7,340 ※
3/8W16	P2	TNMQW06P515	5P	150	23	-	50	7	5.5	8	4	3	¥ 5,750 ※
3/8W16	P2	TNMQW06P520	5P	200	23	-	50	7	5.5	8	4	3	¥ 8,320 ※
3/8W16	P2	TNMQW06P115	1.5P	150	23	-	50	7	5.5	8	4	3	¥ 5,750 ※
3/8W16	P2	TNMQW06P120	1.5P	200	23	-	50	7	5.5	8	4	3	¥ 8,320 ※
7/16W14	P3	TNMRW07Q515	5P	150	26	-	50	8.5	6.5	9	4	3	¥ 6,800 ※
7/16W14	P3	TNMRW07Q115	1.5P	150	26	-	50	8.5	6.5	9	4	3	¥ 6,800 ※
1/2W12	P3	TNMRW08S515	5P	150	26	-	60	10.5	8	11	4	3	¥ 7,210 ※
1/2W12	P3	TNMRW08S520	5P	200	26	-	60	10.5	8	11	4	3	¥ 10,200 ※
1/2W12	P3	TNMRW08S115	1.5P	150	26	-	60	10.5	8	11	4	3	¥ 7,210 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-HT Long Shank Hand Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
1/2W12	P3	TNMRW08S120	1.5P	200	26	-	60	10.5	8	11	4	3	¥ 10,200 ※
5/8W11	P3	TNMRW10U515	5P	150	26	-	60	12.5	10	13	4	3	¥ 9,790 ※
5/8W11	P3	TNMRW10U520	5P	200	26	-	60	12.5	10	13	4	3	¥ 12,900 ※
5/8W11	P3	TNMRW10U115	1.5P	150	26	-	60	12.5	10	13	4	3	¥ 9,790 ※
5/8W11	P3	TNMRW10U120	1.5P	200	26	-	60	12.5	10	13	4	3	¥ 12,900 ※
3/4W10	P3	TNMRW12V515	5P	150	33	-	70	15	12	15	4	4	¥ 17,200 ※
3/4W10	P3	TNMRW12V520	5P	200	33	-	70	15	12	15	4	4	¥ 22,000 ※
3/4W10	P3	TNMRW12V115	1.5P	150	33	-	70	15	12	15	4	4	¥ 17,200 ※
3/4W10	P3	TNMRW12V120	1.5P	200	33	-	70	15	12	15	4	4	¥ 22,000 ※
7/8W9	P3	TNMRW14W520	5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※
7/8W9	P3	TNMRW14W120	1.5P	200	33	-	70	17	13	16	4	4	¥ 23,500 ※
1 W8	P3	TNMRW16X515	5P	150	39	-	80	19	15	18	4	4	¥ 22,300 ※
1 W8	P3	TNMRW16X520	5P	200	39	-	80	19	15	18	4	4	¥ 27,800 ※
1 W8	P3	TNMRW16X525	5P	250	39	-	80	19	15	18	4	4	¥ 33,100 ※
1 W8	P3	TNMRW16X115	1.5P	150	39	-	80	19	15	18	4	4	¥ 22,300 ※
1 W8	P3	TNMRW16X120	1.5P	200	39	-	80	19	15	18	4	4	¥ 27,800 ※
1 W8	P3	TNMRW16X125	1.5P	250	39	-	80	19	15	18	4	4	¥ 33,100 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

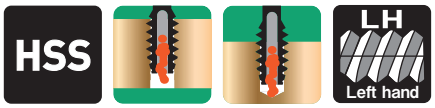
JIS

LS-HT LH



Long Shank Hand Taps for Left Hand Threads

Specification



■Long shank hand taps for tapping left-hand threads in deep holes that cannot be reached with a standard overall length.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

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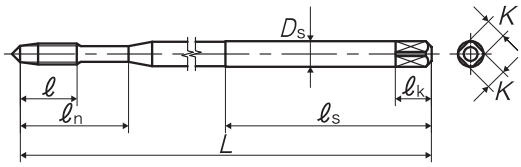

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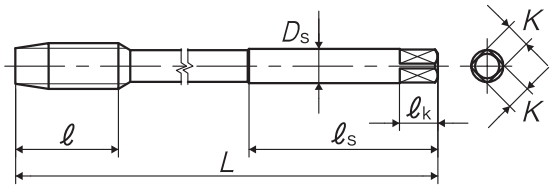

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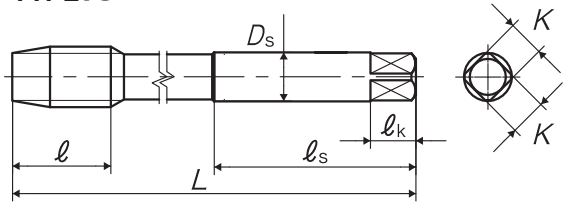


Segment : 1A

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P1	TNFP3.0G510L	5P	100	9	18	40	4	3.2	6	3	1	¥ 4,280 ※
M3 × 0.5	P1	TNFP3.0G110L	1.5P	100	9	18	40	4	3.2	6	3	1	¥ 4,280 ※
M4 × 0.7	P2	TNFQ4.0I510L	5P	100	11	21	40	5	4	7	3	1	¥ 3,900 ※
M4 × 0.7	P2	TNFQ4.0I110L	1.5P	100	11	21	40	5	4	7	3	1	¥ 3,900 ※
M5 × 0.8	P2	TNFQ5.0K510L	5P	100	13	25	40	5.5	4.5	7	3	1	¥ 3,440 ※
M5 × 0.8	P2	TNFQ5.0K110L	1.5P	100	13	25	40	5.5	4.5	7	3	1	¥ 3,440 ※
M6 × 1	P2	TNFQ6.0M510L	5P	100	15	30	40	6	4.5	7	3	1	¥ 2,920 ※
M6 × 1	P2	TNFQ6.0M515L	5P	150	15	30	40	6	4.5	7	3	1	¥ 5,170 ※
M6 × 1	P2	TNFQ6.0M110L	1.5P	100	15	30	40	6	4.5	7	3	1	¥ 2,920 ※
M6 × 1	P2	TNFQ6.0M115L	1.5P	150	15	30	40	6	4.5	7	3	1	¥ 5,170 ※
M8 × 1.25	P2	TNMQ8.0N510L	5P	100	19	-	50	6.2	5	8	4	2	¥ 3,720 ※
M8 × 1.25	P2	TNMQ8.0N515L	5P	150	19	-	50	6.2	5	8	4	2	¥ 6,340 ※
M8 × 1.25	P2	TNMQ8.0N110L	1.5P	100	19	-	50	6.2	5	8	4	2	¥ 3,720 ※
M8 × 1.25	P2	TNMQ8.0N115L	1.5P	150	19	-	50	6.2	5	8	4	2	¥ 6,340 ※
M10 × 1.5	P2	TNMQ0100510L	5P	100	23	-	50	7	5.5	8	4	2	¥ 4,520 ※
M10 × 1.5	P2	TNMQ0100515L	5P	150	23	-	50	7	5.5	8	4	2	¥ 7,380 ※
M10 × 1.5	P2	TNMQ0100110L	1.5P	100	23	-	50	7	5.5	8	4	2	¥ 4,520 ※
M10 × 1.5	P2	TNMQ0100115L	1.5P	150	23	-	50	7	5.5	8	4	2	¥ 7,380 ※
M10 × 1.25	P2	TNMQ010N515L	5P	150	23	-	50	7	5.5	8	4	2	¥ 7,380 ※
M10 × 1.25	P2	TNMQ010N115L	1.5P	150	23	-	50	7	5.5	8	4	2	¥ 7,380 ※
M12 × 1.75	P2	TNMQ012P510L	5P	100	26	-	50	8.5	6.5	9	4	2	¥ 5,530 ※
M12 × 1.75	P2	TNMQ012P515L	5P	150	26	-	50	8.5	6.5	9	4	2	¥ 9,220 ※
M12 × 1.75	P2	TNMQ012P110L	1.5P	100	26	-	50	8.5	6.5	9	4	2	¥ 5,530 ※
M12 × 1.75	P2	TNMQ012P115L	1.5P	150	26	-	50	8.5	6.5	9	4	2	¥ 9,220 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-HT LH Long Shank Hand Taps for Left Hand Threads

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M12 × 1.5	P2	TNMQ0120515L	5P	150	26	-	50	8.5	6.5	9	4	2	¥ 9,220 ※
M12 × 1.5	P2	TNMQ0120115L	1.5P	150	26	-	50	8.5	6.5	9	4	2	¥ 9,220 ※
M12 × 1.25	P2	TNMQ012N515L	5P	150	26	-	50	8.5	6.5	9	4	2	¥ 9,220 ※
M12 × 1.25	P2	TNMQ012N115L	1.5P	150	26	-	50	8.5	6.5	9	4	2	¥ 9,220 ※
M14 × 2	P2	TNMQ014Q515L	5P	150	26	-	60	10.5	8	11	4	2	¥ 11,600 ※
M14 × 2	P2	TNMQ014Q115L	1.5P	150	26	-	60	10.5	8	11	4	2	¥ 11,600 ※
M14 × 1.5	P2	TNMQ0140515L	5P	150	26	-	60	10.5	8	11	4	2	¥ 11,600 ※
M14 × 1.5	P2	TNMQ0140115L	1.5P	150	26	-	60	10.5	8	11	4	2	¥ 11,600 ※
M16 × 2	P2	TNMQ016Q515L	5P	150	26	-	60	12.5	10	13	4	2	¥ 12,600 ※
M16 × 2	P2	TNMQ016Q520L	5P	200	26	-	60	12.5	10	13	4	2	¥ 16,600 ※
M16 × 2	P2	TNMQ016Q115L	1.5P	150	26	-	60	12.5	10	13	4	2	¥ 12,600 ※
M16 × 2	P2	TNMQ016Q120L	1.5P	200	26	-	60	12.5	10	13	4	2	¥ 16,600 ※
M16 × 1.5	P2	TNMQ0160515L	5P	150	26	-	60	12.5	10	13	4	2	¥ 12,600 ※
M16 × 1.5	P2	TNMQ0160115L	1.5P	150	26	-	60	12.5	10	13	4	2	¥ 12,600 ※
M18 × 2.5	P3	TNMR018R515L	5P	150	33	-	70	14	11	14	4	2	¥ 17,100 ※
M18 × 2.5	P3	TNMR018R115L	1.5P	150	33	-	70	14	11	14	4	2	¥ 17,100 ※
M18 × 1.5	P2	TNMQ0180515L	5P	150	33	-	70	14	11	14	4	2	¥ 17,100 ※
M18 × 1.5	P2	TNMQ0180115L	1.5P	150	33	-	70	14	11	14	4	2	¥ 17,100 ※
M20 × 2.5	P3	TNMR020R515L	5P	150	33	-	70	15	12	15	4	3	¥ 22,000 ※
M20 × 2.5	P3	TNMR020R520L	5P	200	33	-	70	15	12	15	4	3	¥ 27,500 ※
M20 × 2.5	P3	TNMR020R115L	1.5P	150	33	-	70	15	12	15	4	3	¥ 22,000 ※
M20 × 2.5	P3	TNMR020R120L	1.5P	200	33	-	70	15	12	15	4	3	¥ 27,500 ※
M20 × 1.5	P3	TNMR0200515L	5P	150	33	-	70	15	12	15	4	3	¥ 22,000 ※
M20 × 1.5	P3	TNMR0200520L	5P	200	33	-	70	15	12	15	4	3	¥ 27,500 ※
M20 × 1.5	P3	TNMR0200115L	1.5P	150	33	-	70	15	12	15	4	3	¥ 22,000 ※
M20 × 1.5	P3	TNMR0200120L	1.5P	200	33	-	70	15	12	15	4	3	¥ 27,500 ※
M22 × 2.5	P3	TNMR022R515L	5P	150	33	-	70	17	13	16	4	3	¥ 24,600 ※
M22 × 2.5	P3	TNMR022R520L	5P	200	33	-	70	17	13	16	4	3	¥ 30,600 ※
M22 × 2.5	P3	TNMR022R115L	1.5P	150	33	-	70	17	13	16	4	3	¥ 24,600 ※
M22 × 2.5	P3	TNMR022R120L	1.5P	200	33	-	70	17	13	16	4	3	¥ 30,600 ※
M22 × 1.5	P3	TNMR0220520L	5P	200	33	-	70	17	13	16	4	3	¥ 30,600 ※
M22 × 1.5	P3	TNMR0220120L	1.5P	200	33	-	70	17	13	16	4	3	¥ 30,600 ※
M24 × 3	P3	TNMR024S515L	5P	150	39	-	80	19	15	18	4	3	¥ 28,600 ※
M24 × 3	P3	TNMR024S520L	5P	200	39	-	80	19	15	18	4	3	¥ 34,200 ※
M24 × 3	P3	TNMR024S115L	1.5P	150	39	-	80	19	15	18	4	3	¥ 28,600 ※
M24 × 3	P3	TNMR024S120L	1.5P	200	39	-	80	19	15	18	4	3	¥ 34,200 ※
M24 × 1.5	P3	TNMR0240520L	5P	200	39	-	80	19	15	18	4	3	¥ 34,200 ※
M27 × 3	P3	TNMR027S520L	5P	200	39	-	80	20	15	18	4	3	¥ 38,000 ※
M27 × 3	P3	TNMR027S120L	1.5P	200	39	-	80	20	15	18	4	3	¥ 38,000 ※
M27 × 1.5	P3	TNMR0270520L	5P	200	39	-	80	20	15	18	4	3	¥ 38,000 ※
M27 × 1.5	P3	TNMR0270120L	1.5P	200	39	-	80	20	15	18	4	3	¥ 38,000 ※
M30 × 3.5	P4	TNMS030T520L	5P	200	46	-	80	23	17	20	4	3	¥ 48,800 ※
M30 × 3.5	P4	TNMS030T525L	5P	250	46	-	80	23	17	20	4	3	¥ 61,900 ※
M30 × 3.5	P4	TNMS030T120L	1.5P	200	46	-	80	23	17	20	4	3	¥ 48,800 ※
M30 × 3.5	P4	TNMS030T125L	1.5P	250	46	-	80	23	17	20	4	3	¥ 61,900 ※
M30 × 3	P3	TNMR030S520L	5P	200	46	-	80	23	17	20	4	3	¥ 48,800 ※
M30 × 2	P3	TNMR030Q520L	5P	200	46	-	80	23	17	20	4	3	¥ 48,800 ※
M30 × 1.5	P3	TNMR0300520L	5P	200	46	-	80	23	17	20	4	3	¥ 48,800 ※
M30 × 1.5	P3	TNMR0300120L	1.5P	200	46	-	80	23	17	20	4	3	¥ 48,800 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

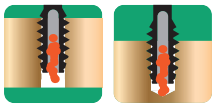
LS-HT V

Long Shank Hand Taps, Coated



Specification

HSS Coating



■Long shank coated hand taps for tapping threads in deep holes that cannot be reached with a standard overall length.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

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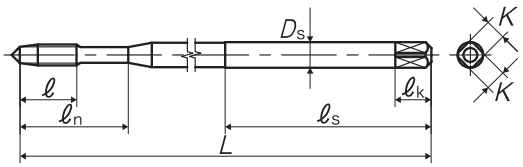

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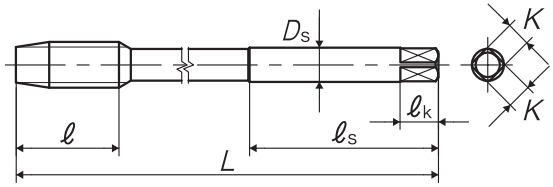


Segment : 1A

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P1	TNFP3.0G510V	5P	100	9	18	40	4	3.2	6	3	1	¥ 5,090 ※
M3 × 0.5	P1	TNFP3.0G110V	1.5P	100	9	18	40	4	3.2	6	3	1	¥ 5,090 ※
M4 × 0.7	P2	TNFQ4.0I510V	5P	100	11	21	40	5	4	7	3	1	¥ 4,780 ※
M4 × 0.7	P2	TNFQ4.0I110V	1.5P	100	11	21	40	5	4	7	3	1	¥ 4,780 ※
M5 × 0.8	P2	TNFQ5.0K510V	5P	100	13	25	40	5.5	4.5	7	3	1	¥ 4,460 ※
M5 × 0.8	P2	TNFQ5.0K110V	1.5P	100	13	25	40	5.5	4.5	7	3	1	¥ 4,460 ※
M6 × 1	P2	TNFQ6.0M510V	5P	100	15	30	40	6	4.5	7	3	1	¥ 4,060 ※
M6 × 1	P2	TNFQ6.0M515V	5P	150	15	30	40	6	4.5	7	3	1	¥ 5,660 ※
M6 × 1	P2	TNFQ6.0M110V	1.5P	100	15	30	40	6	4.5	7	3	1	¥ 4,060 ※
M6 × 1	P2	TNFQ6.0M115V	1.5P	150	15	30	40	6	4.5	7	3	1	¥ 5,660 ※
M8 × 1.25	P2	TNMQ8.0N510V	5P	100	19	-	50	6.2	5	8	4	2	¥ 4,980 ※
M8 × 1.25	P2	TNMQ8.0N515V	5P	150	19	-	50	6.2	5	8	4	2	¥ 6,880 ※
M8 × 1.25	P2	TNMQ8.0N110V	1.5P	100	19	-	50	6.2	5	8	4	2	¥ 4,980 ※
M8 × 1.25	P2	TNMQ8.0N115V	1.5P	150	19	-	50	6.2	5	8	4	2	¥ 6,880 ※
M10 × 1.5	P2	TNMQ0100510V	5P	100	23	-	50	7	5.5	8	4	2	¥ 5,830 ※
M10 × 1.5	P2	TNMQ0100515V	5P	150	23	-	50	7	5.5	8	4	2	¥ 7,980 ※
M10 × 1.5	P2	TNMQ0100110V	1.5P	100	23	-	50	7	5.5	8	4	2	¥ 5,830 ※
M10 × 1.5	P2	TNMQ0100115V	1.5P	150	23	-	50	7	5.5	8	4	2	¥ 7,980 ※
M10 × 1.25	P2	TNMQ010N510V	5P	100	23	-	50	7	5.5	8	4	2	¥ 5,830 ※
M10 × 1.25	P2	TNMQ010N515V	5P	150	23	-	50	7	5.5	8	4	2	¥ 7,980 ※
M10 × 1.25	P2	TNMQ010N110V	1.5P	100	23	-	50	7	5.5	8	4	2	¥ 5,830 ※
M10 × 1.25	P2	TNMQ010N115V	1.5P	150	23	-	50	7	5.5	8	4	2	¥ 7,980 ※
M12 × 1.75	P2	TNMQ012P510V	5P	100	26	-	50	8.5	6.5	9	4	2	¥ 7,200 ※
M12 × 1.75	P2	TNMQ012P515V	5P	150	26	-	50	8.5	6.5	9	4	2	¥ 10,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-HT V Long Shank Hand Taps, Coated

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M12 × 1.75	P2	TNMQ012P110V	1.5P	100	26	-	50	8.5	6.5	9	4	2	¥ 7,200 ※
M12 × 1.75	P2	TNMQ012P115V	1.5P	150	26	-	50	8.5	6.5	9	4	2	¥ 10,000 ※
M12 × 1.5	P2	TNMQ0120510V	5P	100	26	-	50	8.5	6.5	9	4	2	¥ 7,200 ※
M12 × 1.5	P2	TNMQ0120515V	5P	150	26	-	50	8.5	6.5	9	4	2	¥ 10,000 ※
M12 × 1.5	P2	TNMQ0120110V	1.5P	100	26	-	50	8.5	6.5	9	4	2	¥ 7,200 ※
M12 × 1.5	P2	TNMQ0120115V	1.5P	150	26	-	50	8.5	6.5	9	4	2	¥ 10,000 ※
M12 × 1.25	P2	TNMQ012N510V	5P	100	26	-	50	8.5	6.5	9	4	2	¥ 7,200 ※
M12 × 1.25	P2	TNMQ012N515V	5P	150	26	-	50	8.5	6.5	9	4	2	¥ 10,000 ※
M12 × 1.25	P2	TNMQ012N110V	1.5P	100	26	-	50	8.5	6.5	9	4	2	¥ 7,200 ※
M12 × 1.25	P2	TNMQ012N115V	1.5P	150	26	-	50	8.5	6.5	9	4	2	¥ 10,000 ※

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

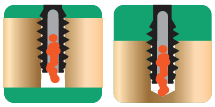
SU-HT

Hand Taps for Stainless Steels



Specification

HSS | OX Oxide



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼
5~10 (m/min)	5~10 (m/min)	~5 (m/min)

Product Features

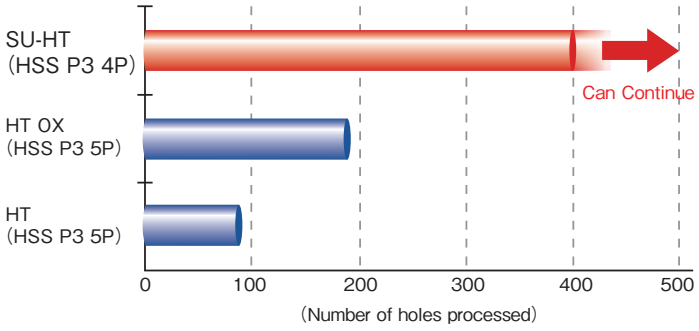
●The SU-HT is a hand tap suitable for machining of stainless steel, chromium steel, molybdenum steel. These materials have a tendency to work harden easily.
●To prevent welding, the taps surface is oxidized.

Tapping Data

Tapping Conditions [M8×1.25]

Workpiece Material	SUS304 10mm thick
Tapping Speed	5m/min
Bored Hole Size	ϕ6.8 through hole
Cutting Fluid	JIS 2, No. 13
Machinery Type	Tapping machine

The figure on the right shows test data comparing the tool life in tapping SUS 304 with an oxidized standard M8 × 1.25, a standard bright hand tap and the oxidized SU - HT tap.



Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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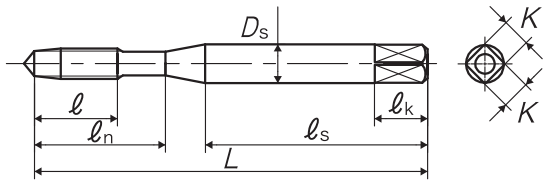

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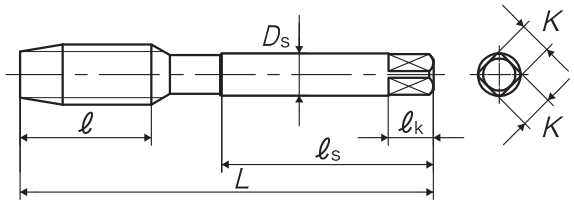

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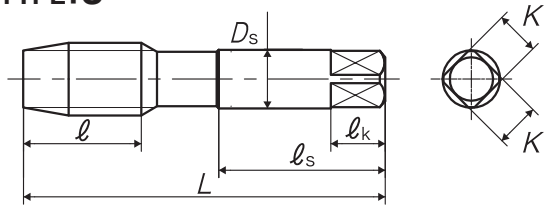


Segment : 1A

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P2	TUMQ2.0E4	4P	42	7.2	12	27	3	2.5	5	3	1	¥ 2,470
M2 × 0.4	P2	TUMQ2.0E1	1.5P	42	7.2	12	27	3	2.5	5	3	1	¥ 2,470
M2.3 × 0.4	P2	TUMQ2.3E4	4P	42	7.2	12	27	3	2.5	5	3	1	¥ 2,240 ※
M2.3 × 0.4	P2	TUMQ2.3E1	1.5P	42	7.2	12	27	3	2.5	5	3	1	¥ 2,240 ※
M2.5 × 0.45	P2	TUMQ2.5F4	4P	46	8.1	14	29	3	2.5	5	3	1	¥ 1,890 ※
M2.5 × 0.45	P2	TUMQ2.5F1	1.5P	46	8.1	14	29	3	2.5	5	3	1	¥ 1,890 ※
M2.6 × 0.45	P2	TUMQ2.6F4	4P	46	8.1	14	29	3	2.5	5	3	1	¥ 1,890 ※
M2.6 × 0.45	P2	TUMQ2.6F1	1.5P	46	8.1	14	29	3	2.5	5	3	1	¥ 1,890 ※
M3 × 0.5	P2	TUMQ3.0G4	4P	46	9	14	26	4	3.2	6	3	1	¥ 1,330
M3 × 0.5	P2	TUMQ3.0G1	1.5P	46	9	14	26	4	3.2	6	3	1	¥ 1,330
M3.5 × 0.6	P2	TUMQ3.5H4	4P	52	11	16	29	5	4	7	3	1	¥ 1,330 ※
M3.5 × 0.6	P2	TUMQ3.5H1	1.5P	52	11	16	29	5	4	7	3	1	¥ 1,330 ※
M4 × 0.7	P2	TUMQ4.0I4	4P	52	11	17	29	5	4	7	3	1	¥ 1,330
M4 × 0.7	P2	TUMQ4.0I1	1.5P	52	11	17	29	5	4	7	3	1	¥ 1,330
M5 × 0.8	P2	TUMQ5.0K4	4P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,340
M5 × 0.8	P2	TUMQ5.0K1	1.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,340
M6 × 1	P2	TUMQ6.0M4	4P	62	15	26	33	6	4.5	7	3	1	¥ 1,470
M6 × 1	P2	TUMQ6.0M1	1.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,470
M6 × 0.75	P2	TUMQ6.0J4	4P	62	15	26	33	6	4.5	7	3	1	¥ 2,060 ※
M6 × 0.75	P2	TUMQ6.0J1	1.5P	62	15	26	33	6	4.5	7	3	1	¥ 2,060 ※
M8 × 1.25	P3	TUMR8.0N4	4P	70	19	-	36	6.2	5	8	3	2	¥ 2,010
M8 × 1.25	P3	TUMR8.0N1	1.5P	70	19	-	36	6.2	5	8	4	2	¥ 2,010
M8 × 1	P3	TUMR8.0M4	4P	70	19	-	36	6.2	5	8	3	2	¥ 2,280 ※
M8 × 1	P3	TUMR8.0M1	1.5P	70	19	-	36	6.2	5	8	4	2	¥ 2,280 ※
M10 × 1.5	P3	TUMR010O4	4P	75	23	-	38	7	5.5	8	3	2	¥ 2,560
M10 × 1.5	P3	TUMR010O1	1.5P	75	23	-	38	7	5.5	8	4	2	¥ 2,560
M10 × 1.25	P3	TUMR010N4	4P	75	23	-	38	7	5.5	8	3	2	¥ 2,560 ※
M10 × 1.25	P3	TUMR010N1	1.5P	75	23	-	38	7	5.5	8	4	2	¥ 2,560 ※
M10 × 1	P3	TUMR010M4	4P	75	23	-	38	7	5.5	8	3	2	¥ 3,040 ※
M10 × 1	P3	TUMR010M1	1.5P	75	23	-	38	7	5.5	8	4	2	¥ 3,040 ※
M12 × 1.75	P4	TUMS012P4	4P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,630
M12 × 1.75	P4	TUMS012P1	1.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 3,630
M12 × 1.5	P3	TUMR012O4	4P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,630 ※
M12 × 1.5	P3	TUMR012O1	1.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 3,630 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SU-HT Hand Taps for Stainless Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M12 × 1.25	P4	TUMS012N4	4P	82	26	-	42	8.5	6.5	9	3	2	¥ 3,630 ※
M12 × 1.25	P4	TUMS012N1	1.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 3,630 ※
M12 × 1	P3	TUMR012M4	4P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,260 ※
M12 × 1	P3	TUMR012M1	1.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,260 ※
M14 × 2	P4	TUMS014Q4	4P	88	26	-	45	10.5	8	11	4	2	¥ 4,940 ※
M14 × 2	P4	TUMS014Q1	1.5P	88	26	-	45	10.5	8	11	4	2	¥ 4,940 ※
M14 × 1.5	P3	TUMR014O4	4P	88	26	-	45	10.5	8	11	4	2	¥ 4,940 ※
M14 × 1.5	P3	TUMR014O1	1.5P	88	26	-	45	10.5	8	11	4	2	¥ 4,940 ※
M14 × 1.25	P3	TUMR014N4	4P	88	26	-	45	10.5	8	11	4	2	¥ 5,740 ※
M14 × 1.25	P3	TUMR014N1	1.5P	88	26	-	45	10.5	8	11	4	2	¥ 5,740 ※
M14 × 1	P3	TUMR014M4	4P	88	26	-	45	10.5	8	11	4	2	¥ 5,740 ※
M14 × 1	P3	TUMR014M1	1.5P	88	26	-	45	10.5	8	11	4	2	¥ 5,740 ※
M16 × 2	P4	TUMS016Q4	4P	95	26	-	48	12.5	10	13	4	2	¥ 6,610
M16 × 2	P4	TUMS016Q1	1.5P	95	26	-	48	12.5	10	13	4	2	¥ 6,610
M16 × 1.5	P3	TUMR016O4	4P	95	26	-	48	12.5	10	13	4	2	¥ 6,610 ※
M16 × 1.5	P3	TUMR016O1	1.5P	95	26	-	48	12.5	10	13	4	2	¥ 6,610 ※
M16 × 1	P3	TUMR016M4	4P	95	26	-	48	12.5	10	13	4	2	¥ 7,870 ※
M16 × 1	P3	TUMR016M1	1.5P	95	26	-	48	12.5	10	13	4	2	¥ 7,870 ※
M18 × 2.5	P4	TUMS018R4	4P	100	33	-	51	14	11	14	4	2	¥ 8,810 ※
M18 × 2.5	P4	TUMS018R1	1.5P	100	33	-	51	14	11	14	4	2	¥ 8,810 ※
M18 × 1.5	P4	TUMS018O4	4P	100	33	-	51	14	11	14	4	2	¥ 8,810 ※
M18 × 1.5	P4	TUMS018O1	1.5P	100	33	-	51	14	11	14	4	2	¥ 8,810 ※
M20 × 2.5	P4	TUMS020R4	4P	105	33	-	50	15	12	15	4	3	¥ 12,000
M20 × 2.5	P4	TUMS020R1	1.5P	105	33	-	50	15	12	15	4	3	¥ 12,000
M20 × 1.5	P4	TUMS020O4	4P	105	33	-	50	15	12	15	4	3	¥ 12,000 ※
M20 × 1.5	P4	TUMS020O1	1.5P	105	33	-	50	15	12	15	4	3	¥ 12,000 ※
M22 × 2.5	P4	TUMS022R4	4P	115	33	-	55	17	13	16	4	3	¥ 15,500 ※
M22 × 2.5	P4	TUMS022R1	1.5P	115	33	-	55	17	13	16	4	3	¥ 15,500 ※
M22 × 1.5	P4	TUMS022O4	4P	115	33	-	55	17	13	16	4	3	¥ 15,500 ※
M22 × 1.5	P4	TUMS022O1	1.5P	115	33	-	55	17	13	16	4	3	¥ 15,500 ※
M24 × 3	P4	TUMS024S4	4P	120	39	-	55	19	15	18	4	3	¥ 19,300 ※
M24 × 3	P4	TUMS024S1	1.5P	120	39	-	55	19	15	18	4	3	¥ 19,300 ※
M24 × 1.5	P4	TUMS024O4	4P	120	39	-	55	19	15	18	4	3	¥ 19,300 ※
M24 × 1.5	P4	TUMS024O1	1.5P	120	39	-	55	19	15	18	4	3	¥ 19,300 ※
M27 × 3	P4	TUMS027S4	4P	130	39	-	60	20	15	18	4	3	¥ 26,700 ※
M27 × 3	P4	TUMS027S1	1.5P	130	39	-	60	20	15	18	4	3	¥ 26,700 ※
M27 × 1.5	P4	TUMS027O4	4P	130	39	-	60	20	15	18	4	3	¥ 26,700 ※
M27 × 1.5	P4	TUMS027O1	1.5P	130	39	-	60	20	15	18	4	3	¥ 26,700 ※
M30 × 3.5	P5	TUMT030T4	4P	135	46	-	62	23	17	20	4	3	¥ 34,000 ※
M30 × 3.5	P5	TUMT030T1	1.5P	135	46	-	62	23	17	20	4	3	¥ 34,000 ※
M30 × 1.5	P4	TUMS030O4	4P	135	46	-	62	23	17	20	4	3	¥ 34,000 ※
M30 × 1.5	P4	TUMS030O1	1.5P	135	46	-	62	23	17	20	4	3	¥ 34,000 ※
For Unified Threads													
1/4-20UNC	P2	TUMQU04N4	4P	62	15	26	33	6	4.5	7	3	1	¥ 1,670 ※
1/4-20UNC	P2	TUMQU04N1	1.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,670 ※
1/4-28UNF	P2	TUMQU04K4	4P	62	15	26	33	6	4.5	7	3	1	¥ 1,670 ※
1/4-28UNF	P2	TUMQU04K1	1.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,670 ※
5/16-18UNC	P3	TUMRU05O4	4P	70	19	-	36	6.2	5	8	3	2	¥ 2,320 ※
5/16-18UNC	P3	TUMRU05O1	1.5P	70	19	-	36	6.2	5	8	4	2	¥ 2,320 ※
5/16-24UNF	P2	TUMQU05M4	4P	70	19	-	36	6.2	5	8	3	2	¥ 2,320 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SU-HT Hand Taps for Stainless Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
5/16-24UNF	P2	TUMQU05M1	1.5P	70	19	-	36	6.2	5	8	4	2	¥ 2,320 ※
3/8-16UNC	P3	TUMRU06P4	4P	75	23	-	38	7	5.5	8	3	2	¥ 2,970 ※
3/8-16UNC	P3	TUMRU06P1	1.5P	75	23	-	38	7	5.5	8	4	2	¥ 2,970 ※
3/8-24UNF	P2	TUMQU06M4	4P	75	23	-	38	7	5.5	8	3	2	¥ 2,970 ※
3/8-24UNF	P2	TUMQU06M1	1.5P	75	23	-	38	7	5.5	8	4	2	¥ 2,970 ※
7/16-14UNC	P3	TUMRU07Q4	4P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,170 ※
7/16-14UNC	P3	TUMRU07Q1	1.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,170 ※
7/16-20UNF	P3	TUMRU07N4	4P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,170 ※
7/16-20UNF	P3	TUMRU07N1	1.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,170 ※
1/2-13UNC	P3	TUMRU08R4	4P	88	26	-	45	10.5	8	11	3	2	¥ 4,420 ※
1/2-13UNC	P3	TUMRU08R1	1.5P	88	26	-	45	10.5	8	11	4	2	¥ 4,420 ※
1/2-20UNF	P3	TUMRU08N4	4P	88	26	-	45	10.5	8	11	3	2	¥ 4,420 ※
1/2-20UNF	P3	TUMRU08N1	1.5P	88	26	-	45	10.5	8	11	4	2	¥ 4,420 ※
5/8-11UNC	P3	TUMRU10U4	4P	95	26	-	48	12.5	10	13	4	2	¥ 6,610 ※
5/8-11UNC	P3	TUMRU10U1	1.5P	95	26	-	48	12.5	10	13	4	2	¥ 6,610 ※
5/8-18UNF	P3	TUMRU10O4	4P	95	26	-	48	12.5	10	13	4	2	¥ 6,610 ※
5/8-18UNF	P3	TUMRU10O1	1.5P	95	26	-	48	12.5	10	13	4	2	¥ 6,610 ※
3/4-10UNC	P4	TUMSU12V4	4P	105	33	-	50	15	12	15	4	3	¥ 12,000 ※
3/4-10UNC	P4	TUMSU12V1	1.5P	105	33	-	50	15	12	15	4	3	¥ 12,000 ※
3/4-16UNF	P3	TUMRU12P4	4P	105	33	-	50	15	12	15	4	3	¥ 12,000 ※
3/4-16UNF	P3	TUMRU12P1	1.5P	105	33	-	50	15	12	15	4	3	¥ 12,000 ※
For Whitworth Threads													
1/4W20	P3	TUMRW04N4	4P	62	15	26	33	6	4.5	7	3	1	¥ 1,670 ※
1/4W20	P3	TUMRW04N1	1.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,670 ※
5/16W18	P3	TUMRW05O4	4P	70	19	-	36	6.2	5	8	3	2	¥ 2,320 ※
5/16W18	P3	TUMRW05O1	1.5P	70	19	-	36	6.2	5	8	4	2	¥ 2,320 ※
3/8W16	P3	TUMRW06P4	4P	75	23	-	38	7	5.5	8	3	2	¥ 2,970 ※
3/8W16	P3	TUMRW06P1	1.5P	75	23	-	38	7	5.5	8	4	2	¥ 2,970 ※
7/16W14	P3	TUMRW07Q4	4P	82	26	-	42	8.5	6.5	9	3	2	¥ 4,170 ※
7/16W14	P3	TUMRW07Q1	1.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,170 ※
1/2W12	P3	TUMRW08S4	4P	88	26	-	45	10.5	8	11	3	2	¥ 4,420 ※
1/2W12	P3	TUMRW08S1	1.5P	88	26	-	45	10.5	8	11	4	2	¥ 4,420 ※
5/8W11	P3	TUMRW10U4	4P	95	26	-	48	12.5	10	13	4	2	¥ 6,610 ※
5/8W11	P3	TUMRW10U1	1.5P	95	26	-	48	12.5	10	13	4	2	¥ 6,610 ※
3/4W10	P4	TUMSW12V4	4P	105	33	-	50	15	12	15	4	3	¥ 12,000 ※
3/4W10	P4	TUMSW12V1	1.5P	105	33	-	50	15	12	15	4	3	¥ 12,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

FC-HT

Hand Taps for Cast Irons



Specification

HSS | NI Nitride | <2D

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
5~10 (m/min)	5~10 (m/min)

Product Features

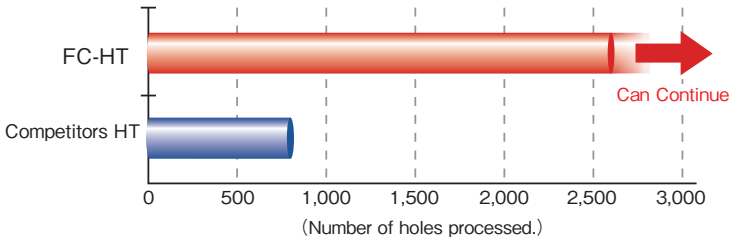
●The FC-HT is suitable for thread processing of hard and brittle materials such as cast iron. It is produced slightly oversized because wear is relatively fast in these materials.

Tapping Data

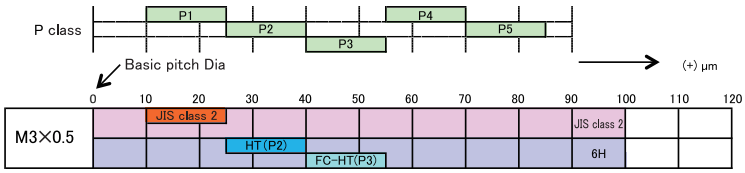
Tapping Conditions [M8×1.25]

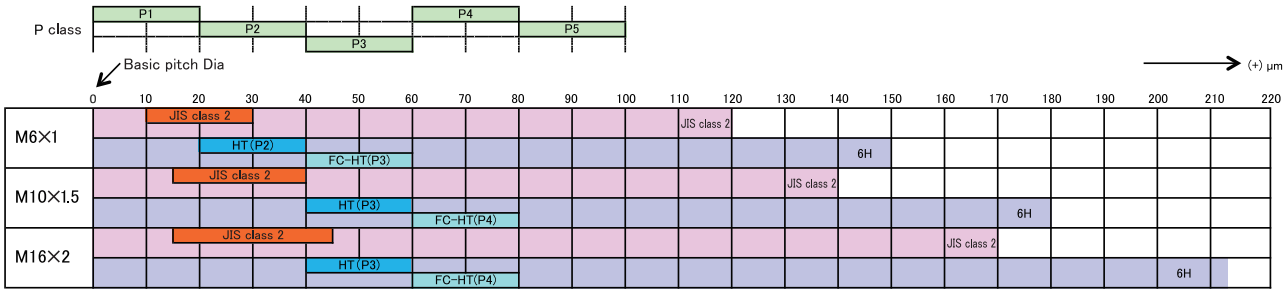
Workpiece Material	FC25
Bored Hole Size	ϕ6.8
Tapping Length	12mm
Tapping Speed	6.5m/min
Machinery Type	Special machine
Tapping Fluid	Water soluble cutting fluid

Comparison of number of holes tapped.



Comparison of accuracy between HT and FC-HT

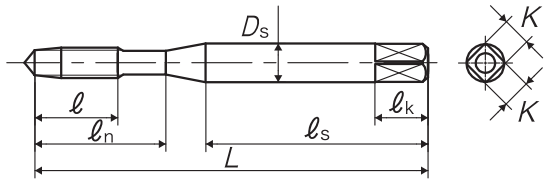




Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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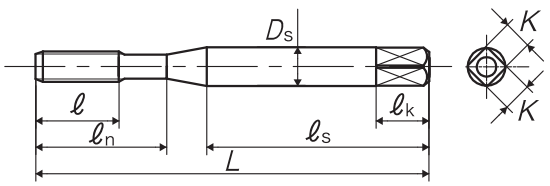

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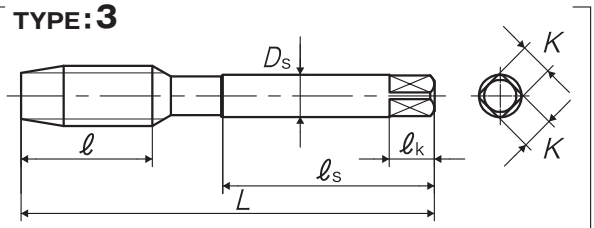

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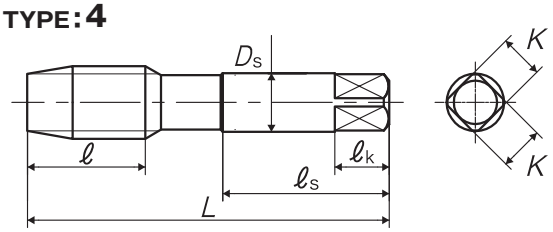


Segment : 1A

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P3	TY3.0GRAEN5	5P	46	9	14	26	4	3.2	6	3	1	¥ 1,330
M3 × 0.5	P3	TY3.0GRAENA	1.5P	46	9	14	26	4	3.2	6	3	1	¥ 1,330
M3.5 × 0.6	P3	TY3.5HRAEN5	5P	52	11	16	29	5	4	7	3	1	¥ 1,330 ※
M3.5 × 0.6	P3	TY3.5HRAENA	1.5P	52	11	16	29	5	4	7	3	1	¥ 1,330 ※
M4 × 0.7	P3	TY4.0IRAEN5	5P	52	11	17	29	5	4	7	3	1	¥ 1,330
M4 × 0.7	P3	TY4.0IRAENA	1.5P	52	11	17	29	5	4	7	3	1	¥ 1,330
M5 × 0.8	P3	TY5.0KRAEN5	5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,340
M5 × 0.8	P3	TY5.0KRAENA	1.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,340
M6 × 1	P3	TY6.0MRAEN5	5P	62	15	26	33	6	4.5	7	3	1	¥ 1,470
M6 × 1	P3	TY6.0MRAENA	1.5P	62	15	26	33	6	4.5	7	3	2	¥ 1,470
M8 × 1.25	P3	TY8.0NRAEN5	5P	70	19	-	36	6.2	5	8	3	3	¥ 2,010
M8 × 1.25	P3	TY8.0NRAENA	1.5P	70	19	-	36	6.2	5	8	3	3	¥ 2,010
M8 × 1	P3	TY8.0MRAEN5	5P	70	19	-	36	6.2	5	8	3	3	¥ 2,280 ※
M8 × 1	P3	TY8.0MRAENA	1.5P	70	19	-	36	6.2	5	8	3	3	¥ 2,280 ※
M10 × 1.5	P4	TY010OSAEN5	5P	75	23	-	38	7	5.5	8	4	3	¥ 2,560
M10 × 1.5	P4	TY010OSAENA	1.5P	75	23	-	38	7	5.5	8	4	3	¥ 2,560
M10 × 1.25	P3	TY010NRAEN5	5P	75	23	-	38	7	5.5	8	4	3	¥ 2,560
M10 × 1.25	P3	TY010NRAENA	1.5P	75	23	-	38	7	5.5	8	4	3	¥ 2,560
M10 × 1	P3	TY010MRAEN5	5P	75	23	-	38	7	5.5	8	4	3	¥ 3,040
M10 × 1	P3	TY010MRAENA	1.5P	75	23	-	38	7	5.5	8	4	3	¥ 3,040
M12 × 1.75	P4	TY012PSAEN5	5P	82	26	-	42	8.5	6.5	9	4	3	¥ 3,630
M12 × 1.75	P4	TY012PSAENA	1.5P	82	26	-	42	8.5	6.5	9	4	3	¥ 3,630
M12 × 1.5	P4	TY012OSAEN5	5P	82	26	-	42	8.5	6.5	9	4	3	¥ 3,630
M12 × 1.5	P4	TY012OSAENA	1.5P	82	26	-	42	8.5	6.5	9	4	3	¥ 3,630
M12 × 1.25	P4	TY012NSAEN5	5P	82	26	-	42	8.5	6.5	9	4	3	¥ 3,630
M12 × 1.25	P4	TY012NSAENA	1.5P	82	26	-	42	8.5	6.5	9	4	3	¥ 3,630
M12 × 1	P3	TY012MRAEN5	5P	82	26	-	42	8.5	6.5	9	4	3	¥ 4,260 ※
M12 × 1	P3	TY012MRAENA	1.5P	82	26	-	42	8.5	6.5	9	4	3	¥ 4,260 ※
M14 × 2	P4	TY014QSAEN5	5P	88	26	-	45	10.5	8	11	4	3	¥ 4,940
M14 × 2	P4	TY014QSAENA	1.5P	88	26	-	45	10.5	8	11	4	3	¥ 4,940
M14 × 1.5	P4	TY014OSAEN5	5P	88	26	-	45	10.5	8	11	4	3	¥ 4,940
M14 × 1.5	P4	TY014OSAENA	1.5P	88	26	-	45	10.5	8	11	4	3	¥ 4,940
M16 × 2	P4	TY016QSAEN5	5P	95	26	-	48	12.5	10	13	4	3	¥ 6,610

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

FC-HT Hand Taps for Cast Irons

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M16 × 2	P4	TY016QSAENA	1.5P	95	26	-	48	12.5	10	13	4	3	¥ 6,610
M16 × 1.5	P4	TY016OSAEN5	5P	95	26	-	48	12.5	10	13	4	3	¥ 6,610
M16 × 1.5	P4	TY016OSAENA	1.5P	95	26	-	48	12.5	10	13	4	3	¥ 6,610
M18 × 2.5	P5	TY018RTAEN5	5P	100	33	-	51	14	11	14	4	3	¥ 8,810
M18 × 2.5	P5	TY018RTAENA	1.5P	100	33	-	51	14	11	14	4	3	¥ 8,810
M18 × 1.5	P4	TY018OSAEN5	5P	100	33	-	51	14	11	14	4	3	¥ 8,810
M18 × 1.5	P4	TY018OSAENA	1.5P	100	33	-	51	14	11	14	4	3	¥ 8,810
M20 × 2.5	P5	TY020RTAEN5	5P	105	33	-	50	15	12	15	4	4	¥ 12,000
M20 × 2.5	P5	TY020RTAENA	1.5P	105	33	-	50	15	12	15	4	4	¥ 12,000
M20 × 1.5	P4	TY020OSAEN5	5P	105	33	-	50	15	12	15	4	4	¥ 12,000
M20 × 1.5	P4	TY020OSAENA	1.5P	105	33	-	50	15	12	15	4	4	¥ 12,000
M22 × 2.5	P5	TY022RTAEN5	5P	115	33	-	55	17	13	16	4	4	¥ 15,500 ※
M22 × 2.5	P5	TY022RTAENA	1.5P	115	33	-	55	17	13	16	4	4	¥ 15,500 ※
M22 × 1.5	P4	TY022OSAEN5	5P	115	33	-	55	17	13	16	4	4	¥ 15,500 ※
M22 × 1.5	P4	TY022OSAENA	1.5P	115	33	-	55	17	13	16	4	4	¥ 15,500 ※
M24 × 3	P5	TY024STAEN5	5P	120	39	-	55	19	15	18	4	4	¥ 19,300 ※
M24 × 3	P5	TY024STAENA	1.5P	120	39	-	55	19	15	18	4	4	¥ 19,300 ※
M24 × 1.5	P4	TY024OSAEN5	5P	120	39	-	55	19	15	18	4	4	¥ 19,300
M24 × 1.5	P4	TY024OSAENA	1.5P	120	39	-	55	19	15	18	4	4	¥ 19,300

Note: The cast iron hand tap "FC - O" was discontinued in December 2015.
For details of this product please refer to the YAMAWA 2013 - 2014 General Catalog.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ANSI

HT-CI

Hand Taps for Cast Irons



Specification

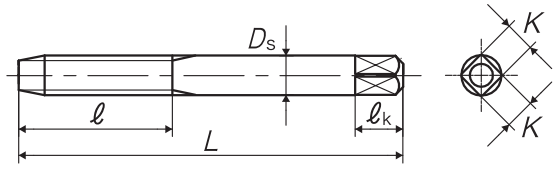
HSS | NI Nitride | <2D

■Suitable for hard and abrasive materials such as cast irons.

Recommended Tapping Speed depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
5~10 (m/min)	5~10 (m/min)

TYPE: 1



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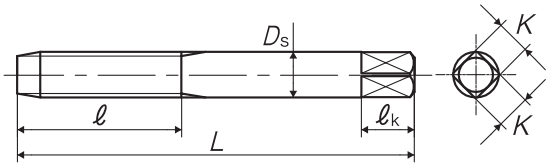

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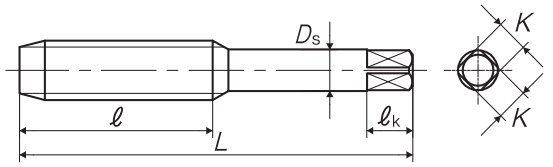


Segment : 1A

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads										
1/4-20UNC	GH3	Y86001	4P	2.5	1	0.255	0.191	0.312	4	1
1/4-20UNC	GH3	Y86002	1.5P	2.5	1	0.255	0.191	0.312	4	1
1/4-20UNC	GH5	Y86003	4P	2.5	1	0.255	0.191	0.312	4	1
1/4-20UNC	GH5	Y86004	1.5P	2.5	1	0.255	0.191	0.312	4	1
1/4-28UNF	GH3	Y86005	4P	2.5	1	0.255	0.191	0.312	4	1
1/4-28UNF	GH3	Y86006	1.5P	2.5	1	0.255	0.191	0.312	4	1
5/16-18UNC	GH3	Y86007	4P	2.718	1.125	0.318	0.238	0.375	4	2
5/16-18UNC	GH3	Y86008	1.5P	2.718	1.125	0.318	0.238	0.375	4	2
5/16-18UNC	GH5	Y86009	4P	2.718	1.125	0.318	0.238	0.375	4	2
5/16-18UNC	GH5	Y86010	1.5P	2.718	1.125	0.318	0.238	0.375	4	2
5/16-24UNF	GH3	Y86011	4P	2.718	1.125	0.318	0.238	0.375	4	2
5/16-24UNF	GH3	Y86012	1.5P	2.718	1.125	0.318	0.238	0.375	4	2
3/8-16UNC	GH3	Y86013	4P	2.937	1.25	0.381	0.286	0.437	4	2
3/8-16UNC	GH3	Y86014	1.5P	2.937	1.25	0.381	0.286	0.437	4	2
3/8-16UNC	GH5	Y86015	4P	2.937	1.25	0.381	0.286	0.437	4	2
3/8-16UNC	GH5	Y86016	1.5P	2.937	1.25	0.381	0.286	0.437	4	2
3/8-24UNF	GH3	Y86017	4P	2.937	1.25	0.381	0.286	0.437	4	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

HT-CI Hand Taps for Cast Irons

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
3/8-24UNF	GH3	Y86018	1.5P	2.937	1.25	0.381	0.286	0.437	4	2
7/16-14UNC	GH3	Y86019	4P	3.156	1.437	0.323	0.242	0.406	4	3
7/16-14UNC	GH3	Y86020	1.5P	3.156	1.437	0.323	0.242	0.406	4	3
7/16-14UNC	GH5	Y86021	4P	3.156	1.437	0.323	0.242	0.406	4	3
7/16-14UNC	GH5	Y86022	1.5P	3.156	1.437	0.323	0.242	0.406	4	3
7/16-20UNF	GH3	Y86023	4P	3.156	1.437	0.323	0.242	0.406	4	3
7/16-20UNF	GH3	Y86024	1.5P	3.156	1.437	0.323	0.242	0.406	4	3
7/16-20UNF	GH5	Y86025	4P	3.156	1.437	0.323	0.242	0.406	4	3
7/16-20UNF	GH5	Y86026	1.5P	3.156	1.437	0.323	0.242	0.406	4	3
1/2-13UNC	GH3	Y86027	4P	3.375	1.656	0.367	0.275	0.437	4	3
1/2-13UNC	GH3	Y86028	1.5P	3.375	1.656	0.367	0.275	0.437	4	3
1/2-13UNC	GH5	Y86029	4P	3.375	1.656	0.367	0.275	0.437	4	3
1/2-13UNC	GH5	Y86030	1.5P	3.375	1.656	0.367	0.275	0.437	4	3
1/2-20UNF	GH3	Y86031	4P	3.375	1.656	0.367	0.275	0.437	4	3
1/2-20UNF	GH3	Y86032	1.5P	3.375	1.656	0.367	0.275	0.437	4	3
1/2-20UNF	GH5	Y86033	4P	3.375	1.656	0.367	0.275	0.437	4	3
1/2-20UNF	GH5	Y86034	1.5P	3.375	1.656	0.367	0.275	0.437	4	3
9/16-12UNC	GH3	Y86035	4P	3.593	1.656	0.429	0.322	0.5	4	3
9/16-12UNC	GH3	Y86036	1.5P	3.593	1.656	0.429	0.322	0.5	4	3
9/16-18UNF	GH3	Y86037	4P	3.593	1.656	0.429	0.322	0.5	4	3
9/16-18UNF	GH3	Y86038	1.5P	3.593	1.656	0.429	0.322	0.5	4	3
5/8-11UNC	GH3	Y86039	4P	3.812	1.812	0.48	0.36	0.562	4	3
5/8-11UNC	GH3	Y86040	1.5P	3.812	1.812	0.48	0.36	0.562	4	3
5/8-18UNF	GH3	Y86041	4P	3.812	1.812	0.48	0.36	0.562	4	3
5/8-18UNF	GH3	Y86042	1.5P	3.812	1.812	0.48	0.36	0.562	4	3
3/4-10UNC	GH3	Y86043	4P	4.25	2	0.59	0.422	0.687	4	3
3/4-10UNC	GH3	Y86044	1.5P	4.25	2	0.59	0.422	0.687	4	3
3/4-16UNF	GH3	Y86045	4P	4.25	2	0.59	0.422	0.687	4	3
3/4-16UNF	GH3	Y86046	1.5P	4.25	2	0.59	0.422	0.687	4	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

GG-HT

Hand Taps for Cast Irons



Specification

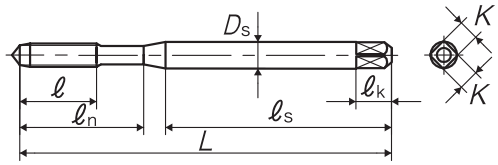
HSS | NI Nitride | <2D

■Suitable for hard and abrasive materials such as cast irons. Considering comparatively quick wear, GG-HT is properly oversized.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
5~10 (m/min)	5~10 (m/min)

TYPE:1



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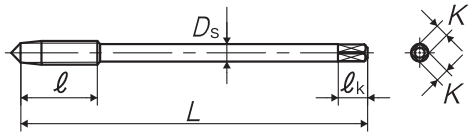

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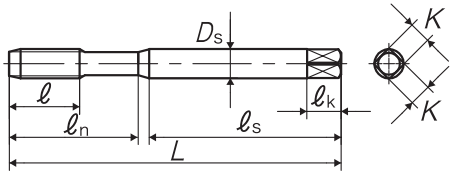

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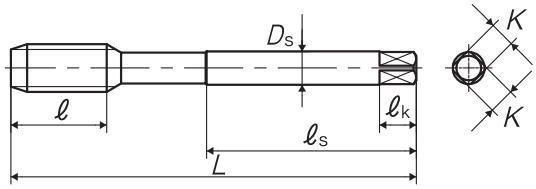

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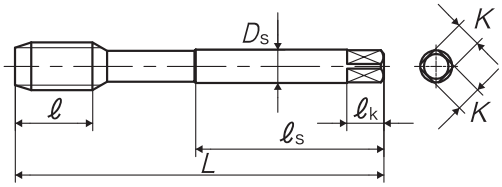

Segment : 1B (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2X	TD3.0GBAENC	2.5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	TD4.0IBAENC	2.5P	63	13	21	38	4.5	3.4	6	4	1
M5 × 0.8	ISO2X	TD5.0KBAENC	2.5P	70	14	25	39	6	4.9	8	4	1
M5 × 0.8	ISO2X	TG5.0KBAENC	2.5P	70	14	-	-	3.5	2.7	6	4	2
M6 × 1	ISO2X	TD6.0MBAENC	2.5P	80	15	30	45	6	4.9	8	4	1
M6 × 1	ISO2X	TG6.0MBAENC	2.5P	80	15	-	-	4.5	3.4	6	4	2
M8 × 1.25	ISO2X	TD8.0NBAENC	2.5P	90	19	35	47	8	6.2	9	4	3
M8 × 1.25	ISO2X	TG8.0NBAENC	2.5P	90	19	-	46	6	4.9	8	4	4
M8 × 1	ISO2X	TM8.0MBAENC	2.5P	90	19	-	46	6	4.9	8	4	5
M10 × 1.5	ISO2X	TD010OBAENC	2.5P	100	23	39	52.5	10	8	11	4	3
M10 × 1.5	ISO2X	TG010OBAENC	2.5P	100	23	-	51	7	5.5	8	4	4
M10 × 1.25	ISO2X	TM010NBAENC	2.5P	100	23	-	51	7	5.5	8	4	5
M10 × 1	ISO2X	TM010MBAENC	2.5P	90	19	-	46	7	5.5	8	4	5
M12 × 1.75	ISO2X	TG012PBAENC	2.5P	110	26	-	56	9	7	10	4	4
M12 × 1.5	ISO2X	TM012OBAENC	2.5P	100	21	-	51	9	7	10	4	5
M12 × 1.25	ISO2X	TM012NBAENC	2.5P	100	21	-	51	9	7	10	4	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

GG-HT Hand Taps for Cast Irons

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M12 × 1	ISO2X	TM012MBAENC	2.5P	100	21	-	51	9	7	10	4	5
M14 × 2	ISO2X	TG014QBAENC	2.5P	110	26	-	56	11	9	12	4	4
M14 × 1.5	ISO2X	TM014OBAENC	2.5P	100	21	-	51	11	9	12	4	5
M16 × 2	ISO2X	TG016QBAENC	2.5P	110	26	-	56	12	9	12	4	4
M16 × 1.5	ISO2X	TM016OBAENC	2.5P	100	21	-	51	12	9	12	4	5
M18 × 2.5	ISO2X	TG018RBAENC	2.5P	125	33	-	64	14	11	14	4	4
M18 × 1.5	ISO2X	TM018OBAENC	2.5P	110	24	-	56	14	11	14	4	5
M20 × 2.5	ISO2X	TG020RBAENC	2.5P	140	33	-	71	16	12	15	4	4
M20 × 1.5	ISO2X	TM020OBAENC	2.5P	125	24	-	64	16	12	15	4	5
M22 × 2.5	ISO2X	TG022RBAENC	2.5P	140	33	-	71	18	14.5	17	4	4
M22 × 1.5	ISO2X	TM022OBAENC	2.5P	125	24	-	64	18	14.5	17	4	5
M24 × 3	ISO2X	TG024SBAENC	2.5P	160	37	-	82	18	14.5	17	4	4
M24 × 1.5	ISO2X	TM024OBAENC	2.5P	140	27	-	71	18	14.5	17	4	5
For G Threads												
G 1/8-28	-	TVG0020AENC	2.5P	90	19	-	46	7	5.5	8	4	5
G 1/4-19	-	TVG0040AENC	2.5P	100	21	-	51	11	9	12	4	5
G 3/8-19	-	TVG0060AENC	2.5P	100	21	-	51	12	9	12	4	5
G 1/2-14	-	TVG0080AENC	2.5P	125	24	-	64	16	12	15	4	5
G 3/4-14	-	TVG0120AENC	2.5P	140	27	-	71	20	16	19	4	5
G 1 -11	-	TVG0160AENC	2.5P	160	29	-	82	25	20	23	4	5

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

GG-HT

Hand Taps for Cast Irons, Coated



Specification

HSS | Coating | NI Nitride | <2D

■Suitable for hard and abrasive materials such as cast irons. Considering comparatively quick wear, GG-HT is properly oversized.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
5~10 (m/min)	5~10 (m/min)

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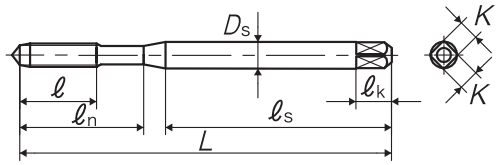

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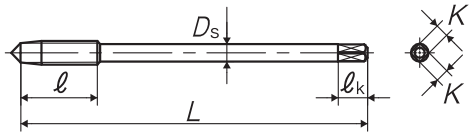

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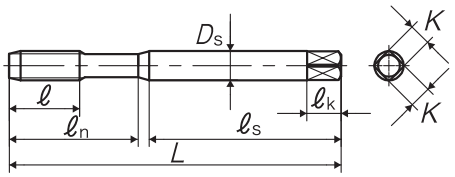

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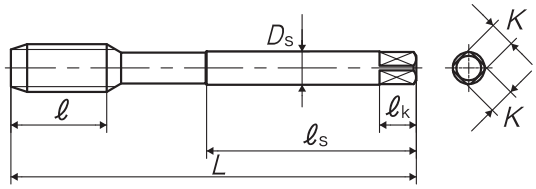

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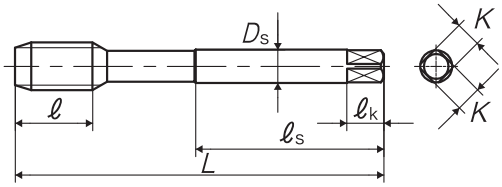

Segment : 1B (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	
For Metric Threads													
M3 × 0.5	ISO2X	96263.0TC	2.5P	56	9	18	34	3.5	2.7	6	3	1	▲
M4 × 0.7	ISO2X	96264.0TC	2.5P	63	13	21	38	4.5	3.4	6	4	1	▲
M5 × 0.8	ISO2X	96265.0TC	2.5P	70	14	25	39	6	4.9	8	4	1	▲
M6 × 1	ISO2X	96266.0TC	2.5P	80	15	30	45	6	4.9	8	4	1	▲
M6 × 1	ISO2X	97266.0TC	2.5P	80	15	-	-	4.5	3.4	6	4	2	▲
M8 × 1.25	ISO2X	96268.0TC	2.5P	90	19	35	47	8	6.2	9	4	3	▲
M8 × 1.25	ISO2X	97268.0TC	2.5P	90	19	-	46	6	4.9	8	4	5	▲
M8 × 1	ISO2X	98268.0MTC	2.5P	90	19	-	46	6	4.9	8	4	4	▲
M10 × 1.5	ISO2X	9626010TC	2.5P	100	23	39	52.5	10	8	11	4	3	▲
M10 × 1.5	ISO2X	9726010TC	2.5P	100	23	-	51	7	5.5	8	4	5	▲
M10 × 1.25	ISO2X	9826010NTC	2.5P	100	23	-	51	7	5.5	8	4	4	▲
M10 × 1	ISO2X	9826010MTC	2.5P	90	19	-	46	7	5.5	8	4	4	▲
M12 × 1.75	ISO2X	9726012TC	2.5P	110	26	-	56	9	7	10	4	5	▲
M12 × 1.5	ISO2X	9826012OTC	2.5P	100	21	-	51	9	7	10	4	4	▲
M12 × 1.25	ISO2X	9826012NTC	2.5P	100	21	-	51	9	7	10	4	4	▲
M12 × 1	ISO2X	9826012MTC	2.5P	100	21	-	51	9	7	10	4	4	▲

Note: Products marked with an ▲ in the stock column are available while supplies last.

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

GG-HT Hand Taps for Cast Irons, Coated

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	
M14 × 2	ISO2X	9726014TC	2.5P	110	26	-	56	11	9	12	4	5	▲
M14 × 1.5	ISO2X	98260140TC	2.5P	100	21	-	51	11	9	12	4	4	▲
M16 × 2	ISO2X	9726016TC	2.5P	110	26	-	56	12	9	12	4	5	▲
M16 × 1.5	ISO2X	98260160TC	2.5P	100	21	-	51	12	9	12	4	4	▲
M18 × 2.5	ISO2X	9726018TC	2.5P	125	33	-	64	14	11	14	4	5	▲
M18 × 1.5	ISO2X	98260180TC	2.5P	110	24	-	56	14	11	14	4	4	▲
M20 × 2.5	ISO2X	9726020TC	2.5P	140	33	-	71	16	12	15	4	5	▲
M20 × 1.5	ISO2X	98260200TC	2.5P	125	24	-	64	16	12	15	4	4	▲
M22 × 2.5	ISO2X	9726022TC	2.5P	140	33	-	71	18	14.5	17	4	5	▲
M22 × 1.5	ISO2X	98260220TC	2.5P	125	24	-	64	18	14.5	17	4	4	▲
M24 × 3	ISO2X	9726024TC	2.5P	160	37	-	82	18	14.5	17	4	5	▲
M24 × 1.5	ISO2X	98260240TC	2.5P	140	27	-	71	18	14.5	17	4	4	▲
For G Threads													
G 1/8-28	-	9926R02TC	2.5P	90	19	-	46	7	5.5	8	4	4	▲
G 1/4-19	-	9926R04TC	2.5P	100	21	-	51	11	9	12	4	4	▲
G 3/8-19	-	9926R06TC	2.5P	100	21	-	51	12	9	12	4	4	▲
G 1/2-14	-	9926R08TC	2.5P	125	24	-	64	16	12	15	4	4	▲

Note: Products marked with an ▲ in the stock column are available while supplies last.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

Z-PRO

GGST

Z-PRO
Straight Fluted Taps for Cast Irons



Specification

HSS | Coating | <2D

■Suitable for hard and abrasive materials such as cast irons. Considering comparatively quick wear, GGST is properly oversized.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
5~20 (m/min)	5~20 (m/min)

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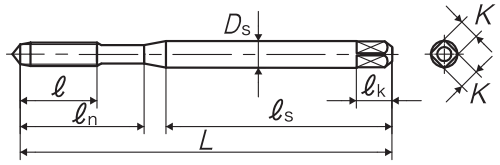

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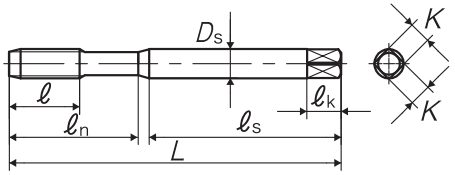

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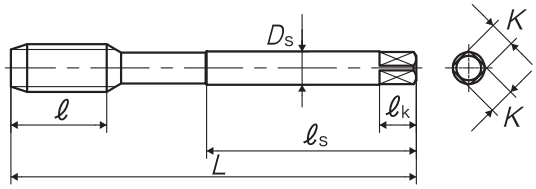

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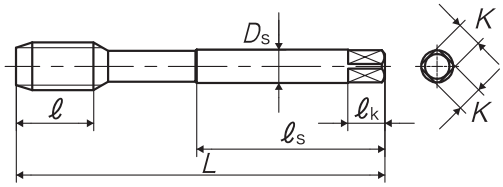

Segment : 1B (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	ISO2X	3104101035	C (2.5P)	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	3104101042	C (2.5P)	63	13	21	38	4.5	3.4	6	4	1
M5 × 0.8	ISO2X	3104101049	C (2.5P)	70	14	25	39	6	4.9	8	4	1
M6 × 1	ISO2X	3104101055	C (2.5P)	80	15	30	45	6	4.9	8	4	1
M8 × 1.25	ISO2X	3104101064	C (2.5P)	90	19	35	47	8	6.2	9	4	2
M8 × 1	ISO2X	3104101065	C (2.5P)	90	19	-	46	6	4.9	8	4	3
M10 × 1.5	ISO2X	3104101078	C (2.5P)	100	23	39	52.5	10	8	11	4	2
M10 × 1.25	ISO2X	3104101079	C (2.5P)	100	23	-	51	7	5.5	8	4	3
M10 × 1	ISO2X	3104101080	C (2.5P)	90	19	-	46	7	5.5	8	4	3
M12 × 1.75	ISO2X	3104101088	C (2.5P)	110	26	-	56	9	7	10	4	4
M12 × 1.5	ISO2X	3104101089	C (2.5P)	100	21	-	51	9	7	10	4	3
M12 × 1.25	ISO2X	3104101090	C (2.5P)	100	21	-	51	9	7	10	4	3
M12 × 1	ISO2X	3104101091	C (2.5P)	100	21	-	51	9	7	10	4	3
M14 × 2	ISO2X	3104101100	C (2.5P)	110	26	-	56	11	9	12	4	4
M14 × 1.5	ISO2X	3104101102	C (2.5P)	100	21	-	51	11	9	12	4	3
M16 × 2	ISO2X	3104101114	C (2.5P)	110	26	-	56	12	9	12	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

GGST Z-PRO Straight Fluted Taps for Cast Irons

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M16 × 1.5	ISO2X	3104101116	C (2.5P)	100	21	-	51	12	9	12	4	3
M18 × 2.5	ISO2X	3104101128	C (2.5P)	125	33	-	64	14	11	14	4	4
M18 × 1.5	ISO2X	3104101130	C (2.5P)	110	24	-	56	14	11	14	4	3
M20 × 2.5	ISO2X	3104101141	C (2.5P)	140	33	-	71	16	12	15	4	4
M20 × 1.5	ISO2X	3104101144	C (2.5P)	125	24	-	64	16	12	15	4	3
M22 × 2.5	ISO2X	3104101156	C (2.5P)	140	33	-	71	18	14.5	17	4	4
M22 × 1.5	ISO2X	3104101158	C (2.5P)	125	24	-	64	18	14.5	17	4	3
M24 × 3	ISO2X	3104101167	C (2.5P)	160	37	-	82	18	14.5	17	4	4
M24 × 1.5	ISO2X	3104101170	C (2.5P)	140	27	-	71	18	14.5	17	4	3
For G Threads												
G 1/8-28	-	3104130004	C (2.5P)	90	19	-	46	7	5.5	8	4	3
G 1/4-19	-	3104130006	C (2.5P)	100	21	-	51	11	9	12	4	3
G 3/8-19	-	3104130008	C (2.5P)	100	21	-	51	12	9	12	4	3
G 1/2-14	-	3104130009	C (2.5P)	125	24	-	64	16	12	15	4	3
G 3/4-14	-	3104130011	C (2.5P)	140	27	-	71	20	16	19	4	3
G 1 -11	-	3104130013	C (2.5P)	160	29	-	82	25	20	23	4	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

Z-PRO

GGST CH



Z-PRO
Straight Fluted Taps for Cast Irons with Coolant Through Hole, Blind Hole Use

Specification

HSS | Coating | <2D

■Suitable for hard and abrasive materials such as cast irons. Considering comparatively quick wear, GGST CH is properly oversized.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
20~30 (m/min)	20~30 (m/min)

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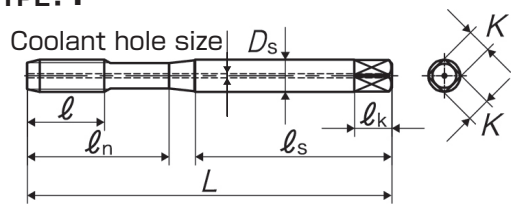

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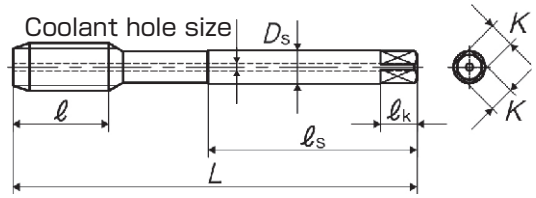


Segment : 1B

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	Coolant hole size(mm)	TYPE
For Metric Threads													
M6 × 1	ISO2X	3205101055	C (2.5P)	80	15	30	45	6	4.9	8	4	1	1
M6 × 1	ISO2X	3206101055	E (1.5P)	80	15	30	45	6	4.9	8	4	1	1
M7 × 1	ISO2X	3205101060	C (2.5P)	80	15	30	45	7	5.5	8	4	1	1
M7 × 1	ISO2X	3206101060	E (1.5P)	80	15	30	45	7	5.5	8	4	1	1
M8 × 1.25	ISO2X	3205101064	C (2.5P)	90	19	35	47	8	6.2	9	4	1	1
M8 × 1.25	ISO2X	3206101064	E (1.5P)	90	19	35	47	8	6.2	9	4	1	1
M8 × 1	ISO2X	3205101065	C (2.5P)	90	19	-	46	6	4.9	8	4	1	2
M10 × 1.5	ISO2X	3205101078	C (2.5P)	100	23	39	52.5	10	8	11	4	1.5	1
M10 × 1.5	ISO2X	3206101078	E (1.5P)	100	23	39	52.5	10	8	11	4	1.5	1
M10 × 1.25	ISO2X	3205101079	C (2.5P)	100	23	-	51	7	5.5	8	4	1.5	2
M10 × 1.25	ISO2X	3206101079	E (1.5P)	100	23	-	51	7	5.5	8	4	1.5	2
M10 × 1	ISO2X	3205101080	C (2.5P)	90	19	-	46	7	5.5	8	4	1.5	2
M10 × 1	ISO2X	3206101080	E (1.5P)	90	19	-	46	7	5.5	8	4	1.5	2
M12 × 1.75	ISO2X	3205101088	C (2.5P)	110	26	-	56	9	7	10	4	2	2
M12 × 1.75	ISO2X	3206101088	E (1.5P)	110	26	-	56	9	7	10	4	2	2
M12 × 1.5	ISO2X	3205101089	C (2.5P)	100	21	-	51	9	7	10	4	2	2
M12 × 1.5	ISO2X	3206101089	E (1.5P)	100	21	-	51	9	7	10	4	2	2
M12 × 1.25	ISO2X	3205101090	C (2.5P)	100	21	-	51	9	7	10	4	2	2
M12 × 1.25	ISO2X	3206101090	E (1.5P)	100	21	-	51	9	7	10	4	2	2
M14 × 2	ISO2X	3205101100	C (2.5P)	110	26	-	56	11	9	12	4	2	2
M14 × 2	ISO2X	3206101100	E (1.5P)	110	26	-	56	11	9	12	4	2	2
M14 × 1.5	ISO2X	3205101102	C (2.5P)	100	21	-	51	11	9	12	4	2	2
M14 × 1.5	ISO2X	3206101102	E (1.5P)	100	21	-	51	11	9	12	4	2	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

GGST CH Z-PRO Straight Fluted Taps for Cast Irons with Coolant Through Hole, Blind Hole Use

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	Coolant hole size(mm)	TYPE
M16 × 2	ISO2X	3205101114	C (2.5P)	110	26	-	56	12	9	12	4	2	2
M16 × 2	ISO2X	3206101114	E (1.5P)	110	26	-	56	12	9	12	4	2	2
M16 × 1.5	ISO2X	3205101116	C (2.5P)	100	21	-	51	12	9	12	4	2	2
M16 × 1.5	ISO2X	3206101116	E (1.5P)	100	21	-	51	12	9	12	4	2	2
M18 × 2.5	ISO2X	3205101128	C (2.5P)	125	33	-	64	14	11	14	4	2	2
M18 × 1.5	ISO2X	3205101130	C (2.5P)	110	24	-	56	14	11	14	4	2	2
M20 × 2.5	ISO2X	3205101141	C (2.5P)	140	33	-	71	16	12	15	4	2	2
M20 × 1.5	ISO2X	3205101144	C (2.5P)	125	24	-	64	16	12	15	4	2	2
M24 × 3	ISO2X	3205101167	C (2.5P)	160	37	-	82	18	14.5	17	4	2	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

GG-HT-OH



Hand Taps for Cast Irons with Internal Coolant Hole

Specification

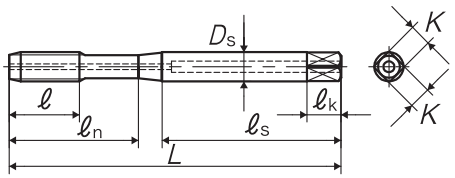
HSS | NI Nitride | <2D

■Suitable for hard and abrasive materials such as cast irons. Considering comparatively quick wear, GG-HT-OH is properly oversized.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
5~10 (m/min)	5~10 (m/min)

TYPE:1



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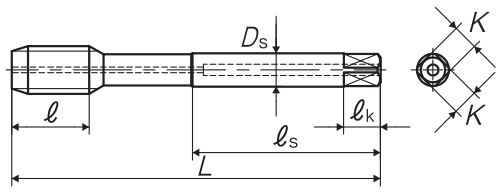

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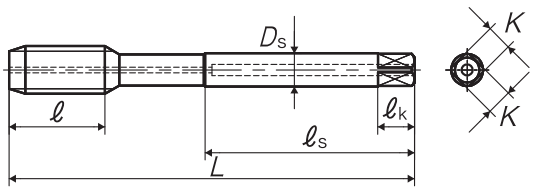


Segment : 1B

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	
For Metric Threads													
M6 × 1	ISO2X	TD6.0MBAFNC	2.5P	80	15	30	45	6	4.9	8	4	1	▲
M8 × 1.25	ISO2X	TD8.0NBAFNC	2.5P	90	19	35	47	8	6.2	9	4	1	▲
M8 × 1	ISO2X	TM8.0MBAFNC	2.5P	90	19	-	46	6	4.9	8	4	2	▲
M10 × 1.5	ISO2X	TD010OBAFNC	2.5P	100	23	39	52.5	10	8	11	4	1	▲
M10 × 1.25	ISO2X	TM010NBAFNC	2.5P	100	23	-	51	7	5.5	8	4	2	▲
M10 × 1	ISO2X	TM010MBAFNC	2.5P	90	19	-	46	7	5.5	8	4	2	▲
M12 × 1.75	ISO2X	TG012PBAFNC	2.5P	110	26	-	56	9	7	10	4	3	▲
M12 × 1.5	ISO2X	TM012OBAFNC	2.5P	100	21	-	51	9	7	10	4	2	▲
M12 × 1.25	ISO2X	TM012NBAFNC	2.5P	100	21	-	51	9	7	10	4	2	▲
M14 × 2	ISO2X	TG014QBAFNC	2.5P	110	26	-	56	11	9	12	4	3	▲
M14 × 1.5	ISO2X	TM014OBAFNC	2.5P	100	21	-	51	11	9	12	4	2	▲
M14 × 1	ISO2X	TM014MBAFNC	2.5P	100	21	-	51	11	9	12	4	2	▲
M16 × 2	ISO2X	TG016QBAFNC	2.5P	110	26	-	56	12	9	12	4	3	▲
M16 × 1.5	ISO2X	TM016OBAFNC	2.5P	100	21	-	51	12	9	12	4	2	▲
M18 × 2.5	ISO2X	TG018RBAFNC	2.5P	125	33	-	64	14	11	14	4	3	▲
M18 × 1.5	ISO2X	TM018OBAFNC	2.5P	110	24	-	56	14	11	14	4	2	▲
M20 × 2.5	ISO2X	TG020RBAFNC	2.5P	140	33	-	71	16	12	15	4	3	▲
M20 × 1.5	ISO2X	TM020OBAFNC	2.5P	125	24	-	64	16	12	15	4	2	▲
M22 × 1.5	ISO2X	TM022OBAFNC	2.5P	125	24	-	64	18	14.5	17	4	2	▲

Note: Products marked with an ▲ in the stock column are available while supplies last.

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

GG-HT-OH



Hand Taps for Cast Irons with Internal Coolant Hole, Coated

Specification

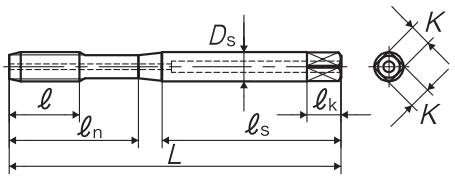
HSS | Coating | NI Nitride | <2D

■Suitable for hard and abrasive materials such as cast irons. Considering comparatively quick wear, GG-HT-OH is properly oversized.

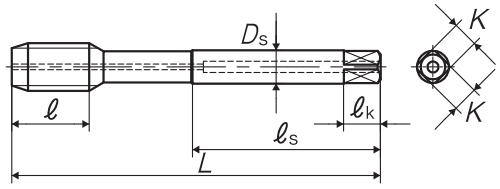
Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
5~10 (m/min)	5~10 (m/min)

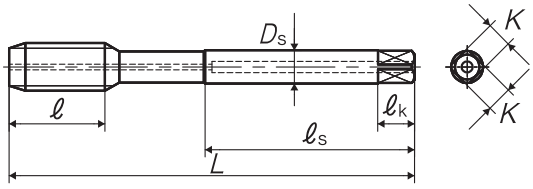
TYPE : 1



TYPE : 2



TYPE : 3



Segment : 1B

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	
For Metric Threads													
M6 × 1	ISO2X	96266.0TCOH	2.5P	80	15	30	45	6	4.9	8	4	1	▲
M8 × 1.25	ISO2X	96268.0TCOH	2.5P	90	19	35	47	8	6.2	9	4	1	▲
M8 × 1	ISO2X	98268.0MTCOH	2.5P	90	19	-	46	6	4.9	8	4	3	▲
M10 × 1.5	ISO2X	9626010TCOH	2.5P	100	23	39	52.5	10	8	11	4	1	▲
M10 × 1.25	ISO2X	9826010NTCOH	2.5P	100	23	-	51	7	5.5	8	4	3	▲
M10 × 1	ISO2X	9826010MTCOH	2.5P	90	19	-	46	7	5.5	8	4	3	▲
M12 × 1.75	ISO2X	9726012TCOH	2.5P	110	26	-	56	9	7	10	4	2	▲
M12 × 1.5	ISO2X	9826012OTCOH	2.5P	100	21	-	51	9	7	10	4	3	▲
M12 × 1.25	ISO2X	9826012NTCOH	2.5P	100	21	-	51	9	7	10	4	3	▲
M14 × 2	ISO2X	9726014TCOH	2.5P	110	26	-	56	11	9	12	4	2	▲
M14 × 1.5	ISO2X	9826014OTCOH	2.5P	100	21	-	51	11	9	12	4	3	▲
M14 × 1	ISO2X	9826014MTCOH	2.5P	100	21	-	51	11	9	12	4	3	▲
M16 × 2	ISO2X	9726016TCOH	2.5P	110	26	-	56	12	9	12	4	2	▲
M16 × 1.5	ISO2X	9826016OTCOH	2.5P	100	21	-	51	12	9	12	4	3	▲
M18 × 2.5	ISO2X	9726018TCOH	2.5P	125	33	-	64	14	11	14	4	2	▲
M18 × 1.5	ISO2X	9826018OTCOH	2.5P	110	24	-	56	14	11	14	4	3	▲
M20 × 2.5	ISO2X	9726020TCOH	2.5P	140	33	-	71	16	12	15	4	2	▲
M20 × 1.5	ISO2X	9826020OTCOH	2.5P	125	24	-	64	16	12	15	4	3	▲
M22 × 1.5	ISO2X	9826022OTCOH	2.5P	125	24	-	64	18	14.5	17	4	3	▲

Note: Products marked with an ▲ in the stock column are available while supplies last.

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LA-HT

Hand Taps for Die Cast Materials



Specification



Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

Product Features

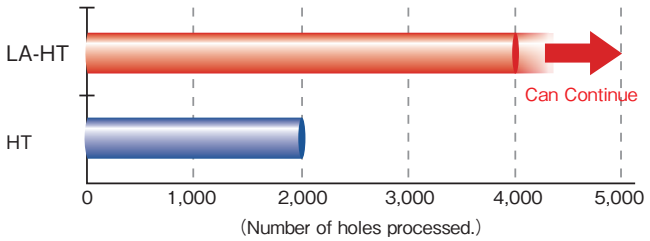
●Aluminum thin alloy like (ADC) , Zinc alloy die casting (ZDC) . It is a slightly oversized tap designed to compensate for the materials tendency to contract after tapping.

Tapping Data

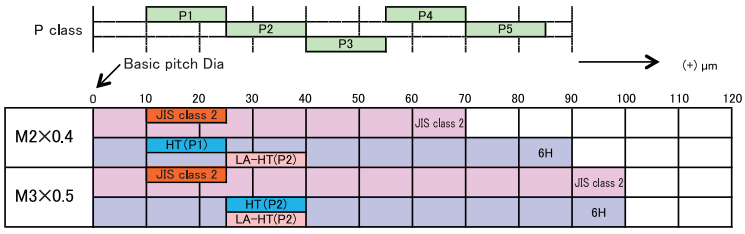
Tapping Conditions [M6×1 1.5P]

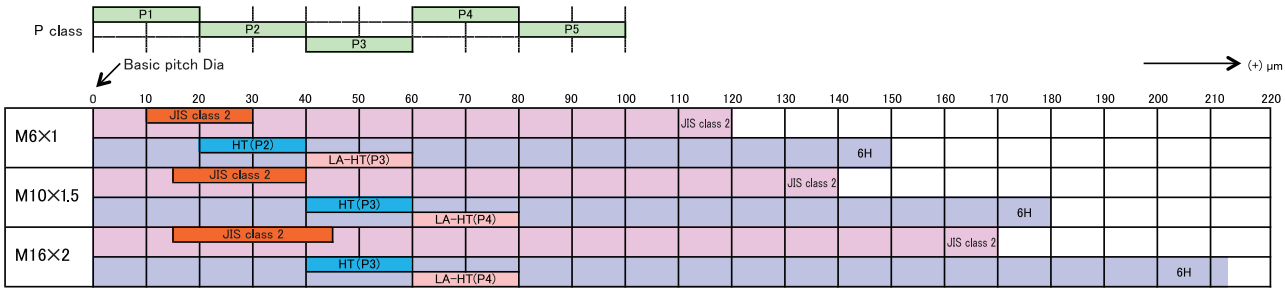
Workpiece Material	ADC12
Bored Hole Size	ϕ5
Tapping Length	14.3mm
Tapping Speed	18m/min
Machinery Type	M/C
Tapping Fluid	Water soluble cutting fluid

Comparison of number of holes tapped.



Comparison of accuracy between HT and LA-HT

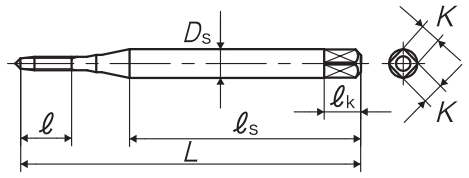




Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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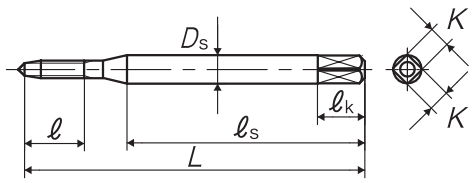

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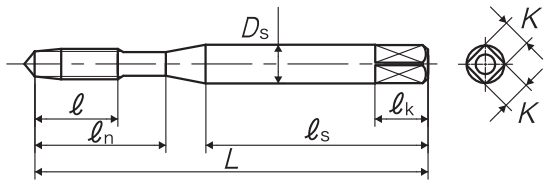
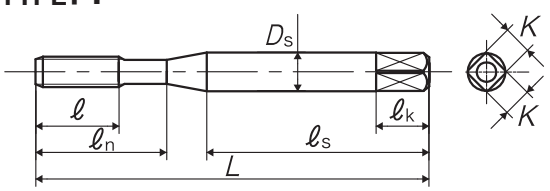
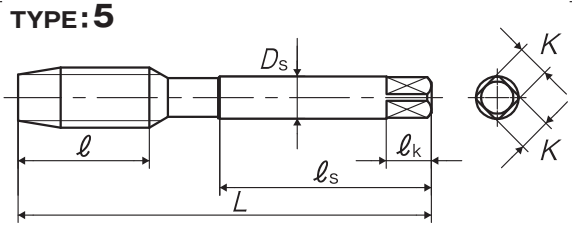


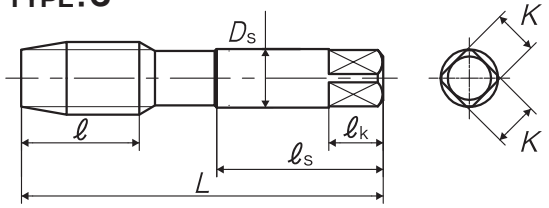
TYPE: 4



TYPE: 5



TYPE: 6



Segment : 1A

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M1.4 × 0.3	P2	TY1.4CQLEN5	5P	36	5.4	-	24	3	2.5	5	3	1	¥ 3,220 ※
M1.4 × 0.3	P2	TY1.4CQLENA	1.5P	36	5.4	-	24	3	2.5	5	3	1	¥ 3,220 ※
M1.6 × 0.35	P2	TY1.6DQLEN5	5P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,080 ※
M1.6 × 0.35	P2	TY1.6DQLENA	1.5P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,080 ※
M2 × 0.4	P2	TY2.0EQLEN5	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,470
M2 × 0.4	P2	TY2.0EQLENA	1.5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,470
M2.3 × 0.4	P2	TY2.3EQLEN5	5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,240 ※
M2.3 × 0.4	P2	TY2.3EQLENA	1.5P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,240 ※
M2.5 × 0.45	P2	TY2.5FQLEN5	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,890
M2.5 × 0.45	P2	TY2.5FQLENA	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,890
M2.6 × 0.45	P2	TY2.6FQLEN5	5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,890 ※
M2.6 × 0.45	P2	TY2.6FQLENA	1.5P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,890 ※
M3 × 0.5	P2	TY3.0GQLEN5	5P	46	9	14	26	4	3.2	6	3	3	¥ 1,330
M3 × 0.5	P2	TY3.0GQLENA	1.5P	46	9	14	26	4	3.2	6	3	3	¥ 1,330
M3.5 × 0.6	P2	TY3.5HQLEN5	5P	52	11	16	29	5	4	7	3	3	¥ 1,330 ※
M3.5 × 0.6	P2	TY3.5HQLENA	1.5P	52	11	16	29	5	4	7	3	3	¥ 1,330 ※
M4 × 0.7	P3	TY4.0IRLEN5	5P	52	11	17	29	5	4	7	3	3	¥ 1,330
M4 × 0.7	P3	TY4.0IRLENA	1.5P	52	11	17	29	5	4	7	3	3	¥ 1,330
M5 × 0.8	P3	TY5.0KRLEN5	5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,340
M5 × 0.8	P3	TY5.0KRLENA	1.5P	60	13	22	33	5.5	4.5	7	3	3	¥ 1,340
M6 × 1	P3	TY6.0MRLEN5	5P	62	15	26	33	6	4.5	7	3	3	¥ 1,470
M6 × 1	P3	TY6.0MRLENA	1.5P	62	15	26	33	6	4.5	7	3	4	¥ 1,470
M8 × 1.25	P3	TY8.0NRLEN5	5P	70	19	-	36	6.2	5	8	3	5	¥ 2,010
M8 × 1.25	P3	TY8.0NRLENA	1.5P	70	19	-	36	6.2	5	8	3	5	¥ 2,010
M8 × 1	P3	TY8.0MRLEN5	5P	70	19	-	36	6.2	5	8	3	5	¥ 2,280 ※
M8 × 1	P3	TY8.0MRLENA	1.5P	70	19	-	36	6.2	5	8	3	5	¥ 2,280 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LA-HT Hand Taps for Die Cast Materials

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M10 × 1.5	P4	TY010OSLEN5	5P	75	23	-	38	7	5.5	8	4	5	¥ 2,560
M10 × 1.5	P4	TY010OSLENA	1.5P	75	23	-	38	7	5.5	8	4	5	¥ 2,560
M10 × 1.25	P3	TY010NRLEN5	5P	75	23	-	38	7	5.5	8	4	5	¥ 2,560
M10 × 1.25	P3	TY010NRLENA	1.5P	75	23	-	38	7	5.5	8	4	5	¥ 2,560
M10 × 1	P3	TY010MRLEN5	5P	75	23	-	38	7	5.5	8	4	5	¥ 3,040 ※
M10 × 1	P3	TY010MRLENA	1.5P	75	23	-	38	7	5.5	8	4	5	¥ 3,040 ※
M12 × 1.75	P4	TY012PSLEN5	5P	82	26	-	42	8.5	6.5	9	4	5	¥ 3,630
M12 × 1.75	P4	TY012PSLENA	1.5P	82	26	-	42	8.5	6.5	9	4	5	¥ 3,630
M12 × 1.5	P4	TY012OSLEN5	5P	82	26	-	42	8.5	6.5	9	4	5	¥ 3,630 ※
M12 × 1.5	P4	TY012OSLENA	1.5P	82	26	-	42	8.5	6.5	9	4	5	¥ 3,630 ※
M12 × 1.25	P4	TY012NSLEN5	5P	82	26	-	42	8.5	6.5	9	4	5	¥ 3,630 ※
M12 × 1.25	P4	TY012NSLENA	1.5P	82	26	-	42	8.5	6.5	9	4	5	¥ 3,630 ※
M12 × 1	P3	TY012MRLEN5	5P	82	26	-	42	8.5	6.5	9	4	5	¥ 4,260 ※
M12 × 1	P3	TY012MRLENA	1.5P	82	26	-	42	8.5	6.5	9	4	5	¥ 4,260 ※
M14 × 2	P4	TY014QSLEN5	5P	88	26	-	45	10.5	8	11	4	5	¥ 4,940 ※
M14 × 2	P4	TY014QSLENA	1.5P	88	26	-	45	10.5	8	11	4	5	¥ 4,940 ※
M14 × 1.5	P4	TY014OSLEN5	5P	88	26	-	45	10.5	8	11	4	5	¥ 4,940
M14 × 1.5	P4	TY014OSLENA	1.5P	88	26	-	45	10.5	8	11	4	5	¥ 4,940
M16 × 2	P4	TY016QSLEN5	5P	95	26	-	48	12.5	10	13	4	5	¥ 6,610 ※
M16 × 2	P4	TY016QSLENA	1.5P	95	26	-	48	12.5	10	13	4	5	¥ 6,610 ※
M16 × 1.5	P4	TY016OSLEN5	5P	95	26	-	48	12.5	10	13	4	5	¥ 6,610 ※
M16 × 1.5	P4	TY016OSLENA	1.5P	95	26	-	48	12.5	10	13	4	5	¥ 6,610 ※
M18 × 2.5	P5	TY018RTLEN5	5P	100	33	-	51	14	11	14	4	5	¥ 8,810 ※
M18 × 2.5	P5	TY018RTLENA	1.5P	100	33	-	51	14	11	14	4	5	¥ 8,810 ※
M18 × 1.5	P4	TY018OSLEN5	5P	100	33	-	51	14	11	14	4	5	¥ 8,810 ※
M18 × 1.5	P4	TY018OSLENA	1.5P	100	33	-	51	14	11	14	4	5	¥ 8,810 ※
M20 × 2.5	P5	TY020RTLEN5	5P	105	33	-	50	15	12	15	4	6	¥ 12,000 ※
M20 × 2.5	P5	TY020RTLENA	1.5P	105	33	-	50	15	12	15	4	6	¥ 12,000 ※
M20 × 1.5	P4	TY020OSLEN5	5P	105	33	-	50	15	12	15	4	6	¥ 12,000
M20 × 1.5	P4	TY020OSLENA	1.5P	105	33	-	50	15	12	15	4	6	¥ 12,000
M22 × 2.5	P5	TY022RTLENA	1.5P	115	33	-	55	17	13	16	4	6	¥ 15,500 ※
M22 × 1.5	P4	TY022OSLENA	1.5P	115	33	-	55	17	13	16	4	6	¥ 15,500 ※
M24 × 3	P5	TY024STLENA	1.5P	120	39	-	55	19	15	18	4	6	¥ 19,300 ※
M24 × 1.5	P4	TY024OSLENA	1.5P	120	39	-	55	19	15	18	4	6	¥ 19,300 ※

Note: The die cast materials hand tap "LA-O" was discontinued in December 2015.
For details of this product, please refer to the YAMAWA 2013 - 2014 General Catalog.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

LA-HT

Hand Taps for Die Cast Materials



Specification

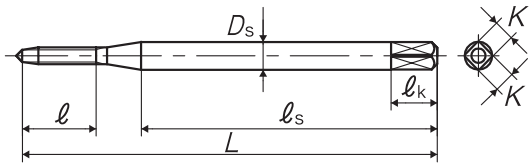
HSS | NI Nitride | <2D

■LA-HT is the oversized tap, and is suitable for the materials tending to shrink, such as aluminum alloy diecastings (ADC) and zinc alloy diecastings (ZDC).

Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

TYPE: 1 DIN371



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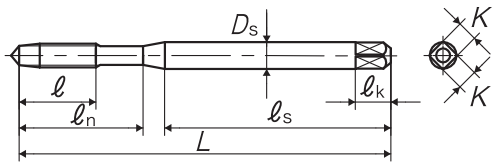
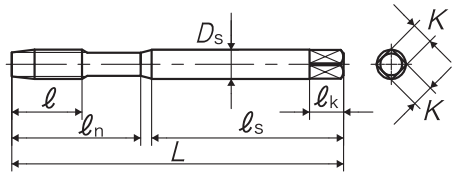


TYPE: 3 DIN371



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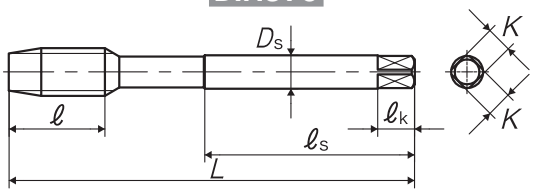


Segment : 1B

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2X	TD2.0EBLEN5	5P	45	8	-	32	2.8	2.1	5	3	1
M2.5 × 0.45	ISO2X	TD2.5FBLEN5	5P	50	8	15	33	2.8	2.1	5	3	2
M3 × 0.5	ISO2X	TD3.0GBLEN5	5P	56	9	18	34	3.5	2.7	6	3	2
M4 × 0.7	ISO2X	TD4.0IBLEN5	5P	63	13	21	38	4.5	3.4	6	3	2
M5 × 0.8	ISO2X	TD5.0KBLEN5	5P	70	14	25	39	6	4.9	8	3	2
M6 × 1	ISO2X	TD6.0MBLEN5	5P	80	15	30	45	6	4.9	8	3	2
M8 × 1.25	ISO2X	TD8.0NBLEN5	5P	90	19	35	47	8	6.2	9	3	3
M10 × 1.5	ISO2X	TD010OBLEN5	5P	100	23	39	52.5	10	8	11	4	3
M12 × 1.75	ISO2X	TG012PBLEN5	5P	110	26	-	56	9	7	10	4	4
M14 × 2	ISO2X	TG014QBLEN5	5P	110	26	-	56	11	9	12	4	4
M16 × 2	ISO2X	TG016QBLEN5	5P	110	26	-	56	12	9	12	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

AXE-HT

AXE Hand Taps



Specification

HSS-P Coating



Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~10 (m/min)	10~20 (m/min)	10~20 (m/min)

Product Features

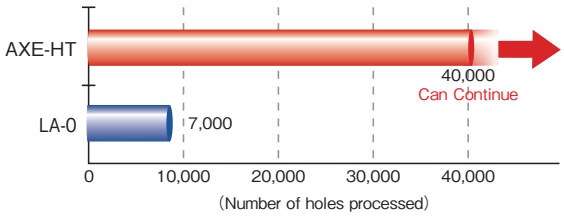
- In the tapping of aluminum alloy castings and their equivalent, the AXE-HT produces an excellent improvement in durability and performance with YAMAWA's unique flute design.
- The unique shape of the special flute design reduces damage to the cutting edge. With the combination of the premium powder HSS (characterized by high abrasion resistance and heat resistance) and the special coating, tool life has increased 5 times compared with the conventional tap designed for aluminum.
- Cutting edge damage diminishes on the flutes. Dimensional change in the internal thread pitch diameter is reduced while surface finishes are improved.
- Suitable from medium to high speed by offering the optimal combination of negative rake angle and eccentric relief.

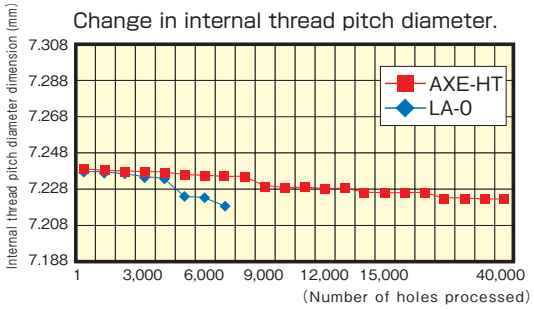
Tapping Data

AXE-HT and the LA-O (conventional product)

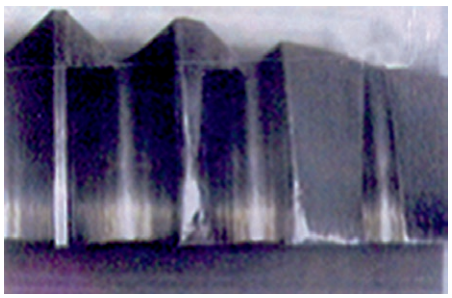
Processing condition [M8 × 1.25]

AXE-HT	HSS-P special coating
LA-O	HSS-E NI surface treatment
Workpiece Material	AC4A-T6
Bored Hole Size	ϕ6.8
Tapping Length	13mm blind hole
Machinery Type	Transfer machine
Feed	Lead screw feed
Tapping Speed	10m/min
Tapping Fluid	Water soluble cutting fluid, 30 to 1 diluted.

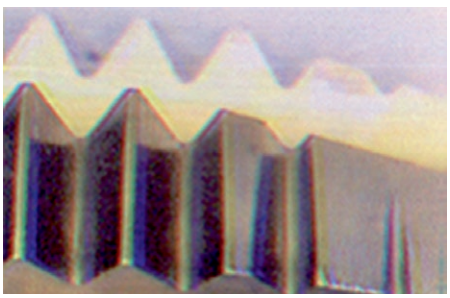




Flute of tap after processing 7,000 holes.



LA-O

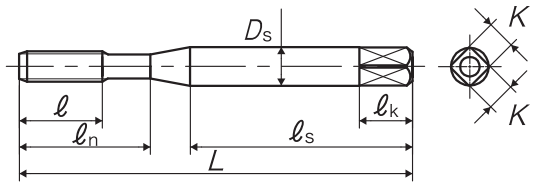


AXE-HT

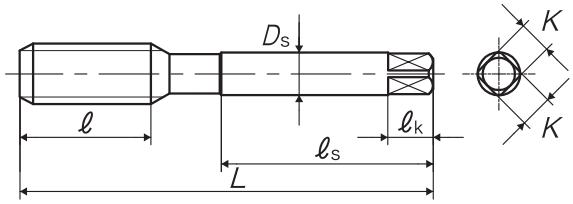
Obtainable from video site shown in right

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



TYPE: 2



Segment : 1B

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P3	TAXEMR6.0M1	1.5P	62	15	26	33	6	4.5	7	3	1	¥ 4,400
M8 × 1.25	P3	TAXEMR8.0N1	1.5P	70	19	-	36	6.2	5	8	4	2	¥ 5,740
M10 × 1.5	P3	TAXEMR010O1	1.5P	75	23	-	38	7	5.5	8	4	2	¥ 6,810
M10 × 1.25	P3	TAXEMR010N1	1.5P	75	23	-	38	7	5.5	8	4	2	¥ 6,810
M10 × 1	P3	TAXEMR010M1	1.5P	75	23	-	38	7	5.5	8	4	2	¥ 8,200
M12 × 1.75	P3	TAXEMR012P1	1.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 8,960
M12 × 1.5	P3	TAXEMR012O1	1.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 8,960
M12 × 1.25	P3	TAXEMR012N1	1.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 8,960

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

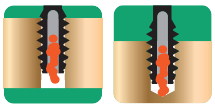
AXE-HT

AXE Hand Taps



Specification

HSS-P | Coating

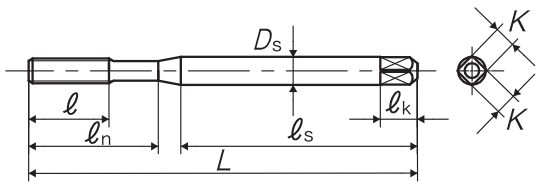


■AXE-HT has special cutting edges which minimize chipping trouble in aluminum alloy diecasting tapping, and ensures a long tool life.

Recommended Tapping Speed depending on Materials

Cast irons 鋳鉄	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~10 (m/min)	10~20 (m/min)	10~20 (m/min)

TYPE : 1



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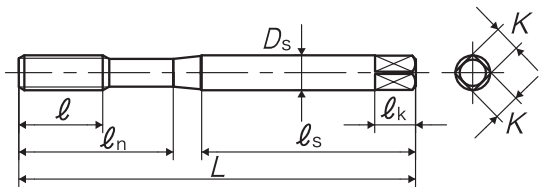
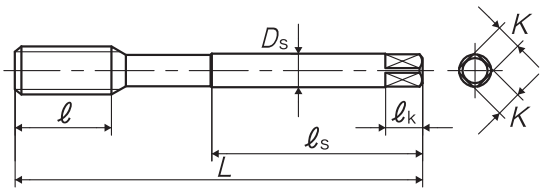


TYPE : 3



Segment : 1B

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric threads												
M6 × 1	D5	TS6.0M5LPVA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
M8 × 1.25	D5	TS8.0N5LPVA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	2
M10 × 1.5	D6	TS010O6LPVA	1.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	2
M10 × 1.25	D6	TS010N6LPVA	1.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	2
M10 × 1	D6	TS010M6LPVA	1.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	2
M12 × 1.75	D6	TS012P6LPVA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	3
M12 × 1.5	D6	TS012O6LPVA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	3
M12 × 1.25	D6	TS012N6LPVA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

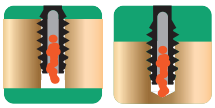
AXE-HT

AXE Hand Taps



Specification

HSS-P | Coating

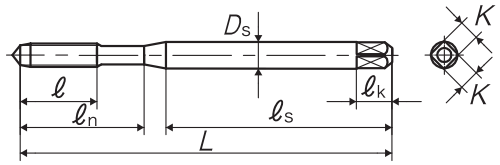


■AXE-HT has special cutting edge geometry which minimizes the damage of cutting edge in aluminum alloy diecasting tapping, and ensures a long tool life.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~10 (m/min)	10~20 (m/min)	10~20 (m/min)

TYPE: 1



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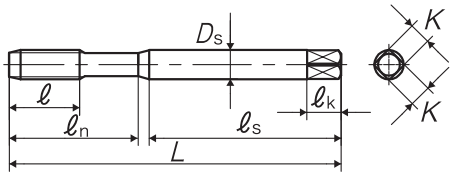

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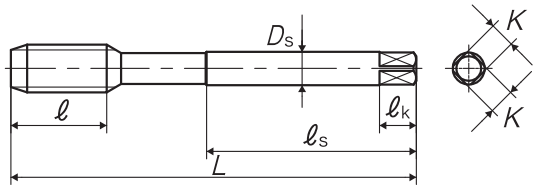

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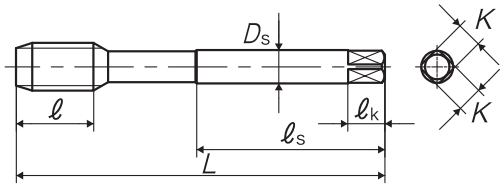


Segment : 1B

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M6 × 1	ISO2X	TD6.0MBLPVA	1.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	TD8.0NBLPVA	1.5P	90	19	35	47	8	6.2	9	4	2
M10 × 1.5	ISO2X	TD0100BLPVA	1.5P	100	23	39	52.5	10	8	11	4	2
M10 × 1.25	ISO2X	TM010NBLPVA	1.5P	100	23	-	51	7	5.5	8	4	4
M10 × 1	ISO2X	TM010MBLPVA	1.5P	90	19	-	46	7	5.5	8	4	4
M12 × 1.75	ISO2X	TG012PBLPVA	1.5P	110	26	-	56	9	7	10	4	3
M12 × 1.5	ISO2X	TM012OBLPVA	1.5P	100	21	-	51	9	7	10	4	4
M12 × 1.25	ISO2X	TM012NBLPVA	1.5P	100	21	-	51	9	7	10	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

MG-HT



Hand Taps with Short Chamfer for Magnesium Alloy Castings

Specification



Recommended Tapping Speeds depending on Materials



Product Features

- The number of threads in the cutting chamfer is 1 thread or less. It is ideal for threading holes that require the full thread length to be as close to the bottom of the hole as possible.
- The flute shape is ideally suitable for tapping magnesium alloy and aluminum die casting.
- Coating is avaliable on request.

Tapping Data

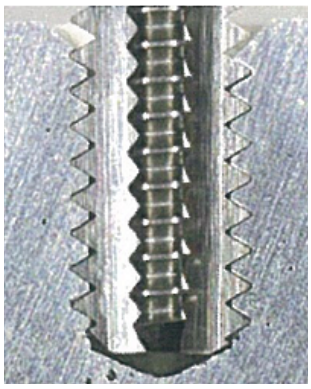
Tapping Conditions [M2.5×0.45]

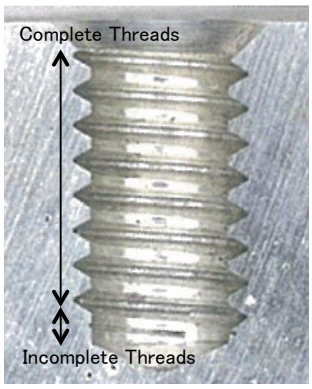
Part Name	PC parts
Workpiece Material	Magnesium alloy
Bored Hole Shape	Blind hole
Bored Hole Length	4.5mm
Tapping Length	4.0mm
Machinery Type	CNC tapping machine
Processing Direction	Vertical machining
Feed	Synchronous feed
Tapping Speed	20m/min
Cutting Fluid	Water soluble cutting fluid
Number of Holes Processed	10,000 holes

Tapping Conditions [M2×0.4]

Part Name	PC parts
Workpiece Material	Magnesium alloy
Bored Hole Shape	Blind hole
Bored Hole Length	3.0mm
Tapping Length	2.5mm
Machinery Type	CNC tapping machine
Processing Direction	Vertical machining
Feed	Synchronous feed
Tapping Speed	15m/min
Cutting fluid	Water soluble cutting fluid
Number of Holes Processed	10,000 holes

Internal thread situation



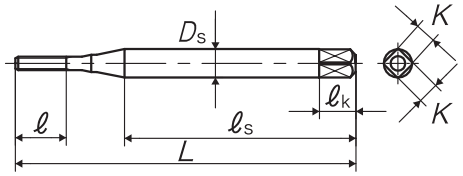


Access to the introduction by Manga.

* In magnesium alloy processing there is a risk of the chips catching on fire. Be sure to take all measures against fire prevention.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



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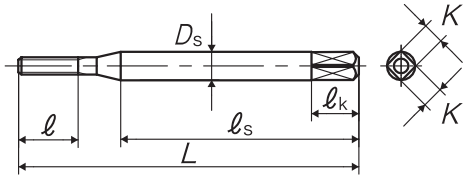

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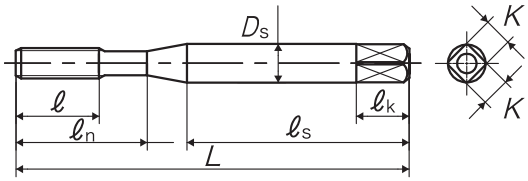


Segment : 1A

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M1.4 × 0.3	P2	TMGMQ1.4C1	1P	36	5.4	-	24	3	2.5	5	3	1	¥ 3,220 ※
M1.6 × 0.35	P2	TMGMQ1.6D1	1P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,080 ※
M1.7 × 0.35	P2	TMGMQ1.7D1	1P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,080 ※
M2 × 0.4	P2	TMGMQ2.0E1	1P	42	7.2	12	27	3	2.5	5	3	3	¥ 2,470 ※
M2.5 × 0.45	P2	TMGMQ2.5F1	1P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,890 ※
M2.6 × 0.45	P2	TMGMQ2.6F1	1P	46	8.1	14	29	3	2.5	5	3	3	¥ 1,890 ※
M3 × 0.5	P2	TMGMQ3.0G1	1P	46	9	14	26	4	3.2	6	3	3	¥ 1,330 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

PL1

Hand Taps for Thermosetting



Specification



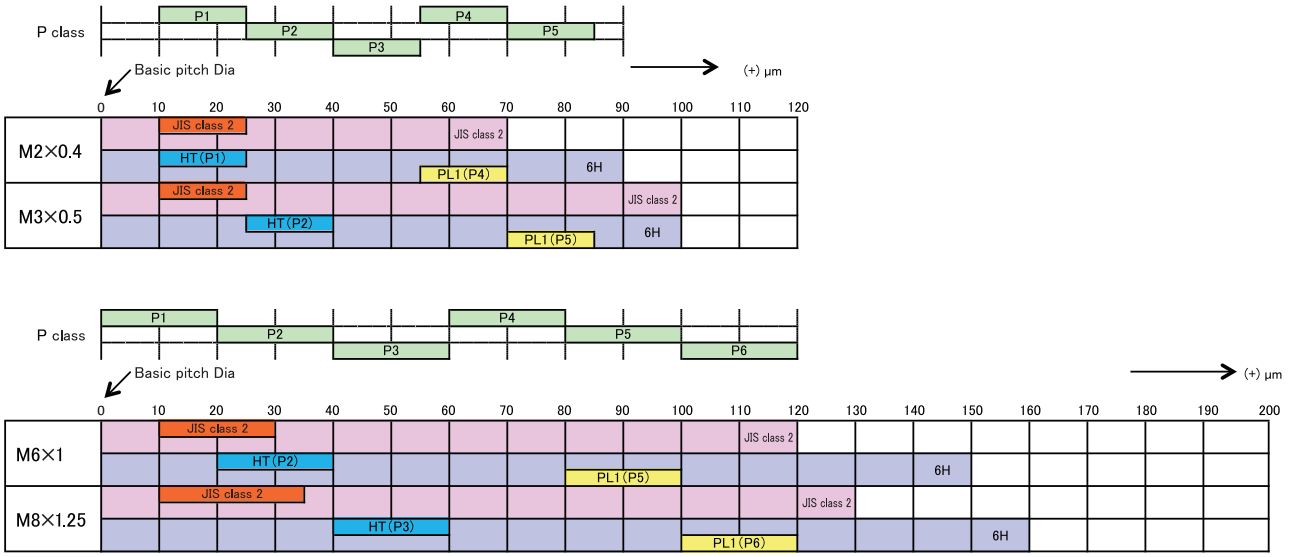
Recommended Tapping Speeds depending on Materials



Product Features

●The PL1 is a tap for threading thermosetting resin that is exceptionally difficult to machine among the synthetic resin. These plastics have low thermal conductivity and concentrate the heat at the cutting edge. Tool abrasion is severe. The material tends to shrink when cutting an internal thread. The PL1 tap is designed to cut slightly oversize to allow for the shrinkage. A nitriding treatment is applied for better tool life.

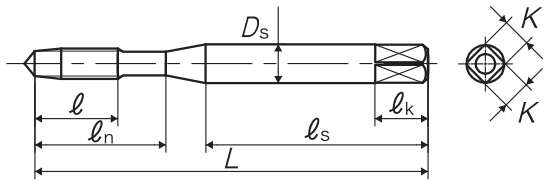
Comparison of accuracy between a HT and a PL1



Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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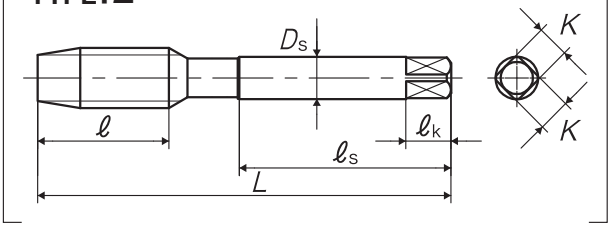


Segment : 1A

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P4	TPLM2.0E3	3P	42	7.2	12	27	3	2.5	5	3	1	¥ 2,790 ※
M2.3 × 0.4	P4	TPLM2.3E3	3P	42	7.2	12	27	3	2.5	5	3	1	¥ 2,530 ※
M2.5 × 0.45	P4	TPLM2.5F3	3P	46	8.1	14	29	3	2.5	5	3	1	¥ 2,140
M2.6 × 0.45	P4	TPLM2.6F3	3P	46	8.1	14	29	3	2.5	5	3	1	¥ 2,140 ※
M3 × 0.5	P5	TPLM3.0G3	3P	46	9	14	26	4	3.2	6	4	1	¥ 1,500
M3.5 × 0.6	P5	TPLM3.5H3	3P	52	11	16	29	5	4	7	4	1	¥ 1,500
M4 × 0.7	P5	TPLM4.0I3	3P	52	11	17	29	5	4	7	4	1	¥ 1,500
M5 × 0.8	P5	TPLM5.0K3	3P	60	13	22	33	5.5	4.5	7	4	1	¥ 1,510
M6 × 1	P5	TPLM6.0M3	3P	62	15	26	33	6	4.5	7	4	1	¥ 1,660 ※
M8 × 1.25	P6	TPLM8.0N3	3P	70	19	-	36	6.2	5	8	4	2	¥ 2,270 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

PL2

Hand Taps for Termoplastic Resins



Specification



Recommended Tapping Speeds depending on Materials



Product Features

●Among synthetic resins, the properties of thermoplastic resin make it easy to deform and extend even at a comparatively low temperature. Therefore, after tapping, internal threads may shrink or make chips remain in internal threads on the far side in small burr shape which are often difficult to remove. For PL2, the internal thread accuracy is stabilized by making the tap class oversize, and the remaining chip problem is solved by optimizing the flute shape.

●Applicable workpiece materials are thermoplastic resins: ABS, POM, PC, PVC, HDPE (high-density polyethylene), etc.

Measures against Chips Remaining in Internal Threads on Far Side



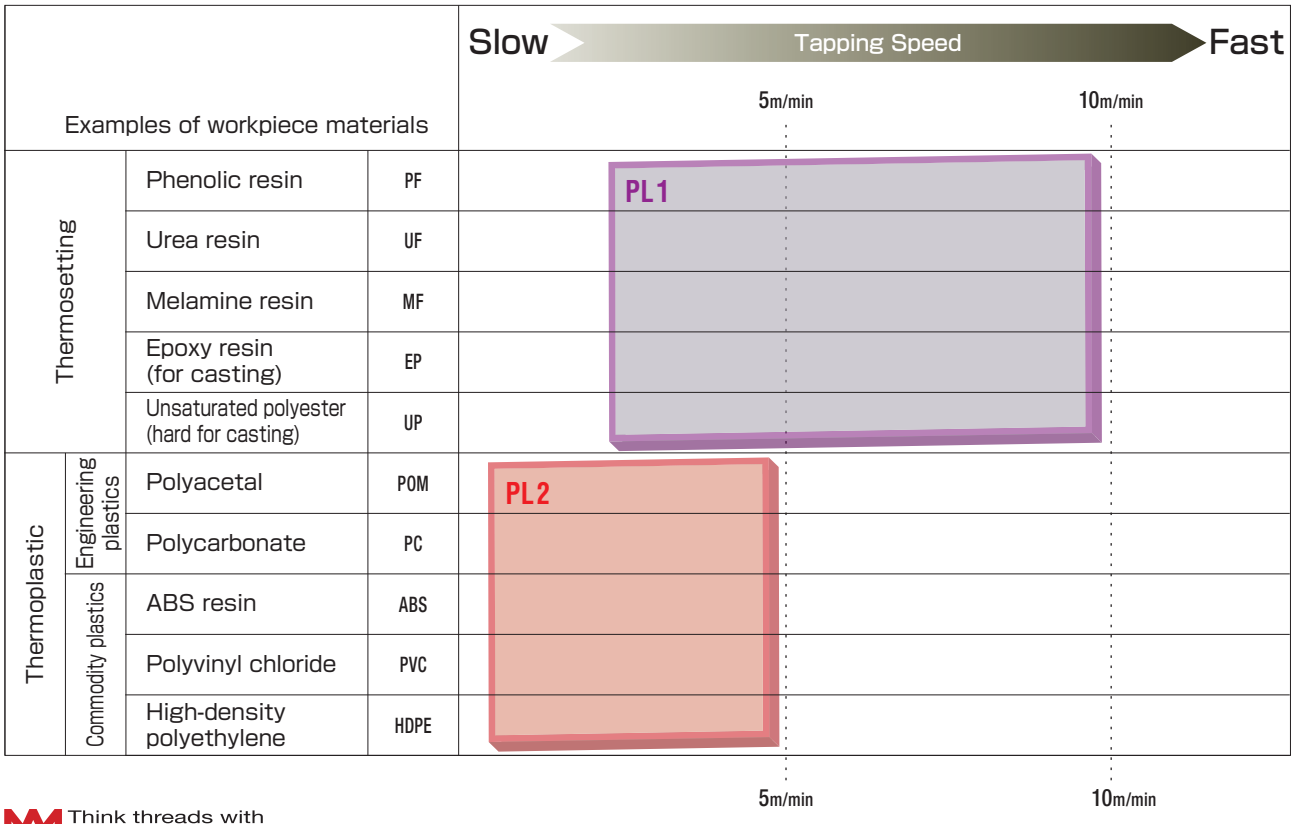
Tapping with HT



Tapping with PL2

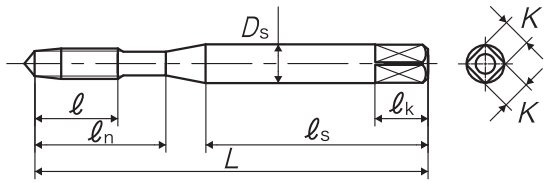
Chips are removed and nothing remains.

Product Chart



Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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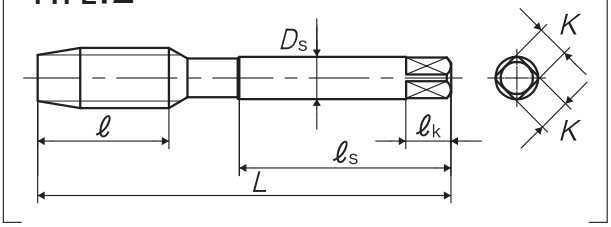


Segment : 1A

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P4	TY2.0ESMEN3	3P	42	7.2	12	27	3	2.5	5	3	1	¥ 2,790 ※
M2.3 × 0.4	P4	TY2.3ESMEN3	3P	42	7.2	12	27	3	2.5	5	3	1	¥ 2,530 ※
M2.5 × 0.45	P4	TY2.5FSMEN3	3P	46	8.1	14	29	3	2.5	5	3	1	¥ 2,140
M2.6 × 0.45	P4	TY2.6FSMEN3	3P	46	8.1	14	29	3	2.5	5	3	1	¥ 2,140 ※
M3 × 0.5	P5	TY3.0GTMEN3	3P	46	9	14	26	4	3.2	6	4	1	¥ 1,500
M3.5 × 0.6	P5	TY3.5HTMEN3	3P	52	11	16	29	5	4	7	4	1	¥ 1,500
M4 × 0.7	P5	TY4.0ITMEN3	3P	52	11	17	29	5	4	7	4	1	¥ 1,500
M5 × 0.8	P5	TY5.0KTMEN3	3P	60	13	22	33	5.5	4.5	7	4	1	¥ 1,510
M6 × 1	P5	TY6.0MTMEN3	3P	62	15	26	33	6	4.5	7	4	1	¥ 1,660 ※
M8 × 1.25	P6	TY8.0NUMEN3	3P	70	19	-	36	6.2	5	8	4	2	¥ 2,270 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

EH-HT

Hand Taps for Hard-to-Machine Materials



Specification



Recommended Tapping Speeds depending on Materials

Thermal refined steels 調質鋼	Tool steels 工具鋼
~5 (m/min)	~5 (m/min)
35~45HRC	

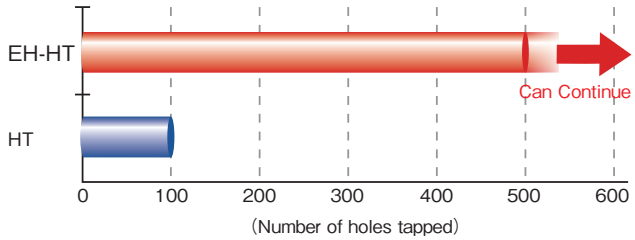
Product Features

- The EH-HT tap is suitable for tapping high hardness material from 35 to 45 HRC like high carbon steel, alloy steel forging, thermal refined material and metal mold material.
- Tool life was greatly improved by utilizing a cutting edge shape suitable for difficult cutting materials . The EH-HT taps exhibit an excellent wear resistance.
- There are two chamfer types available, 2.5P for blind hole and 5P for through hole.

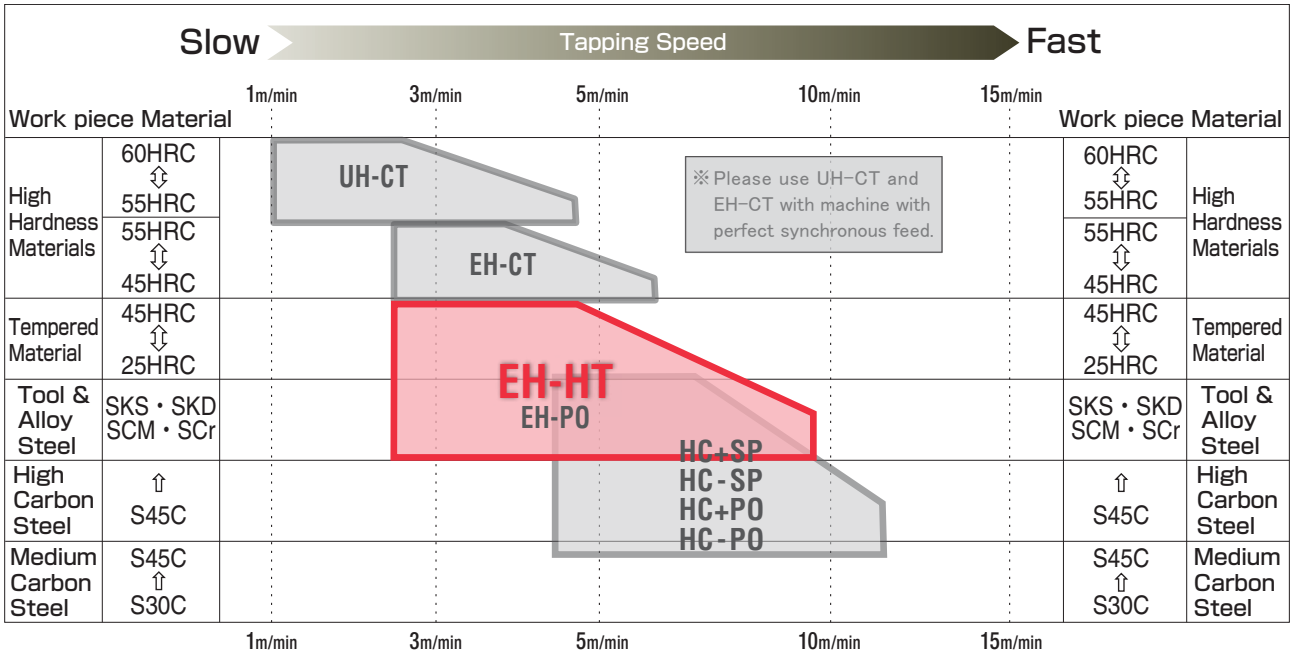
Tapping Data

Tapping conditions [M6×1 P3]

Tap Used	EH-HT M6×1 5P
Workpiece Material	SCM440/Gear
Bored Hole	φ5
Tapping Length	10mm through hole
Tapping Speed	9m/min
Machinery Type	CNC vertical machining center (asynchronous)
Holder Type	With tension compression
Tapping Fluid	Insoluble cutting fluid
Holes Tapped	500 holes (can continue tapping)



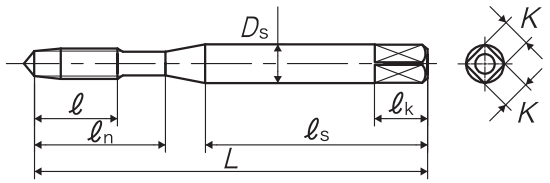
Product System Table



The chart shows the processing range.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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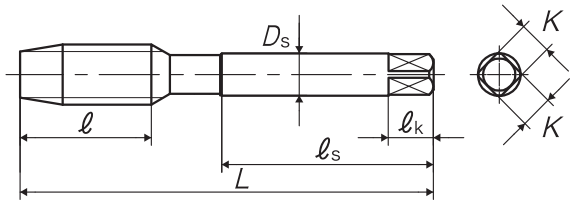

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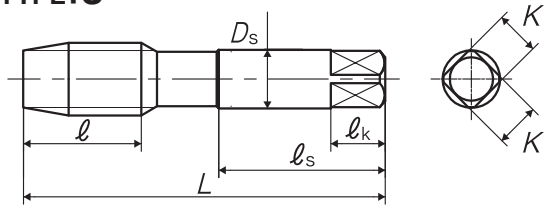


Segment : 1B

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P3	ETHMR3.0G5	5P	46	9	14	26	4	3.2	6	3	1	¥ 1,610
M3 × 0.5	P3	ETHMR3.0G1	2.5P	46	9	14	26	4	3.2	6	3	1	¥ 1,610
M4 × 0.7	P3	ETHMR4.0I5	5P	52	11	17	29	5	4	7	3	1	¥ 1,610
M4 × 0.7	P3	ETHMR4.0I1	2.5P	52	11	17	29	5	4	7	3	1	¥ 1,610
M5 × 0.8	P3	ETHMR5.0K5	5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,630
M5 × 0.8	P3	ETHMR5.0K1	2.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 1,630
M6 × 1	P3	ETHMR6.0M5	5P	62	15	26	33	6	4.5	7	3	1	¥ 1,780
M6 × 1	P3	ETHMR6.0M1	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,780
M8 × 1.25	P4	ETHMS8.0N5	5P	70	19	-	36	6.2	5	8	4	2	¥ 2,440
M8 × 1.25	P4	ETHMS8.0N1	2.5P	70	19	-	36	6.2	5	8	4	2	¥ 2,440
M10 × 1.5	P4	ETHMS010O5	5P	75	23	-	38	7	5.5	8	4	2	¥ 3,110
M10 × 1.5	P4	ETHMS010O1	2.5P	75	23	-	38	7	5.5	8	4	2	¥ 3,110
M10 × 1.25	P4	ETHMS010N5	5P	75	23	-	38	7	5.5	8	4	2	¥ 3,110 ※
M10 × 1.25	P4	ETHMS010N1	2.5P	75	23	-	38	7	5.5	8	4	2	¥ 3,110 ※
M12 × 1.75	P4	ETHMS012P5	5P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,410
M12 × 1.75	P4	ETHMS012P1	2.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,410
M12 × 1.5	P4	ETHMS012O5	5P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,410 ※
M12 × 1.5	P4	ETHMS012O1	2.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,410 ※
M12 × 1.25	P4	ETHMS012N5	5P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,410 ※
M12 × 1.25	P4	ETHMS012N1	2.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 4,410 ※
M14 × 2	P5	ETHMT014Q5	5P	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
M14 × 2	P5	ETHMT014Q1	2.5P	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
M14 × 1.5	P4	ETHMS014O5	5P	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
M14 × 1.5	P4	ETHMS014O1	2.5P	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
M16 × 2	P5	ETHMT016Q5	5P	95	26	-	48	12.5	10	13	4	2	¥ 8,040
M16 × 2	P5	ETHMT016Q1	2.5P	95	26	-	48	12.5	10	13	4	2	¥ 8,040
M16 × 1.5	P4	ETHMS016O5	5P	95	26	-	48	12.5	10	13	4	2	¥ 8,040 ※
M16 × 1.5	P4	ETHMS016O1	2.5P	95	26	-	48	12.5	10	13	4	2	¥ 8,040 ※
M18 × 2.5	P5	ETHMT018R5	5P	100	33	-	51	14	11	14	4	2	¥ 10,800 ※
M18 × 2.5	P5	ETHMT018R1	2.5P	100	33	-	51	14	11	14	4	2	¥ 10,800 ※
M18 × 1.5	P4	ETHMS018O5	5P	100	33	-	51	14	11	14	4	2	¥ 10,800 ※
M18 × 1.5	P4	ETHMS018O1	2.5P	100	33	-	51	14	11	14	4	2	¥ 10,800 ※
M20 × 2.5	P5	ETHMT020R5	5P	105	33	-	50	15	12	15	4	3	¥ 14,600
M20 × 2.5	P5	ETHMT020R1	2.5P	105	33	-	50	15	12	15	4	3	¥ 14,600

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

EH-HT Hand Taps for Hard-to-Machine Materials

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M20 × 1.5	P4	ETHMS02005	5P	105	33	-	50	15	12	15	4	3	¥ 14,600 ※
M20 × 1.5	P4	ETHMS02001	2.5P	105	33	-	50	15	12	15	4	3	¥ 14,600 ※
M22 × 2.5	P5	ETHMT022R5	5P	115	33	-	55	17	13	16	4	3	¥ 18,800 ※
M22 × 2.5	P5	ETHMT022R1	2.5P	115	33	-	55	17	13	16	4	3	¥ 18,800 ※
M22 × 1.5	P4	ETHMS02205	5P	115	33	-	55	17	13	16	4	3	¥ 18,800 ※
M22 × 1.5	P4	ETHMS02201	2.5P	115	33	-	55	17	13	16	4	3	¥ 18,800 ※
M24 × 3	P5	ETHMT024S5	5P	120	39	-	55	19	15	18	4	3	¥ 23,400
M24 × 3	P5	ETHMT024S1	2.5P	120	39	-	55	19	15	18	4	3	¥ 23,400
M24 × 1.5	P4	ETHMS02405	5P	120	39	-	55	19	15	18	4	3	¥ 23,400 ※
M24 × 1.5	P4	ETHMS02401	2.5P	120	39	-	55	19	15	18	4	3	¥ 23,400 ※
M27 × 3	P5	ETHMT027S5	5P	130	39	-	60	20	15	18	4	3	¥ 32,500 ※
M27 × 3	P5	ETHMT027S1	2.5P	130	39	-	60	20	15	18	4	3	¥ 32,500 ※
M30 × 3.5	P5	ETHMT030T5	5P	135	46	-	62	23	17	20	4	3	¥ 41,300 ※
M30 × 3.5	P5	ETHMT030T1	2.5P	135	46	-	62	23	17	20	4	3	¥ 41,300 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

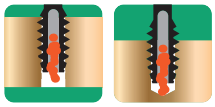
EH-HT



Hand Taps for Hard-to-Machine Materials

Specification

HSS-Co



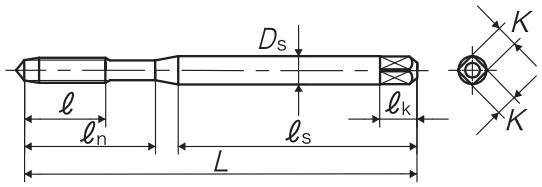
■Suitable for hard steels of 35 ～ 45HRC, such as forgings and thermal refined steels of high carbon steels and alloy steels, and die steels.

Recommended Tapping Speed depending on Materials

Thermal refined steels 調質鋼	Tool steels 工具鋼
~5 (m/min)	~5 (m/min)

35～45HRC

TYPE:1



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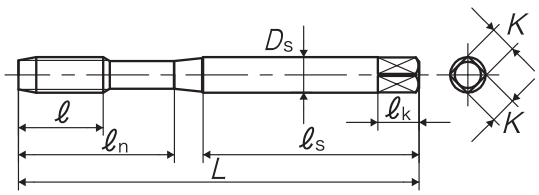

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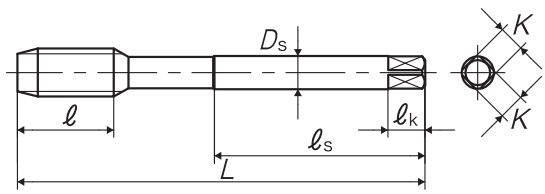


Segment : 1B

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads												
M5 × 0.8	D5	TS5.0K5DCB5	5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	1
M6 × 1	D6	TS6.0M6DCB5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
M8 × 1.25	D6	TS8.0N6DCB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	2
M8 × 1	D6	TS8.0M6DCB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	4	2
M10 × 1.5	D7	TS01007DCB5	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	2
M10 × 1.25	D6	TS010N6DCB5	5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	4	2
M12 × 1.75	D7	TS012P7DCB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ANSI

ZELX MOLD



Hand Taps for Hard-to-Machine Materials

Specification

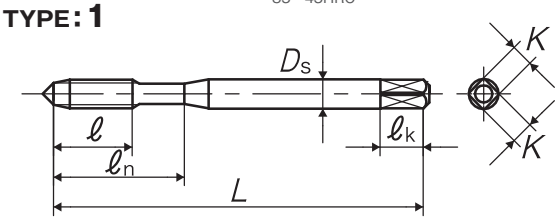


■Suitable for hard steels of 35 ～ 45HRC, such as forgings and thermal refined steels of high carbon steels and alloy steels, and die steels.

Recommended Tapping Speed depending on Materials

Thermal refined steels 調質鋼	Tool steels 工具鋼
~5 (m/min)	~5 (m/min)
35~45HRC	

TYPE:1



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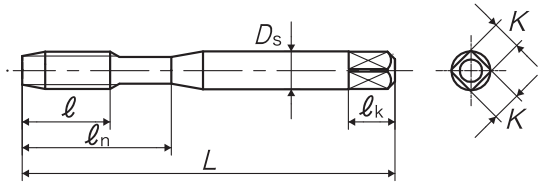

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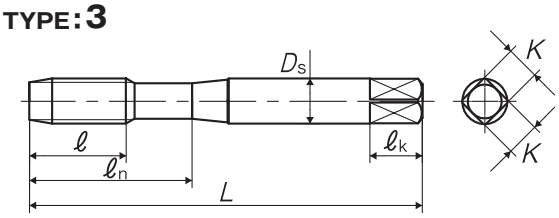

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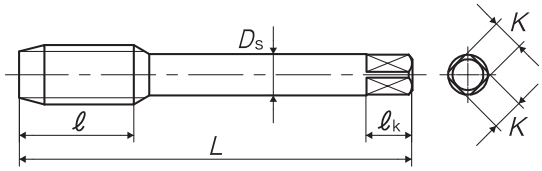


Segment : 1B

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads											
No.4-40UNC	GH2	Y89599	5P	1.875	0.335	0.562	0.141	0.11	0.187	3	1
No.5-40UNC	GH2	Y89601	5P	1.937	0.374	0.625	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y89602	5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.8-32UNC	GH3	Y89604	5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.10-24UNC	GH3	Y89606	5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y89607	5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
1/4-20UNC	GH3	Y89613	5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y89614	5P	2.5	0.591	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	Y89615	5P	2.718	0.669	1.125	0.318	0.238	0.375	4	3
5/16-24UNF	GH3	Y89616	5P	2.718	0.669	1.125	0.318	0.238	0.375	4	3
3/8-16UNC	GH3	Y89617	5P	2.937	0.748	1.25	0.381	0.286	0.437	4	3
3/8-24UNF	GH3	Y89618	5P	2.937	0.748	1.25	0.381	0.286	0.437	4	3
7/16-14UNC	GH3	Y89619	5P	3.156	0.866	-	0.323	0.242	0.406	4	4
7/16-20UNF	GH3	Y89620	5P	3.156	0.866	-	0.323	0.242	0.406	4	4
1/2-13UNC	GH3	Y89621	5P	3.375	0.984	-	0.367	0.275	0.437	4	4
1/2-20UNF	GH3	Y89622	5P	3.375	0.984	-	0.367	0.275	0.437	4	4
5/8-11UNC	GH3	Y89625	5P	3.812	1.083	-	0.48	0.36	0.562	4	4
5/8-18UNF	GH3	Y89626	5P	3.812	1.083	-	0.48	0.36	0.562	4	4
3/4-10UNC	GH3	Y89627	5P	4.25	1.201	-	0.59	0.422	0.687	4	4
3/4-16UNF	GH3	Y89628	5P	4.25	1.201	-	0.59	0.422	0.687	4	4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

EH-HT



Hand Taps for Hard-to-Machine Materials

Specification



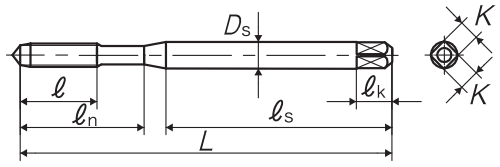
■EH-HT is the hand tap suitable for hard steels of 35-45HRC, such as forgings and thermal refined steels of high carbon steels and alloy steels, and die steels.

Recommended Tapping Speeds depending on Materials

Thermal refined steels 調質鋼	Tool steels 工具鋼
~5 (m/min)	~5 (m/min)

35~45HRC

TYPE: 1



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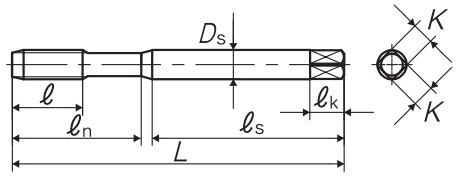

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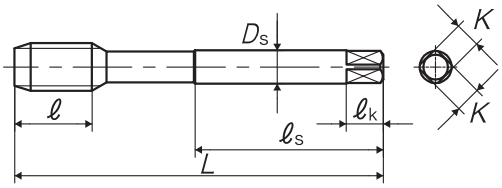

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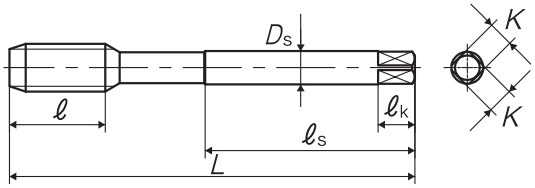


Segment : 1B (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads												
M2.5 × 0.45	ISO2X	TD2.5FBDCBC	2.5P	50	8	15	33	2.8	2.1	5	3	1
M3 × 0.5	ISO2X	TD3.0GBDCBC	2.5P	56	9	18	34	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	TD4.0IBDCBC	2.5P	63	13	21	38	4.5	3.4	6	3	1
M4.5 × 0.75	ISO2X	TD4.5JBDCBC	2.5P	70	14	24	39	6	4.9	8	3	1
M5 × 0.8	ISO2X	TD5.0KBDCBC	2.5P	70	14	25	39	6	4.9	8	3	1
M6 × 1	ISO2X	TD6.0MBDCBC	2.5P	80	15	30	45	6	4.9	8	3	1
M8 × 1.25	ISO2X	TD8.0NBDCBC	2.5P	90	19	35	47	8	6.2	9	4	2
M8 × 1	ISO2X	TM8.0MBDCBC	2.5P	90	19	-	46	6	4.9	8	4	3
M10 × 1.5	ISO2X	TD010OBDCBC	2.5P	100	23	39	52.5	10	8	11	4	2
M10 × 1.25	ISO2X	TM010NBDCBC	2.5P	100	23	-	51	7	5.5	8	4	3
M10 × 1	ISO2X	TM010MBDCBC	2.5P	90	19	-	46	7	5.5	8	4	3
M12 × 1.75	ISO2X	TG012PBDCBC	2.5P	110	26	-	56	9	7	10	4	4
M12 × 1.5	ISO2X	TM012OBDCBC	2.5P	100	21	-	51	9	7	10	4	3
M12 × 1.25	ISO2X	TM012NBDCBC	2.5P	100	21	-	51	9	7	10	4	3
M14 × 2	ISO2X	TG014QBDCBC	2.5P	110	26	-	56	11	9	12	4	4
M14 × 1.5	ISO2X	TM014OBDCBC	2.5P	100	21	-	51	11	9	12	4	3
M16 × 2	ISO2X	TG016QBDCBC	2.5P	110	26	-	56	12	9	12	4	4
M16 × 1.5	ISO2X	TM016OBDCBC	2.5P	100	21	-	51	12	9	12	4	3
M18 × 2.5	ISO2X	TG018RBDCBC	2.5P	125	33	-	64	14	11	14	4	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

EH-HT Hand Taps for Hard-to-Machine Materials

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M18 × 1.5	ISO2X	TM0180BDCBC	2.5P	110	24	-	56	14	11	14	4	3
M20 × 2.5	ISO2X	TG020RBDCBC	2.5P	140	33	-	71	16	12	15	4	4
M20 × 1.5	ISO2X	TM0200BDCBC	2.5P	125	24	-	64	16	12	15	4	3
M22 × 2.5	ISO2X	TG022RBDCBC	2.5P	140	33	-	71	18	14.5	17	4	4
M24 × 3	ISO2X	TG024SBDCBC	2.5P	160	37	-	82	18	14.5	17	4	4
For G Threads												
G 1/8-28	-	TVG0020DCBC	2.5P	90	19	-	46	7	5.5	8	4	3
G 1/4-19	-	TVG0040DCBC	2.5P	100	21	-	51	11	9	12	4	3
G 3/8-19	-	TVG0060DCBC	2.5P	100	21	-	51	12	9	12	4	3
G 1/2-14	-	TVG0080DCBC	2.5P	125	24	-	64	16	12	15	4	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

JIS

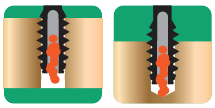
RE-HT

Hand Tap for Thread Repair



Specification

HSS | OX Oxide

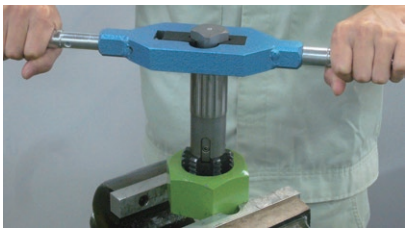


Recommended Tapping Speeds depending on Materials

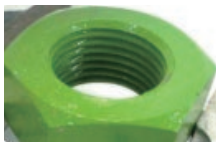
Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)	~5 (m/min)

Product Features

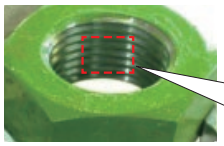
- Main application: repair of screw threads. Removal of burrs, rust, paint or spattering during welding operation.
- Utilizing the best cutting edge shape for manual repairing of large diameter threads.
- By simply exchanging the tap's head portion, it is possible to repair M50 ~ M80 threads using the same arbor and it's very economical.
- By using a long type of arbor, you can repair threads deep in a hole.



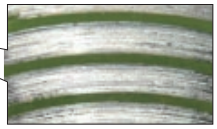
Before repair processing



After repair processing



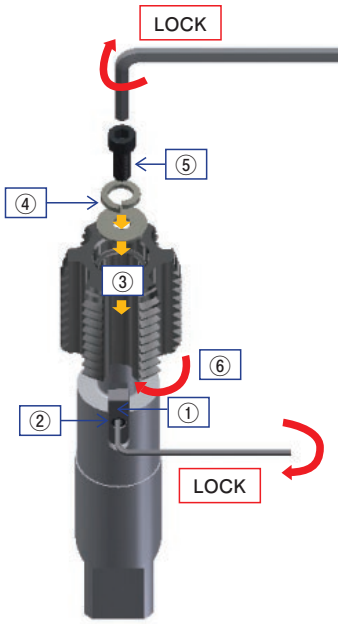
After repair processing (enlarged picture)



Assembling method

【procedure】

① Insert the parallel drive key into the key groove on the arbor.
② Turn the M4 bolt using a 3 mm hex wrench and firmly tighten the parallel drive key in place.
* On the opposite side, follow the operation instructions
① and ② and firmly tighten the second parallel drive key.
③ Insert the cutting edge portion of the tap onto the pilot diameter of the arbor.
(Align the tenon groove of the cutting edge portion of the tap to the parallel drive key on the arbor).
④ Set the flat washer and the spring washer in the countersink of the cutting edge portion.
⑤ Lightly tighten the M10 center bolt with a 8 mm hex wrench.
⑥ Rotate the cutting edge portion of the tap toward the parallel drive key like that of the cutting load during tapping.
Firmly tighten the M10 center bolt using a 8 mm hex wrench to attach the cutting edge portion of the tap to the arbor.



* When exchanging the taps head part, secure the arbor firmly to the vise.
* When ordering for the first time, please order a set of head and arbor.

【reference】

Tightening torque of taps head fixing screw

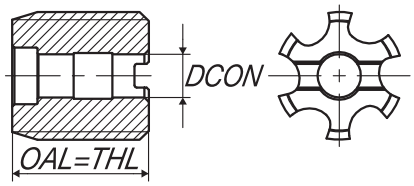
Socket head cap screw.	Tightening torque (N・m)
M10	24

Note:
- Because of the tap's head replacement method, normal tapping to produce internal thread can not be performed. Be careful as there is a risk of breakage if an excess torque is imposed on the tap.
- The RE-HT is designed to be used by hand, it can not be used on machines.
- Excessive tightening of hexagon socket head bolts may cause deformation or breakage.

Think threads with YAMAWA

<Head>

TYPE: 1



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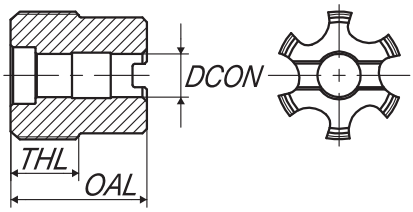


Segment : 1A

Size	Class	Code	Chamfer	OAL (L) (mm)	THL (ℓ) (mm)	DCON (d) (mm)	No. of flutes	TYPE	MSRP
For Metric Threads									
M50 × 3	ISO2	T5050SANEX2	2P	60	60	22	6	1	¥ 63,900 □
M50 × 2	ISO2	T5050QANEX2	2P	60	30	22	6	2	¥ 63,900 □
M50 × 1.5	ISO2	T5050QANEX2	2P	60	30	22	6	2	¥ 69,800 □
M52 × 5	ISO2	T5052WANEX2	2P	60	60	22	6	1	¥ 69,800 □
M52 × 4	ISO2	T5052UANEX2	2P	60	60	22	6	1	¥ 69,800 □
M52 × 3	ISO2	T5052SANEX2	2P	60	60	22	6	1	¥ 69,800 □
M52 × 2	ISO2	T5052QANEX2	2P	60	30	22	6	2	¥ 69,800 □
M52 × 1.5	ISO2	T5052QANEX2	2P	60	30	22	6	2	¥ 69,800 □
M55 × 4	ISO2	T5055UANEX2	2P	60	60	22	6	1	¥ 72,300 □
M55 × 3	ISO2	T5055SANEX2	2P	60	60	22	6	1	¥ 72,300 □
M55 × 2	ISO2	T5055QANEX2	2P	60	30	22	6	2	¥ 72,300 □
M55 × 1.5	ISO2	T5055QANEX2	2P	60	30	22	6	2	¥ 72,300 □
M56 × 5.5	ISO2	T5056XANEX2	2P	60	60	22	6	1	¥ 81,400 □
M56 × 4	ISO2	T5056UANEX2	2P	60	60	22	6	1	¥ 81,400 □
M56 × 3	ISO2	T5056SANEX2	2P	60	60	22	6	1	¥ 81,400 □
M56 × 2	ISO2	T5056QANEX2	2P	60	30	22	6	2	¥ 81,400 □
M56 × 1.5	ISO2	T5056QANEX2	2P	60	30	22	6	2	¥ 81,400 □
M58 × 4	ISO2	T5058UANEX2	2P	60	60	22	6	1	¥ 84,800 □
M58 × 3	ISO2	T5058SANEX2	2P	60	60	22	6	1	¥ 84,800 □
M58 × 2	ISO2	T5058QANEX2	2P	60	30	22	6	2	¥ 84,800 □
M58 × 1.5	ISO2	T5058QANEX2	2P	60	30	22	6	2	¥ 84,800 □
M60 × 5.5	ISO2	T5060XANEX2	2P	60	60	22	6	1	¥ 98,200 □
M60 × 4	ISO2	T5060UANEX2	2P	60	60	22	6	1	¥ 98,200 □
M60 × 3	ISO2	T5060SANEX2	2P	60	60	22	6	1	¥ 98,200 □
M60 × 2	ISO2	T5060QANEX2	2P	60	30	22	6	2	¥ 98,200 □
M60 × 1.5	ISO2	T5060QANEX2	2P	60	30	22	6	2	¥ 98,200 □
M62 × 4	ISO2	T5062UANEX2	2P	60	60	22	6	1	¥103,000 □
M62 × 3	ISO2	T5062SANEX2	2P	60	60	22	6	1	¥103,000 □
M62 × 2	ISO2	T5062QANEX2	2P	60	30	22	6	2	¥103,000 □
M62 × 1.5	ISO2	T5062QANEX2	2P	60	30	22	6	2	¥103,000 □
M64 × 6	ISO2	T5064YANEX2	2P	60	60	22	6	1	¥120,000 □
M64 × 4	ISO2	T5064UANEX2	2P	60	60	22	6	1	¥120,000 □
M64 × 3	ISO2	T5064SANEX2	2P	60	60	22	6	1	¥120,000 □
M64 × 2	ISO2	T5064QANEX2	2P	60	30	22	6	2	¥120,000 □
M64 × 1.5	ISO2	T5064QANEX2	2P	60	30	22	6	2	¥120,000 □
M65 × 4	ISO2	T5065UANEX2	2P	60	60	22	6	1	¥125,000 □
M65 × 3	ISO2	T5065SANEX2	2P	60	60	22	6	1	¥125,000 □
M65 × 2	ISO2	T5065QANEX2	2P	60	30	22	6	2	¥125,000 □
M65 × 1.5	ISO2	T5065QANEX2	2P	60	30	22	6	2	¥125,000 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

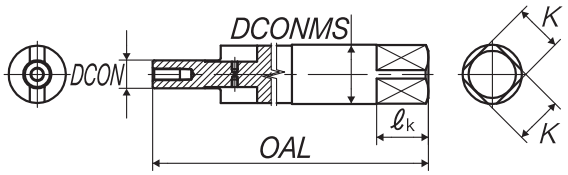
RE-HT Hand Tap for Thread Repair

Size	Class	Code	Chamfer	OAL (L) (mm)	THL (ℓ) (mm)	DCON (d) (mm)	No. of flutes	TYPE	MSRP
M68 × 6	ISO2	T5068YANEX2	2P	60	60	22	6	1	¥138,000 □
M68 × 4	ISO2	T5068UANEX2	2P	60	60	22	6	1	¥138,000 □
M68 × 3	ISO2	T5068SANEX2	2P	60	60	22	6	1	¥138,000 □
M68 × 2	ISO2	T5068QANEX2	2P	60	30	22	6	2	¥138,000 □
M68 × 1.5	ISO2	T5068OANEX2	2P	60	30	22	6	2	¥138,000 □
M70 × 6	ISO2	T5070YANEX2	2P	60	60	22	6	1	¥142,000 □
M70 × 4	ISO2	T5070UANEX2	2P	60	60	22	6	1	¥142,000 □
M70 × 3	ISO2	T5070SANEX2	2P	60	60	22	6	1	¥142,000 □
M70 × 2	ISO2	T5070QANEX2	2P	60	30	22	6	2	¥142,000 □
M70 × 1.5	ISO2	T5070OANEX2	2P	60	30	22	6	2	¥142,000 □
M72 × 6	ISO2	T5072YANEX2	2P	60	60	22	6	1	¥155,000 □
M72 × 4	ISO2	T5072UANEX2	2P	60	60	22	6	1	¥155,000 □
M72 × 3	ISO2	T5072SANEX2	2P	60	60	22	6	1	¥155,000 □
M72 × 2	ISO2	T5072QANEX2	2P	60	30	22	6	2	¥155,000 □
M72 × 1.5	ISO2	T5072OANEX2	2P	60	30	22	6	2	¥155,000 □
M75 × 4	ISO2	T5075UANEX2	2P	60	60	22	6	1	¥168,000 □
M75 × 3	ISO2	T5075SANEX2	2P	60	60	22	6	1	¥168,000 □
M75 × 2	ISO2	T5075QANEX2	2P	60	30	22	6	2	¥168,000 □
M75 × 1.5	ISO2	T5075OANEX2	2P	60	30	22	6	2	¥168,000 □
M76 × 6	ISO2	T5076YANEX2	2P	60	60	22	6	1	¥173,000 □
M76 × 4	ISO2	T5076UANEX2	2P	60	60	22	6	1	¥173,000 □
M76 × 3	ISO2	T5076SANEX2	2P	60	60	22	6	1	¥173,000 □
M76 × 2	ISO2	T5076QANEX2	2P	60	30	22	6	2	¥173,000 □
M76 × 1.5	ISO2	T5076OANEX2	2P	60	30	22	6	2	¥173,000 □
M78 × 2	ISO2	T5078QANEX2	2P	60	30	22	6	2	¥182,000 □
M80 × 6	ISO2	T5080YANEX2	2P	60	60	22	6	1	¥188,000 □
M80 × 4	ISO2	T5080UANEX2	2P	60	60	22	6	1	¥188,000 □
M80 × 3	ISO2	T5080SANEX2	2P	60	60	22	6	1	¥188,000 □
M80 × 2	ISO2	T5080QANEX2	2P	60	30	22	6	2	¥188,000 □
M80 × 1.5	ISO2	T5080OANEX2	2P	60	30	22	6	2	¥188,000 □

RE-HT Hand Tap for Thread Repair

<Arbor part>

TYPE: 1



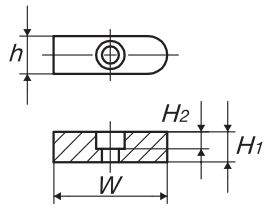
Size	Code	LF (Overall length after combined with arbo) (mm)	OAL (mm)	DCONMS (mm)	DCON (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
22 × 45 × 200	REAB22200	200	183	45	22	35	38	1	¥ 60,500 □
22 × 45 × 400	REAB22400	400	383	45	22	35	38	1	¥115,000 □
22 × 45 × 600	REAB22600	600	583	45	22	35	38	1	¥148,000 □

※ All of the following assembly parts are included with the Arbor.

<Arbor Accessories >

1.Parallel Key

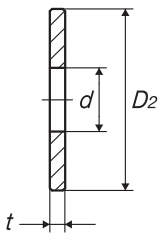
TYPE: 1



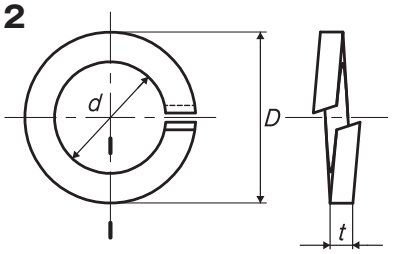
Code	w (mm)	h (mm)	H1 (mm)	H2 (mm)	TYPE	MSRP
REPK30	30	10	8	4.5	1	¥ 4,390 □

2.Flat Washer, Spring Washer

TYPE: 1



TYPE: 2



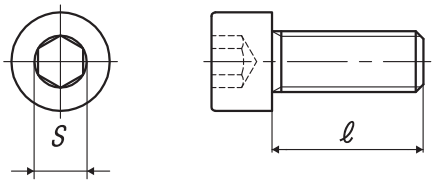
Code		D (mm)	D2 (mm)	d (mm)	t (mm)	TYPE	MSRP
REFS3018.4	Flat washer	-	30	10.5	3	1	¥ 480 □
	Spring washer	18.4	-	10.2	2.5	2	

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

RE-HT Hand Tap for Thread Repair

3.Hexagon Socket Head Bolt

TYPE : 1



Fixing screw for cutting edge portion

Size	Code	s (mm)	ℓ (mm)	TYPE	MSRP
M10	REBL0100	8	25	1	¥ 240 □

Fixing screw for parallel key

Size	Code	s (mm)	ℓ (mm)	TYPE	MSRP
M4	REBL4.0I	3	8	1	¥ 345 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

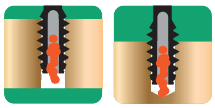
MS+TR

Hand Tap for Miniature Threads



Specification

HSS

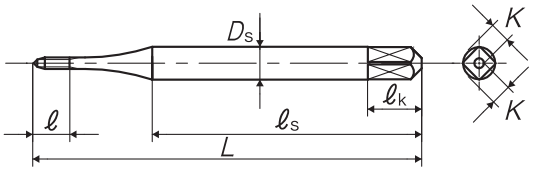


■The MS+TR is a cutting tap for miniature threads.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Brass 黄銅
~3 (m/min)	~3 (m/min)

TYPE : 1



Segment : 1A

Size	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Miniature Threads											
S0.4 × 0.1	GMHRP0.4-3	2.75P	36	1.5	26	3	2.5	6	3	1	¥ 6,280 ※
S0.5 × 0.125	GMHRP0.5-3	2.75P	36	2	26	3	2.5	6	3	1	¥ 6,280 ※
S0.6 × 0.15	GMHRP0.6-3	2.75P	36	2.5	25	3	2.5	6	3	1	¥ 5,300 ※
S0.7 × 0.175	GMHRP0.7-3	2.75P	36	2.5	25	3	2.5	6	3	1	¥ 4,600 ※
S0.8 × 0.2	GMHRP0.8-3	2.75P	36	3	25	3	2.5	6	3	1	¥ 4,260 ※
S0.9 × 0.225	GMHRP0.9-3	2.75P	36	3	25	3	2.5	6	3	1	¥ 4,260 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

MC-HT



Hand Taps with Internal Coolant Hole

Specification

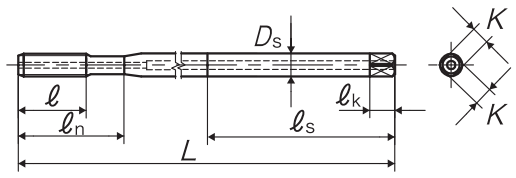
HSS

■Through internal coolant hole, satisfactory amount of oil is supplied to the exact cutting area. MC-HT hand tap ensures a long tool life and internal threads with good surface finish.

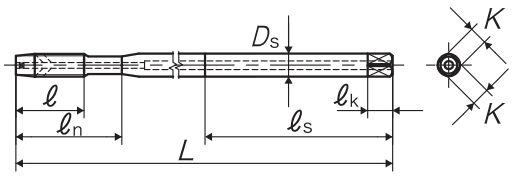
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

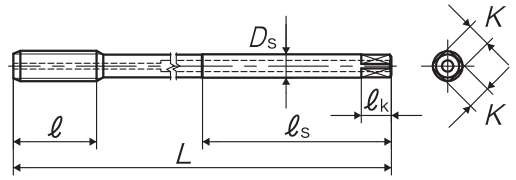
TYPE: 1



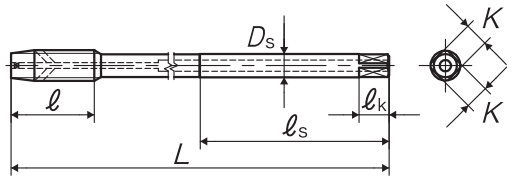
TYPE: 2



TYPE: 3



TYPE: 4



Segment : 1A

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M6 × 1	P2	ML106.0M5-Q	5P	100	19	30	40	6	4.5	7	4	2	¥ 3,000 ※▲
M6 × 1	P2	ML156.0M5-Q	5P	150	19	30	40	6	4.5	7	4	2	¥ 5,120 ※▲
M6 × 1	P2	ML106.0M1-Q	1.5P	100	19	30	40	6	4.5	7	4	1	¥ 3,000 ※▲
M6 × 1	P2	ML156.0M1-Q	1.5P	150	19	30	40	6	4.5	7	4	1	¥ 5,120 ※▲
M8 × 1.25	P2	ML108.0N5-Q	5P	100	22	-	50	6.2	5	8	4	4	¥ 3,880 ※▲
M8 × 1.25	P2	ML158.0N5-Q	5P	150	22	-	50	6.2	5	8	4	4	¥ 6,400 ※▲
M8 × 1.25	P2	ML108.0N1-Q	1.5P	100	22	-	50	6.2	5	8	4	3	¥ 3,880 ※▲
M8 × 1.25	P2	ML158.0N1-Q	1.5P	150	22	-	50	6.2	5	8	4	3	¥ 6,400 ※▲
M10 × 1.5	P2	ML10010O5-Q	5P	100	24	-	50	7	5.5	8	4	4	¥ 4,720 ※▲
M10 × 1.5	P2	ML15010O5-Q	5P	150	24	-	50	7	5.5	8	4	4	¥ 7,470 ※▲
M10 × 1.5	P2	ML10010O1-Q	1.5P	100	24	-	50	7	5.5	8	4	3	¥ 4,720 ※▲
M10 × 1.5	P2	ML15010O1-Q	1.5P	150	24	-	50	7	5.5	8	4	3	¥ 7,470 ※▲
M10 × 1.25	P2	ML10010N5-Q	5P	100	20	-	50	7	5.5	8	4	4	¥ 4,720 ※▲
M10 × 1.25	P2	ML15010N5-Q	5P	150	20	-	50	7	5.5	8	4	4	¥ 7,470 ※▲
M10 × 1.25	P2	ML10010N1-Q	1.5P	100	20	-	50	7	5.5	8	4	3	¥ 4,720 ※▲
M10 × 1.25	P2	ML15010N1-Q	1.5P	150	20	-	50	7	5.5	8	4	3	¥ 7,470 ※▲
M12 × 1.75	P2	ML10012P5-Q	5P	100	29	-	50	8.5	6.5	9	4	4	¥ 5,790 ※▲
M12 × 1.75	P2	ML15012P5-Q	5P	150	29	-	50	8.5	6.5	9	4	4	¥ 9,340 ※▲
M12 × 1.75	P2	ML20012P5-Q	5P	200	29	-	50	8.5	6.5	9	4	4	¥12,600 ※▲

Remarks: Products marked with ▲ in the MSRP column are available while supplies last.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M12 × 1.75	P2	ML10012P1-Q	1.5P	100	29	-	50	8.5	6.5	9	4	3	¥ 5,790 ※▲
M12 × 1.75	P2	ML15012P1-Q	1.5P	150	29	-	50	8.5	6.5	9	4	3	¥ 9,340 ※▲
M12 × 1.75	P2	ML20012P1-Q	1.5P	200	29	-	50	8.5	6.5	9	4	3	¥12,600 ※▲
M12 × 1.5	P2	ML1001205-Q	5P	100	29	-	50	8.5	6.5	9	4	4	¥ 5,790 ※▲
M12 × 1.5	P2	ML1501205-Q	5P	150	29	-	50	8.5	6.5	9	4	4	¥ 9,340 ※▲
M12 × 1.5	P2	ML2001205-Q	5P	200	29	-	50	8.5	6.5	9	4	4	¥12,600 ※▲
M12 × 1.5	P2	ML1001201-Q	1.5P	100	29	-	50	8.5	6.5	9	4	3	¥ 5,790 ※▲
M12 × 1.5	P2	ML1501201-Q	1.5P	150	29	-	50	8.5	6.5	9	4	3	¥ 9,340 ※▲
M12 × 1.5	P2	ML2001201-Q	1.5P	200	29	-	50	8.5	6.5	9	4	3	¥12,600 ※▲
M12 × 1.25	P2	ML10012N5-Q	5P	100	24	-	50	8.5	6.5	9	4	4	¥ 5,790 ※▲
M12 × 1.25	P2	ML15012N5-Q	5P	150	24	-	50	8.5	6.5	9	4	4	¥ 9,340 ※▲
M12 × 1.25	P2	ML20012N5-Q	5P	200	24	-	50	8.5	6.5	9	4	4	¥12,600 ※▲
M12 × 1.25	P2	ML10012N1-Q	1.5P	100	24	-	50	8.5	6.5	9	4	3	¥ 5,790 ※▲
M12 × 1.25	P2	ML15012N1-Q	1.5P	150	24	-	50	8.5	6.5	9	4	3	¥ 9,340 ※▲
M12 × 1.25	P2	ML20012N1-Q	1.5P	200	24	-	50	8.5	6.5	9	4	3	¥12,600 ※▲
M14 × 2	P2	ML15014Q5-Q	5P	150	30	-	60	10.5	8	11	4	4	¥11,900 ※▲
M14 × 2	P2	ML20014Q5-Q	5P	200	30	-	60	10.5	8	11	4	4	¥15,300 ※▲
M14 × 2	P2	ML15014Q1-Q	1.5P	150	30	-	60	10.5	8	11	4	3	¥11,900 ※▲
M14 × 2	P2	ML20014Q1-Q	1.5P	200	30	-	60	10.5	8	11	4	3	¥15,300 ※▲
M14 × 1.5	P2	ML1501405-Q	5P	150	30	-	60	10.5	8	11	4	4	¥11,900 ※▲
M14 × 1.5	P2	ML2001405-Q	5P	200	30	-	60	10.5	8	11	4	4	¥15,300 ※▲
M14 × 1.5	P2	ML1501401-Q	1.5P	150	30	-	60	10.5	8	11	4	3	¥11,900 ※▲
M14 × 1.5	P2	ML2001401-Q	1.5P	200	30	-	60	10.5	8	11	4	3	¥15,300 ※▲
M16 × 2	P2	ML15016Q5-Q	5P	150	32	-	60	12.5	10	13	4	4	¥12,900 ※▲
M16 × 2	P2	ML20016Q5-Q	5P	200	32	-	60	12.5	10	13	4	4	¥15,900 ※▲
M16 × 2	P2	ML15016Q1-Q	1.5P	150	32	-	60	12.5	10	13	4	3	¥12,900 ※▲
M16 × 2	P2	ML20016Q1-Q	1.5P	200	32	-	60	12.5	10	13	4	3	¥15,900 ※▲
M16 × 1.5	P2	ML1501605-Q	5P	150	32	-	60	12.5	10	13	4	4	¥12,900 ※▲
M16 × 1.5	P2	ML2001605-Q	5P	200	32	-	60	12.5	10	13	4	4	¥15,900 ※▲
M16 × 1.5	P2	ML1501601-Q	1.5P	150	32	-	60	12.5	10	13	4	3	¥12,900 ※▲
M16 × 1.5	P2	ML2001601-Q	1.5P	200	32	-	60	12.5	10	13	4	3	¥15,900 ※▲
M18 × 2.5	P3	ML15018R5-R	5P	150	37	-	70	14	11	14	4	4	¥14,800 ※▲
M18 × 2.5	P3	ML20018R5-R	5P	200	37	-	70	14	11	14	4	4	¥19,400 ※▲
M18 × 2.5	P3	ML15018R1-R	1.5P	150	37	-	70	14	11	14	4	3	¥14,800 ※▲
M18 × 2.5	P3	ML20018R1-R	1.5P	200	37	-	70	14	11	14	4	3	¥19,400 ※▲
M18 × 1.5	P2	ML1501805-Q	5P	150	29	-	70	14	11	14	4	4	¥14,800 ※▲
M18 × 1.5	P2	ML2001805-Q	5P	200	29	-	70	14	11	14	4	4	¥19,400 ※▲
M18 × 1.5	P2	ML1501801-Q	1.5P	150	29	-	70	14	11	14	4	3	¥14,800 ※▲
M18 × 1.5	P2	ML2001801-Q	1.5P	200	29	-	70	14	11	14	4	3	¥19,400 ※▲
M20 × 2.5	P3	ML15020R5-R	5P	150	37	-	70	15	12	15	4	4	¥19,000 ※▲
M20 × 2.5	P3	ML20020R5-R	5P	200	37	-	70	15	12	15	4	4	¥24,900 ※▲
M20 × 2.5	P3	ML15020R1-R	1.5P	150	37	-	70	15	12	15	4	3	¥19,000 ※▲
M20 × 2.5	P3	ML20020R1-R	1.5P	200	37	-	70	15	12	15	4	3	¥24,900 ※▲
M20 × 1.5	P3	ML1502005-R	5P	150	29	-	70	15	12	15	4	4	¥19,000 ※▲
M20 × 1.5	P3	ML2002005-R	5P	200	29	-	70	15	12	15	4	4	¥24,900 ※▲
M20 × 1.5	P3	ML1502001-R	1.5P	150	29	-	70	15	12	15	4	3	¥19,000 ※▲
M20 × 1.5	P3	ML2002001-R	1.5P	200	29	-	70	15	12	15	4	3	¥24,900 ※▲
M22 × 2.5	P3	ML15022R5-R	5P	150	38	-	70	17	13	16	4	4	¥21,300 ※▲
M22 × 2.5	P3	ML20022R5-R	5P	200	38	-	70	17	13	16	4	4	¥27,700 ※▲
M22 × 2.5	P3	ML15022R1-R	1.5P	150	38	-	70	17	13	16	4	3	¥21,300 ※▲

Remarks: Products marked with ▲ in the MSRP column are available while supplies last.

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

MC-HT Hand Taps with Internal Coolant Hole

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M22 × 2.5	P3	ML20022R1-R	1.5P	200	38	-	70	17	13	16	4	3	¥27,700 ※▲
M22 × 1.5	P3	ML1502205-R	5P	150	33	-	70	17	13	16	4	4	¥21,300 ※▲
M22 × 1.5	P3	ML2002205-R	5P	200	33	-	70	17	13	16	4	4	¥27,700 ※▲
M22 × 1.5	P3	ML1502201-R	1.5P	150	33	-	70	17	13	16	4	3	¥21,300 ※▲
M22 × 1.5	P3	ML2002201-R	1.5P	200	33	-	70	17	13	16	4	3	¥27,700 ※▲
M24 × 3	P3	ML15024S5-R	5P	150	45	-	80	19	15	18	4	4	¥24,900 ※▲
M24 × 3	P3	ML20024S5-R	5P	200	45	-	80	19	15	18	4	4	¥31,100 ※▲
M24 × 3	P3	ML15024S1-R	1.5P	150	45	-	80	19	15	18	4	3	¥24,900 ※▲
M24 × 3	P3	ML20024S1-R	1.5P	200	45	-	80	19	15	18	4	3	¥31,100 ※▲
M24 × 1.5	P3	ML1502405-R	5P	150	35	-	80	19	15	18	4	4	¥24,900 ※▲
M24 × 1.5	P3	ML2002405-R	5P	200	35	-	80	19	15	18	4	4	¥31,100 ※▲
M24 × 1.5	P3	ML1502401-R	1.5P	150	35	-	80	19	15	18	4	3	¥24,900 ※▲
M24 × 1.5	P3	ML2002401-R	1.5P	200	35	-	80	19	15	18	4	3	¥31,100 ※▲
M27 × 3	P3	ML20027S5-R	5P	200	45	-	80	20	15	18	4	4	¥35,000 ※▲
M27 × 3	P3	ML25027S5-R	5P	250	45	-	80	20	15	18	4	4	¥47,100 ※▲
M27 × 3	P3	ML20027S1-R	1.5P	200	45	-	80	20	15	18	4	3	¥35,000 ※▲
M27 × 3	P3	ML25027S1-R	1.5P	250	45	-	80	20	15	18	4	3	¥47,100 ※▲
M27 × 1.5	P3	ML2002705-R	5P	200	37	-	80	20	15	18	4	4	¥35,000 ※▲
M27 × 1.5	P3	ML2502705-R	5P	250	37	-	80	20	15	18	4	4	¥47,100 ※▲
M27 × 1.5	P3	ML2002701-R	1.5P	200	37	-	80	20	15	18	4	3	¥35,000 ※▲
M27 × 1.5	P3	ML2502701-R	1.5P	250	37	-	80	20	15	18	4	3	¥47,100 ※▲
M30 × 3.5	P4	ML20030T5-S	5P	200	48	-	80	23	17	20	4	4	¥45,000 ※▲
M30 × 3.5	P4	ML25030T5-S	5P	250	48	-	80	23	17	20	4	4	¥59,600 ※▲
M30 × 3.5	P4	ML20030T1-S	1.5P	200	48	-	80	23	17	20	4	3	¥45,000 ※▲
M30 × 3.5	P4	ML25030T1-S	1.5P	250	48	-	80	23	17	20	4	3	¥59,600 ※▲
M30 × 1.5	P3	ML2003005-R	5P	200	37	-	80	23	17	20	4	4	¥45,000 ※▲
M30 × 1.5	P3	ML2503005-R	5P	250	37	-	80	23	17	20	4	4	¥59,600 ※▲
M30 × 1.5	P3	ML2003001-R	1.5P	200	37	-	80	23	17	20	4	3	¥45,000 ※▲
M30 × 1.5	P3	ML2503001-R	1.5P	250	37	-	80	23	17	20	4	3	¥59,600 ※▲

Remarks: Products marked with ▲ in the MSRP column are available while supplies last.

JIS • ANSI • DIN

LINE UP

⑤ CEMENTED CARBIDE TAP SERIES

	JIS	ANSI	DIN
N-CT LA	⑤-3		
ZELX CARB AL		⑤-6	
CT LA			⑤-9
N-CT FC	⑤-10		
ZELX CARB CI		⑤-15	
LS-N-CT	⑤-18		
N-CT-SP	⑤-20		
N-CT-PO	⑤-21		
EH-CT	⑤-23		⑤-25
UH-CT	⑤-27		⑤-29
HFACT-P	⑤-31		
HFACT-B	⑤-33		
HFICT-P	⑤-35		
HFICT-B	⑤-37		
ACHSP	⑤-39		
MC-AD-CT	⑤-41		



・For improvement, spec may change without advance notice.

Selection chart of taps

Tapping conditions	Machining, in low-speed tapping area	Machining, in low/middle speed tapping area								
Product symbol	LS-N-CT	N-CT FC	N-CT LA	N-CT-SP	N-CT-PO	EH-CT	UH-CT	ACHSP	MC-AD-CT	
Tap material / Surface treatment	HF	HF	HF	HF	HF	HF / Coating	HF / Coating	HF / Coating	HF / Coating	
Name	Long, for cast iron	For cast iron	For light alloys	For general use, carbide		For high-hardness steel	For ultra high-hardness steel	For tapping aluminum cast holes	With oil hole	
										
Bored Hole Shape										
For Metric Threads	⑤-18	⑤-10	⑤-3	⑤-20	⑤-21	⑤-24	⑤-28	⑤-40	⑤-42	
For Unified Threads		⑤-13								
For Whitworth Threads										
For Screw Threads used on Sewing Machines										
Pipe Threads										
American Pipe Threads										
For Miniature Threads										
For Trapezoidal Threads										

～S25C	Low carbon steels																		
S25C～S45C	Medium carbon steels																		
S45C～	High carbon steels																		
SCM	Alloy steels																		
25～35HRC	Heat treated steel																		
35～45HRC	Heat treated steel																		
45～55HRC	Heat treated steel											◆◆	◎						
55～63HRC	Heat treated steel													◆◆	◎				
SUS	Stainless steels (SUS)																		
SKD	Tool steels																		
SC	Cast steels																		
FC	Cast irons	◆	◎	◆	◎														
FCD	Ductile cast irons	◆	○	◆	○														
Cu	Copper																		
Bs	Brass									◆	◎								
BsC	Brass castings	◆	◎	◆	◎					◆	◎								
PB	Bronze									◆	◎								
AL	Wrought aluminum							◆	◎	◆	◎							◆	◎
AC, ADC	Wrought aluminum					◆	◎	◆	◎	◆	◎					◆	◎	◆	◎
Mg	Magnesium alloy die castings									◆	◎								
ZDC	Zinc alloy die castings					◆	◎	◆	◎	◆	◎							◆	◎
	Titanium alloys																		
	Nickel base alloys																		
	Thermosetting plastic																		
	Thermoplastic resin																		

Think threads with YAMAWA

Recommended tap ◎: Most suitable tap ○: Suitable tap

Recommended tapping fluid ◆: Insoluble ◆: Water-soluble

	Machining/Fully synchronized feed only, in high-speed tapping area			
	HFACT-P	HFACT-B	HFICT-P	HFICT-B
	HF / Coating	HF / Coating	HF / Coating	HF / Coating
	For ultra high-speed; For aluminum materials		For ultra high-speed; For aluminum materials	
				
				
	⑤-32	⑤-34	⑤-36	⑤-38

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

N-CT LA

Carbide Taps for Light Alloys



Specification



■N-CT LA is the carbide tap suitable for tapping aluminum castings (AC), aluminum die castings (ADC), and zinc diecastings (ZDC). For volume production.

Recommended Tapping Speeds depending on Materials



Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads												
M1.4 × 0.3	P3	TCNR1.4C3A	3P	34	7	-	3	2.5	5	3	1	¥ 17,800 ※
M1.4 × 0.3	P3	TCNR1.4C1A	1.5P	34	7	-	3	2.5	5	3	1	¥ 17,800 ※
M1.6 × 0.35	P3	TCNR1.6D3A	3P	36	8	-	3	2.5	5	3	1	¥ 15,800 ※
M1.6 × 0.35	P3	TCNR1.6D1A	1.5P	36	8	-	3	2.5	5	3	1	¥ 15,800 ※
M1.7 × 0.35	P3	TCNR1.7D3A	3P	36	8	-	3	2.5	5	3	1	¥ 15,800 ※
M1.7 × 0.35	P3	TCNR1.7D1A	1.5P	36	8	-	3	2.5	5	3	1	¥ 15,800 ※
M2 × 0.4	P3	TCNR2.0E3A	3P	40	8	-	3	2.5	5	3	1	¥ 14,400
M2 × 0.4	P3	TCNR2.0E1A	1.5P	40	8	-	3	2.5	5	3	1	¥ 14,400
M2.2 × 0.45	P3	TCNR2.2F3A	3P	42	9.5	-	3	2.5	5	3	1	¥ 13,800 ※
M2.2 × 0.45	P3	TCNR2.2F1A	1.5P	42	9.5	-	3	2.5	5	3	1	¥ 13,800 ※
M2.3 × 0.4	P3	TCNR2.3E3A	3P	42	8	-	3	2.5	5	3	1	¥ 13,800 ※
M2.3 × 0.4	P3	TCNR2.3E1A	1.5P	42	8	-	3	2.5	5	3	1	¥ 13,800 ※
M2.5 × 0.45	P3	TCNR2.5F3A	3P	44	9.5	-	3	2.5	5	3	1	¥ 13,700 ※
M2.5 × 0.45	P3	TCNR2.5F1A	1.5P	44	9.5	-	3	2.5	5	3	1	¥ 13,700 ※
M2.6 × 0.45	P3	TCNR2.6F3A	3P	44	9.5	-	3	2.5	5	3	1	¥ 13,700 ※
M2.6 × 0.45	P3	TCNR2.6F1A	1.5P	44	9.5	-	3	2.5	5	3	1	¥ 13,700 ※
M3 × 0.5	P3	TCNR3.0G3A	3P	46	11	-	4	3.2	6	3	1	¥ 13,300
M3 × 0.5	P3	TCNR3.0G1A	1.5P	46	11	-	4	3.2	6	3	1	¥ 13,300
M3.5 × 0.6	P3	TCNR3.5H3A	3P	48	11	-	4	3.2	6	3	1	¥ 14,000 ※
M3.5 × 0.6	P3	TCNR3.5H1A	1.5P	48	11	-	4	3.2	6	3	1	¥ 14,000 ※
M4 × 0.7	P3	TCNR4.0I3A	3P	52	13	-	5	4	7	3	1	¥ 14,000
M4 × 0.7	P3	TCNR4.0I1A	1.5P	52	13	-	5	4	7	3	1	¥ 14,000
M4 × 0.5	P3	TCNR4.0G3A	3P	52	11	-	5	4	7	3	1	¥ 15,600 ※
M4 × 0.5	P3	TCNR4.0G1A	1.5P	52	11	-	5	4	7	3	1	¥ 15,600 ※
M5 × 0.8	P3	TCNR5.0K3A	3P	60	16	-	5.5	4.5	7	3	1	¥ 14,700
M5 × 0.8	P3	TCNR5.0K1A	1.5P	60	16	-	5.5	4.5	7	3	1	¥ 14,700
M5 × 0.5	P3	TCNR5.0G3A	3P	52	11	-	5.5	4.5	7	3	1	¥ 15,900 ※
M5 × 0.5	P3	TCNR5.0G1A	1.5P	52	11	-	5.5	4.5	7	3	1	¥ 15,900 ※
M6 × 1	P3	TCNR6.0M3A	3P	62	19	-	6	4.5	7	3	2	¥ 15,800
M6 × 1	P3	TCNR6.0M1A	1.5P	62	19	-	6	4.5	7	3	2	¥ 15,800
M6 × 0.75	P3	TCNR6.0J3A	3P	62	13	-	6	4.5	7	3	2	¥ 17,400 ※
M6 × 0.75	P3	TCNR6.0J1A	1.5P	62	13	-	6	4.5	7	3	2	¥ 17,400 ※

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

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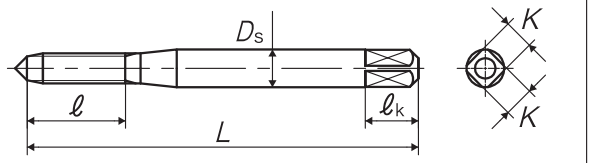

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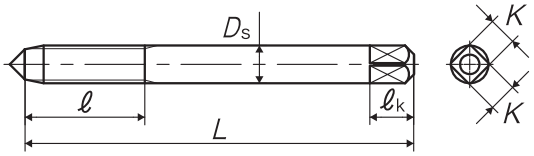

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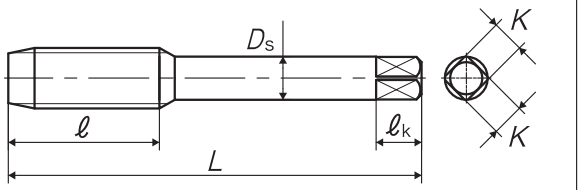

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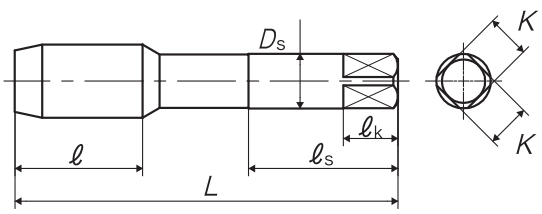

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M6 × 0.5	P3	TCNR6.0G3A	3P	55	11	-	6	4.5	7	3	2	¥ 20,300 ※
M6 × 0.5	P3	TCNR6.0G1A	1.5P	55	11	-	6	4.5	7	3	2	¥ 20,300 ※
M7 × 1	P3	TCNR7.0M3A	3P	65	19	-	6.2	5	8	3	3	¥ 20,500 ※
M7 × 1	P3	TCNR7.0M1A	1.5P	65	19	-	6.2	5	8	3	3	¥ 20,500 ※
M7 × 0.75	P3	TCNR7.0J3A	3P	62	13	-	6.2	5	8	3	3	¥ 22,200 ※
M7 × 0.75	P3	TCNR7.0J1A	1.5P	62	13	-	6.2	5	8	3	3	¥ 22,200 ※
M8 × 1.25	P3	TCNR8.0N3A	3P	70	22	-	6.2	5	8	3	3	¥ 20,500
M8 × 1.25	P3	TCNR8.0N1A	1.5P	70	22	-	6.2	5	8	3	3	¥ 20,500
M8 × 1.25	P4	TCNS8.0N3A	3P	70	22	-	6.2	5	8	3	3	¥ 20,500 ※
M8 × 1.25	P4	TCNS8.0N1A	1.5P	70	22	-	6.2	5	8	3	3	¥ 20,500 ※
M8 × 1	P3	TCNR8.0M3A	3P	70	19	-	6.2	5	8	3	3	¥ 20,500
M8 × 1	P3	TCNR8.0M1A	1.5P	70	19	-	6.2	5	8	3	3	¥ 20,500
M8 × 0.75	P3	TCNR8.0J3A	3P	62	13	-	6.2	5	8	3	3	¥ 22,200 ※
M8 × 0.75	P3	TCNR8.0J1A	1.5P	62	13	-	6.2	5	8	3	3	¥ 22,200 ※
M10 × 1.5	P3	TCNR010O3A	3P	75	24	-	7	5.5	8	3	3	¥ 27,900 ※
M10 × 1.5	P3	TCNR010O1A	1.5P	75	24	-	7	5.5	8	3	3	¥ 27,900 ※
M10 × 1.5	P4	TCNS010O3A	3P	75	24	-	7	5.5	8	3	3	¥ 27,900 ※
M10 × 1.5	P4	TCNS010O1A	1.5P	75	24	-	7	5.5	8	3	3	¥ 27,900 ※
M10 × 1.25	P3	TCNR010N3A	3P	75	22	-	7	5.5	8	3	3	¥ 27,900
M10 × 1.25	P3	TCNR010N1A	1.5P	75	22	-	7	5.5	8	3	3	¥ 27,900
M10 × 1.25	P4	TCNS010N3A	3P	75	22	-	7	5.5	8	3	3	¥ 27,900 ※
M10 × 1.25	P4	TCNS010N1A	1.5P	75	22	-	7	5.5	8	3	3	¥ 27,900 ※
M10 × 1	P3	TCNR010M3A	3P	70	19	-	7	5.5	8	3	3	¥ 27,900 ※
M10 × 1	P3	TCNR010M1A	1.5P	70	19	-	7	5.5	8	3	3	¥ 27,900 ※
M10 × 1	P4	TCNS010M3A	3P	70	19	-	7	5.5	8	3	3	¥ 27,900 ※
M10 × 1	P4	TCNS010M1A	1.5P	70	19	-	7	5.5	8	3	3	¥ 27,900 ※
M12 × 1.75	P3	TCNR012P3A	3P	82	30	-	8.5	6.5	9	3	3	¥ 37,000 ※
M12 × 1.75	P3	TCNR012P1A	1.5P	82	30	-	8.5	6.5	9	3	3	¥ 37,000 ※
M12 × 1.75	P4	TCNS012P3A	3P	82	30	-	8.5	6.5	9	3	3	¥ 37,000 ※
M12 × 1.75	P4	TCNS012P1A	1.5P	82	30	-	8.5	6.5	9	3	3	¥ 37,000 ※
M12 × 1.5	P3	TCNR012O3A	3P	82	24	-	8.5	6.5	9	3	3	¥ 37,000 ※
M12 × 1.5	P3	TCNR012O1A	1.5P	82	24	-	8.5	6.5	9	3	3	¥ 37,000 ※
M12 × 1.5	P4	TCNS012O3A	3P	82	24	-	8.5	6.5	9	3	3	¥ 37,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

N-CT LA Carbide Taps for Light Alloys

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M12 × 1.5	P4	TCNS01201A	1.5P	82	24	-	8.5	6.5	9	3	3	¥ 37,000 ※
M12 × 1.25	P3	TCNR012N3A	3P	80	22	-	8.5	6.5	9	3	3	¥ 37,000
M12 × 1.25	P3	TCNR012N1A	1.5P	80	22	-	8.5	6.5	9	3	3	¥ 37,000
M12 × 1.25	P4	TCNS012N3A	3P	80	22	-	8.5	6.5	9	3	3	¥ 37,000 ※
M12 × 1.25	P4	TCNS012N1A	1.5P	80	22	-	8.5	6.5	9	3	3	¥ 37,000 ※
M12 × 1	P3	TCNR012M3A	3P	70	19	-	8.5	6.5	9	3	3	¥ 40,800 ※
M12 × 1	P3	TCNR012M1A	1.5P	70	19	-	8.5	6.5	9	3	3	¥ 40,800 ※
M14 × 2	P3	TCNR014Q3A	3P	88	30	34	10.5	8	11	4	4	¥ 38,200 ※
M14 × 2	P3	TCNR014Q1A	1.5P	88	30	34	10.5	8	11	4	4	¥ 38,200 ※
M14 × 2	P4	TCNS014Q3A	3P	88	30	34	10.5	8	11	4	4	¥ 38,200 ※
M14 × 2	P4	TCNS014Q1A	1.5P	88	30	34	10.5	8	11	4	4	¥ 38,200 ※
M14 × 1.5	P3	TCNR01403A	3P	88	24	34	10.5	8	11	4	4	¥ 38,200 ※
M14 × 1.5	P3	TCNR01401A	1.5P	88	24	34	10.5	8	11	4	4	¥ 38,200 ※
M14 × 1.5	P4	TCNS01403A	3P	88	24	34	10.5	8	11	4	4	¥ 38,200 ※
M14 × 1.5	P4	TCNS01401A	1.5P	88	24	34	10.5	8	11	4	4	¥ 38,200 ※
M14 × 1.25	P3	TCNR014N3A	3P	88	22	34	10.5	8	11	4	4	¥ 41,800 ※
M14 × 1.25	P3	TCNR014N1A	1.5P	88	22	34	10.5	8	11	4	4	¥ 41,800 ※
M14 × 1	P3	TCNR014M3A	3P	70	19	37	10.5	8	11	4	4	¥ 41,800 ※
M14 × 1	P3	TCNR014M1A	1.5P	70	19	37	10.5	8	11	4	4	¥ 41,800 ※
M14 × 1	P4	TCNS014M3A	3P	70	19	37	10.5	8	11	4	4	¥ 41,800 ※
M14 × 1	P4	TCNS014M1A	1.5P	70	19	37	10.5	8	11	4	4	¥ 41,800 ※
M16 × 2	P4	TCNS016Q3A	3P	95	30	37	12.5	10	13	4	4	¥ 46,500 ※
M16 × 2	P4	TCNS016Q1A	1.5P	95	30	37	12.5	10	13	4	4	¥ 46,500 ※
M16 × 1.5	P3	TCNR01603A	3P	95	24	37	12.5	10	13	4	4	¥ 46,500 ※
M16 × 1.5	P3	TCNR01601A	1.5P	95	24	37	12.5	10	13	4	4	¥ 46,500 ※
M16 × 1.5	P4	TCNS01603A	3P	95	24	37	12.5	10	13	4	4	¥ 46,500 ※
M16 × 1.5	P4	TCNS01601A	1.5P	95	24	37	12.5	10	13	4	4	¥ 46,500 ※
M16 × 1	P3	TCNR016M3A	3P	75	19	41	12.5	10	13	4	4	¥ 49,700 ※
M16 × 1	P3	TCNR016M1A	1.5P	75	19	41	12.5	10	13	4	4	¥ 49,700 ※
M18 × 2.5	P4	TCNS018R3A	3P	100	35	38	14	11	14	4	4	¥ 54,800 ※
M18 × 2.5	P4	TCNS018R1A	1.5P	100	35	38	14	11	14	4	4	¥ 54,800 ※
M18 × 1.5	P4	TCNS01803A	3P	95	24	43	14	11	14	4	4	¥ 54,800 ※
M18 × 1.5	P4	TCNS01801A	1.5P	95	24	43	14	11	14	4	4	¥ 54,800 ※
M20 × 2.5	P4	TCNS020R3A	3P	105	35	41	15	12	15	4	4	¥ 64,600 ※
M20 × 2.5	P4	TCNS020R1A	1.5P	105	35	41	15	12	15	4	4	¥ 64,600 ※
M20 × 1.5	P4	TCNS02003A	3P	95	24	43	15	12	15	4	4	¥ 64,600 ※
M20 × 1.5	P4	TCNS02001A	1.5P	95	24	43	15	12	15	4	4	¥ 64,600 ※

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ANSI

ZELX CARB AL

Carbide Taps for Light Alloys



Specification

HF



■ZELX CARB AL is the carbide tap suitable for tapping aluminum castings (AC), aluminum die castings (ADC), and zinc die castings(ZDC). For volume production.

Recommended Tapping Speed depending on Materials

Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)

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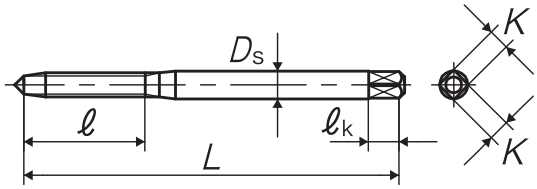

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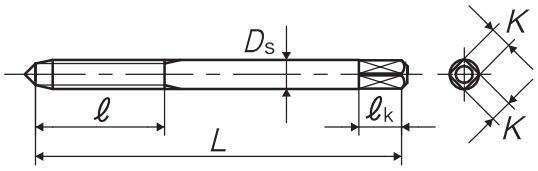

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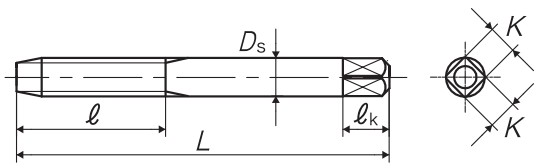

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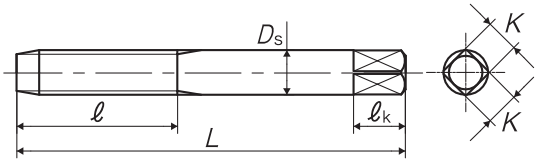

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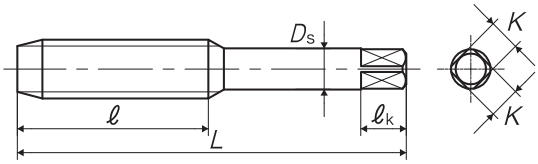


Segment : 1L

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads										
M3 × 0.5	D3	Y71000	4P	1.937	0.625	0.141	0.11	0.187	3	1
M3 × 0.5	D3	Y71001	1.5P	1.937	0.625	0.141	0.11	0.187	3	1
M4 × 0.7	D4	Y71002	4P	2.125	0.75	0.168	0.131	0.25	3	2
M4 × 0.7	D4	Y71003	1.5P	2.125	0.75	0.168	0.131	0.25	3	2
M5 × 0.8	D4	Y71004	4P	2.375	0.875	0.194	0.152	0.25	3	2
M5 × 0.8	D4	Y71005	1.5P	2.375	0.875	0.194	0.152	0.25	3	2
M6 × 1	D5	Y71006	4P	2.5	1	0.255	0.191	0.312	3	3
M6 × 1	D5	Y71007	1.5P	2.5	1	0.255	0.191	0.312	3	3
M8 × 1.25	D5	Y71010	4P	2.718	1.125	0.318	0.238	0.375	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ZELX CARB AL Carbide Taps for Light Alloys

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M8 × 1.25	D5	Y71011	1.5P	2.718	1.125	0.318	0.238	0.375	3	4
M8 × 1	D5	Y71008	4P	2.718	1.125	0.318	0.238	0.375	3	4
M8 × 1	D5	Y71009	1.5P	2.718	1.125	0.318	0.238	0.375	3	4
M10 × 1.5	D6	Y71014	4P	2.937	1.25	0.381	0.286	0.437	3	4
M10 × 1.5	D6	Y71015	1.5P	2.937	1.25	0.381	0.286	0.437	3	4
M10 × 1.25	D5	Y71012	4P	2.937	1.25	0.381	0.286	0.437	3	4
M10 × 1.25	D5	Y71013	1.5P	2.937	1.25	0.381	0.286	0.437	3	4
M12 × 1.75	D6	Y71020	4P	3.375	1.656	0.367	0.275	0.437	3	5
M12 × 1.75	D6	Y71021	1.5P	3.375	1.656	0.367	0.275	0.437	3	5
M12 × 1.5	D6	Y71018	4P	3.375	1.656	0.367	0.275	0.437	3	5
M12 × 1.5	D6	Y71019	1.5P	3.375	1.656	0.367	0.275	0.437	3	5
M12 × 1.25	D5	Y71016	4P	3.375	1.656	0.367	0.275	0.437	3	5
M12 × 1.25	D5	Y71017	1.5P	3.375	1.656	0.367	0.275	0.437	3	5
For Unified Threads										
No.5-40UNC	GH3	Y84800	4P	1.937	0.625	0.141	0.11	0.187	3	1
No.5-40UNC	GH3	Y84801	1.5P	1.937	0.625	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y84802	4P	2	0.687	0.141	0.11	0.187	3	2
No.6-32UNC	GH3	Y84803	1.5P	2	0.687	0.141	0.11	0.187	3	2
No.8-32UNC	GH3	Y84804	4P	2.125	0.75	0.168	0.131	0.25	3	2
No.8-32UNC	GH3	Y84805	1.5P	2.125	0.75	0.168	0.131	0.25	3	2
No.10-24UNC	GH3	Y84806	4P	2.375	0.875	0.194	0.152	0.25	3	2
No.10-24UNC	GH3	Y84807	1.5P	2.375	0.875	0.194	0.152	0.25	3	2
No.10-32UNF	GH3	Y84808	4P	2.375	0.875	0.194	0.152	0.25	3	2
No.10-32UNF	GH3	Y84809	1.5P	2.375	0.875	0.194	0.152	0.25	3	2
1/4-20UNC	GH3	Y84810	4P	2.5	1	0.255	0.191	0.312	3	3
1/4-20UNC	GH3	Y84811	1.5P	2.5	1	0.255	0.191	0.312	3	3
1/4-20UNC	GH5	Y84860	4P	2.5	1	0.255	0.191	0.312	3	3
1/4-20UNC	GH5	Y84861	1.5P	2.5	1	0.255	0.191	0.312	3	3
1/4-28UNF	GH3	Y84812	4P	2.5	1	0.255	0.191	0.312	3	3
1/4-28UNF	GH3	Y84813	1.5P	2.5	1	0.255	0.191	0.312	3	3
1/4-28UNF	GH5	Y84862	4P	2.5	1	0.255	0.191	0.312	3	3
1/4-28UNF	GH5	Y84863	1.5P	2.5	1	0.255	0.191	0.312	3	3
5/16-18UNC	GH3	Y84814	4P	2.718	1.125	0.318	0.238	0.375	3	4
5/16-18UNC	GH3	Y84815	1.5P	2.718	1.125	0.318	0.238	0.375	3	4
5/16-18UNC	GH5	Y84864	4P	2.718	1.125	0.318	0.238	0.375	3	4
5/16-18UNC	GH5	Y84865	1.5P	2.718	1.125	0.318	0.238	0.375	3	4
5/16-24UNF	GH3	Y84816	4P	2.718	1.125	0.318	0.238	0.375	3	4
5/16-24UNF	GH3	Y84817	1.5P	2.718	1.125	0.318	0.238	0.375	3	4
5/16-24UNF	GH5	Y84866	4P	2.718	1.125	0.318	0.238	0.375	3	4
5/16-24UNF	GH5	Y84867	1.5P	2.718	1.125	0.318	0.238	0.375	3	4
3/8-16UNC	GH3	Y84818	4P	2.937	1.25	0.381	0.286	0.437	3	4
3/8-16UNC	GH3	Y84819	1.5P	2.937	1.25	0.381	0.286	0.437	3	4
3/8-16UNC	GH5	Y84868	4P	2.937	1.25	0.381	0.286	0.437	3	4
3/8-16UNC	GH5	Y84869	1.5P	2.937	1.25	0.381	0.286	0.437	3	4
3/8-24UNF	GH3	Y84820	4P	2.937	1.25	0.381	0.286	0.437	3	4
3/8-24UNF	GH3	Y84821	1.5P	2.937	1.25	0.381	0.286	0.437	3	4
3/8-24UNF	GH5	Y84870	4P	2.937	1.25	0.381	0.286	0.437	3	4
3/8-24UNF	GH5	Y84871	1.5P	2.937	1.25	0.381	0.286	0.437	3	4
7/16-14UNC	GH3	Y84822	4P	3.156	1.437	0.323	0.242	0.406	3	5
7/16-14UNC	GH3	Y84823	1.5P	3.156	1.437	0.323	0.242	0.406	3	5

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ZELX CARB AL Carbide Taps for Light Alloys

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
7/16-14UNC	GH5	Y84872	4P	3.156	1.437	0.323	0.242	0.406	3	5
7/16-14UNC	GH5	Y84873	1.5P	3.156	1.437	0.323	0.242	0.406	3	5
7/16-20UNF	GH3	Y84824	4P	3.156	1.437	0.323	0.242	0.406	3	5
7/16-20UNF	GH3	Y84825	1.5P	3.156	1.437	0.323	0.242	0.406	3	5
7/16-20UNF	GH5	Y84874	4P	3.156	1.437	0.323	0.242	0.406	3	5
7/16-20UNF	GH5	Y84875	1.5P	3.156	1.437	0.323	0.242	0.406	3	5
1/2-13UNC	GH3	Y84826	4P	3.375	1.656	0.367	0.275	0.437	3	5
1/2-13UNC	GH3	Y84827	1.5P	3.375	1.656	0.367	0.275	0.437	3	5
1/2-13UNC	GH5	Y84876	4P	3.375	1.656	0.367	0.275	0.437	3	5
1/2-13UNC	GH5	Y84877	1.5P	3.375	1.656	0.367	0.275	0.437	3	5
1/2-20UNF	GH3	Y84828	4P	3.375	1.656	0.367	0.275	0.437	3	5
1/2-20UNF	GH3	Y84829	1.5P	3.375	1.656	0.367	0.275	0.437	3	5
1/2-20UNF	GH5	Y84878	4P	3.375	1.656	0.367	0.275	0.437	3	5
1/2-20UNF	GH5	Y84879	1.5P	3.375	1.656	0.367	0.275	0.437	3	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

CT LA

Carbide Taps for Light Alloys



Specification

HF

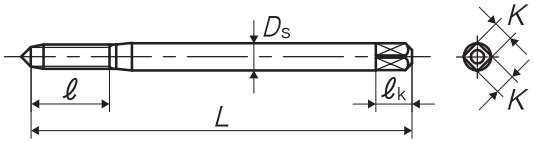


■CT LA is the carbide tap suitable for tapping aluminum castings (AC), aluminum die castings (ADC), and zinc diecastings (ZDC). For volume production.

Recommended Tapping Speeds depending on Materials

Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)

TYPE: 1



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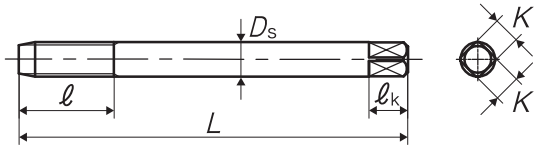

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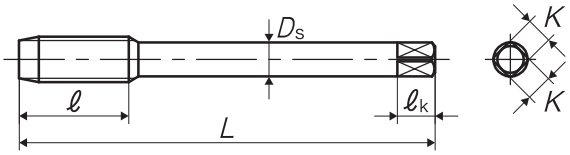


Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads											
M3 × 0.5	ISO2X	TD3.0GBLWB3	3P	56	11	-	3.5	2.7	6	3	1
M4 × 0.7	ISO2X	TD4.0IBLWB3	3P	63	13	-	4.5	3.4	6	3	1
M5 × 0.8	ISO2X	TD5.0KBLWB3	3P	70	16	-	6	4.9	8	3	1
M6 × 1	ISO2X	TD6.0MBLWB3	3P	80	19	-	6	4.9	8	3	1
M8 × 1.25	ISO2X	TD8.0KBLWB3	3P	90	22	-	8	6.2	9	3	2
M10 × 1.5	ISO2X	TD0100BLWB3	3P	100	24	-	10	8	11	3	2
M12 × 1.75	ISO2X	TG012PBLWB3	3P	110	29	-	9	7	10	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

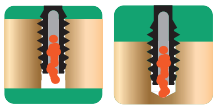
N-CT FC

Carbide Taps for Cast Irons



Specification

HF



■N-CT FC is the carbide tap suitable for hard and abrasive materials such as cast irons. For volume production.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄	Brass castings 黄銅鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

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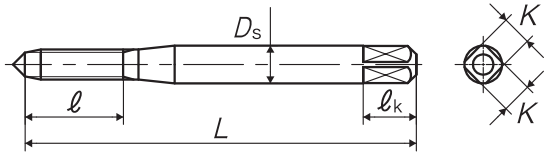

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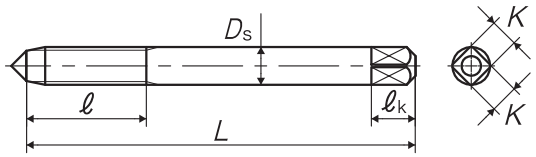

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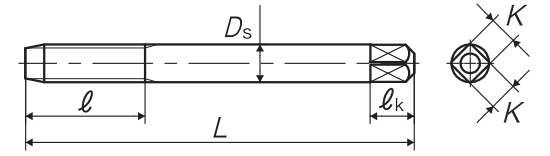

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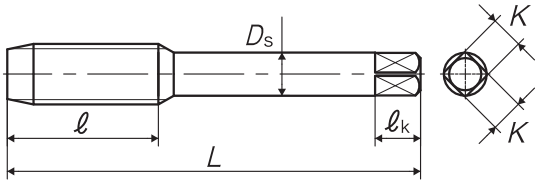

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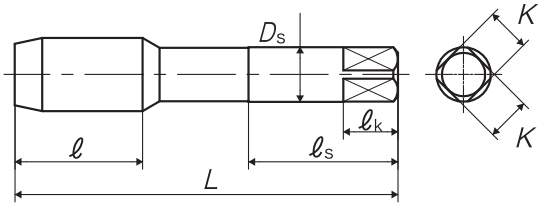

Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads												
M1.4 × 0.3	P3	TCNR1.4C3	3P	34	7	-	3	2.5	5	3	1	¥ 17,800 ※
M1.4 × 0.3	P3	TCNR1.4C1	1.5P	34	7	-	3	2.5	5	3	1	¥ 17,800 ※
M1.6 × 0.35	P3	TCNR1.6D3	3P	36	8	-	3	2.5	5	3	1	¥ 15,800 ※
M1.6 × 0.35	P3	TCNR1.6D1	1.5P	36	8	-	3	2.5	5	3	1	¥ 15,800 ※
M1.7 × 0.35	P3	TCNR1.7D3	3P	36	8	-	3	2.5	5	3	1	¥ 15,800 ※
M1.7 × 0.35	P3	TCNR1.7D1	1.5P	36	8	-	3	2.5	5	3	1	¥ 15,800 ※
M2 × 0.4	P3	TCNR2.0E3	3P	40	8	-	3	2.5	5	3	1	¥ 14,400
M2 × 0.4	P3	TCNR2.0E1	1.5P	40	8	-	3	2.5	5	3	1	¥ 14,400
M2.2 × 0.45	P3	TCNR2.2F3	3P	42	9.5	-	3	2.5	5	3	1	¥ 13,800 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

N-CT FC Carbide Taps for Cast Irons

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M2.2 × 0.45	P3	TCNR2.2F1	1.5P	42	9.5	-	3	2.5	5	3	1	¥ 13,800 ※
M2.3 × 0.4	P3	TCNR2.3E3	3P	42	8	-	3	2.5	5	3	1	¥ 13,800 ※
M2.3 × 0.4	P3	TCNR2.3E1	1.5P	42	8	-	3	2.5	5	3	1	¥ 13,800 ※
M2.5 × 0.45	P3	TCNR2.5F3	3P	44	9.5	-	3	2.5	5	3	1	¥ 13,700 ※
M2.5 × 0.45	P3	TCNR2.5F1	1.5P	44	9.5	-	3	2.5	5	3	1	¥ 13,700 ※
M2.6 × 0.45	P3	TCNR2.6F3	3P	44	9.5	-	3	2.5	5	3	1	¥ 13,700
M2.6 × 0.45	P3	TCNR2.6F1	1.5P	44	9.5	-	3	2.5	5	3	1	¥ 13,700
M3 × 0.5	P3	TCNR3.0G3	3P	46	11	-	4	3.2	6	3	1	¥ 13,300
M3 × 0.5	P3	TCNR3.0G1	1.5P	46	11	-	4	3.2	6	3	1	¥ 13,300
M3 × 0.35	P3	TCNR3.0D3	3P	46	8	-	4	3.2	6	3	1	¥ 15,600 ※
M3 × 0.35	P3	TCNR3.0D1	1.5P	46	8	-	4	3.2	6	3	1	¥ 15,600 ※
M3.5 × 0.6	P3	TCNR3.5H3	3P	48	11	-	4	3.2	6	3	1	¥ 14,000
M3.5 × 0.6	P3	TCNR3.5H1	1.5P	48	11	-	4	3.2	6	3	1	¥ 14,000
M4 × 0.7	P3	TCNR4.0I3	3P	52	13	-	5	4	7	4	1	¥ 14,000
M4 × 0.7	P3	TCNR4.0I1	1.5P	52	13	-	5	4	7	4	1	¥ 14,000
M4 × 0.5	P3	TCNR4.0G3	3P	52	11	-	5	4	7	4	1	¥ 15,600 ※
M4 × 0.5	P3	TCNR4.0G1	1.5P	52	11	-	5	4	7	4	1	¥ 15,600 ※
M5 × 0.8	P3	TCNR5.0K3	3P	60	16	-	5.5	4.5	7	4	1	¥ 14,700
M5 × 0.8	P3	TCNR5.0K1	1.5P	60	16	-	5.5	4.5	7	4	1	¥ 14,700
M5 × 0.5	P3	TCNR5.0G3	3P	52	11	-	5.5	4.5	7	4	1	¥ 15,900 ※
M5 × 0.5	P3	TCNR5.0G1	1.5P	52	11	-	5.5	4.5	7	4	1	¥ 15,900 ※
M6 × 1	P3	TCNR6.0M3	3P	62	19	-	6	4.5	7	4	2	¥ 15,800
M6 × 1	P3	TCNR6.0M3F	3P	62	19	-	6	4.5	7	4	3	¥ 15,800
M6 × 1	P3	TCNR6.0M1	1.5P	62	19	-	6	4.5	7	4	2	¥ 15,800
M6 × 1	P3	TCNR6.0M1F	1.5P	62	19	-	6	4.5	7	4	3	¥ 15,800
M6 × 0.75	P3	TCNR6.0J3	3P	62	13	-	6	4.5	7	4	2	¥ 17,400
M6 × 0.75	P3	TCNR6.0J1	1.5P	62	13	-	6	4.5	7	4	2	¥ 17,400
M6 × 0.5	P3	TCNR6.0G3	3P	55	11	-	6	4.5	7	4	2	¥ 20,300 ※
M6 × 0.5	P3	TCNR6.0G1	1.5P	55	11	-	6	4.5	7	4	2	¥ 20,300 ※
M7 × 1	P3	TCNR7.0M3	3P	65	19	-	6.2	5	8	4	4	¥ 20,500
M7 × 1	P3	TCNR7.0M1	1.5P	65	19	-	6.2	5	8	4	4	¥ 20,500
M7 × 0.75	P3	TCNR7.0J3	3P	62	13	-	6.2	5	8	4	4	¥ 22,200 ※
M7 × 0.75	P3	TCNR7.0J1	1.5P	62	13	-	6.2	5	8	4	4	¥ 22,200 ※
M8 × 1.25	P3	TCNR8.0N3	3P	70	22	-	6.2	5	8	4	4	¥ 20,500
M8 × 1.25	P3	TCNR8.0N1	1.5P	70	22	-	6.2	5	8	4	4	¥ 20,500
M8 × 1.25	P4	TCNS8.0N3	3P	70	22	-	6.2	5	8	4	4	¥ 20,500 ※
M8 × 1.25	P4	TCNS8.0N1	1.5P	70	22	-	6.2	5	8	4	4	¥ 20,500 ※
M8 × 1	P3	TCNR8.0M3	3P	70	19	-	6.2	5	8	4	4	¥ 20,500
M8 × 1	P3	TCNR8.0M1	1.5P	70	19	-	6.2	5	8	4	4	¥ 20,500
M8 × 0.75	P3	TCNR8.0J3	3P	62	13	-	6.2	5	8	4	4	¥ 22,200 ※
M8 × 0.75	P3	TCNR8.0J1	1.5P	62	13	-	6.2	5	8	4	4	¥ 22,200 ※
M10 × 1.5	P3	TCNR010O3	3P	75	24	-	7	5.5	8	4	4	¥ 27,900
M10 × 1.5	P3	TCNR010O1	1.5P	75	24	-	7	5.5	8	4	4	¥ 27,900
M10 × 1.5	P4	TCNS010O3	3P	75	24	-	7	5.5	8	4	4	¥ 27,900 ※
M10 × 1.5	P4	TCNS010O1	1.5P	75	24	-	7	5.5	8	4	4	¥ 27,900 ※
M10 × 1.25	P3	TCNR010N3	3P	75	22	-	7	5.5	8	4	4	¥ 27,900
M10 × 1.25	P3	TCNR010N1	1.5P	75	22	-	7	5.5	8	4	4	¥ 27,900
M10 × 1.25	P4	TCNS010N3	3P	75	22	-	7	5.5	8	4	4	¥ 27,900 ※
M10 × 1.25	P4	TCNS010N1	1.5P	75	22	-	7	5.5	8	4	4	¥ 27,900 ※
M10 × 1	P3	TCNR010M3	3P	70	19	-	7	5.5	8	4	4	¥ 27,900

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

N-CT FC Carbide Taps for Cast Irons

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M10 × 1	P3	TCNR010M1	1.5P	70	19	-	7	5.5	8	4	4	¥ 27,900
M10 × 1	P4	TCNS010M3	3P	70	19	-	7	5.5	8	4	4	¥ 27,900 ※
M10 × 1	P4	TCNS010M1	1.5P	70	19	-	7	5.5	8	4	4	¥ 27,900 ※
M12 × 1.75	P3	TCNR012P3	3P	82	30	-	8.5	6.5	9	4	4	¥ 37,000
M12 × 1.75	P3	TCNR012P1	1.5P	82	30	-	8.5	6.5	9	4	4	¥ 37,000
M12 × 1.75	P4	TCNS012P3	3P	82	30	-	8.5	6.5	9	4	4	¥ 37,000
M12 × 1.75	P4	TCNS012P1	1.5P	82	30	-	8.5	6.5	9	4	4	¥ 37,000
M12 × 1.5	P3	TCNR012O3	3P	82	24	-	8.5	6.5	9	4	4	¥ 37,000
M12 × 1.5	P3	TCNR012O1	1.5P	82	24	-	8.5	6.5	9	4	4	¥ 37,000
M12 × 1.5	P4	TCNS012O3	3P	82	24	-	8.5	6.5	9	4	4	¥ 37,000 ※
M12 × 1.5	P4	TCNS012O1	1.5P	82	24	-	8.5	6.5	9	4	4	¥ 37,000 ※
M12 × 1.25	P3	TCNR012N3	3P	80	22	-	8.5	6.5	9	4	4	¥ 37,000
M12 × 1.25	P3	TCNR012N1	1.5P	80	22	-	8.5	6.5	9	4	4	¥ 37,000
M12 × 1.25	P4	TCNS012N3	3P	80	22	-	8.5	6.5	9	4	4	¥ 37,000 ※
M12 × 1.25	P4	TCNS012N1	1.5P	80	22	-	8.5	6.5	9	4	4	¥ 37,000 ※
M12 × 1	P3	TCNR012M3	3P	70	19	-	8.5	6.5	9	4	4	¥ 40,800 ※
M12 × 1	P3	TCNR012M1	1.5P	70	19	-	8.5	6.5	9	4	4	¥ 40,800 ※
M12 × 1	P4	TCNS012M3	3P	70	19	-	8.5	6.5	9	4	4	¥ 40,800 ※
M12 × 1	P4	TCNS012M1	1.5P	70	19	-	8.5	6.5	9	4	4	¥ 40,800 ※
M14 × 2	P3	TCNR014Q3	3P	88	30	34	10.5	8	11	4	5	¥ 38,200 ※
M14 × 2	P3	TCNR014Q1	1.5P	88	30	34	10.5	8	11	4	5	¥ 38,200 ※
M14 × 2	P4	TCNS014Q3	3P	88	30	34	10.5	8	11	4	5	¥ 38,200
M14 × 2	P4	TCNS014Q1	1.5P	88	30	34	10.5	8	11	4	5	¥ 38,200
M14 × 1.5	P3	TCNR014O3	3P	88	24	34	10.5	8	11	4	5	¥ 38,200
M14 × 1.5	P3	TCNR014O1	1.5P	88	24	34	10.5	8	11	4	5	¥ 38,200
M14 × 1.5	P4	TCNS014O3	3P	88	24	34	10.5	8	11	4	5	¥ 38,200 ※
M14 × 1.5	P4	TCNS014O1	1.5P	88	24	34	10.5	8	11	4	5	¥ 38,200 ※
M14 × 1.25	P3	TCNR014N3	3P	88	22	34	10.5	8	11	4	5	¥ 41,800 ※
M14 × 1.25	P3	TCNR014N1	1.5P	88	22	34	10.5	8	11	4	5	¥ 41,800 ※
M14 × 1.25	P4	TCNS014N3	3P	88	22	34	10.5	8	11	4	5	¥ 41,800 ※
M14 × 1.25	P4	TCNS014N1	1.5P	88	22	34	10.5	8	11	4	5	¥ 41,800 ※
M14 × 1	P3	TCNR014M3	3P	70	19	37	10.5	8	11	4	5	¥ 41,800 ※
M14 × 1	P3	TCNR014M1	1.5P	70	19	37	10.5	8	11	4	5	¥ 41,800 ※
M14 × 1	P4	TCNS014M3	3P	70	19	37	10.5	8	11	4	5	¥ 41,800 ※
M14 × 1	P4	TCNS014M1	1.5P	70	19	37	10.5	8	11	4	5	¥ 41,800 ※
M16 × 2	P4	TCNS016Q3	3P	95	30	37	12.5	10	13	4	5	¥ 46,500
M16 × 2	P4	TCNS016Q1	1.5P	95	30	37	12.5	10	13	4	5	¥ 46,500
M16 × 1.5	P3	TCNR016O3	3P	95	24	37	12.5	10	13	4	5	¥ 46,500 ※
M16 × 1.5	P3	TCNR016O1	1.5P	95	24	37	12.5	10	13	4	5	¥ 46,500 ※
M16 × 1.5	P4	TCNS016O3	3P	95	24	37	12.5	10	13	4	5	¥ 46,500
M16 × 1.5	P4	TCNS016O1	1.5P	95	24	37	12.5	10	13	4	5	¥ 46,500
M16 × 1	P4	TCNS016M3	3P	75	19	41	12.5	10	13	4	5	¥ 49,700
M16 × 1	P4	TCNS016M1	1.5P	75	19	41	12.5	10	13	4	5	¥ 49,700
M18 × 2.5	P4	TCNS018R3	3P	100	35	38	14	11	14	4	5	¥ 54,800 ※
M18 × 2.5	P4	TCNS018R1	1.5P	100	35	38	14	11	14	4	5	¥ 54,800 ※
M18 × 1.5	P4	TCNS018O3	3P	95	24	43	14	11	14	4	5	¥ 54,800
M18 × 1.5	P4	TCNS018O1	1.5P	95	24	43	14	11	14	4	5	¥ 54,800
M20 × 2.5	P4	TCNS020R3	3P	105	35	41	15	12	15	4	5	¥ 64,600
M20 × 2.5	P4	TCNS020R1	1.5P	105	35	41	15	12	15	4	5	¥ 64,600
M20 × 1.5	P4	TCNS020O3	3P	95	24	43	15	12	15	4	5	¥ 64,600

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

N-CT FC Carbide Taps for Cast Irons

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M20 × 1.5	P4	TCNS02001	1.5P	95	24	43	15	12	15	4	5	¥ 64,600
M22 × 2.5	P4	TCNS022R3	3P	115	35	45	17	13	16	4	5	¥ 73,100 ※
M22 × 2.5	P4	TCNS022R1	1.5P	115	35	45	17	13	16	4	5	¥ 73,100 ※
M22 × 1.5	P4	TCNS02203	3P	95	24	42	17	13	16	4	5	¥ 73,100 ※
M22 × 1.5	P4	TCNS02201	1.5P	95	24	42	17	13	16	4	5	¥ 73,100 ※
M24 × 3	P4	TCNS024S3	3P	120	35	47	19	15	18	4	5	¥ 82,100 ※
M24 × 3	P4	TCNS024S1	1.5P	120	35	47	19	15	18	4	5	¥ 82,100 ※
M24 × 1.5	P4	TCNS02403	3P	95	24	42	19	15	18	4	5	¥ 82,100 ※
M24 × 1.5	P4	TCNS02401	1.5P	95	24	42	19	15	18	4	5	¥ 82,100 ※
M30 × 3.5	P5	TCNT030T3	3P	135	45	53	23	17	20	4	5	¥103,000 ※
M30 × 3.5	P5	TCNT030T1	1.5P	135	45	53	23	17	20	4	5	¥103,000 ※
For Unified Threads												
No.4-40UNC	P3	TCNRUN4H3	3P	44	9.5	-	3	2.5	5	3	1	¥ 15,100 ※
No.4-40UNC	P3	TCNRUN4H1	1.5P	44	9.5	-	3	2.5	5	3	1	¥ 15,100 ※
No.4-48UNF	P3	TCNRUN4F3	3P	44	9.5	-	3	2.5	5	3	1	¥ 15,100 ※
No.4-48UNF	P3	TCNRUN4F1	1.5P	44	9.5	-	3	2.5	5	3	1	¥ 15,100 ※
No.5-40UNC	P3	TCNRUN5H3	3P	46	9.5	-	4	3.2	6	3	1	¥ 15,900 ※
No.5-40UNC	P3	TCNRUN5H1	1.5P	46	9.5	-	4	3.2	6	3	1	¥ 15,900 ※
No.6-32UNC	P3	TCNRUN6J3	3P	48	11	-	4	3.2	6	3	1	¥ 15,900 ※
No.6-32UNC	P3	TCNRUN6J1	1.5P	48	11	-	4	3.2	6	3	1	¥ 15,900 ※
No.8-32UNC	P3	TCNRUN8J3	3P	52	11	-	5	4	7	4	1	¥ 16,400 ※
No.8-32UNC	P3	TCNRUN8J1	1.5P	52	11	-	5	4	7	4	1	¥ 16,400 ※
No.10-24UNC	P3	TCNRUNAM3	3P	60	16	-	5.5	4.5	7	4	1	¥ 16,400 ※
No.10-24UNC	P3	TCNRUNAM1	1.5P	60	16	-	5.5	4.5	7	4	1	¥ 16,400 ※
No.10-32UNF	P3	TCNRUNAJ3	3P	60	11	-	5.5	4.5	7	4	1	¥ 16,400 ※
No.10-32UNF	P3	TCNRUNAJ1	1.5P	60	11	-	5.5	4.5	7	4	1	¥ 16,400 ※
1/4-20UNC	P3	TCNRU04N3	3P	62	19	-	6	4.5	7	4	3	¥ 18,200 ※
1/4-20UNC	P3	TCNRU04N1	1.5P	62	19	-	6	4.5	7	4	3	¥ 18,200 ※
1/4-28UNF	P3	TCNRU04K3	3P	62	16	-	6	4.5	7	4	3	¥ 18,200 ※
1/4-28UNF	P3	TCNRU04K1	1.5P	62	16	-	6	4.5	7	4	3	¥ 18,200 ※
5/16-18UNC	P3	TCNRU05O3	3P	70	22	-	6.1	5	8	4	4	¥ 23,400 ※
5/16-18UNC	P3	TCNRU05O1	1.5P	70	22	-	6.1	5	8	4	4	¥ 23,400 ※
5/16-24UNF	P3	TCNRU05M3	3P	70	16	-	6.1	5	8	4	4	¥ 23,400 ※
5/16-24UNF	P3	TCNRU05M1	1.5P	70	16	-	6.1	5	8	4	4	¥ 23,400 ※
3/8-16UNC	P3	TCNRU06P3	3P	75	24	-	7	5.5	8	4	4	¥ 32,000 ※
3/8-16UNC	P3	TCNRU06P1	1.5P	75	24	-	7	5.5	8	4	4	¥ 32,000 ※
3/8-24UNF	P3	TCNRU06M3	3P	75	16	-	7	5.5	8	4	4	¥ 32,000 ※
3/8-24UNF	P3	TCNRU06M1	1.5P	75	16	-	7	5.5	8	4	4	¥ 32,000 ※
7/16-14UNC	P3	TCNRU07Q3	3P	80	24	-	8	6	9	4	4	¥ 42,500 ※
7/16-14UNC	P3	TCNRU07Q1	1.5P	80	24	-	8	6	9	4	4	¥ 42,500 ※
7/16-20UNF	P3	TCNRU07N3	3P	80	19	-	8	6	9	4	4	¥ 42,500 ※
7/16-20UNF	P3	TCNRU07N1	1.5P	80	19	-	8	6	9	4	4	¥ 42,500 ※
1/2-13UNC	P3	TCNRU08R3	3P	85	30	32	9	7	10	4	5	¥ 45,100 ※
1/2-13UNC	P3	TCNRU08R1	1.5P	85	30	32	9	7	10	4	5	¥ 45,100 ※
1/2-20UNF	P3	TCNRU08N3	3P	85	19	32	9	7	10	4	5	¥ 45,100 ※
1/2-20UNF	P3	TCNRU08N1	1.5P	85	19	32	9	7	10	4	5	¥ 45,100 ※
5/8-11UNC	P4	TCNSU10U3	3P	95	30	38	12	9	12	4	5	¥ 53,400 ※
5/8-11UNC	P4	TCNSU10U1	1.5P	95	30	38	12	9	12	4	5	¥ 53,400 ※
5/8-18UNF	P4	TCNSU10O3	3P	95	22	38	12	9	12	4	5	¥ 53,400 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

N-CT FC Carbide Taps for Cast Irons

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
5/8-18UNF	P4	TCNSU1001	1.5P	95	22	38	12	9	12	4	5	¥ 53,400 ※
3/4-10UNC	P4	TCNSU12V3	3P	105	35	41	14	11	14	4	5	¥ 73,700 ※
3/4-10UNC	P4	TCNSU12V1	1.5P	105	35	41	14	11	14	4	5	¥ 73,700 ※
3/4-16UNF	P4	TCNSU12P3	3P	95	24	43	14	11	14	4	5	¥ 73,700 ※
3/4-16UNF	P4	TCNSU12P1	1.5P	95	24	43	14	11	14	4	5	¥ 73,700 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ANSI

ZELX CARB CI



Carbide Taps for Cast Irons

Specification

HF



■ZELX CARB CI is the carbide tap suitable for hard and abrasive materials such as cast irons. For volume production.

Recommended Tapping Speed depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄	Brass castings 黄銅鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

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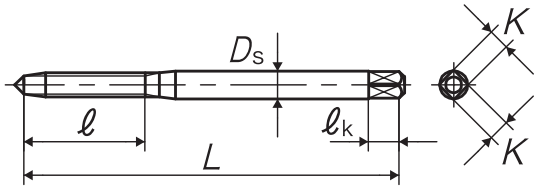

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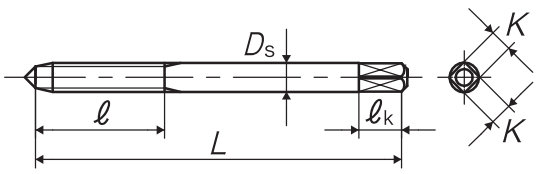

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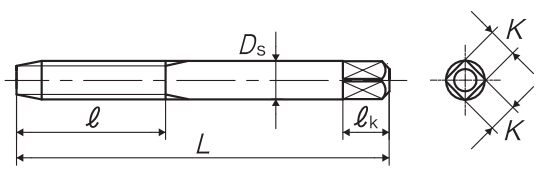

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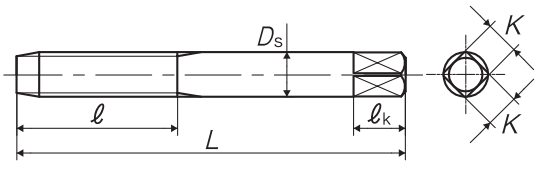

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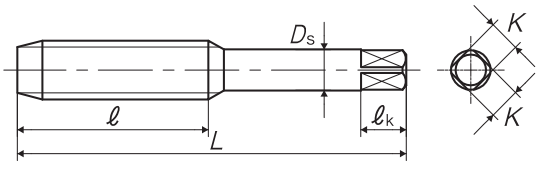


Segment : 1L

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Metric Threads										
M3 × 0.5	D3	Y70000	4P	1.937	0.625	0.141	0.11	0.187	3	1
M3 × 0.5	D3	Y70001	1.5P	1.937	0.625	0.141	0.11	0.187	3	1
M4 × 0.7	D4	Y70002	4P	2.125	0.75	0.168	0.131	0.25	4	2
M4 × 0.7	D4	Y70003	1.5P	2.125	0.75	0.168	0.131	0.25	4	2
M5 × 0.8	D4	Y70004	4P	2.375	0.875	0.194	0.152	0.25	4	2
M5 × 0.8	D4	Y70005	1.5P	2.375	0.875	0.194	0.152	0.25	4	2
M6 × 1	D5	Y70006	4P	2.5	1	0.255	0.191	0.312	4	3
M6 × 1	D5	Y70007	1.5P	2.5	1	0.255	0.191	0.312	4	3
M8 × 1.25	D5	Y70010	4P	2.718	1.125	0.318	0.238	0.375	4	4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M8 × 1.25	D5	Y70011	1.5P	2.718	1.125	0.318	0.238	0.375	4	4
M8 × 1	D5	Y70008	4P	2.718	1.125	0.318	0.238	0.375	4	4
M8 × 1	D5	Y70009	1.5P	2.718	1.125	0.318	0.238	0.375	4	4
M10 × 1.5	D6	Y70014	4P	2.937	1.25	0.381	0.286	0.437	4	4
M10 × 1.5	D6	Y70015	1.5P	2.937	1.25	0.381	0.286	0.437	4	4
M10 × 1.25	D5	Y70012	4P	2.937	1.25	0.381	0.286	0.437	4	4
M10 × 1.25	D5	Y70013	1.5P	2.937	1.25	0.381	0.286	0.437	4	4
M12 × 1.75	D6	Y70020	4P	3.375	1.656	0.367	0.275	0.437	4	5
M12 × 1.75	D6	Y70021	1.5P	3.375	1.656	0.367	0.275	0.437	4	5
M12 × 1.5	D6	Y70018	4P	3.375	1.656	0.367	0.275	0.437	4	5
M12 × 1.25	D5	Y70016	4P	3.375	1.656	0.367	0.275	0.437	4	5
M12 × 1.25	D5	Y70017	1.5P	3.375	1.656	0.367	0.275	0.437	4	5
M14 × 2	D7	Y70024	4P	3.593	1.656	0.429	0.322	0.5	4	5
M14 × 2	D7	Y70025	1.5P	3.593	1.656	0.429	0.322	0.5	4	5
M14 × 1.5	D6	Y70022	4P	3.593	1.656	0.429	0.322	0.5	4	5
M16 × 2	D7	Y70028	4P	3.812	1.812	0.48	0.36	0.562	4	5
M16 × 2	D7	Y70029	1.5P	3.812	1.812	0.48	0.36	0.562	4	5
M16 × 1.5	D6	Y70026	4P	3.812	1.812	0.48	0.36	0.562	4	5
M16 × 1.5	D6	Y70027	1.5P	3.812	1.812	0.48	0.36	0.562	4	5
For Unified Threads										
No.10-24UNC	GH3	Y83806	4P	2.375	0.875	0.194	0.152	0.25	4	2
No.10-24UNC	GH3	Y83807	1.5P	2.375	0.875	0.194	0.152	0.25	4	2
No.10-32UNF	GH3	Y83808	4P	2.375	0.875	0.194	0.152	0.25	4	2
No.10-32UNF	GH3	Y83809	1.5P	2.375	0.875	0.194	0.152	0.25	4	2
1/4-20UNC	GH3	Y83810	4P	2.5	1	0.255	0.191	0.312	4	3
1/4-20UNC	GH3	Y83811	1.5P	2.5	1	0.255	0.191	0.312	4	3
1/4-20UNC	GH5	Y83860	4P	2.5	1	0.255	0.191	0.312	4	3
1/4-20UNC	GH5	Y83861	1.5P	2.5	1	0.255	0.191	0.312	4	3
1/4-28UNF	GH3	Y83812	4P	2.5	1	0.255	0.191	0.312	4	3
1/4-28UNF	GH3	Y83813	1.5P	2.5	1	0.255	0.191	0.312	4	3
1/4-28UNF	GH5	Y83862	4P	2.5	1	0.255	0.191	0.312	4	3
1/4-28UNF	GH5	Y83863	1.5P	2.5	1	0.255	0.191	0.312	4	3
5/16-18UNC	GH3	Y83814	4P	2.718	1.125	0.318	0.238	0.375	4	4
5/16-18UNC	GH3	Y83815	1.5P	2.718	1.125	0.318	0.238	0.375	4	4
5/16-18UNC	GH5	Y83864	4P	2.718	1.125	0.318	0.238	0.375	4	4
5/16-18UNC	GH5	Y83865	1.5P	2.718	1.125	0.318	0.238	0.375	4	4
5/16-24UNF	GH3	Y83816	4P	2.718	1.125	0.318	0.238	0.375	4	4
5/16-24UNF	GH3	Y83817	1.5P	2.718	1.125	0.318	0.238	0.375	4	4
5/16-24UNF	GH5	Y83866	4P	2.718	1.125	0.318	0.238	0.375	4	4
5/16-24UNF	GH5	Y83867	1.5P	2.718	1.125	0.318	0.238	0.375	4	4
3/8-16UNC	GH3	Y83818	4P	2.937	1.25	0.381	0.286	0.437	4	4
3/8-16UNC	GH3	Y83819	1.5P	2.937	1.25	0.381	0.286	0.437	4	4
3/8-16UNC	GH5	Y83868	4P	2.937	1.25	0.381	0.286	0.437	4	4
3/8-16UNC	GH5	Y83869	1.5P	2.937	1.25	0.381	0.286	0.437	4	4
3/8-24UNF	GH3	Y83820	4P	2.937	1.25	0.381	0.286	0.437	4	4
3/8-24UNF	GH3	Y83821	1.5P	2.937	1.25	0.381	0.286	0.437	4	4
3/8-24UNF	GH5	Y83870	4P	2.937	1.25	0.381	0.286	0.437	4	4
3/8-24UNF	GH5	Y83871	1.5P	2.937	1.25	0.381	0.286	0.437	4	4
7/16-14UNC	GH3	Y83822	4P	3.156	1.437	0.323	0.242	0.406	4	5
7/16-14UNC	GH3	Y83823	1.5P	3.156	1.437	0.323	0.242	0.406	4	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ZELX CARB CI Carbide Taps for Cast Irons

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
7/16-14UNC	GH5	Y83872	4P	3.156	1.437	0.323	0.242	0.406	4	5
7/16-14UNC	GH5	Y83873	1.5P	3.156	1.437	0.323	0.242	0.406	4	5
7/16-20UNF	GH3	Y83824	4P	3.156	1.437	0.323	0.242	0.406	4	5
7/16-20UNF	GH3	Y83825	1.5P	3.156	1.437	0.323	0.242	0.406	4	5
7/16-20UNF	GH5	Y83874	4P	3.156	1.437	0.323	0.242	0.406	4	5
7/16-20UNF	GH5	Y83875	1.5P	3.156	1.437	0.323	0.242	0.406	4	5
1/2-13UNC	GH3	Y83826	4P	3.375	1.656	0.367	0.275	0.437	4	5
1/2-13UNC	GH3	Y83827	1.5P	3.375	1.656	0.367	0.275	0.437	4	5
1/2-13UNC	GH5	Y83876	4P	3.375	1.656	0.367	0.275	0.437	4	5
1/2-13UNC	GH5	Y83877	1.5P	3.375	1.656	0.367	0.275	0.437	4	5
1/2-20UNF	GH3	Y83828	4P	3.375	1.656	0.367	0.275	0.437	4	5
1/2-20UNF	GH3	Y83829	1.5P	3.375	1.656	0.367	0.275	0.437	4	5
1/2-20UNF	GH5	Y83878	4P	3.375	1.656	0.367	0.275	0.437	4	5
1/2-20UNF	GH5	Y83879	1.5P	3.375	1.656	0.367	0.275	0.437	4	5
5/8-11UNC	GH3	Y83834	4P	3.812	1.812	0.48	0.36	0.562	4	5
5/8-11UNC	GH3	Y83835	1.5P	3.812	1.812	0.48	0.36	0.562	4	5
5/8-11UNC	GH5	Y83884	4P	3.812	1.812	0.48	0.36	0.562	4	5
5/8-11UNC	GH5	Y83885	1.5P	3.812	1.812	0.48	0.36	0.562	4	5
5/8-18UNF	GH3	Y83836	4P	3.812	1.812	0.48	0.36	0.562	4	5
5/8-18UNF	GH3	Y83837	1.5P	3.812	1.812	0.48	0.36	0.562	4	5
5/8-18UNF	GH5	Y83886	4P	3.812	1.812	0.48	0.36	0.562	4	5
5/8-18UNF	GH5	Y83887	1.5P	3.812	1.812	0.48	0.36	0.562	4	5

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

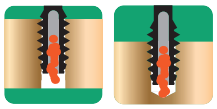
LS-N-CT

Long Shank Carbide Taps



Specification

HF



■The LS-N-CT is a long shank carbide tap suitable for thread processing in mass production of hard and brittle materials

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄	Brass castings 黄銅鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

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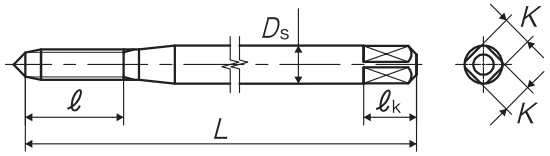

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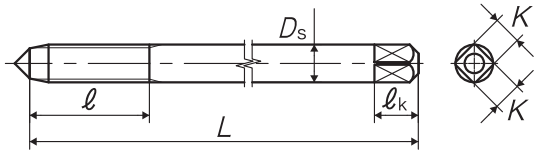

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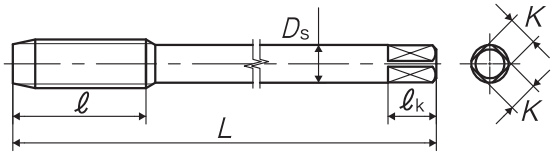

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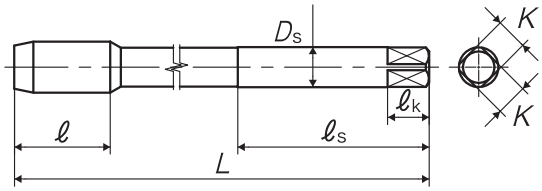

Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads												
M3 × 0.5	P3	TY3.0GRAWB3E	3P	100	11	-	4	3.2	6	3	1	¥ 19,600 ※
M3 × 0.5	P3	TY3.0GRAWBAE	1.5P	100	11	-	4	3.2	6	3	1	¥ 19,600 ※
M4 × 0.7	P3	TY4.0IRAWB3E	3P	100	13	-	5	4	7	4	1	¥ 19,900 ※
M4 × 0.7	P3	TY4.0IRAWBAE	1.5P	100	13	-	5	4	7	4	1	¥ 19,900 ※
M5 × 0.8	P3	TY5.0KRAWB3E	3P	100	16	-	5.5	4.5	7	4	1	¥ 20,300 ※
M5 × 0.8	P3	TY5.0KRAWBAE	1.5P	100	16	-	5.5	4.5	7	4	1	¥ 20,300 ※
M6 × 1	P3	TY6.0MRAWB3E	3P	100	19	-	6	4.5	7	4	2	¥ 22,100 ※
M6 × 1	P3	TY6.0MRAWBAE	1.5P	100	19	-	6	4.5	7	4	2	¥ 22,100 ※
M8 × 1.25	P3	TY8.0NRAWB3E	3P	100	22	-	6.2	5	8	4	3	¥ 24,400 ※
M8 × 1.25	P3	TY8.0NRAWB3G	3P	150	22	-	6.2	5	8	4	3	¥ 30,800 ※
M8 × 1.25	P3	TY8.0NRAWBAE	1.5P	100	22	-	6.2	5	8	4	3	¥ 24,400 ※
M8 × 1.25	P3	TY8.0NRAWBAG	1.5P	150	22	-	6.2	5	8	4	3	¥ 30,800 ※
M10 × 1.5	P3	TY010ORAWB3E	3P	100	24	-	7	5.5	8	4	3	¥ 33,500 ※
M10 × 1.5	P3	TY010ORAWB3G	3P	150	24	-	7	5.5	8	4	3	¥ 41,800 ※
M10 × 1.5	P3	TY010ORAWBAE	1.5P	100	24	-	7	5.5	8	4	3	¥ 33,500 ※
M10 × 1.5	P3	TY010ORAWBAG	1.5P	150	24	-	7	5.5	8	4	3	¥ 41,800 ※
M10 × 1.25	P3	TY010NRAWB3E	3P	100	22	-	7	5.5	8	4	3	¥ 33,500 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

LS-N-CT Long Shank Carbide Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M10 × 1.25	P3	TY010NRAWB3G	3P	150	22	-	7	5.5	8	4	3	¥ 41,800 ※
M10 × 1.25	P3	TY010NRAWBAE	1.5P	100	22	-	7	5.5	8	4	3	¥ 33,500 ※
M10 × 1.25	P3	TY010NRAWBAG	1.5P	150	22	-	7	5.5	8	4	3	¥ 41,800 ※
M12 × 1.75	P4	TY012PSAWB3G	3P	150	30	50	8.5	6.5	9	4	4	¥ 51,700 ※
M12 × 1.75	P4	TY012PSAWBAG	1.5P	150	30	50	8.5	6.5	9	4	4	¥ 51,700 ※
M12 × 1.5	P4	TY012OSAWB3G	3P	150	24	50	8.5	6.5	9	4	4	¥ 51,700 ※
M12 × 1.5	P4	TY012OSAWBAG	1.5P	150	24	50	8.5	6.5	9	4	4	¥ 51,700 ※
M12 × 1.25	P4	TY012NSAWB3G	3P	150	22	50	8.5	6.5	9	4	4	¥ 51,700 ※
M12 × 1.25	P4	TY012NSAWBAG	1.5P	150	22	50	8.5	6.5	9	4	4	¥ 51,700 ※
M14 × 2	P4	TY014QSAWB3G	3P	150	30	60	10.5	8	11	4	4	¥ 44,400 ※
M14 × 2	P4	TY014QSAWBAG	1.5P	150	30	60	10.5	8	11	4	4	¥ 44,400 ※
M14 × 1.5	P4	TY014OSAWB3G	3P	150	24	60	10.5	8	11	4	4	¥ 44,400 ※
M14 × 1.5	P4	TY014OSAWBAG	1.5P	150	24	60	10.5	8	11	4	4	¥ 44,400 ※
M16 × 2	P4	TY016QSAWB3G	3P	150	30	60	12.5	10	13	4	4	¥ 51,700 ※
M16 × 2	P4	TY016QSAWBAG	1.5P	150	30	60	12.5	10	13	4	4	¥ 51,700 ※
M16 × 1.5	P4	TY016OSAWB3G	3P	150	24	60	12.5	10	13	4	4	¥ 51,700 ※
M16 × 1.5	P4	TY016OSAWBAG	1.5P	150	24	60	12.5	10	13	4	4	¥ 51,700 ※
M18 × 2.5	P4	TY018RSAWB3G	3P	150	35	70	14	11	14	4	4	¥ 60,400 ※
M18 × 2.5	P4	TY018RSAWBAG	1.5P	150	35	70	14	11	14	4	4	¥ 60,400 ※
M18 × 1.5	P4	TY018OSAWB3G	3P	150	24	70	14	11	14	4	4	¥ 60,400 ※
M18 × 1.5	P4	TY018OSAWBAG	1.5P	150	24	70	14	11	14	4	4	¥ 60,400 ※
M20 × 2.5	P4	TY020RSAWB3G	3P	150	35	70	15	12	15	4	4	¥ 69,000 ※
M20 × 2.5	P4	TY020RSAWBAG	1.5P	150	35	70	15	12	15	4	4	¥ 69,000 ※
M20 × 1.5	P4	TY020OSAWB3G	3P	150	24	70	15	12	15	4	4	¥ 69,000 ※
M20 × 1.5	P4	TY020OSAWBAG	1.5P	150	24	70	15	12	15	4	4	¥ 69,000 ※
M22 × 2.5	P4	TY022RSAWB3G	3P	150	35	70	17	13	16	4	4	¥ 77,600 ※
M22 × 2.5	P4	TY022RSAWBAG	1.5P	150	35	70	17	13	16	4	4	¥ 77,600 ※
M22 × 1.5	P4	TY022OSAWB3G	3P	150	24	70	17	13	16	4	4	¥ 78,900 ※
M22 × 1.5	P4	TY022OSAWBAG	1.5P	150	24	70	17	13	16	4	4	¥ 78,900 ※
M24 × 3	P4	TY024SSAWB3G	3P	150	35	80	19	15	18	4	4	¥ 87,100 ※
M24 × 3	P4	TY024SSAWBAG	1.5P	150	35	80	19	15	18	4	4	¥ 87,100 ※
M24 × 1.5	P4	TY024OSAWB3G	3P	150	24	80	19	15	18	4	4	¥ 88,800 ※
M24 × 1.5	P4	TY024OSAWBAG	1.5P	150	24	80	19	15	18	4	4	¥ 88,800 ※

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

N-CT-SP

Spiral Fluted Carbide Taps



Specification

HF



■The N-CT-SP is a cemented carbide spiral flute tap most suitable for blind hole mass production of aluminum castings (AC), aluminum die cast (ADC), zinc die cast (ZDC) etc.

Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

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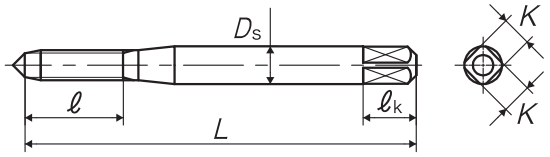

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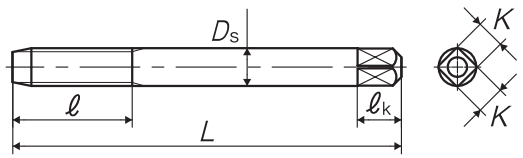

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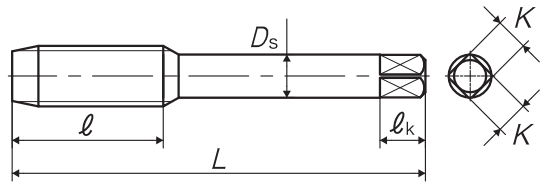


Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads											
M3 × 0.5	P3	SY3.0GRKWB	2.5P	46	11	4	3.2	6	3	1	¥ 15,400 ※
M4 × 0.7	P3	SY4.0IRKWB	2.5P	52	13	5	4	7	3	1	¥ 16,100 ※
M5 × 0.8	P3	SY5.0KRKWB	2.5P	60	16	5.5	4.5	7	3	1	¥ 17,000 ※
M6 × 1	P3	SY6.0MRKWB	2.5P	62	19	6	4.5	7	3	2	¥ 18,400 ※
M8 × 1.25	P3	SY8.0NRKWB	2.5P	70	22	6.2	5	8	3	3	¥ 23,800 ※
M10 × 1.5	P3	SY010ORKWB	2.5P	75	24	7	5.5	8	3	3	¥ 33,200 ※
M10 × 1.25	P3	SY010NRKWB	2.5P	75	22	7	5.5	8	3	3	¥ 33,200 ※
M12 × 1.75	P4	SY012PSKWB	2.5P	82	30	8.5	6.5	9	3	3	¥ 43,700 ※
M12 × 1.5	P4	SY012OSKWB	2.5P	82	24	8.5	6.5	9	3	3	¥ 43,700 ※
M12 × 1.25	P4	SY012NSKWB	2.5P	80	22	8.5	6.5	9	3	3	¥ 43,700 ※
M14 × 2	P4	SY014QSKWB	2.5P	88	30	10.5	8	11	3	3	¥ 57,100 ※
M14 × 1.5	P4	SY014OSKWB	2.5P	88	24	10.5	8	11	3	3	¥ 57,100 ※
M16 × 2	P4	SY016QSKWB	2.5P	95	30	12.5	10	13	3	3	¥ 74,700 ※
M16 × 1.5	P4	SY016OSKWB	2.5P	95	24	12.5	10	13	3	3	¥ 74,700 ※
M18 × 2.5	P4	SY018RSKWB	2.5P	100	35	14	11	14	4	3	¥ 80,400 ※
M18 × 1.5	P4	SY018OSKWB	2.5P	95	24	14	11	14	4	3	¥ 80,400 ※
M20 × 2.5	P4	SY020RSKWB	2.5P	105	35	15	12	15	4	3	¥101,000 ※
M20 × 1.5	P4	SY020OSKWB	2.5P	95	24	15	12	15	4	3	¥101,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

N-CT-PO

Spiral Pointed Carbide Taps



Specification

HF

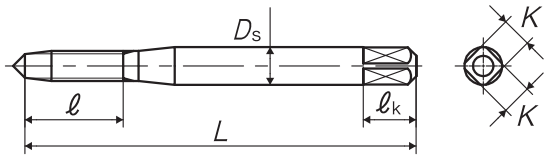


■The N-CT-PO is a cemented carbide spiral flute tap most suitable for blind hole mass production of aluminum castings (AC), aluminum die cast (ADC), zinc die cast (ZDC) etc.

Recommended Tapping Speeds depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Bronze 青銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

TYPE : 1



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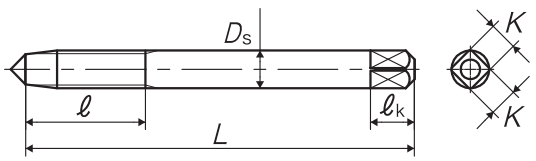

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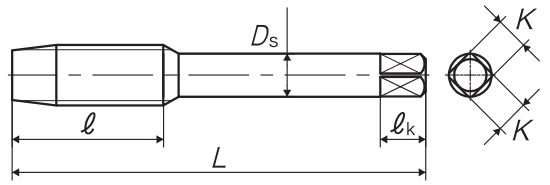


Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads											
M3 × 0.5	P3	PCNR3.0G	5P	46	11	4	3.2	6	3	1	¥ 15,400 ※
M4 × 0.7	P3	PCNR4.0I	5P	52	13	5	4	7	3	1	¥ 16,100 ※
M5 × 0.8	P3	PCNR5.0K	5P	60	16	5.5	4.5	7	3	1	¥ 17,000 ※
M6 × 1	P3	PCNR6.0M	5P	62	19	6	4.5	7	3	2	¥ 18,400 ※
M8 × 1.25	P3	PCNR8.0N	5P	70	22	6.2	5	8	3	3	¥ 23,800 ※
M10 × 1.5	P4	PCNS0100	5P	75	24	7	5.5	8	3	3	¥ 33,200 ※
M12 × 1.75	P4	PCNS012P	5P	82	30	8.5	6.5	9	3	3	¥ 43,700 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

MEMO

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

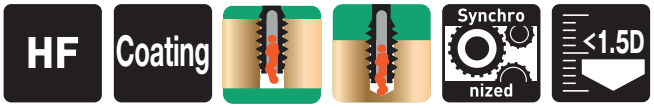
EH-CT



Carbide Taps for Hard Materials



Specification



Recommended Tapping Speeds depending on Materials

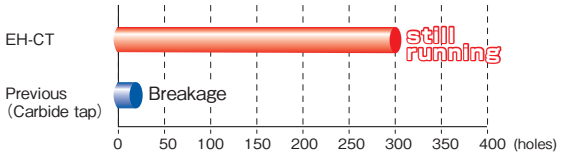
Thermal refined steels 調質鋼
~5
(m/min)
45~55HRC

Product Features

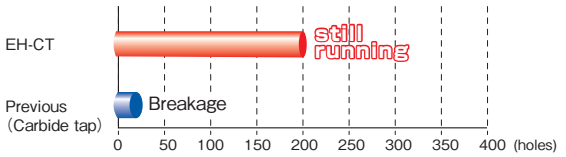
- Ideal for high hardness steel tapping from 45 to 55 HRC. For hot mold SKS 3 and SKD 11.
- The ultra fine grain cemented carbide is superior in abrasion resistance and impact resistance.
- Better concentricity improves the accuracy of the entire tap and roundness of the shank.
- Recommended tapping length is "Major diameter size x 1.5" or less 5P chamfer for better tool life.
- For the bored hole diameter, the maximum minor diameter of a 6H internal thread diameter maximum value is recommended.

Tapping Data [M8×1.25]

Tapping Data

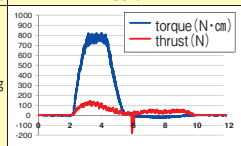
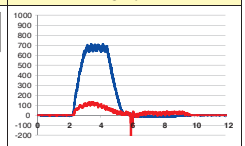
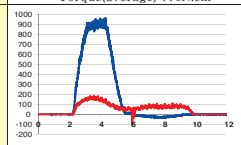
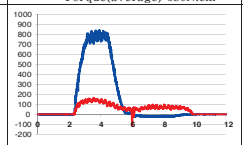


Work Material	Type	Hot forged die steel (SKD61)
	Hardness	50HRC
Tapping Speed		6m/min
Feed		Full rigid
Tapping Fluid		Non-water soluble cutting oil



Work Material	Type	Stainless steel for plastic die (SUS420J2)
	Hardness	52HRC
Tapping Speed		6m/min
Feed		Full rigid
Tapping Fluid		Non-water soluble cutting oil

〈Torque line in the different bored hole size〉

Bored Hole Size		6.8mm(Actual 6.79mm)	6.9mm(Actual 6.89mm)
Thread Engagement Ratio		89%	81%
Torque and Thrust Lines	Beginning		
		Torque(average) 770N.cm	Torque(average) 680N.cm
	After 50 Holes Tapping		
		Torque(average) 890N.cm	Torque(average) 780N.cm

Tapping condition

Work Material	DAC (equivalent to SKD61) 50HRC
Tapping Speed	6m/min
Feed	Rigid
Tapping Fluid	Non-water soluble cutting oil

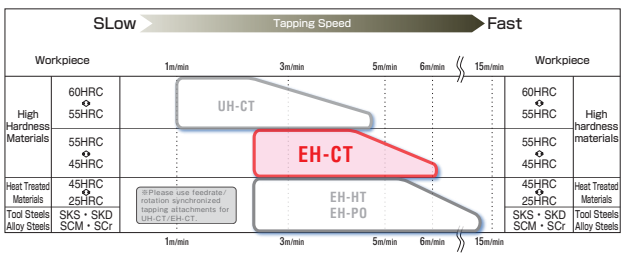
Bored hole size enlarged by 0.1mm can reduce the tapping resistance torque by 10%.
In tapping the material of high hardness, it is recommendable to make the bored hole size as large as possible.

Recommended bored hole size (for reference)

unit : mm

Size	Recommended Bored Hole Size	Minor Dia. of JIS 6H Class Internal Screw Thread	
		Max. Tolerance	Min. Tolerance
M3 × 0.5	2.56	2.599	2.459
M4 × 0.7	3.40	3.422	3.242
M5 × 0.8	4.30	4.334	4.134
M6 × 1	5.10	5.153	4.917
M8 × 1.25	6.90	6.912	6.647
M10 × 1.5	8.60	8.676	8.376
M12 × 1.75	10.4	10.441	10.106

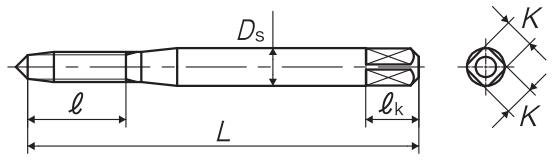
Application



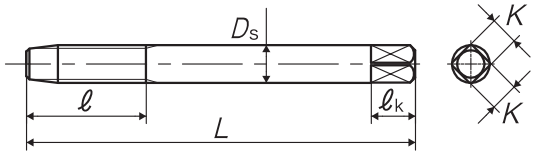
Think threads with YAMAWA

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

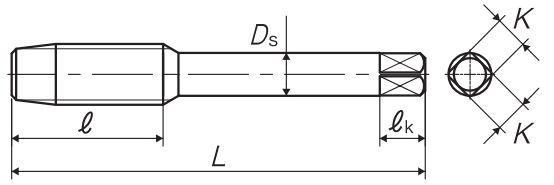
TYPE : 1



TYPE : 2



TYPE : 3



Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads											
M3 × 0.5	P3	EHCR3.0G5	5P	46	11	4	3.2	6	4	1	¥ 15,800
M4 × 0.7	P3	EHCR4.0I5	5P	52	13	5	4	7	4	1	¥ 16,700
M5 × 0.8	P3	EHCR5.0K5	5P	60	16	5.5	4.5	7	4	1	¥ 17,400
M6 × 1	P3	EHCR6.0M5	5P	62	19	6	4.5	7	5	2	¥ 18,900
M8 × 1.25	P4	EHCS8.0N5	5P	70	22	6.2	5	8	5	3	¥ 23,400
M10 × 1.5	P4	EHCS010O5	5P	75	24	7	5.5	8	5	3	¥ 31,600
M12 × 1.75	P4	EHCS012P5	5P	82	30	8.5	6.5	9	5	3	¥ 41,600

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

DIN

EH-CT



Carbide Taps for Hard Materials

Specification

HF | Coating |  | Synchronized | <1.5D

Recommended Tapping Speeds depending on Materials

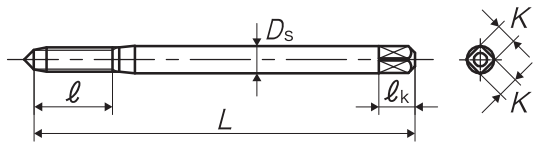


45~55HRC

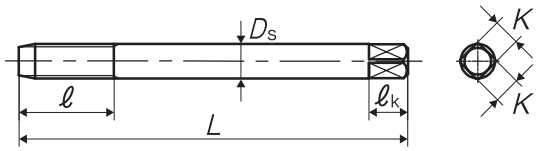
Product Features

- Ideal for hilgh hardness steel blind hole tapping of 45 to 55 HRC materials such as steel for hot dies (SKS 3, SKD 11, etc.).
- The EH-CT utilizes a ultra fine grain cemented carbide that is superior in abrasion resistance and impact resistance.
- Improved run-out accuracy of whole tap and circularity of shank.
- Tapping length is the "major diameter size × 1.5 or less", 5P chamfer for better tool life.
- For the bored hole diameter, the maximum minor diameter of a 6H internal thread diameter maximum value is recommended.

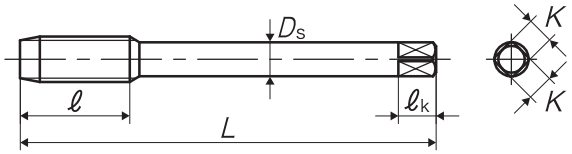
TYPE: 1 YAMAWA



TYPE: 2 YAMAWA



TYPE: 3 DIN376



Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads										
M3 × 0.5	ISO2X	TD3.0GBCWA5	5P	56	11	3.5	2.7	6	4	1
M4 × 0.7	ISO2X	TD4.0IBCWA5	5P	63	13	4.5	3.4	6	4	1
M5 × 0.8	ISO2X	TD5.0KBCWA5	5P	70	16	6	4.9	8	4	1
M6 × 1	ISO2X	TD6.0MBCWA5	5P	80	19	6	4.9	8	5	1
M8 × 1.25	ISO2X	TD8.0NBCWA5	5P	90	22	8	6.2	9	5	2
M10 × 1.5	ISO2X	TD010OBCWA5	5P	100	24	10	8	11	5	2
M12 × 1.75	ISO2X	TG012PBCWA5	5P	110	29	9	7	10	5	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

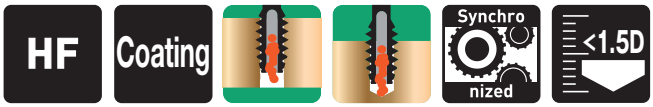
Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

UH-CT



Carbide taps for ultra hard materials

Specification



Recommended Tapping Speeds depending on Materials

Thermal refined steels 調質鋼
~5 (m/min)
50~63HRC

Product Features

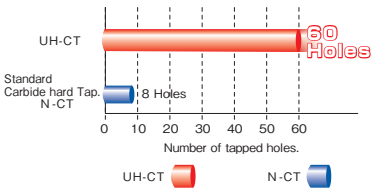
- The UH-CT is designed for tapping SKD and pre-hardened steel 50HRC to 63HRC (Max 63).
- It is produced from a ultra fine grain cemented carbide with superior abrasion resistance and impact resistance.
- The UH-CT has an improved shank roundness accuracy.
- Recommended tapping length is "Major diameter size x 1.5" or less 5P chamfer for better tool life.
- For the bored hole diameter, the maximum minor diameter of a 6H internal thread diameter maximum value is recommended.

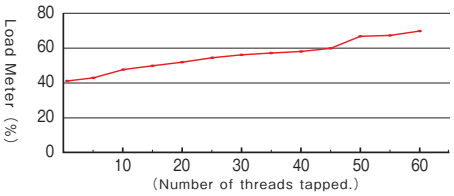
Tapping Data

Tapping Conditions [M8×1.25]

Workpiece Material	SKD11hardened material (60 HRC)
Bore Diameter	ϕ6.9
Tapping Length	16mm through hole
Tapping Speed	1.5m/min (60rpm)
Machinery Type	CNC rigid tapping machine
Tapping Fluid	Non-water soluble cutting oil

Tool Life





The figure above is a comparison of the number of tapped holes using a standard carbide tap (N-CT) and a carbide tap in SKD 11 high hardness quenched steel at 60 HRC. The N-CT tap, had chipped flutes at 8 holes. Compared to the N-CT, the UH-CT was able to process 60 holes in ultra high hardness steel. It is important to watch for a dull drill as it will cause the taps flutes to wear prematurely. The drilling is processed at a 6m/min. cutting speed and a 0.04mm/rev. feed which can easily cause work hardening.

・Bored hole in this test was prepared by using a carbide drill under such condition as could cause no work-hardening. (cutting speed: 6m/min, feed 0.04m/rev.)

The figure above shows the relationship between the number of tapped holes and the load meter (%) of the machine when machining tests are conducted up to 60 holes with UH - CT tap. The numerical value of the load meter tends to increase as the number of tapped holes increase at 50 completed threads. The cutting edge damage at this point causes the load meter to raise quickly beyond 50 tapped holes. As the number of tapped holes progresses further, the risk of tap breakage is considerable and the load will increase, so it is recommended to set the life expectancy at a safe level considering the high hardness of the steel being processed.

Selection of hole diameter (reference)

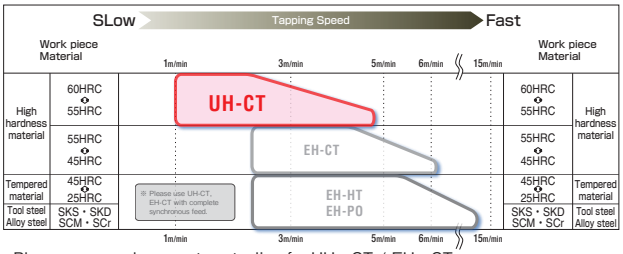
Unit:mm

Thread Size	Hole Size	JIS6H (Level 2) Internal Thread Dimeter	
		Hole Size (Max)	Hole Size (Min)
M2 ×0.4	1.65	1.679	1.567
M2.5×0.45	2.11	2.138	2.013
M2.6×0.45	2.21	2.238	2.113
M3 ×0.5	2.56	2.599	2.459
M4 ×0.7	3.40	3.422	3.242
M5 ×0.8	4.30	4.334	4.134
M6 ×1	5.10	5.153	4.917
M8 ×1.25	6.90	6.912	6.647
M10 ×1.5	8.60	8.676	8.376
M10 ×1.25	8.90	8.912	8.647

Unit:mm

Thread Size	Hole Size	JIS6H (Level 2) Internal Thread Dimeter	
		Hole Size (Max)	Hole Size (Min)
M12×1.75	10.4	10.441	10.106
M12×1.5	10.60	10.676	10.376
M12×1.25	10.90	10.912	10.647
M14×2	12.1	12.210	11.835
M14×1.5	12.60	12.676	12.376
M16×2	14.1	14.210	13.835
M16×1.5	14.60	14.676	14.376
M18×2.5	15.7	15.744	15.294
M18×1.5	16.60	16.676	16.376
M20×2.5	17.6	17.744	17.294
M20×1.5	18.60	18.676	18.376

Product system table

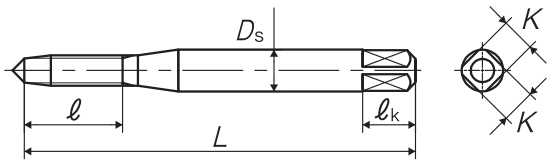


・Please use synchronous type tooling for UH - CT / EH - CT.

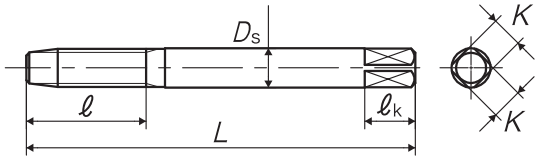
Think threads with YAMAWA

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

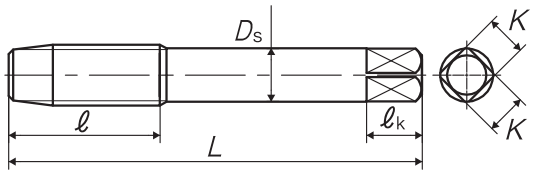
TYPE : 1



TYPE : 2



TYPE : 3



Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads											
M2 × 0.4	P3	UHCR2.0E5	5P	40	8	4	3.2	6	3	1	¥ 17,200
M2.5 × 0.45	P3	UHCR2.5F5	5P	44	9.5	4	3.2	6	4	1	¥ 16,100
M2.6 × 0.45	P3	UHCR2.6F5	5P	44	9.5	4	3.2	6	4	1	¥ 16,100
M3 × 0.5	P3	UHCR3.0G5	5P	46	11	5	4	7	4	1	¥ 15,800
M4 × 0.7	P3	UHCR4.0I5	5P	52	13	5.5	4.5	7	4	1	¥ 16,700
M5 × 0.8	P3	UHCR5.0K5	5P	60	16	6	4.5	7	4	1	¥ 17,400
M6 × 1	P3	UHCR6.0M5	5P	62	19	6.2	5	8	5	2	¥ 18,900
M8 × 1.25	P4	UHCS8.0N5	5P	70	22	7	5.5	8	5	3	¥ 23,400
M10 × 1.5	P4	UHCS010O5	5P	75	24	8.5	6.5	9	5	3	¥ 31,600
M10 × 1.25	P4	UHCS010N5	5P	75	24	8.5	6.5	9	5	3	¥ 31,600 ※
M12 × 1.75	P4	UHCS012P5	5P	82	30	10.5	8	11	5	3	¥ 41,600
M12 × 1.5	P4	UHCS012O5	5P	82	30	10.5	8	11	5	3	¥ 41,600 ※
M12 × 1.25	P4	UHCS012N5	5P	82	30	10.5	8	11	5	3	¥ 41,600 ※
M14 × 2	P4	UHCS014Q5	5P	88	30	12.5	10	13	6	3	¥ 60,000 ※
M14 × 1.5	P4	UHCS014O5	5P	88	30	12.5	10	13	6	3	¥ 60,000 ※
M16 × 2	P4	UHCS016Q5	5P	95	30	14	11	14	6	3	¥ 72,600 ※
M16 × 1.5	P4	UHCS016O5	5P	95	30	14	11	14	6	3	¥ 72,600 ※
M18 × 2.5	P4	UHCS018R5	5P	100	35	15	12	15	6	3	¥ 85,700 ※
M18 × 1.5	P4	UHCS018O5	5P	100	35	15	12	15	6	3	¥ 85,700 ※
M20 × 2.5	P4	UHCS020R5	5P	105	35	17	13	16	6	3	¥101,000 ※
M20 × 1.5	P4	UHCS020O5	5P	105	35	17	13	16	6	3	¥101,000 ※

Note: Ds, K and ℓk of UH-CT are one rank higher than those of standard tap dimensions.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

DIN

UH-CT



Carbide taps for ultra hard materials

Specification

HF | Coating | Synchro nized | <1.5D

Recommended Tapping Speeds depending on Materials

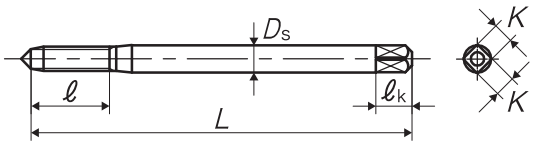
Thermal refined steels 調質鋼 ~5 (m/min)

50~63HRC

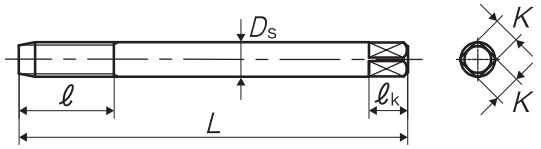
Product Features

- The UH-CT is designed for tapping SKD and pre-hardened steel 50HRC to 63HRC (Max 63).
- It is produced from a ultra fine grain cemented carbide with superior abrasion resistance and impact resistance.
- The UH-CT has an improved shank roundness accuracy.
- Recommended tapping length is "Major diameter size x 1.5" or less 5P chamfer for better tool life.
- For the bored hole diameter, the maximum minor diameter of a 6H internal thread diameter maximum value is recommended.

TYPE: 1 YAMAWA



TYPE: 2 YAMAWA



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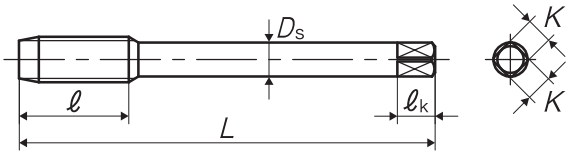


Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Metric Threads										
M3 × 0.5	ISO2X	TD3.0GBBWA5	5P	56	11	3.5	2.7	6	4	1
M4 × 0.7	ISO2X	TD4.0IBBWA5	5P	63	13	4.5	3.4	6	4	1
M5 × 0.8	ISO2X	TD5.0KBBWA5	5P	70	16	6	4.9	8	4	1
M6 × 1	ISO2X	TD6.0MBBWA5	5P	80	19	6	4.9	8	5	1
M8 × 1.25	ISO2X	TD8.0NBBWA5	5P	90	22	8	6.2	9	5	2
M10 × 1.5	ISO2X	TD010OBBWA5	5P	100	24	10	8	11	5	2
M12 × 1.75	ISO2X	TG012PBBWA5	5P	110	29	9	7	10	5	3
M14 × 2	ISO2X	TG014QBBWA5	5P	110	30	11	9	12	6	3
M16 × 2	ISO2X	TG016QBBWA5	5P	110	32	12	9	12	6	3
M18 × 2.5	ISO2X	TG018RBBWA5	5P	125	34	14	11	14	6	3
M20 × 2.5	ISO2X	TG020RBBWA5	5P	140	34	16	12	15	6	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

HFACT-P



Carbide Taps for Ultra Fast Tappings, Through Hole Use, for Aluminum

Specification



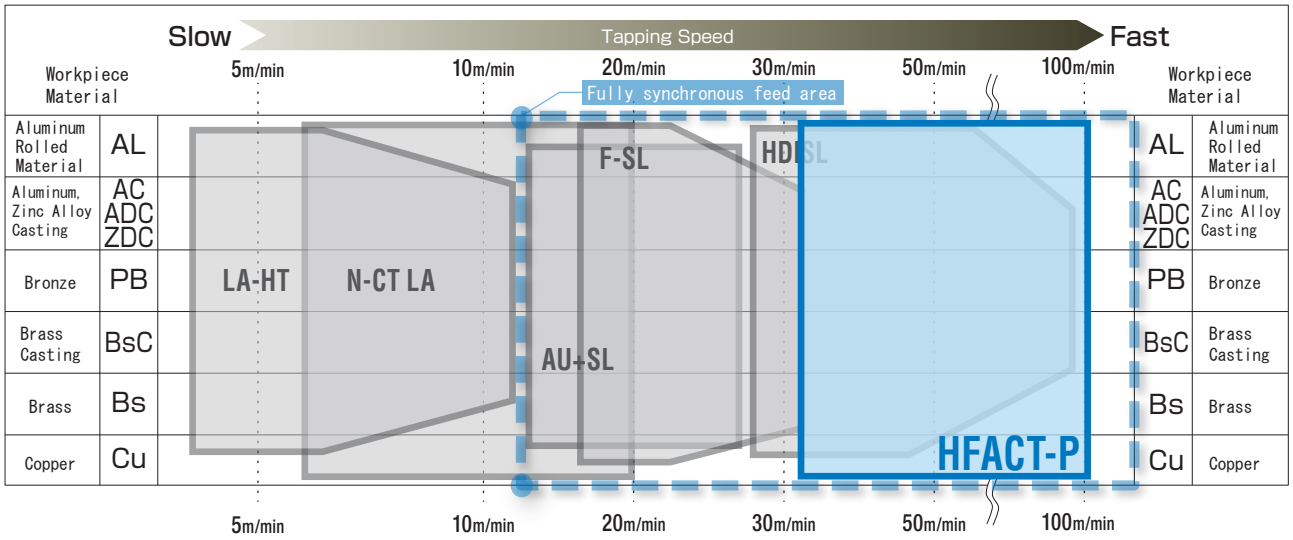
Recommended Tapping Speeds depending on Materials

Brass castings 黄銅鋳物	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
30~100 (m/min)	30~100 (m/min)	30~100 (m/min)	30~100 (m/min)

Product Features

●The HFACT-P is a carbide tap capable of ultra high speed tapping in Aluminum. Utilizing a side through coolant hole shape , it is compatible with internal lubrication and mist applications for through hole tapping. It lowers temperature cooling in dry tapping where necessary. It is suitable for materials such as aluminum casting or aluminum die casting.

Product system table

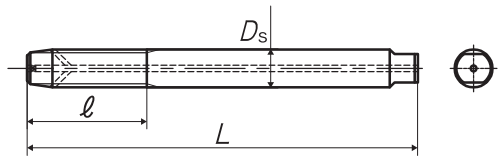


A diagram of tapping range.

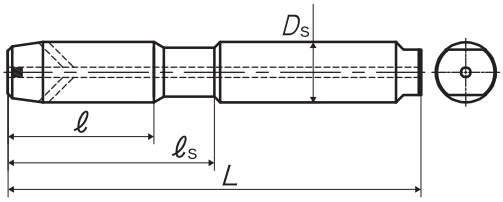
Think threads with YAMAWA

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

TYPE : 1



TYPE : 2



Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads												
M6 × 1	P3	HFACTPR6.0M	4P	62	19	-	6	-	-	3	1	¥ 26,800
M8 × 1.25	P3	HFACTPR8.0N	4P	70	22	36	8	-	-	3	2	¥ 34,700
M10 × 1.5	P3	HFACTPR010O	4P	75	24	37	10	-	-	3	2	¥ 47,800
M10 × 1.25	P3	HFACTPR010N	4P	75	24	37	10	-	-	3	2	¥ 47,800
M12 × 1.75	P3	HFACTPR012P	4P	82	29	40	12	-	-	3	2	¥ 62,300
M12 × 1.5	P3	HFACTPR012O	4P	82	29	40	12	-	-	3	2	¥ 62,300
M12 × 1.25	P3	HFACTPR012N	4P	82	29	40	12	-	-	3	2	¥ 62,300

Note:
- There is no shank square so please use a holder with high holding force such as milling chuck.
- The back end of the shank is a tongue drive specification. If the area where the back end of the shank contacts the holder is a V dish shape, the coolant may leak.

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

HFACT-B



Carbide Taps for Ultra Fast Tappings, Blind Hole Use, for Aluminum

Specification



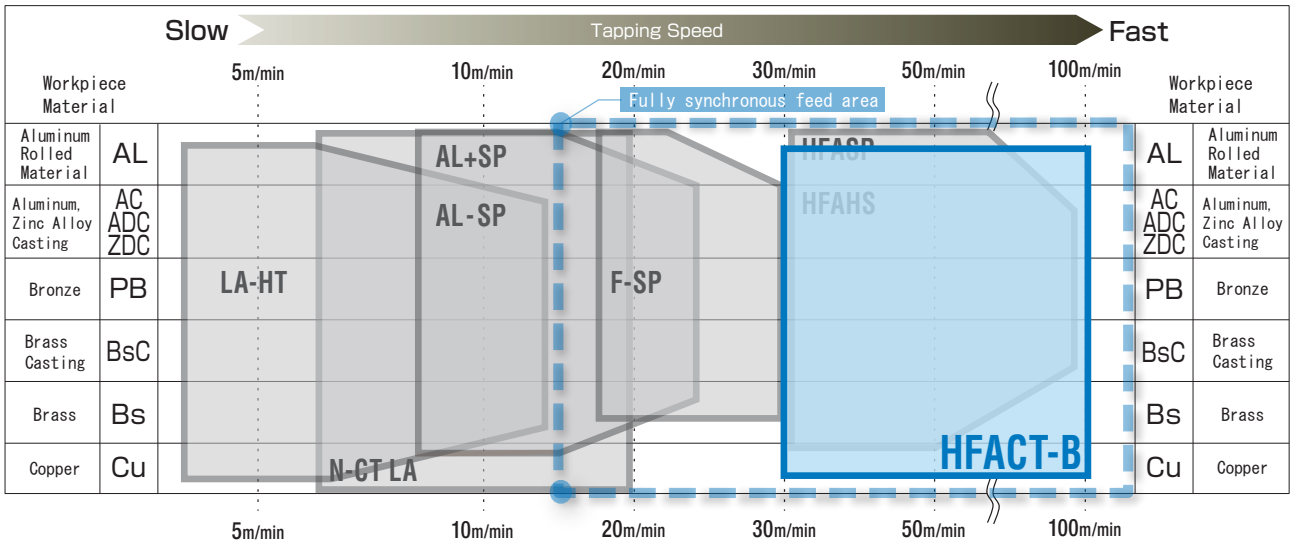
Recommended Tapping Speeds depending on Materials

Brass castings 黄銅鋳物	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
30~100 (m/min)	30~100 (m/min)	30~100 (m/min)	30~100 (m/min)

Product Features

●The HFACT-B is a carbide tap capable of ultra high speed tapping. It has a center through coolant hole for internal lubrication distribution or mist applications. It can lower temperature by cooling in a dry tapping application where necessary with an air blast. It is suitable for blind hole tapping in materials such as aluminum casting or aluminum die casting.

Product system table

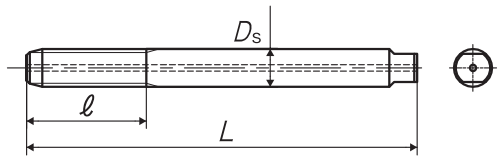


A diagram of tapping range.

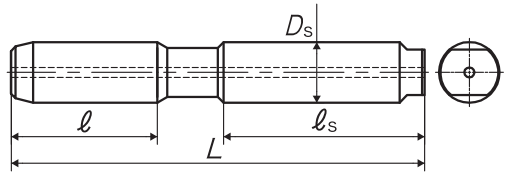
Think threads with YAMAWA

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

TYPE : 1



TYPE : 2



Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads												
M6 × 1	P3	HFACTBR6.0M	2.5P	62	19	-	6	-	-	3	1	¥ 26,800
M8 × 1.25	P3	HFACTBR8.0N	2.5P	70	22	36	8	-	-	3	2	¥ 34,700
M10 × 1.5	P3	HFACTBR010O	2.5P	75	24	37	10	-	-	3	2	¥ 47,800
M10 × 1.25	P3	HFACTBR010N	2.5P	75	24	37	10	-	-	3	2	¥ 47,800
M12 × 1.75	P3	HFACTBR012P	2.5P	82	29	40	12	-	-	3	2	¥ 62,300
M12 × 1.5	P3	HFACTBR012O	2.5P	82	29	40	12	-	-	3	2	¥ 62,300
M12 × 1.25	P3	HFACTBR012N	2.5P	82	29	40	12	-	-	3	2	¥ 62,300

Note:
- There is no shank square so please use a holder with high holding force such as milling chuck.
- The back end of the shank is a tongue drive specification. If the area where the back end of the shank contacts the holder is a V dish shape, the coolant may leak.

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

HFICT-P



Carbide Taps for Ultra Fast Tappings, Through Hole Use, for Cast Irons

Specification



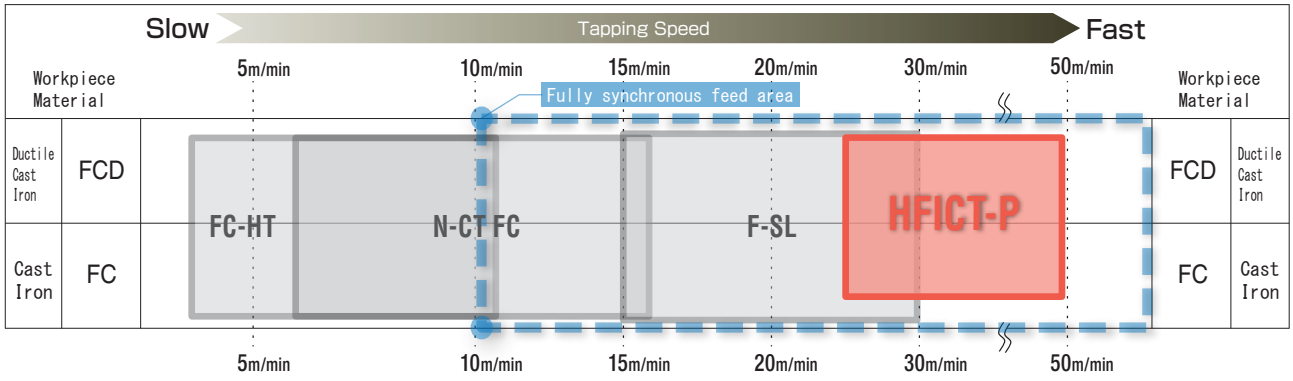
Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄	Brass castings 黄銅鋳物
25~50 (m/min)	25~50 (m/min)	25~50 (m/min)

Product Features

●The HFICT-P is a carbide tap capable of ultra high speed tapping. It has a side coolant holes for internal lubrication distribution or mist applications. It can lower temperature by cooling in a dry tapping application where necessary with an air blast. It is suitable for though hole tapping in materials such as cast irons and brass castings.

Product system table

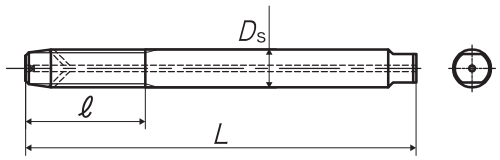


A diagram of tapping range.

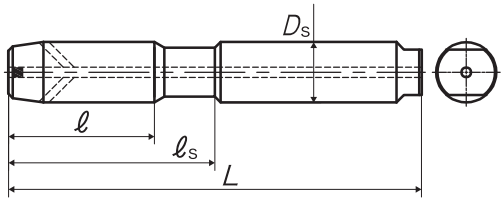
Think threads with YAMAWA

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

TYPE : 1



TYPE : 2



Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads												
M6 × 1	P3	HFICTPR6.0M	4P	62	19	-	6	-	-	4	1	¥ 26,800
M8 × 1.25	P3	HFICTPR8.0N	4P	70	22	36	8	-	-	4	2	¥ 34,700
M10 × 1.5	P3	HFICTPR010O	4P	75	24	37	10	-	-	4	2	¥ 47,800
M10 × 1.25	P3	HFICTPR010N	4P	75	24	37	10	-	-	4	2	¥ 47,800
M12 × 1.75	P3	HFICTPR012P	4P	82	29	40	12	-	-	4	2	¥ 62,300
M12 × 1.5	P3	HFICTPR012O	4P	82	29	40	12	-	-	4	2	¥ 62,300
M12 × 1.25	P3	HFICTPR012N	4P	82	29	40	12	-	-	4	2	¥ 62,300

Note:
- There is no shank square so please use a holder with high holding force such as milling chuck.
- The back end of the shank is a tongue drive specification. If the area where the back end of the shank contacts the holder is a V dish shape, the coolant may leak.

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

HFICT-B



Carbide Taps for Ultra Fast Tappings, Blind Hole Use, for Cast Irons

Specification



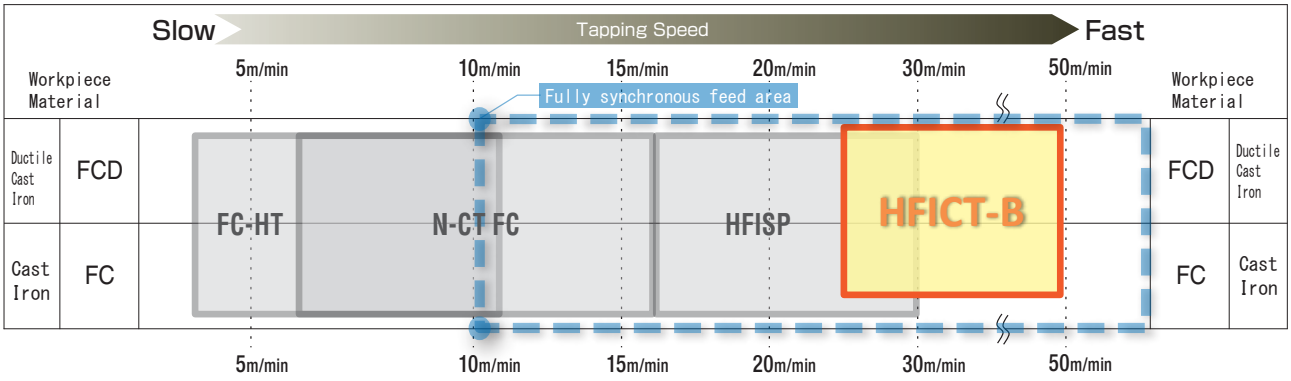
Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄	Brass castings 黄銅鋳物
25~50 (m/min)	25~50 (m/min)	25~50 (m/min)

Product Features

●The HFICT-B is a carbide tap capable of ultra high speed tapping. It has a through coolant hole for internal lubrication distribution or mist applications. It can lower temperature by cooling in a dry tapping application where necessary with an air blast. It is suitable for blind hole tapping in materials such as cast irons and brass castings.

Product symbol table

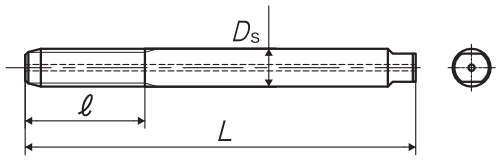


A diagram of tapping range.

Think threads with YAMAWA

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

TYPE : 1



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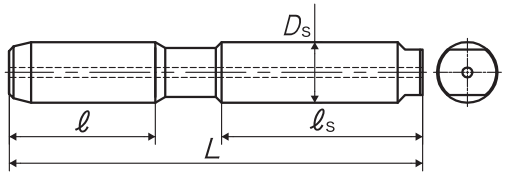


Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads												
M6 × 1	P3	HFICTBR6.0M	2.5P	62	19	-	6	-	-	4	1	¥ 26,800
M8 × 1.25	P3	HFICTBR8.0N	2.5P	70	22	36	8	-	-	4	2	¥ 34,700
M10 × 1.5	P3	HFICTBR010O	2.5P	75	24	37	10	-	-	4	2	¥ 47,800
M10 × 1.25	P3	HFICTBR010N	2.5P	75	24	37	10	-	-	4	2	¥ 47,800
M12 × 1.75	P3	HFICTBR012P	2.5P	82	29	40	12	-	-	4	2	¥ 62,300
M12 × 1.5	P3	HFICTBR012O	2.5P	82	29	40	12	-	-	4	2	¥ 62,300
M12 × 1.25	P3	HFICTBR012N	2.5P	82	29	40	12	-	-	4	2	¥ 62,300

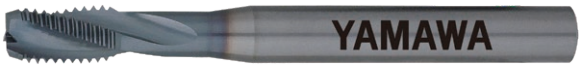
Note:
- There is no shank square so please use a holder with high holding force such as milling chuck.
- The back end of the shank is a tongue drive specification. If the area where the back end of the shank contacts the holder is a V dish shape, the coolant may leak.

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

ACHSP



Spiral Fluted Tap for Aluminum Casting

Specification



Recommended Tapping Speeds depending on Materials



Features

- Direct tapping of cored holes without drilling first, results in reducing the manufacturing time.
- Made from an ultrafine grain carbide alloy combining the hardness and toughness.
- The shank diameter is the same as the major diameter of the tap which improves rigidity and makes the ACHSP more resistant to deflection and the cutting side pressure caused from misalignment. (Maximum displacement of core hole: M6 · M8 within 0.3 mm, M 10 within 0.5 mm)
- A thin film coating offers improvements in wear resistance and a reduction of cutting edge chipping.

Tapping Data

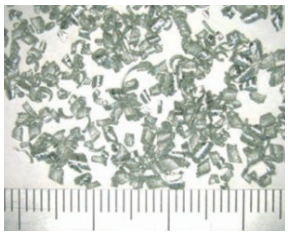
Tapping Conditions [M8×1.25]

Workpiece Material		ADC12
Tapping Spoeed		50m/min
Number of Holes Tapped		50 hole
Bored Hole Shape	Bore Diameter	ϕ5.8
	Taper Angle	2°
	Depth	22mm
	Condition	Blind hole
Tapping Length		17mm
Misalignment Amount		X direction + 0.5 mm
Feed Type		Synchronous feed
Machine Type		M / C machine (horizontal type)
Tapping Fluid		Water soluble cutting fluid

Condition of Internal Threads

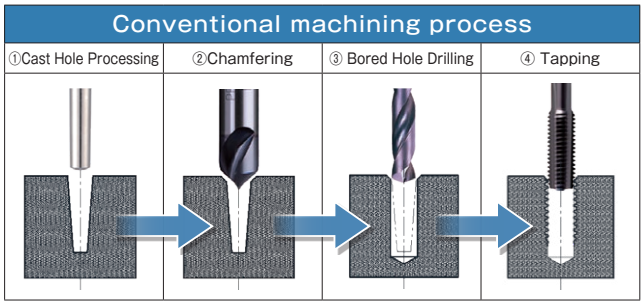


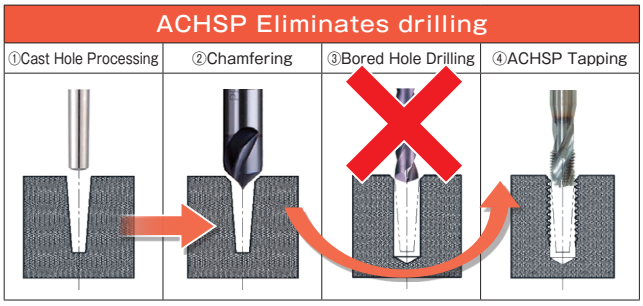
Chip Shape



Reduction of machining time

Correcting misaligned cast pilot holes is unnecessary shortening the tapping process time!





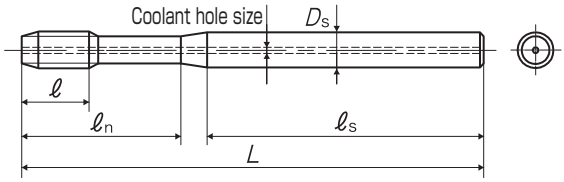
■Recommendation

Internal coolant supply is recommended to prevent the tapped holes from being blocked by the ejected chips.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	Coolant hole size (mm)	TYPE	MSRP
For Metric Threads														
M6 × 1	P3	SY6.0MRLXT	2.5P	80	12	27	48	6	-	-	3	1	1	¥ 40,400
M8 × 1.25	P4	SY8.0NSLXT	2.5P	90	15	30	54	8	-	-	3	1	1	¥ 50,600
M10 × 1.5	P4	SY0100SLXT	2.5P	100	18	36	57	10	-	-	3	1.5	1	¥ 66,100
M10 × 1.25	P4	SY010NSLXT	2.5P	100	18	36	57	10	-	-	3	1.5	1	¥ 66,100

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

MC-AD-CT

Carbide Taps with Oil Hole



Specification



Recommended Tapping Speeds depending on Materials



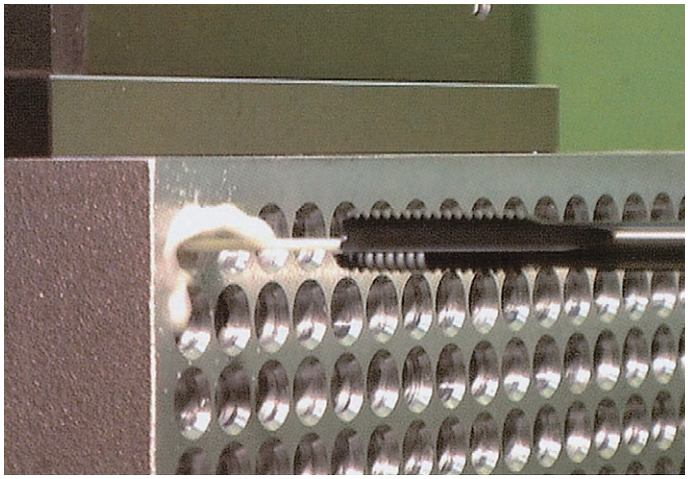
Product Features

- The MC-AD-CT is a carbide tap with an coolant hole, suitable for screw thread tapping of aluminum alloy casting and aluminum die casting in blind holes.
- The flute shape develops less flute damage · The MC-AD-CT is a ultra fine grain cemented carbide tap with superior wear resistance · The superior carbide combined with an optimum coating produces a 5 times longer tool life than conventional aluminum taps.
- The center through coolant hole shape is designed for internal lubrication and mist applications. The lubrication or air lowers the temperature by cooling even in dry tapping. It is effective in removing chips from the pilot hole during tapping and prevents chip welding.

Tapping Data

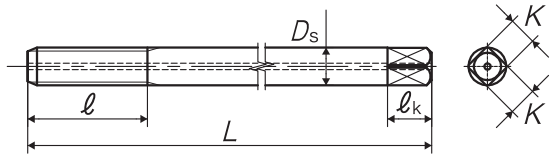
Tapping conditions [M6×1]

Workpiece Material	ADC12
Bored Hole Shape	Blind Hole
Bored Hole Depth	14mm
Tapping Length	12mm
Tapping Speed	57m/min
Feed	Fully synchronous feed
Machinery Type	Horizontal machining center
Tapping Fluid	Water soluble cutting fluid
Number of Holes Tapped	240,000 holes

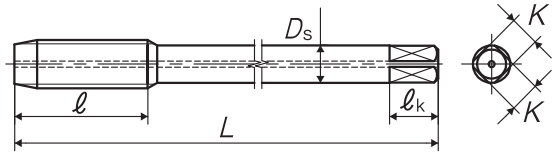


Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

TYPE : 1



TYPE : 2



Segment : 1L

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads											
M6 × 1	P3	MCADR6.0M1	1.5P	100	19	6	4.5	7	3	1	¥ 23,000 □▲
M8 × 1.25	P3	MCADR8.0N1	1.5P	100	22	6.2	5	8	3	2	¥ 25,400 □▲
M10 × 1.5	P4	MCADS01001	1.5P	100	24	7	5.5	8	3	2	¥ 35,200 □▲
M10 × 1.25	P4	MCADS010N1	1.5P	100	22	7	5.5	8	3	2	¥ 35,200 □▲
M10 × 1	P4	MCADS010M1	1.5P	100	19	7	5.5	8	3	2	¥ 35,200 □▲
M12 × 1.75	P4	MCADS012P1	1.5P	100	30	8.5	6.5	9	3	2	¥ 44,600 □▲
M12 × 1.5	P4	MCADS01201	1.5P	100	24	8.5	6.5	9	3	2	¥ 44,600 □▲
M12 × 1.25	P4	MCADS012N1	1.5P	100	22	8.5	6.5	9	3	2	¥ 44,600 □▲

Note: Products marked with an ▲ in the stock column are available while supplies last.

MEMO

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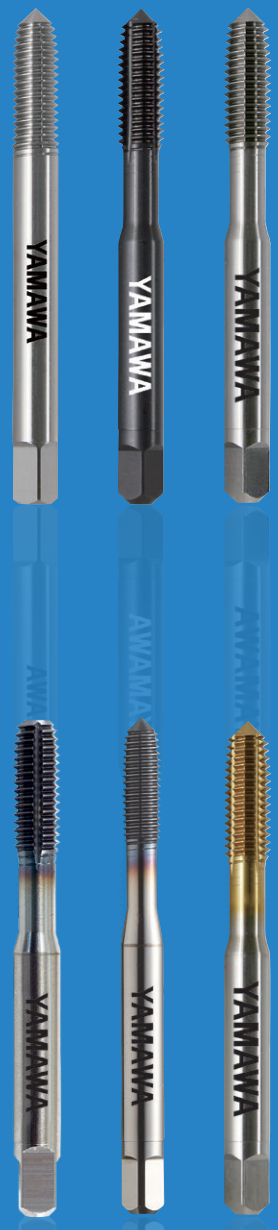
LINE UP

⑥ ROLL TAP SERIES



	JIS	ANSI	DIN
Z-PRO MHRZ	⑥-3	⑥-9	⑥-11
MHRZ-J	⑥-7		
N+RZ N-RZ	⑥-13		⑥-22
N-RZ		⑥-18	
LS-N-RZ	⑥-23		
N+RS N-RS	⑥-25		⑥-35
N-RS		⑥-31	
LS-N-RS	⑥-36		
R+V	⑥-38		
OL+RZ OL-RZ	⑥-41		
OL-RZ		⑥-44	
OL+RZ			⑥-45
HP+RZ HP-RZ	⑥-47		⑥-54
HP-RZ		⑥-51	
SC-TL-RZ	⑥-57		
SURZ	⑥-59		
MS+RS	⑥-61		
HPsRZ	⑥-61		
R-Y	⑥-63		
R-D			⑥-64
R-D (Coating)			⑥-65
R-D (Coating)			⑥-66

・For improvement, spec may change without advance notice.

Selection chart of taps

Tapping conditions	Machining, in low-speed tapping area									
Product symbol	R-Y	N+RZ N-RZ	N+RS N-RS	LS-N-RZ	LS-N-RS	MS+RS	HPsRZ	SURZ	R+V	
Tap material Surface treatment	HSS	HSS / OX	HSS / NI	HSS / OX	HSS / NI	HSS	HSS-P / Coating	HSS-P / Coating	HSS / Coating	
Name	For general purpose	For steel	For nonferrous materials	Long, for steel	Long, for nonferrous materials	For miniature threads	For miniature threads High performance	For stainless steel	Coated	
										
Bored Hole Shape										
For Metric Threads	⑥-63	⑥-14	⑥-26	⑥-23	⑥-36			⑥-60	⑥-38	
For Unified Threads		⑥-17	⑥-29					⑥-60		
For Whitworth Threads										
For Screw Threads used on Sewing Machines										
Pipe Threads										
American Pipe Threads										
For Miniature Threads						⑥-62	⑥-62			
For Trapezoidal Threads										

～S25C	Low carbon steels	◆	◎	◆	◎			◆	◎			◆	◎	◆◆	◎	◆◆	◎	◆◆	◎
S25C～S45C	Medium carbon steels			◆	◎			◆	◎					◆◆	◎	◆◆	○	◆◆	◎
S45C～	High carbon steels													◆◆	○				
SCM	Alloy steels																		
25～35HRC	Heat treated steel																		
35～45HRC	Heat treated steel																		
45～55HRC	Heat treated steel																		
55～63HRC	Heat treated steel																		
SUS	Stainless steels (SUS)											◆	○	◆◆	◎	◆◆	◎	◆◆	○
SKD	Tool steels																		
SC	Cast steels																		
FC	Cast irons																		
FCD	Ductile cast irons																		
Cu	Copper																	◆◆	○
Bs	Brass											◆	◎						
BsC	Brass castings																		
PB	Bronze																		
AL	Wrought aluminum					◆	◎			◆	◎	◆	○	◆	◎			◆	◎
AC, ADC	Wrought aluminum					◆	◎			◆	◎	◆	○					◆	◎
Mg	Magnesium alloy die castings																		
ZDC	Zinc alloy die castings					◆	◎			◆	◎	◆	○					◆	◎
	Titanium alloys													◆	○				
	Nickel base alloys																		
	Thermosetting plastic																		
	Thermoplastic resin																		

Think threads with YAMAWA

Machining, in middle speed tapping area										
	OL+RZ OL - RZ		HP+RZ HP - RZ		Z-PRO MHRZ		MHRZ-J		SC-TL-RZ	
	HSS-P	Coating	HSS-P	Coating	HSS-Co	Coating	HSS-Co	Coating	HSS-P	Coating
	For dry tapping		High performance		For middle hardness carbon steel		For middle hardness carbon steel JIS		Short chamfer torqueless	
										
	⑥-42		⑥-48		⑥-4		⑥-8		⑥-58	
	⑥-43		⑥-50						⑥-58	
	◆◆	◎	◆◆	◎					◆◆	◎
	◆◆	◎	◆◆	◎	◆◆	◎	◆◆	◎	◆◆	◎
	◆◆	◎	◆◆	◎	◆◆	◎	◆◆	◎	◆◆	○
	◆◆	◎	◆◆	◎	◆◆	◎	◆◆	◎		
	◆◆	○	◆◆	○	◆◆	◎	◆◆	◎		
	◆◆	◎	◆◆	◎					◆◆	◎
	◆◆	◎	◆◆	◎					◆◆	◎
									◆◆	◎

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

Z-PRO

MHRZ



Z-PRO
Roll Taps for Medium Hardness Carbon Steels

Specification

HSS-Co | Coating | 2~4

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼
10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	10~20 (m/min)
			25~35HRC

Product Features

- Torque reduction is achieved from the new design and specifications.
- Tool life is dramatically improved with superb tool materials and coatings offering excellent wear resistance.
- Stable screw thread tapping in thermal refined material up to 35 HRC.
- The MHRZ roll form taps can be used with water soluble cutting fluid.

Benefits of Z-PRO dimensions

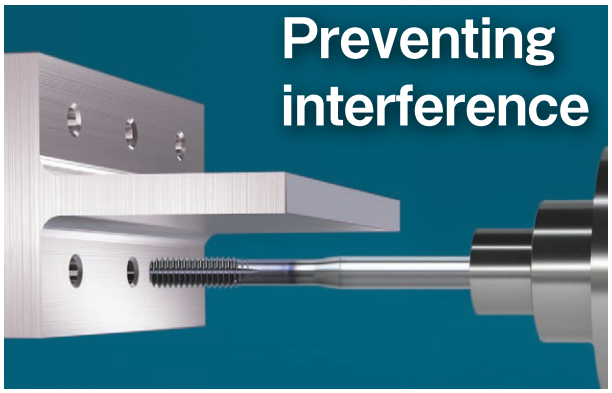
- A longer overall length enables a better supply of cutting fluid, resulting in excellent finish of internal threads.

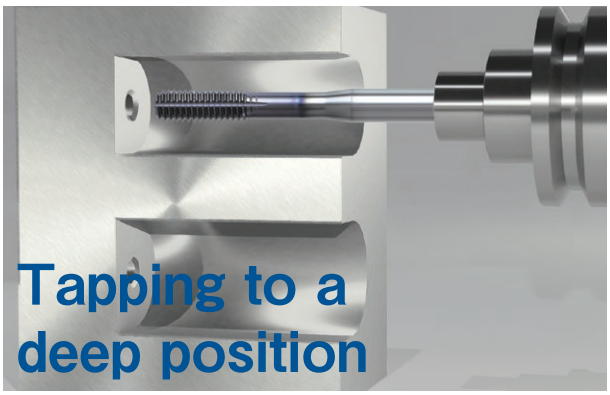
Z-PRO dimensions

JIS dimensions



- Secures appropriate tool projection length to prevent interference with workpieces





Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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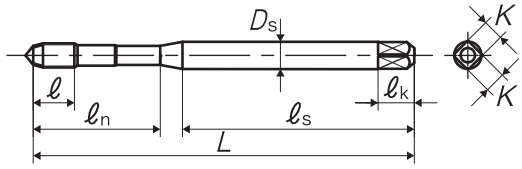

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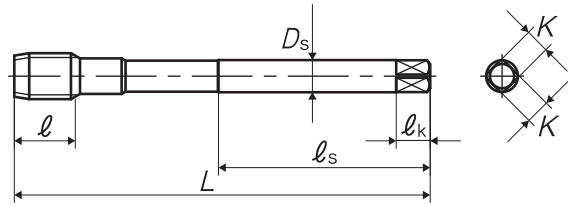

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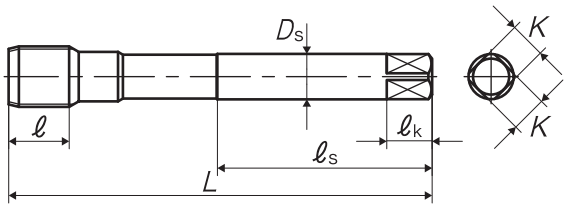

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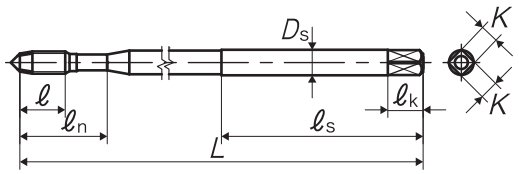

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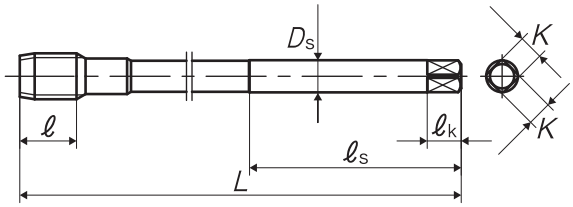


Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M6 × 1	G8	1110101055	4P	80	11	30	45	6	4.5	7	5	1	¥ 4,620
M6 × 1	G8	1111101055	2P	80	11	30	45	6	4.5	7	5	1	¥ 4,620
M8 × 1.25	G8	1110101064	4P	90	12	-	46	6.2	5	8	6	2	¥ 6,080
M8 × 1.25	G8	1111101064	2P	90	12	-	46	6.2	5	8	6	2	¥ 6,080
M10 × 1.5	G8	1110101078	4P	100	13	-	51	7	5.5	8	8	2	¥ 7,680
M10 × 1.5	G8	1111101078	2P	100	13	-	51	7	5.5	8	8	2	¥ 7,680
M10 × 1.25	G8	1110101079	4P	100	13	-	51	7	5.5	8	8	2	¥ 7,680
M10 × 1.25	G8	1111101079	2P	100	13	-	51	7	5.5	8	8	2	¥ 7,680
M12 × 1.75	G8	1110101088	4P	110	15	-	56	8.5	6.5	9	8	2	¥ 10,100
M12 × 1.75	G8	1111101088	2P	110	15	-	56	8.5	6.5	9	8	2	¥ 10,100
M12 × 1.5	G8	1110101089	4P	110	15	-	56	8.5	6.5	9	8	2	¥ 10,100
M12 × 1.5	G8	1111101089	2P	110	15	-	56	8.5	6.5	9	8	2	¥ 10,100
M12 × 1.25	G8	1110101090	4P	110	15	-	56	8.5	6.5	9	8	2	¥ 10,100
M12 × 1.25	G8	1111101090	2P	110	15	-	56	8.5	6.5	9	8	2	¥ 10,100
M14 × 1.5	G9	1110101102	4P	110	18	-	56	10.5	8	11	8	2	¥ 13,800
M14 × 1.5	G9	1111101102	2P	110	18	-	56	10.5	8	11	8	2	¥ 13,800
M16 × 1.5	G9	1110101116	4P	110	18	-	56	12.5	10	13	8	2	¥ 17,900
M16 × 1.5	G9	1111101116	2P	110	18	-	56	12.5	10	13	8	2	¥ 17,900
M18 × 1.5	G10	1110101130	4P	125	20	-	64	14	11	14	8	2	¥ 22,500
M18 × 1.5	G10	1111101130	2P	125	20	-	64	14	11	14	8	2	¥ 22,500
M20 × 1.5	G10	1110101144	4P	140	20	-	71	15	12	15	8	3	¥ 32,500
M20 × 1.5	G10	1111101144	2P	140	20	-	71	15	12	15	8	3	¥ 32,500
For Long Metric Threads													
M6 × 1	G8	2110101055	4P	100	11	30	45	6	4.5	7	5	4	¥ 5,960
M6 × 1	G8	2310101055	4P	150	11	30	45	6	4.5	7	5	4	¥ 8,600
M6 × 1	G8	2111101055	2P	100	11	30	45	6	4.5	7	5	4	¥ 5,960
M6 × 1	G8	2311101055	2P	150	11	30	45	6	4.5	7	5	4	¥ 8,600

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

MHRZ Z-PRO Roll Taps for Medium Hardness Carbon Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
M8 × 1.25	G8	2110101064	4P	150	12	-	46	6.2	5	8	6	5	¥ 10,300
M8 × 1.25	G8	2111101064	2P	150	12	-	46	6.2	5	8	6	5	¥ 10,300
M10 × 1.5	G8	2110101078	4P	150	13	-	51	7	5.5	8	8	5	¥ 12,100
M10 × 1.5	G8	2111101078	2P	150	13	-	51	7	5.5	8	8	5	¥ 12,100
M10 × 1.25	G8	2110101079	4P	150	13	-	51	7	5.5	8	8	5	¥ 12,100
M10 × 1.25	G8	2111101079	2P	150	13	-	51	7	5.5	8	8	5	¥ 12,100
M12 × 1.75	G8	2110101088	4P	150	15	-	56	8.5	6.5	9	8	5	¥ 14,400
M12 × 1.75	G8	2111101088	2P	150	15	-	56	8.5	6.5	9	8	5	¥ 14,400
M12 × 1.5	G8	2110101089	4P	150	15	-	56	8.5	6.5	9	8	5	¥ 14,400
M12 × 1.5	G8	2111101089	2P	150	15	-	56	8.5	6.5	9	8	5	¥ 14,400
M12 × 1.25	G8	2110101090	4P	150	15	-	56	8.5	6.5	9	8	5	¥ 14,400
M12 × 1.25	G8	2111101090	2P	150	15	-	56	8.5	6.5	9	8	5	¥ 14,400
M14 × 1.5	G9	2110101102	4P	150	18	-	56	10.5	8	11	8	5	¥ 19,200
M14 × 1.5	G9	2111101102	2P	150	18	-	56	10.5	8	11	8	5	¥ 19,200
M16 × 1.5	G9	2110101116	4P	150	18	-	56	12.5	10	13	8	5	¥ 20,200
M16 × 1.5	G9	2111101116	2P	150	18	-	56	12.5	10	13	8	5	¥ 20,200

Number of oil grooves: M6 = 5, M8 = 6, M10 and larger = 8
For M6 and smaller, external centers of 2 thread chamfer taps are removed.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

MHRZ-J



Roll Taps for Medium Hardness Carbon Steels

Specification

HSS-Co | Coating | 2~4

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼
10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	10~20 (m/min)
			25~35HRC

Product Features

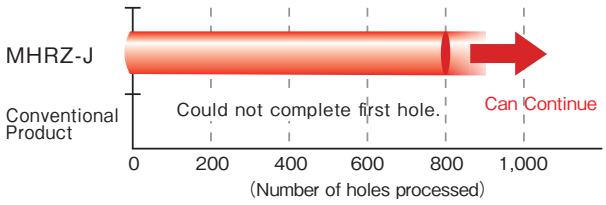
- Torque reduction is achieved from the new design and specifications.
- Tool life is dramatically improved with superb tool materials and coatings offering excellent wear resistance.
- Stable screw thread tapping in thermal refined material up to 35 HRC.
- The MHRZ-J roll form taps can be used with water soluble cutting fluid.

Tapping Data

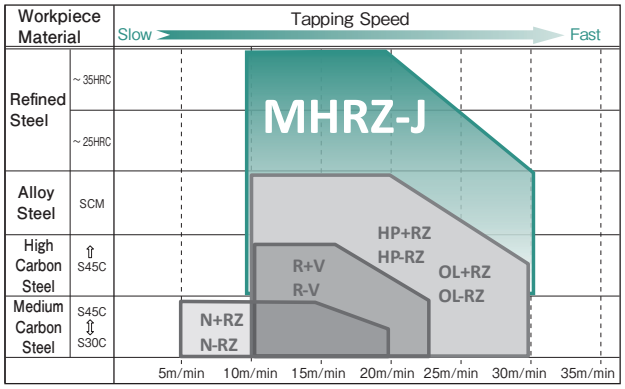
Tapping Conditions [M12×1.5]

Workpiece Material	SCM440/35HRC
Bored Hole Size	φ11.3
Tapping Length	18mm through hole
Tapping Speed	20m/min
Machinery Type	MC (perfect synchronous feed)
Tapping Fluid	Water soluble cutting fluid

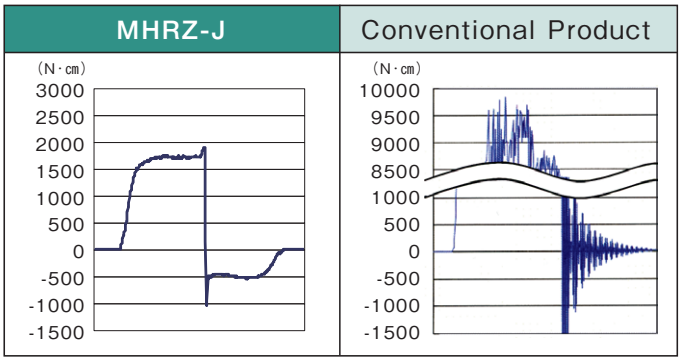
Comparison chart for the number of holes processed



Recommended speed chart



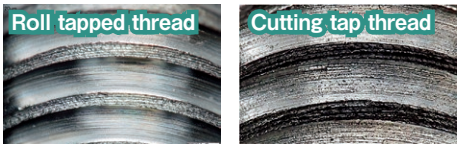
Comparison of tapping torque



The tapping torque is high, and stable internal screw thread roll form tapping is possible even for SCM 440 (refining) with a hardness of 35 HRC. This material hardness was thought to be difficult with roll tap in the past, but how it is possible.



◆ Eliminate problem of tangled chip by using roll taps!

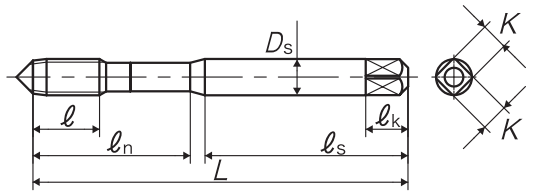


◆ Thread surface finish improvement!

You can also see it from the video site on the right.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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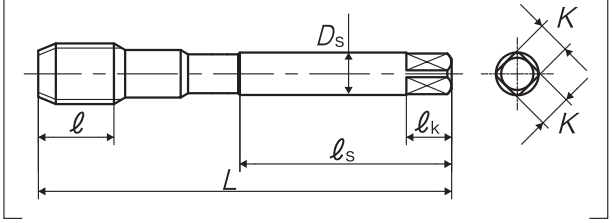


Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M6 × 1	G8	RY6.0M8OCTP	4P	62	11	26	33	6	4.5	7	5	1	¥ 4,510
M6 × 1	G8	RY6.0M8OCTB	2P	62	11	26	33	6	4.5	7	5	1	¥ 4,510
M8 × 1.25	G8	RY8.0N8OCTP	4P	70	12	-	36	6.2	5	8	6	2	¥ 6,120
M8 × 1.25	G8	RY8.0N8OCTB	2P	70	12	-	36	6.2	5	8	6	2	¥ 6,120
M10 × 1.5	G8	RY010O8OCTP	4P	75	13	-	38	7	5.5	8	8	2	¥ 7,400
M10 × 1.5	G8	RY010O8OCTB	2P	75	13	-	38	7	5.5	8	8	2	¥ 7,400
M10 × 1.25	G8	RY010N8OCTP	4P	75	13	-	38	7	5.5	8	8	2	¥ 7,400
M10 × 1.25	G8	RY010N8OCTB	2P	75	13	-	38	7	5.5	8	8	2	¥ 7,400
M12 × 1.75	G8	RY012P8OCTP	4P	82	15	-	42	8.5	6.5	9	8	2	¥ 11,400
M12 × 1.75	G8	RY012P8OCTB	2P	82	15	-	42	8.5	6.5	9	8	2	¥ 11,400
M12 × 1.5	G8	RY012O8OCTP	4P	82	15	-	42	8.5	6.5	9	8	2	¥ 11,400
M12 × 1.5	G8	RY012O8OCTB	2P	82	15	-	42	8.5	6.5	9	8	2	¥ 11,400
M12 × 1.25	G8	RY012N8OCTP	4P	82	15	-	42	8.5	6.5	9	8	2	¥ 11,400
M12 × 1.25	G8	RY012N8OCTB	2P	82	15	-	42	8.5	6.5	9	8	2	¥ 11,400
M14 × 1.5	G9	RY014O9OCTP	4P	88	18	-	45	10.5	8	11	8	2	¥ 15,400
M14 × 1.5	G9	RY014O9OCTB	2P	88	18	-	45	10.5	8	11	8	2	¥ 15,400
M16 × 1.5	G9	RY016O9OCTP	4P	95	18	-	48	12.5	10	13	8	2	¥ 19,300
M16 × 1.5	G9	RY016O9OCTB	2P	95	18	-	48	12.5	10	13	8	2	¥ 19,300
M18 × 1.5	G10	RY018000CTP	4P	100	20	-	51	14	11	14	8	2	¥ 27,100
M18 × 1.5	G10	RY018000CTB	2P	100	20	-	51	14	11	14	8	2	¥ 27,100
M20 × 1.5	G10	RY020000CTP	4P	105	20	-	50	15	12	15	8	2	¥ 31,800
M20 × 1.5	G10	RY020000CTB	2P	105	20	-	50	15	12	15	8	2	¥ 31,800

Number of oil grooves: M6 = 5, M8 = 6, M10 and larger = 8
For M6 and smaller, external centers of 2 thread chamfer taps are removed.

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

Z-PRO

MHRZ



Z-PRO
Roll Taps for Medium Hardness Carbon Steels

Specification

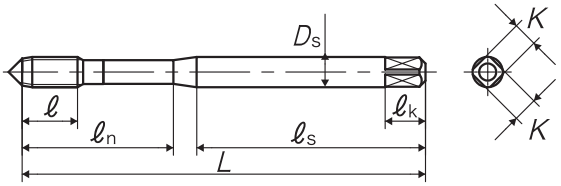
HSS-Co | Coating | 2

■Suitable tapping in thermal refined steels (～35HRC).

Recommended Tapping Speed depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼
10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	10~20 (m/min)
			25～35HRC

TYPE:1



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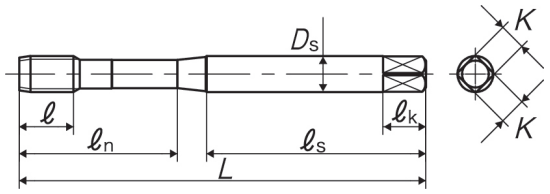

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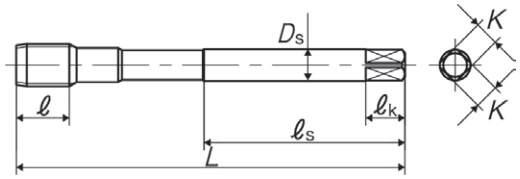

Segment : 1J

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
For Unified Threads												
No.10-24UNC	H6	5110103039	4P	2.756	0.354	0.945	1.654	0.194	0.152	0.25	5	1
No.10-24UNC	H6	5111103039	2P	2.756	0.354	0.945	1.654	0.194	0.152	0.25	5	1
No.10-32UNF	H6	5110103041	4P	2.756	0.354	0.945	1.654	0.194	0.152	0.25	5	1
No.10-32UNF	H6	5111103041	2P	2.756	0.354	0.945	1.654	0.194	0.152	0.25	5	1
1/4-20UNC	H7	5110103058	4P	3.15	0.433	1.181	1.713	0.255	0.191	0.312	5	1
1/4-20UNC	H7	5111103058	2P	3.15	0.433	1.181	1.713	0.255	0.191	0.312	5	1
1/4-28UNF	H6	5110103062	4P	3.15	0.433	1.181	1.713	0.255	0.191	0.312	5	1
1/4-28UNF	H6	5111103062	2P	3.15	0.433	1.181	1.713	0.255	0.191	0.312	5	1
5/16-18UNC	H8	5110103071	4P	3.543	0.472	1.378	1.831	0.318	0.238	0.375	6	2
5/16-18UNC	H8	5111103071	2P	3.543	0.472	1.378	1.831	0.318	0.238	0.375	6	2
5/16-24UNF	H7	5110103074	4P	3.543	0.472	1.378	1.831	0.318	0.238	0.375	6	2
5/16-24UNF	H7	5111103074	2P	3.543	0.472	1.378	1.831	0.318	0.238	0.375	6	2
3/8-16UNC	H8	5110103082	4P	3.937	0.512	1.535	2.028	0.381	0.286	0.437	8	2
3/8-16UNC	H8	5111103082	2P	3.937	0.512	1.535	2.028	0.381	0.286	0.437	8	2
3/8-24UNF	H7	5110103085	4P	3.937	0.512	1.535	2.028	0.381	0.286	0.437	8	2
3/8-24UNF	H7	5111103085	2P	3.937	0.512	1.535	2.028	0.381	0.286	0.437	8	2
7/16-14UNC	H9	5110103098	4P	3.937	0.512	-	2.008	0.323	0.242	0.406	8	3

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
7/16-14UNC	H9	5111103098	2P	3.937	0.512	-	2.008	0.323	0.242	0.406	8	3
7/16-20UNF	H8	5110103101	4P	3.937	0.512	-	2.008	0.323	0.242	0.406	8	3
7/16-20UNF	H8	5111103101	2P	3.937	0.512	-	2.008	0.323	0.242	0.406	8	3
1/2-13UNC	H9	5110103111	4P	4.331	0.591	-	2.205	0.367	0.275	0.437	8	3
1/2-13UNC	H9	5111103111	2P	4.331	0.591	-	2.205	0.367	0.275	0.437	8	3
1/2-20UNF	H8	5110103115	4P	4.331	0.591	-	2.205	0.367	0.275	0.437	8	3
1/2-20UNF	H8	5111103115	2P	4.331	0.591	-	2.205	0.367	0.275	0.437	8	3
9/16-12UNC	H10	5110103126	4P	4.331	0.709	-	2.205	0.429	0.322	0.5	8	3
9/16-12UNC	H10	5111103126	2P	4.331	0.709	-	2.205	0.429	0.322	0.5	8	3
9/16-18UNF	H9	5110103129	4P	4.331	0.709	-	2.205	0.429	0.322	0.5	8	3
9/16-18UNF	H9	5111103129	2P	4.331	0.709	-	2.205	0.429	0.322	0.5	8	3

Number of oil grooves : 1/4 and smaller = 5, 5/16 = 6, 3/8 and larger = 8
For 1/4 and smaller, external centers of 2P chamfer taps are removed.

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

Z-PRO

MHRZ



Z-PRO
Roll Taps for Medium Hardness Carbon Steels

Specification

HSS-Co | Coating | 2~4

■Suitable tapping in thermal refined steels (～35HRC).

Recommended Tapping Speed depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼
10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	10~20 (m/min)
			25～35HRC

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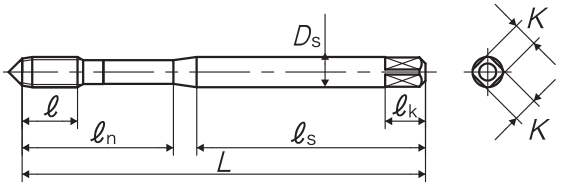

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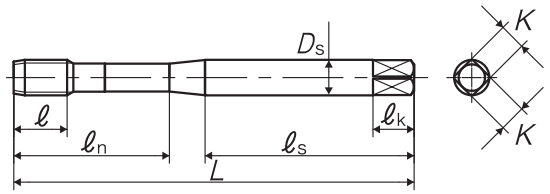

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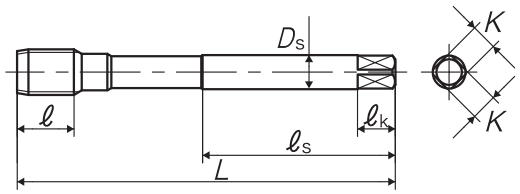

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For Metric Threads												
M6 × 1	ISO2X	RD6.0MBOCTP	4P	80	11	30	45	6	4.9	8	5	1
M6 × 1	ISO2X	RD6.0MBOCTB	2P	80	11	30	45	6	4.9	8	5	1
M8 × 1.25	ISO2X	RD8.0NBOCTP	4P	90	12	35	47	8	6.2	9	6	2
M8 × 1.25	ISO2X	RD8.0NBOCTB	2P	90	12	35	47	8	6.2	9	6	2
M10 × 1.5	ISO2X	RD010OBOCTP	4P	100	13	39	52.5	10	8	11	8	2
M10 × 1.5	ISO2X	RD010OBOCTB	2P	100	13	39	52.5	10	8	11	8	2
M10 × 1.25	ISO2X	RM010NBOCTP	4P	100	13	-	51	7	5.5	8	8	3
M10 × 1.25	ISO2X	RM010NBOCTB	2P	100	13	-	51	7	5.5	8	8	3
M12 × 1.75	ISO2X	RG012PBOCTP	4P	110	15	-	56	9	7	10	8	3
M12 × 1.75	ISO2X	RG012PBOCTB	2P	110	15	-	56	9	7	10	8	3
M12 × 1.5	ISO2X	RM012OBOCTP	4P	100	15	-	51	9	7	10	8	3
M12 × 1.5	ISO2X	RM012OBOCTB	2P	100	15	-	51	9	7	10	8	3
M12 × 1.25	ISO2X	RM012NBOCTP	4P	100	15	-	51	9	7	10	8	3
M12 × 1.25	ISO2X	RM012NBOCTB	2P	100	15	-	51	9	7	10	8	3
M14 × 1.5	ISO2X	RM014OBOCTP	4P	100	14	-	51	11	9	12	8	3
M14 × 1.5	ISO2X	RM014OBOCTB	2P	100	14	-	51	11	9	12	8	3
M16 × 1.5	ISO2X	RM016OBOCTP	4P	100	18	-	51	12	9	12	8	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
M16 × 1.5	ISO2X	RM0160BOCTB	2P	100	18	-	51	12	9	12	8	3
M18 × 1.5	ISO2X	RM0180BOCTP	4P	110	20	-	56	14	11	14	8	3
M18 × 1.5	ISO2X	RM0180BOCTB	2P	110	20	-	56	14	11	14	8	3
M20 × 1.5	ISO2X	RM0200BOCTP	4P	125	20	-	64	16	12	15	8	3
M20 × 1.5	ISO2X	RM0200BOCTB	2P	125	20	-	64	16	12	15	8	3

Number of oil grooves: M6 = 5, M8 = 6, M10 and larger = 8
For M6 and smaller, external centers of 2 thread chamfer taps are removed.

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

N+RZ
N-RZ

Roll Taps for Steels



Specification

HSS | OX Oxide | 2~4

■N+RZ/N-RZ are the forming taps suitable for ferrous materials such as carbon steels, alloy steels, and normal steels.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
5~15 (m/min)	5~15 (m/min)

・Product symbol is distinguished depend on the size.

N+RZ	~M6 (coarse thread)
N−RZ	~M6 (fine threads), M7~, all U, all STI

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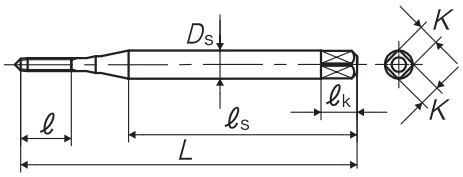

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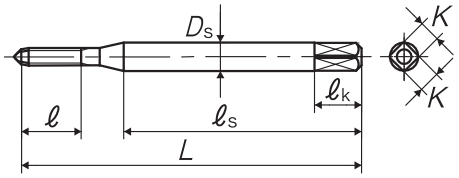

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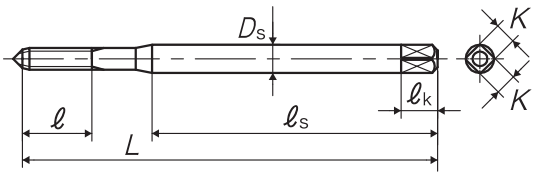

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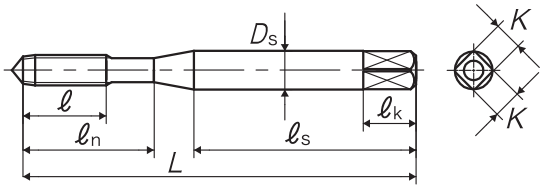

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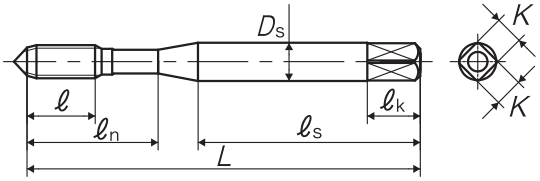

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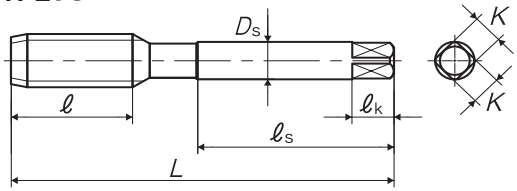

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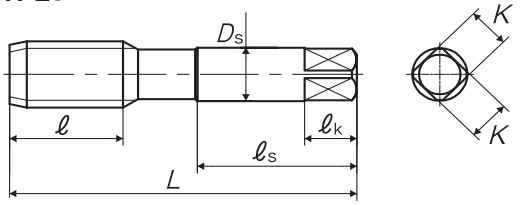


Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N+RZ Roll Taps for Steels

Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M1 × 0.25	G4	NRZP41.0BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620
M1 × 0.25	G4	NRZP41.0BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620
M1 × 0.25	G5	NRZP51.0BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620 ※
M1 × 0.25	G5	NRZP51.0BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620 ※
M1.2 × 0.25	G4	NRZP41.2BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620
M1.2 × 0.25	G4	NRZP41.2BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620
M1.2 × 0.25	G5	NRZP51.2BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620 ※
M1.2 × 0.25	G5	NRZP51.2BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620 ※
M1.4 × 0.3	G4	NRZP41.4CP	4P	36	5.4	-	24	3	2.5	5	4	1	¥ 2,960
M1.4 × 0.3	G4	NRZP41.4CB	2P	36	5.4	-	24	3	2.5	5	4	1	¥ 2,960
M1.4 × 0.3	G5	NRZP51.4CP	4P	36	5.4	-	24	3	2.5	5	4	1	¥ 2,960
M1.4 × 0.3	G5	NRZP51.4CB	2P	36	5.4	-	24	3	2.5	5	4	1	¥ 2,960
M1.6 × 0.35	G4	NRZP41.6DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.6 × 0.35	G4	NRZP41.6DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.6 × 0.35	G5	NRZP51.6DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.6 × 0.35	G5	NRZP51.6DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.7 × 0.35	G4	NRZP41.7DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.7 × 0.35	G4	NRZP41.7DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.7 × 0.35	G5	NRZP51.7DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.7 × 0.35	G5	NRZP51.7DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.7 × 0.35	G6	NRZP61.7DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.7 × 0.35	G6	NRZP61.7DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.8 × 0.35	G4	NRZP41.8DP	4P	42	6.3	-	27	3	2.5	5	4	2	¥ 2,830 ※
M1.8 × 0.35	G4	NRZP41.8DB	2P	42	6.3	-	27	3	2.5	5	4	2	¥ 2,830 ※
M1.8 × 0.35	G5	NRZP51.8DP	4P	42	6.3	-	27	3	2.5	5	4	2	¥ 2,830 ※
M1.8 × 0.35	G5	NRZP51.8DB	2P	42	6.3	-	27	3	2.5	5	4	2	¥ 2,830 ※
M2 × 0.4	G4	NRZP42.0EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,290
M2 × 0.4	G4	NRZP42.0EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,290
M2 × 0.4	G5	NRZP52.0EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,290
M2 × 0.4	G5	NRZP52.0EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,290
M2 × 0.4	G6	NRZP62.0EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,290
M2 × 0.4	G6	NRZP62.0EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,290
M2.2 × 0.45	G5	NRZP52.2FP	4P	42	8.1	-	27	3	2.5	5	4	3	¥ 2,060 ※
M2.2 × 0.45	G5	NRZP52.2FB	2P	42	8.1	-	27	3	2.5	5	4	3	¥ 2,060 ※
M2.3 × 0.4	G4	NRZP42.3EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,060 ※
M2.3 × 0.4	G4	NRZP42.3EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,060 ※
M2.3 × 0.4	G5	NRZP52.3EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,060 ※
M2.3 × 0.4	G5	NRZP52.3EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,060 ※
M2.3 × 0.4	G6	NRZP62.3EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,060 ※
M2.3 × 0.4	G6	NRZP62.3EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,060 ※
M2.5 × 0.45	G5	NRZP52.5FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.5 × 0.45	G5	NRZP52.5FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.5 × 0.45	G6	NRZP62.5FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.5 × 0.45	G6	NRZP62.5FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.6 × 0.45	G5	NRZP52.6FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.6 × 0.45	G5	NRZP52.6FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N+RZ Roll Taps for Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
M2.6 × 0.45	G6	NRZP62.6FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.6 × 0.45	G6	NRZP62.6FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M3 × 0.5	G5	NRZP53.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 1,590
M3 × 0.5	G5	NRZP53.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 1,590
M3 × 0.5	G6	NRZP63.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 1,590
M3 × 0.5	G6	NRZP63.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 1,590
M3 × 0.5	G7	NRZP73.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 1,590
M3 × 0.5	G7	NRZP73.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 1,590
M3 × 0.5	G8	NRZP83.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 1,590 ※
M3 × 0.5	G8	NRZP83.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 1,590 ※
M3.5 × 0.6	G5	NRZP53.5HP	4P	52	11	16	29	5	4	7	4	4	¥ 1,590
M3.5 × 0.6	G5	NRZP53.5HB	2P	52	11	16	29	5	4	7	4	4	¥ 1,590
M3.5 × 0.6	G6	NRZP63.5HP	4P	52	11	16	29	5	4	7	4	4	¥ 1,590
M3.5 × 0.6	G6	NRZP63.5HB	2P	52	11	16	29	5	4	7	4	4	¥ 1,590
M3.5 × 0.6	G7	NRZP73.5HP	4P	52	11	16	29	5	4	7	4	4	¥ 1,590 ※
M3.5 × 0.6	G7	NRZP73.5HB	2P	52	11	16	29	5	4	7	4	4	¥ 1,590 ※
M4 × 0.7	G5	NRZP54.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 1,590
M4 × 0.7	G5	NRZP54.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 1,590
M4 × 0.7	G6	NRZP64.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 1,590
M4 × 0.7	G6	NRZP64.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 1,590
M4 × 0.7	G7	NRZP74.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 1,590
M4 × 0.7	G7	NRZP74.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 1,590
M4 × 0.7	G8	NRZP84.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 1,590 ※
M4 × 0.7	G8	NRZP84.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 1,590 ※
M5 × 0.8	G5	NRZP55.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600 ※
M5 × 0.8	G5	NRZP55.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600 ※
M5 × 0.8	G6	NRZP65.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600
M5 × 0.8	G6	NRZP65.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600
M5 × 0.8	G7	NRZP75.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600
M5 × 0.8	G7	NRZP75.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600
M5 × 0.8	G8	NRZP85.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600 ※
M5 × 0.8	G8	NRZP85.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600 ※
M6 × 1	G5	NRZP56.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 1,740 ※
M6 × 1	G5	NRZP56.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,740 ※
M6 × 1	G6	NRZP66.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 1,740
M6 × 1	G6	NRZP66.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,740
M6 × 1	G7	NRZP76.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 1,740
M6 × 1	G7	NRZP76.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,740
M6 × 1	G8	NRZP86.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 1,740 ※
M6 × 1	G8	NRZP86.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,740 ※

N-RZ Roll Taps for Steels

Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M2 × 0.25	G4	NRZM42.0BP	4P	42	4.5	-	27	3	2.5	5	4	3	¥ 3,480 ※
M2 × 0.25	G4	NRZM42.0BB	2P	42	4.5	-	27	3	2.5	5	4	3	¥ 3,480 ※
M2 × 0.25	G5	NRZM52.0BP	4P	42	4.5	-	27	3	2.5	5	4	3	¥ 3,480 ※
M2 × 0.25	G5	NRZM52.0BB	2P	42	4.5	-	27	3	2.5	5	4	3	¥ 3,480 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N-RZ Roll Taps for Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
M2.5 × 0.35	G5	NRZM52.5DP	4P	46	6.3	14	29	3	2.5	5	4	5	¥ 2,580 ※
M2.5 × 0.35	G5	NRZM52.5DB	2P	46	6.3	14	29	3	2.5	5	4	5	¥ 2,580 ※
M2.6 × 0.35	G5	NRZM52.6DP	4P	46	6.3	14	29	3	2.5	5	4	5	¥ 2,580 ※
M2.6 × 0.35	G5	NRZM52.6DB	2P	46	6.3	14	29	3	2.5	5	4	5	¥ 2,580 ※
M3 × 0.35	G5	NRZM53.0DP	4P	46	6.5	14	26	4	3.2	6	4	5	¥ 2,690 ※
M3 × 0.35	G5	NRZM53.0DB	2P	46	6.5	14	26	4	3.2	6	4	5	¥ 2,690 ※
M4 × 0.5	G5	NRZM54.0GP	4P	52	9	17	29	5	4	7	4	5	¥ 2,320 ※
M4 × 0.5	G5	NRZM54.0GB	2P	52	9	17	29	5	4	7	4	5	¥ 2,320 ※
M4 × 0.5	G6	NRZM64.0GP	4P	52	9	17	29	5	4	7	4	5	¥ 2,320 ※
M4 × 0.5	G6	NRZM64.0GB	2P	52	9	17	29	5	4	7	4	5	¥ 2,320 ※
M4 × 0.5	G7	NRZM74.0GB	2P	52	9	17	29	5	4	7	4	5	¥ 2,320 ※
M5 × 0.5	G6	NRZM65.0GP	4P	60	9	22	33	5.5	4.5	7	4	5	¥ 2,320 ※
M5 × 0.5	G6	NRZM65.0GB	2P	60	9	22	33	5.5	4.5	7	4	5	¥ 2,320 ※
M6 × 0.75	G6	NRZM66.0JP	4P	62	15	26	33	6	4.5	7	4	4	¥ 2,470 ※
M6 × 0.75	G6	NRZM66.0JB	2P	62	15	26	33	6	4.5	7	4	4	¥ 2,470 ※
M6 × 0.75	G7	NRZM76.0JP	4P	62	15	26	33	6	4.5	7	4	4	¥ 2,470 ※
M6 × 0.75	G7	NRZM76.0JB	2P	62	15	26	33	6	4.5	7	4	4	¥ 2,470 ※
M6 × 0.5	G6	NRZM66.0GP	4P	62	9	26	33	6	4.5	7	4	5	¥ 2,470 ※
M6 × 0.5	G6	NRZM66.0GB	2P	62	9	26	33	6	4.5	7	4	5	¥ 2,470 ※
M7 × 1	G7	NRZM77.0MP	4P	70	19	-	36	6.2	5	8	4	6	¥ 2,150 ※
M7 × 1	G7	NRZM77.0MB	2P	70	19	-	36	6.2	5	8	4	6	¥ 2,150 ※
M7 × 0.75	G7	NRZM77.0JP	4P	70	19	-	36	6.2	5	8	4	6	¥ 3,190 ※
M7 × 0.75	G7	NRZM77.0JB	2P	70	19	-	36	6.2	5	8	4	6	¥ 3,190 ※
M8 × 1.25	G7	NRZM78.0NP	4P	70	19	-	36	6.2	5	8	6	6	¥ 2,480
M8 × 1.25	G7	NRZM78.0NB	2P	70	19	-	36	6.2	5	8	6	6	¥ 2,480
M8 × 1.25	G8	NRZM88.0NP	4P	70	19	-	36	6.2	5	8	6	6	¥ 2,480 ※
M8 × 1.25	G8	NRZM88.0NB	2P	70	19	-	36	6.2	5	8	6	6	¥ 2,480 ※
M8 × 1	G7	NRZM78.0MP	4P	70	19	-	36	6.2	5	8	6	6	¥ 2,830 ※
M8 × 1	G7	NRZM78.0MB	2P	70	19	-	36	6.2	5	8	6	6	¥ 2,830 ※
M8 × 0.75	G7	NRZM78.0JP	4P	70	19	-	36	6.2	5	8	6	6	¥ 3,190 ※
M8 × 0.75	G7	NRZM78.0JB	2P	70	19	-	36	6.2	5	8	6	6	¥ 3,190 ※
M10 × 1.5	G7	NRZM70100P	4P	75	23	-	38	7	5.5	8	8	6	¥ 3,150 ※
M10 × 1.5	G7	NRZM70100B	2P	75	23	-	38	7	5.5	8	8	6	¥ 3,150 ※
M10 × 1.5	G8	NRZM80100P	4P	75	23	-	38	7	5.5	8	8	6	¥ 3,150 ※
M10 × 1.5	G8	NRZM80100B	2P	75	23	-	38	7	5.5	8	8	6	¥ 3,150 ※
M10 × 1.25	G7	NRZM7010NP	4P	75	23	-	38	7	5.5	8	8	6	¥ 3,150 ※
M10 × 1.25	G7	NRZM7010NB	2P	75	23	-	38	7	5.5	8	8	6	¥ 3,150 ※
M10 × 1.25	G8	NRZM8010NP	4P	75	23	-	38	7	5.5	8	8	6	¥ 3,150 ※
M10 × 1.25	G8	NRZM8010NB	2P	75	23	-	38	7	5.5	8	8	6	¥ 3,150 ※
M10 × 1	G7	NRZM7010MP	4P	75	23	-	38	7	5.5	8	8	6	¥ 3,760 ※
M10 × 1	G7	NRZM7010MB	2P	75	23	-	38	7	5.5	8	8	6	¥ 3,760 ※
M12 × 1.75	G8	NRZM8012PP	4P	82	26	-	42	8.5	6.5	9	8	6	¥ 4,490 ※
M12 × 1.75	G8	NRZM8012PB	2P	82	26	-	42	8.5	6.5	9	8	6	¥ 4,490 ※
M12 × 1.75	G9	NRZM9012PP	4P	82	26	-	42	8.5	6.5	9	8	6	¥ 4,490 ※
M12 × 1.75	G9	NRZM9012PB	2P	82	26	-	42	8.5	6.5	9	8	6	¥ 4,490 ※
M12 × 1.5	G8	NRZM80120P	4P	82	26	-	42	8.5	6.5	9	8	6	¥ 4,490 ※
M12 × 1.5	G8	NRZM80120B	2P	82	26	-	42	8.5	6.5	9	8	6	¥ 4,490 ※
M12 × 1.5	G9	NRZM90120P	4P	82	26	-	42	8.5	6.5	9	8	6	¥ 4,490 ※
M12 × 1.5	G9	NRZM90120B	2P	82	26	-	42	8.5	6.5	9	8	6	¥ 4,490 ※
M12 × 1.25	G8	NRZM8012NP	4P	82	26	-	42	8.5	6.5	9	8	6	¥ 4,490 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N-RZ Roll Taps for Steels

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
M12 × 1.25	G8	NRZM8012NB	2P	82	26	-	42	8.5	6.5	9	8	6	¥ 4,490 ※
M12 × 1.25	G9	NRZM9012NP	4P	82	26	-	42	8.5	6.5	9	8	6	¥ 4,490 ※
M12 × 1.25	G9	NRZM9012NB	2P	82	26	-	42	8.5	6.5	9	8	6	¥ 4,490 ※
M12 × 1	G7	NRZM7012MP	4P	82	26	-	42	8.5	6.5	9	8	6	¥ 5,250 ※
M12 × 1	G7	NRZM7012MB	2P	82	26	-	42	8.5	6.5	9	8	6	¥ 5,250 ※
M14 × 2	G9	NRZM9014QP	4P	88	26	-	45	10.5	8	11	8	6	¥ 6,130 ※
M14 × 2	G9	NRZM9014QB	2P	88	26	-	45	10.5	8	11	8	6	¥ 6,130 ※
M14 × 2	G10	NRZM0014QP	4P	88	26	-	45	10.5	8	11	8	6	¥ 6,130 ※
M14 × 2	G10	NRZM0014QB	2P	88	26	-	45	10.5	8	11	8	6	¥ 6,130 ※
M14 × 1.5	G9	NRZM9014OP	4P	88	26	-	45	10.5	8	11	8	6	¥ 6,130 ※
M14 × 1.5	G9	NRZM9014OB	2P	88	26	-	45	10.5	8	11	8	6	¥ 6,130 ※
M14 × 1	G8	NRZM8014MP	4P	88	26	-	45	10.5	8	11	8	6	¥ 7,090 ※
M14 × 1	G8	NRZM8014MB	2P	88	26	-	45	10.5	8	11	8	6	¥ 7,090 ※
M16 × 2	G9	NRZM9016QP	4P	95	26	-	48	12.5	10	13	8	6	¥ 8,160 ※
M16 × 2	G9	NRZM9016QB	2P	95	26	-	48	12.5	10	13	8	6	¥ 8,160 ※
M16 × 2	G10	NRZM0016QP	4P	95	26	-	48	12.5	10	13	8	6	¥ 8,160 ※
M16 × 2	G10	NRZM0016QB	2P	95	26	-	48	12.5	10	13	8	6	¥ 8,160 ※
M16 × 1.5	G9	NRZM9016OP	4P	95	26	-	48	12.5	10	13	8	6	¥ 8,160 ※
M16 × 1.5	G9	NRZM9016OB	2P	95	26	-	48	12.5	10	13	8	6	¥ 8,160 ※
M16 × 1	G8	NRZM8016MP	4P	95	26	-	48	12.5	10	13	8	6	¥ 9,750 ※
M16 × 1	G8	NRZM8016MB	2P	95	26	-	48	12.5	10	13	8	6	¥ 9,750 ※
M18 × 1.5	G10	NRZM0018OP	4P	100	33	-	51	14	11	14	8	6	¥ 11,000 ※
M20 × 1.5	G9	NRZM9020OP	4P	105	33	-	50	15	12	15	8	7	¥ 15,100 ※
M20 × 1.5	G9	NRZM9020OB	2P	105	33	-	50	15	12	15	8	7	¥ 15,100 ※
M20 × 1.5	G10	NRZM0020OP	4P	105	33	-	50	15	12	15	8	7	¥ 15,100 ※
M20 × 1.5	G10	NRZM0020OB	2P	105	33	-	50	15	12	15	8	7	¥ 15,100 ※
For Unified Threads													
No.4-40UNC	G5	NRZM5UN4HB	2P	46	9	14	25	4	3.2	6	4	4	¥ 1,970 ※
No.6-32UNC	G6	NRZM6UN6JB	2P	52	11	17	27	5	4	7	4	4	¥ 1,830 ※
5/16-18UNC	G7	NRZM7U050P	4P	70	19	-	36	6.2	5	8	6	6	¥ 2,860 ※
5/16-18UNC	G7	NRZM7U050B	2P	70	19	-	36	6.2	5	8	6	6	¥ 2,860 ※
3/8-24UNF	G7	NRZM7U06MP	4P	75	23	-	38	7	5.5	8	6	6	¥ 3,670 ※
3/8-24UNF	G7	NRZM7U06MB	2P	75	23	-	38	7	5.5	8	6	6	¥ 3,670 ※
7/16-14UNC	G8	NRZM8U07QP	4P	82	26	-	42	8.5	6.5	9	8	6	¥ 5,150 ※
7/16-14UNC	G8	NRZM8U07QB	2P	82	26	-	42	8.5	6.5	9	8	6	¥ 5,150 ※
7/16-20UNF	G8	NRZM8U07NP	4P	82	26	-	42	8.5	6.5	9	8	6	¥ 5,150 ※
7/16-20UNF	G8	NRZM8U07NB	2P	82	26	-	42	8.5	6.5	9	8	6	¥ 5,150 ※
1/2-13UNC	G8	NRZM8U08RP	4P	88	26	-	45	10.5	8	11	8	6	¥ 5,460 ※
1/2-13UNC	G8	NRZM8U08RB	2P	88	26	-	45	10.5	8	11	8	6	¥ 5,460 ※
1/2-20UNF	G8	NRZM8U08NP	4P	88	26	-	45	10.5	8	11	8	6	¥ 5,460 ※
1/2-20UNF	G8	NRZM8U08NB	2P	88	26	-	45	10.5	8	11	8	6	¥ 5,460 ※

Number of oil grooves : Metric thread : M2.6 and smaller=non,
M3～M7=4, M8=3, M10 and larger=4
For M6 and smaller, external centers of 2 thread chamfer taps are removed.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

N-RZ

Roll Taps for Steels



Specification

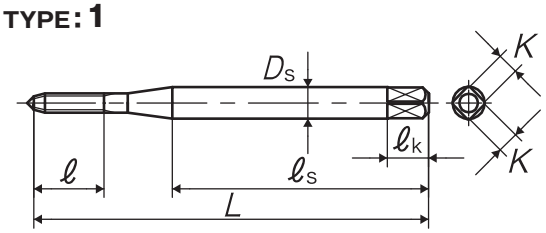
HSS | OX Oxide | 2~4

■N-RZ is the forming tap suitable for ferrous materials such as carbon steels, alloy steels, and normal steels.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
5~15 (m/min)	5~15 (m/min)

TYPE: 1



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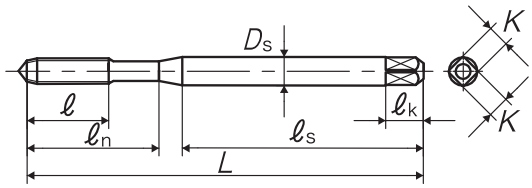

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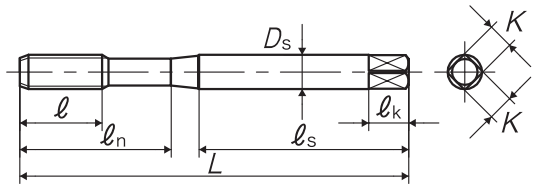

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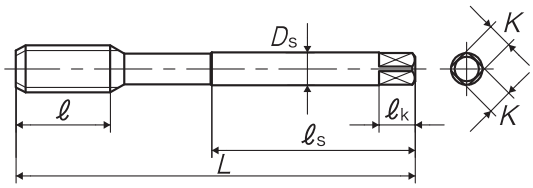

Segment : 1J

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
For Metric Threads												
M3 × 0.5	D5	389513M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
M3 × 0.5	D5	389512M	2P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
M3.5 × 0.6	D6	389515M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
M3.5 × 0.6	D6	389514M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
M4 × 0.7	D6	389517M	4P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	4	2
M4 × 0.7	D6	389516M	2P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	4	2
M5 × 0.8	D7	389519M	4P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	4	2
M5 × 0.8	D7	389518M	2P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	4	2
M6 × 1	D8	389521M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
M6 × 1	D8	389520M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
M7 × 1	D9	389523M	4P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	4	3
M7 × 1	D9	389522M	2P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	4	3
M8 × 1.25	D9	389527M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
M8 × 1.25	D9	389526M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
M8 × 1	D9	389525M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
M8 × 1	D9	389524M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N-RZ Roll Taps for Steels

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
M10 × 1.5	D10	389531M	4P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	8	3
M10 × 1.5	D10	389530M	2P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	8	3
M10 × 1.25	D9	389529M	4P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	8	3
M10 × 1.25	D9	389528M	2P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	8	3
M12 × 1.75	D11	389535M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
M12 × 1.75	D11	389534M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
M12 × 1.25	D9	389533M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
M12 × 1.25	D9	389532M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
For Unified Threads												
No.0-80UNF	H2	389410M	2P	1.772	0.236	-	1.161	0.141	0.11	0.187	3	1
No.1-64UNC	H2	389411M	2P	1.772	0.276	-	1.161	0.141	0.11	0.187	3	1
No.1-72UNF	H2	389412M	2P	1.772	0.276	-	1.161	0.141	0.11	0.187	3	1
No.2-56UNC	H2	389413M	2P	1.772	0.314	-	1.161	0.141	0.11	0.187	4	1
No.2-56UNC	H3	389414M	2P	1.772	0.314	-	1.161	0.141	0.11	0.187	4	1
No.2-64UNF	H2	389415M	2P	1.772	0.314	-	1.161	0.141	0.11	0.187	4	1
No.2-64UNF	H3	389416M	2P	1.772	0.314	-	1.161	0.141	0.11	0.187	4	1
No.3-48UNC	H2	389417M	2P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	4	2
No.3-48UNC	H3	389418M	2P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	4	2
No.3-56UNF	H2	389419M	2P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	4	2
No.3-56UNF	H3	389420M	2P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	4	2
No.4-40UNC	H3	389423M	4P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-40UNC	H3	389421M	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-40UNC	H5	389424M	4P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-40UNC	H5	389422M	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-48UNF	H3	389427M	4P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-48UNF	H3	389425M	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-48UNF	H5	389428M	4P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-48UNF	H5	389426M	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.5-40UNC	H3	389431M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-40UNC	H3	389429M	2P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-40UNC	H5	389432M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-40UNC	H5	389430M	2P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-44UNF	H3	389435M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-44UNF	H3	389433M	2P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-44UNF	H5	389436M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-44UNF	H5	389434M	2P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H3	389440M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H3	389437M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H5	389441M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H5	389438M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-40UNF	H3	389444M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-40UNF	H3	389442M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-40UNF	H5	389445M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-40UNF	H5	389443M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.8-32UNC	H3	389448M	4P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	H3	389446M	2P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	H5	389449M	4P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	H5	389447M	2P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	H3	389452M	4P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	H3	389450M	2P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N-RZ Roll Taps for Steels

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
No.8-36UNF	H5	389453M	4P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	H5	389451M	2P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.10-24UNC	H4	389456M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	H4	389454M	2P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	H6	389457M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	H6	389455M	2P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H4	389460M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H4	389458M	2P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H6	389461M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H6	389459M	2P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.12-24UNC	H4	389464M	4P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-24UNC	H4	389462M	2P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-24UNC	H6	389465M	4P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-24UNC	H6	389463M	2P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	H4	389468M	4P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	H4	389466M	2P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	H6	389469M	4P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	H6	389467M	2P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
1/4-20UNC	H4	389472M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	H4	389470M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	H6	389473M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	H6	389471M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H4	389476M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H4	389474M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H6	389477M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H6	389475M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
5/16-18UNC	H5	389480M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-18UNC	H5	389478M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-18UNC	H7	389481M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-18UNC	H7	389479M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-24UNF	H5	389484M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-24UNF	H5	389482M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-24UNF	H7	389485M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-24UNF	H7	389483M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
3/8-16UNC	H5	389488M	4P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-16UNC	H5	389486M	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-16UNC	H7	389489M	4P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-16UNC	H7	389487M	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-24UNF	H5	389492M	4P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-24UNF	H5	389490M	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-24UNF	H7	389493M	4P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-24UNF	H7	389491M	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
7/16-14UNC	H5	389496M	4P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-14UNC	H5	389494M	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-14UNC	H7	389497M	4P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-14UNC	H7	389495M	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-20UNF	H5	389502M	4P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-20UNF	H5	389498M	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-20UNF	H7	389503M	4P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-20UNF	H7	389499M	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N-RZ Roll Taps for Steels

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
1/2-13UNC	H5	389506M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-13UNC	H5	389504M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-13UNC	H7	389507M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-13UNC	H7	389505M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-20UNF	H5	389510M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-20UNF	H5	389508M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-20UNF	H7	389511M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-20UNF	H7	389509M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4

Number of oil grooves : Metric thread : M3～M7 = 4, M8 = 3, M10 and larger = 4
Unified thread : No.4 and smaller = non, No.5～1/4 = 4, 5/16～3/8 = 3, 7/16 and larger = 4
For M6, 1/4 and smaller with 2P chamfer, the external center is cut off.

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

N+RZ
N-RZ

Roll Taps for Steels



Specification

HSS | OX Oxide | 2

■N+RZ/N-RZ is the forming tap suitable for steel materials such as carbon steels, alloy steels, and stainless steels.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
5~15 (m/min)	5~15 (m/min)

・Product symbol is distinguished depend on the size.

N+RZ	～M6
N−RZ	M8～

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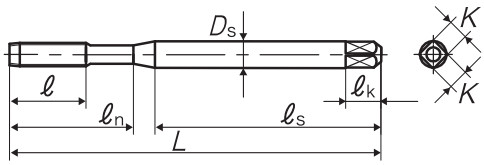

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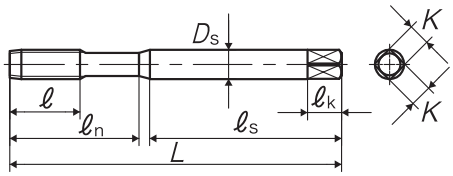

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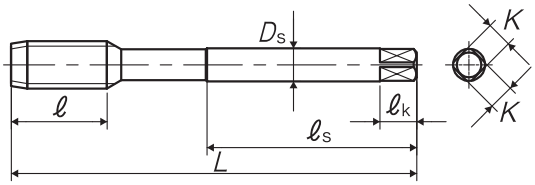


N+RZ Roll Taps for Steels

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For Metric Threads												
M2.5 × 0.45	ISO2X	RE2.5FBHEXB	2P	50	8	15	33	2.8	2.1	5	4	1
M3 × 0.5	ISO2X	RE3.0GBHEXB	2P	56	9	18	34	3.5	2.7	6	4	1
M3.5 × 0.6	ISO2X	RE3.5HBHEXB	2P	56	11	20	32	4	3	6	4	1
M4 × 0.7	ISO2X	RE4.0IBHEXB	2P	63	13	21	38	4.5	3.4	6	4	1
M5 × 0.8	ISO2X	RE5.0KBHEXB	2P	70	14	25	39	6	4.9	8	4	1
M6 × 1	ISO2X	RE6.0MBHEXB	2P	80	15	30	45	6	4.9	8	4	1

N-RZ Roll Taps for Steels

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For Metric Threads												
M8 × 1.25	ISO2X	RD8.0NBHEXB	2P	90	19	35	47	8	6.2	9	6	2
M10 × 1.5	ISO2X	RD010OBHEXB	2P	100	23	39	52.5	10	8	11	8	2
M12 × 1.75	ISO2X	RG012PBHEXB	2P	110	26	-	56	9	7	10	8	3
M16 × 2	ISO2X	RG016QBHEXB	2P	110	26	-	56	12	9	12	8	3

Number of oil grooves: M2.5 = non, M3～M6 = 4,
M8 = 3, M10 and larger = 4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-N-RZ

Long Shank Roll Taps for Steels



Specification

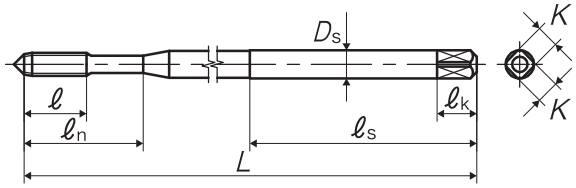
HSS | OX Oxide | 2~4

■LS-N-RZ is the long shank forming tap suitable for ferrous materials such as carbon steels, alloy steels and normal steels.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
5~15 (m/min)	5~15 (m/min)

TYPE: 1



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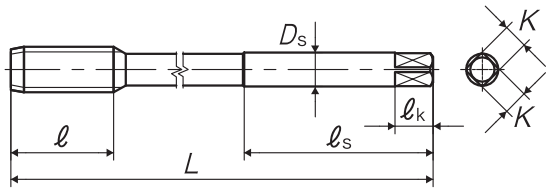


Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M3 × 0.5	G5	NRZF53.0GP10	4P	100	9	18	40	4	3.2	6	4	1	¥ 3,790 ※
M3 × 0.5	G5	NRZF53.0GB10	2P	100	9	18	40	4	3.2	6	4	1	¥ 3,790 ※
M3 × 0.5	G6	NRZF63.0GP10	4P	100	9	18	40	4	3.2	6	4	1	¥ 3,790 ※
M3 × 0.5	G6	NRZF63.0GB10	2P	100	9	18	40	4	3.2	6	4	1	¥ 3,790 ※
M4 × 0.7	G6	NRZF64.0IP10	4P	100	11	21	40	5	4	7	4	1	¥ 3,460 ※
M4 × 0.7	G6	NRZF64.0IB10	2P	100	11	21	40	5	4	7	4	1	¥ 3,460 ※
M4 × 0.7	G7	NRZF74.0IP10	4P	100	11	21	40	5	4	7	4	1	¥ 3,460 ※
M4 × 0.7	G7	NRZF74.0IB10	2P	100	11	21	40	5	4	7	4	1	¥ 3,460 ※
M5 × 0.8	G6	NRZF65.0KP10	4P	100	13	25	40	5.5	4.5	7	4	1	¥ 3,020 ※
M5 × 0.8	G6	NRZF65.0KB10	2P	100	13	25	40	5.5	4.5	7	4	1	¥ 3,020 ※
M5 × 0.8	G7	NRZF75.0KP10	4P	100	13	25	40	5.5	4.5	7	4	1	¥ 3,020 ※
M5 × 0.8	G7	NRZF75.0KB10	2P	100	13	25	40	5.5	4.5	7	4	1	¥ 3,020 ※
M6 × 1	G7	NRZF76.0MP10	4P	100	15	30	40	6	4.5	7	4	1	¥ 2,590 ※
M6 × 1	G7	NRZF76.0MP15	4P	150	15	30	40	6	4.5	7	4	1	¥ 4,570 ※
M6 × 1	G7	NRZF76.0MB10	2P	100	15	30	40	6	4.5	7	4	1	¥ 2,590 ※
M6 × 1	G7	NRZF76.0MB15	2P	150	15	30	40	6	4.5	7	4	1	¥ 4,570 ※
M6 × 1	G8	NRZF86.0MP10	4P	100	15	30	40	6	4.5	7	4	1	¥ 2,590 ※
M6 × 1	G8	NRZF86.0MP15	4P	150	15	30	40	6	4.5	7	4	1	¥ 4,570 ※
M6 × 1	G8	NRZF86.0MB10	2P	100	15	30	40	6	4.5	7	4	1	¥ 2,590 ※
M6 × 1	G8	NRZF86.0MB15	2P	150	15	30	40	6	4.5	7	4	1	¥ 4,570 ※
M8 × 1.25	G7	NRZM78.0NP10	4P	100	19	-	50	6.2	5	8	6	2	¥ 3,270 ※
M8 × 1.25	G7	NRZM78.0NP15	4P	150	19	-	50	6.2	5	8	6	2	¥ 5,590 ※
M8 × 1.25	G7	NRZM78.0NB10	2P	100	19	-	50	6.2	5	8	6	2	¥ 3,270 ※
M8 × 1.25	G7	NRZM78.0NB15	2P	150	19	-	50	6.2	5	8	6	2	¥ 5,590 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
M10 × 1.5	G7	NRZM70100P10	4P	100	23	-	50	7	5.5	8	8	2	¥ 3,980 ※
M10 × 1.5	G7	NRZM70100P15	4P	150	23	-	50	7	5.5	8	8	2	¥ 6,500 ※
M10 × 1.5	G7	NRZM70100B10	2P	100	23	-	50	7	5.5	8	8	2	¥ 3,980 ※
M10 × 1.5	G7	NRZM70100B15	2P	150	23	-	50	7	5.5	8	8	2	¥ 6,500 ※
M10 × 1.25	G7	NRZM7010NP15	4P	150	23	-	50	7	5.5	8	8	2	¥ 6,500 ※
M10 × 1.25	G7	NRZM7010NB15	2P	150	23	-	50	7	5.5	8	8	2	¥ 6,500 ※

Number of oil grooves : M3～M6=4, M8=3, M10=4
For M6 and smaller, external centers of 2 thread chamfer taps are removed.

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

N+RS
N-RS

Roll Taps for Non-Ferrous Materials



Specification

HSS | NI Nitride | 2~4

■N+RS/N-RS are the forming taps suitable for non-ferrous materials such as aluminum castings, aluminum diecasting and brass.

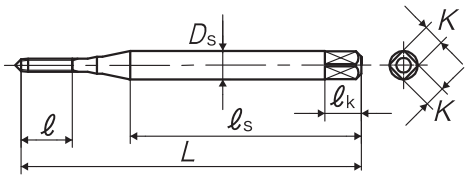
Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

・Product symbol is distinguished depend on the size.

N+RS	~M6 (coarse thread)
N−RS	~M6 (fine threads), M7~, all U, all STI

TYPE:1



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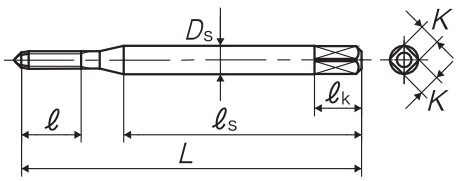

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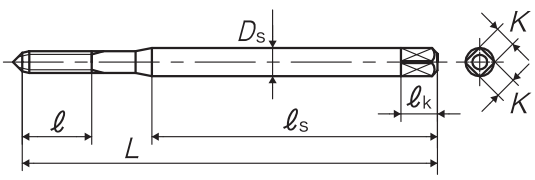

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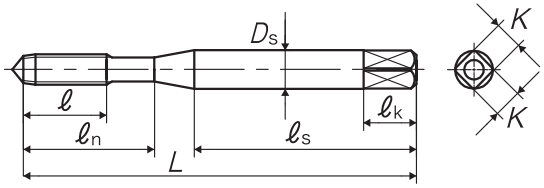

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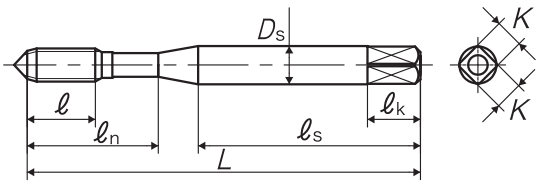

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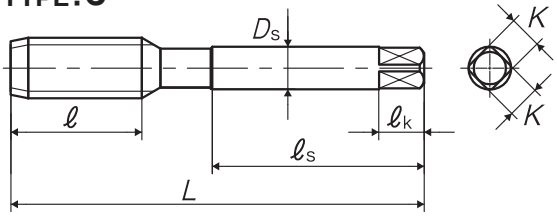

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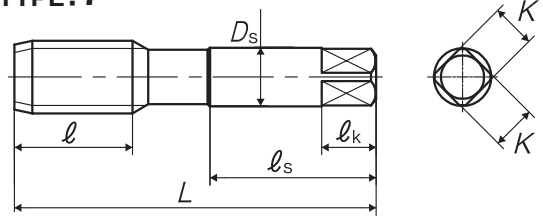


Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N+RS Roll Taps for Non-Ferrous Materials

Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M1 × 0.25	G4	NRSP41.0BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620
M1 × 0.25	G4	NRSP41.0BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620
M1 × 0.25	G5	NRSP51.0BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620 ※
M1 × 0.25	G5	NRSP51.0BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620 ※
M1.2 × 0.25	G4	NRSP41.2BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620
M1.2 × 0.25	G4	NRSP41.2BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620
M1.2 × 0.25	G5	NRSP51.2BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620
M1.2 × 0.25	G5	NRSP51.2BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 3,620
M1.4 × 0.3	G4	NRSP41.4CP	4P	36	5.4	-	24	3	2.5	5	4	1	¥ 2,960
M1.4 × 0.3	G4	NRSP41.4CB	2P	36	5.4	-	24	3	2.5	5	4	1	¥ 2,960
M1.4 × 0.3	G5	NRSP51.4CP	4P	36	5.4	-	24	3	2.5	5	4	1	¥ 2,960
M1.4 × 0.3	G5	NRSP51.4CB	2P	36	5.4	-	24	3	2.5	5	4	1	¥ 2,960
M1.6 × 0.35	G4	NRSP41.6DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.6 × 0.35	G4	NRSP41.6DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.6 × 0.35	G5	NRSP51.6DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.6 × 0.35	G5	NRSP51.6DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.6 × 0.35	G6	NRSP61.6DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830 ※
M1.6 × 0.35	G6	NRSP61.6DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830 ※
M1.7 × 0.35	G4	NRSP41.7DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.7 × 0.35	G4	NRSP41.7DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.7 × 0.35	G5	NRSP51.7DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.7 × 0.35	G5	NRSP51.7DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.7 × 0.35	G6	NRSP61.7DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.7 × 0.35	G6	NRSP61.7DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 2,830
M1.8 × 0.35	G4	NRSP41.8DP	4P	42	6.3	-	27	3	2.5	5	4	2	¥ 2,830 ※
M1.8 × 0.35	G4	NRSP41.8DB	2P	42	6.3	-	27	3	2.5	5	4	2	¥ 2,830 ※
M1.8 × 0.35	G5	NRSP51.8DP	4P	42	6.3	-	27	3	2.5	5	4	2	¥ 2,830 ※
M1.8 × 0.35	G5	NRSP51.8DB	2P	42	6.3	-	27	3	2.5	5	4	2	¥ 2,830 ※
M2 × 0.4	G4	NRSP42.0EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,290
M2 × 0.4	G4	NRSP42.0EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,290
M2 × 0.4	G5	NRSP52.0EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,290
M2 × 0.4	G5	NRSP52.0EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,290
M2 × 0.4	G6	NRSP62.0EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,290
M2 × 0.4	G6	NRSP62.0EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,290
M2.3 × 0.4	G4	NRSP42.3EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,060
M2.3 × 0.4	G4	NRSP42.3EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,060
M2.3 × 0.4	G5	NRSP52.3EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,060
M2.3 × 0.4	G5	NRSP52.3EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,060
M2.3 × 0.4	G6	NRSP62.3EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,060 ※
M2.3 × 0.4	G6	NRSP62.3EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 2,060 ※
M2.5 × 0.45	G5	NRSP52.5FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.5 × 0.45	G5	NRSP52.5FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.5 × 0.45	G6	NRSP62.5FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.5 × 0.45	G6	NRSP62.5FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.6 × 0.45	G5	NRSP52.6FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.6 × 0.45	G5	NRSP52.6FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.6 × 0.45	G6	NRSP62.6FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750
M2.6 × 0.45	G6	NRSP62.6FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,750

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N+RS Roll Taps for Non-Ferrous Materials

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
M3 × 0.5	G5	NRSP53.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 1,590
M3 × 0.5	G5	NRSP53.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 1,590
M3 × 0.5	G6	NRSP63.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 1,590
M3 × 0.5	G6	NRSP63.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 1,590
M3 × 0.5	G7	NRSP73.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 1,590
M3 × 0.5	G7	NRSP73.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 1,590
M3 × 0.5	G8	NRSP83.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 1,590 ※
M3 × 0.5	G8	NRSP83.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 1,590 ※
M3.5 × 0.6	G5	NRSP53.5HP	4P	52	11	16	29	5	4	7	4	4	¥ 1,590
M3.5 × 0.6	G5	NRSP53.5HB	2P	52	11	16	29	5	4	7	4	4	¥ 1,590
M3.5 × 0.6	G6	NRSP63.5HP	4P	52	11	16	29	5	4	7	4	4	¥ 1,590
M3.5 × 0.6	G6	NRSP63.5HB	2P	52	11	16	29	5	4	7	4	4	¥ 1,590
M3.5 × 0.6	G7	NRSP73.5HP	4P	52	11	16	29	5	4	7	4	4	¥ 1,590 ※
M4 × 0.7	G5	NRSP54.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 1,590
M4 × 0.7	G5	NRSP54.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 1,590
M4 × 0.7	G6	NRSP64.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 1,590
M4 × 0.7	G6	NRSP64.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 1,590
M4 × 0.7	G7	NRSP74.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 1,590
M4 × 0.7	G7	NRSP74.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 1,590
M4 × 0.7	G8	NRSP84.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 1,590 ※
M4 × 0.7	G8	NRSP84.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 1,590 ※
M5 × 0.8	G5	NRSP55.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600 ※
M5 × 0.8	G5	NRSP55.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600 ※
M5 × 0.8	G6	NRSP65.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600
M5 × 0.8	G6	NRSP65.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600
M5 × 0.8	G7	NRSP75.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600
M5 × 0.8	G7	NRSP75.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600
M5 × 0.8	G8	NRSP85.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 1,600 ※
M6 × 1	G5	NRSP56.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 1,740 ※
M6 × 1	G5	NRSP56.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,740 ※
M6 × 1	G6	NRSP66.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 1,740
M6 × 1	G6	NRSP66.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,740
M6 × 1	G7	NRSP76.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 1,740
M6 × 1	G7	NRSP76.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,740
M6 × 1	G8	NRSP86.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 1,740 ※
M6 × 1	G8	NRSP86.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,740 ※

N-RS Roll Taps for Non-Ferrous Materials

Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M2 × 0.25	G4	NRSM42.0BP	4P	42	4.5	-	27	3	2.5	5	4	3	¥ 3,480 ※
M2 × 0.25	G4	NRSM42.0BB	2P	42	4.5	-	27	3	2.5	5	4	3	¥ 3,480 ※
M2 × 0.25	G5	NRSM52.0BP	4P	42	4.5	-	27	3	2.5	5	4	3	¥ 3,480 ※
M2 × 0.25	G5	NRSM52.0BB	2P	42	4.5	-	27	3	2.5	5	4	3	¥ 3,480 ※
M2.5 × 0.35	G4	NRSM42.5DP	4P	46	6.3	14	29	3	2.5	5	4	5	¥ 2,580 ※
M2.5 × 0.35	G4	NRSM42.5DB	2P	46	6.3	14	29	3	2.5	5	4	5	¥ 2,580 ※
M2.5 × 0.35	G5	NRSM52.5DP	4P	46	6.3	14	29	3	2.5	5	4	5	¥ 2,580 ※
M2.5 × 0.35	G5	NRSM52.5DB	2P	46	6.3	14	29	3	2.5	5	4	5	¥ 2,580 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N-RS Roll Taps for Non-Ferrous Materials

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
M2.6 × 0.35	G5	NRSM52.6DP	4P	46	6.3	14	29	3	2.5	5	4	5	¥ 2,580 ※
M2.6 × 0.35	G5	NRSM52.6DB	2P	46	6.3	14	29	3	2.5	5	4	5	¥ 2,580 ※
M2.6 × 0.35	G6	NRSM62.6DP	4P	46	6.3	14	29	3	2.5	5	4	5	¥ 2,580 ※
M2.6 × 0.35	G6	NRSM62.6DB	2P	46	6.3	14	29	3	2.5	5	4	5	¥ 2,580 ※
M3 × 0.35	G5	NRSM53.0DP	4P	46	6.5	14	26	4	3.2	6	4	5	¥ 2,690 ※
M3 × 0.35	G5	NRSM53.0DB	2P	46	6.5	14	26	4	3.2	6	4	5	¥ 2,690 ※
M3 × 0.35	G6	NRSM63.0DP	4P	46	6.5	14	26	4	3.2	6	4	5	¥ 2,690 ※
M3 × 0.35	G6	NRSM63.0DB	2P	46	6.5	14	26	4	3.2	6	4	5	¥ 2,690 ※
M3.5 × 0.35	G5	NRSM53.5DP	4P	52	6.5	16	29	5	4	7	4	5	¥ 2,690 ※
M3.5 × 0.35	G5	NRSM53.5DB	2P	52	6.5	16	29	5	4	7	4	5	¥ 2,690 ※
M3.5 × 0.35	G6	NRSM63.5DP	4P	52	6.5	16	29	5	4	7	4	5	¥ 2,690 ※
M3.5 × 0.35	G6	NRSM63.5DB	2P	52	6.5	16	29	5	4	7	4	5	¥ 2,690 ※
M4 × 0.5	G6	NRSM64.0GP	4P	52	9	17	29	5	4	7	4	5	¥ 2,320 ※
M4 × 0.5	G6	NRSM64.0GB	2P	52	9	17	29	5	4	7	4	5	¥ 2,320 ※
M4 × 0.5	G7	NRSM74.0GP	4P	52	9	17	29	5	4	7	4	5	¥ 2,320 ※
M4 × 0.5	G7	NRSM74.0GB	2P	52	9	17	29	5	4	7	4	5	¥ 2,320 ※
M5 × 0.5	G6	NRSM65.0GP	4P	60	9	22	33	5.5	4.5	7	4	5	¥ 2,320 ※
M5 × 0.5	G6	NRSM65.0GB	2P	60	9	22	33	5.5	4.5	7	4	5	¥ 2,320 ※
M5 × 0.5	G7	NRSM75.0GP	4P	60	9	22	33	5.5	4.5	7	4	5	¥ 2,320 ※
M5 × 0.5	G7	NRSM75.0GB	2P	60	9	22	33	5.5	4.5	7	4	5	¥ 2,320 ※
M6 × 0.75	G6	NRSM66.0JP	4P	62	15	26	33	6	4.5	7	4	4	¥ 2,470 ※
M6 × 0.75	G6	NRSM66.0JB	2P	62	15	26	33	6	4.5	7	4	4	¥ 2,470 ※
M6 × 0.75	G7	NRSM76.0JP	4P	62	15	26	33	6	4.5	7	4	4	¥ 2,470 ※
M6 × 0.75	G7	NRSM76.0JB	2P	62	15	26	33	6	4.5	7	4	4	¥ 2,470 ※
M6 × 0.5	G6	NRSM66.0GP	4P	62	9	26	33	6	4.5	7	4	5	¥ 2,470 ※
M6 × 0.5	G6	NRSM66.0GB	2P	62	9	26	33	6	4.5	7	4	5	¥ 2,470 ※
M7 × 1	G6	NRSM67.0MP	4P	70	19	-	36	6.2	5	8	4	6	¥ 2,150 ※
M7 × 1	G6	NRSM67.0MB	2P	70	19	-	36	6.2	5	8	4	6	¥ 2,150 ※
M7 × 1	G7	NRSM77.0MP	4P	70	19	-	36	6.2	5	8	4	6	¥ 2,150 ※
M7 × 1	G7	NRSM77.0MB	2P	70	19	-	36	6.2	5	8	4	6	¥ 2,150 ※
M7 × 0.75	G7	NRSM77.0JP	4P	70	19	-	36	6.2	5	8	4	6	¥ 3,190 ※
M7 × 0.75	G7	NRSM77.0JB	2P	70	19	-	36	6.2	5	8	4	6	¥ 3,190 ※
M8 × 1.25	G7	NRSM78.0NP	4P	70	19	-	36	6.2	5	8	6	6	¥ 2,480
M8 × 1.25	G7	NRSM78.0NB	2P	70	19	-	36	6.2	5	8	6	6	¥ 2,480
M8 × 1.25	G8	NRSM88.0NP	4P	70	19	-	36	6.2	5	8	6	6	¥ 2,480
M8 × 1.25	G8	NRSM88.0NB	2P	70	19	-	36	6.2	5	8	6	6	¥ 2,480
M8 × 1	G7	NRSM78.0MP	4P	70	19	-	36	6.2	5	8	6	6	¥ 2,830 ※
M8 × 1	G7	NRSM78.0MB	2P	70	19	-	36	6.2	5	8	6	6	¥ 2,830 ※
M8 × 0.75	G7	NRSM78.0JP	4P	70	19	-	36	6.2	5	8	6	6	¥ 3,190 ※
M8 × 0.75	G7	NRSM78.0JB	2P	70	19	-	36	6.2	5	8	6	6	¥ 3,190 ※
M10 × 1.5	G7	NRSM70100P	4P	75	23	-	38	7	5.5	8	6	6	¥ 3,150
M10 × 1.5	G7	NRSM70100B	2P	75	23	-	38	7	5.5	8	6	6	¥ 3,150
M10 × 1.5	G8	NRSM80100P	4P	75	23	-	38	7	5.5	8	6	6	¥ 3,150 ※
M10 × 1.5	G8	NRSM80100B	2P	75	23	-	38	7	5.5	8	6	6	¥ 3,150 ※
M10 × 1.25	G7	NRSM7010NP	4P	75	23	-	38	7	5.5	8	6	6	¥ 3,150 ※
M10 × 1.25	G7	NRSM7010NB	2P	75	23	-	38	7	5.5	8	6	6	¥ 3,150 ※
M10 × 1.25	G8	NRSM8010NP	4P	75	23	-	38	7	5.5	8	6	6	¥ 3,150 ※
M10 × 1.25	G8	NRSM8010NB	2P	75	23	-	38	7	5.5	8	6	6	¥ 3,150 ※
M10 × 1	G7	NRSM7010MP	4P	75	23	-	38	7	5.5	8	6	6	¥ 3,760 ※
M10 × 1	G7	NRSM7010MB	2P	75	23	-	38	7	5.5	8	6	6	¥ 3,760 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N-RS Roll Taps for Non-Ferrous Materials

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
M12 × 1.75	G8	NRSM8012PP	4P	82	26	-	42	8.5	6.5	9	6	6	¥ 4,490 ※
M12 × 1.75	G8	NRSM8012PB	2P	82	26	-	42	8.5	6.5	9	6	6	¥ 4,490 ※
M12 × 1.75	G9	NRSM9012PP	4P	82	26	-	42	8.5	6.5	9	6	6	¥ 4,490 ※
M12 × 1.75	G9	NRSM9012PB	2P	82	26	-	42	8.5	6.5	9	6	6	¥ 4,490 ※
M12 × 1.5	G8	NRSM8012OP	4P	82	26	-	42	8.5	6.5	9	6	6	¥ 4,490 ※
M12 × 1.5	G8	NRSM8012OB	2P	82	26	-	42	8.5	6.5	9	6	6	¥ 4,490 ※
M12 × 1.5	G9	NRSM9012OP	4P	82	26	-	42	8.5	6.5	9	6	6	¥ 4,490 ※
M12 × 1.5	G9	NRSM9012OB	2P	82	26	-	42	8.5	6.5	9	6	6	¥ 4,490 ※
M12 × 1.25	G8	NRSM8012NP	4P	82	26	-	42	8.5	6.5	9	6	6	¥ 4,490 ※
M12 × 1.25	G8	NRSM8012NB	2P	82	26	-	42	8.5	6.5	9	6	6	¥ 4,490 ※
M12 × 1.25	G9	NRSM9012NP	4P	82	26	-	42	8.5	6.5	9	6	6	¥ 4,490 ※
M12 × 1.25	G9	NRSM9012NB	2P	82	26	-	42	8.5	6.5	9	6	6	¥ 4,490 ※
M12 × 1	G7	NRSM7012MP	4P	82	26	-	42	8.5	6.5	9	6	6	¥ 5,250 ※
M12 × 1	G7	NRSM7012MB	2P	82	26	-	42	8.5	6.5	9	6	6	¥ 5,250 ※
M14 × 2	G9	NRSM9014QP	4P	88	26	-	45	10.5	8	11	6	6	¥ 6,130 ※
M14 × 2	G9	NRSM9014QB	2P	88	26	-	45	10.5	8	11	6	6	¥ 6,130 ※
M14 × 2	G10	NRSM0014QP	4P	88	26	-	45	10.5	8	11	6	6	¥ 6,130 ※
M14 × 2	G10	NRSM0014QB	2P	88	26	-	45	10.5	8	11	6	6	¥ 6,130 ※
M14 × 1.5	G9	NRSM9014OP	4P	88	26	-	45	10.5	8	11	6	6	¥ 6,130 ※
M14 × 1.5	G9	NRSM9014OB	2P	88	26	-	45	10.5	8	11	6	6	¥ 6,130 ※
M14 × 1	G8	NRSM8014MP	4P	88	26	-	45	10.5	8	11	6	6	¥ 7,090 ※
M14 × 1	G8	NRSM8014MB	2P	88	26	-	45	10.5	8	11	6	6	¥ 7,090 ※
M16 × 2	G9	NRSM9016QP	4P	95	26	-	48	12.5	10	13	6	6	¥ 8,160 ※
M16 × 2	G9	NRSM9016QB	2P	95	26	-	48	12.5	10	13	6	6	¥ 8,160 ※
M16 × 2	G10	NRSM0016QP	4P	95	26	-	48	12.5	10	13	6	6	¥ 8,160 ※
M16 × 2	G10	NRSM0016QB	2P	95	26	-	48	12.5	10	13	6	6	¥ 8,160 ※
M16 × 1.5	G9	NRSM9016OP	4P	95	26	-	48	12.5	10	13	6	6	¥ 8,160 ※
M16 × 1.5	G9	NRSM9016OB	2P	95	26	-	48	12.5	10	13	6	6	¥ 8,160 ※
M16 × 1	G8	NRSM8016MP	4P	95	26	-	48	12.5	10	13	6	6	¥ 9,750 ※
M16 × 1	G8	NRSM8016MB	2P	95	26	-	48	12.5	10	13	6	6	¥ 9,750 ※
M18 × 1.5	G9	NRSM9018OP	4P	100	33	-	51	14	11	14	6	6	¥ 11,000 ※
M18 × 1.5	G9	NRSM9018OB	2P	100	33	-	51	14	11	14	6	6	¥ 11,000 ※
M20 × 2.5	G11	NRSM1020RP	4P	105	33	-	50	15	12	15	6	7	¥ 15,100 ※
M20 × 2.5	G11	NRSM1020RB	2P	105	33	-	50	15	12	15	6	7	¥ 15,100 ※
M20 × 1.5	G9	NRSM9020OP	4P	105	33	-	50	15	12	15	6	7	¥ 15,100 ※
M20 × 1.5	G9	NRSM9020OB	2P	105	33	-	50	15	12	15	6	7	¥ 15,100 ※
M20 × 1.5	G10	NRSM0020OP	4P	105	33	-	50	15	12	15	6	7	¥ 15,100 ※
M20 × 1.5	G10	NRSM0020OB	2P	105	33	-	50	15	12	15	6	7	¥ 15,100 ※
For Unified Threads													
No.0-80UNF	G5	NRSM5UN0BP	4P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,240 ※
No.0-80UNF	G5	NRSM5UN0BB	2P	36	6.3	-	24	3	2.5	5	3	2	¥ 3,240 ※
No.1-72UNF	G5	NRSM5UN1CP	4P	42	7.2	-	27	3	2.5	5	3	2	¥ 3,240 ※
No.1-72UNF	G5	NRSM5UN1CB	2P	42	7.2	-	27	3	2.5	5	3	2	¥ 3,240 ※
No.2-56UNC	G4	NRSM4UN2EP	4P	42	8.1	-	27	3	2.5	5	4	3	¥ 2,370 ※
No.2-56UNC	G4	NRSM4UN2EB	2P	42	8.1	-	27	3	2.5	5	4	3	¥ 2,370 ※
No.2-56UNC	G5	NRSM5UN2EP	4P	42	8.1	-	27	3	2.5	5	4	3	¥ 2,370 ※
No.2-56UNC	G5	NRSM5UN2EB	2P	42	8.1	-	27	3	2.5	5	4	3	¥ 2,370 ※
No.2-56UNC	G6	NRSM6UN2EP	4P	42	8.1	-	27	3	2.5	5	4	3	¥ 2,370 ※
No.2-56UNC	G6	NRSM6UN2EB	2P	42	8.1	-	27	3	2.5	5	4	3	¥ 2,370 ※
No.2-56UNC	G7	NRSM7UN2EP	4P	42	8.1	-	27	3	2.5	5	4	3	¥ 2,370 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N-RS Roll Taps for Non-Ferrous Materials

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
No.2-56UNC	G7	NRSM7UN2EB	2P	42	8.1	-	27	3	2.5	5	4	3	¥ 2,370 ※
No.3-48UNC	G4	NRSM4UN3FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,980 ※
No.3-48UNC	G4	NRSM4UN3FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,980 ※
No.3-48UNC	G5	NRSM5UN3FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,980 ※
No.3-48UNC	G5	NRSM5UN3FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 1,980 ※
No.4-40UNC	G5	NRSM5UN4HP	4P	46	9	14	25	4	3.2	6	4	4	¥ 1,970 ※
No.4-40UNC	G5	NRSM5UN4HB	2P	46	9	14	25	4	3.2	6	4	4	¥ 1,970 ※
No.4-40UNC	G6	NRSM6UN4HP	4P	46	9	14	25	4	3.2	6	4	4	¥ 1,970 ※
No.4-40UNC	G6	NRSM6UN4HB	2P	46	9	14	25	4	3.2	6	4	4	¥ 1,970 ※
No.4-40UNC	G7	NRSM7UN4HP	4P	46	9	14	25	4	3.2	6	4	4	¥ 1,970 ※
No.4-40UNC	G7	NRSM7UN4HB	2P	46	9	14	25	4	3.2	6	4	4	¥ 1,970 ※
No.4-48UNF	G5	NRSM5UN4FP	4P	46	9	14	25	4	3.2	6	4	4	¥ 1,970 ※
No.4-48UNF	G5	NRSM5UN4FB	2P	46	9	14	25	4	3.2	6	4	4	¥ 1,970 ※
No.4-48UNF	G6	NRSM6UN4FP	4P	46	9	14	25	4	3.2	6	4	4	¥ 1,970 ※
No.4-48UNF	G6	NRSM6UN4FB	2P	46	9	14	25	4	3.2	6	4	4	¥ 1,970 ※
No.5-40UNC	G5	NRSM5UN5HP	4P	52	11	16	28	5	4	7	4	4	¥ 1,830 ※
No.5-44UNF	G6	NRSM6UN5GB	2P	52	11	16	28	5	4	7	4	4	¥ 1,830 ※
No.6-32UNC	G5	NRSM5UN6JP	4P	52	11	17	27	5	4	7	4	4	¥ 1,830 ※
No.6-32UNC	G5	NRSM5UN6JB	2P	52	11	17	27	5	4	7	4	4	¥ 1,830 ※
No.6-32UNC	G6	NRSM6UN6JP	4P	52	11	17	27	5	4	7	4	4	¥ 1,830 ※
No.6-32UNC	G6	NRSM6UN6JB	2P	52	11	17	27	5	4	7	4	4	¥ 1,830 ※
No.6-32UNC	G7	NRSM7UN6JP	4P	52	11	17	27	5	4	7	4	4	¥ 1,830 ※
No.6-32UNC	G7	NRSM7UN6JB	2P	52	11	17	27	5	4	7	4	4	¥ 1,830 ※
No.6-40UNF	G5	NRSM5UN6HP	4P	52	11	17	27	5	4	7	4	4	¥ 1,830 ※
No.6-40UNF	G5	NRSM5UN6HB	2P	52	11	17	27	5	4	7	4	4	¥ 1,830 ※
No.8-32UNC	G6	NRSM6UN8JP	4P	60	13	22	31	5.5	4.5	7	4	4	¥ 1,850 ※
No.8-32UNC	G6	NRSM6UN8JB	2P	60	13	22	31	5.5	4.5	7	4	4	¥ 1,850 ※
No.8-32UNC	G7	NRSM7UN8JP	4P	60	13	22	31	5.5	4.5	7	4	4	¥ 1,850 ※
No.8-32UNC	G7	NRSM7UN8JB	2P	60	13	22	31	5.5	4.5	7	4	4	¥ 1,850 ※
No.8-32UNC	G8	NRSM8UN8JP	4P	60	13	22	31	5.5	4.5	7	4	4	¥ 1,850 ※
No.8-36UNF	G5	NRSM5UN8IP	4P	60	13	22	31	5.5	4.5	7	4	4	¥ 1,850 ※
No.8-36UNF	G5	NRSM5UN8IB	2P	60	13	22	31	5.5	4.5	7	4	4	¥ 1,850 ※
No.8-36UNF	G6	NRSM6UN8IB	2P	60	13	22	31	5.5	4.5	7	4	4	¥ 1,850 ※
No.10-24UNC	G6	NRSM6UNAMP	4P	60	13	22	32	5.5	4.5	7	4	4	¥ 1,850 ※
No.10-24UNC	G6	NRSM6UNAMB	2P	60	13	22	32	5.5	4.5	7	4	4	¥ 1,850 ※
No.10-24UNC	G7	NRSM7UNAMP	4P	60	13	22	32	5.5	4.5	7	4	4	¥ 1,850 ※
No.10-24UNC	G7	NRSM7UNAMB	2P	60	13	22	32	5.5	4.5	7	4	4	¥ 1,850 ※
No.10-32UNF	G6	NRSM6UNAJP	4P	60	13	22	32	5.5	4.5	7	4	4	¥ 1,850 ※
No.10-32UNF	G6	NRSM6UNAJB	2P	60	13	22	32	5.5	4.5	7	4	4	¥ 1,850 ※
No.10-32UNF	G7	NRSM7UNAJP	4P	60	13	22	32	5.5	4.5	7	4	4	¥ 1,850 ※
No.10-32UNF	G7	NRSM7UNAJB	2P	60	13	22	32	5.5	4.5	7	4	4	¥ 1,850 ※
1/4-20UNC	G6	NRSM6U04NP	4P	62	15	26	33	6	4.5	7	4	4	¥ 1,980 ※
1/4-20UNC	G6	NRSM6U04NB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,980 ※
1/4-20UNC	G7	NRSM7U04NP	4P	62	15	26	33	6	4.5	7	4	4	¥ 1,980 ※
1/4-20UNC	G7	NRSM7U04NB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,980 ※
1/4-20UNC	G8	NRSM8U04NP	4P	62	15	26	33	6	4.5	7	4	4	¥ 1,980 ※
1/4-20UNC	G8	NRSM8U04NB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,980 ※
1/4-28UNF	G6	NRSM6U04KP	4P	62	15	26	33	6	4.5	7	4	4	¥ 1,980 ※
1/4-28UNF	G6	NRSM6U04KB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,980 ※
1/4-28UNF	G7	NRSM7U04KB	2P	62	15	26	33	6	4.5	7	4	4	¥ 1,980 ※

Number of oil grooves : Metric thread : M2.6 and smaller=non, M3 and larger=1 Unified thread : No.4 and smaller=non, No.5 and larger=1 For M6 and smaller, external centers of 2 thread chamfer taps are removed.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

N-RS

Roll Taps for Non-Ferrous Materials



Specification

HSS | NI Nitride | 2~4

■N-RS is the forming tap suitable for non-ferrous materials such as aluminum castings, aluminum die castings and brass.

Recommended Tapping Speed depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

Segment : 1J

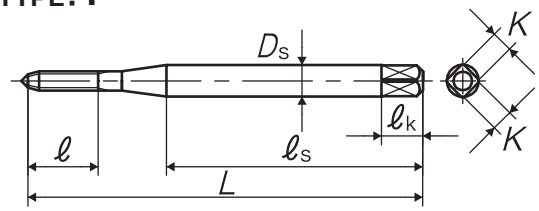
Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
For Metric Threads												
M3 × 0.5	D5	388513M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
M3 × 0.5	D5	388512M	2P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
M3.5 × 0.6	D6	388515M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
M3.5 × 0.6	D6	388514M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
M4 × 0.7	D6	388517M	4P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	4	2
M4 × 0.7	D6	388516M	2P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	4	2
M5 × 0.8	D7	388519M	4P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	4	2
M5 × 0.8	D7	388518M	2P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	4	2
M6 × 1	D8	388521M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
M6 × 1	D8	388520M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
M7 × 1	D9	388523M	4P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	4	3
M7 × 1	D9	388522M	2P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	4	3
M8 × 1.25	D9	388527M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
M8 × 1.25	D9	388526M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
M8 × 1	D9	388525M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
M8 × 1	D9	388524M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
M10 × 1.5	D10	388531M	4P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	6	3
M10 × 1.5	D10	388530M	2P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	6	3
M10 × 1.25	D9	388529M	4P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	6	3
M10 × 1.25	D9	388528M	2P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	6	3
M12 × 1.75	D11	388535M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	6	4
M12 × 1.75	D11	388534M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	6	4
M12 × 1.25	D9	388533M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	6	4
M12 × 1.25	D9	388532M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	6	4
For Unified Threads												
No.0-80UNF	H2	388410M	2P	1.772	0.236	-	1.161	0.141	0.11	0.187	3	1
No.1-64UNC	H2	388411M	2P	1.772	0.276	-	1.161	0.141	0.11	0.187	3	1
No.1-72UNF	H2	388412M	2P	1.772	0.276	-	1.161	0.141	0.11	0.187	3	1
No.2-56UNC	H2	388413M	2P	1.772	0.314	-	1.161	0.141	0.11	0.187	4	1
No.2-56UNC	H3	388414M	2P	1.772	0.314	-	1.161	0.141	0.11	0.187	4	1
No.2-64UNF	H2	388415M	2P	1.772	0.314	-	1.161	0.141	0.11	0.187	4	1
No.2-64UNF	H3	388416M	2P	1.772	0.314	-	1.161	0.141	0.11	0.187	4	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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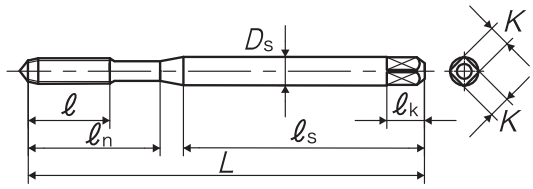

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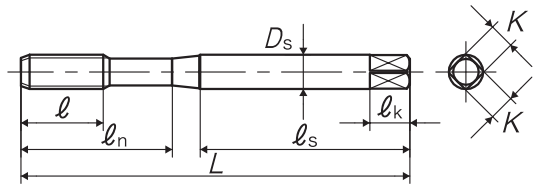

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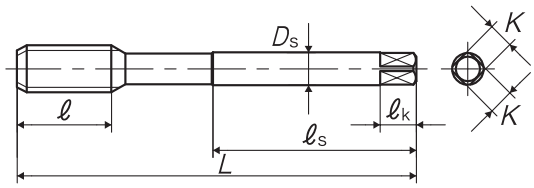

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
No.3-48UNC	H2	388417M	2P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	4	2
No.3-48UNC	H3	388418M	2P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	4	2
No.3-56UNF	H2	388419M	2P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	4	2
No.3-56UNF	H3	388420M	2P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	4	2
No.4-40UNC	H3	388423M	4P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-40UNC	H3	388421M	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-40UNC	H5	388424M	4P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-40UNC	H5	388422M	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-48UNF	H3	388427M	4P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-48UNF	H3	388425M	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-48UNF	H5	388428M	4P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-48UNF	H5	388426M	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.5-40UNC	H3	388431M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-40UNC	H3	388429M	2P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-40UNC	H5	388432M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-40UNC	H5	388430M	2P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-44UNF	H3	388435M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-44UNF	H3	388433M	2P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-44UNF	H5	388436M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.5-44UNF	H5	388434M	2P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H3	388440M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H3	388437M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H5	388441M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H5	388438M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-40UNF	H3	388444M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-40UNF	H3	388442M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-40UNF	H5	388445M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-40UNF	H5	388443M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.8-32UNC	H3	388448M	4P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	H3	388446M	2P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	H5	388449M	4P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	H5	388447M	2P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	H3	388452M	4P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N-RS Roll Taps for Non-Ferrous Materials

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
No.8-36UNF	H3	388450M	2P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	H5	388453M	4P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	H5	388451M	2P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.10-24UNC	H4	388456M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	H4	388454M	2P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	H6	388457M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	H6	388455M	2P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H4	388460M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H4	388458M	2P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H6	388461M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H6	388459M	2P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.12-24UNC	H4	388464M	4P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-24UNC	H4	388462M	2P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-24UNC	H6	388465M	4P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-24UNC	H6	388463M	2P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	H4	388468M	4P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	H4	388466M	2P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	H6	388469M	4P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
No.12-28UNF	H6	388467M	2P	3.15	0.591	0.984	1.953	0.22	0.165	0.281	4	2
1/4-20UNC	H4	388472M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	H4	388470M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	H6	388473M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	H6	388471M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H4	388476M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H4	388474M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H6	388477M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H6	388475M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
5/16-18UNC	H5	388480M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-18UNC	H5	388478M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-18UNC	H7	388481M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-18UNC	H7	388479M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-24UNF	H5	388484M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-24UNF	H5	388482M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-24UNF	H7	388485M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-24UNF	H7	388483M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
3/8-16UNC	H5	388488M	4P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-16UNC	H5	388486M	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-16UNC	H7	388489M	4P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-16UNC	H7	388487M	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-24UNF	H5	388492M	4P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-24UNF	H5	388490M	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-24UNF	H7	388493M	4P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-24UNF	H7	388491M	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
7/16-14UNC	H5	388496M	4P	3.937	0.906	-	2.008	0.323	0.242	0.406	6	4
7/16-14UNC	H5	388494M	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	6	4
7/16-14UNC	H7	388497M	4P	3.937	0.906	-	2.008	0.323	0.242	0.406	6	4
7/16-14UNC	H7	388495M	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	6	4
7/16-20UNF	H5	388502M	4P	3.937	0.906	-	2.008	0.323	0.242	0.406	6	4
7/16-20UNF	H5	388498M	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	6	4
7/16-20UNF	H7	388503M	4P	3.937	0.906	-	2.008	0.323	0.242	0.406	6	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

N-RS Roll Taps for Non-Ferrous Materials

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
7/16-20UNF	H7	388499M	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	6	4
1/2-13UNC	H5	388506M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	6	4
1/2-13UNC	H5	388504M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	6	4
1/2-13UNC	H7	388507M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	6	4
1/2-13UNC	H7	388505M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	6	4
1/2-20UNF	H5	388510M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	6	4
1/2-20UNF	H5	388508M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	6	4
1/2-20UNF	H7	388511M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	6	4
1/2-20UNF	H7	388509M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	6	4

Number of oil grooves : Metric thread : =1
Unified thread : No.4 and smaller=non, No.5 and larger=1
For M6, 1/4 and smaller, external centers of 2P chamfer taps are removed.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

N+RS
N-RS

Roll Taps for Non-Ferrous Materials



Specification

HSS | NI Nitride | 2

■N+RS/N-RS is the forming tap suitable for non-ferrous materials such as aluminum castings, aluminum die castings and brass.

Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

・Product symbol is distinguished depend on the size.

N+RS	~M6
N−RS	M8~

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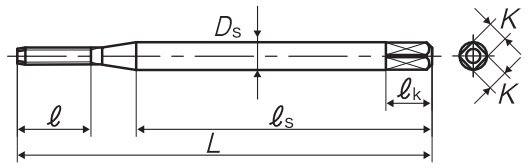

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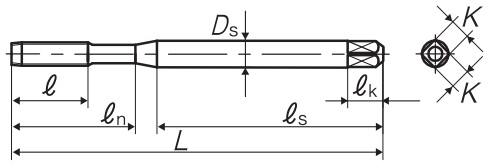

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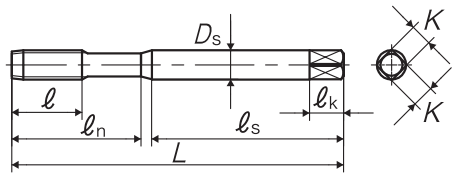

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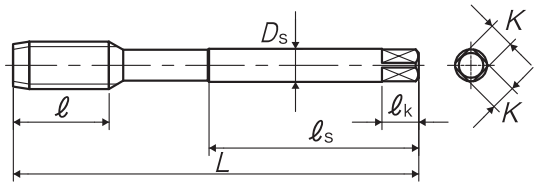


N+RS Roll Taps for Non-Ferrous Materials

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For Metric Threads												
M2 × 0.4	ISO2X	RE2.0EBKENB	2P	45	8	-	32	2.8	2.1	5	4	1
M2.3 × 0.4	ISO2X	RE2.3EBKENB	2P	45	9	-	32	2.8	2.1	5	4	1
M2.5 × 0.45	ISO2X	RE2.5FBKENB	2P	50	8	15	33	2.8	2.1	5	4	2
M3 × 0.5	ISO2X	RE3.0GBKENB	2P	56	9	18	34	3.5	2.7	6	4	2
M4 × 0.7	ISO2X	RE4.0IBKENB	2P	63	13	21	38	4.5	3.4	6	4	2
M5 × 0.8	ISO2X	RE5.0KBKENB	2P	70	14	25	39	6	4.9	8	4	2
M6 × 1	ISO2X	RE6.0MBKENB	2P	80	15	30	45	6	4.9	8	4	2

N-RS Roll Taps for Non-Ferrous Materials

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For Metric Threads												
M8 × 1.25	ISO2X	RD8.0NBKENB	2P	90	19	35	47	8	6.2	9	6	3
M10 × 1.5	ISO2X	RD010OBKENB	2P	100	23	39	52.5	10	8	11	6	3
M12 × 1.75	ISO2X	RG012PBKENB	2P	110	26	-	56	9	7	10	6	4

Number of oil grooves: M2.5 and smaller = non, M3 and larger = 1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

LS-N-RS



Long Shank Roll Taps for Non-Ferrous Materials

Specification

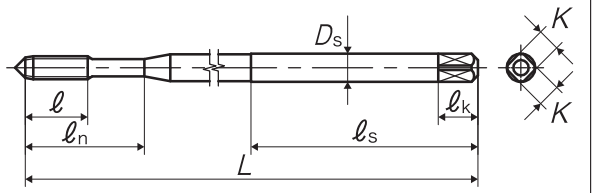
HSS | NI Nitride | 2~4

■LS-N-RS is the long shank forming tap suitable for non-ferrous materials such as aluminum castings, aluminum diecasting and brass.

Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

TYPE: 1



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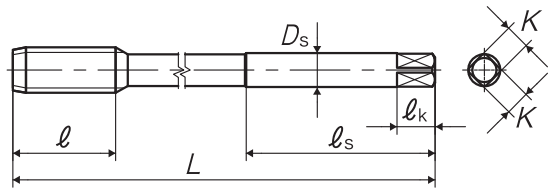

Recommended class

Segment : : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M3 × 0.5	G5	NRSF53.0GP10	4P	100	9	18	40	4	3.2	6	4	1	¥ 3,790
M3 × 0.5	G5	NRSF53.0GB10	2P	100	9	18	40	4	3.2	6	4	1	¥ 3,790
M3 × 0.5	G6	NRSF63.0GP10	4P	100	9	18	40	4	3.2	6	4	1	¥ 3,790
M3 × 0.5	G6	NRSF63.0GB10	2P	100	9	18	40	4	3.2	6	4	1	¥ 3,790
M4 × 0.7	G6	NRSF64.0IP10	4P	100	11	21	40	5	4	7	4	1	¥ 3,460
M4 × 0.7	G6	NRSF64.0IB10	2P	100	11	21	40	5	4	7	4	1	¥ 3,460
M4 × 0.7	G7	NRSF74.0IP10	4P	100	11	21	40	5	4	7	4	1	¥ 3,460
M4 × 0.7	G7	NRSF74.0IB10	2P	100	11	21	40	5	4	7	4	1	¥ 3,460
M5 × 0.8	G6	NRSF65.0KP10	4P	100	13	25	40	5.5	4.5	7	4	1	¥ 3,020 ※
M5 × 0.8	G6	NRSF65.0KB10	2P	100	13	25	40	5.5	4.5	7	4	1	¥ 3,020 ※
M5 × 0.8	G7	NRSF75.0KP10	4P	100	13	25	40	5.5	4.5	7	4	1	¥ 3,020 ※
M5 × 0.8	G7	NRSF75.0KB10	2P	100	13	25	40	5.5	4.5	7	4	1	¥ 3,020 ※
M6 × 1	G7	NRSF76.0MP10	4P	100	15	30	40	6	4.5	7	4	1	¥ 2,590
M6 × 1	G7	NRSF76.0MP15	4P	150	15	30	40	6	4.5	7	4	1	¥ 4,570
M6 × 1	G7	NRSF76.0MB10	2P	100	15	30	40	6	4.5	7	4	1	¥ 2,590
M6 × 1	G7	NRSF76.0MB15	2P	150	15	30	40	6	4.5	7	4	1	¥ 4,570
M6 × 1	G8	NRSF86.0MP10	4P	100	15	30	40	6	4.5	7	4	1	¥ 2,590 ※
M6 × 1	G8	NRSF86.0MP15	4P	150	15	30	40	6	4.5	7	4	1	¥ 4,570 ※
M6 × 1	G8	NRSF86.0MB10	2P	100	15	30	40	6	4.5	7	4	1	¥ 2,590 ※
M6 × 1	G8	NRSF86.0MB15	2P	150	15	30	40	6	4.5	7	4	1	¥ 4,570 ※
M8 × 1.25	G7	NRSM78.0NP10	4P	100	19	-	50	6.2	5	8	6	2	¥ 3,270 ※
M8 × 1.25	G7	NRSM78.0NP15	4P	150	19	-	50	6.2	5	8	6	2	¥ 5,590 ※
M8 × 1.25	G7	NRSM78.0NB10	2P	100	19	-	50	6.2	5	8	6	2	¥ 3,270 ※
M8 × 1.25	G7	NRSM78.0NB15	2P	150	19	-	50	6.2	5	8	6	2	¥ 5,590 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

LS-N-RS Long Shank Roll Taps for Non-Ferrous Materials

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
M10 × 1.5	G7	NRSM70100P10	4P	100	23	-	50	7	5.5	8	6	2	¥ 3,980 ※
M10 × 1.5	G7	NRSM70100P15	4P	150	23	-	50	7	5.5	8	6	2	¥ 6,500 ※
M10 × 1.5	G7	NRSM70100B10	2P	100	23	-	50	7	5.5	8	6	2	¥ 3,980 ※
M10 × 1.5	G7	NRSM70100B15	2P	150	23	-	50	7	5.5	8	6	2	¥ 6,500 ※
M10 × 1.25	G7	NRSM7010NB10	2P	100	23	-	50	7	5.5	8	6	2	¥ 3,980 ※
M10 × 1.25	G7	NRSM7010NB15	2P	150	23	-	50	7	5.5	8	6	2	¥ 6,500 ※

Number of oil grooves : 1

For M6 and smaller, external centers of 2P chamfer taps are removed.

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

R+V

Roll Taps, Coated



Specification

HSS | Coating | 2~4

■R+V is coated forming tap for ferrous and non-ferrous materials. Optimum coating suitable to the tapping condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Copper 銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

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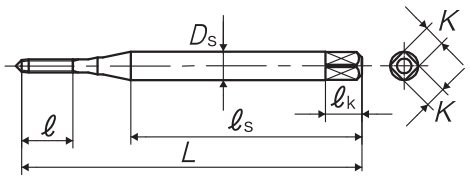

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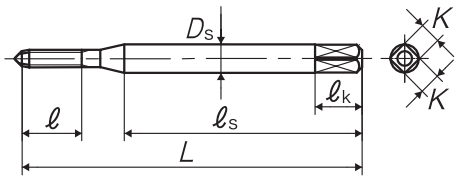

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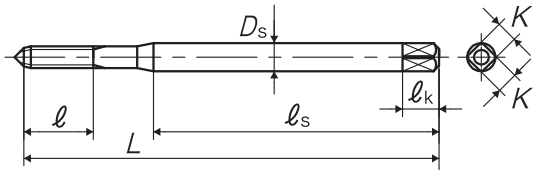

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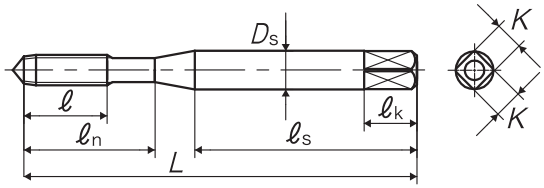


Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M1 × 0.25	G4	RVP41.0BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 4,700
M1 × 0.25	G4	RVP41.0BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 4,700
M1 × 0.25	G5	RVP51.0BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 4,700 ※
M1 × 0.25	G5	RVP51.0BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 4,700 ※
M1.2 × 0.25	G4	RVP41.2BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 4,700
M1.2 × 0.25	G4	RVP41.2BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 4,700
M1.2 × 0.25	G5	RVP51.2BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 4,700 ※
M1.2 × 0.25	G5	RVP51.2BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 4,700 ※
M1.4 × 0.3	G4	RVP41.4CP	4P	36	5.4	-	24	3	2.5	5	4	1	¥ 4,230
M1.4 × 0.3	G4	RVP41.4CB	2P	36	5.4	-	24	3	2.5	5	4	1	¥ 4,230
M1.4 × 0.3	G5	RVP51.4CP	4P	36	5.4	-	24	3	2.5	5	4	1	¥ 4,230
M1.4 × 0.3	G5	RVP51.4CB	2P	36	5.4	-	24	3	2.5	5	4	1	¥ 4,230
M1.6 × 0.35	G4	RVP41.6DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,050
M1.6 × 0.35	G4	RVP41.6DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,050
M1.6 × 0.35	G5	RVP51.6DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,050
M1.6 × 0.35	G5	RVP51.6DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,050
M1.6 × 0.35	G6	RVP61.6DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,050 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

R+V Roll Taps, Coated

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
M1.7 × 0.35	G4	RVP41.7DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,050
M1.7 × 0.35	G4	RVP41.7DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,050
M1.7 × 0.35	G5	RVP51.7DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,050
M1.7 × 0.35	G5	RVP51.7DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,050
M1.7 × 0.35	G6	RVP61.7DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,050 ※
M1.7 × 0.35	G6	RVP61.7DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,050 ※
M2 × 0.4	G4	RVP42.0EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,730
M2 × 0.4	G4	RVP42.0EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,730
M2 × 0.4	G5	RVP52.0EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,730
M2 × 0.4	G5	RVP52.0EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,730
M2 × 0.4	G6	RVP62.0EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,730 ※
M2 × 0.4	G6	RVP62.0EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,730 ※
M2.3 × 0.4	G4	RVP42.3EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,560 ※
M2.3 × 0.4	G4	RVP42.3EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,560 ※
M2.3 × 0.4	G5	RVP52.3EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,560 ※
M2.3 × 0.4	G5	RVP52.3EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,560 ※
M2.5 × 0.45	G5	RVP52.5FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,280
M2.5 × 0.45	G5	RVP52.5FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,280
M2.5 × 0.45	G6	RVP62.5FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,280 ※
M2.5 × 0.45	G6	RVP62.5FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,280 ※
M2.6 × 0.45	G5	RVP52.6FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,280
M2.6 × 0.45	G5	RVP52.6FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,280
M2.6 × 0.45	G6	RVP62.6FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,280
M2.6 × 0.45	G6	RVP62.6FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,280
M3 × 0.5	G5	RVP53.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 3,100
M3 × 0.5	G5	RVP53.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 3,100
M3 × 0.5	G6	RVP63.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 3,100
M3 × 0.5	G6	RVP63.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 3,100
M3 × 0.5	G7	RVP73.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 3,100
M3 × 0.5	G7	RVP73.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 3,100
M3 × 0.5	G8	RVP83.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 3,100 ※
M4 × 0.7	G5	RVP54.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 3,110 ※
M4 × 0.7	G5	RVP54.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 3,110 ※
M4 × 0.7	G6	RVP64.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 3,110
M4 × 0.7	G6	RVP64.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 3,110
M4 × 0.7	G7	RVP74.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 3,110
M4 × 0.7	G7	RVP74.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 3,110
M4 × 0.7	G8	RVP84.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 3,110 ※
M4 × 0.7	G8	RVP84.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 3,110 ※
M5 × 0.8	G5	RVP55.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,270 ※
M5 × 0.8	G5	RVP55.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,270 ※
M5 × 0.8	G6	RVP65.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,270
M5 × 0.8	G6	RVP65.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,270
M5 × 0.8	G7	RVP75.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,270
M5 × 0.8	G7	RVP75.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,270
M5 × 0.8	G8	RVP85.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,270 ※
M5 × 0.8	G8	RVP85.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,270 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

R+V Roll Taps, Coated

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
M6 × 1	G6	RVP66.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 3,430
M6 × 1	G6	RVP66.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 3,430
M6 × 1	G7	RVP76.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 3,430
M6 × 1	G7	RVP76.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 3,430
M6 × 1	G8	RVP86.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 3,430 ※
M6 × 1	G8	RVP86.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 3,430 ※

Number of oil grooves : Metric thread : M2.6 and smaller=non, M3 and larger=4
For M6 and smaller, external centers of 2P chamfer taps are removed.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

OL+RZ
OL-RZ

Roll Taps for Dry Tapping, Coated



Specification

HSS-P | Coating | <1D | 4

・The product symbol is divided by nominal sizes.

OL+RZ	all M
OL−RZ	all U

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	15~25 (m/min)	15~25 (m/min)	15~25 (m/min)	10~25 (m/min)	15~30 (m/min)
				25~35HRC		

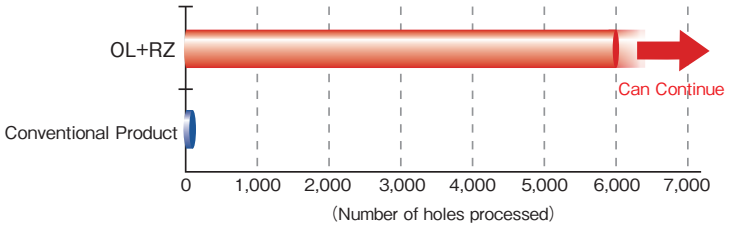
Product Features

- The OL+RZ/OL-RZ roll taps have made it possible tapping without lubrication in the sizes M6 and smaller. These taps are designed for thin steel sheet screw threads or steel with a relatively short screw thread length.
- Increased shank accuracy and an optimum lobe portion design produces a smooth thread forming action and the internal thread accuracy is stabilized even under severe conditions.
- For blind hole tapping, please select the HP + RZ / HP-RZ tap series as an alternative item.

Tapping Data

Processing conditions [M6 × 1 G7P]

Tap Type	OL+RZ, conventional product
Workpiece Material	Rolled steel plate (SPCC)
Bored Hole Size	ϕ5.55
Tapping Length	4mm through hole
Tapping Speed	15m/min
Machinery Type	Tapping machine
Tapping Fluid	Completely dry



Market Data

Case No.	Size	Class	Processed Workpiece Material	Bored Hole Diameter (mm)	Tapping Depth (mm)	Tapping Speed (m/min)	Machine Type	Tapping Fluid	Market Evaluation
1	M3×0.5	G5	SPCC	ϕ2.75	6	12	CNC machine	Mist	9,000 holes processed. Good surface finish
2	M6×1	G7	SPCC	ϕ5.55	4	15	Tapping machine	Mist	15,000 holes processed. Good workability.
3	M1.7×0.35	G5	SS400	ϕ1.53	1.3	15	Tapping machine	Water soluble	200,000 holes processed. Competitor 100,000 holes.
4	M3×0.5	G5	SUS304	ϕ2.79	5	15	Special machine	Water soluble	7,000 holes processed. Good workability.
5	M6×1	G7	SS400	ϕ5.53	12	50	Vertical machining center	Water soluble	5,000 holes processed. Competitors 1,000 holes.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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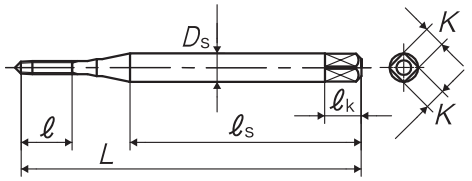

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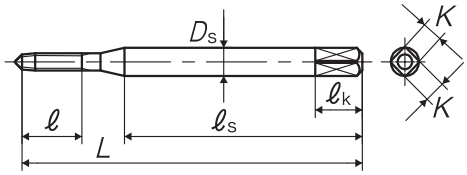

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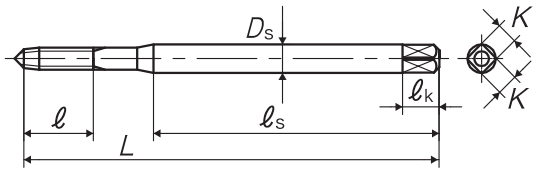

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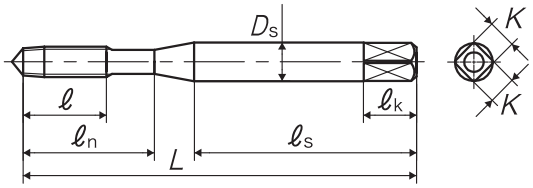


OL+RZ Roll Taps for Dry Tapping, Coated

Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M1 × 0.25	G4	OLRZP41.0BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 4,890 ※
M1.2 × 0.25	G4	OLRZP41.2BP	4P	36	4.5	-	24	3	2.5	5	4	1	¥ 4,890
M1.4 × 0.3	G4	OLRZP41.4CP	4P	36	5.4	-	24	3	2.5	5	4	1	¥ 4,360
M1.6 × 0.35	G4	OLRZP41.6DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,210
M1.6 × 0.35	G6	OLRZP61.6DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,210
M1.7 × 0.35	G4	OLRZP41.7DP	4P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,210
M2 × 0.4	G4	OLRZP42.0EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 4,000
M2 × 0.4	G5	OLRZP52.0EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 4,000
M2 × 0.4	G6	OLRZP62.0EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 4,000 ※
M2.3 × 0.4	G4	OLRZP42.3EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,770
M2.3 × 0.4	G5	OLRZP52.3EP	4P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,770
M2.5 × 0.45	G5	OLRZP52.5FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,640
M2.5 × 0.45	G6	OLRZP62.5FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,640
M2.6 × 0.45	G5	OLRZP52.6FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,640
M2.6 × 0.45	G6	OLRZP62.6FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,640
M3 × 0.5	G5	OLRZP53.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 3,310
M3 × 0.5	G6	OLRZP63.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 3,310
M3.5 × 0.6	G5	OLRZP53.5HP	4P	52	11	16	29	5	4	7	4	4	¥ 3,400 ※
M3.5 × 0.6	G6	OLRZP63.5HP	4P	52	11	16	29	5	4	7	4	4	¥ 3,400
M4 × 0.7	G6	OLRZP64.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 3,400
M4 × 0.7	G7	OLRZP74.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 3,400
M5 × 0.8	G6	OLRZP65.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,610
M5 × 0.8	G7	OLRZP75.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,610
M6 × 1	G6	OLRZP66.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 3,870
M6 × 1	G7	OLRZP76.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 3,870

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

OL-RZ Roll Taps for Dry Tapping, Coated

Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Unified Threads													
No.2-56UNC	G4	OLRZM4UN2EP	4P	42	8.1	-	27	3	2.5	5	4	3	¥ 4,300 ※
No.2-56UNC	G5	OLRZM5UN2EP	4P	42	8.1	-	27	3	2.5	5	4	3	¥ 4,300 ※
No.2-64UNF	G4	OLRZM4UN2DP	4P	42	8.1	-	27	3	2.5	5	4	3	¥ 4,300 ※
No.3-48UNC	G4	OLRZM4UN3FP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 4,040 ※
No.3-56UNF	G4	OLRZM4UN3EP	4P	46	8.1	14	29	3	2.5	5	4	4	¥ 4,040 ※
No.4-40UNC	G5	OLRZM5UN4HP	4P	46	9	14	25	4	3.2	6	4	4	¥ 3,940
No.4-40UNC	G6	OLRZM6UN4HP	4P	46	9	14	25	4	3.2	6	4	4	¥ 3,940
No.4-48UNF	G5	OLRZM5UN4FP	4P	46	9	14	25	4	3.2	6	4	4	¥ 3,940 ※
No.5-40UNC	G5	OLRZM5UN5HP	4P	52	11	16	28	5	4	7	4	4	¥ 3,600 ※
No.5-44UNF	G5	OLRZM5UN5GP	4P	52	11	16	28	5	4	7	4	4	¥ 3,600 ※
No.6-32UNC	G5	OLRZM5UN6JP	4P	52	11	17	27	5	4	7	4	4	¥ 3,600 ※
No.6-32UNC	G6	OLRZM6UN6JP	4P	52	11	17	27	5	4	7	4	4	¥ 3,600
No.6-40UNF	G5	OLRZM5UN6HP	4P	52	11	17	27	5	4	7	4	4	¥ 3,600 ※
No.8-32UNC	G6	OLRZM6UN8JP	4P	60	13	22	31	5.5	4.5	7	4	4	¥ 3,820 ※
No.8-32UNC	G7	OLRZM7UN8JP	4P	60	13	22	31	5.5	4.5	7	4	4	¥ 3,820 ※
No.8-36UNF	G6	OLRZM6UN8IP	4P	60	13	22	31	5.5	4.5	7	4	4	¥ 3,820 ※
No.10-24UNC	G6	OLRZM6UNAMP	4P	60	13	22	32	5.5	4.5	7	4	4	¥ 3,820 ※
No.10-24UNC	G7	OLRZM7UNAMP	4P	60	13	22	32	5.5	4.5	7	4	4	¥ 3,820 ※
No.10-32UNF	G6	OLRZM6UNAJP	4P	60	13	22	32	5.5	4.5	7	4	4	¥ 3,820 ※
No.10-32UNF	G7	OLRZM7UNAJP	4P	60	13	22	32	5.5	4.5	7	4	4	¥ 3,820 ※
No.12-24UNC	G6	OLRZM6UNCMP	4P	62	15	26	32	6	4.5	7	4	4	¥ 4,090 ※
No.12-28UNF	G6	OLRZM6UNCKP	4P	62	15	26	32	6	4.5	7	4	4	¥ 4,090 ※
1/4-20UNC	G7	OLRZM7U04NP	4P	62	15	26	33	6	4.5	7	4	4	¥ 4,090 ※
1/4-28UNF	G7	OLRZM7U04KP	4P	62	15	26	33	6	4.5	7	4	4	¥ 4,090 ※

Number of oil grooves : non

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

OL-RZ



Roll Taps for Dry Tapping, Coated

Specification

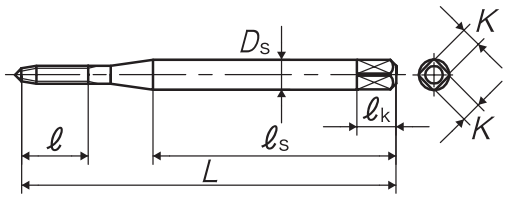
HSS-P | Coating | <1D | 4

■OL-RZ is the forming tap enabling dry tapping under following condition : tapping sizes of smaller than M6, thin steel sheets having burring operation, and steel parts with rather short length. Optimum coating suitable to the tapping condition.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	15~25 (m/min)	15~25 (m/min)	15~25 (m/min)	10~25 (m/min)	15~30 (m/min)
				25~35HRC		

TYPE : 1



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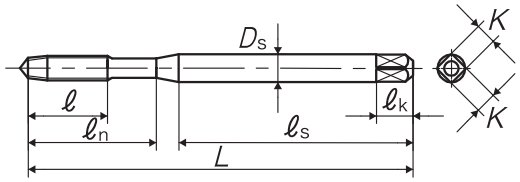


Segment : 1J

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
For Metric Threads												
M3 × 0.5	D5	386610M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
M3.5 × 0.6	D6	386611M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
M4 × 0.7	D6	386612M	4P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	4	2
M5 × 0.8	D7	386614M	4P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	4	2
M6 × 1	D8	386615M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
For Unified Threads												
No.2-56UNC	H3	386600M	4P	1.772	0.314	-	1.161	0.141	0.11	0.187	4	1
No.4-40UNC	H5	386601M	4P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-48UNF	H5	386602M	4P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.5-40UNC	H5	386603M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H5	386604M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.8-32UNC	H5	386605M	4P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.10-24UNC	H6	386606M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H6	386607M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
1/4-20UNC	H6	386608M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H6	386609M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2

Number of oil grooves : non

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

OL+RZ



Roll Taps for Dry Tapping, Coated

Specification

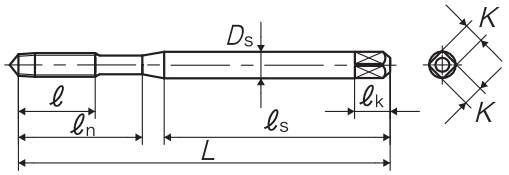
HSS-P | Coating | <1D | 4

■OL+RZ is the forming taps enabling dry tapping under following condition : tapping sizes of smaller than M6, thin steel sheets having burring operation, and steel parts with rather short length. Optimum coating suitable to the tapping condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	15~25 (m/min)	15~25 (m/min)	15~25 (m/min)	10~25 (m/min)	15~30 (m/min)
				25~35HRC		

TYPE : 1



Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For Metric Threads												
M3 × 0.5	ISO2X	RE3.0GBHPTP	4P	56	9	18	34	3.5	2.7	6	4	1
M4 × 0.7	ISO2X	RE4.0IBHPTP	4P	63	13	21	38	4.5	3.4	6	4	1
M5 × 0.8	ISO2X	RE5.0KBHPTP	4P	70	14	25	39	6	4.9	8	4	1
M6 × 1	ISO2X	RE6.0MBHPTP	4P	80	15	30	45	6	4.9	8	4	1

Number of oil grooves : non

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

HP+RZ
HP-RZ

High Performance Roll Taps, Coated



Specification

HSS-P | Coating | <1.5D | 2~4

・The product symbol is divided by nominal sizes.

HP+RZ	～M6
HP−RZ	M8～, all U

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	15~25 (m/min)	15~25 (m/min)	15~25 (m/min)	10~25 (m/min)	15~30 (m/min)
				25~35HRC		

Product Features

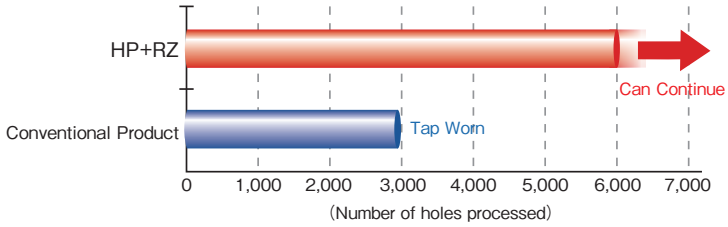
- The HP+RZ/HP-RZ roll taps are suitable for processing steel materials with a hardness of 35 HRC or less and light alloys. These roll taps are recommended for high speed machining 20 to 50 m / min.
- Roll form processing of stainless steel and thermal refined materials up to 40 HRC are now possible.
- The roll form tapping torque has been reduced by 20% or more, making it possible to significantly improve tool life compared with conventional roll form tap products.
- The HP+RZ/HP-RZ taps make it possible to use a water soluble cutting fluid.

Tapping Data

Processing conditions [M2 × 0.4 G4B]

Tap Type	HP+RZ, conventional product
Workpiece Material	SS400
Bored Hole Size	ϕ1.83
Tapping Length	3mm blind hole
Tapping Speed	50m/min
Machinery Type	Vertical MC (synchronous feed)
Tapping Fluid	Water soluble cutting fluid (chlorine-free 10 to 1 dilution)

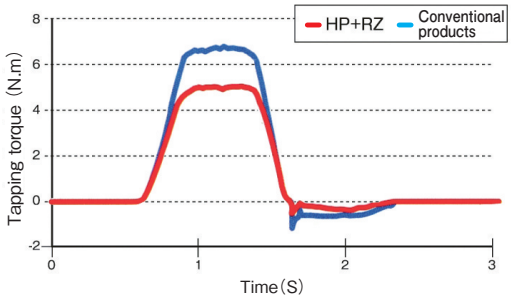
Comparison chart of the number of holes processed.



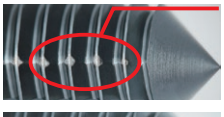
The HP+RZ/HP-RZ roll taps utilize a design to reduce machine tapping torque in difficult to cut materials. (Patent No. 3822572).

Roll form processing conditions [M6 × 1 G7B]

Tap Type	HP+RZ, conventional product
Worlpiece Material	SUS304
Bored Hole Size	ϕ5.5
Tapping Length	8mm blind hole
Tapping Speed	15m/min
Machinery Type	Vertical MC (synchronous feed)
Tapping Fluid	Insoluble cutting fluid

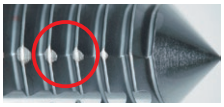


Using an optimal design on the chamfer portion, the HP+RZ forms the internal thread from the first chamfer portion, reducing the processing burden on each thread while producing a smooth screw thread.



Chamfer portion works from the first thread lobe.

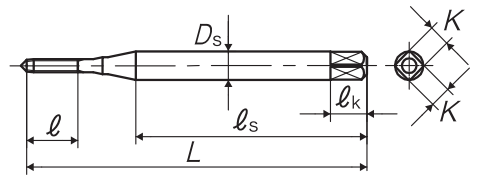
Impressions on the lobes of the HP + RZ



Traces of wear on a conventional tap product.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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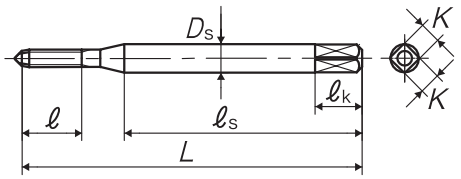

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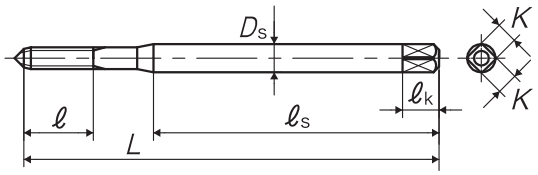

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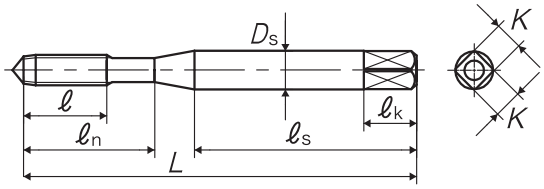

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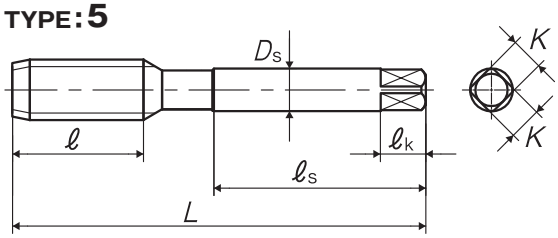

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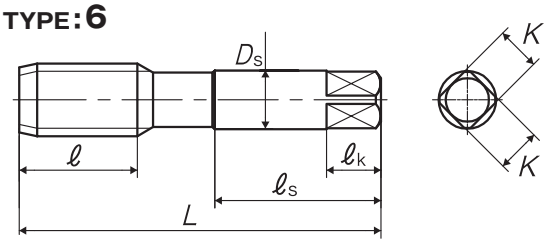


HP+RZ High Performance Roll Taps, Coated

Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M1 × 0.25	G4	HRZP41.0BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 4,890
M1.2 × 0.25	G4	HRZP41.2BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 4,890
M1.4 × 0.3	G4	HRZP41.4CB	2P	36	5.4	-	24	3	2.5	5	4	1	¥ 4,360
M1.6 × 0.35	G4	HRZP41.6DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,210
M1.7 × 0.35	G4	HRZP41.7DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,210
M2 × 0.4	G4	HRZP42.0EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 4,000
M2 × 0.4	G5	HRZP52.0EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 4,000
M2.3 × 0.4	G4	HRZP42.3EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,770
M2.3 × 0.4	G5	HRZP52.3EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 3,770
M2.5 × 0.45	G5	HRZP52.5FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,640
M2.5 × 0.45	G6	HRZP62.5FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,640
M2.6 × 0.45	G5	HRZP52.6FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,640
M2.6 × 0.45	G6	HRZP62.6FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 3,640
M3 × 0.5	G5	HRZP53.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 3,310
M3 × 0.5	G5	HRZP53.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 3,310
M3 × 0.5	G6	HRZP63.0GP	4P	46	9	14	26	4	3.2	6	4	4	¥ 3,310
M3 × 0.5	G6	HRZP63.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 3,310
M3.5 × 0.6	G5	HRZP53.5HP	4P	52	11	16	29	5	4	7	4	4	¥ 3,400 ※
M3.5 × 0.6	G5	HRZP53.5HB	2P	52	11	16	29	5	4	7	4	4	¥ 3,400 ※
M3.5 × 0.6	G6	HRZP63.5HP	4P	52	11	16	29	5	4	7	4	4	¥ 3,400 ※
M3.5 × 0.6	G6	HRZP63.5HB	2P	52	11	16	29	5	4	7	4	4	¥ 3,400 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HP+RZ High Performance Roll Taps, Coated

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
M4 × 0.7	G6	HRZP64.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 3,400
M4 × 0.7	G6	HRZP64.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 3,400
M4 × 0.7	G7	HRZP74.0IP	4P	52	11	17	29	5	4	7	4	4	¥ 3,400
M4 × 0.7	G7	HRZP74.0IB	2P	52	11	17	29	5	4	7	4	4	¥ 3,400
M5 × 0.8	G6	HRZP65.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,610
M5 × 0.8	G6	HRZP65.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,610
M5 × 0.8	G7	HRZP75.0KP	4P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,610
M5 × 0.8	G7	HRZP75.0KB	2P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,610
M6 × 1	G6	HRZP66.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 3,870
M6 × 1	G6	HRZP66.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 3,870
M6 × 1	G7	HRZP76.0MP	4P	62	15	26	33	6	4.5	7	4	4	¥ 3,870
M6 × 1	G7	HRZP76.0MB	2P	62	15	26	33	6	4.5	7	4	4	¥ 3,870

HP-RZ High Performance Roll Taps, Coated

Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M8 × 1.25	G7	HRZM78.0NP	4P	70	19	-	36	6.2	5	8	6	5	¥ 5,670
M8 × 1.25	G7	HRZM78.0NB	2P	70	19	-	36	6.2	5	8	6	5	¥ 5,670
M8 × 1.25	G8	HRZM88.0NP	4P	70	19	-	36	6.2	5	8	6	5	¥ 5,670
M8 × 1.25	G8	HRZM88.0NB	2P	70	19	-	36	6.2	5	8	6	5	¥ 5,670
M10 × 1.5	G7	HRZM70100P	4P	75	23	-	38	7	5.5	8	8	5	¥ 6,810
M10 × 1.5	G7	HRZM70100B	2P	75	23	-	38	7	5.5	8	8	5	¥ 6,810
M10 × 1.5	G8	HRZM80100P	4P	75	23	-	38	7	5.5	8	8	5	¥ 6,810 ※
M10 × 1.5	G8	HRZM80100B	2P	75	23	-	38	7	5.5	8	8	5	¥ 6,810 ※
M10 × 1.25	G7	HRZM7010NP	4P	75	23	-	38	7	5.5	8	8	5	¥ 6,810
M10 × 1.25	G7	HRZM7010NB	2P	75	23	-	38	7	5.5	8	8	5	¥ 6,810
M10 × 1.25	G8	HRZM8010NP	4P	75	23	-	38	7	5.5	8	8	5	¥ 6,810 ※
M10 × 1.25	G8	HRZM8010NB	2P	75	23	-	38	7	5.5	8	8	5	¥ 6,810 ※
M12 × 1.75	G8	HRZM8012PP	4P	82	26	-	42	8.5	6.5	9	8	5	¥ 9,310 ※
M12 × 1.75	G8	HRZM8012PB	2P	82	26	-	42	8.5	6.5	9	8	5	¥ 9,310 ※
M12 × 1.75	G9	HRZM9012PP	4P	82	26	-	42	8.5	6.5	9	8	5	¥ 9,310 ※
M12 × 1.75	G9	HRZM9012PB	2P	82	26	-	42	8.5	6.5	9	8	5	¥ 9,310 ※
M12 × 1.5	G8	HRZM8012OP	4P	82	26	-	42	8.5	6.5	9	8	5	¥ 9,310
M12 × 1.5	G8	HRZM8012OB	2P	82	26	-	42	8.5	6.5	9	8	5	¥ 9,310
M12 × 1.5	G9	HRZM9012OP	4P	82	26	-	42	8.5	6.5	9	8	5	¥ 9,310 ※
M12 × 1.5	G9	HRZM9012OB	2P	82	26	-	42	8.5	6.5	9	8	5	¥ 9,310 ※
M12 × 1.25	G8	HRZM8012NP	4P	82	26	-	42	8.5	6.5	9	8	5	¥ 9,310 ※
M12 × 1.25	G8	HRZM8012NB	2P	82	26	-	42	8.5	6.5	9	8	5	¥ 9,310 ※
M12 × 1.25	G9	HRZM9012NP	4P	82	26	-	42	8.5	6.5	9	8	5	¥ 9,310 ※
M12 × 1.25	G9	HRZM9012NB	2P	82	26	-	42	8.5	6.5	9	8	5	¥ 9,310 ※
M14 × 1.5	G9	HRZM90140P	4P	88	26	-	45	10.5	8	11	8	5	¥ 13,000 ※
M14 × 1.5	G9	HRZM90140B	2P	88	26	-	45	10.5	8	11	8	5	¥ 13,000 ※
M16 × 1.5	G9	HRZM90160P	4P	95	26	-	48	12.5	10	13	8	5	¥ 16,100 ※
M16 × 1.5	G9	HRZM90160B	2P	95	26	-	48	12.5	10	13	8	5	¥ 16,100 ※
M18 × 1.5	G9	HRZM90180P	4P	100	33	-	51	14	11	14	8	5	¥ 22,800 ※
M18 × 1.5	G9	HRZM90180B	2P	100	33	-	51	14	11	14	8	5	¥ 22,800 ※
M20 × 1.5	G9	HRZM90200P	4P	105	33	-	50	15	12	15	8	6	¥ 28,200 ※
M20 × 1.5	G9	HRZM90200B	2P	105	33	-	50	15	12	15	8	6	¥ 28,200 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HP-RZ High Performance Roll Taps, Coated

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Unified Threads													
No.2-56UNC	G4	HRZM4UN2EB	2P	42	8.1	-	27	3	2.5	5	4	3	¥ 4,300 ※
No.2-56UNC	G5	HRZM5UN2EB	2P	42	8.1	-	27	3	2.5	5	4	3	¥ 4,300 ※
No.2-64UNF	G4	HRZM4UN2DB	2P	42	8.1	-	27	3	2.5	5	4	3	¥ 4,300 ※
No.3-48UNC	G4	HRZM4UN3FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 4,040 ※
No.3-56UNF	G4	HRZM4UN3EB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 4,040 ※
No.4-40UNC	G5	HRZM5UN4HB	2P	46	9	14	25	4	3.2	6	4	4	¥ 3,940
No.4-40UNC	G6	HRZM6UN4HB	2P	46	9	14	25	4	3.2	6	4	4	¥ 3,940
No.4-48UNF	G5	HRZM5UN4FB	2P	46	9	14	25	4	3.2	6	4	4	¥ 3,940 ※
No.5-40UNC	G5	HRZM5UN5HP	4P	52	11	16	28	5	4	7	4	4	¥ 3,600 ※
No.5-40UNC	G5	HRZM5UN5HB	2P	52	11	16	28	5	4	7	4	4	¥ 3,600 ※
No.5-44UNF	G5	HRZM5UN5GP	4P	52	11	16	28	5	4	7	4	4	¥ 3,600 ※
No.5-44UNF	G5	HRZM5UN5GB	2P	52	11	16	28	5	4	7	4	4	¥ 3,600 ※
No.6-32UNC	G5	HRZM5UN6JP	4P	52	11	17	27	5	4	7	4	4	¥ 3,600 ※
No.6-32UNC	G5	HRZM5UN6JB	2P	52	11	17	27	5	4	7	4	4	¥ 3,600 ※
No.6-32UNC	G6	HRZM6UN6JP	4P	52	11	17	27	5	4	7	4	4	¥ 3,600 ※
No.6-32UNC	G6	HRZM6UN6JB	2P	52	11	17	27	5	4	7	4	4	¥ 3,600 ※
No.6-40UNF	G5	HRZM5UN6HP	4P	52	11	17	27	5	4	7	4	4	¥ 3,600 ※
No.6-40UNF	G5	HRZM5UN6HB	2P	52	11	17	27	5	4	7	4	4	¥ 3,600 ※
No.8-32UNC	G6	HRZM6UN8JP	4P	60	13	22	31	5.5	4.5	7	4	4	¥ 3,820 ※
No.8-32UNC	G6	HRZM6UN8JB	2P	60	13	22	31	5.5	4.5	7	4	4	¥ 3,820 ※
No.8-32UNC	G7	HRZM7UN8JP	4P	60	13	22	31	5.5	4.5	7	4	4	¥ 3,820 ※
No.8-32UNC	G7	HRZM7UN8JB	2P	60	13	22	31	5.5	4.5	7	4	4	¥ 3,820 ※
No.8-36UNF	G6	HRZM6UN8IP	4P	60	13	22	31	5.5	4.5	7	4	4	¥ 3,820 ※
No.8-36UNF	G6	HRZM6UN8IB	2P	60	13	22	31	5.5	4.5	7	4	4	¥ 3,820 ※
No.10-24UNC	G6	HRZM6UNAMP	4P	60	13	22	32	5.5	4.5	7	4	4	¥ 3,820 ※
No.10-24UNC	G6	HRZM6UNAMB	2P	60	13	22	32	5.5	4.5	7	4	4	¥ 3,820 ※
No.10-24UNC	G7	HRZM7UNAMP	4P	60	13	22	32	5.5	4.5	7	4	4	¥ 3,820 ※
No.10-24UNC	G7	HRZM7UNAMB	2P	60	13	22	32	5.5	4.5	7	4	4	¥ 3,820 ※
No.10-32UNF	G6	HRZM6UNAJP	4P	60	13	22	32	5.5	4.5	7	4	4	¥ 3,820 ※
No.10-32UNF	G6	HRZM6UNAJB	2P	60	13	22	32	5.5	4.5	7	4	4	¥ 3,820 ※
No.10-32UNF	G7	HRZM7UNAJP	4P	60	13	22	32	5.5	4.5	7	4	4	¥ 3,820 ※
No.10-32UNF	G7	HRZM7UNAJB	2P	60	13	22	32	5.5	4.5	7	4	4	¥ 3,820 ※
No.12-24UNC	G6	HRZM6UNCMP	4P	62	15	26	32	6	4.5	7	4	4	¥ 4,090 ※
No.12-24UNC	G6	HRZM6UNCMB	2P	62	15	26	32	6	4.5	7	4	4	¥ 4,090 ※
No.12-28UNF	G6	HRZM6UNCKP	4P	62	15	26	32	6	4.5	7	4	4	¥ 4,090 ※
No.12-28UNF	G6	HRZM6UNCKB	2P	62	15	26	32	6	4.5	7	4	4	¥ 4,090 ※
1/4-20UNC	G7	HRZM7U04NP	4P	62	15	26	33	6	4.5	7	4	4	¥ 4,090 ※
1/4-20UNC	G7	HRZM7U04NB	2P	62	15	26	33	6	4.5	7	4	4	¥ 4,090 ※
1/4-28UNF	G7	HRZM7U04KP	4P	62	15	26	33	6	4.5	7	4	4	¥ 4,090 ※
1/4-28UNF	G7	HRZM7U04KB	2P	62	15	26	33	6	4.5	7	4	4	¥ 4,090 ※

Number of oil grooves : Metric thread : M2.6 and smaller=non, M3～M6=2, M8=3, M10 and larger=4
Unified thread : No.4 and smaller=non, No.5 and larger=2
For M6 and smaller, external centers of 2 thread chamfer taps are removed.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

HP-RZ



High Performance Roll Taps, Coated

Specification

HSS-P | Coating | <1.5D | 2~4

■HP-RZ is the forming tap suitable for steels (up to 35HRC) and light alloys, and applicable to the high speed tapping. Optimum coating suitable to the tapping condition.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	15~25 (m/min)	15~25 (m/min)	15~25 (m/min)	10~25 (m/min)	15~30 (m/min)
				25~35HRC		

Segment : 1J

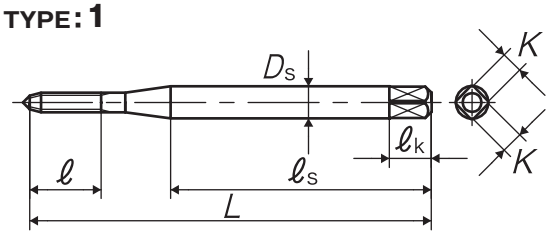
Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
For Metric Threads												
M3 × 0.5	D5	386885M	4P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
M3 × 0.5	D5	386864M	2P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
M3.5 × 0.6	D6	386886M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
M3.5 × 0.6	D6	386865M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
M4 × 0.7	D6	386887M	4P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	4	2
M4 × 0.7	D6	386866M	2P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	4	2
M5 × 0.8	D7	386888M	4P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	4	2
M5 × 0.8	D7	386867M	2P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	4	2
M6 × 1	D8	386889M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
M6 × 1	D8	386868M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
M7 × 1	D9	386870M	4P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	4	3
M7 × 1	D9	386869M	2P	3.543	0.748	1.339	1.831	0.318	0.238	0.375	4	3
M8 × 1.25	D9	386874M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
M8 × 1.25	D9	386873M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
M8 × 1	D9	386872M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
M8 × 1	D9	386871M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
M10 × 1.5	D10	386878M	4P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	8	3
M10 × 1.5	D10	386877M	2P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	8	3
M10 × 1.25	D9	386876M	4P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	8	3
M10 × 1.25	D9	386875M	2P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	8	3
M12 × 1.75	D11	386884M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
M12 × 1.75	D11	386883M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
M12 × 1.5	D9	386882M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
M12 × 1.5	D9	386881M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
M12 × 1.25	D9	386880M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
M12 × 1.25	D9	386879M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
For Unified Threads												
No.0-80UNF	H2	386800M	2P	1.772	0.236	-	1.161	0.141	0.11	0.187	3	1
No.2-56UNC	H3	386801M	2P	1.772	0.314	-	1.161	0.141	0.11	0.187	4	1
No.3-48UNC	H3	386802M	2P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	4	2
No.3-56UNF	H3	386803M	2P	2.205	0.354	0.681	1.28	0.141	0.11	0.187	4	2
No.4-40UNC	H3	386804M	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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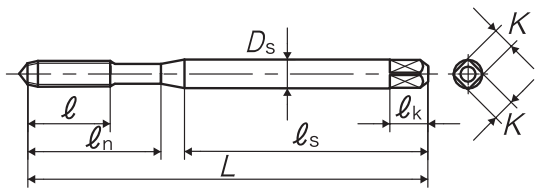

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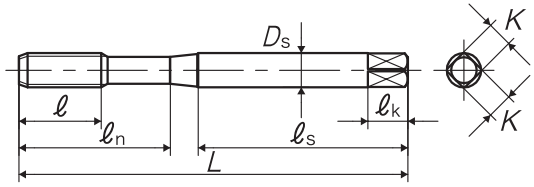

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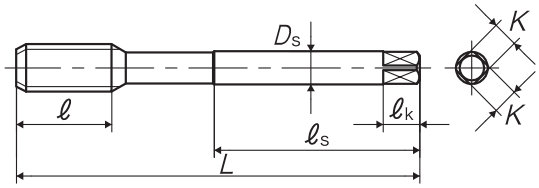

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
No.4-40UNC	H5	386805M	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-48UNF	H3	386806M	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.4-48UNF	H5	386807M	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	4	2
No.5-40UNC	H5	386799M	2P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H3	386810M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H3	386808M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H5	386811M	4P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	H5	386809M	2P	2.205	0.433	0.748	1.339	0.141	0.11	0.187	4	2
No.8-32UNC	H3	386814M	4P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	H3	386812M	2P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	H5	386815M	4P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.8-32UNC	H5	386813M	2P	2.48	0.512	0.827	1.535	0.168	0.131	0.25	4	2
No.10-24UNC	H4	386818M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	H4	386816M	2P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	H6	386819M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-24UNC	H6	386817M	2P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H4	386822M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H4	386820M	2P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H6	386823M	4P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	H6	386821M	2P	2.756	0.551	0.945	1.654	0.194	0.152	0.25	4	2
1/4-20UNC	H4	386826M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	H4	386824M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	H6	386827M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-20UNC	H6	386825M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H4	386830M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H4	386828M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H6	386831M	4P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
1/4-28UNF	H6	386829M	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	4	2
5/16-18UNC	H5	386834M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-18UNC	H5	386832M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-18UNC	H7	386835M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-18UNC	H7	386833M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-24UNF	H5	386838M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HP-RZ High Performance Roll Taps, Coated

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	Lobe	TYPE
5/16-24UNF	H5	386836M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-24UNF	H7	386839M	4P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
5/16-24UNF	H7	386837M	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	6	3
3/8-16UNC	H5	386842M	4P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-16UNC	H5	386840M	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-16UNC	H7	386843M	4P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-16UNC	H7	386841M	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-24UNF	H5	386846M	4P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-24UNF	H5	386844M	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-24UNF	H7	386847M	4P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
3/8-24UNF	H7	386845M	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	6	3
7/16-14UNC	H5	386850M	4P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-14UNC	H5	386848M	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-14UNC	H7	386851M	4P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-14UNC	H7	386849M	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-20UNF	H5	386854M	4P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-20UNF	H5	386852M	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-20UNF	H7	386855M	4P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
7/16-20UNF	H7	386853M	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	8	4
1/2-13UNC	H5	386858M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-13UNC	H5	386856M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-13UNC	H7	386859M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-13UNC	H7	386857M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-20UNF	H5	386862M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-20UNF	H5	386860M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-20UNF	H7	386863M	4P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4
1/2-20UNF	H7	386861M	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	8	4

Number of oil grooves : Metric thread : M3～M7 = 2, M8 = 3, M10 and larger = 4
Unified thread : No.4 and smaller = non, No.5～1/4 = 2, 5/16～3/8 = 3, 7/16 and larger = 4
For M6, 1/4 and smaller, external centers of 2P chamfer taps are removed.

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

HP+RZ
HP-RZ



High Performance Roll Taps, Coated

Specification

HSS-P | Coating | ≤1.5D | 2

■HP+RZ/HP-RZ is the forming tap suitable for steels (up to 35HRC) and light alloys, and applicable to the high speed tapping. Optimum coating suitable to the tapping condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼
15~30 (m/min)	15~30 (m/min)	15~25 (m/min)	15~25 (m/min)	15~25 (m/min)
				25~35HRC

Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物
10~25 (m/min)	15~30 (m/min)

・Product symbol is distinguished depend on the size.

HP+RZ	~M6
HP-RZ	M8~

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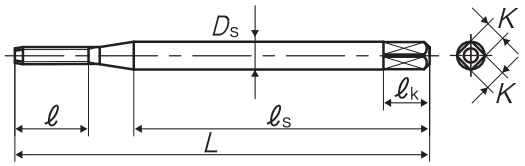

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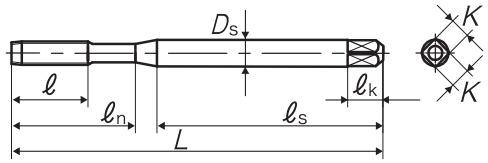

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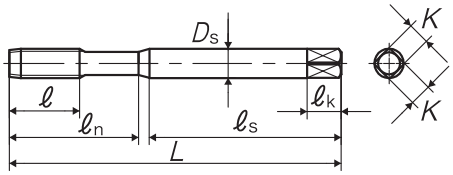

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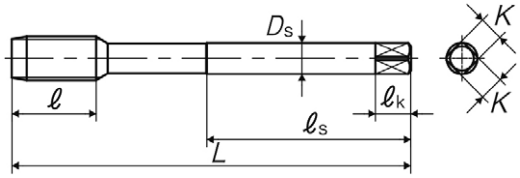

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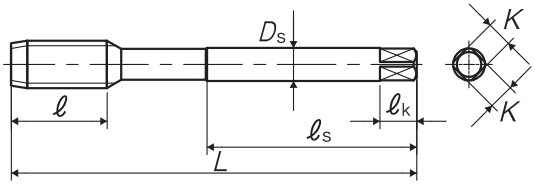


HP+RZ High Performance Roll Taps, Coated

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For Metric Threads												
M2 × 0.4	ISO2X	RE2.0EBFPTB	2P	45	8	-	32	2.8	2.1	5	4	1
M2 × 0.4	ISO3X	RE2.0ENFPTB	2P	45	8	-	32	2.8	2.1	5	4	1
M2.5 × 0.45	ISO2X	RE2.5FBFPTB	2P	50	8	15	33	2.8	2.1	5	4	2
M2.5 × 0.45	ISO3X	RE2.5FNFPTB	2P	50	8	15	33	2.8	2.1	5	4	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HP+RZ High Performance Roll Taps, Coated

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
M3 × 0.5	ISO2X	RE3.0GBFPTB	2P	56	9	18	34	3.5	2.7	6	4	2
M3 × 0.5	ISO3X	RE3.0GNFPTB	2P	56	9	18	34	3.5	2.7	6	4	2
M4 × 0.7	ISO2X	RE4.0IBFPTB	2P	63	13	21	38	4.5	3.4	6	4	2
M4 × 0.7	ISO3X	RE4.0INFPTB	2P	63	13	21	38	4.5	3.4	6	4	2
M5 × 0.8	ISO2X	RE5.0KBFPTB	2P	70	14	25	39	6	4.9	8	4	2
M5 × 0.8	ISO3X	RE5.0KNFPTB	2P	70	14	25	39	6	4.9	8	4	2
M6 × 1	ISO2X	RE6.0MBFPTB	2P	80	15	30	45	6	4.9	8	4	2
M6 × 1	ISO3X	RE6.0MNFPTB	2P	80	15	30	45	6	4.9	8	4	2

HP-RZ High Performance Roll Taps, Coated

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For Metric Threads												
M8 × 1.25	ISO2X	RD8.0NBFPTB	2P	90	19	35	47	8	6.2	9	6	3
M8 × 1.25	ISO3X	RD8.0NNFPTB	2P	90	19	35	47	8	6.2	9	6	3
M10 × 1.5	ISO2X	RD010OBFPTB	2P	100	23	39	52.5	10	8	11	8	3
M10 × 1.5	ISO3X	RD010ONFPTB	2P	100	23	39	52.5	10	8	11	8	3
M10 × 1.25	ISO2X	RM010NBFPTB	2P	100	23	-	51	7	5.5	8	8	4
M12 × 1.75	ISO2X	RG012PBFPTB	2P	110	26	-	56	9	7	10	8	5
M12 × 1.75	ISO3X	RG012PNFPTB	2P	110	26	-	56	9	7	10	8	5
M12 × 1.5	ISO2X	RM012OBFPTB	2P	100	21	-	51	9	7	10	8	4
M12 × 1.25	ISO2X	RM012NBFPTB	2P	100	21	-	51	9	7	10	8	4
M14 × 2	ISO2X	RG014QBFPTB	2P	110	26	-	56	11	9	12	8	5
M14 × 1.5	ISO2X	RM014OBFPTB	2P	100	21	-	51	11	9	12	8	4
M16 × 2	ISO2X	RG016QBFPTB	2P	110	26	-	56	12	9	12	8	5
M16 × 1.5	ISO2X	RM016OBFPTB	2P	100	21	-	51	12	9	12	8	4

Number of oil grooves : M2.6 and smaller = 0, M3 to M6 = 2, M8 = 3, M10 and larger = 4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

SC-TL-RZ



Torqueless Roll Taps with Short Chamfer

Specification

HSS-P | Coating | ≤1.5D | 1

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
15~30 (m/min)	15~30 (m/min)	15~25 (m/min)	10~25 (m/min)	15~30 (m/min)	15~30 (m/min)

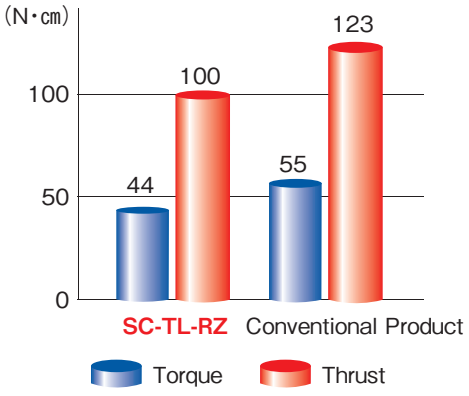
Product Features

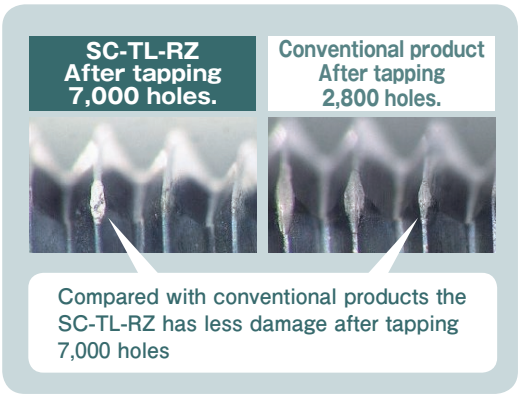
- High quality internal threading with fewer burrs can be produced with better tool life.
- Roll form processing into materials with low ductility is now possible.
- Tool life with water soluble cutting fluid is increased.
- The SC-TL-RZ offers high speed processing into:
  Stainless steel: SUS303, SUS304, SUS316, SUS440C ·
  Alloy steel: SCM420 · Carbon steel: S45C ～ S50C ·
  Aluminum casting · Aluminum die casting

Tapping Data

Processing conditions [M3 × 0.5]

Workpiece Material	SCM440/32HRC
Bored Hole Size	ϕ2.8
Tapping Length	4.5mm
Tapping Speed	5m/min
Machinery Type	Tapping center
Tapping Fluid	Water soluble cutting fluid (10 to 1 dilution)





Compared with conventional products the SC-TL-RZ has less damage after tapping 7,000 holes

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

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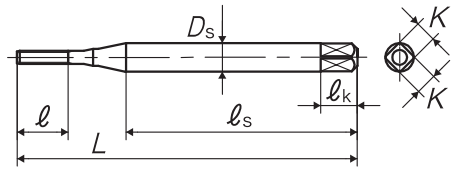

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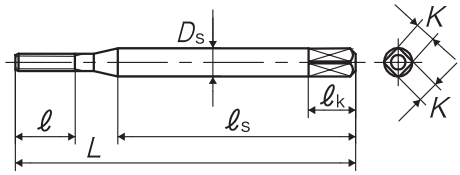

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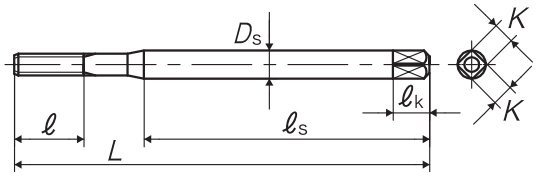

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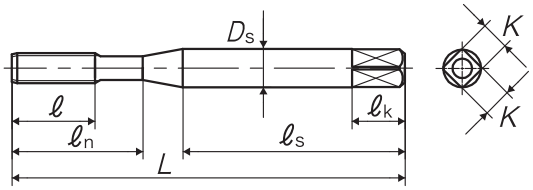


Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M1 × 0.25	G4	SRZM41.0B1	1P	36	4.5	-	24	3	2.5	5	4	1	¥ 5,900
M1.2 × 0.25	G4	SRZM41.2B1	1P	36	4.5	-	24	3	2.5	5	4	1	¥ 5,390
M1.4 × 0.3	G4	SRZM41.4C1	1P	36	5.4	-	24	3	2.5	5	4	1	¥ 4,810
M1.4 × 0.2	G3	SRZM31.4A1	1P	36	3.6	-	24	3	2.5	5	4	1	¥ 7,220
M1.6 × 0.35	G4	SRZM41.6D1	1P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,630
M1.6 × 0.2	G3	SRZM31.6A1	1P	36	3.6	-	24	3	2.5	5	4	2	¥ 7,000
M1.7 × 0.35	G4	SRZM41.7D1	1P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,630
M2 × 0.4	G4	SRZM42.0E1	1P	42	7.2	-	27	3	2.5	5	4	3	¥ 4,390
M2.5 × 0.45	G5	SRZM52.5F1	1P	46	8.1	14	29	3	2.5	5	4	4	¥ 4,010
M2.6 × 0.45	G5	SRZM52.6F1	1P	46	8.1	14	29	3	2.5	5	4	4	¥ 4,010
M3 × 0.5	G5	SRZM53.0G1	1P	46	9	14	26	4	3.2	6	4	4	¥ 3,650
M4 × 0.7	G6	SRZM64.0I1	1P	52	11	17	29	5	4	7	4	4	¥ 3,740
M5 × 0.8	G6	SRZM65.0K1	1P	60	13	22	33	5.5	4.5	7	4	4	¥ 3,990
M6 × 1	G6	SRZM66.0M1	1P	62	15	26	33	6	4.5	7	4	4	¥ 4,260
For Unified Threads													
No.2-56UNC	G4	SRZM4UN2E1	1P	42	8.1	-	27	3	2.5	5	4	3	¥ 4,720
No.4-40UNC	G5	SRZM5UN4H1	1P	46	9	14	25	4	3.2	6	4	4	¥ 4,390

Number of oil grooves : Metric thread: M2.6 and smaller = non, M3 and larger = 2
Unified thread: No.4 and smaller = non

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

SURZ

SU Roll Taps



Specification

HSS-P | Coating | ≤1.5D | 2

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

Product Features

- Adopting the special form on tap's root, SURZ controls the minor diameter geometry of internal threads.
- Special lobe shape realizes low tapping torque.
- High efficiency can be obtained in thread forming of stainless steel parts.
- By adjusting bored hole size, you can adjust the minor diameter geometry of internal threads.

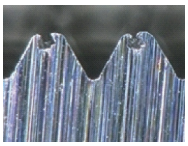
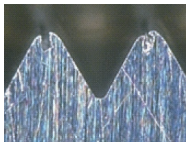
Tapping Data

Tapping condition [M2×0.4]

Work Material	SUS304
Tapping Length	5.2mm (Blind hole)
Bored Hole Size	φ1.82～φ1.85
Tapping Speed	5m/min
Feed	Rigid
Tapping Direction	Vertical
Machine	Machining center (BT15)
Tapping Fluid	Water soluble cutting fluid (×20)

POINT

In use, please select proper bored hole diameter.

Bored Hole Size	φ 1.84	φ 1.83
Cross Section Picture of Internal Threads		
Seam Shape	Normal seams remain.	Seams remain a little.
Minor Diameter	φ 1.62	φ 1.60

Bored Hole Size	φ 1.82	φ 1.81
Cross Section Picture of Internal Threads		
Seam Shape	Seams remain a little.	No seam remains.
Minor Diameter	φ 1.59	φ 1.58

M2×0.4 6H Internal Thread Minor Diameter and Tolerance	
Max.	1.679
Min.	1.567
Tolerance	0.112

Recommended bored hole diameter before tapping

Unit : mm

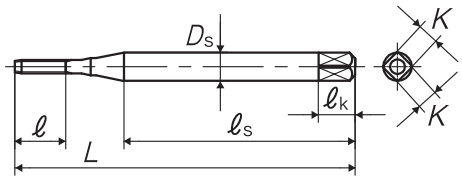
Size	Class	Recommended Bored Hole Size
M1 × 0.25	G4	0.90
M1.2 × 0.25	G4	1.10
M1.4 × 0.3	G4	1.28
M1.6 × 0.2	G3	1.52
M1.6 × 0.35	G4	1.46
M1.7 × 0.35	G4	1.56
M2 × 0.4	G4	1.82
M2.3 × 0.4	G4	2.12
M2.5 × 0.45	G4	2.30
M2.6 × 0.45	G5	2.40
M3 × 0.5	G5	2.77
No.2-56UNC	G4	1.98
No.4-40UNC	G5	2.55
No.6-32UNC	G5	3.14

※Recommended bored hole diameters shown in above table have been calculated by aiming at the thread engagement of 90% and by considering avoidance of tap breakage, based on our past tapping test experiences.
※Recommended bore hole diameter may change because material deformation can slightly change depending on material, hardness, dimension of workpiece and tapping condition.

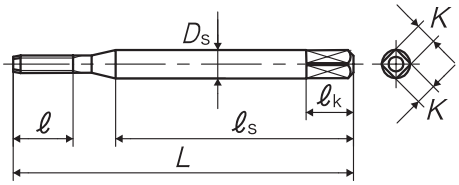
Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

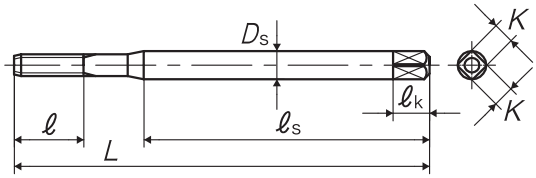
TYPE: 1



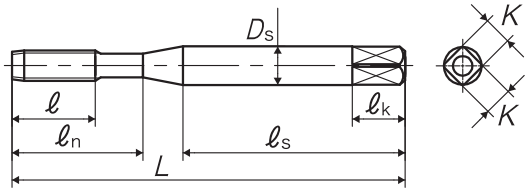
TYPE: 2



TYPE: 3



TYPE: 4



Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M1 × 0.25	G4	SURZ41.0BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 5,480
M1.2 × 0.25	G4	SURZ41.2BB	2P	36	4.5	-	24	3	2.5	5	4	1	¥ 5,480
M1.4 × 0.3	G4	SURZ41.4CB	2P	36	5.4	-	24	3	2.5	5	4	1	¥ 5,140
M1.6 × 0.35	G4	SURZ41.6DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,940
M1.6 × 0.2	G3	SURZ31.6AB	2P	36	3.6	-	24	3	2.5	5	4	2	¥ 5,140
M1.7 × 0.35	G4	SURZ41.7DB	2P	36	6.3	-	24	3	2.5	5	4	2	¥ 4,940
M2 × 0.4	G4	SURZ42.0EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 4,420
M2.3 × 0.4	G4	SURZ42.3EB	2P	42	7.2	-	27	3	2.5	5	4	3	¥ 4,300
M2.5 × 0.45	G4	SURZ42.5FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 4,140
M2.6 × 0.45	G5	SURZ52.6FB	2P	46	8.1	14	29	3	2.5	5	4	4	¥ 4,140
M3 × 0.5	G5	SURZ53.0GB	2P	46	9	14	26	4	3.2	6	4	4	¥ 4,080
For Unified Threads													
No.2-56UNC	G4	SURZ4UN2EB	2P	42	8.1	-	27	3	2.5	5	4	3	¥ 4,790
No.4-40UNC	G5	SURZ5UN4HB	2P	46	9	14	25	4	3.2	6	4	4	¥ 4,650
No.6-32UNC	G5	SURZ5UN6JB	2P	52	11	17	27	5	4	7	4	4	¥ 4,380

Number of oil grooves : Metric thread: M2.6 and smaller = non, M3 = 2
Unified thread: No.4 and smaller = non, No.6 = 2

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

MS+RS

Roll Taps for Miniature Threads



Specification

HSS 2

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Wrought aluminum アルミ圧延材
~5 (m/min)	~3 (m/min)	~5 (m/min)	~5 (m/min)

Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
~5 (m/min)	~5 (m/min)

HPsRZ

High Performance Roll Taps for Miniature Threads



Specification

HSS-P Coating 2

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Stainless steels ステンレス鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)	~3 (m/min)

Wrought aluminum アルミ圧延材	Titanium alloys チタン合金
~5 (m/min)	~3 (m/min)

Product Features

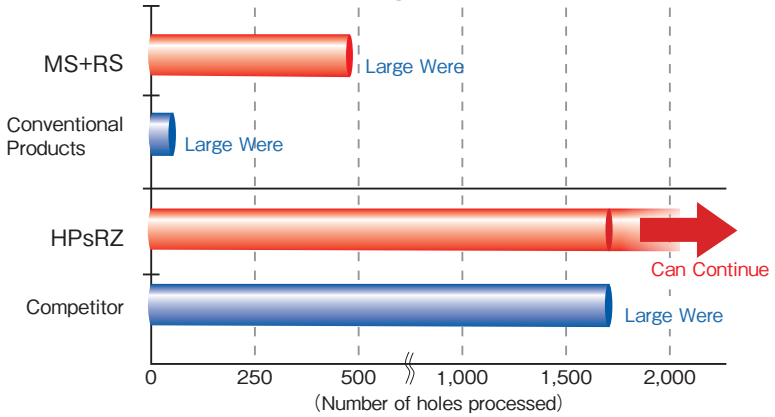
- Improved tool rigidity from new blank shape that offers torsional strength and shank accuracy.
- Markings that were on the shanks outside diameter have been transferred to the square part to improve circularity.
- New thread portion offers improvements in the accuracy of the "GS" class of internal thread tapping.

Tapping Data

Tapping Conditions [S0.8×0.2]

Types of Taps	MS+RS	HPsRZ
	Conventional product	Competitor
Surface Treatment	—	TiCN
Workpiece Material	SUS304 (88HRB)	
Bore Diameter	ϕ0.73	
Tapping Length	1.2mm (1.5D)	
Tapping Speed	4m/min	8m/min
Machinery Type	CNC tapping center	
Tapping Fluid	Non-water soluble cutting fluid	

Chart of the number of holes processed.



* Tool life is judged by the threads major diameter wear width.

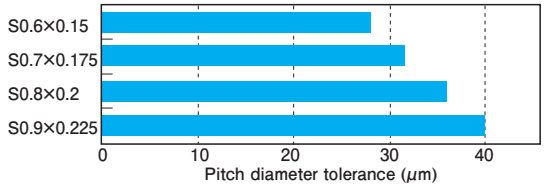
Recommended hole diameter (reference value).

Unit: mm

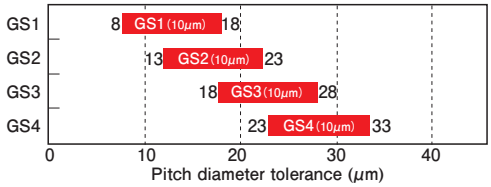
Size	Limit	4H5 Thread Limit	
		Max.	Min.
S0.6 × 0.15	GS 2	0.55	0.54
S0.7 × 0.175	GS 3	0.64	0.62
S0.8 × 0.2	GS 3	0.73	0.71
S0.9 × 0.225	GS 4	0.82	0.80

New thread GS class accuracy

4H5 Pitch diameter tolerance of internal thread.



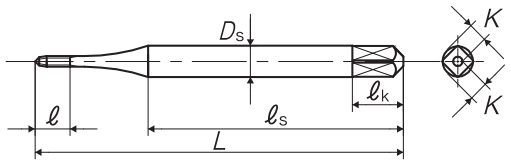
Pitch diameter tolerance of GS class accuracy.



Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

MS+RS Roll Taps for Miniature Threads

TYPE : 1



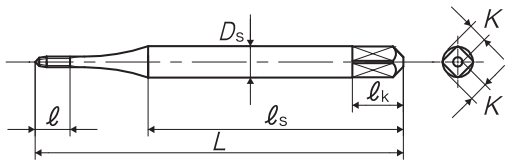
Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Miniature Threads												
S0.6 × 0.15	GS2	MSP20.6-B	2P	36	2.5	25	3	2.5	6	4	1	¥ 6,130 ※
S0.7 × 0.175	GS3	MSP30.7-B	2P	36	2.5	25	3	2.5	6	4	1	¥ 5,330 ※
S0.8 × 0.2	GS3	MSP30.8-B	2P	36	3	25	3	2.5	6	4	1	¥ 4,970 ※
S0.9 × 0.225	GS4	MSP40.9-B	2P	36	3	25	3	2.5	6	4	1	¥ 4,970 ※

HPsRZ High Performance Roll Taps for Miniature Threads

TYPE : 1



Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Miniature Threads												
S0.6 × 0.15	GS2	HPS20.6-B	2P	36	2.5	25	3	2.5	6	4	1	¥ 7,930 ※
S0.7 × 0.175	GS3	HPS30.7-B	2P	36	2.5	25	3	2.5	6	4	1	¥ 6,910 ※
S0.8 × 0.2	GS3	HPS30.8-B	2P	36	3	25	3	2.5	6	4	1	¥ 6,450 ※
S0.9 × 0.225	GS4	HPS40.9-B	2P	36	3	25	3	2.5	6	4	1	¥ 6,450 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

R-Y



Roll Taps for Thin Soft Structural Steel Sheets

Specification

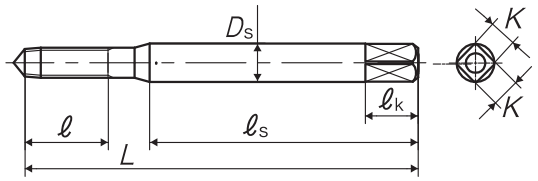
HSS 3

■For tapping general fasteners made from such thin steel sheets as SPC and SPH, and from such soft steels as under SS400 and S20C.

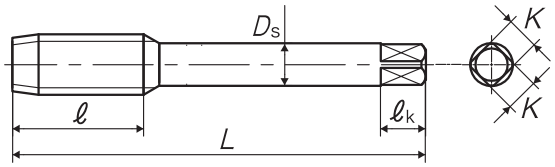
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼 ~5 (m/min)

TYPE: 1



TYPE: 2



Segment : 1J

Size	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads												
M2 × 0.4	RY2.0E3	3P	42	7	-	31	3	2.5	5	4	1	¥ 1,490
M2.5 × 0.45	RY2.5F3	3P	44	8	-	33	3	2.5	5	4	1	¥ 1,310
M2.6 × 0.45	RY2.6F3	3P	44	8	-	33	3	2.5	5	4	1	¥ 1,310
M3 × 0.5	RY3.0G3	3P	46	9	-	33	4	3.2	6	4	1	¥ 1,180
M4 × 0.7	RY4.0I3	3P	52	11	-	36	5	4	7	4	1	¥ 1,190
M5 × 0.8	RY5.0K3	3P	60	12	-	43	5.5	4.5	7	4	1	¥ 1,300
M6 × 1	RY6.0M3	3P	62	15	-	44	6	4.5	7	4	1	¥ 1,420
M8 × 1.25	RY8.0N3	3P	70	18	-	-	6.2	5	8	4	2	¥ 2,100

Number of oil grooves : non

・Please use CPR-Y for controlling of bored holes. (For CPR-Y, refer to product page ⑦-75)

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

R-D

Roll Taps for General Purpose



Specification

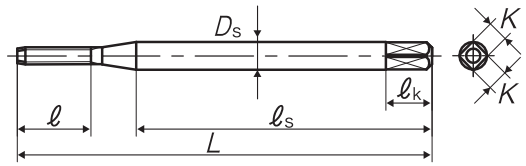
HSS 2

■R-D is the forming tap suitable for steel materials.

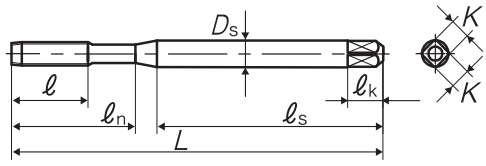
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

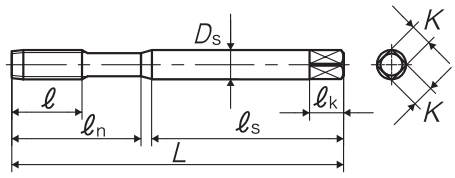
TYPE:1 DIN371



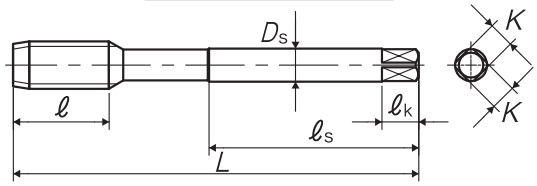
TYPE:2 DIN371



TYPE:3 DIN371



TYPE:4 DIN376/DIN5156



Segment : 1J (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For Metric Threads												
M2 × 0.4	ISO2X	RD2.0EBNEBB	2P	45	8	-	32	2.8	2.1	5	4	1
M2.5 × 0.45	ISO2X	RD2.5FBNEBB	2P	50	8	15	33	2.8	2.1	5	4	2
M3 × 0.5	ISO2X	RD3.0GBNEBB	2P	56	9	18	34	3.5	2.7	6	4	2
M3.5 × 0.6	ISO2X	RD3.5HBNEBB	2P	56	11	20	32	4	3	6	4	2
M4 × 0.7	ISO2X	RD4.0IBNEBB	2P	63	13	21	38	4.5	3.4	6	4	2
M5 × 0.8	ISO2X	RD5.0KBNEBB	2P	70	14	25	39	6	4.9	8	4	2
M6 × 1	ISO2X	RD6.0MBNEBB	2P	80	15	30	45	6	4.9	8	4	2
M8 × 1.25	ISO2X	RD8.0NBNEBB	2P	90	19	35	47	8	6.2	9	6	3
M10 × 1.5	ISO2X	RD010OBNEBB	2P	100	23	39	52.5	10	8	11	8	3
M12 × 1.75	ISO2X	RG012PBNEBB	2P	110	26	-	56	9	7	10	8	4
M14 × 2	ISO2X	RG014QBNEBB	2P	110	26	-	56	11	9	12	8	4
M16 × 2	ISO2X	RG016QBNEBB	2P	110	26	-	56	12	9	12	8	4
For G Threads												
G 1/8-28	-	RVG0026NEBB	2P	90	19	-	46	7	5.5	8	8	4
G 1/4-19	-	RVG0047NEBB	2P	100	21	-	51	11	9	12	8	4
G 3/8-19	-	RVG0067NEBB	2P	100	21	-	51	12	9	12	8	4

Number of oil grooves: M2.5 and smaller = non,
M3～M6 = 4, M8 = 3, M10 and larger = 4
For M6 and smaller, external centers of 2P chamfer taps are removed.

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

R-D



Roll Taps for General Purpose, Coated

Specification

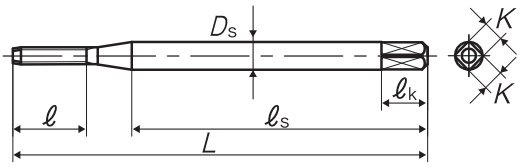
HSS | Coating | 2

■R-D is the forming tap suitable for steel materials.

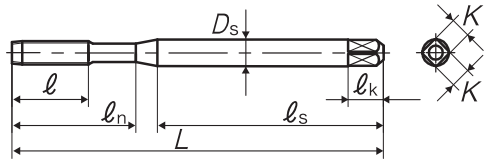
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

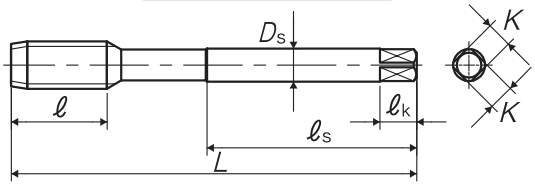
TYPE:1 DIN371



TYPE:2 DIN371



TYPE:3 DIN376/DIN5156



Segment : 1J (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For Metric Threads												
M2 × 0.4	ISO2X	93532.0BTI	2P	45	8	-	32	2.8	2.1	5	4	1
M2.5 × 0.45	ISO2X	93532.5BTI	2P	50	8	15	33	2.8	2.1	5	4	2
M3 × 0.5	ISO2X	93533.0BTI	2P	56	9	18	34	3.5	2.7	6	4	2
M3.5 × 0.6	ISO2X	93533.5BTI	2P	56	11	20	32	4	3	6	4	2
M4 × 0.7	ISO2X	93534.0BTI	2P	63	13	21	38	4.5	3.4	6	4	2
M5 × 0.8	ISO2X	93535.0BTI	2P	70	14	25	39	6	4.9	8	4	2
M6 × 1	ISO2X	93536.0BTI	2P	80	15	30	45	6	4.9	8	4	2
M8 × 1.25	ISO2X	93538.0BTI	2P	90	19	35	47	8	6.2	9	6	2
M10 × 1.5	ISO2X	9353010BTI	2P	100	23	39	52.5	10	8	11	8	2
M12 × 1.75	ISO2X	9353012BTI	2P	110	26	-	56	9	7	10	8	3
M14 × 2	ISO2X	9353014BTI	2P	110	26	-	56	11	9	12	8	3
M16 × 2	ISO2X	9353016BTI	2P	110	26	-	56	12	9	12	8	3
For G Threads												
G 1/8-28	-	9953R02TI	2P	90	19	-	46	7	5.5	8	8	3
G 1/4-19	-	9953R04TI	2P	100	21	-	51	11	9	12	8	3
G 3/8-19	-	9953R06TI	2P	100	21	-	51	12	9	12	8	3

Number of oil grooves: M2.5 and smaller = non,
M3～M6 = 4, M8 = 3, M10 and larger = 4
For M6 and smaller, external centers of 2P chamfer taps are removed.

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

R-D



Roll Taps for General Purpose, Coated

Specification

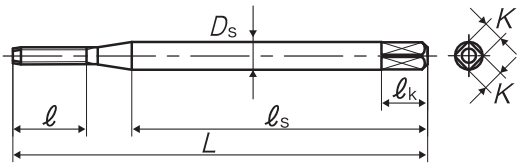
HSS | Coating | 2

■R-D is the forming tap suitable for steel materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

TYPE:1 DIN371



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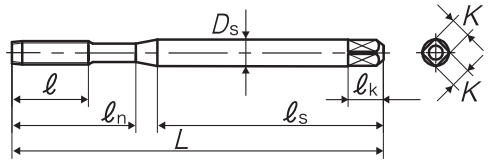

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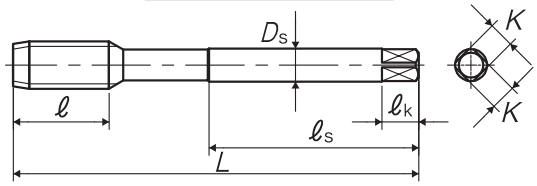


Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For Metric Threads												
M2 × 0.4	ISO2X	93532.0BTC	2P	45	8	-	32	2.8	2.1	5	4	1
M2.5 × 0.45	ISO2X	93532.5BTC	2P	50	8	15	33	2.8	2.1	5	4	2
M3 × 0.5	ISO2X	93533.0BTC	2P	56	9	18	34	3.5	2.7	6	4	2
M3.5 × 0.6	ISO2X	93533.5BTC	2P	56	11	20	32	4	3	6	4	2
M4 × 0.7	ISO2X	93534.0BTC	2P	63	13	21	38	4.5	3.4	6	4	2
M5 × 0.8	ISO2X	93535.0BTC	2P	70	14	25	39	6	4.9	8	4	2
M6 × 1	ISO2X	93536.0BTC	2P	80	15	30	45	6	4.9	8	4	2
M8 × 1.25	ISO2X	93538.0BTC	2P	90	19	35	47	8	6.2	9	6	2
M10 × 1.5	ISO2X	9353010BTC	2P	100	23	39	52.5	10	8	11	8	2
M12 × 1.75	ISO2X	9353012BTC	2P	110	26	-	56	9	7	10	8	3
M14 × 2	ISO2X	9353014BTC	2P	110	26	-	56	11	9	12	8	3
M16 × 2	ISO2X	9353016BTC	2P	110	26	-	56	12	9	12	8	3

Number of oil grooves: M2.5 and smaller = non,
M3～M6 = 4, M8 = 3, M10 and larger = 4
For M6 and smaller, external centers of 2P chamfer taps are removed.

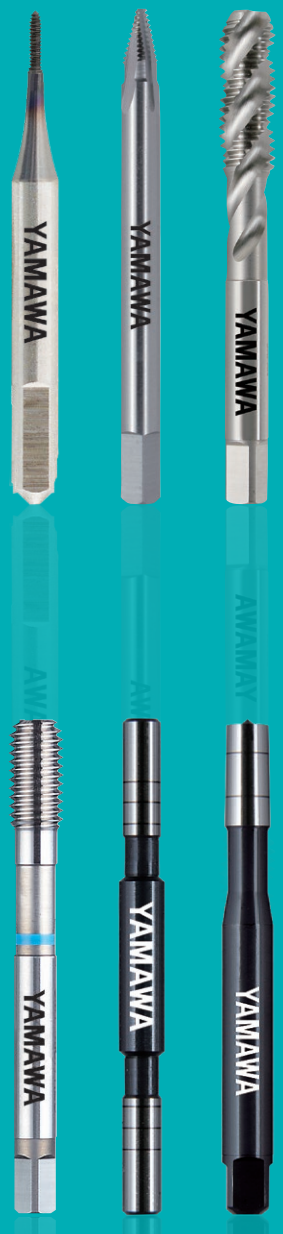
※ This product is different from JIS products in shape and dimensions, please be careful when using.

MEMO

JIS • ANSI • DIN

LINE UP

⑦SPECIAL THREAD TAPS / SIMPLE INSPECTION TOOLS



	JIS	ANSI	DIN
AL-HT STI	⑦-3		
HT STI		⑦-6	
HT OX STI		⑦-8	
AL-SP STI	⑦-10		
SP STI		⑦-12	
SP OX STI		⑦-14	
ZELX NI SP STI		⑦-16	
AL-PO STI	⑦-18		
PO STI		⑦-19	
PO OX STI		⑦-21	
ZELX NI PO STI		⑦-23	
N-RS STI	⑦-25		
N-CT LA STI	⑦-26		
NT	⑦-27		
HT TRI	⑦-30		
SP TRI	⑦-31		
RLS-HT	⑦-32		
HT TV	⑦-33		
HT CTV	⑦-35		
HT CTC	⑦-36		
HT CTG	⑦-37		
HT Pg			⑦-38
HT BC	⑦-39		
HT MST	⑦-41		
SL Tr	⑦-42		
SL LH Tr	⑦-43		
SIT	⑦-45		
SITD	⑦-51		
CHECK PINS	⑦-55		
CPC-S	⑦-57		
CPC-T	⑦-69		
CPR-S	⑦-71		
CPR-T	⑦-73		
CPR-Y	⑦-75		
SA	⑦-77		
ITRD	⑦-79		

・For improvement, spec may change without advance notice.

Selection chart of taps

Recommended tap ◎: Most suitable tap ○: Suitable tap
Recommended tapping fluid ◆: Insoluble ◆: Water-soluble

Tapping conditions	Machining, in low-speed tapping area		Machining, in low/middle speed tapping area					
Product symbol	NT	N-RS STI	AL-HT STI	AL-SP STI	AL-PO STI	N-CT LA STI	SL Tr	SL LH Tr
Tap material Surface treatment	HSS	HSS NI	HSS	HSS NI	HSS	HF	HSS	HSS
Name	For general use	For helical coil wire screw thread inserts	For helical coil wire screw thread inserts				For trapezoidal threads	For trapezoidal threads For left-hand threads
								
Bored Hole Shape								
For Metric Threads	⑦-27	⑦-25	⑦-3	⑦-10	⑦-18	⑦-26		
For Unified Threads			⑦-5					
For Whitworth Threads	⑦-28							
For Screw Threads used on Sewing Machines								
Pipe Threads								
American Pipe Threads								
For Miniature Threads								
For Trapezoidal Threads							⑦-42	⑦-43

～S25C	Low carbon steels	◆	◎											◆	◎	◆	◎
S25C～S45C	Medium carbon steels	◆	○											◆	◎	◆	◎
S45C～	High carbon steels																
SCM	Alloy steels																
25～35HRC	Heat treated steel																
35～45HRC	Heat treated steel																
45～55HRC	Heat treated steel																
55～63HRC	Heat treated steel																
SUS	Stainless steels (SUS)																
SKD	Tool steels																
SC	Cast steels																
FC	Cast irons																
FCD	Ductile cast irons																
Cu	Copper																
Bs	Brass							◆	○	◆	◎						
BsC	Brass castings							◆	○	◆	◎						
PB	Bronze							◆	○	◆	◎						
AL	Wrought aluminum			◆	◎	◆	◎	◆	◎	◆	◎						
AC, ADC	Wrought aluminum			◆	◎	◆	◎	◆	◎	◆	◎	◆	◎				
Mg	Magnesium alloy die castings							◆	◎	◆	◎						
ZDC	Zinc alloy die castings			◆	◎	◆	◎	◆	◎	◆	◎	◆	◎				
	Titanium alloys																
	Nickel base alloys																
	Thermosetting plastic																
	Thermoplastic resin																

Think threads with YAMAWA

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

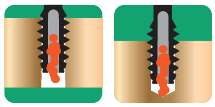
AL-HT STI



Hand Taps for Aluminum Materials (for Helical Coil Wire Screw Thread Inserts)

Specification

HSS



Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

■This is used to cut a comparatively soft material, such as aluminum, and create an internal thread for accommodating a helical coil wire screw thread insert, in order to reinforce the internal thread and increase durability.

■Oversize taps of Ib+30 are also available to allow for shrinkage of internal threads.

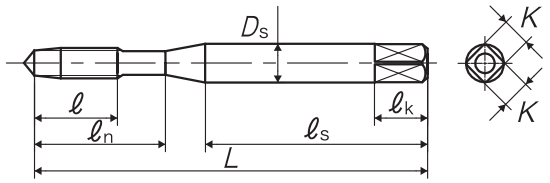
Oversize

Segment : 1A

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M2 × 0.4	Ib	TW2.0E1LEB5	5P	2.520	46	8.1	14	29	3	2.5	5	3	1	¥ 3,540 ※
M2 × 0.4	Ib	TW2.0E1LEBA	1.5P	2.520	46	8.1	14	29	3	2.5	5	3	1	¥ 3,540 ※
M2.5 × 0.45	Ib	TW2.5F1LEB5	5P	3.085	52	6.8	16	28	5	4	7	3	1	¥ 2,700 ※
M2.5 × 0.45	Ib	TW2.5F1LEBA	1.5P	3.085	52	6.8	16	28	5	4	7	3	1	¥ 2,700 ※
M2.6 × 0.45	Ib	TW2.6F1LEB5	5P	3.185	52	6.8	16	29	5	4	7	3	1	¥ 2,700 ※
M2.6 × 0.45	Ib	TW2.6F1LEBA	1.5P	3.185	52	6.8	16	29	5	4	7	3	1	¥ 2,700 ※
M3 × 0.5	Ib	TW3.0G1LEB5	5P	3.650	52	7.5	17	29	5	4	7	3	1	¥ 2,220
M3 × 0.5	Ib	TW3.0G1LEBA	1.5P	3.650	52	7.5	17	29	5	4	7	3	1	¥ 2,220
M3 × 0.5	Ib+30	TW3.0G3LEB5	5P	3.650	52	7.5	17	29	5	4	7	3	1	¥ 2,220
M3 × 0.5	Ib+30	TW3.0G3LEBA	1.5P	3.650	52	7.5	17	29	5	4	7	3	1	¥ 2,220
M4 × 0.7	Ib	TW4.0I1LEB5	5P	4.909	60	13	22	33	5.5	4.5	7	4	1	¥ 2,110
M4 × 0.7	Ib	TW4.0I1LEBA	1.5P	4.909	60	13	22	33	5.5	4.5	7	4	1	¥ 2,110
M4 × 0.7	Ib+30	TW4.0I3LEB5	5P	4.909	60	13	22	33	5.5	4.5	7	4	1	¥ 2,110
M4 × 0.7	Ib+30	TW4.0I3LEBA	1.5P	4.909	60	13	22	33	5.5	4.5	7	4	1	¥ 2,110
M5 × 0.8	Ib	TW5.0K1LEB5	5P	6.039	62	15	26	33	6	4.5	7	4	1	¥ 2,030
M5 × 0.8	Ib	TW5.0K1LEBA	1.5P	6.039	62	15	26	33	6	4.5	7	4	1	¥ 2,030
M5 × 0.8	Ib+30	TW5.0K3LEB5	5P	6.039	62	15	26	33	6	4.5	7	4	1	¥ 2,030
M5 × 0.8	Ib+30	TW5.0K3LEBA	1.5P	6.039	62	15	26	33	6	4.5	7	4	1	¥ 2,030
M6 × 1	Ib	TW6.0M1LEB5	5P	7.299	70	19	-	36	6.2	5	8	4	2	¥ 2,080
M6 × 1	Ib	TW6.0M1LEBA	1.5P	7.299	70	19	-	36	6.2	5	8	4	2	¥ 2,080
M6 × 1	Ib+30	TW6.0M3LEB5	5P	7.299	70	19	-	36	6.2	5	8	4	2	¥ 2,080
M6 × 1	Ib+30	TW6.0M3LEBA	1.5P	7.299	70	19	-	36	6.2	5	8	4	2	¥ 2,080
M8 × 1.25	Ib	TW8.0N1LEB5	5P	9.624	75	23	-	38	7	5.5	8	4	2	¥ 2,920
M8 × 1.25	Ib	TW8.0N1LEBA	1.5P	9.624	75	23	-	38	7	5.5	8	4	2	¥ 2,920
M8 × 1.25	Ib+30	TW8.0N3LEB5	5P	9.624	75	23	-	38	7	5.5	8	4	2	¥ 2,920
M8 × 1.25	Ib+30	TW8.0N3LEBA	1.5P	9.624	75	23	-	38	7	5.5	8	4	2	¥ 2,920
M10 × 1.5	Ib	TW01001LEB5	5P	11.948	82	26	-	42	8.5	6.5	9	4	2	¥ 3,910
M10 × 1.5	Ib	TW01001LEBA	1.5P	11.948	82	26	-	42	8.5	6.5	9	4	2	¥ 3,910
M10 × 1.5	Ib+30	TW01003LEB5	5P	11.948	82	26	-	42	8.5	6.5	9	4	2	¥ 3,910
M10 × 1.5	Ib+30	TW01003LEBA	1.5P	11.948	82	26	-	42	8.5	6.5	9	4	2	¥ 3,910
M10 × 1.25	Ib	TW010N1LEB5	5P	11.624	82	26	-	42	8.5	6.5	9	4	2	¥ 3,910 ※
M10 × 1.25	Ib	TW010N1LEBA	1.5P	11.624	82	26	-	42	8.5	6.5	9	4	2	¥ 3,910 ※

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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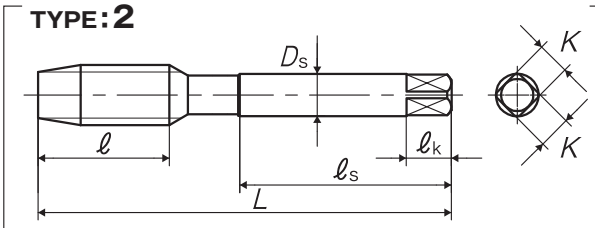

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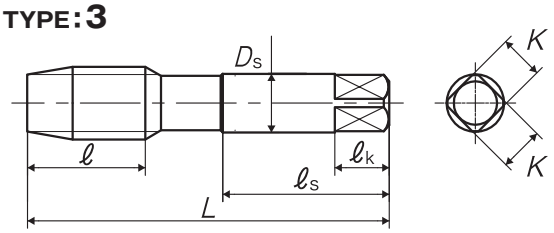

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M10 × 1	Ib	TW010M1LEB5	5P	11.299	82	26	-	42	8.5	6.5	9	4	2	¥ 4,860 ※
M10 × 1	Ib	TW010M1LEBA	1.5P	11.299	82	26	-	42	8.5	6.5	9	4	2	¥ 4,860 ※
M12 × 1.75	Ib	TW012P1LEB5	5P	14.273	95	26	-	48	12.5	10	13	4	2	¥ 5,380
M12 × 1.75	Ib	TW012P1LEBA	1.5P	14.273	95	26	-	48	12.5	10	13	4	2	¥ 5,380
M12 × 1.5	Ib	TW012Q1LEB5	5P	13.948	88	26	-	45	10.5	8	11	4	2	¥ 5,380 ※
M12 × 1.5	Ib	TW012Q1LEBA	1.5P	13.948	88	26	-	45	10.5	8	11	4	2	¥ 5,380 ※
M12 × 1.25	Ib	TW012N1LEB5	5P	13.624	88	26	-	45	10.5	8	11	4	2	¥ 5,380 ※
M12 × 1.25	Ib	TW012N1LEBA	1.5P	13.624	88	26	-	45	10.5	8	11	4	2	¥ 5,380 ※
M14 × 2	Ib	TW014Q1LEB5	5P	16.598	100	33	-	51	14	11	14	4	2	¥ 7,080 ※
M14 × 2	Ib	TW014Q1LEBA	1.5P	16.598	100	33	-	51	14	11	14	4	2	¥ 7,080 ※
M14 × 1.5	Ib	TW014Q1LEB5	5P	15.948	95	26	-	48	12.5	10	13	4	2	¥ 7,080 ※
M14 × 1.5	Ib	TW014Q1LEBA	1.5P	15.948	95	26	-	48	12.5	10	13	4	2	¥ 7,080 ※
M14 × 1.25	Ib	TW014N1LEB5	5P	15.624	95	26	-	48	12.5	10	13	4	2	¥ 8,510 ※
M14 × 1.25	Ib	TW014N1LEBA	1.5P	15.624	95	26	-	48	12.5	10	13	4	2	¥ 8,510 ※
M16 × 2	Ib	TW016Q1LEB5	5P	18.598	105	33	-	50	15	12	15	4	3	¥ 10,200
M16 × 2	Ib	TW016Q1LEBA	1.5P	18.598	105	33	-	50	15	12	15	4	3	¥ 10,200
M16 × 1.5	Ib	TW016Q1LEB5	5P	17.948	100	33	-	51	14	11	14	4	2	¥ 10,200 ※
M16 × 1.5	Ib	TW016Q1LEBA	1.5P	17.948	100	33	-	51	14	11	14	4	2	¥ 10,200 ※
M18 × 2.5	Ib	TW018R1LEB5	5P	21.248	115	33	-	55	17	13	16	4	3	¥ 16,900 ※
M18 × 2.5	Ib	TW018R1LEBA	1.5P	21.248	115	33	-	55	17	13	16	4	3	¥ 16,900 ※
M18 × 1.5	Ib	TW018Q1LEB5	5P	19.948	105	33	-	50	15	12	15	4	3	¥ 16,900 ※
M18 × 1.5	Ib	TW018Q1LEBA	1.5P	19.948	105	33	-	50	15	12	15	4	3	¥ 16,900 ※
M20 × 2.5	Ib	TW020R1LEB5	5P	23.248	120	39	-	55	19	15	18	4	3	¥ 20,100
M20 × 2.5	Ib	TW020R1LEBA	1.5P	23.248	120	39	-	55	19	15	18	4	3	¥ 20,100
M20 × 1.5	Ib	TW020Q1LEB5	5P	21.948	115	33	-	55	17	13	16	4	3	¥ 20,100 ※
M20 × 1.5	Ib	TW020Q1LEBA	1.5P	21.948	115	33	-	55	17	13	16	4	3	¥ 20,100 ※
M22 × 2.5	Ib	TW022R1LEB5	5P	25.248	125	39	-	58	19	15	18	4	3	¥ 26,200 ※
M22 × 2.5	Ib	TW022R1LEBA	1.5P	25.248	125	39	-	58	19	15	18	4	3	¥ 26,200 ※
M22 × 1.5	Ib	TW022Q1LEB5	5P	23.948	120	39	-	55	19	15	18	4	3	¥ 26,200 ※
M22 × 1.5	Ib	TW022Q1LEBA	1.5P	23.948	120	39	-	55	19	15	18	4	3	¥ 26,200 ※
M24 × 3	Ib	TW024S1LEB5	5P	27.897	135	46	-	62	23	17	20	4	3	¥ 32,400
M24 × 3	Ib	TW024S1LEBA	1.5P	27.897	135	46	-	62	23	17	20	4	3	¥ 32,400
M24 × 2	Ib	TW024Q1LEB5	5P	26.598	130	39	-	60	20	15	18	4	3	¥ 32,400 ※
M24 × 1.5	Ib	TW024Q1LEB5	5P	25.948	130	39	-	60	20	15	18	4	3	¥ 32,400 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

AL-HT STI Hand Taps for Aluminum Materials (for Helical Coil Wire Screw Thread Inserts)

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M24 × 1.5	Ib	TW02401LEBA	1.5P	25.948	130	39	-	60	20	15	18	4	3	¥ 32,400 ※
For Unified Threads														
No.4-40UNC	Ib	TWUN4H1LEB5	5P	3.670	52	11	17	29	5	4	7	3	1	¥ 2,380 ※
No.4-40UNC	Ib	TWUN4H1LEBA	1.5P	3.670	52	11	17	29	5	4	7	3	1	¥ 2,380 ※
No.4-48UNF	Ib	TWUN4F1LEB5	5P	3.532	52	11	17	29	5	4	7	3	1	¥ 2,380 ※
No.4-48UNF	Ib	TWUN4F1LEBA	1.5P	3.532	52	11	17	29	5	4	7	3	1	¥ 2,380 ※
No.5-40UNC	Ib	TWUN5H1LEB5	5P	4.000	52	11	17	29	5	4	7	3	1	¥ 2,300 ※
No.5-40UNC	Ib	TWUN5H1LEBA	1.5P	4.000	52	11	17	29	5	4	7	3	1	¥ 2,300 ※
No.6-32UNC	Ib	TWUN6J1LEB5	5P	4.536	60	13	22	33	5.5	4.5	7	3	1	¥ 2,240 ※
No.6-32UNC	Ib	TWUN6J1LEBA	1.5P	4.536	60	13	22	33	5.5	4.5	7	3	1	¥ 2,240 ※
No.6-40UNF	Ib	TWUN6H1LEB5	5P	4.330	60	13	22	33	5.5	4.5	7	3	1	¥ 2,240 ※
No.6-40UNF	Ib	TWUN6H1LEBA	1.5P	4.330	60	13	22	33	5.5	4.5	7	3	1	¥ 2,240 ※
No.8-32UNC	Ib	TWUN8J1LEB5	5P	5.197	62	15	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.8-32UNC	Ib	TWUN8J1LEBA	1.5P	5.197	62	15	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.8-36UNF	Ib	TWUN8I1LEB5	5P	5.083	62	9.5	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.8-36UNF	Ib	TWUN8I1LEBA	1.5P	5.083	62	9.5	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.10-24UNC	Ib	TWUNAM1LEB5	5P	6.201	62	15	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.10-24UNC	Ib	TWUNAM1LEBA	1.5P	6.201	62	15	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.10-32UNF	Ib	TWUNAJ1LEB5	5P	5.857	62	15	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.10-32UNF	Ib	TWUNAJ1LEBA	1.5P	5.857	62	15	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.12-24UNC	Ib	TWUNCM1LEB5	5P	6.861	70	19	-	36	6.2	5	8	4	2	¥ 2,380 ※
No.12-24UNC	Ib	TWUNCM1LEBA	1.5P	6.861	70	19	-	36	6.2	5	8	4	2	¥ 2,380 ※
1/4-20UNC	Ib	TWU04N1LEB5	5P	8.000	70	19	-	36	6.2	5	8	4	2	¥ 2,770 ※
1/4-20UNC	Ib	TWU04N1LEBA	1.5P	8.000	70	19	-	36	6.2	5	8	4	2	¥ 2,770 ※
1/4-28UNF	Ib	TWU04K1LEB5	5P	7.528	70	19	-	36	6.2	5	8	4	2	¥ 2,770 ※
1/4-28UNF	Ib	TWU04K1LEBA	1.5P	7.528	70	19	-	36	6.2	5	8	4	2	¥ 2,770 ※
5/16-18UNC	Ib	TWU0501LEB5	5P	9.771	75	23	-	38	7	5.5	8	4	2	¥ 3,700 ※
5/16-18UNC	Ib	TWU0501LEBA	1.5P	9.771	75	23	-	38	7	5.5	8	4	2	¥ 3,700 ※
5/16-24UNF	Ib	TWU05M1LEB5	5P	9.313	75	23	-	38	7	5.5	8	4	2	¥ 3,700 ※
5/16-24UNF	Ib	TWU05M1LEBA	1.5P	9.313	75	23	-	38	7	5.5	8	4	2	¥ 3,700 ※
3/8-16UNC	Ib	TWU06P1LEB5	5P	11.587	82	26	-	42	8.5	6.5	9	4	2	¥ 4,440 ※
3/8-16UNC	Ib	TWU06P1LEBA	1.5P	11.587	82	26	-	42	8.5	6.5	9	4	2	¥ 4,440 ※
3/8-24UNF	Ib	TWU06M1LEB5	5P	10.900	82	26	-	42	8.5	6.5	9	4	2	¥ 4,440 ※
3/8-24UNF	Ib	TWU06M1LEBA	1.5P	10.900	82	26	-	42	8.5	6.5	9	4	2	¥ 4,440 ※
7/16-14UNC	Ib	TWU07Q1LEB5	5P	13.469	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
7/16-14UNC	Ib	TWU07Q1LEBA	1.5P	13.469	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
7/16-20UNF	Ib	TWU07N1LEB5	5P	12.762	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
7/16-20UNF	Ib	TWU07N1LEBA	1.5P	12.762	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
1/2-13UNC	Ib	TWU08R1LEB5	5P	15.238	95	26	-	48	12.5	10	13	4	2	¥ 7,340 ※
1/2-13UNC	Ib	TWU08R1LEBA	1.5P	15.238	95	26	-	48	12.5	10	13	4	2	¥ 7,340 ※
1/2-20UNF	Ib	TWU08N1LEB5	5P	14.350	95	26	-	48	12.5	10	13	4	2	¥ 7,340 ※
1/2-20UNF	Ib	TWU08N1LEBA	1.5P	14.350	95	26	-	48	12.5	10	13	4	2	¥ 7,340 ※
5/8-11UNC	Ib	TWU10U1LEB5	5P	18.875	105	33	-	50	15	12	15	4	3	¥ 11,400 ※
5/8-11UNC	Ib	TWU10U1LEBA	1.5P	18.875	105	33	-	50	15	12	15	4	3	¥ 11,400 ※
5/8-18UNF	Ib	TWU1001LEB5	5P	17.708	100	33	-	51	14	11	14	4	2	¥ 11,400 ※
5/8-18UNF	Ib	TWU1001LEBA	1.5P	17.708	100	33	-	51	14	11	14	4	2	¥ 11,400 ※
3/4-10UNC	Ib	TWU12V1LEB5	5P	22.349	115	33	-	55	17	13	16	4	3	¥ 17,800 ※
3/4-10UNC	Ib	TWU12V1LEBA	1.5P	22.349	115	33	-	55	17	13	16	4	3	¥ 17,800 ※
3/4-16UNF	Ib	TWU12P1LEB5	5P	21.112	115	33	-	55	17	13	16	4	3	¥ 17,800 ※
3/4-16UNF	Ib	TWU12P1LEBA	1.5P	21.112	115	33	-	55	17	13	16	4	3	¥ 17,800 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT STI



Hand Taps for Helical Coil Wire Screw Thread Inserts

Specification

HSS



■Hand tap to cut internal threads for helical coil to enter.

Recommended Tapping Speed depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

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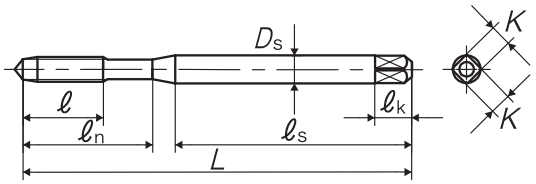

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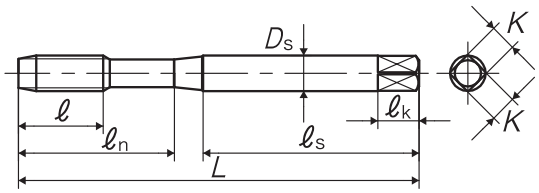

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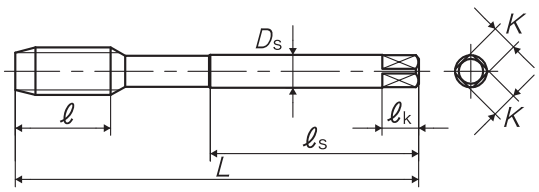

Segment : 1A

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
No.2-56UNC	GH1	TUUN2E1NEB5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	1
No.2-56UNC	GH1	TUUN2E1NEBA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	1
No.2-56UNC	GH2	TUUN2E2NEB5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	1
No.2-56UNC	GH2	TUUN2E2NEBA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	1
No.4-40UNC	GH1	TUUN4H1NEB5	5P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	3	1
No.4-40UNC	GH1	TUUN4H1NEBA	1.5P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	3	1
No.4-40UNC	GH2	TUUN4H2NEB5	5P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	3	1
No.4-40UNC	GH2	TUUN4H2NEBA	1.5P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	3	1
No.6-32UNC	GH1	TUUN6J1NEB5	5P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	3	1
No.6-32UNC	GH1	TUUN6J1NEBA	1.5P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	3	1
No.6-32UNC	GH2	TUUN6J2NEB5	5P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	3	1
No.6-32UNC	GH2	TUUN6J2NEBA	1.5P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	3	1
No.8-32UNC	GH1	TUUN8J1NEB5	5P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	3	1
No.8-32UNC	GH1	TUUN8J1NEBA	1.5P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	3	1
No.8-32UNC	GH2	TUUN8J2NEB5	5P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	3	1
No.8-32UNC	GH2	TUUN8J2NEBA	1.5P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	3	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT STI Hand Taps for Helical Coil Wire Screw Thread Inserts

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.10-24UNC	GH2	TUUNAM2NEB5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-24UNC	GH2	TUUNAM2NEBA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-24UNC	GH3	TUUNAM3NEB5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-24UNC	GH3	TUUNAM3NEBA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-32UNF	GH2	TUUNAJ2NEB5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-32UNF	GH2	TUUNAJ2NEBA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-32UNF	GH3	TUUNAJ3NEB5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-32UNF	GH3	TUUNAJ3NEBA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
1/4-20UNC	GH2	TUU04N2NEB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-20UNC	GH2	TUU04N2NEBA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-20UNC	GH3	TUU04N3NEB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-20UNC	GH3	TUU04N3NEBA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-28UNF	GH2	TUU04K2NEB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-28UNF	GH2	TUU04K2NEBA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-28UNF	GH3	TUU04K3NEB5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-28UNF	GH3	TUU04K3NEBA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
5/16-18UNC	GH2	TUU05O2NEB5	5P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	4	2
5/16-18UNC	GH2	TUU05O2NEBA	1.5P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	4	2
5/16-18UNC	GH3	TUU05O3NEB5	5P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	4	2
5/16-18UNC	GH3	TUU05O3NEBA	1.5P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	4	2
5/16-24UNF	GH2	TUU05M2NEB5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	2
5/16-24UNF	GH2	TUU05M2NEBA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	2
5/16-24UNF	GH3	TUU05M3NEB5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	2
5/16-24UNF	GH3	TUU05M3NEBA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	2
3/8-16UNC	GH3	TUU06P3NEB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	3
3/8-16UNC	GH3	TUU06P3NEBA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	3
3/8-16UNC	GH4	TUU06P4NEB5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	3
3/8-16UNC	GH4	TUU06P4NEBA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	3
3/8-24UNF	GH2	TUU06M2NEB5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	3
3/8-24UNF	GH2	TUU06M2NEBA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	3
3/8-24UNF	GH3	TUU06M3NEB5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	3
3/8-24UNF	GH3	TUU06M3NEBA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	3
7/16-14UNC	GH3	TUU07Q3NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-14UNC	GH3	TUU07Q3NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-14UNC	GH4	TUU07Q4NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-14UNC	GH4	TUU07Q4NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-20UNF	GH3	TUU07N3NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-20UNF	GH3	TUU07N3NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-20UNF	GH4	TUU07N4NEB5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-20UNF	GH4	TUU07N4NEBA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
1/2-13UNC	GH3	TUU08R3NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-13UNC	GH3	TUU08R3NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-13UNC	GH4	TUU08R4NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-13UNC	GH4	TUU08R4NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-20UNF	GH3	TUU08N3NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-20UNF	GH3	TUU08N3NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-20UNF	GH4	TUU08N4NEB5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-20UNF	GH4	TUU08N4NEBA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

HT OX STI



Hand Taps for Helical Coil Wire Screw Thread Inserts, Oxided

Specification

HSS | OX Oxide



■Hand tap to cut internal threads for helical coil to enter.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
5~10 (m/min)	5~10 (m/min)

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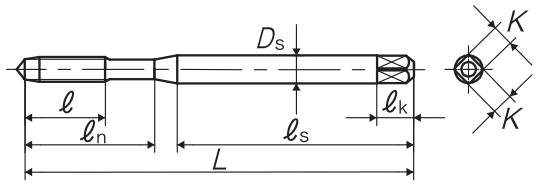

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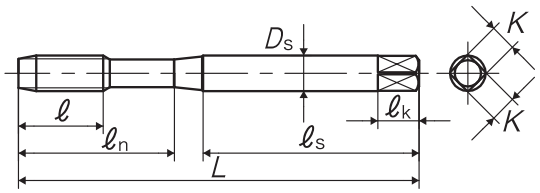

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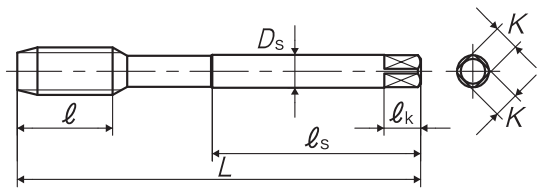

Segment : 1A

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
No.2-56UNC	GH1	TUUN2E1NEX5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	1
No.2-56UNC	GH1	TUUN2E1NEXA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	1
No.2-56UNC	GH2	TUUN2E2NEX5	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	1
No.2-56UNC	GH2	TUUN2E2NEXA	1.5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	3	1
No.4-40UNC	GH1	TUUN4H1NEX5	5P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	3	1
No.4-40UNC	GH1	TUUN4H1NEXA	1.5P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	3	1
No.4-40UNC	GH2	TUUN4H2NEX5	5P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	3	1
No.4-40UNC	GH2	TUUN4H2NEXA	1.5P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	3	1
No.6-32UNC	GH1	TUUN6J1NEX5	5P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	3	1
No.6-32UNC	GH1	TUUN6J1NEXA	1.5P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	3	1
No.6-32UNC	GH2	TUUN6J2NEX5	5P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	3	1
No.6-32UNC	GH2	TUUN6J2NEXA	1.5P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	3	1
No.8-32UNC	GH1	TUUN8J1NEX5	5P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	3	1
No.8-32UNC	GH1	TUUN8J1NEXA	1.5P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	3	1
No.8-32UNC	GH2	TUUN8J2NEX5	5P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	3	1
No.8-32UNC	GH2	TUUN8J2NEXA	1.5P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	3	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT OX STI Hand Taps for Helical Coil Wire Screw Thread Inserts, Oxided

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.10-24UNC	GH2	TUUNAM2NEX5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-24UNC	GH2	TUUNAM2NEXA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-24UNC	GH3	TUUNAM3NEX5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-24UNC	GH3	TUUNAM3NEXA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-32UNF	GH2	TUUNAJ2NEX5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-32UNF	GH2	TUUNAJ2NEXA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-32UNF	GH3	TUUNAJ3NEX5	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-32UNF	GH3	TUUNAJ3NEXA	1.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
1/4-20UNC	GH2	TUU04N2NEX5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-20UNC	GH2	TUU04N2NEXA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-20UNC	GH3	TUU04N3NEX5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-20UNC	GH3	TUU04N3NEXA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-28UNF	GH2	TUU04K2NEX5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-28UNF	GH2	TUU04K2NEXA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-28UNF	GH3	TUU04K3NEX5	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-28UNF	GH3	TUU04K3NEXA	1.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
5/16-18UNC	GH2	TUU05O2NEX5	5P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	4	2
5/16-18UNC	GH2	TUU05O2NEXA	1.5P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	4	2
5/16-18UNC	GH3	TUU05O3NEX5	5P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	4	2
5/16-18UNC	GH3	TUU05O3NEXA	1.5P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	4	2
5/16-24UNF	GH2	TUU05M2NEX5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	2
5/16-24UNF	GH2	TUU05M2NEXA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	2
5/16-24UNF	GH3	TUU05M3NEX5	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	2
5/16-24UNF	GH3	TUU05M3NEXA	1.5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	4	2
3/8-16UNC	GH3	TUU06P3NEX5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	3
3/8-16UNC	GH3	TUU06P3NEXA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	3
3/8-16UNC	GH4	TUU06P4NEX5	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	3
3/8-16UNC	GH4	TUU06P4NEXA	1.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	4	3
3/8-24UNF	GH2	TUU06M2NEX5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	3
3/8-24UNF	GH2	TUU06M2NEXA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	3
3/8-24UNF	GH3	TUU06M3NEX5	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	3
3/8-24UNF	GH3	TUU06M3NEXA	1.5P	3.937	0.906	-	2.008	0.323	0.242	0.406	4	3
7/16-14UNC	GH3	TUU07Q3NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-14UNC	GH3	TUU07Q3NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-14UNC	GH4	TUU07Q4NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-14UNC	GH4	TUU07Q4NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-20UNF	GH3	TUU07N3NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-20UNF	GH3	TUU07N3NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-20UNF	GH4	TUU07N4NEX5	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
7/16-20UNF	GH4	TUU07N4NEXA	1.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	4	3
1/2-13UNC	GH3	TUU08R3NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-13UNC	GH3	TUU08R3NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-13UNC	GH4	TUU08R4NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-13UNC	GH4	TUU08R4NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-20UNF	GH3	TUU08N3NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-20UNF	GH3	TUU08N3NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-20UNF	GH4	TUU08N4NEX5	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3
1/2-20UNF	GH4	TUU08N4NEXA	1.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	4	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

AL-SP STI



Spiral Fluted Taps for Aluminum Materials (for Helical Coil Wire Screw Thread Inserts)

Specification

HSS | NI Nitride | <2D

■This is used to cut a comparatively soft material, such as aluminum, and create an internal thread for accommodating a helical coil wire screw thread insert, in order to reinforce the internal thread and increase durability.

■Oversize taps of lb+30 are also available to allow for shrinkage of internal threads.

Recommended Tapping Speed depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Bronze 青銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~25 (m/min)

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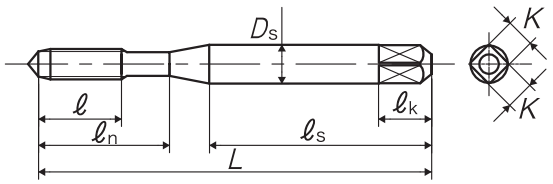

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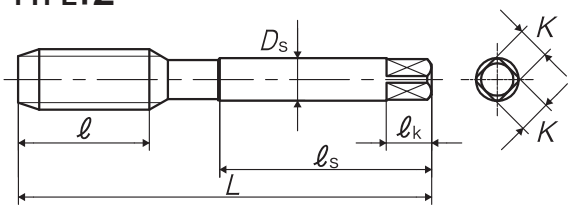

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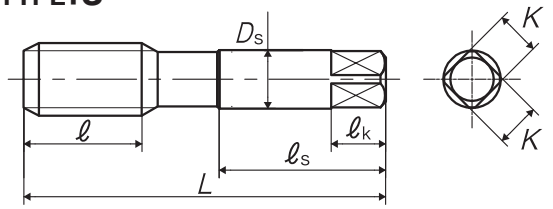

Oversize

Segment : 1C

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M3 × 0.5	Ib	SW3.0G1LEN	2.5P	3.650	52	7.5	17	29	5	4	7	3	1	¥ 2,450
M3 × 0.5	Ib+30	SW3.0G3LEN	2.5P	3.650	52	7.5	17	29	5	4	7	3	1	¥ 2,450
M4 × 0.7	Ib	SW4.0I1LEN	2.5P	4.909	60	13	22	33	5.5	4.5	7	3	1	¥ 2,330
M4 × 0.7	Ib+30	SW4.0I3LEN	2.5P	4.909	60	13	22	33	5.5	4.5	7	3	1	¥ 2,330
M5 × 0.8	Ib	SW5.0K1LEN	2.5P	6.039	62	15	26	33	6	4.5	7	3	1	¥ 2,230
M5 × 0.8	Ib+30	SW5.0K3LEN	2.5P	6.039	62	15	26	33	6	4.5	7	3	1	¥ 2,230
M6 × 1	Ib	SW6.0M1LEN	2.5P	7.299	70	19	-	36	6.2	5	8	3	2	¥ 2,280
M6 × 1	Ib+30	SW6.0M3LEN	2.5P	7.299	70	19	-	36	6.2	5	8	3	2	¥ 2,280
M8 × 1.25	Ib	SW8.0N1LEN	2.5P	9.624	75	23	-	38	7	5.5	8	3	2	¥ 3,200
M8 × 1.25	Ib+30	SW8.0N3LEN	2.5P	9.624	75	23	-	38	7	5.5	8	3	2	¥ 3,200
M10 × 1.5	Ib	SW01001LEN	2.5P	11.948	82	26	-	42	8.5	6.5	9	3	2	¥ 4,300
M10 × 1.5	Ib+30	SW01003LEN	2.5P	11.948	82	26	-	42	8.5	6.5	9	3	2	¥ 4,300
M10 × 1.25	Ib	SW010N1LEN	2.5P	11.624	82	26	-	42	8.5	6.5	9	3	2	¥ 4,300 ※
M12 × 1.75	Ib	SW012P1LEN	2.5P	14.273	95	26	-	48	12.5	10	13	3	2	¥ 5,910
M12 × 1.5	Ib	SW01201LEN	2.5P	13.948	88	26	-	45	10.5	8	11	3	2	¥ 5,910 ※
M12 × 1.25	Ib	SW012N1LEN	2.5P	13.624	88	26	-	45	10.5	8	11	3	2	¥ 5,910 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

AL-SP STI Spiral Fluted Taps for Aluminum Materials (for Helical Coil Wire Screw Thread Inserts)

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M14 × 2	Ib	SW014Q1LEN	2.5P	16.598	100	33	-	51	14	11	14	3	2	¥ 7,780 ※
M14 × 1.5	Ib	SW014O1LEN	2.5P	15.948	95	26	-	48	12.5	10	13	3	2	¥ 7,780 ※
M16 × 2	Ib	SW016Q1LEN	2.5P	18.598	105	33	-	50	15	12	15	4	3	¥ 11,300
M16 × 1.5	Ib	SW016O1LEN	2.5P	17.948	100	33	-	51	14	11	14	4	2	¥ 11,300 ※
M18 × 2.5	Ib	SW018R1LEN	2.5P	21.248	115	33	-	55	17	13	16	4	3	¥ 18,600 ※
M18 × 1.5	Ib	SW018O1LEN	2.5P	19.948	105	33	-	50	15	12	15	4	3	¥ 18,600 ※
M20 × 2.5	Ib	SW020R1LEN	2.5P	23.248	120	39	-	55	19	15	18	4	3	¥ 22,100
M20 × 1.5	Ib	SW020O1LEN	2.5P	21.948	115	33	-	55	17	13	16	4	3	¥ 22,100 ※
M22 × 2.5	Ib	SW022R1LEN	2.5P	25.248	125	39	-	58	19	15	18	4	3	¥ 28,800 ※
M24 × 3	Ib	SW024S1LEN	2.5P	27.897	135	46	-	62	23	17	20	4	3	¥ 35,600

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

SP STI



Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts

Specification

HSS

■Spiral pointed tap to cut internal threads for helical coil to enter.

Recommended Tapping Speed depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Bronze 青銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

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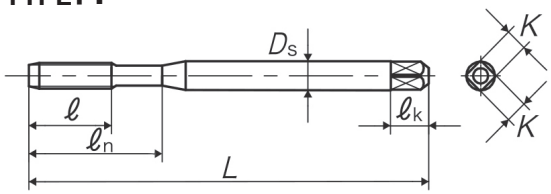

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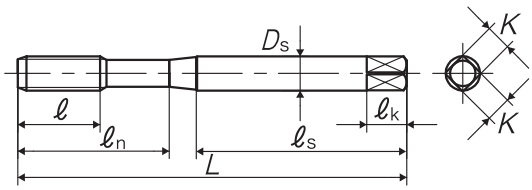

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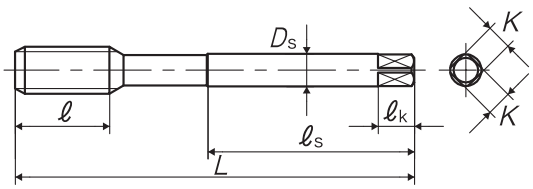

Segment : 1C

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
No.2-56UNC	GH1	SUUN2E1NEB	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	1
No.2-56UNC	GH2	SUUN2E2NEB	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	1
No.4-40UNC	GH1	SUUN4H1NEB	2P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	2	1
No.4-40UNC	GH2	SUUN4H2NEB	2P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	2	1
No.6-32UNC	GH1	SUUN6J1NEB	2P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	3	1
No.6-32UNC	GH2	SUUN6J2NEB	2P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	3	1
No.8-32UNC	GH1	SUUN8J1NEB	2P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	3	1
No.8-32UNC	GH2	SUUN8J2NEB	2P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	3	1
No.10-24UNC	GH2	SUUNAM2NEB	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-24UNC	GH3	SUUNAM3NEB	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-32UNF	GH2	SUUNAJ2NEB	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-32UNF	GH3	SUUNAJ3NEB	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
1/4-20UNC	GH2	SUU04N2NEB	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-20UNC	GH3	SUU04N3NEB	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-28UNF	GH2	SUU04K2NEB	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP STI Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
1/4-28UNF	GH3	SUU04K3NEB	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
5/16-18UNC	GH2	SUU0502NEB	2P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	3	2
5/16-18UNC	GH3	SUU0503NEB	2P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	3	2
5/16-24UNF	GH2	SUU05M2NEB	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	2
5/16-24UNF	GH3	SUU05M3NEB	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	2
3/8-16UNC	GH2	SUU06P2NEB	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3
3/8-16UNC	GH3	SUU06P3NEB	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3
3/8-24UNF	GH2	SUU06M2NEB	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	3
3/8-24UNF	GH3	SUU06M3NEB	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	3
7/16-14UNC	GH2	SUU07Q2NEB	2P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
7/16-14UNC	GH3	SUU07Q3NEB	2P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
7/16-20UNF	GH2	SUU07N2NEB	2P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
7/16-20UNF	GH3	SUU07N3NEB	2P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
1/2-13UNC	GH2	SUU08R2NEB	2P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
1/2-13UNC	GH3	SUU08R3NEB	2P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
1/2-20UNF	GH2	SUU08N2NEB	2P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
1/2-20UNF	GH3	SUU08N3NEB	2P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

SP OX STI



Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts, Oxided

Specification

HSS | OX Oxide



Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
5~10 (m/min)	5~10 (m/min)

■On parts made from comparatively soft materials, helical coil wire thread inserts are often used in order to strengthen internal screws and increase toughness. SP OX STI produces threads oversize enough to accommodate helical coil wire thread inserts.

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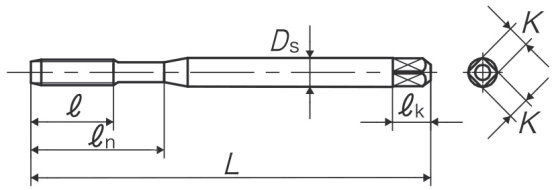

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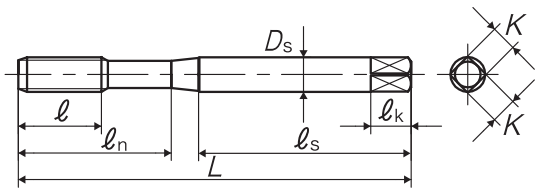

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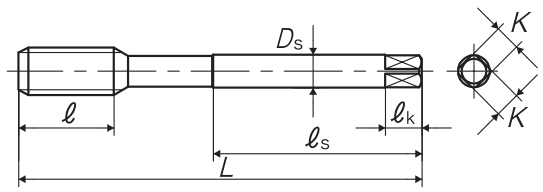

Segment : 1C

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
No.2-56UNC	GH1	SUUN2E1NEX	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	1
No.2-56UNC	GH2	SUUN2E2NEX	2P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	1
No.4-40UNC	GH1	SUUN4H1NEX	2P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	2	1
No.4-40UNC	GH2	SUUN4H2NEX	2P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	2	1
No.6-32UNC	GH1	SUUN6J1NEX	2P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	3	1
No.6-32UNC	GH2	SUUN6J2NEX	2P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	3	1
No.8-32UNC	GH1	SUUN8J1NEX	2P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	3	1
No.8-32UNC	GH2	SUUN8J2NEX	2P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	3	1
No.10-24UNC	GH2	SUUNAM2NEX	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-24UNC	GH3	SUUNAM3NEX	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-32UNF	GH2	SUUNAJ2NEX	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
No.10-32UNF	GH3	SUUNAJ3NEX	2P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
1/4-20UNC	GH2	SUU04N2NEX	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-20UNC	GH3	SUU04N3NEX	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-28UNF	GH2	SUU04K2NEX	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
1/4-28UNF	GH3	SUU04K3NEX	2P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	2
5/16-18UNC	GH2	SUU05O2NEX	2P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	3	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SP OX STI Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts, Oxided

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
5/16-18UNC	GH3	SUU05O3NEX	2P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	3	2
5/16-24UNF	GH2	SUU05M2NEX	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	2
5/16-24UNF	GH3	SUU05M3NEX	2P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	3	2
3/8-16UNC	GH2	SUU06P2NEX	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3
3/8-16UNC	GH3	SUU06P3NEX	2P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3
3/8-24UNF	GH2	SUU06M2NEX	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	3
3/8-24UNF	GH3	SUU06M3NEX	2P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	3
7/16-14UNC	GH2	SUU07Q2NEX	2P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
7/16-14UNC	GH3	SUU07Q3NEX	2P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
7/16-20UNF	GH2	SUU07N2NEX	2P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
7/16-20UNF	GH3	SUU07N3NEX	2P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
1/2-13UNC	GH2	SUU08R2NEX	2P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
1/2-13UNC	GH3	SUU08R3NEX	2P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
1/2-20UNF	GH2	SUU08N2NEX	2P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
1/2-20UNF	GH3	SUU08N3NEX	2P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ANSI

ZELX NI SP STI



Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts and for Nickel Base Alloys

Specification

HSS-P | NX Nitride+Oxide | Synchro nized

■ZELX NI SP STI is the tap for nickel base alloys which, with nickel as main composition, have much higher corrosion resistance and higher heat resistance than steels, and produces threads oversize enough to accommodate helical coil wire thread inserts.

Recommended Tapping Speed depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Stainless steels ステンレス鋼	Nickel base alloys ニッケル基合金
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~10 (m/min)

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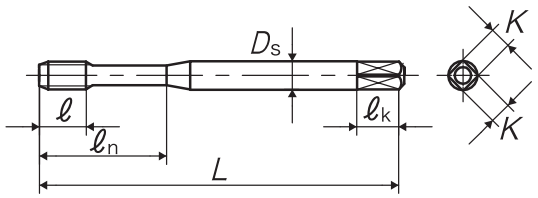

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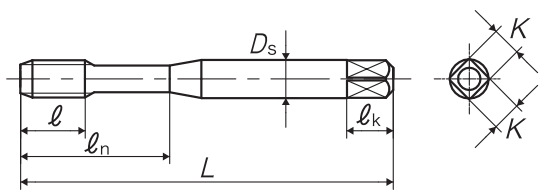

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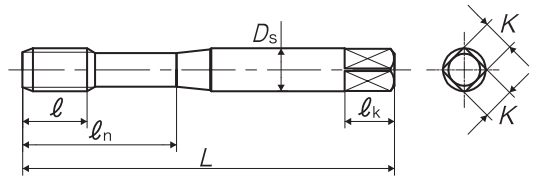

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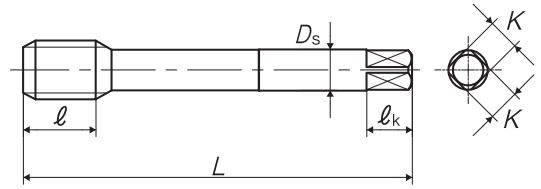

Segment : 1D

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads											
No.2-56UNC	GH2	Y87400	3P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.4-40UNC	GH1	Y87403	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.4-40UNC	GH2	Y87404	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.4-40UNC	GH2	Y87004	1.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.4-40UNC	GH3	Y87420	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.4-40UNC	GH3	Y87419	1.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH2	Y87408	3P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.6-32UNC	GH2	Y87008	1.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.6-32UNC	GH3	Y87424	3P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.6-32UNC	GH3	Y87425	1.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.6-32UNC	GH5	Y87042	1.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.6-40UNF	GH2	Y87409	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH1	Y81409	3P	2.375	0.354	0.937	0.22	0.165	0.281	3	1
No.8-32UNC	GH2	Y87410	3P	2.375	0.354	0.937	0.22	0.165	0.281	3	1
No.8-32UNC	GH2	Y87026	1.5P	2.375	0.354	0.937	0.22	0.165	0.281	3	1
No.8-32UNC	GH3	Y87426	3P	2.375	0.354	0.937	0.22	0.165	0.281	3	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX NI SP STI Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts and for Nickel Base Alloys

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
No.10-24UNC	GH2	Y87412	3P	2.5	0.433	1	0.255	0.191	0.312	3	2
No.10-24UNC	GH2	Y87012	1.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
No.10-24UNC	GH3	Y87428	3P	2.5	0.433	1	0.255	0.191	0.312	3	2
No.10-24UNC	GH3	Y87028	1.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
No.10-24UNC	GH5	Y87445	1.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
No.10-32UNF	GH2	Y87413	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
No.10-32UNF	GH3	Y87429	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
No.10-32UNF	GH3	Y87029	1.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
No.10-32UNF	GH5	Y87057	1.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH2	Y87448	3P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
1/4-20UNC	GH3	Y87458	3P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
1/4-20UNC	GH3	Y87058	1.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
1/4-20UNC	GH5	Y87090	1.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
1/4-28UNF	GH2	Y87449	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
1/4-28UNF	GH2	Y87059	1.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
1/4-28UNF	GH3	Y87459	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
1/4-28UNF	GH5	Y87091	1.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH2	Y87060	1.5P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
5/16-18UNC	GH3	Y87460	3P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
5/16-18UNC	GH4	Y87470	3P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
5/16-24UNF	GH2	Y87451	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
5/16-24UNF	GH3	Y87461	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
5/16-24UNF	GH3	Y87061	1.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH3	Y87462	3P	3.375	0.63	-	0.367	0.275	0.437	3	4
3/8-16UNC	GH3	Y87062	1.5P	3.375	0.63	-	0.367	0.275	0.437	3	4
3/8-16UNC	GH4	Y87472	3P	3.375	0.63	-	0.367	0.275	0.437	3	4
3/8-24UNF	GH2	Y87453	3P	3.156	0.472	-	0.323	0.242	0.406	3	4
3/8-24UNF	GH2	Y87063	1.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
3/8-24UNF	GH3	Y87463	3P	3.156	0.472	-	0.323	0.242	0.406	3	4
3/8-24UNF	GH5	Y87085	1.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH3	Y87464	3P	3.593	0.709	-	0.429	0.322	0.5	3	4
7/16-20UNF	GH3	Y87465	3P	3.375	0.472	-	0.367	0.275	0.437	3	4
7/16-20UNF	GH3	Y87065	1.5P	3.375	0.472	-	0.367	0.275	0.437	3	4
7/16-20UNF	GH4	Y87475	3P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH3	Y87466	3P	3.812	0.748	-	0.48	0.36	0.562	3	4
1/2-13UNC	GH3	Y87066	1.5P	3.812	0.748	-	0.48	0.36	0.562	3	4
1/2-13UNC	GH5	Y87088	1.5P	3.812	0.748	-	0.48	0.36	0.562	3	4
1/2-20UNF	GH3	Y87467	3P	3.593	0.512	-	0.429	0.322	0.5	3	4
1/2-20UNF	GH3	Y87067	1.5P	3.593	0.512	-	0.429	0.322	0.5	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

AL-PO STI



Spiral Pointed Taps for Aluminum Materials (for Helical Coil Wire Screw Thread Inserts)

Specification

HSS



■This is made of a comparatively soft material, such as aluminum, and taps an internal thread for accommodating a helical coil wire screw thread insert, in order to reinforce the internal thread and increase durability.

Recommended Tapping Speeds depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Bronze 青銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

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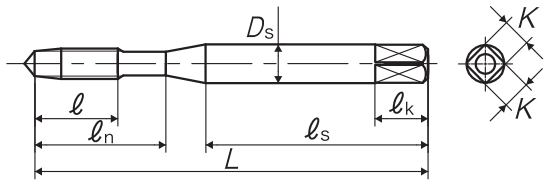

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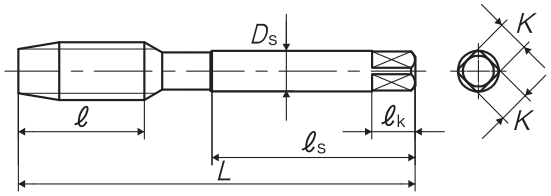


Segment : 1E

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M3 × 0.5	Ib	PW3.0G1LEB	5P	3.650	52	7.5	17	29	5	4	7	3	1	¥ 2,450 ※
M4 × 0.7	Ib	PW4.0I1LEB	5P	4.909	60	13	22	33	5.5	4.5	7	3	1	¥ 2,330 ※
M5 × 0.8	Ib	PW5.0K1LEB	5P	6.039	62	15	26	33	6	4.5	7	3	1	¥ 2,230 ※
M6 × 1	Ib	PW6.0M1LEB	5P	7.299	70	19	-	36	6.2	5	8	3	2	¥ 2,280 ※
M8 × 1.25	Ib	PW8.0N1LEB	5P	9.624	75	23	-	38	7	5.5	8	3	2	¥ 3,200 ※
M10 × 1.5	Ib	PW010O1LEB	5P	11.948	82	26	-	42	8.5	6.5	9	3	2	¥ 4,300 ※
M12 × 1.75	Ib	PW012P1LEB	5P	14.273	95	26	-	48	12.5	10	13	3	2	¥ 5,910 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

PO STI



Spiral Pointed Taps for Helical Coil Wire Screw Thread Inserts

Specification

HSS

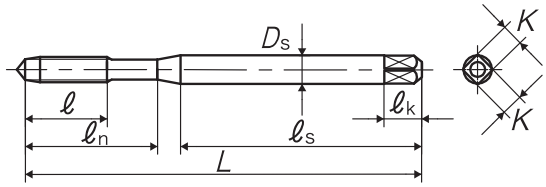


■Spiral pointed tap to cut internal threads for helical coil to enter.

Recommended Tapping Speed depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Bronze 青銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

TYPE : 1



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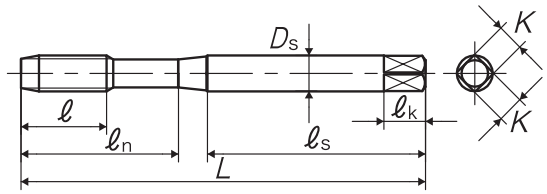

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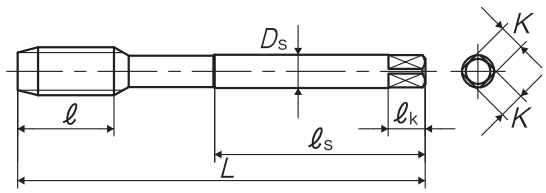

Segment : 1E

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
No.2-56UNC	GH1	PUUN2E1NEB	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	1
No.2-56UNC	GH2	PUUN2E2NEB	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	1
No.4-40UNC	GH1	PUUN4H1NEB	5P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	2	1
No.4-40UNC	GH2	PUUN4H2NEB	5P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	2	1
No.6-32UNC	GH1	PUUN6J1NEB	5P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	2	1
No.6-32UNC	GH2	PUUN6J2NEB	5P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	2	1
No.8-32UNC	GH1	PUUN8J1NEB	5P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	2	1
No.8-32UNC	GH2	PUUN8J2NEB	5P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	2	1
No.10-24UNC	GH2	PUUNAM2NEB	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	2	1
No.10-24UNC	GH3	PUUNAM3NEB	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	2	1
No.10-32UNF	GH2	PUUNAJ2NEB	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	2	1
No.10-32UNF	GH3	PUUNAJ3NEB	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	2	1
1/4-20UNC	GH2	PUU04N2NEB	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	2	2
1/4-20UNC	GH3	PUU04N3NEB	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	2	2
1/4-28UNF	GH2	PUU04K2NEB	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	2	2
1/4-28UNF	GH3	PUU04K3NEB	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	2	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
5/16-18UNC	GH2	PUU0502NEB	5P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	2	2
5/16-18UNC	GH3	PUU0503NEB	5P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	2	2
5/16-24UNF	GH2	PUU05M2NEB	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	2	2
5/16-24UNF	GH3	PUU05M3NEB	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	2	2
3/8-16UNC	GH3	PUU06P3NEB	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3
3/8-16UNC	GH4	PUU06P4NEB	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3
3/8-24UNF	GH2	PUU06M2NEB	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	3
3/8-24UNF	GH3	PUU06M3NEB	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	3
7/16-14UNC	GH3	PUU07Q3NEB	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
7/16-14UNC	GH4	PUU07Q4NEB	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
7/16-20UNF	GH3	PUU07N3NEB	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
7/16-20UNF	GH4	PUU07N4NEB	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
1/2-13UNC	GH3	PUU08R3NEB	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
1/2-13UNC	GH4	PUU08R4NEB	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
1/2-20UNF	GH3	PUU08N3NEB	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
1/2-20UNF	GH4	PUU08N4NEB	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

ANSI

PO OX STI



Spiral Pointed Taps for Helical Coil Wire Screw Thread Inserts, Oxidized

Specification

HSS | OX Oxide



■Spiral pointed tap to cut internal threads for helical coil to enter.

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
5~10 (m/min)	5~10 (m/min)

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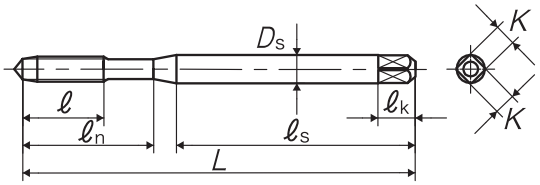

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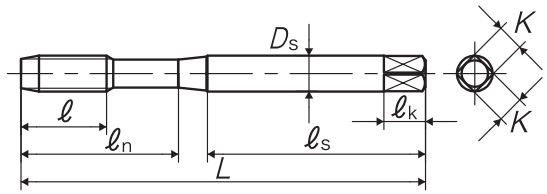

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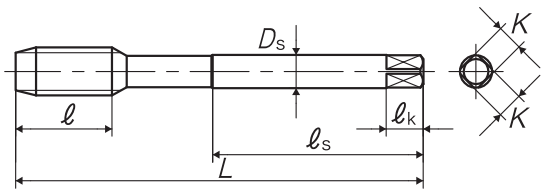

Segment : 1E

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads												
No.2-56UNC	GH1	PUUN2E1NEX	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	1
No.2-56UNC	GH2	PUUN2E2NEX	5P	2.205	0.354	0.709	1.28	0.141	0.11	0.187	2	1
No.4-40UNC	GH1	PUUN4H1NEX	5P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	2	1
No.4-40UNC	GH2	PUUN4H2NEX	5P	2.48	0.512	0.827	1.496	0.168	0.131	0.25	2	1
No.6-32UNC	GH1	PUUN6J1NEX	5P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	2	1
No.6-32UNC	GH2	PUUN6J2NEX	5P	2.756	0.551	0.945	1.654	0.194	0.131	0.25	2	1
No.8-32UNC	GH1	PUUN8J1NEX	5P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	2	1
No.8-32UNC	GH2	PUUN8J2NEX	5P	3.15	0.591	0.984	1.929	0.22	0.165	0.281	2	1
No.10-24UNC	GH2	PUUNAM2NEX	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	2	1
No.10-24UNC	GH3	PUUNAM3NEX	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	2	1
No.10-32UNF	GH2	PUUNAJ2NEX	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	2	1
No.10-32UNF	GH3	PUUNAJ3NEX	5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	2	1
1/4-20UNC	GH2	PUU04N2NEX	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	2	2
1/4-20UNC	GH3	PUU04N3NEX	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	2	2
1/4-28UNF	GH2	PUU04K2NEX	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	2	2
1/4-28UNF	GH3	PUU04K3NEX	5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	2	2
5/16-18UNC	GH2	PUU0502NEX	5P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	2	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
5/16-18UNC	GH3	PUU05O3NEX	5P	3.937	0.906	1.535	2.067	0.381	0.286	0.437	2	2
5/16-24UNF	GH2	PUU05M2NEX	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	2	2
5/16-24UNF	GH3	PUU05M3NEX	5P	3.937	0.906	1.535	2.028	0.381	0.286	0.437	2	2
3/8-16UNC	GH3	PUU06P3NEX	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3
3/8-16UNC	GH4	PUU06P4NEX	5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3
3/8-24UNF	GH2	PUU06M2NEX	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	3
3/8-24UNF	GH3	PUU06M3NEX	5P	3.937	0.906	-	2.008	0.323	0.242	0.406	3	3
7/16-14UNC	GH3	PUU07Q3NEX	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
7/16-14UNC	GH4	PUU07Q4NEX	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
7/16-20UNF	GH3	PUU07N3NEX	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
7/16-20UNF	GH4	PUU07N4NEX	5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
1/2-13UNC	GH3	PUU08R3NEX	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
1/2-13UNC	GH4	PUU08R4NEX	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
1/2-20UNF	GH3	PUU08N3NEX	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
1/2-20UNF	GH4	PUU08N4NEX	5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

ZELX NI PO STI



Spiral Pointed Taps for Helical Coil Wire Screw Thread Inserts and for Nickel Base Alloys

Specification

HSS-P | NX Nitride+Oxide | Synchro nized

Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Nickel base alloys ニッケル基合金
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

■ZELX NI PO STI is the spiral pointed tap for nickel base alloys which, with nickel as main composition, have much higher corrosion resistance and much higher heat resistance than steels, and produces threads oversize enough to accommodate helical coil wire thread inserts.

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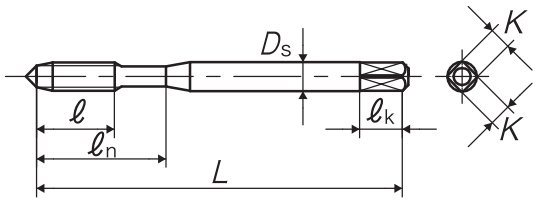

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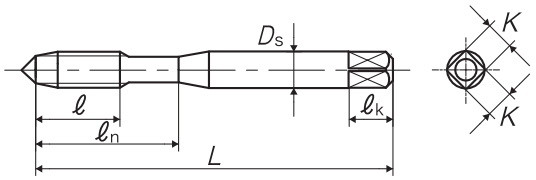

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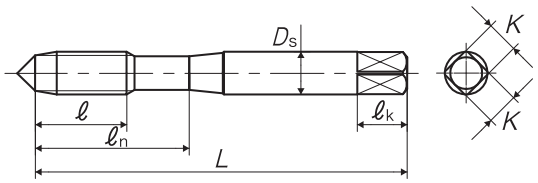

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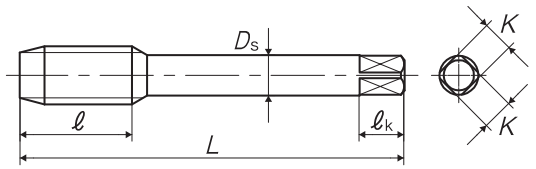

Segment : 1E

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads											
No.2-56UNC	GH2	Y87200	4.5P	1.875	0.335	0.562	0.141	0.11	0.187	2	1
No.4-40UNC	GH1	Y87203	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.4-40UNC	GH2	Y87204	4.5P	2	0.413	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH2	Y87208	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.6-32UNC	GH3	Y87224	4.5P	2.375	0.531	0.875	0.194	0.152	0.25	3	1
No.6-40UNF	GH2	Y87209	4.5P	2.125	0.453	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH2	Y87210	4.5P	2.375	0.571	0.937	0.22	0.165	0.281	3	1
No.8-32UNC	GH3	Y87226	4.5P	2.375	0.571	0.937	0.22	0.165	0.281	3	1
No.10-24UNC	GH2	Y87212	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
No.10-24UNC	GH3	Y87228	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
No.10-32UNF	GH2	Y87213	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
No.10-32UNF	GH3	Y87229	4.5P	2.5	0.591	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH2	Y87248	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
1/4-20UNC	GH3	Y87258	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
1/4-28UNF	GH2	Y87249	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
1/4-28UNF	GH3	Y87259	4.5P	2.718	0.669	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH3	Y87260	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
5/16-18UNC	GH4	Y87272	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
5/16-24UNF	GH2	Y87251	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
5/16-24UNF	GH3	Y87261	4.5P	2.937	0.748	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH3	Y87262	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
3/8-16UNC	GH4	Y87270	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
3/8-24UNF	GH2	Y87253	4.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
3/8-24UNF	GH3	Y87263	4.5P	3.156	0.866	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH3	Y87264	4.5P	3.593	0.984	-	0.429	0.322	0.5	3	4
7/16-20UNF	GH3	Y87265	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
7/16-20UNF	GH4	Y87275	4.5P	3.375	0.984	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH3	Y87266	4.5P	3.812	1.083	-	0.48	0.36	0.562	3	4
1/2-20UNF	GH3	Y87267	4.5P	3.593	0.984	-	0.429	0.322	0.5	3	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

N-RS STI



Roll Taps for Nonferrous Materials (for Helical Coil Wire Screw Thread Inserts)

Specification

HSS | NI Nitride

■The roll tap is used to cut a comparatively soft material, such as aluminum, and taps an internal thread for accommodating a helical coil wire screw thread insert, in order to reinforce the internal thread and increase durability.

Recommended Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

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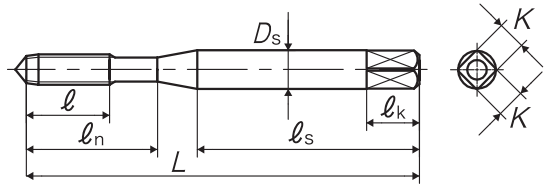

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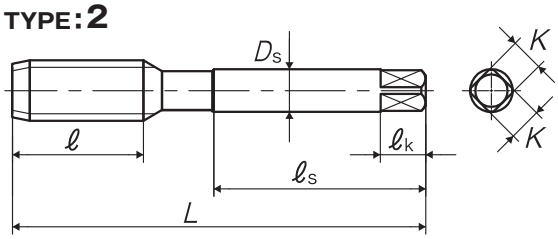


: Recommended class

Segment : 1J

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE	MSRP
For Metric Threads														
M3 × 0.5	G3	RW3.0G3LENP	4P	3.650	52	7.5	17	29	5	4	7	4	1	¥ 3,050 ※
M3 × 0.5	G3	RW3.0G3LENB	2P	3.650	52	7.5	17	29	5	4	7	4	1	¥ 3,050 ※
M4 × 0.7	G4	RW4.0I4LENP	4P	4.909	60	13	22	33	5.5	4.5	7	4	1	¥ 2,930 ※
M4 × 0.7	G4	RW4.0I4LENB	2P	4.909	60	13	22	33	5.5	4.5	7	4	1	¥ 2,930 ※
M5 × 0.8	G4	RW5.0K4LENP	4P	6.039	62	15	26	33	6	4.5	7	4	1	¥ 2,790 ※
M5 × 0.8	G4	RW5.0K4LENB	2P	6.039	62	15	26	33	6	4.5	7	4	1	¥ 2,790 ※
M6 × 1	G4	RW6.0M4LENP	4P	7.299	70	19	-	36	6.2	5	8	4	2	¥ 2,870 ※
M6 × 1	G4	RW6.0M4LENB	2P	7.299	70	19	-	36	6.2	5	8	4	2	¥ 2,870 ※
M8 × 1.25	G4	RW8.0N4LENP	4P	9.624	75	23	-	38	7	5.5	8	6	2	¥ 4,020 ※
M8 × 1.25	G4	RW8.0N4LENB	2P	9.624	75	23	-	38	7	5.5	8	6	2	¥ 4,020 ※
M10 × 1.5	G5	RW010O5LENP	4P	11.948	82	26	-	42	8.5	6.5	9	6	2	¥ 5,380 ※
M10 × 1.5	G5	RW010O5LENB	2P	11.948	82	26	-	42	8.5	6.5	9	6	2	¥ 5,380 ※
M10 × 1.25	G5	RW010N5LENP	4P	11.624	82	26	-	42	8.5	6.5	9	6	2	¥ 5,380 ※
M10 × 1.25	G5	RW010N5LENB	2P	11.624	82	26	-	42	8.5	6.5	9	6	2	¥ 5,380 ※
M12 × 1.75	G6	RW012P6LENP	4P	14.273	95	26	-	48	12.5	10	13	6	2	¥ 7,420 ※
M12 × 1.75	G6	RW012P6LENB	2P	14.273	95	26	-	48	12.5	10	13	6	2	¥ 7,420 ※
M12 × 1.5	G6	RW012O6LENP	4P	13.948	88	26	-	45	10.5	8	11	6	2	¥ 7,420 ※
M12 × 1.5	G6	RW012O6LENB	2P	13.948	88	26	-	45	10.5	8	11	6	2	¥ 7,420 ※
M12 × 1.25	G6	RW012N6LENP	4P	13.624	88	26	-	45	10.5	8	11	6	2	¥ 7,420 ※
M12 × 1.25	G6	RW012N6LENB	2P	13.624	88	26	-	45	10.5	8	11	6	2	¥ 7,420 ※

No. of oil grooves: STI metric thread: 1
For M6 or less, the chamfer-2P convex center is removed.

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	Ds	K	ℓk

JIS

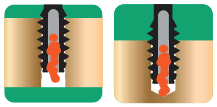
N-CT LA STI



Carbide Hand Taps for Light Alloys (for Helical Coil Wire Screw Thread Inserts)

Specification

HF

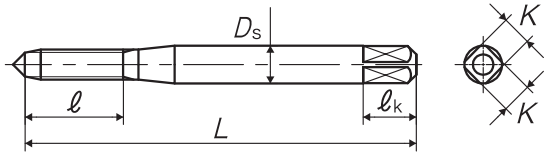


■The carbide tap is used to cut a comparatively soft material, such as aluminum, and create an internal thread for accommodating a helical coil wire screw thread insert, in order to reinforce the internal thread and increase durability.

Recommended Tapping Speeds depending on Materials

Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)

TYPE:1



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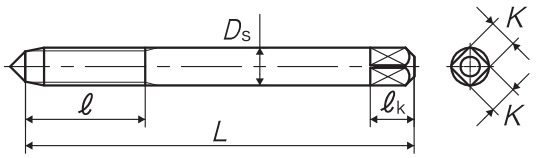

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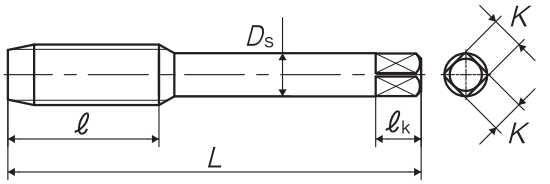


Segment : 1L

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	Ib	TW3.0G1LWB5	5P	3.650	52	13	-	5	4	7	3	1	¥ 19,700 ※
M3 × 0.5	Ib	TW3.0G1LWBA	1.5P	3.650	52	13	-	5	4	7	3	1	¥ 19,700 ※
M4 × 0.7	Ib	TW4.0I1LWB5	5P	4.909	60	16	-	5.5	4.5	7	3	1	¥ 20,700 ※
M4 × 0.7	Ib	TW4.0I1LWBA	1.5P	4.909	60	16	-	5.5	4.5	7	3	1	¥ 20,700 ※
M5 × 0.8	Ib	TW5.0K1LWB5	5P	6.039	62	19	-	6	4.5	7	3	2	¥ 21,600 ※
M5 × 0.8	Ib	TW5.0K1LWBA	1.5P	6.039	62	19	-	6	4.5	7	3	2	¥ 21,600 ※
M6 × 1	Ib	TW6.0M1LWB5	5P	7.299	65	19	-	6.2	5	8	4	3	¥ 23,600 ※
M6 × 1	Ib	TW6.0M1LWBA	1.5P	7.299	65	19	-	6.2	5	8	4	3	¥ 23,600 ※
M8 × 1.25	Ib	TW8.0N1LWB5	5P	9.624	75	24	-	7	5.5	8	4	3	¥ 30,300 ※
M8 × 1.25	Ib	TW8.0N1LWBA	1.5P	9.624	75	24	-	7	5.5	8	4	3	¥ 30,300 ※
M10 × 1.5	Ib	TW01001LWB5	5P	11.948	82	30	-	8.5	6.5	9	4	3	¥ 42,100 ※
M10 × 1.5	Ib	TW01001LWBA	1.5P	11.948	82	30	-	8.5	6.5	9	4	3	¥ 42,100 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

NT

Nut Taps



Specification

HSS



■A tap mainly used for tapping nuts with a tapping machine.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
5~10 (m/min)	5~10 (m/min)

Segment : 1l

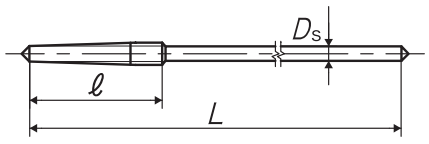
Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads											
M2 × 0.4	Ⅱb	NH22.0E	25P	75	14	1.4	-	-	3	1	¥ 7,930 ※
M2.3 × 0.4	Ⅱb	NH22.3E	25P	80	14	1.7	-	-	3	1	¥ 7,930 ※
M2.5 × 0.45	Ⅱb	NH22.5F	24P	85	15	2	-	-	3	1	¥ 7,250 ※
M2.6 × 0.45	Ⅱb	NH22.6F	24P	85	15	2	-	-	3	1	¥ 7,250 ※
M3 × 0.5	Ⅱb	NH23.0G	30P	90	20	2.1	-	-	3	1	¥ 5,850
3M0.6	Ⅱb	NH23.0H	25P	90	20	2.1	-	-	3	1	¥ 5,850 ※
M3.5 × 0.6	Ⅱb	NH23.5H	25P	95	20	2.6	-	-	3	1	¥ 6,150 ※
M4 × 0.7	Ⅱb	NH24.0I	27P	100	25	2.8	-	-	3	1	¥ 5,210
4M0.75	Ⅱb	NH24.0J	25P	100	25	2.8	-	-	3	1	¥ 5,210 ※
M4.5 × 0.75	Ⅱb	NH24.5J	25P	105	25	3.3	2.5	5	3	2	¥ 8,790 ※
M5 × 0.8	Ⅱb	NH25.0K	28P	110	30	3.6	2.8	6	3	2	¥ 4,880
5M0.9	Ⅱb	NH25.0L	24P	110	30	3.6	2.8	6	3	2	¥ 4,880 ※
M5.5 × 0.9	Ⅱb	NH25.5L	24P	115	30	4.1	3.2	6	3	2	¥ 9,140 ※
M6 × 1	Ⅱb	NH26.0M	26P	120	35	4.5	3.5	6	3	2	¥ 4,920
M6 × 0.75	Ⅱ	NH26.0J	24P	115	30	4.5	3.5	6	3	2	¥ 6,960 ※
M7 × 1	Ⅱb	NH27.0M	26P	130	35	5.5	4.5	7	3	3	¥ 5,180 ※
M8 × 1.25	Ⅱb	NH28.0N	24P	140	40	6.2	5	8	3	3	¥ 5,310
M8 × 1	Ⅱ	NH28.0M	25P	130	40	6.2	5	8	3	3	¥ 7,420 ※
M8 × 0.75	Ⅱ	NH28.0J	24P	120	30	6.2	5	8	3	3	¥ 8,340 ※
M9 × 1.25	Ⅱb	NH29.0N	27P	150	45	7.2	5.5	8	3	3	¥ 6,840 ※
M9 × 1	Ⅱ	NH29.0M	25P	140	40	7.2	5.5	8	3	3	¥ 7,810 ※
M10 × 1.5	Ⅱb	NH2010O	25P	160	50	7.8	6	9	3	3	¥ 6,790
M10 × 1.25	Ⅱ	NH2010N	24P	150	45	7.8	6	9	3	3	¥ 6,790 ※
M10 × 1	Ⅱ	NH2010M	25P	140	40	7.8	6	9	3	3	¥ 9,720 ※
M12 × 1.75	Ⅱb	NH2012P	26P	170	60	9	7	10	3	3	¥ 10,000
M12 × 1.5	Ⅱ	NH2012O	25P	160	55	9	7	10	3	3	¥ 10,000 ※
M12 × 1.25	Ⅱ	NH2012N	24P	160	45	9	7	10	3	3	¥ 10,000 ※
M12 × 1	Ⅱ	NH2012M	25P	150	40	9	7	10	3	3	¥ 13,800 ※
M14 × 2	Ⅱb	NH2014Q	25P	190	65	11	9	12	3	3	¥ 13,600 ※
M14 × 1.5	Ⅱ	NH2014O	25P	170	55	11	9	12	3	3	¥ 13,600 ※
M14 × 1.25	Ⅱ	NH2014N	24P	170	50	11	9	12	3	3	¥ 17,100 ※
M14 × 1	Ⅱ	NH2014M	25P	160	40	11	9	12	3	3	¥ 17,100 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

TYPE: 1



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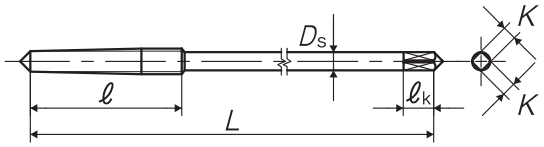

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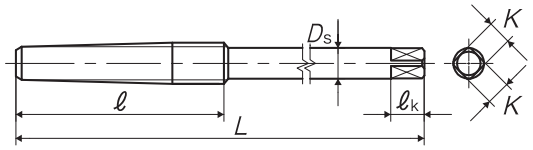


Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M16 × 2	II b	NH2016Q	26P	200	70	13	10	13	3	3	¥ 17,100
M16 × 1.5	II	NH2016O	25P	180	55	13	10	13	3	3	¥ 17,100 ※
M16 × 1	II	NH2016M	25P	170	40	13	10	13	3	3	¥ 24,100 ※
M18 × 2.5	II b	NH2018R	24P	220	80	14	11	14	3	3	¥ 24,100 ※
M18 × 2	II	NH2018Q	25P	210	75	14	11	14	3	3	¥ 24,100 ※
M18 × 1.5	II	NH2018O	25P	190	55	14	11	14	3	3	¥ 24,100 ※
M18 × 1	II	NH2018M	25P	180	45	14	11	14	3	3	¥ 30,600 ※
M20 × 2.5	II b	NH2020R	26P	230	85	16	12	15	3	3	¥ 32,600 ※
M20 × 2	II	NH2020Q	25P	220	75	16	12	15	3	3	¥ 32,600 ※
M20 × 1.5	II	NH2020O	25P	200	60	16	12	15	3	3	¥ 32,600 ※
M20 × 1	II	NH2020M	25P	190	45	16	12	15	3	3	¥ 43,300 ※
M22 × 2.5	II b	NH2022R	27P	250	90	18	14	17	3	3	¥ 40,800 ※
M22 × 1.5	II	NH2022O	25P	210	60	18	14	17	3	3	¥ 40,800 ※
M24 × 3	II b	NH2024S	25P	260	100	19	15	18	3	3	¥ 50,300 ※
M24 × 2	II	NH2024Q	25P	240	75	19	15	18	3	3	¥ 50,300 ※
M24 × 1.5	II	NH2024O	25P	220	60	19	15	18	3	3	¥ 50,300 ※
M25 × 2	II	NH2025Q	25P	240	75	20	15	18	3	3	¥ 63,300 ※
M25 × 1.5	II	NH2025O	25P	220	60	20	15	18	3	3	¥ 63,300 ※
M26 × 1.5	II	NH2026O	25P	230	60	20	15	18	3	3	¥ 63,300 ※
M27 × 3	II b	NH2027S	27P	280	110	22	17	20	4	3	¥ 67,700 ※
M27 × 2	II	NH2027Q	25P	250	75	22	17	20	4	3	¥ 67,700 ※
M27 × 1.5	II	NH2027O	25P	230	60	22	17	20	4	3	¥ 67,700 ※
M28 × 1.5	II	NH2028O	25P	240	60	22	17	20	4	3	¥ 80,100 ※
M30 × 3.5	II b	NH2030T	26P	300	120	24	19	22	4	3	¥ 88,400 ※
M30 × 2	II	NH2030Q	25P	260	75	24	19	22	4	3	¥ 88,400 ※
M30 × 1.5	II	NH2030O	25P	240	60	24	19	22	4	3	¥ 88,400 ※
M33 × 3.5	II b	NH2033T	26P	310	120	25	19	22	4	3	¥ 93,500 ※
M36 × 4	II b	NH2036U	26P	330	140	28	21	24	4	3	¥110,000 ※
M39 × 4	II b	NH2039U	26P	340	140	30	23	26	4	3	¥126,000 ※
M42 × 4.5	II b	NH2042V	25P	360	150	32	26	30	4	3	¥156,000 ※
For Whitworth Threads											
1/8W40	II b	NH2W02H	28P	95	25	2.2	-	-	3	1	¥ 6,400 ※
3/16W24	II b	NH2W03M	25P	110	35	3.2	2.5	5	3	2	¥ 5,260 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

NT Nut Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
1/4W20	Ⅱb	NH2W04N	24P	125	42	4.5	3.5	6	3	2	¥ 4,980 ※
5/16W18	Ⅱb	NH2W05O	27P	140	50	5.9	4.5	7	3	3	¥ 5,380 ※
3/8W16	Ⅱb	NH2W06P	26P	155	55	7.3	5.5	8	3	3	¥ 6,940 ※
7/16W14	Ⅱb	NH2W07Q	25P	165	60	8.5	6.5	9	3	3	¥ 9,540 ※
1/2W12	Ⅱb	NH2W08S	23P	180	65	9.5	7	10	3	3	¥ 12,100 ※
9/16W12	Ⅱb	NH2W09S	25P	190	70	11	9	12	3	3	¥ 17,300 ※
5/8W11	Ⅱb	NH2W10U	24P	200	75	12.5	10	13	3	3	¥ 18,000 ※
3/4W10	Ⅱb	NH2W12V	25P	230	85	15	12	15	3	3	¥ 27,400 ※
7/8W9	Ⅱb	NH2W14W	25P	250	95	18	14	17	3	3	¥ 41,100 ※
1 W8	Ⅱb	NH2W16X	25P	270	105	20.5	17	20	3	3	¥ 60,800 ※
1 1/8W7	Ⅱb	NH2W18Y	25P	290	120	23	17	20	4	3	¥ 80,900 ※
1 1/4W7	Ⅱb	NH2W20Y	26P	300	125	26	21	24	4	3	¥126,000 ※
1 3/8W6	Ⅱb	NH2W22Z	24P	320	135	28	21	24	4	3	¥150,000 ※
1 1/2W6	Ⅱb	NH2W24Z	25P	330	140	31	23	26	4	3	¥209,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

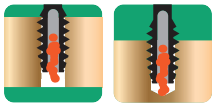
HT TRI

Hand Taps for Tripod Threads



Specification

HSS

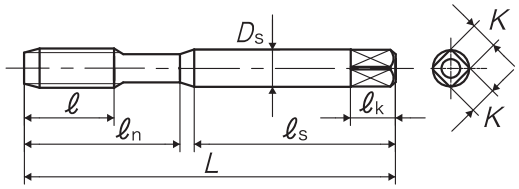


■Hand Tap for camera tripod threads. Its thread size is oversized.

Recommended Tapping Speeds depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)

TYPE : 1



Segment : 1A

Size	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Tripod Threads												
1/4-20	TYU04N0KEB3	3P	62	15	26	33	6	4.5	7	3	1	¥ 1,480 ※
1/4-20	TYU04N0KEBA	1.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,480 ※

Specifications of threads for mounting a camera on a tripod as shown in the picture on the right.
The tripod thread is larger by about 0.14 mm than the unified thread in terms of the pitch diameter tolerance of internal threads, while their thread shapes are the same.



■Comparison between tripod thread and unified thread unit: mm

Size	Pitch (P)		Minor Diameter (D)	Pitch Diameter (D_2)	Minor Diameter (D_1)
Tripod thread 1/4-20	1.270	Basic size	6.350	5.525	4.975
		Maximum allowable size	~	5.820	5.267
		Minimum allowable size	6.460	5.635	4.975
Unified thread 2B 1/4-20UNC	1.270	Basic size	6.350	5.524	4.976
		Maximum allowable size	~	5.648	5.257
		Minimum allowable size	~	5.525	4.979

■ For Tripod Threads

unit: mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
1/4 - 20	-	6.350	5.525	230	210	4.975

■ Bored hole size

unit: mm

Size	Minor diameter of internal thread (D_1)		Bored hole size (reference)
	Max.	Min.	
1/4 - 20	5.267	4.975	5.19

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

SP TRI



Spiral Fluted Taps for Tripod Threads

Specification

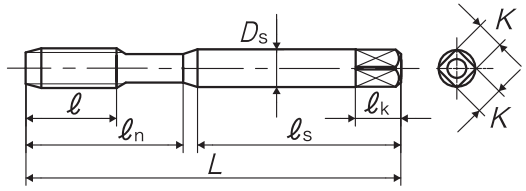
HSS

■Spiral Fluted Tap for camera tripod threads. Its thread size is oversized.

Recommended Tapping Speeds depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物	Aluminum alloy castings アルミ合金鋳物	Magnesium alloy die castings マグネシウム合金鋳物	Zinc alloy castings 亜鉛合金鋳物
~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)

TYPE : 1



Segment : 1C

Size	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Tripod Threads												
1/4-20	SYU04N0KEB	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 1,680 ※

Specifications of threads for mounting a camera on a tripod as shown in the picture on the right.
The tripod thread is larger by about 0.14 mm than the unified thread in terms of the accuracy of its pitch diameter of internal threads, while their thread shapes are the same.



■Comparison between tripod thread and unified thread

unit: mm

Size	Pitch (P)		Minor Diameter (D)	Pitch Diameter (D_2)	Minor Diameter (D_1)
Tripod thread 1/4-20	1.270	Basic size	6.350	5.525	4.975
		Maximum allowable size	~	5.820	5.267
		Minimum allowable size	6.460	5.635	4.975
Unified thread 2B 1/4-20UNC	1.270	Basic size	6.350	5.524	4.976
		Maximum allowable size	~	5.648	5.257
		Minimum allowable size	~	5.525	4.979

■ For Tripod Threads

unit: mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
1/4 - 20	-	6.350	5.525	230	210	4.975

■ Bored hole size

unit: mm

Size	Minor diameter of internal thread (D_1)		Bored hole size (reference)
	Max.	Min.	
1/4 - 20	5.267	4.975	5.19

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

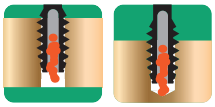
RLS-HT



Hand Taps for Camera Release Threads

Specification

HSS

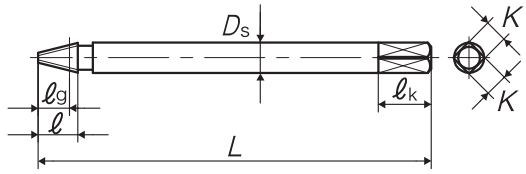


■Tap for the screws for installing camera release.

Recommended Tapping Speeds depending on Materials

Brass 黄銅	Brass castings 黄銅鋳物
~1 (m/min)	~1 (m/min)

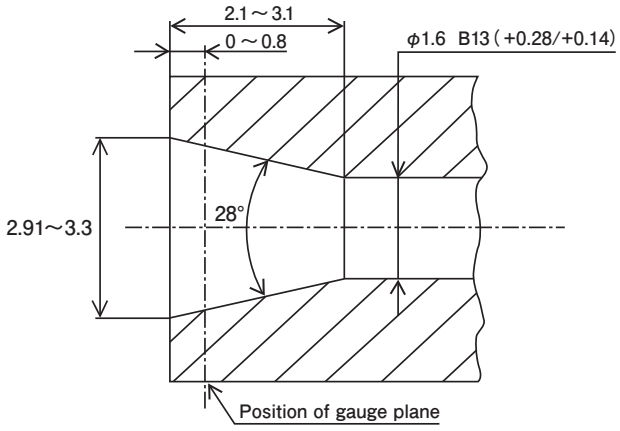
TYPE : 1



Segment : 1A

Size	Code	Chamfer	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Camera Release Threads											
3.4 × 0.5 × 28°	TY3.4G0LEB	-	52	5.25	4.15	4	3	7	3	1	¥ 8,540 ※

■ Bored hole size



※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT TV



Hand Taps for Automobile Tire Valve Threads

Specification

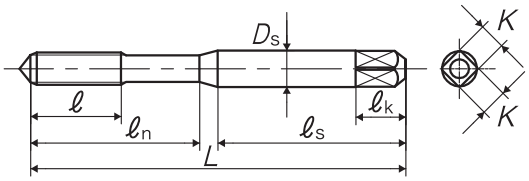
HSS

■Tap for automobile tire valve threads.

Recommended Tapping Speeds depending on Materials

Brass 黄銅 ~10 (m/min)

TYPE:1



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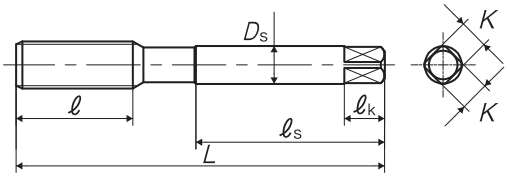

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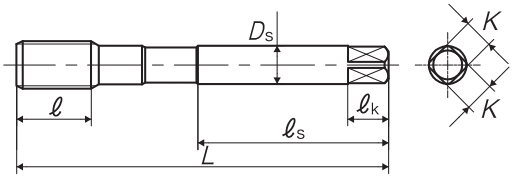

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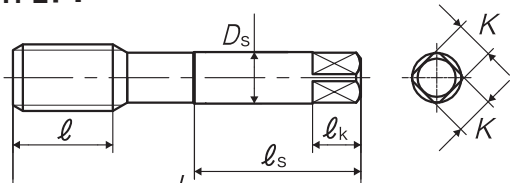
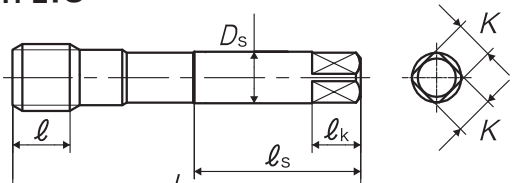


TYPE:5



Segment : 1A

Size	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Tire Valve Threads													
5V1	TY05V1RLEBA	1.5P	5.334	62	15	26	33	6	4.5	7	3	1	¥ 2,110 □
8V1	TY08V1SLEBA	1.5P	7.798	70	19	-	36	6.2	5	8	3	2	¥ 2,800 □
8V2	TY08V2QLEBA	1.5P	7.938	70	19	-	36	6.2	5	8	3	2	¥ 2,800 □
9V1	TY09V1QLEBA	1.5P	9.525	75	23	-	38	7	5.5	8	4	2	¥ 3,200 □
10V1	TY10V1QLEBA	1.5P	9.800	75	23	-	38	7	5.5	8	4	2	¥ 3,200 □
10V2	TY10V2RLEBA	1.5P	10.414	82	26	-	42	8.5	6.5	9	4	2	¥ 4,720 □
11V1	TY11V1RLEBA	1.5P	11.113	82	26	-	42	8.5	6.5	9	4	2	¥ 4,720 □
12V1	TY12V1RLEBA	1.5P	12.319	88	26	-	45	10.5	8	11	4	2	¥ 5,670 □
13V1	TY13V1RLEBA	1.5P	12.700	88	26	-	45	10.5	8	11	4	2	¥ 5,670 □

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
13V2	TY13V2QLEBA	1.5P	12.700	88	26	-	45	10.5	8	11	4	2	¥ 5,670 □
15V1	TY15V1QLEBA	1.5P	15.137	95	26	-	48	12.5	10	13	4	2	¥ 8,200 □
16V1	TY16V1RLEBA	1.5P	15.875	95	26	-	48	12.5	10	13	4	2	¥ 8,200 □
17V1	TY17V1QLEBA	1.5P	17.137	100	18	-	51	14	11	14	4	3	¥ 9,800 □
17V2	TY17V2RLEBA	1.5P	17.463	100	18	-	51	14	11	14	4	3	¥ 9,800 □
17V3	TY17V3RLEBA	1.5P	17.463	100	33	-	51	14	11	14	4	2	¥ 9,800 □
19V1	TY19V1RLEBA	1.5P	19.050	105	33	-	50	15	12	15	4	4	¥ 13,200 □
20V1	TY20V1QLEBA	1.5P	20.642	115	19	-	55	17	13	16	4	5	¥ 20,600 □

For Tire Valve Threads

unit: mm

Size	Pitch Diameter	Minor Diameter
	Basic Size	Basic Size
5 V 1	4.869	4.597
8 V 1	7.284	7.036
8 V 2	7.250	6.782
9 V 1	9.010	8.661
10 V 1	9.380	8.750
10 V 2	9.815	9.350
11 V 1	10.287	9.729
12 V 1	11.669	11.176
13 V 1	11.875	11.328
13 V 2	12.185	11.837
15 V 1	14.380	13.750
16 V 1	15.263	14.869
17 V 1	16.380	15.750
17 V 2	16.775	16.307
17 V 3	16.432	15.748
19 V 1	18.019	17.323
20 V 1	19.885	19.250

Bored hole size

unit: mm

Size	Minor Diameter of Internal Thread (D_1)		Bored Hole Size (Reference)
	Max.	Min.	
5 V 1	4.801	4.597	4.75
8 V 1	7.239	7.036	7.19
8 V 2	7.035	6.782	6.97
9 V 1	8.865	8.661	8.81
10 V 1	8.900	8.750	8.86
10 V 2	9.550	9.350	9.50
11 V 1	10.033	9.729	9.96
12 V 1	11.379	11.176	11.33
13 V 1	11.608	11.328	11.54
13 V 2	12.039	11.837	11.99
15 V 1	13.950	13.750	13.90
16 V 1	15.088	14.859	15.03
17 V 1	15.950	15.750	15.90
17 V 2	16.560	16.307	16.50
17 V 3	16.103	15.748	16.01
19 V 1	17.678	17.323	17.59
20 V 1	19.450	19.250	19.40

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT CTV



Hand Taps for Bicycle Tire Valve Threads

Specification

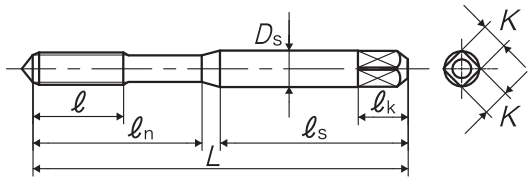
HSS

■Tap for bicycle tire valve threads.

Recommended Tapping Speeds depending on Materials

Brass 黄銅 ~10 (m/min)

TYPE: 1



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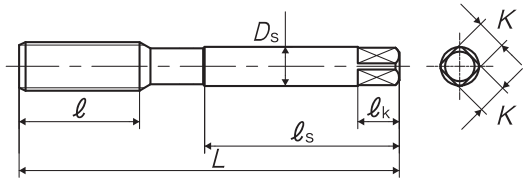


Segment : 1A

Size	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Bicycle Tire Valve Threads													
CTV5-36	TYCV5IRLEBA	1.5P	5.330	62	15	26	33	6	4.5	7	3	1	¥ 2,110 □
CTV5-24	TYCV5MSLEBA	1.5P	5.100	62	15	26	33	6	4.5	7	3	1	¥ 2,110 □
CTV8-32	TYCV8JRLEBA	1.5P	7.900	70	19	-	36	6.2	5	8	3	2	¥ 2,800 □
CTV8-30	TYCV83RLEBA	1.5P	8.100	70	19	-	36	6.2	5	8	3	2	¥ 3,200 □
5V2	TY05V2QLEBA	1.5P	5.370	62	15	26	33	6	4.5	7	3	1	¥ 2,110 □
6V1	TY06V1QLEBA	1.5P	6.160	62	15	26	33	6	4.5	7	3	1	¥ 2,110 □

■ For Bicycle Tire Valve Threads

unit: mm

Size	Pitch Diameter	Minor Diameter
	Basic Size	Basic Size
CTV 5 - 36	4.872	4.566
CTV 5 - 24	4.413	3.954
CTV 8 - 32	7.384	7.041
CTV 8 - 30	7.550	7.183
5 V 2	4.760	4.400
6 V 1	5.725	5.440

■ Bored hole size

unit: mm

Size	Minor diameter of internal thread (D_1)		Bored hole size (reference)
	Max.	Min.	
CTV 5 - 36	4.732	4.630	4.71
CTV 5 - 24	4.214	3.954	4.15
CTV 8 - 32	7.192	7.040	7.15
CTV 8 - 30	7.344	7.183	7.30
5 V 2	4.600	4.400	4.55
6 V 1	5.540	5.440	5.52

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

HT CTC

Hand Taps for Steel Conduit Threads



Specification

HSS

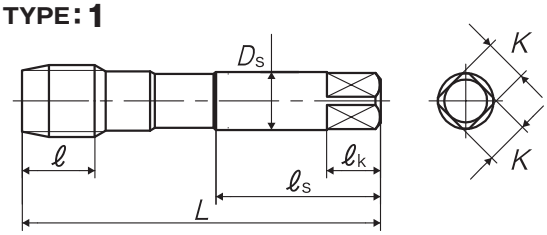


■Tap for steel conduit threads. Thread angle is 80 degree and the thread symbol is CTC.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
~10 (m/min)	~10 (m/min)	~10 (m/min)

TYPE : 1



Segment : 1A

Size	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Steel Conduit Threads													
CTC19-16	TYCC190HEB5	5P	19.100	105	23	-	50	15	12	15	4	1	¥ 14,500 □
CTC25-16	TYCC250HEB5	5P	25.400	125	24	-	58	19	15	18	4	1	¥ 31,700 □
CTC31-16	TYCC310HEB5	5P	31.800	145	26	-	67	24	19	22	4	1	¥ 45,800 □
CTC39-16	TYCC390HEB5	5P	38.100	165	27	-	76	30	23	26	4	1	¥ 61,100 □

■ For Steel Conduit Threads unit: mm

Size	Pitch Diameter	Minor Diameter
	Basic Size	Basic Size
CTC 19 - 16	18.343	17.708
CTC 25 - 16	24.643	24.008
CTC 31 - 16	31.043	30.408
CTC 39 - 16	37.343	36.708

■ Bored hole size unit: mm

Size	Minor Diameter of Internal Thread (D_1)		Bored Hole Size (Reference)
	Max.	Min.	
CTC 19 - 16	18.208	17.808	18.11
CTC 25 - 16	24.508	24.108	24.41
CTC 31 - 16	30.908	30.508	30.81
CTC 39 - 16	37.208	36.808	37.11

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

HT CTG

Hand Taps for Thick Steel Conduit Threads



Specification

HSS

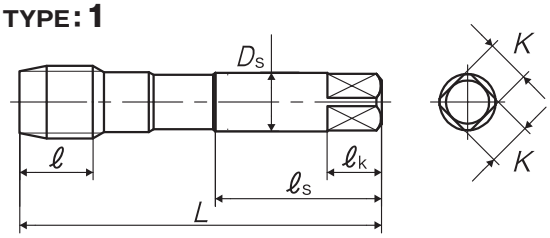


■Tap for thick steel conduit threads. Thread angle is 55 degree and the thread symbol is CTG.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
~10 (m/min)	~10 (m/min)	~10 (m/min)

TYPE : 1



Segment : 1A

Size	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Thick Steel Conduit Threads													
CTG16-14	TYCG160HEB5	5P	20.955	115	25	-	55	17	13	16	4	1	¥ 20,600 □
CTG22-14	TYCG220HEB5	5P	26.441	130	26	-	60	20	15	18	4	1	¥ 29,100 □
CTG28-11	TYCG280HEB5	5P	33.249	155	31	-	71	28	21	24	4	1	¥ 48,800 □
CTG36-11	TYCG360HEB5	5P	41.910	180	33	-	83	35	26	30	4	1	¥ 78,600 □
CTG42-11	TYCG420HEB5	5P	47.803	185	34	-	85	38	29	32	4	1	¥ 87,400 □

■ For Thick Steel Conduit Threads

unit: mm

Size	Pitch Diameter	Minor Diameter
	Basic Size	Basic Size
CTG 16 - 14	19.793	18.922
CTG 22 - 14	25.279	24.408
CTG 28 - 11	31.770	30.661
CTG 36 - 11	40.431	39.322
CTG 42 - 11	46.324	45.215

■ Bored hole size

unit: mm

Size	Minor Diameter of Internal Thread (D_1)		Bored Hole Size (Reference)
	Max.	Min.	
CTG 16 - 14	19.522	19.022	19.4
CTG 22 - 14	25.008	24.508	24.9
CTG 28 - 11	31.361	30.761	31.2
CTG 36 - 11	40.022	39.422	39.9
CTG 42 - 11	45.915	45.315	45.8

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

DIN

HT Pg



Hand Taps for Steel Conduit Threads

Specification

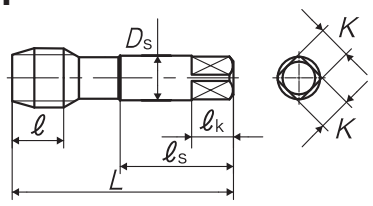
HSS

■Taps for steel conduit threads. The thread angle is 80 degrees and the thread symbol is Pg.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Pg Threads												
Pg 7-20	-	TYPG070NEBU	3.5P	70	21	-	36	9	7	10	4	1
Pg 9-18	-	TYPG090NEBU	3.5P	70	21	-	36	12	9	12	4	1
Pg 11-18	-	TYPG110NEBU	3.5P	80	21	-	41	14	11	14	4	1
Pg 13.5-18	-	TYPG130NEBU	3.5P	80	21	-	41	16	12	15	4	1
Pg 16-18	-	TYPG160NEBU	3.5P	80	21	-	41	18	14.5	17	4	1
Pg 21-16	-	TYPG210NEBU	3.5P	90	21	-	46	22	18	21	4	1
Pg 29-16	-	TYPG290NEBU	3.5P	100	24	-	51	28	22	25	4	1
Pg 36-16	-	TYPG360NEBU	3.5P	140	39	-	71	36	29	32	4	1

For Thick Steel Conduit Threads

unit: mm

Size	Pitch Diameter	Minor Diameter
	Basic Size	Basic Size
Pg 7 - 20	11.89	11.28
Pg 9 - 18	14.53	13.86
Pg 11 - 18	17.93	17.26
Pg 13.5 - 18	19.73	19.06
Pg 16 - 18	21.83	21.16
Pg 21 - 16	27.54	26.78
Pg 29 - 16	36.24	35.48
Pg 36 - 16	46.24	45.48

Bored hole size

unit: mm

Size	Minor Diameter of Internal Thread (D_1)		Bored Hole Size (Reference)
	Max.	Min.	
Pg 7 - 20	11.43	11.28	11.39
Pg 9 - 18	14.01	13.86	13.97
Pg 11 - 18	17.41	17.26	17.37
Pg 13.5 - 18	19.21	19.06	19.17
Pg 16 - 18	21.31	21.16	21.27
Pg 21 - 16	27.03	26.78	26.97
Pg 29 - 16	35.73	35.48	35.67
Pg 36 - 16	45.73	45.48	45.67

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

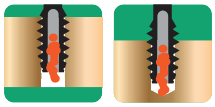
HT BC

Hand Taps for Bicycle Threads



Specification

HSS

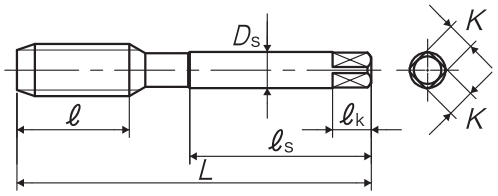


■Tap for bicycle threads (general use).

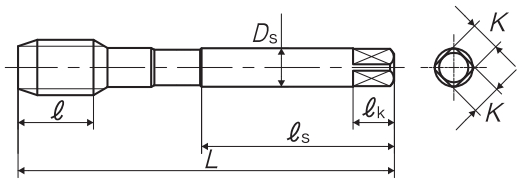
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
~10 (m/min)	~10 (m/min)

TYPE : 1



TYPE : 2



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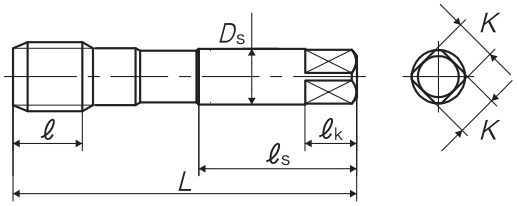


Segment : 1A

Size	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Bicycle Threads												
BC 5/16-26	TYBC01RHEB5	5P	70	19	-	36	6.2	5	8	3	1	¥ 2,800 □
BC 5/16-26	TYBC01RHEBA	1.5P	70	19	-	36	6.2	5	8	3	1	¥ 2,800 □
BC 3/8-26	TYBC02RHEB5	5P	75	23	-	38	7	5.5	8	4	1	¥ 3,200 □
BC 3/8-26	TYBC02RHEBA	1.5P	75	23	-	38	7	5.5	8	4	1	¥ 3,200 □
BC 7/16-26	TYBC03RHEB5	5P	82	26	-	42	8.5	6.5	9	4	1	¥ 4,720 □
BC 7/16-26	TYBC03RHEBA	1.5P	82	26	-	42	8.5	6.5	9	4	1	¥ 4,720 □
BC 1/2-20	TYBC04RHEB5	5P	88	26	-	45	10.5	8	11	4	1	¥ 5,670 □
BC 1/2-20	TYBC04RHEBA	1.5P	88	26	-	45	10.5	8	11	4	1	¥ 5,670 □
BC 9/16-20	TYBC05RHEB5	5P	95	26	-	48	12.5	10	13	4	1	¥ 8,200 □
BC 9/16-20	TYBC05RHEBA	1.5P	95	26	-	48	12.5	10	13	4	1	¥ 8,200 □
BC 5/8-20	TYBC06RHEB5	5P	95	26	-	48	12.5	10	13	4	1	¥ 8,200 □
BC 5/8-20	TYBC06RHEBA	1.5P	95	26	-	48	12.5	10	13	4	1	¥ 8,200 □
BC 11/16-24	TYBC07RHEB5	5P	100	18	-	51	14	11	14	4	2	¥ 9,800 □
BC 11/16-24	TYBC07RHEBA	1.5P	100	18	-	51	14	11	14	4	2	¥ 9,800 □
BC 3/4-30	TYBC08RHEB5	5P	105	18	-	50	15	12	15	4	3	¥ 13,200 □
BC 3/4-30	TYBC08RHEBA	1.5P	105	18	-	50	15	12	15	4	3	¥ 13,200 □
BC 31/32-30	TYBC09RHEB5	5P	125	20	-	58	19	15	18	4	3	¥ 29,100 □

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
BC 31/32-30	TYBC09RHEBA	1.5P	125	20	-	58	19	15	18	4	3	¥ 29,100 □
BC 1-24	TYBC10RHEB5	5P	125	20	-	58	19	15	18	4	3	¥ 29,100 □
BC 1-24	TYBC10RHEBA	1.5P	125	20	-	58	19	15	18	4	3	¥ 29,100 □
BC 1.29-24	TYBC11RHEB5	5P	145	21	-	67	25	19	22	4	3	¥ 42,000 □
BC 1.29-24	TYBC11RHEBA	1.5P	145	21	-	67	25	19	22	4	3	¥ 42,000 □
BC 1.37-24	TYBC12RHEB5	5P	155	26	-	71	28	21	24	4	3	¥ 48,800 □
BC 1.37-24	TYBC12RHEBA	1.5P	155	26	-	71	28	21	24	4	3	¥ 48,800 □
BC 1 7/16-24	TYBC13RHEB5	5P	165	26	-	76	30	23	26	4	3	¥ 56,000 □
BC 1 7/16-24	TYBC13RHEBA	1.5P	165	26	-	76	30	23	26	4	3	¥ 56,000 □
BC 1.45-24	TYBC14RHEB5	5P	165	26	-	76	30	23	26	4	3	¥ 56,000 □
BC 1.45-24	TYBC14RHEBA	1.5P	165	26	-	76	30	23	26	4	3	¥ 56,000 □
BC 1 9/16-24	TYBC15RHEB5	5P	175	27	-	81	32	26	30	4	3	¥ 68,100 □
BC 1 9/16-24	TYBC15RHEBA	1.5P	175	27	-	81	32	26	30	4	3	¥ 68,100 □

For Bicycle Threads

unit: mm

Size	Major Diameter	Pitch Diameter	Minor Diameter
	Basic Size	Basic Size	Basic Size
BC 5/16 - 26	7.94	7.42	6.90
BC 3/8 - 26	9.53	9.01	8.49
BC 7/16 - 26	11.11	10.59	10.07
BC 1/2 - 20	12.70	12.02	11.34
BC 9/16 - 20	14.29	13.61	12.93
BC 5/8 - 20	15.88	15.20	14.52
BC 11/16 - 24	17.46	16.90	16.34
BC 3/4 - 30	19.05	18.60	18.15
BC 31/32 - 30	24.61	24.16	23.71
BC 1 - 24	25.40	24.84	24.28
BC 1.29 - 24	32.77	32.21	31.65
BC 1.37 - 24	34.80	34.24	33.68
BC 1 7/16 - 24	36.51	35.95	35.39
BC 1.45 - 24	36.83	36.27	35.71
BC 1 9/16 - 24	39.69	39.13	38.57

Bored hole size

unit: mm

Size	Minor Diameter of Internal Thread (D_1)		Bored Hole Size (Reference)
	Max.	Min.	
BC 5/16 - 26	7.16	7.06	7.14
BC 3/8 - 26	8.75	8.65	8.73
BC 7/16 - 26	10.33	10.23	10.31
BC 1/2 - 20	11.66	11.55	11.63
BC 9/16 - 20	13.25	13.14	13.22
BC 5/8 - 20	14.84	14.73	14.81
BC 11/16 - 24	16.59	16.48	16.56
BC 3/4 - 30	18.40	18.29	18.37
BC 31/32 - 30	23.96	23.85	23.93
BC 1 - 24	24.58	24.46	24.55
BC 1.29 - 24	31.96	31.83	31.93
BC 1.37 - 24	33.99	33.86	33.96
BC 1 7/16 - 24	35.70	35.57	35.67
BC 1.45 - 24	36.02	35.89	35.99
BC 1 9/16 - 24	38.88	38.75	38.85

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

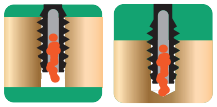
HT MST

Hand Tap for Microscope Objective Lens



Specification

HSS



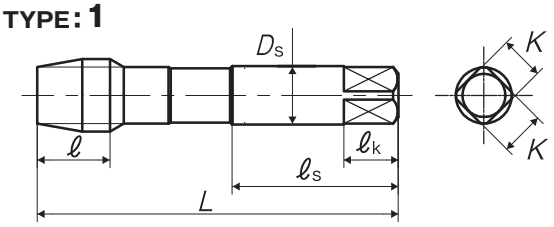
Recommended Tapping Speeds depending on Materials

Brass 黄銅 ~10 (m/min)

■Product Features

- ●Taps for Microscope Objective Lens
- ●The taps can be used for creating internal screw threads with machining center or by hand and rethreading as well. For through hole use.
- ●For RMS-type Whitworth threads specified in JIS B 7141 “Microscopes objective lens”.
- ●This tap is also suitable for repair or cleaning of internal threads.

TYPE : 1

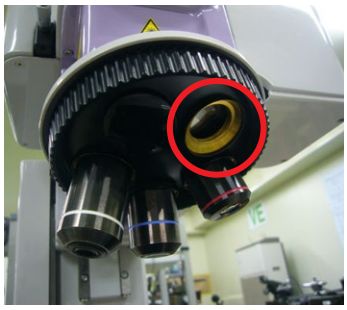


Segment : 1A

Size	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Microscope Objective Lens											
20.32W36	TYRMS10LEB5	5P	87	16	44	18	14	17	4	1	¥ 25,200 □
20.32W36	TYRMS10LEBA	1.5P	87	16	44	18	14	17	4	1	¥ 25,200 □

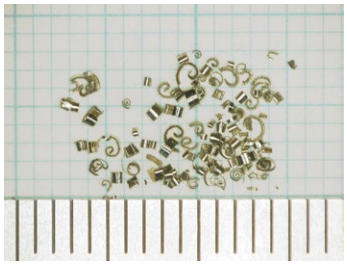
■Internal thread specifications of threads for microscope objective lens “RMS 20.32W360” unit : mm

Size	Allowable Value	Minor Diameter (D)	Pitch Diameter (D_2)	Minor Diameter (D_1)
20.32W36	Max.	20.396	19.944	19.550
	Min.	20.320	19.868	19.474



The tap is used for internal threads of a microscope revolver as shown in the picture.

■Chips(brass)



■ For Microscope Objective Lens

unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
20.32W36	-	20.320	19.868	38	23	19.416

■ Bored hole size

unit: mm

Size	Minor Diameter of Internal Thread (D_1)		Bored Hole Size (Reference)
	Max.	Min.	
20.32W36	19.550	19.474	19.53

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

SL Tr



Spiral Flute Tap for Through Hole for Trapezoidal Threads

Specification

HSS

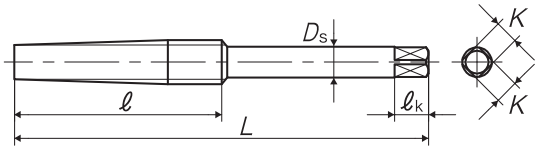


■The SL Tr is a spiral flute tap for through hole trapezoidal threads. The thread angle is 30°. The thread symbol is represented by Tr.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
~5 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1S

Size	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Trapezoidal threads										
Tr 10 × 2	LYT10Q0HEB	26P	160	70	7.8	6	9	3	1	¥ 47,600 ※
Tr 12 × 3	LYT12S0HEB	23P	190	95	9	7	10	3	1	¥ 63,000 ※
Tr 12 × 2	LYT12Q0HEB	30P	170	80	9	7	10	3	1	¥ 63,000 ※
Tr 14 × 3	LYT14S0HEB	23P	190	95	11	9	12	3	1	¥ 78,300 ※
Tr 16 × 4	LYT16U0HEB	22.5P	220	120	12	9	12	3	1	¥ 94,400 ※
Tr 16 × 3	LYT16S0HEB	25P	200	100	13	10	13	3	1	¥ 94,400 ※
Tr 18 × 4	LYT18U0HEB	22.5P	220	120	14	11	14	4	1	¥118,000 ※
Tr 20 × 4	LYT20U0HEB	24.5P	230	130	16	12	15	4	1	¥137,000 ※
Tr 22 × 5	LYT22W0HEB	22P	250	150	18	14	17	4	1	¥159,000 ※
Tr 24 × 5	LYT24W0HEB	24P	260	160	19	15	18	4	1	¥181,000 ※
Tr 25 × 5	LYT25W0HEB	25P	270	170	20	15	18	4	1	¥195,000 ※
Tr 26 × 5	LYT26W0HEB	27P	280	180	21	17	20	4	1	¥207,000 ※
Tr 28 × 5	LYT28W0HEB	28P	290	190	22	17	20	4	1	¥232,000 ※
Tr 30 × 6	LYT30Y0HEB	25P	300	200	24	19	22	4	1	¥253,000 ※

■The specifications of Tr threads and TM threads

TM screws have become the old JIS 30 degree trapezoidal thread standard, but they have already been abolished.
Currently, it is the standard for Tr screws (Metric trapezoidal screws).

●Tr thread specifications.
The Tr thread specifications clearly specify tolerances for major diameters, pitch diameters, and minor diameters as shown in the table below.

<Tr thread specifications> Engagement length: N, Tolerance class: 7H Unit : mm

Size	Major Diameter		Pitch Diameter			Minor Diameter		
	Dmax	Dmin	Dmax	Dmin	TD2	Dmax	Dmin	TD1
Tr 10 × 2	Not specified	10.500	9.250	9.000	0.250	8.236	8.000	0.236
Tr 14 × 3		14.500	12.800	12.500	0.300	11.315	11.000	0.315
Tr 20 × 4		20.500	18.355	18.000	0.355	16.375	16.000	0.375
Tr 22 × 5		22.500	19.875	19.500	0.375	17.450	17.000	0.450
Tr 30 × 6		31.000	27.450	27.000	0.450	24.500	24.000	0.500

●TM thread specifications.
The TM thread specifications specify only basic sizes for major diameters, pitch diameters, and minor diameters as shown in the table below.
"Dimensional tolerances" necessary for actual machining were normally discussed and determined between the client and contractor.

<TM thread specifications> Unit : mm

Size	Major Diameter	Pitch Diameter	Minor Diameter
TM 10 × 2	10.500	9.000	8.500
TM 14 × 3	14.500	12.500	11.500
TM 20 × 4	20.500	18.000	16.500
TM 22 × 5	22.500	19.500	18.000
TM 30 × 6	30.500	27.000	25.000

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

SL LH Tr



A Spiral Flute Left Hand Trapezoidal Thread Tap Spiral Tap

Specification

HSS

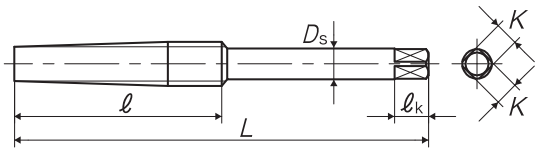


■The SL LH Tr is a spiral flute tap for through hole tapping of a left hand trapezoidal thread. The thread angle is 30°. The thread symbol is represented by Tr.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
~5 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1S

Size	Code	Chamfer	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Trapezoidal threads										
Tr 10 × 2	ZYT10Q0HEB	26P	160	70	7.8	6	9	3	1	¥ 57,100 ※
Tr 12 × 3	ZYT12S0HEB	23P	190	95	9	7	10	3	1	¥ 75,600 ※
Tr 12 × 2	ZYT12Q0HEB	30P	170	80	9	7	10	3	1	¥ 75,600 ※
Tr 14 × 3	ZYT14S0HEB	23P	190	95	11	9	12	3	1	¥ 93,900 ※
Tr 16 × 4	ZYT16U0HEB	22.5P	220	120	12	9	12	3	1	¥114,000 ※
Tr 16 × 3	ZYT16S0HEB	25P	200	100	13	10	13	3	1	¥114,000 ※
Tr 18 × 4	ZYT18U0HEB	22.5P	220	120	14	11	14	4	1	¥141,000 ※
Tr 20 × 4	ZYT20U0HEB	24.5P	230	130	16	12	15	4	1	¥164,000 ※
Tr 22 × 5	ZYT22W0HEB	22P	250	150	18	14	17	4	1	¥190,000 ※
Tr 24 × 5	ZYT24W0HEB	24P	260	160	19	15	18	4	1	¥217,000 ※
Tr 25 × 5	ZYT25W0HEB	25P	270	170	20	15	18	4	1	¥234,000 ※
Tr 26 × 5	ZYT26W0HEB	27P	280	180	21	17	20	4	1	¥249,000 ※
Tr 28 × 5	ZYT28W0HEB	28P	290	190	22	17	20	4	1	¥278,000 ※
Tr 30 × 6	ZYT30Y0HEB	25P	300	200	24	19	22	4	1	¥304,000 ※

MEMO

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

SIT

Simple Thread Inspection Tools

For GO (GB)



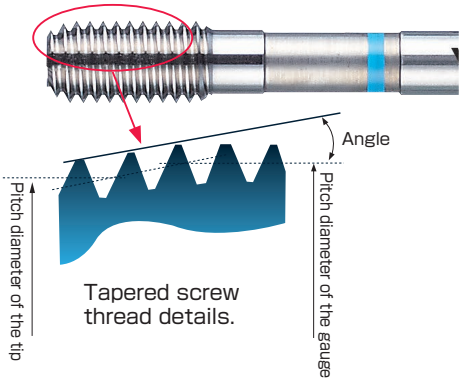
For NOT GO (NB/WB)



Specification

HSS

■Specification of SIT is available up to M48 (U1 3/4). For details, please contact us.



Product Features

- Blue color for GO and red color for Not Go are used for easy identification and storage.
- Utilizing a high grade of HSS material, the guage life has increased significantly.
- By using a stepped threads or tapered threads design at the front end of screw thread section, the problems in inspection were reduced while the work efficiency was improved. The tip of SIT gauge is easy to insert into an internal screw thread as the thread height gradually becomes larger. This is particularly effective when inspecting fine pitch threads.
- Note: Stepped threaded design is not used for Not Go.

Go and Not Go notations

These notations conform to the "gauge symbol" of JIS standards.

■Metric thread

Type of Thread	Thread Element	Types of Screw Limit Gauges	Guage Symbol
Internal Thread	Pitch Diameter	GO screw plug gauge	GP
		Not GO thread plug gauge	NP

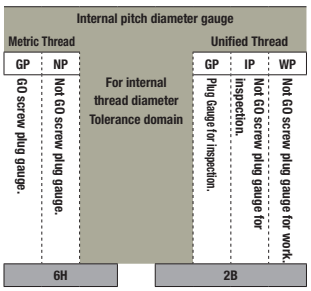
The "SIT and SITD" have different dimensions like the length of the screw thread portion and the relief shape of the threads root with respect to plug gauge, GP / NP is not used for GO use and GB is for NOT GO NB.

■Unified thread

Type of Thread	Thread Element	Types of Screw Limit Gauges	Guage Symbol
Internal Thread	Pitch Diameter	GO screw plug gauge (common for both work and inspection)	GP
		Not GO thread plug gauge for work	WP
		Inspection type thread plug gauge	IP

For unified screw threads, for GO gauge use the GB and for a NOT GO guage use the WB.

Both metric screw threads and unified screw threads are manufactured in accordance with JIS standards. For a reference point: the metric screw threads have been specified to be consistent with ISO while the unified screw threads have been specified as it was before the introduction of ANSI standard.



Accuracy of SIT

The single pitch diameter tolerance, the thread pitch tolerance and the threads half angle tolerance are important in the internal thread accuracy measurement and are manufactured using the same accuracy of thread plug gauges.

■Comparison between the screw thread "GB-6H" and the screw thread plug gauge "GP-6H". Unit : mm

Size	Major Diameter				Pitch Diameter				Pitch Tol.	Thread Half Angle Tol.
	Criteria Inch	Max	Min	Tol.	Basic Dia.	Max	Min	Tol.	(±)	(± Min.)
GB-6H M6 × 1	6.000	6.023	6.001	0.022	5.350	5.3675	5.3565	0.011	0.005	15
GP-6H M6 × 1	6.000	6.023	6.001	0.022	5.350	5.3675	5.3565	0.011	0.005	15

The pitch diameter is a single pitch diameter tolerance. The tolerance of the pitch also includes the deviation of the lead.

■Comparison of Not GO thread portion "NB - 6H" and Not GO screw plug gauge "NP - 6H". Unit : mm

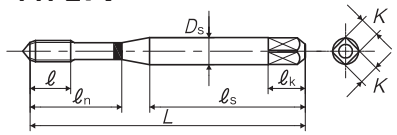
Size	Major Diameter				Pitch Diameter				Pitch Tol.	Thread Half Angle Tol.
	Criteria Inch	Max	Min	Tol.	Basic Dia.	Max	Min	Tol.	(±)	(± Min.)
NB-6H M6 × 1	5.7055	5.7165	5.6945	0.022	5.500	5.511	5.500	0.011	0.005	16
NP-6H M6 × 1	5.7055	5.7165	5.6945	0.022	5.500	5.511	5.500	0.011	0.005	16

The pitch diameter is a single pitch diameter tolerance. The tolerance of the pitch also includes the deviation of the lead.

The screw thread precision is the same as a thread gauge, but some of the specifications like length of screw thread portion and the relief shape of the thread root are originated by YAMAWA. Therefore, these gauges are not to be called "thread gauge" and distinguished as "simple inspection tools for internal screw threads".

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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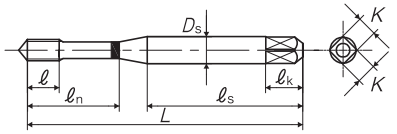

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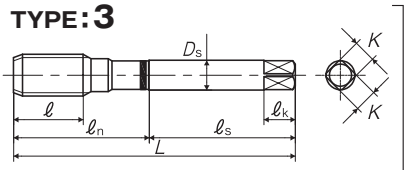
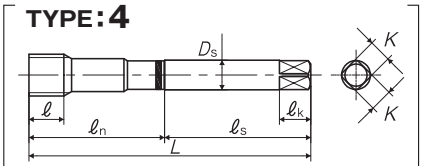


TYPE: 4



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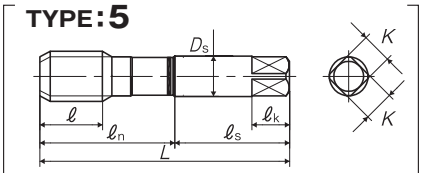
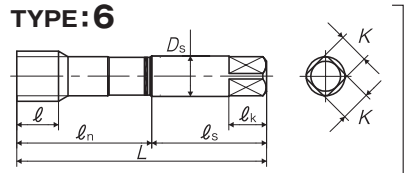


TYPE: 6



Segment : 7B

Size		Class	Code	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
For Metric Threads												
M2 × 0.4	GB	6H	ITM62.0EG	42	5.5	12	27	3	2.5	5	1	¥ 6,300 □
M2 × 0.4	NB	6H	ITM62.0EN	42	4.5	12	27	3	2.5	5	2	¥ 6,300 □
M2 × 0.25	GB	5H	ITM52.0BG	42	4	12	27	3	2.5	5	1	¥ 10,000 □
M2 × 0.25	NB	5H	ITM52.0BN	42	3.5	12	27	3	2.5	5	2	¥ 10,000 □
M2.2 × 0.45	GB	6H	ITM62.2FG	42	5.5	12	27	3	2.5	5	1	¥ 6,300 □
M2.2 × 0.45	NB	6H	ITM62.2FN	42	4.5	12	27	3	2.5	5	2	¥ 6,300 □
M2.2 × 0.25	GB	5H	ITM52.2BG	42	4	12	27	3	2.5	5	1	¥ 10,000 □
M2.2 × 0.25	NB	5H	ITM52.2BN	42	3.5	12	27	3	2.5	5	2	¥ 10,000 □
M2.3 × 0.4	GB	6H	ITM62.3EG	42	5.5	12	27	3	2.5	5	1	¥ 6,300 □
M2.3 × 0.4	NB	6H	ITM62.3EN	42	4.5	12	27	3	2.5	5	2	¥ 6,300 □
M2.3 × 0.25	GB	5H	ITM52.3BG	42	4	12	27	3	2.5	5	1	¥ 10,000 □
M2.3 × 0.25	NB	5H	ITM52.3BN	42	3.5	12	27	3	2.5	5	2	¥ 10,000 □
M2.5 × 0.45	GB	6H	ITM62.5FG	46	5.5	14	29	3	2.5	5	1	¥ 5,990 □
M2.5 × 0.45	NB	6H	ITM62.5FN	46	4.5	14	29	3	2.5	5	2	¥ 5,990 □
M2.5 × 0.35	GB	6H	ITM62.5DG	46	4.5	14	29	3	2.5	5	1	¥ 9,420 □
M2.5 × 0.35	NB	6H	ITM62.5DN	46	3.5	14	29	3	2.5	5	2	¥ 9,420 □
M2.6 × 0.45	GB	6H	ITM62.6FG	46	5.5	14	29	3	2.5	5	1	¥ 5,990 □
M2.6 × 0.45	NB	6H	ITM62.6FN	46	4.5	14	29	3	2.5	5	2	¥ 5,990 □
M2.6 × 0.35	GB	6H	ITM62.6DG	46	4.5	14	29	3	2.5	5	1	¥ 9,420 □
M2.6 × 0.35	NB	6H	ITM62.6DN	46	3.5	14	29	3	2.5	5	2	¥ 9,420 □
M3 × 0.5	GB	6H	ITM63.0GG	46	5.5	14	26	4	3.2	6	1	¥ 5,560 □
M3 × 0.5	NB	6H	ITM63.0GN	46	4.5	14	26	4	3.2	6	2	¥ 5,560 □
M3 × 0.35	GB	6H	ITM63.0DG	46	4.5	14	26	4	3.2	6	1	¥ 8,550 □
M3 × 0.35	NB	6H	ITM63.0DN	46	3.5	14	26	4	3.2	6	2	¥ 8,550 □
M3.5 × 0.6	GB	6H	ITM63.5HG	52	7.5	16	29	5	4	7	1	¥ 5,560 □
M3.5 × 0.6	NB	6H	ITM63.5HN	52	6	16	29	5	4	7	2	¥ 5,560 □
M3.5 × 0.35	GB	6H	ITM63.5DG	52	4.5	16	29	5	4	7	1	¥ 7,930 □
M3.5 × 0.35	NB	6H	ITM63.5DN	52	3.5	16	29	5	4	7	2	¥ 7,930 □
M4 × 0.7	GB	6H	ITM64.0IG	52	7.5	17	29	5	4	7	1	¥ 5,100 □
M4 × 0.7	NB	6H	ITM64.0IN	52	6	17	29	5	4	7	2	¥ 5,100 □
M4 × 0.5	GB	6H	ITM64.0GG	52	7.5	17	29	5	4	7	1	¥ 6,680 □
M4 × 0.5	NB	6H	ITM64.0GN	52	6	17	29	5	4	7	2	¥ 6,680 □
M4.5 × 0.75	GB	6H	ITM64.5JG	60	7.5	21	33	5.5	4.5	7	1	¥ 6,740 □
M4.5 × 0.75	NB	6H	ITM64.5JN	60	6	21	33	5.5	4.5	7	2	¥ 6,740 □
M4.5 × 0.5	GB	6H	ITM64.5GG	60	7.5	21	33	5.5	4.5	7	1	¥ 7,650 □
M4.5 × 0.5	NB	6H	ITM64.5GN	60	6	21	33	5.5	4.5	7	2	¥ 7,650 □
M5 × 0.8	GB	6H	ITM65.0KG	60	10	22	33	5.5	4.5	7	1	¥ 5,100 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SIT Simple Thread Inspection Tools

Size		Class	Code	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
M5 × 0.8	NB	6H	ITM65.0KN	60	6	22	33	5.5	4.5	7	2	¥ 5,100 □
M5 × 0.5	GB	6H	ITM65.0GG	60	7	22	33	5.5	4.5	7	1	¥ 7,650 □
M5 × 0.5	NB	6H	ITM65.0GN	60	6	22	33	5.5	4.5	7	2	¥ 7,650 □
M5.5 × 0.5	GB	6H	ITM65.5GG	62	7	26	33	6	4.5	7	1	¥ 7,950 □
M5.5 × 0.5	NB	6H	ITM65.5GN	62	6	26	33	6	4.5	7	2	¥ 7,950 □
M6 × 1	GB	6H	ITM66.0MG	62	10	26	33	6	4.5	7	1	¥ 5,300 □
M6 × 1	NB	6H	ITM66.0MN	62	6	26	33	6	4.5	7	2	¥ 5,300 □
M6 × 0.75	GB	6H	ITM66.0JG	62	7.5	26	33	6	4.5	7	1	¥ 6,360 □
M6 × 0.75	NB	6H	ITM66.0JN	62	6	26	33	6	4.5	7	2	¥ 6,360 □
M7 × 1	GB	6H	ITM67.0MG	70	12	34	36	6.2	5	8	3	¥ 5,790 □
M7 × 1	NB	6H	ITM67.0MN	70	6	34	36	6.2	5	8	4	¥ 5,790 □
M7 × 0.75	GB	6H	ITM67.0JG	70	9	34	36	6.2	5	8	3	¥ 6,950 □
M7 × 0.75	NB	6H	ITM67.0JN	70	6	34	36	6.2	5	8	4	¥ 6,950 □
M8 × 1.25	GB	6H	ITM68.0NG	70	15	34	36	6.2	5	8	3	¥ 5,790 □
M8 × 1.25	NB	6H	ITM68.0NN	70	10	34	36	6.2	5	8	4	¥ 5,790 □
M8 × 1	GB	6H	ITM68.0MG	70	12	34	36	6.2	5	8	3	¥ 5,790 □
M8 × 1	NB	6H	ITM68.0MN	70	6	34	36	6.2	5	8	4	¥ 5,790 □
M8 × 0.75	GB	6H	ITM68.0JG	70	9	34	36	6.2	5	8	3	¥ 6,950 □
M8 × 0.75	NB	6H	ITM68.0JN	70	6	34	36	6.2	5	8	4	¥ 6,950 □
M9 × 1.25	GB	6H	ITM69.0NG	75	15	37	38	7	5.5	8	3	¥ 6,750 □
M9 × 1.25	NB	6H	ITM69.0NN	75	10	37	38	7	5.5	8	4	¥ 6,750 □
M9 × 1	GB	6H	ITM69.0MG	75	12	37	38	7	5.5	8	3	¥ 6,750 □
M9 × 1	NB	6H	ITM69.0MN	75	6	37	38	7	5.5	8	4	¥ 6,750 □
M9 × 0.75	GB	6H	ITM69.0JG	75	9	37	38	7	5.5	8	3	¥ 6,750 □
M9 × 0.75	NB	6H	ITM69.0JN	75	6	37	38	7	5.5	8	4	¥ 6,750 □
M10 × 1.5	GB	6H	ITM6010OG	75	15	37	38	7	5.5	8	3	¥ 5,790 □
M10 × 1.5	NB	6H	ITM6010ON	75	10	37	38	7	5.5	8	4	¥ 5,790 □
M10 × 1.25	GB	6H	ITM6010NG	75	15	37	38	7	5.5	8	3	¥ 5,790 □
M10 × 1.25	NB	6H	ITM6010NN	75	10	37	38	7	5.5	8	4	¥ 5,790 □
M10 × 1	GB	6H	ITM6010MG	75	12	37	38	7	5.5	8	3	¥ 6,750 □
M10 × 1	NB	6H	ITM6010MN	75	6	37	38	7	5.5	8	4	¥ 6,750 □
M10 × 0.75	GB	6H	ITM6010JG	75	9	37	38	7	5.5	8	3	¥ 6,750 □
M10 × 0.75	NB	6H	ITM6010JN	75	6	37	38	7	5.5	8	4	¥ 6,750 □
M11 × 1.5	GB	6H	ITM6011OG	82	19	40	42	8.5	6.5	9	3	¥ 7,140 □
M11 × 1.5	NB	6H	ITM6011ON	82	10	40	42	8.5	6.5	9	4	¥ 7,140 □
M11 × 1	GB	6H	ITM6011MG	82	12	40	42	8.5	6.5	9	3	¥ 7,140 □
M11 × 1	NB	6H	ITM6011MN	82	6	40	42	8.5	6.5	9	4	¥ 7,140 □
M11 × 0.75	GB	6H	ITM6011JG	82	10	40	42	8.5	6.5	9	3	¥ 7,140 □
M11 × 0.75	NB	6H	ITM6011JN	82	6	40	42	8.5	6.5	9	4	¥ 7,140 □
M12 × 1.75	GB	6H	ITM6012PG	82	20	40	42	8.5	6.5	9	3	¥ 6,030 □
M12 × 1.75	NB	6H	ITM6012PN	82	10	40	42	8.5	6.5	9	4	¥ 6,030 □
M12 × 1.5	GB	6H	ITM6012OG	82	20	40	42	8.5	6.5	9	3	¥ 6,030 □
M12 × 1.5	NB	6H	ITM6012ON	82	10	40	42	8.5	6.5	9	4	¥ 6,030 □
M12 × 1.25	GB	6H	ITM6012NG	82	15	40	42	8.5	6.5	9	3	¥ 6,030 □
M12 × 1.25	NB	6H	ITM6012NN	82	10	40	42	8.5	6.5	9	4	¥ 6,030 □
M12 × 1	GB	6H	ITM6012MG	82	12	40	42	8.5	6.5	9	3	¥ 7,140 □
M12 × 1	NB	6H	ITM6012MN	82	6	40	42	8.5	6.5	9	4	¥ 7,140 □
M14 × 2	GB	6H	ITM6014QG	88	20	43	45	10.5	8	11	3	¥ 6,320 □
M14 × 2	NB	6H	ITM6014QN	88	12	43	45	10.5	8	11	4	¥ 6,320 □
M14 × 1.5	GB	6H	ITM6014OG	88	20	43	45	10.5	8	11	3	¥ 6,320 □

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SIT Simple Thread Inspection Tools

Size		Class	Code	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
M14 × 1.5	NB	6H	ITM6014ON	88	12	43	45	10.5	8	11	4	¥ 6,320 □
M14 × 1.25	GB	6H	ITM6014NG	88	15	43	45	10.5	8	11	3	¥ 7,260 □
M14 × 1.25	NB	6H	ITM6014NN	88	12	43	45	10.5	8	11	4	¥ 7,260 □
M14 × 1	GB	6H	ITM6014MG	88	12	43	45	10.5	8	11	3	¥ 7,260 □
M14 × 1	NB	6H	ITM6014MN	88	6	43	45	10.5	8	11	4	¥ 7,260 □
M15 × 1.5	GB	6H	ITM6015OG	95	19	47	48	12.5	10	13	3	¥ 7,340 □
M15 × 1.5	NB	6H	ITM6015ON	95	10	47	48	12.5	10	13	4	¥ 7,340 □
M15 × 1	GB	6H	ITM6015MG	95	12	47	48	12.5	10	13	3	¥ 7,340 □
M15 × 1	NB	6H	ITM6015MN	95	10	47	48	12.5	10	13	4	¥ 7,340 □
M16 × 2	GB	6H	ITM6016QG	95	20	47	48	12.5	10	13	3	¥ 6,860 □
M16 × 2	NB	6H	ITM6016QN	95	12	47	48	12.5	10	13	4	¥ 6,860 □
M16 × 1.5	GB	6H	ITM6016OG	95	20	47	48	12.5	10	13	3	¥ 6,860 □
M16 × 1.5	NB	6H	ITM6016ON	95	12	47	48	12.5	10	13	4	¥ 6,860 □
M16 × 1	GB	6H	ITM6016MG	95	12	47	48	12.5	10	13	3	¥ 7,340 □
M16 × 1	NB	6H	ITM6016MN	95	8	47	48	12.5	10	13	4	¥ 7,340 □
M17 × 1.5	GB	6H	ITM6017OG	100	19	49	51	14	11	14	3	¥ 9,420 □
M17 × 1.5	NB	6H	ITM6017ON	100	10	49	51	14	11	14	4	¥ 9,420 □
M17 × 1	GB	6H	ITM6017MG	100	12	49	51	14	11	14	3	¥ 9,420 □
M17 × 1	NB	6H	ITM6017MN	100	10	49	51	14	11	14	4	¥ 9,420 □
M18 × 2.5	GB	6H	ITM6018RG	100	25	49	51	14	11	14	3	¥ 8,530 □
M18 × 2.5	NB	6H	ITM6018RN	100	16	49	51	14	11	14	4	¥ 8,530 □
M18 × 2	GB	6H	ITM6018QG	100	20	49	51	14	11	14	3	¥ 8,530 □
M18 × 2	NB	6H	ITM6018QN	100	12	49	51	14	11	14	4	¥ 8,530 □
M18 × 1.5	GB	6H	ITM6018OG	100	20	49	51	14	11	14	3	¥ 8,530 □
M18 × 1.5	NB	6H	ITM6018ON	100	12	49	51	14	11	14	4	¥ 8,530 □
M18 × 1	GB	6H	ITM6018MG	100	12	49	51	14	11	14	3	¥ 9,420 □
M18 × 1	NB	6H	ITM6018MN	100	8	49	51	14	11	14	4	¥ 9,420 □
M20 × 2.5	GB	6H	ITM6020RG	105	25	55	50	15	12	15	5	¥ 10,400 □
M20 × 2.5	NB	6H	ITM6020RN	105	16	55	50	15	12	15	6	¥ 10,400 □
M20 × 2	GB	6H	ITM6020QG	105	20	55	50	15	12	15	5	¥ 10,400 □
M20 × 2	NB	6H	ITM6020QN	105	12	55	50	15	12	15	6	¥ 10,400 □
M20 × 1.5	GB	6H	ITM6020OG	105	20	55	50	15	12	15	5	¥ 10,400 □
M20 × 1.5	NB	6H	ITM6020ON	105	12	55	50	15	12	15	6	¥ 10,400 □
M20 × 1	GB	6H	ITM6020MG	105	14	55	50	15	12	15	5	¥ 13,300 □
M20 × 1	NB	6H	ITM6020MN	105	8	55	50	15	12	15	6	¥ 13,300 □
M22 × 2.5	GB	6H	ITM6022RG	115	33	60	55	17	13	16	5	¥ 14,800 □
M22 × 2.5	NB	6H	ITM6022RN	115	16	60	55	17	13	16	6	¥ 14,800 □
M22 × 2	GB	6H	ITM6022QG	115	20	60	55	17	13	16	5	¥ 14,800 □
M22 × 2	NB	6H	ITM6022QN	115	14	60	55	17	13	16	6	¥ 14,800 □
M22 × 1.5	GB	6H	ITM6022OG	115	20	60	55	17	13	16	5	¥ 14,800 □
M22 × 1.5	NB	6H	ITM6022ON	115	14	60	55	17	13	16	6	¥ 14,800 □
M22 × 1	GB	6H	ITM6022MG	115	14	60	55	17	13	16	5	¥ 17,600 □
M22 × 1	NB	6H	ITM6022MN	115	8	60	55	17	13	16	6	¥ 17,600 □
M24 × 3	GB	6H	ITM6024SG	120	30	65	55	19	15	18	5	¥ 18,300 □
M24 × 3	NB	6H	ITM6024SN	120	20	65	55	19	15	18	6	¥ 18,300 □
M24 × 2	GB	6H	ITM6024QG	120	20	65	55	19	15	18	5	¥ 18,300 □
M24 × 2	NB	6H	ITM6024QN	120	14	65	55	19	15	18	6	¥ 18,300 □
M24 × 1.5	GB	6H	ITM6024OG	120	20	65	55	19	15	18	5	¥ 18,300 □
M24 × 1.5	NB	6H	ITM6024ON	120	14	65	55	19	15	18	6	¥ 18,300 □
M24 × 1	GB	6H	ITM6024MG	120	14	65	55	19	15	18	5	¥ 23,500 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Think threads with YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SIT Simple Thread Inspection Tools

Size		Class	Code	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
M24 × 1	NB	6H	ITM6024MN	120	8	65	55	19	15	18	6	¥ 23,500 □
For Unified Threads												
No. 2-56UNC	GB	2B	ITM2UN2EG	42	4.5	12	26	3	2.5	5	1	¥ 7,100 □
No. 2-56UNC	WB	2B	ITM2UN2EN	42	3.5	12	26	3	2.5	5	2	¥ 7,100 □
No. 2-64UNF	GB	2B	ITM2UN2DG	42	4.5	12	26	3	2.5	5	1	¥ 7,100 □
No. 2-64UNF	WB	2B	ITM2UN2DN	42	3.5	12	26	3	2.5	5	2	¥ 7,100 □
No. 3-48UNC	GB	2B	ITM2UN3FG	46	6.5	14	28	3	2.5	5	1	¥ 6,860 □
No. 3-48UNC	WB	2B	ITM2UN3FN	46	3.5	14	28	3	2.5	5	2	¥ 6,860 □
No. 3-56UNF	GB	2B	ITM2UN3EG	46	6.5	14	28	3	2.5	5	1	¥ 6,860 □
No. 3-56UNF	WB	2B	ITM2UN3EN	46	3.5	14	28	3	2.5	5	2	¥ 6,860 □
No. 4-40UNC	GB	2B	ITM2UN4HG	46	6.5	14	25	4	3.2	6	1	¥ 6,500 □
No. 4-40UNC	WB	2B	ITM2UN4HN	46	3.5	14	25	4	3.2	6	2	¥ 6,500 □
No. 4-48UNF	GB	2B	ITM2UN4FG	46	6.5	14	25	4	3.2	6	1	¥ 6,500 □
No. 4-48UNF	WB	2B	ITM2UN4FN	46	3.5	14	25	4	3.2	6	2	¥ 6,500 □
No. 5-40UNC	GB	2B	ITM2UN5HG	52	6.5	16	28	5	4	7	1	¥ 6,200 □
No. 5-40UNC	WB	2B	ITM2UN5HN	52	3.5	16	28	5	4	7	2	¥ 6,200 □
No. 5-44UNF	GB	2B	ITM2UN5GG	52	6.5	16	28	5	4	7	1	¥ 6,200 □
No. 5-44UNF	WB	2B	ITM2UN5GN	52	3.5	16	28	5	4	7	2	¥ 6,200 □
No. 6-32UNC	GB	2B	ITM2UN6JG	52	7	17	27	5	4	7	1	¥ 6,200 □
No. 6-32UNC	WB	2B	ITM2UN6JN	52	3.5	17	27	5	4	7	2	¥ 6,200 □
No. 6-40UNF	GB	2B	ITM2UN6HG	52	7	17	27	5	4	7	1	¥ 6,200 □
No. 6-40UNF	WB	2B	ITM2UN6HN	52	3.5	17	27	5	4	7	2	¥ 6,200 □
No. 8-32UNC	GB	2B	ITM2UN8JG	60	9	22	31	5.5	4.5	7	1	¥ 6,140 □
No. 8-32UNC	WB	2B	ITM2UN8JN	60	5	22	31	5.5	4.5	7	2	¥ 6,140 □
No. 8-36UNF	GB	2B	ITM2UN8IG	60	9	22	31	5.5	4.5	7	1	¥ 6,140 □
No. 8-36UNF	WB	2B	ITM2UN8IN	60	5	22	31	5.5	4.5	7	2	¥ 6,140 □
No. 10-24UNC	GB	2B	ITM2UNAMG	60	9.5	22	32	5.5	4.5	7	1	¥ 6,140 □
No. 10-24UNC	WB	2B	ITM2UNAMN	60	5	22	32	5.5	4.5	7	2	¥ 6,140 □
No. 10-32UNF	GB	2B	ITM2UNAJG	60	9.5	22	32	5.5	4.5	7	1	¥ 6,140 □
No. 10-32UNF	WB	2B	ITM2UNAJN	60	5	22	32	5.5	4.5	7	2	¥ 6,140 □
No. 12-24UNC	GB	2B	ITM2UNCMG	62	9.5	26	32	6	4.5	7	1	¥ 6,100 □
No. 12-24UNC	WB	2B	ITM2UNCMN	62	5	26	32	6	4.5	7	2	¥ 6,100 □
No. 12-28UNF	GB	2B	ITM2UNCKG	62	9.5	26	32	6	4.5	7	1	¥ 6,100 □
No. 12-28UNF	WB	2B	ITM2UNCKN	62	5	26	32	6	4.5	7	2	¥ 6,100 □
1/4-20UNC	GB	2B	ITM2U04NG	62	15	26	32	6	4.5	7	1	¥ 6,100 □
1/4-20UNC	WB	2B	ITM2U04NN	62	10	26	32	6	4.5	7	2	¥ 6,100 □
1/4-28UNF	GB	2B	ITM2U04KG	62	12	26	32	6	4.5	7	1	¥ 6,100 □
1/4-28UNF	WB	2B	ITM2U04KN	62	7	26	32	6	4.5	7	2	¥ 6,100 □
5/16-18UNC	GB	2B	ITM2U05OG	70	15	34	36	6.2	5	8	3	¥ 6,250 □
5/16-18UNC	WB	2B	ITM2U05ON	70	10	34	36	6.2	5	8	4	¥ 6,250 □
5/16-24UNF	GB	2B	ITM2U05MG	70	15	34	36	6.2	5	8	3	¥ 6,250 □
5/16-24UNF	WB	2B	ITM2U05MN	70	7	34	36	6.2	5	8	4	¥ 6,250 □
3/8-16UNC	GB	2B	ITM2U06PG	75	17	37	38	7	5.5	8	3	¥ 6,340 □
3/8-16UNC	WB	2B	ITM2U06PN	75	10	37	38	7	5.5	8	4	¥ 6,340 □
3/8-24UNF	GB	2B	ITM2U06MG	75	17	37	38	7	5.5	8	3	¥ 6,340 □
3/8-24UNF	WB	2B	ITM2U06MN	75	10	37	38	7	5.5	8	4	¥ 6,340 □
7/16-14UNC	GB	2B	ITM2U07QG	82	17	40	42	8.5	6.5	9	3	¥ 6,560 □
7/16-14UNC	WB	2B	ITM2U07QN	82	10	40	42	8.5	6.5	9	4	¥ 6,560 □
7/16-20UNF	GB	2B	ITM2U07NG	82	17	40	42	8.5	6.5	9	3	¥ 6,560 □
7/16-20UNF	WB	2B	ITM2U07NN	82	10	40	42	8.5	6.5	9	4	¥ 6,560 □

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

SIT Simple Thread Inspection Tools

Size		Class	Code	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
1/2-13UNC	GB	2B	ITM2U08RG	88	17	43	45	10.5	8	11	3	¥ 6,890 □
1/2-13UNC	WB	2B	ITM2U08RN	88	13	43	45	10.5	8	11	4	¥ 6,890 □
1/2-20UNF	GB	2B	ITM2U08NG	88	17	43	45	10.5	8	11	3	¥ 6,890 □
1/2-20UNF	WB	2B	ITM2U08NN	88	10	43	45	10.5	8	11	4	¥ 6,890 □
9/16-12UNC	GB	2B	ITM2U09SG	95	26	47	48	12.5	10	13	3	¥ 7,030 □
9/16-12UNC	WB	2B	ITM2U09SN	95	17	47	48	12.5	10	13	4	¥ 7,030 □
9/16-18UNF	GB	2B	ITM2U09OG	95	20	47	48	12.5	10	13	3	¥ 7,030 □
9/16-18UNF	WB	2B	ITM2U09ON	95	13	47	48	12.5	10	13	4	¥ 7,030 □
5/8-11UNC	GB	2B	ITM2U10UG	95	26	47	48	12.5	10	13	3	¥ 7,030 □
5/8-11UNC	WB	2B	ITM2U10UN	95	17	47	48	12.5	10	13	4	¥ 7,030 □
5/8-18UNF	GB	2B	ITM2U10OG	95	20	47	48	12.5	10	13	3	¥ 7,030 □
5/8-18UNF	WB	2B	ITM2U10ON	95	13	47	48	12.5	10	13	4	¥ 7,030 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Overall length	GO part	NOT-GO part	Recess length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ_1	ℓ_2	ℓ_3	ℓn	ℓs	Ds	K	ℓk

SITD

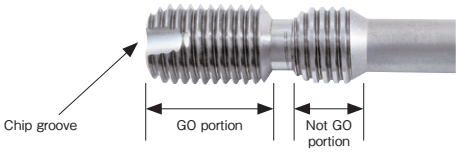
Simple Thread Inspection Tools, Tandem Type



Specification

HSS

Product Features



- The SITD has two "screw threaded portions" in an integrated shape on one guage. It has sections for Go threads and Not Go threads combined, thus it can be used in a continuous measurement of the GO (GP) and the NOT GO (NP / WP) with one plug gauge. It is an inspection tool that can be completed in one measurement.
- SITD is installed in a screw tightening machine when used.
- For use with small diameter fine pitch threads. Smooth measurement can be carried out by using the stepped thread even for screw inspection that is difficult to insert.
- To ensure accurate inspection, it is mandatory to remove all small debris in the inside of the internal thread before inserting the guage into the thread thus, the chip groove end part is used for this purpose.

The accuracy of the SITD

The single pitch diameter tolerance, the pitch tolerance and the threads half angle allowance are all important in the accurate measurement of an internal screw thread. The SITD gauges are manufactured to the same accuracy as that of a thread plug gauge.

■Comparison between the GO screw thread "GB-6H" and the GO screw thread plug gauge "GP-6H"

Unit : mm

Size	Major Diameter				Pitch Diameter				Pitch Tol.	Thread Half Angle Tol.
	Basic Size	Max	Min	Tol.	Basic Dia.	Max	Min	Tol.	(±)	(± Min.)
GB-6H M6 × 1	6.000	6.023	6.001	0.022	5.350	5.3675	5.3565	0.011	0.005	15
GP-6H M6 × 1	6.000	6.023	6.001	0.022	5.350	5.3675	5.3565	0.011	0.005	15

The pitch diameter is a single pitch diameter tolerance.
The tolerance of the pitch also includes the deviation of the lead.

■Comparison of NOT GO thread portion "NB-6H" and NOT GO screw thread plug gauge "NP-6H"

Unit : mm

Size	Major Diameter				Pitch Diameter				Pitch Tol.	Thread Half Angle Tol.
	Basic Size	Max	Min	Tol.	Basic Dia.	Max	Min	Tol.	(±)	(± Min.)
NB-6H M6 × 1	5.7055	5.7165	5.6945	0.022	5.500	5.511	5.500	0.011	0.005	16
NP-6H M6 × 1	5.7055	5.7165	5.6945	0.022	5.500	5.511	5.500	0.011	0.005	16

The pitch diameter is a single pitch diameter tolerance.
The tolerance of the pitch also includes the deviation of the lead.

* The screw thread precision is the same as a thread gauge, but since some of the specifications like length of screw thread portion and the relief shape of the thread root are originated by YAMAWA. Therefore, these gauges are not to be called "thread gauge" and distinguished as "simple inspection tools for internal screw threads".

The SITD is distinguished as a simple inspection tool of internal screw threads.

Overall length	GO part	NOT-GO part	Recess length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ_1	ℓ_2	ℓ_3	ℓn	ℓs	Ds	K	ℓk

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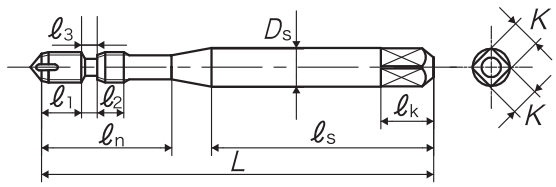

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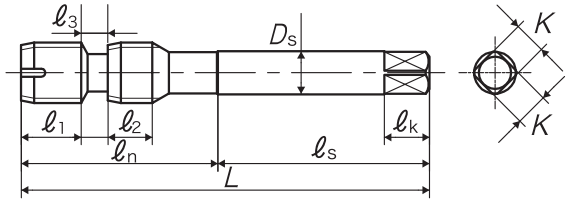


Segment : 7B

Size	Class	Code	L (mm)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
For Metric Threads													
M2 × 0.4	6H	ITDM62.0E	42	4	2	1.2	12	27	3	2.5	5	1	¥ 23,600 □
M2 × 0.25	5H	ITDM52.0B	42	4.9	1.3	1	12	27	3	2.5	5	1	¥ 32,100 □
M2.2 × 0.45	6H	ITDM62.2F	42	4.4	2.3	1.4	12	27	3	2.5	5	1	¥ 23,600 □
M2.2 × 0.25	5H	ITDM52.2B	42	5.8	1.3	1	12	27	3	2.5	5	1	¥ 32,100 □
M2.3 × 0.4	6H	ITDM62.3E	42	4	2	1.2	12	27	3	2.5	5	1	¥ 23,600 □
M2.3 × 0.25	5H	ITDM52.3B	42	4.9	1.3	1	12	27	3	2.5	5	1	¥ 32,100 □
M2.5 × 0.45	6H	ITDM62.5F	46	4.4	2.3	1.4	14	29	3	2.5	5	1	¥ 21,300 □
M2.5 × 0.35	6H	ITDM62.5D	46	5.2	1.8	1.1	14	29	3	2.5	5	1	¥ 28,700 □
M2.6 × 0.45	6H	ITDM62.6F	46	4.4	2.3	1.4	14	29	3	2.5	5	1	¥ 21,300 □
M2.6 × 0.35	6H	ITDM62.6D	46	5.2	1.8	1.1	14	29	3	2.5	5	1	¥ 28,700 □
M3 × 0.5	6H	ITDM63.0G	46	5	2.5	1.5	14	26	4	3.2	6	1	¥ 20,900 □
M3 × 0.35	6H	ITDM63.0D	46	6.1	1.8	1.1	14	26	4	3.2	6	1	¥ 28,400 □
M3.5 × 0.6	6H	ITDM63.5H	52	6.2	3	1.8	16	29	5	4	7	1	¥ 19,800 □
M3.5 × 0.35	6H	ITDM63.5D	52	8.1	1.8	1.1	16	29	5	4	7	1	¥ 27,900 □
M4 × 0.7	6H	ITDM64.0I	52	5.4	3.5	2.1	17	29	5	4	7	1	¥ 19,800 □
M4 × 0.5	6H	ITDM64.0G	52	7	2.5	1.5	17	29	5	4	7	1	¥ 24,200 □
M4.5 × 0.75	6H	ITDM64.5J	60	6.9	3.8	2.3	21	33	5.5	4.5	7	1	¥ 19,600 □
M4.5 × 0.5	6H	ITDM64.5G	60	9	2.5	1.5	21	33	5.5	4.5	7	1	¥ 24,300 □
M5 × 0.8	6H	ITDM65.0K	60	6.6	4	2.4	22	33	5.5	4.5	7	1	¥ 19,600 □
M5 × 0.5	6H	ITDM65.0G	60	9	2.5	1.5	22	33	5.5	4.5	7	1	¥ 24,300 □
M5.5 × 0.5	6H	ITDM65.5G	62	11	2.5	1.5	26	33	6	4.5	7	1	¥ 24,600 □
M6 × 1	6H	ITDM66.0M	62	7	5	3	26	33	6	4.5	7	1	¥ 19,200 □
M6 × 0.75	6H	ITDM66.0J	62	8.9	3.8	2.3	26	33	6	4.5	7	1	¥ 21,100 □
M7 × 1	6H	ITDM67.0M	70	11.9	5	3	34	36	6.2	5	8	2	¥ 20,800 □
M7 × 0.75	6H	ITDM67.0J	70	13.8	3.8	2.3	34	36	6.2	5	8	2	¥ 21,900 □
M8 × 1.25	6H	ITDM68.0N	70	8.9	6.3	3.8	34	36	6.2	5	8	2	¥ 19,600 □
M8 × 1	6H	ITDM68.0M	70	11	5	3	34	36	6.2	5	8	2	¥ 19,600 □
M8 × 0.75	6H	ITDM68.0J	70	12.9	3.8	2.3	34	36	6.2	5	8	2	¥ 22,900 □
M9 × 1.25	6H	ITDM69.0N	75	13.8	6.3	3.8	37	38	7	5.5	8	2	¥ 26,700 □
M9 × 1	6H	ITDM69.0M	75	15.9	5	3	37	38	7	5.5	8	2	¥ 26,700 □
M9 × 0.75	6H	ITDM69.0J	75	17.8	3.8	2.3	37	38	7	5.5	8	2	¥ 26,700 □
M10 × 1.5	6H	ITDM60100	75	11	7.5	4.5	37	38	7	5.5	8	2	¥ 19,800 □
M10 × 1.25	6H	ITDM6010N	75	12.9	6.3	3.8	37	38	7	5.5	8	2	¥ 19,800 □
M10 × 1	6H	ITDM6010M	75	15	5	3	37	38	7	5.5	8	2	¥ 19,800 □
M10 × 0.75	6H	ITDM6010J	75	16.9	3.8	2.3	37	38	7	5.5	8	2	¥ 25,400 □
M11 × 1.5	6H	ITDM60110	82	14.9	7.5	4.5	40	42	8.5	6.5	9	2	¥ 20,400 □
M11 × 1	6H	ITDM6011M	82	18.9	5	3	40	42	8.5	6.5	9	2	¥ 26,500 □
M11 × 0.75	6H	ITDM6011J	82	20.8	3.8	2.3	40	42	8.5	6.5	9	2	¥ 26,500 □
M12 × 1.75	6H	ITDM6012P	82	11.9	8.8	5.3	40	42	8.5	6.5	9	2	¥ 20,400 □
M12 × 1.5	6H	ITDM60120	82	14	7.5	4.5	40	42	8.5	6.5	9	2	¥ 20,400 □
M12 × 1.25	6H	ITDM6012N	82	15.9	6.3	3.8	40	42	8.5	6.5	9	2	¥ 20,400 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Think threads with YAMAWA

Overall length	GO part	NOT-GO part	Recess length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ_1	ℓ_2	ℓ_3	ℓn	ℓs	Ds	K	ℓk

SITD Simple Thread Inspection Tools, Tandem Type

Size	Class	Code	L (mm)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
M12 × 1	6H	ITDM6012M	82	18	5	3	40	42	8.5	6.5	9	2	¥ 21,500 □
M14 × 2	6H	ITDM6014Q	88	10	10	6	43	45	10.5	8	11	2	¥ 21,500 □
M14 × 1.5	6H	ITDM6014O	88	14	7.5	4.5	43	45	10.5	8	11	2	¥ 21,500 □
M14 × 1.25	6H	ITDM6014N	88	15.9	6.3	3.8	43	45	10.5	8	11	2	¥ 24,200 □
M14 × 1	6H	ITDM6014M	88	18	5	3	43	45	10.5	8	11	2	¥ 24,200 □
M15 × 1.5	6H	ITDM6015O	95	14.9	7.5	4.5	47	48	12.5	10	13	2	¥ 23,800 □
M15 × 1	6H	ITDM6015M	95	18.9	5	3	47	48	12.5	10	13	2	¥ 23,800 □
M16 × 2	6H	ITDM6016Q	95	10	10	6	47	48	12.5	10	13	2	¥ 24,100 □
M16 × 1.5	6H	ITDM6016O	95	14	7.5	4.5	47	48	12.5	10	13	2	¥ 24,100 □
M16 × 1	6H	ITDM6016M	95	18	5	3	47	48	12.5	10	13	2	¥ 25,600 □
M17 × 1.5	6H	ITDM6017O	100	21.9	7.5	4.5	49	51	14	11	14	2	¥ 25,600 □
M17 × 1	6H	ITDM6017M	100	25.9	5	3	49	51	14	11	14	2	¥ 25,600 □
M18 × 2.5	6H	ITDM6018R	100	13	12.5	7.5	49	51	14	11	14	2	¥ 24,800 □
M18 × 2	6H	ITDM6018Q	100	17	10	6	49	51	14	11	14	2	¥ 24,800 □
M18 × 1.5	6H	ITDM6018O	100	21	7.5	4.5	49	51	14	11	14	2	¥ 24,800 □
M18 × 1	6H	ITDM6018M	100	25	5	3	49	51	14	11	14	2	¥ 25,900 □
For Unified Threads													
No.2-56UNC	2B	ITDM2UN2E	42	4.4	2.3	1.4	12	26	3	2.5	5	1	¥ 25,400 □
No.2-64UNF	2B	ITDM2UN2D	42	4.9	2	1.2	12	26	3	2.5	5	1	¥ 25,400 □
No.3-48UNC	2B	ITDM2UN3F	46	3.9	2.6	1.6	14	28	3	2.5	5	1	¥ 25,400 □
No.3-56UNF	2B	ITDM2UN3E	46	4.4	2.3	1.4	14	28	3	2.5	5	1	¥ 25,400 □
No.4-40UNC	2B	ITDM2UN4H	46	3.9	3.2	1.9	14	25	4	3.2	6	1	¥ 24,200 □
No.4-48UNF	2B	ITDM2UN4F	46	4.8	2.6	1.6	14	25	4	3.2	6	1	¥ 24,200 □
No.5-40UNC	2B	ITDM2UN5H	52	5.9	3.2	1.9	16	28	5	4	7	1	¥ 24,200 □
No.5-44UNF	2B	ITDM2UN5G	52	6.4	2.9	1.7	16	28	5	4	7	1	¥ 24,200 □
No.6-32UNC	2B	ITDM2UN6J	52	4.6	4	2.4	17	27	5	4	7	1	¥ 23,200 □
No.6-40UNF	2B	ITDM2UN6H	52	5.9	3.2	1.9	17	27	5	4	7	1	¥ 23,200 □
No.8-32UNC	2B	ITDM2UN8J	60	6.6	4	2.4	22	31	5.5	4.5	7	1	¥ 23,600 □
No.8-36UNF	2B	ITDM2UN8I	60	7.4	3.5	2.1	22	31	5.5	4.5	7	1	¥ 23,600 □
No.10-24UNC	2B	ITDM2UNAM	62	7.5	5.3	3.2	26	32	6	4.5	7	1	¥ 22,000 □
No.10-32UNF	2B	ITDM2UNAJ	62	9.6	4	2.4	26	32	6	4.5	7	1	¥ 22,000 □
No.12-24UNC	2B	ITDM2UNCM	62	6.5	5.3	3.2	26	32	6	4.5	7	1	¥ 22,000 □
No.12-28UNF	2B	ITDM2UNCK	62	7.8	4.5	2.7	26	32	6	4.5	7	1	¥ 22,000 □
1/4-20UNC	2B	ITDM2U04N	70	10.2	6.4	3.8	34	36	6.2	5	8	2	¥ 22,400 □
1/4-28UNF	2B	ITDM2U04K	70	13.2	4.5	2.7	34	36	6.2	5	8	2	¥ 22,400 □
5/16-18UNC	2B	ITDM2U05O	70	7.7	7.1	4.2	34	36	6.2	5	8	2	¥ 23,800 □
5/16-24UNF	2B	ITDM2U05M	70	10.5	5.3	3.2	34	36	6.2	5	8	2	¥ 23,800 □
3/8-16UNC	2B	ITDM2U06P	75	10.7	7.9	4.8	37	38	7	5.5	8	2	¥ 23,800 □
3/8-24UNF	2B	ITDM2U06M	75	14.9	5.3	3.2	37	38	7	5.5	8	2	¥ 23,800 □
7/16-14UNC	2B	ITDM2U07Q	82	12.3	9.1	5.4	40	42	8.5	6.5	9	2	¥ 24,200 □
7/16-20UNF	2B	ITDM2U07N	82	16.6	6.4	3.8	40	42	8.5	6.5	9	2	¥ 24,200 □
1/2-13UNC	2B	ITDM2U08R	88	11.4	9.8	5.9	43	45	10.5	8	11	2	¥ 24,200 □
1/2-20UNF	2B	ITDM2U08N	88	16.9	6.4	3.8	43	45	10.5	8	11	2	¥ 24,200 □
9/16-12UNC	2B	ITDM2U09S	95	10.5	10.6	6.4	47	48	12.5	10	13	2	¥ 27,000 □
9/16-18UNF	2B	ITDM2U09O	95	16.2	7.1	4.2	47	48	12.5	10	13	2	¥ 27,000 □
5/8-11UNC	2B	ITDM2U10U	100	16.4	11.5	6.9	49	51	14	11	14	2	¥ 27,000 □
5/8-18UNF	2B	ITDM2U10O	100	23.5	7.1	4.2	49	51	14	11	14	2	¥ 27,000 □

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

MEMO

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CHECK PINS

Usage example of Check Pins

You can check both hole size and hole condition at the same time by this Check-pin!



POINT Appropriate bored hole before tapping → ●Longer tool life! ●Improved quality of internal threads! → **Total cost reduction!**

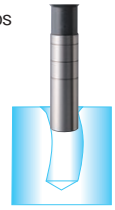
It is important to check the hole condition before tapping!

Hole condition can be inappropriate before tapping.

Set efficient hole size and bore holes correctly, and you can get the longer tool life and keep away from any tapping troubles. Let's check the hole before tapping.

CASE 1 Bending

Check-pin stops on the way.



BAD

CASE 2 Slanting

Hole isn't vertical against end face.



BAD

CASE 3 Oversize inlet of hole

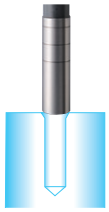
Inlet is too big.



BAD

CASE 4 Undersize hole

Hole is smaller than minimum size of the standard.



BAD

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CHECK PINS

Access to the introduction by Manga.

Access to the introduction by Manga.

Please check the hole size before tapping!

Let's check the hole size before tapping 6H class internal threads of M6×1 by using Check-pin for cutting taps.

How to use CPC-S (Straight type)

STEP 1 Check the minor dia. for M6×1 6H internal thread

STEP 2 Size of the Check-pin for M6×1

Size	L	ℓ	DS	d1 (Percentage of Thread Engagement)	d2 (Percentage of Thread Engagement)
M6 ×1	73	16.5	6	4.917 (100%)	5.026 (90%)
				4.972 (95%)	5.080 (85%)
				5.026 (90%)	5.134 (80%)
				5.080 (85%)	5.188 (75%)
				5.134 (80%)	5.242 (70%)

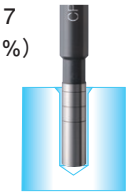
Select the nearest sizes of the Check-pins to the max and min size of minor dia of 6H internal thread by checking the table listed on the left side.

⇒ ①4.917 (100%) and ②5.134 (80%)

Depending on the feature of work-piece materials, it is beneficial to tapping to make the hole size before tapping as large as possible and within the tolerance.

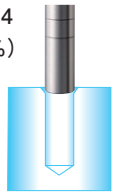
STEP 3 Insert the Check-pins ① and ②, selected in step 2.

① 4.917 (100%)



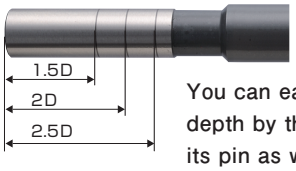
Check-pin smoothly goes into the bottom of the hole.

② 5.134 (80%)



Check-pin doesn't go into the hole.

GOOD The hole is finished within minor dia of 6H class internal threads.



You can easily check hole depth by the three lines on its pin as well.

How to use CPC-T (Taper type)

Size	L	ℓ	DS	d1 (Percentage of Thread Engagement)	d2 (Percentage of Thread Engagement)	Product Code	(ℓ1)	(ℓ2)
M6 ×1	61.5	17	6	4.917 (100%)	5.153 (78%)	CPCT6.0M	3.8	12.8

BAD



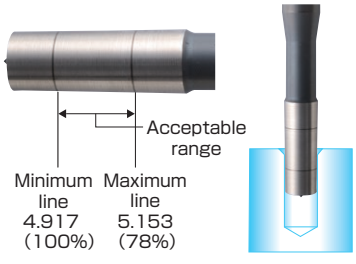
Bad hole : Check-pin doesn't go into the hole over the minimum line.

BAD



Bad hole : Check-pin goes into the hole over the maximum line.

GOOD



Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CPC-S



Check Pins for Bored Hole in Thread Cut Tapping (Straight Type)

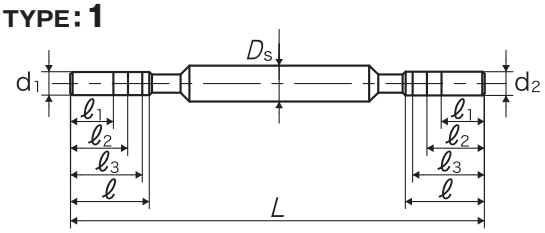
Specification

HSS

■CPC-S consisting of 5 piece pins enables checking of several kinds of bored hole dia. and checking of depth of bored hole(for cutting taps, straight type). CPC-S is made from wear resistant HSS material and is applicable for both through hole and blind hole.

■There are two types of five-pin set depending on the percentage of thread engagement: one set containing pins of 75% to 65% thread engagements and another containing pins of 100% to 90% thread engagements.

TYPE : 1



Segment : 7C

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
For Metric Threads											
M2 × 0.4	CPCS2.0EA	41.5	5.5	1.567 (100%)	1.610 (90%)	3	4	5	3	1	¥ 2,320 □
M2 × 0.4	CPCS2.0EB	41.5	5.5	1.589 (95%)	1.632 (85%)	3	4	5	3	1	¥ 2,320 □
M2 × 0.4	CPCS2.0EC	41.5	5.5	1.610 (90%)	1.654 (80%)	3	4	5	3	1	¥ 2,320 □
M2 × 0.4	CPCS2.0ED	41.5	5.5	1.632 (85%)	1.675 (75%)	3	4	5	3	1	¥ 2,320 □
M2 × 0.4	CPCS2.0EE	41.5	5.5	1.654 (80%)	1.697 (70%)	3	4	5	3	1	¥ 2,320 □
M2 × 0.4	CPCS2.0EF	41.5	5.5	1.675 (75%)	1.719 (65%)	3	4	5	3	1	¥ 2,320 □
M2 × 0.4	CPCS2.0EM	5 piece set consists of CPCS2.0EB ～ CPCS2.0EF(95%～65%)									¥ 11,600 □
M2 × 0.4	CPCS2.0ES	5 piece set consists of CPCS2.0EA ～ CPCS2.0EE(100%～70%)									¥ 11,600 □
M2.5 × 0.45	CPCS2.5FA	45	7.5	2.013 (100%)	2.062 (90%)	3.75	5	6.25	3	1	¥ 2,500 □
M2.5 × 0.45	CPCS2.5FB	45	7.5	2.037 (95%)	2.086 (85%)	3.75	5	6.25	3	1	¥ 2,500 □
M2.5 × 0.45	CPCS2.5FC	45	7.5	2.062 (90%)	2.110 (80%)	3.75	5	6.25	3	1	¥ 2,500 □
M2.5 × 0.45	CPCS2.5FD	45	7.5	2.086 (85%)	2.135 (75%)	3.75	5	6.25	3	1	¥ 2,500 □
M2.5 × 0.45	CPCS2.5FE	45	7.5	2.110 (80%)	2.159 (70%)	3.75	5	6.25	3	1	¥ 2,500 □
M2.5 × 0.45	CPCS2.5FF	45	7.5	2.135 (75%)	2.183 (65%)	3.75	5	6.25	3	1	¥ 2,500 □
M2.5 × 0.45	CPCS2.5FM	5 piece set consists of CPCS2.5FB ～ CPCS2.5FF(95%～65%)									¥ 12,500 □
M2.5 × 0.45	CPCS2.5FS	5 piece set consists of CPCS2.5FA ～ CPCS2.5FE(100%～70%)									¥ 12,500 □
M2.5 × 0.35	CPCS2.5DA	45	7.5	2.121 (100%)	2.159 (90%)	3.75	5	6.25	3	1	¥ 2,900 □
M2.5 × 0.35	CPCS2.5DB	45	7.5	2.140 (95%)	2.178 (85%)	3.75	5	6.25	3	1	¥ 2,900 □
M2.5 × 0.35	CPCS2.5DC	45	7.5	2.159 (90%)	2.197 (80%)	3.75	5	6.25	3	1	¥ 2,900 □
M2.5 × 0.35	CPCS2.5DD	45	7.5	2.178 (85%)	2.216 (75%)	3.75	5	6.25	3	1	¥ 2,900 □
M2.5 × 0.35	CPCS2.5DE	45	7.5	2.197 (80%)	2.235 (70%)	3.75	5	6.25	3	1	¥ 2,900 □
M2.5 × 0.35	CPCS2.5DF	45	7.5	2.216 (75%)	2.254 (65%)	3.75	5	6.25	3	1	¥ 2,900 □
M2.5 × 0.35	CPCS2.5DM	5 piece set consists of CPCS2.5DB ～ CPCS2.5DF(95%～65%)									¥ 14,500 □
M2.5 × 0.35	CPCS2.5DS	5 piece set consists of CPCS2.5DA ～ CPCS2.5DE(100%～70%)									¥ 14,500 □
M3 × 0.5	CPCS3.0GA	49	9	2.459 (100%)	2.513 (90%)	4.5	6	7.5	4	1	¥ 2,600 □

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
M3 × 0.5	CPCS3.0GB	49	9	2.486 (95%)	2.540 (85%)	4.5	6	7.5	4	1	¥ 2,600 □
M3 × 0.5	CPCS3.0GC	49	9	2.513 (90%)	2.567 (80%)	4.5	6	7.5	4	1	¥ 2,600 □
M3 × 0.5	CPCS3.0GD	49	9	2.540 (85%)	2.594 (75%)	4.5	6	7.5	4	1	¥ 2,600 □
M3 × 0.5	CPCS3.0GE	49	9	2.567 (80%)	2.621 (70%)	4.5	6	7.5	4	1	¥ 2,600 □
M3 × 0.5	CPCS3.0GF	49	9	2.594 (75%)	2.648 (65%)	4.5	6	7.5	4	1	¥ 2,600 □
M3 × 0.5	CPCS3.0GM	5 piece set consists of CPCS3.0GB ～ CPCS3.0GF (95%～65%)									¥ 13,000 □
M3 × 0.5	CPCS3.0GS	5 piece set consists of CPCS3.0GA ～ CPCS3.0GE (100%～70%)									¥ 13,000 □
M3 × 0.35	CPCS3.0DA	49	9	2.621 (100%)	2.659 (90%)	4.5	6	7.5	4	1	¥ 3,000 □
M3 × 0.35	CPCS3.0DB	49	9	2.640 (95%)	2.678 (85%)	4.5	6	7.5	4	1	¥ 3,000 □
M3 × 0.35	CPCS3.0DC	49	9	2.659 (90%)	2.697 (80%)	4.5	6	7.5	4	1	¥ 3,000 □
M3 × 0.35	CPCS3.0DD	49	9	2.678 (85%)	2.716 (75%)	4.5	6	7.5	4	1	¥ 3,000 □
M3 × 0.35	CPCS3.0DE	49	9	2.697 (80%)	2.735 (70%)	4.5	6	7.5	4	1	¥ 3,000 □
M3 × 0.35	CPCS3.0DF	49	9	2.716 (75%)	2.754 (65%)	4.5	6	7.5	4	1	¥ 3,000 □
M3 × 0.35	CPCS3.0DM	5 piece set consists of CPCS3.0DB ～ CPCS3.0DF (95%～65%)									¥ 15,000 □
M3 × 0.35	CPCS3.0DS	5 piece set consists of CPCS3.0DA ～ CPCS3.0DE (100%～70%)									¥ 15,000 □
M3.5 × 0.6	CPCS3.5HA	57	11	2.850 (100%)	2.915 (90%)	5.25	7	8.75	5	1	¥ 2,800 □
M3.5 × 0.6	CPCS3.5HB	57	11	2.883 (95%)	2.948 (85%)	5.25	7	8.75	5	1	¥ 2,800 □
M3.5 × 0.6	CPCS3.5HC	57	11	2.915 (90%)	2.980 (80%)	5.25	7	8.75	5	1	¥ 2,800 □
M3.5 × 0.6	CPCS3.5HD	57	11	2.948 (85%)	3.013 (75%)	5.25	7	8.75	5	1	¥ 2,800 □
M3.5 × 0.6	CPCS3.5HE	57	11	2.980 (80%)	3.045 (70%)	5.25	7	8.75	5	1	¥ 2,800 □
M3.5 × 0.6	CPCS3.5HF	57	11	3.013 (75%)	3.078 (65%)	5.25	7	8.75	5	1	¥ 2,800 □
M3.5 × 0.6	CPCS3.5HM	5 piece set consists of CPCS3.5HB ～ CPCS3.5HF (95%～65%)									¥ 14,000 □
M3.5 × 0.6	CPCS3.5HS	5 piece set consists of CPCS3.5HA ～ CPCS3.5HE (100%～70%)									¥ 14,000 □
M3.5 × 0.35	CPCS3.5DA	57	11	3.121 (100%)	3.159 (90%)	5.25	7	8.75	5	1	¥ 3,200 □
M3.5 × 0.35	CPCS3.5DB	57	11	3.140 (95%)	3.178 (85%)	5.25	7	8.75	5	1	¥ 3,200 □
M3.5 × 0.35	CPCS3.5DC	57	11	3.159 (90%)	3.197 (80%)	5.25	7	8.75	5	1	¥ 3,200 □
M3.5 × 0.35	CPCS3.5DD	57	11	3.178 (85%)	3.216 (75%)	5.25	7	8.75	5	1	¥ 3,200 □
M3.5 × 0.35	CPCS3.5DE	57	11	3.197 (80%)	3.235 (70%)	5.25	7	8.75	5	1	¥ 3,200 □
M3.5 × 0.35	CPCS3.5DF	57	11	3.216 (75%)	3.254 (65%)	5.25	7	8.75	5	1	¥ 3,200 □
M3.5 × 0.35	CPCS3.5DM	5 piece set consists of CPCS3.5DB ～ CPCS3.5DF (95%～65%)									¥ 16,000 □
M3.5 × 0.35	CPCS3.5DS	5 piece set consists of CPCS3.5DA ～ CPCS3.5DE (100%～70%)									¥ 16,000 □
M4 × 0.7	CPCS4.0IA	57	11	3.242 (100%)	3.318 (90%)	6	8	10	5	1	¥ 2,800 □
M4 × 0.7	CPCS4.0IB	57	11	3.280 (95%)	3.356 (85%)	6	8	10	5	1	¥ 2,800 □
M4 × 0.7	CPCS4.0IC	57	11	3.318 (90%)	3.394 (80%)	6	8	10	5	1	¥ 2,800 □
M4 × 0.7	CPCS4.0ID	57	11	3.356 (85%)	3.432 (75%)	6	8	10	5	1	¥ 2,800 □
M4 × 0.7	CPCS4.0IE	57	11	3.394 (80%)	3.470 (70%)	6	8	10	5	1	¥ 2,800 □
M4 × 0.7	CPCS4.0IF	57	11	3.432 (75%)	3.507 (65%)	6	8	10	5	1	¥ 2,800 □
M4 × 0.7	CPCS4.0IM	5 piece set consists of CPCS4.0IB ～ CPCS4.0IF (95%～65%)									¥ 14,000 □
M4 × 0.7	CPCS4.0IS	5 piece set consists of CPCS4.0IA ～ CPCS4.0IE (100%～70%)									¥ 14,000 □
M4 × 0.5	CPCS4.0GA	57	11	3.459 (100%)	3.513 (90%)	6	8	10	5	1	¥ 3,200 □
M4 × 0.5	CPCS4.0GB	57	11	3.486 (95%)	3.540 (85%)	6	8	10	5	1	¥ 3,200 □
M4 × 0.5	CPCS4.0GC	57	11	3.513 (90%)	3.567 (80%)	6	8	10	5	1	¥ 3,200 □
M4 × 0.5	CPCS4.0GD	57	11	3.540 (85%)	3.594 (75%)	6	8	10	5	1	¥ 3,200 □
M4 × 0.5	CPCS4.0GE	57	11	3.567 (80%)	3.621 (70%)	6	8	10	5	1	¥ 3,200 □
M4 × 0.5	CPCS4.0GF	57	11	3.594 (75%)	3.648 (65%)	6	8	10	5	1	¥ 3,200 □
M4 × 0.5	CPCS4.0GM	5 piece set consists of CPCS4.0GB ～ CPCS4.0GF (95%～65%)									¥ 16,000 □
M4 × 0.5	CPCS4.0GS	5 piece set consists of CPCS4.0GA ～ CPCS4.0GE (100%～70%)									¥ 16,000 □
M4.5 × 0.75	CPCS4.5JA	65	14	3.688 (100%)	3.769 (90%)	6.75	9	11.25	5.5	1	¥ 3,300 □
M4.5 × 0.75	CPCS4.5JB	65	14	3.729 (95%)	3.810 (85%)	6.75	9	11.25	5.5	1	¥ 3,300 □
M4.5 × 0.75	CPCS4.5JC	65	14	3.769 (90%)	3.850 (80%)	6.75	9	11.25	5.5	1	¥ 3,300 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CPC-S Check Pins for Bored Hole in Thread Cut Tapping (Straight Type)

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
M4.5 × 0.75	CPCS4.5JD	65	14	3.810 (85%)	3.891 (75%)	6.75	9	11.25	5.5	1	¥ 3,300 □
M4.5 × 0.75	CPCS4.5JE	65	14	3.850 (80%)	3.932 (70%)	6.75	9	11.25	5.5	1	¥ 3,300 □
M4.5 × 0.75	CPCS4.5JF	65	14	3.891 (75%)	3.972 (65%)	6.75	9	11.25	5.5	1	¥ 3,300 □
M4.5 × 0.75	CPCS4.5JM	5 piece set consists of CPCS4.5JB ~ CPCS4.5JF (95%~65%)									¥ 16,500 □
M4.5 × 0.75	CPCS4.5JS	5 piece set consists of CPCS4.5JA ~ CPCS4.5JE (100%~70%)									¥ 16,500 □
M4.5 × 0.5	CPCS4.5GA	65	14	3.959 (100%)	4.013 (90%)	6.75	9	11.25	5.5	1	¥ 3,300 □
M4.5 × 0.5	CPCS4.5GB	65	14	3.986 (95%)	4.040 (85%)	6.75	9	11.25	5.5	1	¥ 3,300 □
M4.5 × 0.5	CPCS4.5GC	65	14	4.013 (90%)	4.067 (80%)	6.75	9	11.25	5.5	1	¥ 3,300 □
M4.5 × 0.5	CPCS4.5GD	65	14	4.040 (85%)	4.094 (75%)	6.75	9	11.25	5.5	1	¥ 3,300 □
M4.5 × 0.5	CPCS4.5GE	65	14	4.067 (80%)	4.121 (70%)	6.75	9	11.25	5.5	1	¥ 3,300 □
M4.5 × 0.5	CPCS4.5GF	65	14	4.094 (75%)	4.148 (65%)	6.75	9	11.25	5.5	1	¥ 3,300 □
M4.5 × 0.5	CPCS4.5GM	5 piece set consists of CPCS4.5GB ~ CPCS4.5GF (95%~65%)									¥ 16,500 □
M4.5 × 0.5	CPCS4.5GS	5 piece set consists of CPCS4.5GA ~ CPCS4.5GE (100%~70%)									¥ 16,500 □
M5 × 0.8	CPCS5.0KA	65	14	4.134 (100%)	4.221 (90%)	7.5	10	12.5	5.5	1	¥ 2,900 □
M5 × 0.8	CPCS5.0KB	65	14	4.177 (95%)	4.264 (85%)	7.5	10	12.5	5.5	1	¥ 2,900 □
M5 × 0.8	CPCS5.0KC	65	14	4.221 (90%)	4.307 (80%)	7.5	10	12.5	5.5	1	¥ 2,900 □
M5 × 0.8	CPCS5.0KD	65	14	4.264 (85%)	4.350 (75%)	7.5	10	12.5	5.5	1	¥ 2,900 □
M5 × 0.8	CPCS5.0KE	65	14	4.307 (80%)	4.394 (70%)	7.5	10	12.5	5.5	1	¥ 2,900 □
M5 × 0.8	CPCS5.0KF	65	14	4.350 (75%)	4.437 (65%)	7.5	10	12.5	5.5	1	¥ 2,900 □
M5 × 0.8	CPCS5.0KM	5 piece set consists of CPCS5.0KB ~ CPCS5.0KF (95%~65%)									¥ 14,500 □
M5 × 0.8	CPCS5.0KS	5 piece set consists of CPCS5.0KA ~ CPCS5.0KE (100%~70%)									¥ 14,500 □
M5 × 0.5	CPCS5.0GA	65	14	4.459 (100%)	4.513 (90%)	7.5	10	12.5	5.5	1	¥ 3,400 □
M5 × 0.5	CPCS5.0GB	65	14	4.486 (95%)	4.540 (85%)	7.5	10	12.5	5.5	1	¥ 3,400 □
M5 × 0.5	CPCS5.0GC	65	14	4.513 (90%)	4.567 (80%)	7.5	10	12.5	5.5	1	¥ 3,400 □
M5 × 0.5	CPCS5.0GD	65	14	4.540 (85%)	4.594 (75%)	7.5	10	12.5	5.5	1	¥ 3,400 □
M5 × 0.5	CPCS5.0GE	65	14	4.567 (80%)	4.621 (70%)	7.5	10	12.5	5.5	1	¥ 3,400 □
M5 × 0.5	CPCS5.0GF	65	14	4.594 (75%)	4.648 (65%)	7.5	10	12.5	5.5	1	¥ 3,400 □
M5 × 0.5	CPCS5.0GM	5 piece set consists of CPCS5.0GB ~ CPCS5.0GF (95%~65%)									¥ 17,000 □
M5 × 0.5	CPCS5.0GS	5 piece set consists of CPCS5.0GA ~ CPCS5.0GE (100%~70%)									¥ 17,000 □
M6 × 1	CPCS6.0MA	73	16.5	4.917 (100%)	5.026 (90%)	9	12	15	6	1	¥ 3,200 □
M6 × 1	CPCS6.0MB	73	16.5	4.972 (95%)	5.080 (85%)	9	12	15	6	1	¥ 3,200 □
M6 × 1	CPCS6.0MC	73	16.5	5.026 (90%)	5.134 (80%)	9	12	15	6	1	¥ 3,200 □
M6 × 1	CPCS6.0MD	73	16.5	5.080 (85%)	5.188 (75%)	9	12	15	6	1	¥ 3,200 □
M6 × 1	CPCS6.0ME	73	16.5	5.134 (80%)	5.242 (70%)	9	12	15	6	1	¥ 3,200 □
M6 × 1	CPCS6.0MF	73	16.5	5.188 (75%)	5.296 (65%)	9	12	15	6	1	¥ 3,200 □
M6 × 1	CPCS6.0MM	5 piece set consists of CPCS6.0MB ~ CPCS6.0MF (95%~65%)									¥ 16,000 □
M6 × 1	CPCS6.0MS	5 piece set consists of CPCS6.0MA ~ CPCS6.0ME (100%~70%)									¥ 16,000 □
M6 × 0.75	CPCS6.0JA	73	16.5	5.188 (100%)	5.269 (90%)	9	12	15	6	1	¥ 3,700 □
M6 × 0.75	CPCS6.0JB	73	16.5	5.229 (95%)	5.310 (85%)	9	12	15	6	1	¥ 3,700 □
M6 × 0.75	CPCS6.0JC	73	16.5	5.269 (90%)	5.350 (80%)	9	12	15	6	1	¥ 3,700 □
M6 × 0.75	CPCS6.0JD	73	16.5	5.310 (85%)	5.391 (75%)	9	12	15	6	1	¥ 3,700 □
M6 × 0.75	CPCS6.0JE	73	16.5	5.350 (80%)	5.432 (70%)	9	12	15	6	1	¥ 3,700 □
M6 × 0.75	CPCS6.0JF	73	16.5	5.391 (75%)	5.472 (65%)	9	12	15	6	1	¥ 3,700 □
M6 × 0.75	CPCS6.0JM	5 piece set consists of CPCS6.0JB ~ CPCS6.0JF (95%~65%)									¥ 18,500 □
M6 × 0.75	CPCS6.0JS	5 piece set consists of CPCS6.0JA ~ CPCS6.0JE (100%~70%)									¥ 18,500 □
M7 × 1	CPCS7.0MA	99	22	5.917 (100%)	6.026 (90%)	10.5	14	17.5	8	1	¥ 3,400 □
M7 × 1	CPCS7.0MB	99	22	5.972 (95%)	6.080 (85%)	10.5	14	17.5	8	1	¥ 3,400 □
M7 × 1	CPCS7.0MC	99	22	6.026 (90%)	6.134 (80%)	10.5	14	17.5	8	1	¥ 3,400 □
M7 × 1	CPCS7.0MD	99	22	6.080 (85%)	6.188 (75%)	10.5	14	17.5	8	1	¥ 3,400 □
M7 × 1	CPCS7.0ME	99	22	6.134 (80%)	6.242 (70%)	10.5	14	17.5	8	1	¥ 3,400 □

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※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CPC-S Check Pins for Bored Hole in Thread Cut Tapping (Straight Type)

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
M7 × 1	CPCS7.0MF	99	22	6.188 (75%)	6.296 (65%)	10.5	14	17.5	8	1	¥ 3,400 □
M7 × 1	CPCS7.0MM	5 piece set consists of CPCS7.0MB ～ CPCS7.0MF (95%～65%)									¥ 17,000 □
M7 × 1	CPCS7.0MS	5 piece set consists of CPCS7.0MA ～ CPCS7.0ME (100%～70%)									¥ 17,000 □
M7 × 0.75	CPCS7.0JA	99	22	6.188 (100%)	6.269 (90%)	10.5	14	17.5	8	1	¥ 3,900 □
M7 × 0.75	CPCS7.0JB	99	22	6.229 (95%)	6.310 (85%)	10.5	14	17.5	8	1	¥ 3,900 □
M7 × 0.75	CPCS7.0JC	99	22	6.269 (90%)	6.350 (80%)	10.5	14	17.5	8	1	¥ 3,900 □
M7 × 0.75	CPCS7.0JD	99	22	6.310 (85%)	6.391 (75%)	10.5	14	17.5	8	1	¥ 3,900 □
M7 × 0.75	CPCS7.0JE	99	22	6.350 (80%)	6.432 (70%)	10.5	14	17.5	8	1	¥ 3,900 □
M7 × 0.75	CPCS7.0JF	99	22	6.391 (75%)	6.472 (65%)	10.5	14	17.5	8	1	¥ 3,900 □
M7 × 0.75	CPCS7.0JM	5 piece set consists of CPCS7.0JB ～ CPCS7.0JF (95%～65%)									¥ 19,500 □
M7 × 0.75	CPCS7.0JS	5 piece set consists of CPCS7.0JA ～ CPCS7.0JE (100%～70%)									¥ 19,500 □
M8 × 1.25	CPCS8.0NA	99	22	6.647 (100%)	6.782 (90%)	12	16	20	8	1	¥ 3,400 □
M8 × 1.25	CPCS8.0NB	99	22	6.714 (95%)	6.850 (85%)	12	16	20	8	1	¥ 3,400 □
M8 × 1.25	CPCS8.0NC	99	22	6.782 (90%)	6.917 (80%)	12	16	20	8	1	¥ 3,400 □
M8 × 1.25	CPCS8.0ND	99	22	6.850 (85%)	6.985 (75%)	12	16	20	8	1	¥ 3,400 □
M8 × 1.25	CPCS8.0NE	99	22	6.917 (80%)	7.053 (70%)	12	16	20	8	1	¥ 3,400 □
M8 × 1.25	CPCS8.0NF	99	22	6.985 (75%)	7.120 (65%)	12	16	20	8	1	¥ 3,400 □
M8 × 1.25	CPCS8.0NM	5 piece set consists of CPCS8.0NB ～ CPCS8.0NF (95%～65%)									¥ 17,000 □
M8 × 1.25	CPCS8.0NS	5 piece set consists of CPCS8.0NA ～ CPCS8.0NE (100%～70%)									¥ 17,000 □
M8 × 1	CPCS8.0MA	99	22	6.917 (100%)	7.026 (90%)	12	16	20	8	1	¥ 3,900 □
M8 × 1	CPCS8.0MB	99	22	6.972 (95%)	7.080 (85%)	12	16	20	8	1	¥ 3,900 □
M8 × 1	CPCS8.0MC	99	22	7.026 (90%)	7.134 (80%)	12	16	20	8	1	¥ 3,900 □
M8 × 1	CPCS8.0MD	99	22	7.080 (85%)	7.188 (75%)	12	16	20	8	1	¥ 3,900 □
M8 × 1	CPCS8.0ME	99	22	7.134 (80%)	7.242 (70%)	12	16	20	8	1	¥ 3,900 □
M8 × 1	CPCS8.0MF	99	22	7.188 (75%)	7.296 (65%)	12	16	20	8	1	¥ 3,900 □
M8 × 1	CPCS8.0MM	5 piece set consists of CPCS8.0MB ～ CPCS8.0MF (95%～65%)									¥ 19,500 □
M8 × 1	CPCS8.0MS	5 piece set consists of CPCS8.0MA ～ CPCS8.0ME (100%～70%)									¥ 19,500 □
M8 × 0.75	CPCS8.0JA	99	22	7.188 (100%)	7.269 (90%)	12	16	20	8	1	¥ 3,900 □
M8 × 0.75	CPCS8.0JB	99	22	7.229 (95%)	7.310 (85%)	12	16	20	8	1	¥ 3,900 □
M8 × 0.75	CPCS8.0JC	99	22	7.269 (90%)	7.350 (80%)	12	16	20	8	1	¥ 3,900 □
M8 × 0.75	CPCS8.0JD	99	22	7.310 (85%)	7.391 (75%)	12	16	20	8	1	¥ 3,900 □
M8 × 0.75	CPCS8.0JE	99	22	7.350 (80%)	7.432 (70%)	12	16	20	8	1	¥ 3,900 □
M8 × 0.75	CPCS8.0JF	99	22	7.391 (75%)	7.472 (65%)	12	16	20	8	1	¥ 3,900 □
M8 × 0.75	CPCS8.0JM	5 piece set consists of CPCS8.0JB ～ CPCS8.0JF (95%～65%)									¥ 19,500 □
M8 × 0.75	CPCS8.0JS	5 piece set consists of CPCS8.0JA ～ CPCS8.0JE (100%～70%)									¥ 19,500 □
M9 × 1.25	CPCS9.0NA	110	27.5	7.647 (100%)	7.782 (90%)	13.5	18	22.5	10	1	¥ 3,800 □
M9 × 1.25	CPCS9.0NB	110	27.5	7.714 (95%)	7.850 (85%)	13.5	18	22.5	10	1	¥ 3,800 □
M9 × 1.25	CPCS9.0NC	110	27.5	7.782 (90%)	7.917 (80%)	13.5	18	22.5	10	1	¥ 3,800 □
M9 × 1.25	CPCS9.0ND	110	27.5	7.850 (85%)	7.985 (75%)	13.5	18	22.5	10	1	¥ 3,800 □
M9 × 1.25	CPCS9.0NE	110	27.5	7.917 (80%)	8.053 (70%)	13.5	18	22.5	10	1	¥ 3,800 □
M9 × 1.25	CPCS9.0NF	110	27.5	7.985 (75%)	8.120 (65%)	13.5	18	22.5	10	1	¥ 3,800 □
M9 × 1.25	CPCS9.0NM	5 piece set consists of CPCS9.0NB ～ CPCS9.0NF (95%～65%)									¥ 18,000 □
M9 × 1.25	CPCS9.0NS	5 piece set consists of CPCS9.0NA ～ CPCS9.0NE (100%～70%)									¥ 18,000 □
M9 × 1	CPCS9.0MA	110	27.5	7.917 (100%)	8.026 (90%)	13.5	18	22.5	10	1	¥ 4,200 □
M9 × 1	CPCS9.0MB	110	27.5	7.972 (95%)	8.080 (85%)	13.5	18	22.5	10	1	¥ 4,200 □
M9 × 1	CPCS9.0MC	110	27.5	8.026 (90%)	8.134 (80%)	13.5	18	22.5	10	1	¥ 4,200 □
M9 × 1	CPCS9.0MD	110	27.5	8.080 (85%)	8.188 (75%)	13.5	18	22.5	10	1	¥ 4,200 □
M9 × 1	CPCS9.0ME	110	27.5	8.134 (80%)	8.242 (70%)	13.5	18	22.5	10	1	¥ 4,200 □
M9 × 1	CPCS9.0MF	110	27.5	8.188 (75%)	8.296 (65%)	13.5	18	22.5	10	1	¥ 4,200 □
M9 × 1	CPCS9.0MM	5 piece set consists of CPCS9.0MB ～ CPCS9.0MF (95%～65%)									¥ 21,000 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

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Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CPC-S Check Pins for Bored Hole in Thread Cut Tapping (Straight Type)

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
M9 × 1	CPCS9.0MS	5 piece set consists of CPCS9.0MA ~ CPCS9.0ME(100%~70%)									¥ 21,000 □
M9 × 0.75	CPCS9.0JA	110	27.5	8.188 (100%)	8.269 (90%)	13.5	18	22.5	10	1	¥ 4,200 □
M9 × 0.75	CPCS9.0JB	110	27.5	8.229 (95%)	8.310 (85%)	13.5	18	22.5	10	1	¥ 4,200 □
M9 × 0.75	CPCS9.0JC	110	27.5	8.269 (90%)	8.350 (80%)	13.5	18	22.5	10	1	¥ 4,200 □
M9 × 0.75	CPCS9.0JD	110	27.5	8.310 (85%)	8.391 (75%)	13.5	18	22.5	10	1	¥ 4,200 □
M9 × 0.75	CPCS9.0JE	110	27.5	8.350 (80%)	8.432 (70%)	13.5	18	22.5	10	1	¥ 4,200 □
M9 × 0.75	CPCS9.0JF	110	27.5	8.391 (75%)	8.472 (65%)	13.5	18	22.5	10	1	¥ 4,200 □
M9 × 0.75	CPCS9.0JM	5 piece set consists of CPCS9.0JB ~ CPCS9.0JF(95%~65%)									¥ 21,000 □
M9 × 0.75	CPCS9.0JS	5 piece set consists of CPCS9.0JA ~ CPCS9.0JE(100%~70%)									¥ 21,000 □
M10 × 1.5	CPCS0100A	110	27.5	8.376 (100%)	8.538 (90%)	15	20	25	10	1	¥ 3,500 □
M10 × 1.5	CPCS0100B	110	27.5	8.457 (95%)	8.620 (85%)	15	20	25	10	1	¥ 3,500 □
M10 × 1.5	CPCS0100C	110	27.5	8.538 (90%)	8.701 (80%)	15	20	25	10	1	¥ 3,500 □
M10 × 1.5	CPCS0100D	110	27.5	8.620 (85%)	8.782 (75%)	15	20	25	10	1	¥ 3,500 □
M10 × 1.5	CPCS0100E	110	27.5	8.701 (80%)	8.863 (70%)	15	20	25	10	1	¥ 3,500 □
M10 × 1.5	CPCS0100F	110	27.5	8.782 (75%)	8.944 (65%)	15	20	25	10	1	¥ 3,500 □
M10 × 1.5	CPCS0100M	5 piece set consists of CPCS0100B ~ CPCS0100F(95%~65%)									¥ 17,500 □
M10 × 1.5	CPCS0100S	5 piece set consists of CPCS0100A ~ CPCS0100E(100%~70%)									¥ 17,500 □
M10 × 1.25	CPCS010NA	110	27.5	8.647 (100%)	8.782 (90%)	15	20	25	10	1	¥ 4,100 □
M10 × 1.25	CPCS010NB	110	27.5	8.714 (95%)	8.850 (85%)	15	20	25	10	1	¥ 4,100 □
M10 × 1.25	CPCS010NC	110	27.5	8.782 (90%)	8.917 (80%)	15	20	25	10	1	¥ 4,100 □
M10 × 1.25	CPCS010ND	110	27.5	8.850 (85%)	8.985 (75%)	15	20	25	10	1	¥ 4,100 □
M10 × 1.25	CPCS010NE	110	27.5	8.917 (80%)	9.053 (70%)	15	20	25	10	1	¥ 4,100 □
M10 × 1.25	CPCS010NF	110	27.5	8.985 (75%)	9.120 (65%)	15	20	25	10	1	¥ 4,100 □
M10 × 1.25	CPCS010NM	5 piece set consists of CPCS010NB ~ CPCS010NF(95%~65%)									¥ 20,500 □
M10 × 1.25	CPCS010NS	5 piece set consists of CPCS010NA ~ CPCS010NE(100%~70%)									¥ 20,500 □
M10 × 1	CPCS010MA	110	27.5	8.917 (100%)	9.026 (90%)	15	20	25	10	1	¥ 4,100 □
M10 × 1	CPCS010MB	110	27.5	8.972 (95%)	9.080 (85%)	15	20	25	10	1	¥ 4,100 □
M10 × 1	CPCS010MC	110	27.5	9.026 (90%)	9.134 (80%)	15	20	25	10	1	¥ 4,100 □
M10 × 1	CPCS010MD	110	27.5	9.080 (85%)	9.188 (75%)	15	20	25	10	1	¥ 4,100 □
M10 × 1	CPCS010ME	110	27.5	9.134 (80%)	9.242 (70%)	15	20	25	10	1	¥ 4,100 □
M10 × 1	CPCS010MF	110	27.5	9.188 (75%)	9.296 (65%)	15	20	25	10	1	¥ 4,100 □
M10 × 1	CPCS010MM	5 piece set consists of CPCS010MB ~ CPCS010MF(95%~65%)									¥ 20,500 □
M10 × 1	CPCS010MS	5 piece set consists of CPCS010MA ~ CPCS010ME(100%~70%)									¥ 20,500 □
M10 × 0.75	CPCS010JA	110	27.5	9.188 (100%)	9.269 (90%)	15	20	25	10	1	¥ 4,100 □
M10 × 0.75	CPCS010JB	110	27.5	9.229 (95%)	9.310 (85%)	15	20	25	10	1	¥ 4,100 □
M10 × 0.75	CPCS010JC	110	27.5	9.269 (90%)	9.350 (80%)	15	20	25	10	1	¥ 4,100 □
M10 × 0.75	CPCS010JD	110	27.5	9.310 (85%)	9.391 (75%)	15	20	25	10	1	¥ 4,100 □
M10 × 0.75	CPCS010JE	110	27.5	9.350 (80%)	9.432 (70%)	15	20	25	10	1	¥ 4,100 □
M10 × 0.75	CPCS010JF	110	27.5	9.391 (75%)	9.472 (65%)	15	20	25	10	1	¥ 4,100 □
M10 × 0.75	CPCS010JM	5 piece set consists of CPCS010JB ~ CPCS010JF(95%~65%)									¥ 20,500 □
M10 × 0.75	CPCS010JS	5 piece set consists of CPCS010JA ~ CPCS010JE(100%~70%)									¥ 20,500 □
M11 × 1.5	CPCS0110A	121	33	9.376 (100%)	9.538 (90%)	16.5	22	27.5	12	1	¥ 3,900 □
M11 × 1.5	CPCS0110B	121	33	9.457 (95%)	9.620 (85%)	16.5	22	27.5	12	1	¥ 3,900 □
M11 × 1.5	CPCS0110C	121	33	9.538 (90%)	9.701 (80%)	16.5	22	27.5	12	1	¥ 3,900 □
M11 × 1.5	CPCS0110D	121	33	9.620 (85%)	9.782 (75%)	16.5	22	27.5	12	1	¥ 3,900 □
M11 × 1.5	CPCS0110E	121	33	9.701 (80%)	9.863 (70%)	16.5	22	27.5	12	1	¥ 3,900 □
M11 × 1.5	CPCS0110F	121	33	9.782 (75%)	9.944 (65%)	16.5	22	27.5	12	1	¥ 3,900 □
M11 × 1.5	CPCS0110M	5 piece set consists of CPCS0110B ~ CPCS0110F(95%~65%)									¥ 19,500 □
M11 × 1.5	CPCS0110S	5 piece set consists of CPCS0110A ~ CPCS0110E(100%~70%)									¥ 19,500 □
M11 × 1	CPCS011MA	121	33	9.917 (100%)	10.026 (90%)	16.5	22	27.5	12	1	¥ 4,500 □

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CPC-S Check Pins for Bored Hole in Thread Cut Tapping (Straight Type)

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
M11 × 1	CPCS011MB	121	33	9.972 (95%)	10.080 (85%)	16.5	22	27.5	12	1	¥ 4,500 □
M11 × 1	CPCS011MC	121	33	10.026 (90%)	10.134 (80%)	16.5	22	27.5	12	1	¥ 4,500 □
M11 × 1	CPCS011MD	121	33	10.080 (85%)	10.188 (75%)	16.5	22	27.5	12	1	¥ 4,500 □
M11 × 1	CPCS011ME	121	33	10.134 (80%)	10.242 (70%)	16.5	22	27.5	12	1	¥ 4,500 □
M11 × 1	CPCS011MF	121	33	10.188 (75%)	10.296 (65%)	16.5	22	27.5	12	1	¥ 4,500 □
M11 × 1	CPCS011MM	5 piece set consists of CPCS011MB ～ CPCS011MF (95% ～ 65%)									¥ 22,500 □
M11 × 1	CPCS011MS	5 piece set consists of CPCS011MA ～ CPCS011ME (100% ～ 70%)									¥ 22,500 □
M11 × 0.75	CPCS011JA	121	33	10.188 (100%)	10.269 (90%)	16.5	22	27.5	12	1	¥ 4,500 □
M11 × 0.75	CPCS011JB	121	33	10.229 (95%)	10.310 (85%)	16.5	22	27.5	12	1	¥ 4,500 □
M11 × 0.75	CPCS011JC	121	33	10.269 (90%)	10.350 (80%)	16.5	22	27.5	12	1	¥ 4,500 □
M11 × 0.75	CPCS011JD	121	33	10.310 (85%)	10.391 (75%)	16.5	22	27.5	12	1	¥ 4,500 □
M11 × 0.75	CPCS011JE	121	33	10.350 (80%)	10.432 (70%)	16.5	22	27.5	12	1	¥ 4,500 □
M11 × 0.75	CPCS011JF	121	33	10.391 (75%)	10.472 (65%)	16.5	22	27.5	12	1	¥ 4,500 □
M11 × 0.75	CPCS011JM	5 piece set consists of CPCS011JB ～ CPCS011JF (95% ～ 65%)									¥ 22,500 □
M11 × 0.75	CPCS011JS	5 piece set consists of CPCS011JA ～ CPCS011JE (100% ～ 70%)									¥ 22,500 □
M12 × 1.75	CPCS012PA	121	33	10.105 (100%)	10.295 (90%)	18	24	30	12	1	¥ 3,700 □
M12 × 1.75	CPCS012PB	121	33	10.200 (95%)	10.390 (85%)	18	24	30	12	1	¥ 3,700 □
M12 × 1.75	CPCS012PC	121	33	10.295 (90%)	10.484 (80%)	18	24	30	12	1	¥ 3,700 □
M12 × 1.75	CPCS012PD	121	33	10.390 (85%)	10.579 (75%)	18	24	30	12	1	¥ 3,700 □
M12 × 1.75	CPCS012PE	121	33	10.484 (80%)	10.674 (70%)	18	24	30	12	1	¥ 3,700 □
M12 × 1.75	CPCS012PF	121	33	10.579 (75%)	10.769 (65%)	18	24	30	12	1	¥ 3,700 □
M12 × 1.75	CPCS012PM	5 piece set consists of CPCS012PB ～ CPCS012PF (95% ～ 65%)									¥ 18,500 □
M12 × 1.75	CPCS012PS	5 piece set consists of CPCS012PA ～ CPCS012PE (100% ～ 70%)									¥ 18,500 □
M12 × 1.5	CPCS012OA	121	33	10.376 (100%)	10.538 (90%)	18	24	30	12	1	¥ 4,300 □
M12 × 1.5	CPCS012OB	121	33	10.457 (95%)	10.620 (85%)	18	24	30	12	1	¥ 4,300 □
M12 × 1.5	CPCS012OC	121	33	10.538 (90%)	10.701 (80%)	18	24	30	12	1	¥ 4,300 □
M12 × 1.5	CPCS012OD	121	33	10.620 (85%)	10.782 (75%)	18	24	30	12	1	¥ 4,300 □
M12 × 1.5	CPCS012OE	121	33	10.701 (80%)	10.863 (70%)	18	24	30	12	1	¥ 4,300 □
M12 × 1.5	CPCS012OF	121	33	10.782 (75%)	10.944 (65%)	18	24	30	12	1	¥ 4,300 □
M12 × 1.5	CPCS012OM	5 piece set consists of CPCS012OB ～ CPCS012OF (95% ～ 65%)									¥ 21,500 □
M12 × 1.5	CPCS012OS	5 piece set consists of CPCS012OA ～ CPCS012OE (100% ～ 70%)									¥ 21,500 □
M12 × 1.25	CPCS012NA	121	33	10.647 (100%)	10.782 (90%)	18	24	30	12	1	¥ 4,300 □
M12 × 1.25	CPCS012NB	121	33	10.714 (95%)	10.850 (85%)	18	24	30	12	1	¥ 4,300 □
M12 × 1.25	CPCS012NC	121	33	10.782 (90%)	10.917 (80%)	18	24	30	12	1	¥ 4,300 □
M12 × 1.25	CPCS012ND	121	33	10.850 (85%)	10.985 (75%)	18	24	30	12	1	¥ 4,300 □
M12 × 1.25	CPCS012NE	121	33	10.917 (80%)	11.053 (70%)	18	24	30	12	1	¥ 4,300 □
M12 × 1.25	CPCS012NF	121	33	10.985 (75%)	11.120 (65%)	18	24	30	12	1	¥ 4,300 □
M12 × 1.25	CPCS012NM	5 piece set consists of CPCS012NB ～ CPCS012NF (95% ～ 65%)									¥ 21,500 □
M12 × 1.25	CPCS012NS	5 piece set consists of CPCS012NA ～ CPCS012NE (100% ～ 70%)									¥ 21,500 □
M12 × 1	CPCS012MA	121	33	10.917 (100%)	11.026 (90%)	18	24	30	12	1	¥ 4,300 □
M12 × 1	CPCS012MB	121	33	10.972 (95%)	11.080 (85%)	18	24	30	12	1	¥ 4,300 □
M12 × 1	CPCS012MC	121	33	11.026 (90%)	11.134 (80%)	18	24	30	12	1	¥ 4,300 □
M12 × 1	CPCS012MD	121	33	11.080 (85%)	11.188 (75%)	18	24	30	12	1	¥ 4,300 □
M12 × 1	CPCS012ME	121	33	11.134 (80%)	11.242 (70%)	18	24	30	12	1	¥ 4,300 □
M12 × 1	CPCS012MF	121	33	11.188 (75%)	11.296 (65%)	18	24	30	12	1	¥ 4,300 □
M12 × 1	CPCS012MM	5 piece set consists of CPCS012MB ～ CPCS012MF (95% ～ 65%)									¥ 21,500 □
M12 × 1	CPCS012MS	5 piece set consists of CPCS012MA ～ CPCS012ME (100% ～ 70%)									¥ 21,500 □
For Unified Threads											
No.2-56UNC	CPCSUN2EA	41.5	5.5	1.695 (100%)	1.742 (90%)	3.3	4.4	5.5	3	1	¥ 2,700 □
No.2-56UNC	CPCSUN2EB	41.5	5.5	1.718 (95%)	1.767 (85%)	3.3	4.4	5.5	3	1	¥ 2,700 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Think threads with YAMAWA

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CPC-S Check Pins for Bored Hole in Thread Cut Tapping (Straight Type)

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
No.2-56UNC	CPCSUN2EC	41.5	5.5	1.742 (90%)	1.791 (80%)	3.3	4.4	5.5	3	1	¥ 2,700 □
No.2-56UNC	CPCSUN2ED	41.5	5.5	1.767 (85%)	1.816 (75%)	3.3	4.4	5.5	3	1	¥ 2,700 □
No.2-56UNC	CPCSUN2EE	41.5	5.5	1.791 (80%)	1.840 (70%)	3.3	4.4	5.5	3	1	¥ 2,700 □
No.2-56UNC	CPCSUN2EF	41.5	5.5	1.816 (75%)	1.865 (65%)	3.3	4.4	5.5	3	1	¥ 2,700 □
No.2-56UNC	CPCSUN2EM	5 piece set consists of CPCSUN2EB ~ CPCSUN2EF (95%~65%)									¥ 13,500 □
No.2-56UNC	CPCSUN2ES	5 piece set consists of CPCSUN2EA ~ CPCSUN2EE (100%~70%)									¥ 13,500 □
No.2-64UNF	CPCSUN2DA	41.5	5.5	1.756 (100%)	1.797 (90%)	3.3	4.4	5.5	3	1	¥ 2,700 □
No.2-64UNF	CPCSUN2DB	41.5	5.5	1.776 (95%)	1.819 (85%)	3.3	4.4	5.5	3	1	¥ 2,700 □
No.2-64UNF	CPCSUN2DC	41.5	5.5	1.797 (90%)	1.840 (80%)	3.3	4.4	5.5	3	1	¥ 2,700 □
No.2-64UNF	CPCSUN2DD	41.5	5.5	1.819 (85%)	1.862 (75%)	3.3	4.4	5.5	3	1	¥ 2,700 □
No.2-64UNF	CPCSUN2DE	41.5	5.5	1.840 (80%)	1.883 (70%)	3.3	4.4	5.5	3	1	¥ 2,700 □
No.2-64UNF	CPCSUN2DF	41.5	5.5	1.862 (75%)	1.905 (65%)	3.3	4.4	5.5	3	1	¥ 2,700 □
No.2-64UNF	CPCSUN2DM	5 piece set consists of CPCSUN2DB ~ CPCSUN2DF (95%~65%)									¥ 13,500 □
No.2-64UNF	CPCSUN2DS	5 piece set consists of CPCSUN2DA ~ CPCSUN2DE (100%~70%)									¥ 13,500 □
No.3-48UNC	CPCSUN3FA	45	7.5	1.941 (100%)	1.999 (90%)	3.8	5	6.3	3	1	¥ 2,900 □
No.3-48UNC	CPCSUN3FB	45	7.5	1.971 (95%)	2.028 (85%)	3.8	5	6.3	3	1	¥ 2,900 □
No.3-48UNC	CPCSUN3FC	45	7.5	1.999 (90%)	2.057 (80%)	3.8	5	6.3	3	1	¥ 2,900 □
No.3-48UNC	CPCSUN3FD	45	7.5	2.028 (85%)	2.085 (75%)	3.8	5	6.3	3	1	¥ 2,900 □
No.3-48UNC	CPCSUN3FE	45	7.5	2.057 (80%)	2.114 (70%)	3.8	5	6.3	3	1	¥ 2,900 □
No.3-48UNC	CPCSUN3FF	45	7.5	2.085 (75%)	2.143 (65%)	3.8	5	6.3	3	1	¥ 2,900 □
No.3-48UNC	CPCSUN3FM	5 piece set consists of CPCSUN3FB ~ CPCSUN3FF (95%~65%)									¥ 14,500 □
No.3-48UNC	CPCSUN3FS	5 piece set consists of CPCSUN3FA ~ CPCSUN3FE (100%~70%)									¥ 14,500 □
No.3-56UNF	CPCSUN3EA	45	7.5	2.025 (100%)	2.073 (90%)	3.8	5	6.3	3	1	¥ 2,900 □
No.3-56UNF	CPCSUN3EB	45	7.5	2.049 (95%)	2.098 (85%)	3.8	5	6.3	3	1	¥ 2,900 □
No.3-56UNF	CPCSUN3EC	45	7.5	2.073 (90%)	2.122 (80%)	3.8	5	6.3	3	1	¥ 2,900 □
No.3-56UNF	CPCSUN3ED	45	7.5	2.098 (85%)	2.147 (75%)	3.8	5	6.3	3	1	¥ 2,900 □
No.3-56UNF	CPCSUN3EE	45	7.5	2.122 (80%)	2.171 (70%)	3.8	5	6.3	3	1	¥ 2,900 □
No.3-56UNF	CPCSUN3EF	45	7.5	2.147 (75%)	2.196 (65%)	3.8	5	6.3	3	1	¥ 2,900 □
No.3-56UNF	CPCSUN3EM	5 piece set consists of CPCSUN3EB ~ CPCSUN3EF (95%~65%)									¥ 14,500 □
No.3-56UNF	CPCSUN3ES	5 piece set consists of CPCSUN3EA ~ CPCSUN3EE (100%~70%)									¥ 14,500 □
No.4-40UNC	CPCSUN4HA	45	7.5	2.157 (100%)	2.226 (90%)	4.3	5.7	7.1	3	1	¥ 3,000 □
No.4-40UNC	CPCSUN4HB	45	7.5	2.192 (95%)	2.261 (85%)	4.3	5.7	7.1	3	1	¥ 3,000 □
No.4-40UNC	CPCSUN4HC	45	7.5	2.226 (90%)	2.295 (80%)	4.3	5.7	7.1	3	1	¥ 3,000 □
No.4-40UNC	CPCSUN4HD	45	7.5	2.261 (85%)	2.329 (75%)	4.3	5.7	7.1	3	1	¥ 3,000 □
No.4-40UNC	CPCSUN4HE	45	7.5	2.295 (80%)	2.364 (70%)	4.3	5.7	7.1	3	1	¥ 3,000 □
No.4-40UNC	CPCSUN4HF	45	7.5	2.329 (75%)	2.398 (65%)	4.3	5.7	7.1	3	1	¥ 3,000 □
No.4-40UNC	CPCSUN4HM	5 piece set consists of CPCSUN4HB ~ CPCSUN4HF (95%~65%)									¥ 15,000 □
No.4-40UNC	CPCSUN4HS	5 piece set consists of CPCSUN4HA ~ CPCSUN4HE (100%~70%)									¥ 15,000 □
No.4-48UNF	CPCSUN4FA	45	7.5	2.271 (100%)	2.329 (90%)	4.3	5.7	7.1	3	1	¥ 3,000 □
No.4-48UNF	CPCSUN4FB	45	7.5	2.301 (95%)	2.358 (85%)	4.3	5.7	7.1	3	1	¥ 3,000 □
No.4-48UNF	CPCSUN4FC	45	7.5	2.329 (90%)	2.387 (80%)	4.3	5.7	7.1	3	1	¥ 3,000 □
No.4-48UNF	CPCSUN4FD	45	7.5	2.358 (85%)	2.415 (75%)	4.3	5.7	7.1	3	1	¥ 3,000 □
No.4-48UNF	CPCSUN4FE	45	7.5	2.387 (80%)	2.444 (70%)	4.3	5.7	7.1	3	1	¥ 3,000 □
No.4-48UNF	CPCSUN4FF	45	7.5	2.415 (75%)	2.473 (65%)	4.3	5.7	7.1	3	1	¥ 3,000 □
No.4-48UNF	CPCSUN4FM	5 piece set consists of CPCSUN4FB ~ CPCSUN4FF (95%~65%)									¥ 15,000 □
No.4-48UNF	CPCSUN4FS	5 piece set consists of CPCSUN4FA ~ CPCSUN4FE (100%~70%)									¥ 15,000 □
No.5-40UNC	CPCSUN5HA	49	9	2.487 (100%)	2.556 (90%)	4.8	6.4	7.9	4	1	¥ 3,100 □
No.5-40UNC	CPCSUN5HB	49	9	2.522 (95%)	2.591 (85%)	4.8	6.4	7.9	4	1	¥ 3,100 □
No.5-40UNC	CPCSUN5HC	49	9	2.556 (90%)	2.625 (80%)	4.8	6.4	7.9	4	1	¥ 3,100 □
No.5-40UNC	CPCSUN5HD	49	9	2.591 (85%)	2.659 (75%)	4.8	6.4	7.9	4	1	¥ 3,100 □

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CPC-S Check Pins for Bored Hole in Thread Cut Tapping (Straight Type)

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
No.5-40UNC	CPCSUN5HE	49	9	2.625 (80%)	2.694 (70%)	4.8	6.4	7.9	4	1	¥ 3,100 □
No.5-40UNC	CPCSUN5HF	49	9	2.659 (75%)	2.728 (65%)	4.8	6.4	7.9	4	1	¥ 3,100 □
No.5-40UNC	CPCSUN5HM	5 piece set consists of CPCSUN5HB ～ CPCSUN5HF(95%～65%)									¥ 15,500 □
No.5-40UNC	CPCSUN5HS	5 piece set consists of CPCSUN5HA ～ CPCSUN5HE(100%～70%)									¥ 15,500 □
No.5-44UNF	CPCSUN5GA	49	9	2.551 (100%)	2.613 (90%)	4.8	6.4	7.9	4	1	¥ 3,100 □
No.5-44UNF	CPCSUN5GB	49	9	2.581 (95%)	2.644 (85%)	4.8	6.4	7.9	4	1	¥ 3,100 □
No.5-44UNF	CPCSUN5GC	49	9	2.613 (90%)	2.675 (80%)	4.8	6.4	7.9	4	1	¥ 3,100 □
No.5-44UNF	CPCSUN5GD	49	9	2.644 (85%)	2.706 (75%)	4.8	6.4	7.9	4	1	¥ 3,100 □
No.5-44UNF	CPCSUN5GE	49	9	2.675 (80%)	2.738 (70%)	4.8	6.4	7.9	4	1	¥ 3,100 □
No.5-44UNF	CPCSUN5GF	49	9	2.706 (75%)	2.769 (65%)	4.8	6.4	7.9	4	1	¥ 3,100 □
No.5-44UNF	CPCSUN5GM	5 piece set consists of CPCSUN5GB ～ CPCSUN5GF(95%～65%)									¥ 15,500 □
No.5-44UNF	CPCSUN5GS	5 piece set consists of CPCSUN5GA ～ CPCSUN5GE(100%～70%)									¥ 15,500 □
No.6-32UNC	CPCSUN6JA	49	9	2.642 (100%)	2.732 (90%)	5.3	7	8.8	4	1	¥ 3,200 □
No.6-32UNC	CPCSUN6JB	49	9	2.689 (95%)	2.775 (85%)	5.3	7	8.8	4	1	¥ 3,200 □
No.6-32UNC	CPCSUN6JC	49	9	2.732 (90%)	2.818 (80%)	5.3	7	8.8	4	1	¥ 3,200 □
No.6-32UNC	CPCSUN6JD	49	9	2.775 (85%)	2.861 (75%)	5.3	7	8.8	4	1	¥ 3,200 □
No.6-32UNC	CPCSUN6JE	49	9	2.818 (80%)	2.903 (70%)	5.3	7	8.8	4	1	¥ 3,200 □
No.6-32UNC	CPCSUN6JF	49	9	2.861 (75%)	2.946 (65%)	5.3	7	8.8	4	1	¥ 3,200 □
No.6-32UNC	CPCSUN6JM	5 piece set consists of CPCSUN6JB ～ CPCSUN6JF(95%～65%)									¥ 16,000 □
No.6-32UNC	CPCSUN6JS	5 piece set consists of CPCSUN6JA ～ CPCSUN6JE(100%～70%)									¥ 16,000 □
No.6-40UNF	CPCSUN6HA	49	9	2.820 (100%)	2.886 (90%)	5.3	7	8.8	4	1	¥ 3,200 □
No.6-40UNF	CPCSUN6HB	49	9	2.852 (95%)	2.921 (85%)	5.3	7	8.8	4	1	¥ 3,200 □
No.6-40UNF	CPCSUN6HC	49	9	2.886 (90%)	2.955 (80%)	5.3	7	8.8	4	1	¥ 3,200 □
No.6-40UNF	CPCSUN6HD	49	9	2.921 (85%)	2.989 (75%)	5.3	7	8.8	4	1	¥ 3,200 □
No.6-40UNF	CPCSUN6HE	49	9	2.955 (80%)	3.024 (70%)	5.3	7	8.8	4	1	¥ 3,200 □
No.6-40UNF	CPCSUN6HF	49	9	2.989 (75%)	3.058 (65%)	5.3	7	8.8	4	1	¥ 3,200 □
No.6-40UNF	CPCSUN6HM	5 piece set consists of CPCSUN6HB ～ CPCSUN6HF(95%～65%)									¥ 16,000 □
No.6-40UNF	CPCSUN6HS	5 piece set consists of CPCSUN6HA ～ CPCSUN6HE(100%～70%)									¥ 16,000 □
No.8-32UNC	CPCSUN8JA	57	11	3.302 (100%)	3.394 (90%)	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-32UNC	CPCSUN8JB	57	11	3.351 (95%)	3.437 (85%)	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-32UNC	CPCSUN8JC	57	11	3.394 (90%)	3.480 (80%)	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-32UNC	CPCSUN8JD	57	11	3.437 (85%)	3.523 (75%)	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-32UNC	CPCSUN8JE	57	11	3.480 (80%)	3.565 (70%)	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-32UNC	CPCSUN8JF	57	11	3.523 (75%)	3.608 (65%)	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-32UNC	CPCSUN8JM	5 piece set consists of CPCSUN8JB ～ CPCSUN8JF(95%～65%)									¥ 16,500 □
No.8-32UNC	CPCSUN8JS	5 piece set consists of CPCSUN8JA ～ CPCSUN8JE(100%～70%)									¥ 16,500 □
No.8-36UNF	CPCSUN8IA	57	11	3.404 (100%)	3.480 (90%)	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-36UNF	CPCSUN8IB	57	11	3.441 (95%)	3.518 (85%)	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-36UNF	CPCSUN8IC	57	11	3.480 (90%)	3.556 (80%)	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-36UNF	CPCSUN8ID	57	11	3.518 (85%)	3.594 (75%)	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-36UNF	CPCSUN8IE	57	11	3.556 (80%)	3.632 (70%)	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-36UNF	CPCSUN8IF	57	11	3.594 (75%)	3.671 (65%)	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-36UNF	CPCSUN8IM	5 piece set consists of CPCSUN8IB ～ CPCSUN8IF(95%～65%)									¥ 16,500 □
No.8-36UNF	CPCSUN8IS	5 piece set consists of CPCSUN8IA ～ CPCSUN8IE(100%～70%)									¥ 16,500 □
No.10-24UNC	CPCSUNAMA	65	14	3.683 (100%)	3.795 (90%)	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.10-24UNC	CPCSUNAMB	65	14	3.738 (95%)	3.852 (85%)	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.10-24UNC	CPCSUNAMC	65	14	3.795 (90%)	3.909 (80%)	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.10-24UNC	CPCSUNAMD	65	14	3.852 (85%)	3.967 (75%)	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.10-24UNC	CPCSUNAME	65	14	3.909 (80%)	4.024 (70%)	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.10-24UNC	CPCSUNAMF	65	14	3.967 (75%)	4.081 (65%)	7.2	9.7	12.1	5.5	1	¥ 3,400 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Think threads with YAMAWA

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CPC-S Check Pins for Bored Hole in Thread Cut Tapping (Straight Type)

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
No.10-24UNC	CPCSUNAMM	5 piece set consists of CPCSUNAMB ~ CPCSUNAMF(95%~65%)									¥ 17,000 □
No.10-24UNC	CPCSUNAMS	5 piece set consists of CPCSUNAMA ~ CPCSUNAME(100%~70%)									¥ 17,000 □
No.10-32UNF	CPCSUNAJA	65	14	3.963 (100%)	4.053 (90%)	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.10-32UNF	CPCSUNAJB	65	14	4.010 (95%)	4.096 (85%)	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.10-32UNF	CPCSUNAJC	65	14	4.053 (90%)	4.139 (80%)	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.10-32UNF	CPCSUNAJD	65	14	4.096 (85%)	4.182 (75%)	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.10-32UNF	CPCSUNAJE	65	14	4.139 (80%)	4.224 (70%)	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.10-32UNF	CPCSUNAJF	65	14	4.182 (75%)	4.267 (65%)	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.10-32UNF	CPCSUNAJM	5 piece set consists of CPCSUNAJB ~ CPCSUNAJF(95%~65%)									¥ 17,000 □
No.10-32UNF	CPCSUNAJS	5 piece set consists of CPCSUNAJA ~ CPCSUNAJE(100%~70%)									¥ 17,000 □
No.12-24UNC	CPCSUNCMA	65	14	4.344 (100%)	4.455 (90%)	8.2	11	13.7	5.5	1	¥ 3,800 □
No.12-24UNC	CPCSUNCMB	65	14	4.398 (95%)	4.512 (85%)	8.2	11	13.7	5.5	1	¥ 3,800 □
No.12-24UNC	CPCSUNCMC	65	14	4.455 (90%)	4.569 (80%)	8.2	11	13.7	5.5	1	¥ 3,800 □
No.12-24UNC	CPCSUNCMD	65	14	4.512 (85%)	4.627 (75%)	8.2	11	13.7	5.5	1	¥ 3,800 □
No.12-24UNC	CPCSUNCME	65	14	4.569 (80%)	4.684 (70%)	8.2	11	13.7	5.5	1	¥ 3,800 □
No.12-24UNC	CPCSUNCMF	65	14	4.627 (75%)	4.741 (65%)	8.2	11	13.7	5.5	1	¥ 3,800 □
No.12-24UNC	CPCSUNCMM	5 piece set consists of CPCSUNCMB ~ CPCSUNCMF(95%~65%)									¥ 19,000 □
No.12-24UNC	CPCSUNCMS	5 piece set consists of CPCSUNCMA ~ CPCSUNCME(100%~70%)									¥ 19,000 □
No.12-28UNF	CPCSUNCKA	65	14	4.496 (100%)	4.602 (90%)	8.2	11	13.7	5.5	1	¥ 3,800 □
No.12-28UNF	CPCSUNCKB	65	14	4.553 (95%)	4.651 (85%)	8.2	11	13.7	5.5	1	¥ 3,800 □
No.12-28UNF	CPCSUNCKC	65	14	4.602 (90%)	4.700 (80%)	8.2	11	13.7	5.5	1	¥ 3,800 □
No.12-28UNF	CPCSUNCKD	65	14	4.651 (85%)	4.749 (75%)	8.2	11	13.7	5.5	1	¥ 3,800 □
No.12-28UNF	CPCSUNCKE	65	14	4.700 (80%)	4.799 (70%)	8.2	11	13.7	5.5	1	¥ 3,800 □
No.12-28UNF	CPCSUNCKF	65	14	4.749 (75%)	4.848 (65%)	8.2	11	13.7	5.5	1	¥ 3,800 □
No.12-28UNF	CPCSUNCKM	5 piece set consists of CPCSUNCKB ~ CPCSUNCKF(95%~65%)									¥ 19,000 □
No.12-28UNF	CPCSUNCKS	5 piece set consists of CPCSUNCKA ~ CPCSUNCKE(100%~70%)									¥ 19,000 □
1/4-20UNC	CPCSU04NA	73	16.5	4.979 (100%)	5.113 (90%)	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-20UNC	CPCSU04NB	73	16.5	5.044 (95%)	5.181 (85%)	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-20UNC	CPCSU04NC	73	16.5	5.113 (90%)	5.250 (80%)	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-20UNC	CPCSU04ND	73	16.5	5.181 (85%)	5.319 (75%)	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-20UNC	CPCSU04NE	73	16.5	5.250 (80%)	5.388 (70%)	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-20UNC	CPCSU04NF	73	16.5	5.319 (75%)	5.456 (65%)	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-20UNC	CPCSU04NM	5 piece set consists of CPCSU04NB ~ CPCSU04NF(95%~65%)									¥ 19,500 □
1/4-20UNC	CPCSU04NS	5 piece set consists of CPCSU04NA ~ CPCSU04NE(100%~70%)									¥ 19,500 □
1/4-28UNF	CPCSU04KA	73	16.5	5.360 (100%)	5.466 (90%)	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-28UNF	CPCSU04KB	73	16.5	5.417 (95%)	5.515 (85%)	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-28UNF	CPCSU04KC	73	16.5	5.466 (90%)	5.564 (80%)	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-28UNF	CPCSU04KD	73	16.5	5.515 (85%)	5.613 (75%)	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-28UNF	CPCSU04KE	73	16.5	5.564 (80%)	5.663 (70%)	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-28UNF	CPCSU04KF	73	16.5	5.613 (75%)	5.712 (65%)	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-28UNF	CPCSU04KM	5 piece set consists of CPCSU04KB ~ CPCSU04KF(95%~65%)									¥ 19,500 □
1/4-28UNF	CPCSU04KS	5 piece set consists of CPCSU04KA ~ CPCSU04KE(100%~70%)									¥ 19,500 □
5/16-18UNC	CPCSU05OA	99	22	6.401 (100%)	6.563 (90%)	11.9	15.9	19.8	8	1	¥ 4,000 □
5/16-18UNC	CPCSU05OB	99	22	6.487 (95%)	6.639 (85%)	11.9	15.9	19.8	8	1	¥ 4,000 □
5/16-18UNC	CPCSU05OC	99	22	6.563 (90%)	6.716 (80%)	11.9	15.9	19.8	8	1	¥ 4,000 □
5/16-18UNC	CPCSU05OD	99	22	6.639 (85%)	6.792 (75%)	11.9	15.9	19.8	8	1	¥ 4,000 □
5/16-18UNC	CPCSU05OE	99	22	6.716 (80%)	6.869 (70%)	11.9	15.9	19.8	8	1	¥ 4,000 □
5/16-18UNC	CPCSU05OF	99	22	6.792 (75%)	6.945 (65%)	11.9	15.9	19.8	8	1	¥ 4,000 □
5/16-18UNC	CPCSU05OM	5 piece set consists of CPCSU05OB ~ CPCSU05OF(95%~65%)									¥ 20,000 □
5/16-18UNC	CPCSU05OS	5 piece set consists of CPCSU05OA ~ CPCSU05OE(100%~70%)									¥ 20,000 □

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CPC-S Check Pins for Bored Hole in Thread Cut Tapping (Straight Type)

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
5/16-24UNF	CPCSU05MA	99	22	6.782 (100%)	6.907 (90%)	11.9	15.9	19.8	8	1	¥ 4,000 □
5/16-24UNF	CPCSU05MB	99	22	6.850 (95%)	6.964 (85%)	11.9	15.9	19.8	8	1	¥ 4,000 □
5/16-24UNF	CPCSU05MC	99	22	6.907 (90%)	7.021 (80%)	11.9	15.9	19.8	8	1	¥ 4,000 □
5/16-24UNF	CPCSU05MD	99	22	6.964 (85%)	7.079 (75%)	11.9	15.9	19.8	8	1	¥ 4,000 □
5/16-24UNF	CPCSU05ME	99	22	7.021 (80%)	7.136 (70%)	11.9	15.9	19.8	8	1	¥ 4,000 □
5/16-24UNF	CPCSU05MF	99	22	7.079 (75%)	7.193 (65%)	11.9	15.9	19.8	8	1	¥ 4,000 □
5/16-24UNF	CPCSU05MM	5 piece set consists of CPCSU05MB ～ CPCSU05MF(95%～65%)									¥ 20,000 □
5/16-24UNF	CPCSU05MS	5 piece set consists of CPCSU05MA ～ CPCSU05ME(100%～70%)									¥ 20,000 □
3/8-16UNC	CPCSU06PA	110	27.5	7.798 (100%)	7.978 (90%)	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-16UNC	CPCSU06PB	110	27.5	7.892 (95%)	8.064 (85%)	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-16UNC	CPCSU06PC	110	27.5	7.978 (90%)	8.150 (80%)	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-16UNC	CPCSU06PD	110	27.5	8.064 (85%)	8.236 (75%)	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-16UNC	CPCSU06PE	110	27.5	8.150 (80%)	8.322 (70%)	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-16UNC	CPCSU06PF	110	27.5	8.236 (75%)	8.408 (65%)	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-16UNC	CPCSU06PM	5 piece set consists of CPCSU06PB ～ CPCSU06PF(95%～65%)									¥ 21,000 □
3/8-16UNC	CPCSU06PS	5 piece set consists of CPCSU06PA ～ CPCSU06PE(100%～70%)									¥ 21,000 □
3/8-24UNF	CPCSU06MA	110	27.5	8.382 (100%)	8.494 (90%)	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-24UNF	CPCSU06MB	110	27.5	8.437 (95%)	8.551 (85%)	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-24UNF	CPCSU06MC	110	27.5	8.494 (90%)	8.608 (80%)	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-24UNF	CPCSU06MD	110	27.5	8.551 (85%)	8.666 (75%)	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-24UNF	CPCSU06ME	110	27.5	8.608 (80%)	8.723 (70%)	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-24UNF	CPCSU06MF	110	27.5	8.666 (75%)	8.780 (65%)	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-24UNF	CPCSU06MM	5 piece set consists of CPCSU06MB ～ CPCSU06MF(95%～65%)									¥ 21,000 □
3/8-24UNF	CPCSU06MS	5 piece set consists of CPCSU06MA ～ CPCSU06ME(100%～70%)									¥ 21,000 □
7/16-14UNC	CPCSU07QA	121	33	9.144 (100%)	9.345 (90%)	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-14UNC	CPCSU07QB	121	33	9.247 (95%)	9.443 (85%)	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-14UNC	CPCSU07QC	121	33	9.345 (90%)	9.542 (80%)	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-14UNC	CPCSU07QD	121	33	9.443 (85%)	9.640 (75%)	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-14UNC	CPCSU07QE	121	33	9.542 (80%)	9.738 (70%)	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-14UNC	CPCSU07QF	121	33	9.640 (75%)	9.836 (65%)	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-14UNC	CPCSU07QM	5 piece set consists of CPCSU07QB ～ CPCSU07QF(95%～65%)									¥ 21,500 □
7/16-14UNC	CPCSU07QS	5 piece set consists of CPCSU07QA ～ CPCSU07QE(100%～70%)									¥ 21,500 □
7/16-20UNF	CPCSU07NA	121	33	9.729 (100%)	9.876 (90%)	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-20UNF	CPCSU07NB	121	33	9.807 (95%)	9.944 (85%)	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-20UNF	CPCSU07NC	121	33	9.876 (90%)	10.013 (80%)	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-20UNF	CPCSU07ND	121	33	9.944 (85%)	10.082 (75%)	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-20UNF	CPCSU07NE	121	33	10.013 (80%)	10.151 (70%)	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-20UNF	CPCSU07NF	121	33	10.082 (75%)	10.219 (65%)	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-20UNF	CPCSU07NM	5 piece set consists of CPCSU07NB ～ CPCSU07NF(95%～65%)									¥ 21,500 □
7/16-20UNF	CPCSU07NS	5 piece set consists of CPCSU07NA ～ CPCSU07NE(100%～70%)									¥ 21,500 □
1/2-13UNC	CPCSU08RA	121	33	10.592 (100%)	10.796 (90%)	19.1	25.4	31.8	12	1	¥ 4,500 □
1/2-13UNC	CPCSU08RB	121	33	10.691 (95%)	10.902 (85%)	19.1	25.4	31.8	12	1	¥ 4,500 □
1/2-13UNC	CPCSU08RC	121	33	10.796 (90%)	11.008 (80%)	19.1	25.4	31.8	12	1	¥ 4,500 □
1/2-13UNC	CPCSU08RD	121	33	10.902 (85%)	11.114 (75%)	19.1	25.4	31.8	12	1	¥ 4,500 □
1/2-13UNC	CPCSU08RE	121	33	11.008 (80%)	11.219 (70%)	19.1	25.4	31.8	12	1	¥ 4,500 □
1/2-13UNC	CPCSU08RF	121	33	11.114 (75%)	11.325 (65%)	19.1	25.4	31.8	12	1	¥ 4,500 □
1/2-13UNC	CPCSU08RM	5 piece set consists of CPCSU08RB ～ CPCSU08RF(95%～65%)									¥ 22,500 □
1/2-13UNC	CPCSU08RS	5 piece set consists of CPCSU08RA ～ CPCSU08RE(100%～70%)									¥ 22,500 □
1/2-20UNF	CPCSU08NA	121	33	11.329 (100%)	11.463 (90%)	19.1	25.4	31.8	12	1	¥ 4,500 □
1/2-20UNF	CPCSU08NB	121	33	11.394 (95%)	11.531 (85%)	19.1	25.4	31.8	12	1	¥ 4,500 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Think threads with YAMAWA

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CPC-S Check Pins for Bored Hole in Thread Cut Tapping (Straight Type)

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
1/2-20UNF	CPCSU08NC	121	33	11.463 (90%)	11.600 (80%)	19.1	25.4	31.8	12	1	¥ 4,500 □
1/2-20UNF	CPCSU08ND	121	33	11.531 (85%)	11.669 (75%)	19.1	25.4	31.8	12	1	¥ 4,500 □
1/2-20UNF	CPCSU08NE	121	33	11.600 (80%)	11.738 (70%)	19.1	25.4	31.8	12	1	¥ 4,500 □
1/2-20UNF	CPCSU08NF	121	33	11.669 (75%)	11.806 (65%)	19.1	25.4	31.8	12	1	¥ 4,500 □
1/2-20UNF	CPCSU08NM	5 piece set consists of CPCSU08NB ～ CPCSU08NF (95%～65%)									¥ 22,500 □
1/2-20UNF	CPCSU08NS	5 piece set consists of CPCSU08NA ～ CPCSU08NE (100%～70%)									¥ 22,500 □

MEMO

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	d_1 length	d_2 length	Shank dia.	Size of square	Length of square
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	Ds	K	ℓk

CPC-T



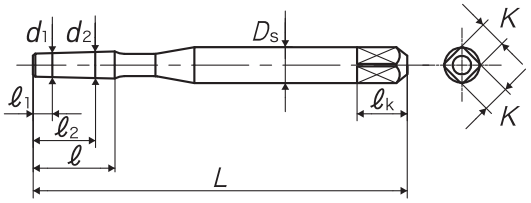
Check Pins for Bored Holes in Thread Cut Tapping (Taper Type)

Specification

HSS

■One CPC-T enables simple checking of bored hole dia. (for cutting taps, taper type).CPC-T is made from wear resistant HSS material and is applicable for through hole and for blind hole having enough space in the bottom.

TYPE : 1



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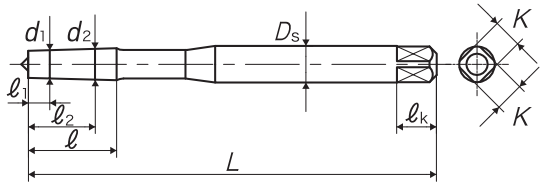


Segment : 7C

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	Ds (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
For Metric Threads												
M2 × 0.4	CPCT2.0E	42	7	1.567 (100%)	1.679 (74%)	1	6	3	2.5	5	1	¥ 1,500 □
M2.5 × 0.45	CPCT2.5F	46	8	2.013 (100%)	2.138 (74%)	1.5	6.5	3	2.5	5	1	¥ 1,600 □
M2.5 × 0.35	CPCT2.5D	46	8	2.121 (100%)	2.221 (74%)	1.5	6.5	3	2.5	5	1	¥ 1,900 □
M3 × 0.5	CPCT3.0G	46	8.5	2.459 (100%)	2.599 (74%)	1.5	7	4	3.2	6	1	¥ 1,700 □
M3 × 0.35	CPCT3.0D	46	8.5	2.621 (100%)	2.721 (74%)	1.5	7	4	3.2	6	1	¥ 2,000 □
M3.5 × 0.6	CPCT3.5H	52	10.5	2.850 (100%)	3.010 (75%)	2.25	8.25	5	4	7	1	¥ 1,900 □
M3.5 × 0.35	CPCT3.5D	52	10.5	3.121 (100%)	3.221 (74%)	2.25	8.25	5	4	7	1	¥ 2,100 □
M4 × 0.7	CPCT4.0I	52	10.5	3.242 (100%)	3.422 (76%)	2.25	8.25	5	4	7	1	¥ 1,900 □
M4 × 0.5	CPCT4.0G	52	10.5	3.459 (100%)	3.599 (74%)	2.25	8.25	5	4	7	1	¥ 2,100 □
M4.5 × 0.75	CPCT4.5J	59.5	12.5	3.688 (100%)	3.878 (77%)	2.5	10	5.5	4.5	7	1	¥ 1,900 □
M4.5 × 0.5	CPCT4.5G	59.5	12.5	3.959 (100%)	4.099 (74%)	2.5	10	5.5	4.5	7	1	¥ 2,300 □
M5 × 0.8	CPCT5.0K	59.5	12.5	4.134 (100%)	4.334 (77%)	2.5	10	5.5	4.5	7	1	¥ 1,900 □
M5 × 0.5	CPCT5.0G	59.5	12.5	4.459 (100%)	4.599 (74%)	2.5	10	5.5	4.5	7	1	¥ 2,300 □
M6 × 1	CPCT6.0M	61.5	16.5	4.917 (100%)	5.153 (78%)	3.75	12.75	6	4.5	7	1	¥ 2,100 □
M6 × 0.75	CPCT6.0J	61.5	16.5	5.188 (100%)	5.378 (77%)	3.75	12.75	6	4.5	7	1	¥ 2,500 □
M7 × 1	CPCT7.0M	90	19.4	5.917 (100%)	6.153 (78%)	4.7	14.7	8	6.2	9	2	¥ 2,400 □
M7 × 0.75	CPCT7.0J	90	19.4	6.188 (100%)	6.378 (77%)	4.7	14.7	8	6.2	9	2	¥ 2,700 □
M8 × 1.25	CPCT8.0N	90	19.4	6.647 (100%)	6.912 (80%)	4.7	14.7	8	6.2	9	2	¥ 2,400 □
M8 × 1	CPCT8.0M	90	19.4	6.917 (100%)	7.153 (78%)	4.7	14.7	8	6.2	9	2	¥ 2,700 □
M8 × 0.75	CPCT8.0J	90	19.4	7.188 (100%)	7.378 (77%)	4.7	14.7	8	6.2	9	2	¥ 2,700 □
M9 × 1.25	CPCT9.0N	100	23.4	7.647 (100%)	7.912 (80%)	6.7	16.7	10	8	11	2	¥ 2,400 □
M9 × 1	CPCT9.0M	100	23.4	7.917 (100%)	8.153 (78%)	6.7	16.7	10	8	11	2	¥ 2,800 □
M9 × 0.75	CPCT9.0J	100	23.4	8.188 (100%)	8.378 (77%)	6.7	16.7	10	8	11	2	¥ 2,800 □
M10 × 1.5	CPCT010O	100	23.4	8.376 (100%)	8.676 (82%)	6.7	16.7	10	8	11	2	¥ 2,400 □
M10 × 1.25	CPCT010N	100	23.4	8.647 (100%)	8.912 (80%)	6.7	16.7	10	8	11	2	¥ 2,800 □

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	d_1 length	d_2 length	Shank dia.	Size of square	Length of square
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	Ds	K	ℓk

Size	Code	L (mm)	ℓ (mm)	d_1 (Thread engagement ratio)	d_2 (Thread engagement ratio)	ℓ_1 (mm)	ℓ_2 (mm)	Ds (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
M10 × 1	CPCT010M	100	23.4	8.917 (100%)	9.153 (78%)	6.7	16.7	10	8	11	2	¥ 2,800 □
M10 × 0.75	CPCT010J	100	23.4	9.188 (100%)	9.378 (77%)	6.7	16.7	10	8	11	2	¥ 2,800 □
M11 × 1.5	CPCT011O	110	27.4	9.376 (100%)	9.676 (82%)	7.7	19.7	12	9	12	2	¥ 2,500 □
M11 × 1	CPCT011M	110	27.4	9.917 (100%)	10.153 (78%)	7.7	19.7	12	9	12	2	¥ 2,900 □
M11 × 0.75	CPCT011J	110	27.4	10.188 (100%)	10.378(77%)	7.7	19.7	12	9	12	2	¥ 2,900 □
M12 × 1.75	CPCT012P	110	27.4	10.106 (100%)	10.441 (82%)	7.7	19.7	12	9	12	2	¥ 2,500 □
M12 × 1.5	CPCT012O	110	27.4	10.376 (100%)	10.676 (82%)	7.7	19.7	12	9	12	2	¥ 2,900 □
M12 × 1.25	CPCT012N	110	27.4	10.647 (100%)	10.912 (80%)	7.7	19.7	12	9	12	2	¥ 2,900 □
M12 × 1	CPCT012M	110	27.4	10.917 (100%)	11.153 (78%)	7.7	19.7	12	9	12	2	¥ 2,900 □
				For Unified Threads								
No.2-56UNC	CPCTUN2E	42	7	1.695 (100%)	1.871 (64%)	1	6	3	2.5	5	1	¥ 1,800 □
No.2-64UNF	CPCTUN2D	42	7	1.756 (100%)	1.912 (63%)	1	6	3	2.5	5	1	¥ 1,800 □
No.3-48UNC	CPCTUN3F	46	8	1.941 (100%)	2.146 (64%)	1.5	6.5	3	2.5	5	1	¥ 2,100 □
No.3-56UNF	CPCTUN3E	46	8	2.025 (100%)	2.197 (65%)	1.5	6.5	3	2.5	5	1	¥ 2,100 □
No.4-40UNC	CPCTUN4H	46	8	2.157 (100%)	2.385 (67%)	1.5	6.5	3	2.5	5	1	¥ 2,000 □
No.4-48UNF	CPCTUN4F	46	8	2.271 (100%)	2.458 (68%)	1.5	6.5	3	2.5	5	1	¥ 2,000 □
No.5-40UNC	CPCTUN5H	46	8.5	2.487 (100%)	2.697 (70%)	1.5	7	4	3.2	6	1	¥ 2,100 □
No.5-44UNF	CPCTUN5G	46	8.5	2.551 (100%)	2.74 (70%)	1.5	7	4	3.2	6	1	¥ 2,100 □
No.6-32UNC	CPCTUN6J	46	8.5	2.642 (100%)	2.895 (70%)	1.5	7	4	3.2	6	1	¥ 2,100 □
No.6-40UNF	CPCTUN6H	46	8.5	2.820 (100%)	3.022 (70%)	1.5	7	4	3.2	6	1	¥ 2,100 □
No.8-32UNC	CPCTUN8J	52	10.5	3.302 (100%)	3.530 (74%)	2.25	8.25	5	4	7	1	¥ 2,300 □
No.8-36UNF	CPCTUN8I	52	10.5	3.404 (100%)	3.606 (73%)	2.25	8.25	5	4	7	1	¥ 2,300 □
No.10-24UNC	CPCTUNAM	59.5	12.5	3.683 (100%)	3.962 (75%)	2.5	10	5.5	4.5	7	1	¥ 2,320 □
No.10-32UNF	CPCTUNAJ	59.5	12.5	3.963 (100%)	4.165 (77%)	2.5	10	5.5	4.5	7	1	¥ 2,320 □
No.12-24UNC	CPCTUNCM	59.5	12.5	4.344 (100%)	4.597 (78%)	2.5	10	5.5	4.5	7	1	¥ 2,500 □
No.12-28UNF	CPCTUNCK	59.5	12.5	4.496 (100%)	4.724 (78%)	2.5	10	5.5	4.5	7	1	¥ 2,500 □
1/4-20UNC	CPCTU04N	61.5	16.5	4.979 (100%)	5.257 (80%)	3.75	12.75	6	4.5	7	1	¥ 2,600 □
1/4-28UNF	CPCTU04K	61.5	16.5	5.36 (100%)	5.588 (78%)	3.75	12.75	6	4.5	7	1	¥ 2,600 □
5/16-18UNC	CPCTU05O	90	19.4	6.401 (100%)	6.731 (80%)	4.7	14.7	8	6.2	9	2	¥ 2,800 □
5/16-24UNF	CPCTU05M	90	19.4	6.782 (100%)	7.035 (80%)	4.7	14.7	8	6.2	9	2	¥ 2,800 □
3/8-16UNC	CPCTU06P	100	23.4	7.798 (100%)	8.153 (80%)	6.7	16.7	10	8	11	2	¥ 2,850 □
3/8-24UNF	CPCTU06M	100	23.4	8.382 (100%)	8.636 (78%)	6.7	16.7	10	8	11	2	¥ 2,850 □
7/16-14UNC	CPCTU07Q	110	27.4	9.144 (100%)	9.55 (80%)	7.7	19.7	12	9	12	2	¥ 2,900 □
7/16-20UNF	CPCTU07N	110	27.4	9.729 (100%)	10.033 (80%)	7.7	19.7	12	9	12	2	¥ 2,900 □
1/2-13UNC	CPCTU08R	110	27.4	10.592 (100%)	11.023 (80%)	7.7	19.7	12	9	12	2	¥ 3,100 □
1/2-20UNF	CPCTU08N	110	27.4	11.329 (100%)	11.607 (80%)	7.7	19.7	12	9	12	2	¥ 3,100 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Think threads with YAMAWA

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

CPR-S



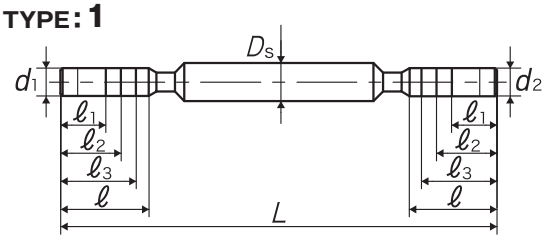
Check Pins for Bored Hole in Thread Form Tapping (Straight Type)

Specification

HSS

■CPR-S enables checking of several kinds of bored hole dia. and checking of depth of bored hole(for thread forming taps, straight type). CPR-S is made from wear resistant HSS material and is applicable for through hole and blind hole.

TYPE : 1



Segment : 7C

Size	Code	L (mm)	ℓ (mm)	d_1 (mm)	d_2 (mm)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
For Metric Threads											
M2 × 0.4	CPRS2.0E	41.5	5.5	1.79	1.84	3	4	5	3	1	¥ 2,320 □
M2 × 0.25	CPRS2.0B	41.5	5.5	1.89	1.92	3	4	5	3	1	¥ 2,600 □
M2.5 × 0.45	CPRS2.5F	45	7.5	2.27	2.34	3.75	5	6.25	3	1	¥ 2,500 □
M2.5 × 0.35	CPRS2.5D	45	7.5	2.34	2.38	3.75	5	6.25	3	1	¥ 2,900 □
M2.6 × 0.45	CPRS2.6F	45	7.5	2.37	2.44	3.9	5.2	6.5	3	1	¥ 2,500 □
M3 × 0.5	CPRS3.0G	49	9	2.75	2.82	4.5	6	7.5	4	1	¥ 2,600 □
M3 × 0.35	CPRS3.0D	49	9	2.84	2.88	4.5	6	7.5	4	1	¥ 3,000 □
M3.5 × 0.6	CPRS3.5H	57	11	3.19	3.27	5.25	7	8.75	5	1	¥ 2,800 □
M3.5 × 0.35	CPRS3.5D	57	11	3.34	3.38	5.25	7	8.75	5	1	¥ 3,200 □
M4 × 0.7	CPRS4.0I	57	11	3.65	3.72	6	8	10	5	1	¥ 2,800 □
M4 × 0.5	CPRS4.0G	57	11	3.76	3.83	6	8	10	5	1	¥ 3,200 □
M5 × 0.8	CPRS5.0K	65	14	4.59	4.67	7.5	10	12.5	5.5	1	¥ 2,900 □
M5 × 0.5	CPRS5.0G	65	14	4.76	4.83	7.5	10	12.5	5.5	1	¥ 3,400 □
M6 × 1	CPRS6.0M	73	16.5	5.49	5.59	9	12	15	6	1	¥ 3,200 □
M6 × 0.75	CPRS6.0J	73	16.5	5.61	5.69	9	12	15	6	1	¥ 3,700 □
M7 × 1	CPRS7.0M	99	22	6.49	6.59	10.5	14	17.5	8	1	¥ 3,400 □
M7 × 0.75	CPRS7.0J	99	22	6.62	6.70	10.5	14	17.5	8	1	¥ 3,900 □
M8 × 1.25	CPRS8.0N	99	22	7.36	7.49	12	16	20	8	1	¥ 3,400 □
M8 × 1	CPRS8.0M	99	22	7.49	7.59	12	16	20	8	1	¥ 3,900 □
M8 × 0.75	CPRS8.0J	99	22	7.62	7.70	12	16	20	8	1	¥ 3,900 □
M10 × 1.5	CPRS010O	110	27.5	9.22	9.34	15	20	25	10	1	¥ 3,500 □
M10 × 1.25	CPRS010N	110	27.5	9.35	9.49	15	20	25	10	1	¥ 4,100 □
M10 × 1	CPRS010M	110	27.5	9.49	9.59	15	20	25	10	1	¥ 4,100 □
M12 × 1.75	CPRS012P	121	33	11.09	11.23	18	24	30	12	1	¥ 3,700 □
M12 × 1.5	CPRS012O	121	33	11.22	11.34	18	24	30	12	1	¥ 4,300 □

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	Bored hole depth (1.5D)	Bored hole depth (2D)	Bored hole depth (2.5D)	Shank dia.
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	ℓ_3	Ds

Size	Code	L (mm)	ℓ (mm)	d_1 (mm)	d_2 (mm)	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
M12 × 1.25	CPRS012N	121	33	11.36	11.50	18	24	30	12	1	¥ 4,300 □
M12 × 1	CPRS012M	121	33	11.49	11.59	18	24	30	12	1	¥ 4,300 □
					For Unified Threads						
No.2-56UNC	CPRSUN2E	41.5	5.5	1.96	2.04	3.3	4.4	5.5	3	1	¥ 2,700 □
No.2-64UNF	CPRSUN2D	41.5	5.5	1.98	2.06	3.3	4.4	5.5	3	1	¥ 2,700 □
No.3-48UNC	CPRSUN3F	45	7.5	2.25	2.35	3.8	5	6.3	3	1	¥ 2,900 □
No.3-56UNF	CPRSUN3E	45	7.5	2.29	2.37	3.8	5	6.3	3	1	¥ 2,900 □
No.4-40UNC	CPRSUN4H	49	9	2.54	2.64	4.3	5.7	7.1	4	1	¥ 3,000 □
No.4-48UNF	CPRSUN4F	49	9	2.59	2.68	4.3	5.7	7.1	4	1	¥ 3,000 □
No.5-40UNC	CPRSUN5H	49	9	2.87	2.97	4.8	6.4	7.9	4	1	¥ 3,100 □
No.5-44UNF	CPRSUN5G	49	9	2.90	2.99	4.8	6.4	7.9	4	1	¥ 3,100 □
No.6-32UNC	CPRSUN6J	57	11	3.11	3.22	5.3	7	8.8	5	1	¥ 3,200 □
No.6-40UNF	CPRSUN6H	57	11	3.19	3.29	5.3	7	8.8	5	1	¥ 3,200 □
No.8-32UNC	CPRSUN8J	57	11	3.78	3.89	6.3	8.3	10.4	5	1	¥ 3,300 □
No.8-36UNF	CPRSUN8I	57	11	3.81	3.91	6.3	8.3	10.4	5	1	¥ 3,300 □
No.10-24UNC	CPRSUNAM	65	14	4.30	4.44	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.10-32UNF	CPRSUNAJ	65	14	4.44	4.53	7.2	9.7	12.1	5.5	1	¥ 3,400 □
No.12-24UNC	CPRSUNCM	73	16.5	4.96	5.07	8.2	11	13.7	6	1	¥ 3,800 □
No.12-28UNF	CPRSUNCK	73	16.5	5.03	5.13	8.2	11	13.7	6	1	¥ 3,800 □
1/4-20UNC	CPRSU04N	73	16.5	5.73	5.86	9.5	12.7	15.9	6	1	¥ 3,900 □
1/4-28UNF	CPRSU04K	73	16.5	5.91	6.00	9.5	12.7	15.9	6	1	¥ 3,900 □
5/16-18UNC	CPRSU05O	99	22	7.23	7.38	12	16	20	8	1	¥ 4,000 □
5/16-24UNF	CPRSU05M	99	22	7.42	7.53	12	16	20	8	1	¥ 4,000 □
3/8-16UNC	CPRSU06P	110	27.5	8.72	8.89	14.3	19.1	23.8	10	1	¥ 4,200 □
3/8-24UNF	CPRSU06M	110	27.5	8.99	9.10	14.3	19.1	23.8	10	1	¥ 4,200 □
7/16-14UNC	CPRSU07Q	121	33	10.20	10.40	16.7	22.2	27.8	12	1	¥ 4,300 □
7/16-20UNF	CPRSU07N	121	33	10.48	10.62	16.7	22.2	27.8	12	1	¥ 4,300 □
1/2-13UNC	CPRSU08R	121	33	11.70	11.92	19.1	25.4	31.8	12	1	¥ 4,500 □
1/2-20UNF	CPRSU08N	121	33	12.06	12.20	19.1	25.4	31.8	12	1	¥ 4,500 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	d_1 length	d_2 length	Shank dia.	Size of square	Length of square
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	Ds	K	ℓk

CPR-T



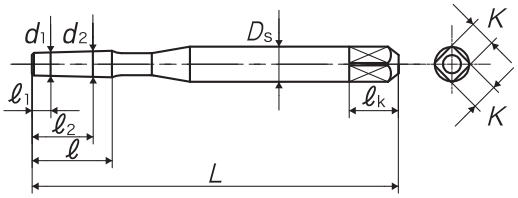
Check Pins for Bored Holes in Thread Form Tapping (Taper Type)

Specification

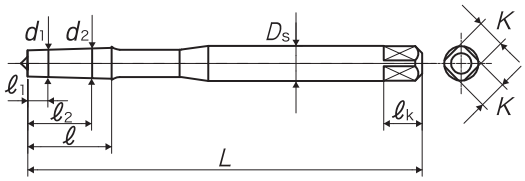
HSS

■One CPR-T enables simple checking of bored hole dia. (for thread forming taps, taper type). CPR-T is made from wear resistant HSS material is applicable for through hole and for blind hole having enough space in the bottom.

TYPE: 1



TYPE: 2



Segment : 7C

Size	Code	L (mm)	ℓ (mm)	d_1 (mm)	d_2 (mm)	ℓ_1 (mm)	ℓ_2 (mm)	Ds (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
For Metric Threads												
M2 × 0.4	CPRT2.0E	42	7	1.79	1.84	1	6	3	2.5	5	1	¥ 1,500 □
M2 × 0.25	CPRT2.0B	42	7	1.89	1.92	1	6	3	2.5	5	1	¥ 1,700 □
M2.5 × 0.45	CPRT2.5F	46	8	2.27	2.34	1.5	6.5	3	2.5	5	1	¥ 1,600 □
M2.5 × 0.35	CPRT2.5D	46	8	2.34	2.38	1.5	6.5	3	2.5	5	1	¥ 1,900 □
M2.6 × 0.45	CPRT2.6F	46	8	2.37	2.44	1.5	6.5	3	2.5	5	1	¥ 1,600 □
M3 × 0.5	CPRT3.0G	46	8.5	2.75	2.82	1.5	7	4	3.2	6	1	¥ 1,700 □
M3 × 0.35	CPRT3.0D	46	8.5	2.84	2.88	1.5	7	4	3.2	6	1	¥ 2,000 □
M3.5 × 0.6	CPRT3.5H	52	10.5	3.19	3.27	2.25	8.25	5	4	7	1	¥ 1,900 □
M3.5 × 0.35	CPRT3.5D	52	10.5	3.34	3.38	2.25	8.25	5	4	7	1	¥ 2,100 □
M4 × 0.7	CPRT4.0I	52	10.5	3.65	3.72	2.25	8.25	5	4	7	1	¥ 1,900 □
M4 × 0.5	CPRT4.0G	52	10.5	3.76	3.83	2.25	8.25	5	4	7	1	¥ 2,100 □
M5 × 0.8	CPRT5.0K	59.5	12.5	4.59	4.67	2.5	10	5.5	4.5	7	1	¥ 1,900 □
M5 × 0.5	CPRT5.0G	59.5	12.5	4.76	4.83	2.5	10	5.5	4.5	7	1	¥ 2,300 □
M6 × 1	CPRT6.0M	61.5	16.5	5.49	5.59	3.75	12.75	6	4.5	7	1	¥ 2,100 □
M6 × 0.75	CPRT6.0J	61.5	16.5	5.61	5.69	3.75	12.75	6	4.5	7	1	¥ 2,500 □
M7 × 1	CPRT7.0M	90	19.4	6.49	6.59	4.7	14.7	8	6.2	9	2	¥ 2,400 □
M7 × 0.75	CPRT7.0J	90	19.4	6.62	6.70	4.7	14.7	8	6.2	9	2	¥ 2,700 □
M8 × 1.25	CPRT8.0N	90	19.4	7.36	7.49	4.7	14.7	8	6.2	9	2	¥ 2,400 □
M8 × 1	CPRT8.0M	90	19.4	7.49	7.59	4.7	14.7	8	6.2	9	2	¥ 2,700 □
M8 × 0.75	CPRT8.0J	90	19.4	7.62	7.70	4.7	14.7	8	6.2	9	2	¥ 2,700 □
M10 × 1.5	CPRT010O	100	23.4	9.22	9.34	6.7	16.7	10	8	11	2	¥ 2,400 □
M10 × 1.25	CPRT010N	100	23.4	9.35	9.49	6.7	16.7	10	8	11	2	¥ 2,800 □
M10 × 1	CPRT010M	100	23.4	9.49	9.59	6.7	16.7	10	8	11	2	¥ 2,800 □
M12 × 1.75	CPRT012P	110	27.4	11.09	11.23	7.7	19.7	12	9	12	2	¥ 2,500 □
M12 × 1.5	CPRT012O	110	27.4	11.22	11.34	7.7	19.7	12	9	12	2	¥ 2,900 □

Overall length	Pin length	Bored hole dia. (GO)	Bored hole dia. (NOT-GO)	d_1 length	d_2 length	Shank dia.	Size of square	Length of square
L	ℓ	d_1	d_2	ℓ_1	ℓ_2	Ds	K	ℓk

Size	Code	L (mm)	ℓ (mm)	d_1 (mm)	d_2 (mm)	ℓ_1 (mm)	ℓ_2 (mm)	Ds (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
M12 × 1.25	CPRT012N	110	27.4	11.36	11.50	7.7	19.7	12	9	12	2	¥ 2,900 □
M12 × 1	CPRT012M	110	27.4	11.49	11.59	7.7	19.7	12	9	12	2	¥ 2,900 □
					For Unified Threads							
No.2-56UNC	CPRTUN2E	46	8	1.96	2.04	1.5	6.5	3	2.5	5	1	¥ 1,800 □
No.2-64UNF	CPRTUN2D	46	8	1.98	2.06	1.5	6.5	3	2.5	5	1	¥ 1,800 □
No.3-48UNC	CPRTUN3F	46	8	2.25	2.35	1.5	6.5	3	2.5	5	1	¥ 2,100 □
No.3-56UNF	CPRTUN3E	46	8	2.29	2.37	1.5	6.5	3	2.5	5	1	¥ 2,100 □
No.4-40UNC	CPRTUN4H	46	8.5	2.54	2.64	1.5	7	4	3.2	6	1	¥ 2,000 □
No.4-48UNF	CPRTUN4F	46	8.5	2.59	2.68	1.5	7	4	3.2	6	1	¥ 2,000 □
No.5-40UNC	CPRTUN5H	46	8.5	2.87	2.97	1.5	7	4	3.2	6	1	¥ 2,100 □
No.5-44UNF	CPRTUN5G	46	8.5	2.90	2.99	1.5	7	4	3.2	6	1	¥ 2,100 □
No.6-32UNC	CPRTUN6J	52	10.5	3.11	3.22	2.25	8.25	5	4	7	1	¥ 2,100 □
No.6-40UNF	CPRTUN6H	52	10.5	3.19	3.29	2.25	8.25	5	4	7	1	¥ 2,100 □
No.8-32UNC	CPRTUN8J	52	10.5	3.78	3.89	2.25	8.25	5	4	7	1	¥ 2,300 □
No.8-36UNF	CPRTUN8I	52	10.5	3.81	3.91	2.25	8.25	5	4	7	1	¥ 2,300 □
No.10-24UNC	CPRTUNAM	59.5	12.5	4.30	4.44	2.5	10	5.5	4.5	7	1	¥ 2,320 □
No.10-32UNF	CPRTUNAJ	59.5	12.5	4.44	4.53	2.5	10	5.5	4.5	7	1	¥ 2,320 □
No.12-24UNC	CPRTUNCM	61.5	16.5	4.96	5.07	3.75	12.75	6	4.5	7	1	¥ 2,500 □
No.12-28UNF	CPRTUNCK	61.5	16.5	5.03	5.13	3.75	12.75	6	4.5	7	1	¥ 2,500 □
1/4-20UNC	CPRTU04N	61.5	16.5	5.73	5.86	3.75	12.75	6	4.5	7	1	¥ 2,600 □
1/4-28UNF	CPRTU04K	61.5	16.5	5.91	6.00	3.75	12.75	6	4.5	7	1	¥ 2,600 □
5/16-18UNC	CPRTU05O	90	19.4	7.23	7.38	4.7	14.7	8	6.2	9	2	¥ 2,800 □
5/16-24UNF	CPRTU05M	90	19.4	7.42	7.53	4.7	14.7	8	6.2	9	2	¥ 2,800 □
3/8-16UNC	CPRTU06P	100	23.4	8.72	8.89	6.7	16.7	10	8	11	2	¥ 2,850 □
3/8-24UNF	CPRTU06M	100	23.4	8.99	9.10	6.7	16.7	10	8	11	2	¥ 2,850 □
7/16-14UNC	CPRTU07Q	110	27.4	10.20	10.40	7.7	19.7	12	9	12	2	¥ 2,900 □
7/16-20UNF	CPRTU07N	110	27.4	10.48	10.62	7.7	19.7	12	9	12	2	¥ 2,900 □
1/2-13UNC	CPRTU08R	110	27.4	11.70	11.92	7.7	19.7	12	9	12	2	¥ 3,100 □
1/2-20UNF	CPRTU08N	110	27.4	12.06	12.20	7.7	19.7	12	9	12	2	¥ 3,100 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Think threads with YAMAWA

Overall length	Pin length	Bored hole dia. (Thread engagement 90%)	Bored hole dia. (Thread engagement 75%)	Bored hole dia. (Thread engagement 60%)	d_1 length	d_2 length	d_3 length	Shank dia.
L	ℓ	d_1	d_2	d_3	ℓ_1	ℓ_2	ℓ_3	Ds

CPR-Y



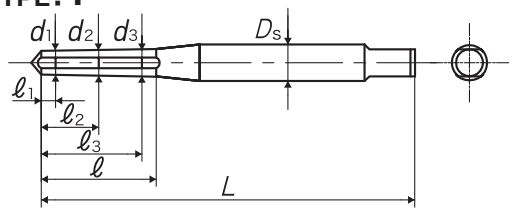
Check-Pins for Bored Holes in Thread Form Tapping for R-Y Taps.

Specification

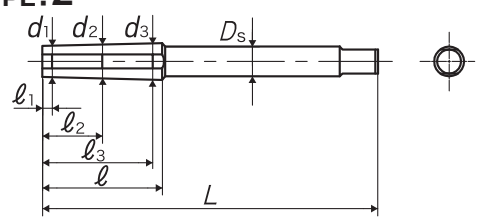
HSS

■Check pin for R-Y is the pin to check the bored hole dia. for R-Y forming taps.

TYPE : 1



TYPE : 2



Segment : 1J

Size	Code	L (mm)	ℓ (mm)	d_1 Thread engagement ratio 90%	d_2 Thread engagement ratio 75%	d_3 Thread engagement ratio 60%	ℓ_1 (mm)	ℓ_2 (mm)	ℓ_3 (mm)	Ds (mm)	TYPE	MSRP
For Metric Threads												
M2	CPRY2.0E	42	9	1.83	1.86	1.89	1.5	4.5	7.5	3	1	¥ 1,120 □
M2.5	CPRY2.5F	44	10	2.31	2.34	2.37	2	5	8	3	1	¥ 800 □
M2.6	CPRY2.6F	44	10	2.41	2.44	2.47	2	5	8	3	1	¥ 750 □
M3	CPRY3.0G	46	13	2.78	2.83	2.87	2	6.5	11	4	1	¥ 710 □
M4	CPRY4.0I	52	16	3.69	3.75	3.81	2	8	14	5	1	¥ 670 □
M5	CPRY5.0K	60	16	4.65	4.71	4.77	2	8	14	5.5	1	¥ 700 □
M6	CPRY6.0M	62	19	5.55	5.63	5.70	2	9.5	17	6	1	¥ 740 □
M8	CPRY8.0N	70	25	7.42	7.53	7.63	2	12.5	23	6.2	2	¥ 1,100 □

※Please use CPR-Y for controlling bored holes for R-Y taps.

MEMO

–	–	Shank dia.	Overall length	Size of square	Length of square
L	D	Ds	ℓ	K	ℓk

JIS

SA

Shank Adjusters

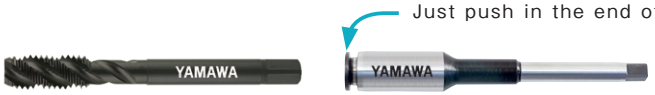


Specification

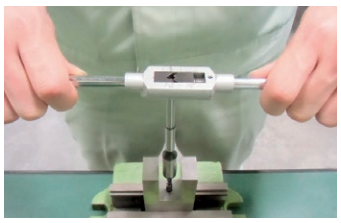
Alloy steel

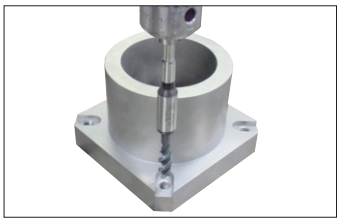
Product Features

●I series tap (IHT / ISP / IPO) can be installed with one motion. The total length can be extended to 150mm. It is now possible to reach deeper into workpieces with a standard tap with obstructions.

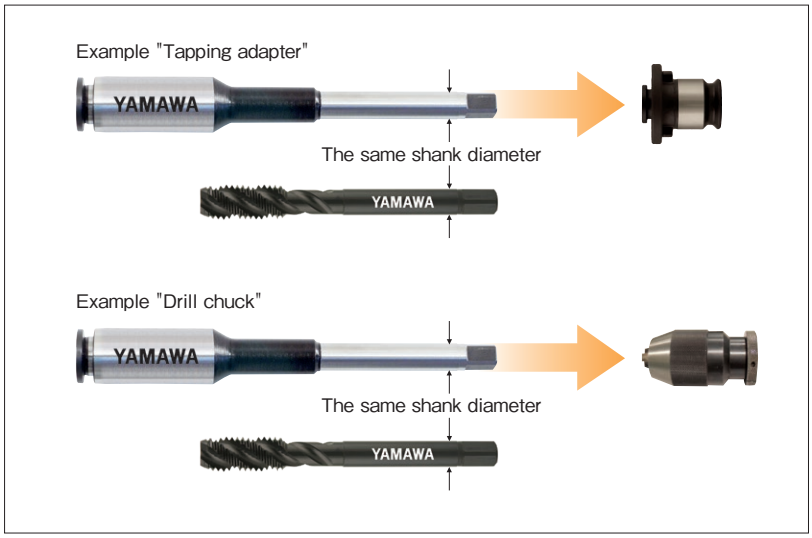


●It can be easily used for hand-drilling or a drilling machine.
* It is not suitable for high-speed rotation or continuous processing.


Hand drillling


Drilling machine

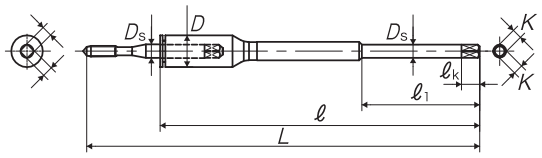
●The shank diameter of the shank adjuster is the same size as the shank diameter of the tap thus it can be installed in your tap holder.
* It can be attached to a drill chuck for drill machines.



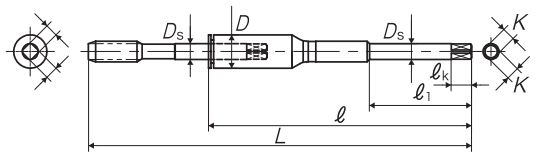
Think threads with YAMAWA

–	–	Shank dia.	Overall length	Size of square	Length of square
L	D	Ds	ℓ	K	ℓk

TYPE : 1



TYPE : 2



Segment : 5A

Size	Code	L (mm)	D (mm)	Ds (mm)	ℓ (mm)	ℓ1 (mm)	K (mm)	ℓk (mm)	TYPE	MSRP
M3-150	SA3.0M	150	11	4	127	45	3.2	6	1	¥ 19,200 □
M4-150	SA4.0M	150	12	5	122	45	4	7	1	¥ 19,700 □
M5-150	SA5.0M	150	12.5	5.5	114	45	4.5	7	1	¥ 19,800 □
M6-150	SA6.0M	150	13	6	115	45	4.5	7	1	¥ 20,300 □
M8-150	SA8.0M	150	13	6.2	108	45	5	8	2	¥ 20,400 □
M10-150	SA010M	150	14	7	103	45	5.5	8	2	¥ 21,200 □

・By using SA, you can lengthen your I series taps and standard taps.

(For ISP, refer to product page ①-61.
For IPO, refer to product page ③-31.
For IHT, refer to product page ④-51.)

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Think threads with YAMAWA

Drill dia.	Overall length	Shank dia.	Thread + Neck length
Dc	L	Ds	ℓn

ITRD

Broken Tap Removal Tools



Specification

HF Coating

■Product Features

●The unique cutting edge shape is adopted so that a broken high-hardness cutting tap can be removed. The tap can be removed by drilling a hole in its center.
●Wear resistance of the tool is improved by special coating and ultra micro grain cemented carbide resistant to machining the high-hardness HSS tap.

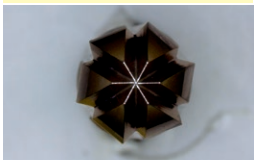
■Machining case 1 (for spiral fluted taps)

Machining conditions

Tap	SP M12×1.75
Workpiece Material	S50C
Tool	ITRD Dc8.5
Revolution Speed	450min^{-1}
Feed Speed	3mm/min (in 0.3 mm steps)

Machining Depth	15mm
Machine	MC BT40, vertical type
Cutting Fluid	Water soluble cutting fluid, (x20)
Internal Thread Accuracy	Gauge OK (after retapping)

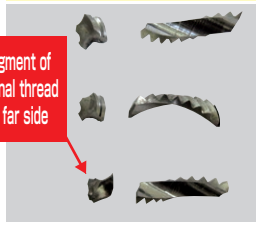
Tool condition



Before removal / During removal / After removal



Fragments of removed tap



For a tap with spiral flutes, such as a spiral fluted tap, since lands of the tap are coiled around the internal thread, the tap does not move easily even during removal and its fragments does not come out easily on the way. Therefore, ITRD is most suitable for the removal of spiral fluted taps (35° or more of helix angle).

■Machining case 2 (for hand taps or spiral pointed taps)

Machining conditions ITRD Dc-8.5

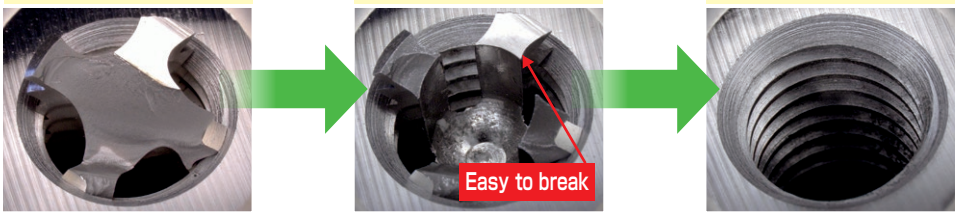
Tap	HT M12×1.5
Workpiece Material	SCM440
Revolution Speed	460min^{-1}
Feed Speed	3mm/min (in 0.3 mm steps)

Machining Depth	12mm
Machine	MC, vertical type
Cutting Fluid	Water soluble cutting fluid, (x20)

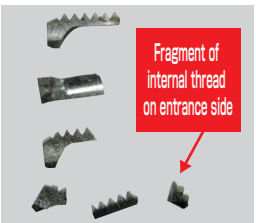
Tool condition



Before removal / During removal / After removal



Fragments of removed tap



Remarks: For a tap with straight flutes, such as a hand tap or a spiral pointed tap, deeper machining causes lands of the tap to bend more easily, and its fragments to come out easily. Therefore, if any tap fragments come out with unusual sound during removal, stop machining and remove the fragments with a scriber or the like. While doing so, proceed with machining carefully.

Drill dia.	Overall length	Shank dia.	Thread + Neck length
Dc	L	Ds	ℓn

■Removable taps and machining conditions

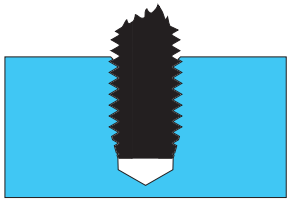
Cutting Edge Dia. Dc (mm)	Removable Tap			Revolution Speed (min^{-1})	Feed Speed (mm/min)	G73 Steps (mm)
	SP	PO	HT			
6.0	M8·M10	M8	M10	550 ~ 650	2 ~ 4	0.2 ~ 0.4
7.0	M10·M12	M10	M12	450 ~ 550		
8.5	M12·M14·M16	M12	M12·M14	400 ~ 500		

・This is most suitable for the removal of spiral fluted taps (with helix angle of 35° or more).
Please see "Machining case 1" <for spiral fluted taps> on the pre-page.

■Removal procedure

1 Flatten with grinder!

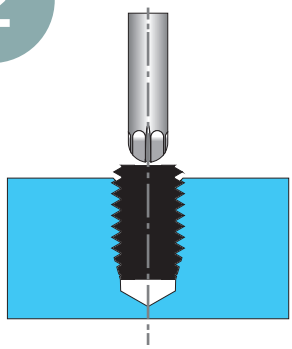




A tap is broken. Before starting removal, flatten the broken part of the tap with a grinder or the like as far as possible.

Remarks: Machining with the part left broken will cause the removal tool to become chipped.

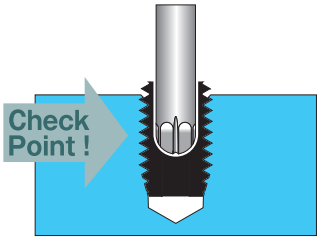
2



Select a cutting edge diameter suitable for the removable tap, firmly attach the tool and workpiece to MC, and set the removing tool to the center of the broken tap.

3 More fragments for spiral pointed taps or hand taps





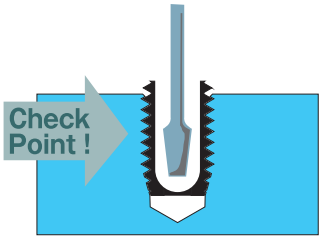
Supplying enough water-soluble cutting oil, perform machining carefully in steps of G73.

※For G73, please see "Notes" on the next page.

Remarks: If any tap fragments come out with unusual sound during machining, stop work and remove the fragments with a scriber or the like. For PO and HT in particular, proceeding with machining by force will cause the removing tool to be broken by the fragments caught in it.

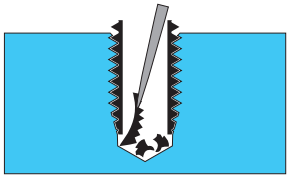
4 Crack on far side





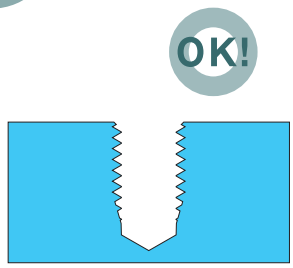
You will hear unusual sound when the removing tool goes through the tap. Stop feeding it. A crack is found on the far side of the hole, where the tap is cut off. Proceeding with machining by force will cause the tool to be broken by the fragments caught in it. Move the removal tool to a safe place, and remove the fragments with a chisel and a punch.

5



When machining is finished, remove the remainder of the tap with a scriber or the like.

6



The procedure is complete. If necessary, deburr the internal thread again with a tap.

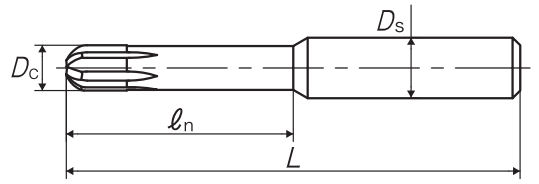
・To eject sludge during machining, water-soluble cutting oil is recommended.

You can also see it from the video site on the left.

Drill dia.	Overall length	Shank dia.	Neck length
Dc	L	Ds	ℓn

ITRD Broken Tap Removal Tools

TYPE : 1



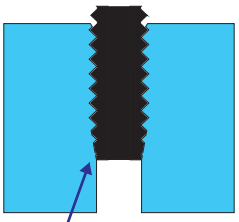
Segment : 52

Size Dc × Ds × L	Code	Dc (mm)	L (mm)	Ds (mm)	ℓn (mm)	TYPE	MSRP
For Metric Threads							
6 × 8 × 60	ITZ6.00ZPWSI	6	60	8	30	1	¥ 24,900 □
7 × 8 × 70	ITZ7.00ZPWSI	7	70	8	35	1	¥ 30,100 □
8.5 × 10 × 75	ITZ8.50ZPWSJ	8.5	75	10	40	1	¥ 36,900 □

■Notes

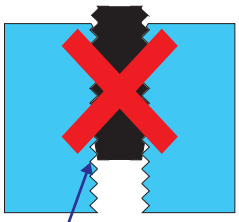
① Compatible machines include vertical type MC, NC, and milling machines. It cannot be used with a drilling machine.
② The depth of the tap to remove is 1.5D or less for spiral fluted taps or 1D or less for spiral pointed taps and hand taps.
③ Use a machine and tooling that have high stiffness. In addition, supply enough water-soluble cutting oil.
④ Although it is possible to remove a tap broken in forward tapping, ITRD cannot remove a tap broken in reverse tapping because the tap revolves and moves during removal.
⑤ The recommended material of workpiece is steel, which is high in cutting torque. For a soft material, such as aluminum, it is not possible to remove because the tap revolves and moves during removal.

【Broken during forward tapping motion】

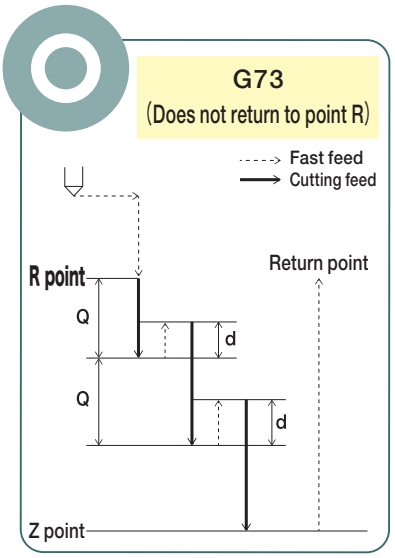


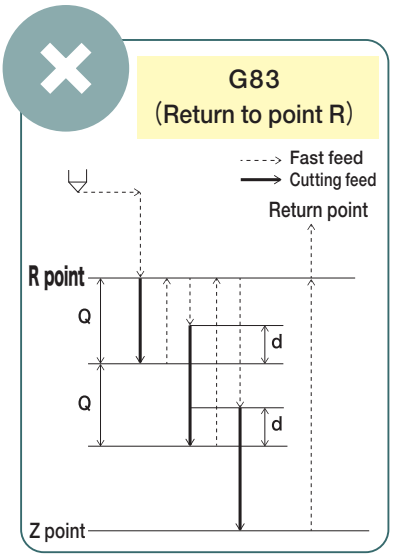
The tap is fixed because there are no internal thread ridges.
The tap will not revolve even if machining load is applied during removal.

【Broken during reverse tapping motion or soft material】



The tap is not fixed because there are some internal thread ridges. Therefore, the tap revolves and moves during removal. It cannot be machined.





Remarks: The internal threads may be broken after using the ITRD. Therefore, there is no guarantee of the internal thread quality after the tap removal.

Notes on use

◆Use a cover and wear safety goggles, because there is a danger of damage.
◆Observe the proper cutting conditions, because there is a danger of damage.
◆Never wear gloves while the tool is revolving, because they might get caught.
◆Wear safety shoes, because your foot might get injured by a falling tool.
◆When attaching the tool to a machine, fix it firmly so that there is no rattle or runout.
◆Fix the workpiece firmly so that it does not move during machining. Do not use a tool showing signs of severe wear or with chipping on cutting edges.
◆Be sure to take disaster prevention measures, because there is a danger of fire due to possible high temperature and heat generated during cutting.

JIS • ANSI • DIN

LINE UP

⑧ PIPE TAP SERIES



	JIS	ANSI	DIN
AUSP Rc	⑧-7		
AUSP Rp	⑧-9		
AUSP G	⑧-11		
Rc	⑧-13		
PT	⑧-14		
PT LH	⑧-15		
PT-X	⑧-16		
S-PT	⑧-17		
S-PT LH	⑧-18		
LS-PT	⑧-19		
LS-S-PT	⑧-20		
SP-PT	⑧-21		
SP-S-PT	⑧-22		
SP-PT-X	⑧-23		
LS-SP-PT	⑧-24		
LS-SP-S-PT	⑧-25		
INT-PT	⑧-26		
INT-S-PT	⑧-27		
LS-INT-PT	⑧-28		
LS-INT-S-PT	⑧-29		
LC-PT	⑧-30		
LC-S-PT	⑧-31		
SU-PT	⑧-32		
SU-S-PT	⑧-33		
SU-SP-PT	⑧-34		
SU-SP-S-PT	⑧-35		
FC-PT	⑧-36		
FC-S-PT	⑧-37		
CT-PT	⑧-38		
CT-S-PT	⑧-39		
Rp	⑧-40		
PS	⑧-41		
PS LH	⑧-43		
LS-PS	⑧-44		
SP-PS	⑧-45		
LS-SP-PS	⑧-46		
FC-PS	⑧-47		
CT-PS	⑧-48		
G	⑧-49		
SP G			⑧-51
SP OX G			⑧-52
SP V G			⑧-53
SP-VA G			⑧-54
SU2-SP G			⑧-55
LO-SP G			⑧-56
LO-SP OX G			⑧-57
PH-SP G			⑧-58
PO G			⑧-59
PO OX G			⑧-60
PO V G			⑧-61
PO-VA G			⑧-62
HT G			⑧-63
GGST G			⑧-65
GG-HT G			⑧-66
GG-HT G(Coating)			⑧-67
EH-HT G			⑧-68
R-D G			⑧-69
R-D G(Coating)			⑧-70

	JIS	ANSI	DIN
PF	⑧-71		
PF LH	⑧-73		
LS-PF	⑧-74		
SP-PF	⑧-75		
LS-SP-PF	⑧-76		
SU-PF	⑧-77		
SU-SP-PF	⑧-78		
FC-PF	⑧-79		
CT-PF	⑧-80		
NPT	⑧-81	⑧-82	
ZELX MOLD NPT		⑧-83	
NPT-CI		⑧-84	
S-NPT	⑧-85		
LS-NPT	⑧-86		
SP-NPT	⑧-87		
ZELX SS NPT		⑧-88	
LS-SP-S-NPT	⑧-89		
INT-NPT	⑧-90	⑧-91	
INT-S-NPT	⑧-92		
NPTF	⑧-93	⑧-94	
NPTF-CI		⑧-95	
ZELX SS NPTF		⑧-96	
LS-NPTF	⑧-97		
NPS	⑧-98	⑧-99	
NPSF	⑧-100	⑧-101	

・For improvement, spec may change without advance notice.

Selection chart of taps

Tapping conditions										
Product symbol		Rc	PT	PT-X	S-PT	SP-PT	SP-S-PT	SP-PT-X	LS-PT	LS-S-PT
Tap material Surface treatment		HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS
Name		For taper pipe threads; For general use							For taper pipe threads; Long, for general use	
										
Bored Hole Shape										
For Metric Threads										
For Unified Threads										
For Whitworth Threads										
For Screw Threads used on Sewing Machines										
Pipe Threads		⑧-13	⑧-14	⑧-16	⑧-17	⑧-21	⑧-22	⑧-23	⑧-19	⑧-20
American Pipe Threads										
For Miniature Threads										
For Trapezoidal Threads										

～S25C	Low carbon steels									◆	◎	◆	◎	◆	◎				
S25C～S45C	Medium carbon steels	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎
S45C～	High carbon steels	◆	○	◆	○	◆	○	◆	○	◆	○	◆	○	◆	○	◆	○	◆	○
SCM	Alloy steels	◆	○	◆	○	◆	○	◆	○							◆	○	◆	○
25～35HRC	Heat treated steel																		
35～45HRC	Heat treated steel																		
45～55HRC	Heat treated steel																		
55～63HRC	Heat treated steel																		
SUS	Stainless steels (SUS)																		
SKD	Tool steels																		
SC	Cast steels																		
FC	Cast irons																		
FCD	Ductile cast irons																		
Cu	Copper																		
Bs	Brass																		
BsC	Brass castings																		
PB	Bronze																		
AL	Wrought aluminum																		
AC, ADC	Wrought aluminum																		
Mg	Magnesium alloy die castings																		
ZDC	Zinc alloy die castings																		
	Titanium alloys																		
	Nickel base alloys																		
	Thermosetting plastic																		
	Thermoplastic resin																		

Think threads with YAMAWA

Recommended tap ◎: Most suitable tap ○: Suitable tap

Recommended tapping fluid ◆: Insoluble ◆: Water-soluble

Machining, in low-speed tapping area

	LS-SP-PT	LS-SP-S-PT	PT LH	S-PT LH	Z-PRO AUSP Rc		LC-PT		LC-S-PT		SU-PT		SU-S-PT		SU-SP-PT		SU-SP-S-PT		INT-PT		INT-S-PT	
	HSS	HSS	HSS	HSS	HSS	Coating	HSS	OX	HSS	OX	HSS	OX	HSS	OX	HSS	OX	HSS	OX	HSS	OX	HSS	OX
	For taper pipe threads; Long, for general use		For taper pipe threads For general use; For left-hand threads		For taper pipe threads, coated		For taper pipe threads For low carbon steel				For taper pipe threads For stainless steel								For taper pipe threads For stainless steel, interrupted			
																						
	⑧-24	⑧-25	⑧-15	⑧-18	⑧-8		⑧-30		⑧-31		⑧-32		⑧-33		⑧-34		⑧-35		⑧-26		⑧-27	
	◆	◎	◆	◎					◆◆	◎												
	◆	◎	◆	◎	◆	◎	◆	◎	◆◆	◎					◆	◎	◆	◎				
	◆	○	◆	○	◆	○	◆	○	◆◆	◎					◆	○	◆	○				
					◆	○	◆	○	◆◆	◎					◆	◎	◆	◎				
									◆◆	○	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎
							◆	○	◆	○									◆	○	◆	○
									◆	○												
									◆	○												

Selection chart of taps

Tapping conditions																		
Product symbol		LS-INT-PT		LS-INT-S-PT		FC-PT		FC-S-PT		CT-PT	CT-S-PT	NPT		S-NPT		SP-NPT		
Tap material Surface treatment		HSS	OX	HSS	OX	HSS	NI	HSS	NI	HF	HF	HSS		HSS		HSS		
Name		For taper pipe threads, long For stainless steel, interrupted				For taper pipe threads; For cast iron						For American taper pipe threads; For general use						
																		
Bored Hole Shape																			
For Metric Threads																		
For Unified Threads																		
For Whitworth Threads																		
For Screw Threads used on Sewing Machines																		
Pipe Threads		⑧-28		⑧-29		⑧-36		⑧-37		⑧-38	⑧-39							
American Pipe Threads												⑧-81		⑧-85		⑧-87		
For Miniature Threads																		
For Trapezoidal Threads																		

～S25C	Low carbon steels	◆	○	◆	○												◆	◎
S25C～S45C	Medium carbon steels											◆	◎	◆	◎	◆	◎	
S45C～	High carbon steels											◆	○	◆	○	◆	○	
SCM	Alloy steels											◆	○	◆	○			
25～35HRC	Heat treated steel																	
35～45HRC	Heat treated steel																	
45～55HRC	Heat treated steel																	
55～63HRC	Heat treated steel																	
SUS	Stainless steels (SUS)	◆	◎	◆	◎													
SKD	Tool steels																	
SC	Cast steels	◆	○	◆	○													
FC	Cast irons					◆	◎	◆	◎	◆	◎	◆	◎					
FCD	Ductile cast irons					◆	○	◆	○	◆	○	◆	○					
Cu	Copper																	
Bs	Brass																	
BsC	Brass castings									◆	◎	◆	◎					
PB	Bronze																	
AL	Wrought aluminum																	
AC, ADC	Wrought aluminum																	
Mg	Magnesium alloy die castings																	
ZDC	Zinc alloy die castings																	
	Titanium alloys																	
	Nickel base alloys																	
	Thermosetting plastic																	
	Thermoplastic resin																	

Think threads with YAMAWA

Recommended tap ◎: Most suitable tap ○: Suitable tap

Recommended tapping fluid ◆: Insoluble ◆: Water-soluble

Machining, in low-speed tapping area							Machining, in low/middle speed tapping area						
LS-NPT	LS-SP-S-NPT	INT-NPT	INT-S-NPT	NPTF	LS-NPTF	Rp	PS	SP-PS	G	PF	SP-PF	LS-PS
HSS	HSS	HSS OX	HSS OX	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS
For American taper pipe threads Long, for general use		For American taper pipe threads For stainless steel, interrupted		For American Dryseal taper pipe threads; For general use	For American Dryseal taper pipe threads Long, for general use	For parallel pipe threads; For general use						For parallel pipe threads; Long, for general use
												
						⑧-40	⑧-41	⑧-45	⑧-49	⑧-71	⑧-75	⑧-44
⑧-86	⑧-89	⑧-90	⑧-92	⑧-93	⑧-97							

		◆	◎	◆	○	◆	○					◆	○	◆	○	◆	○	◆	○	◆	○	◆	○	◆	○
◆	◎	◆	◎					◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎
◆	○	◆	○					◆	○	◆	○	◆	○	◆	○	◆	○	◆	○	◆	○	◆	○	◆	○
◆	○							◆	○	◆	○														
				◆	◎	◆	◎																		
				◆	○	◆	○																		

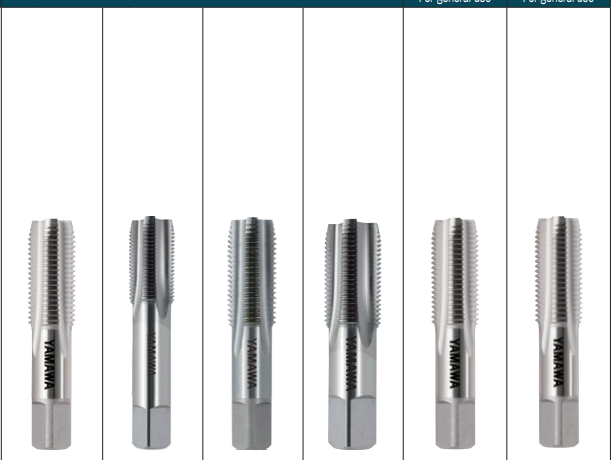
Selection chart of taps

Tapping conditions																	
Product symbol		LS-SP-PS		LS-PF		LS-SP-PF		PS LH	PF LH	Z-PRO AUSP Rp		Z-PRO AUSP G		SU-PF		SU-SP-PF	
Tap material Surface treatment		HSS		HSS		HSS		HSS	HSS	HSS	Coating	HSS	Coating	HSS	OX	HSS	OX
Name		For parallel pipe threads; Long, for general use						For parallel pipe threads; For general use For left-hand threads		For parallel pipe threads, coated				For parallel pipe threads For stainless steel			
																	
Bored Hole Shape																	
For Metric Threads																	
For Unified Threads																	
For Whitworth Threads																	
For Screw Threads used on Sewing Machines																	
Pipe Threads		⑧-46		⑧-74		⑧-76		⑧-43	⑧-73	⑧-10		⑧-12		⑧-77		⑧-78	
American Pipe Threads																	
For Miniature Threads																	
For Trapezoidal Threads																	
～S25C	Low carbon steels	◆	○	◆	○	◆	○	◆	○	◆	○	◆◆	◎	◆◆	◎	◆	◎	◆	◎
S25C～S45C	Medium carbon steels	◆	◎	◆	◎	◆	◎	◆	◎	◆	◎	◆◆	◎	◆◆	◎	◆	○	◆	○
S45C～	High carbon steels	◆	○	◆	○	◆	○	◆	○	◆	○	◆◆	◎	◆◆	◎			◆	○
SCM	Alloy steels											◆◆	◎	◆◆	◎			◆	◎
25～35HRC	Heat treated steel																		
35～45HRC	Heat treated steel																		
45～55HRC	Heat treated steel																		
55～63HRC	Heat treated steel																		
SUS	Stainless steels (SUS)									◆◆	○	◆◆	○	◆	◎	◆	◎
SKD	Tool steels																		
SC	Cast steels																		
FC	Cast irons																		
FCD	Ductile cast irons																		
Cu	Copper																		
Bs	Brass																		
BsC	Brass castings																		
PB	Bronze																		
AL	Wrought aluminum																		
AC, ADC	Wrought aluminum									◆	○	◆	○						
Mg	Magnesium alloy die castings																		
ZDC	Zinc alloy die castings									◆	○	◆	○						
	Titanium alloys																		
	Nickel base alloys																		
	Thermosetting plastic																		
	Thermoplastic resin																		

Think threads with YAMAWA

Recommended tap ◎: Most suitable tap ○: Suitable tap

Recommended tapping fluid ◆: Insoluble ◆: Water-soluble

Machining, in low/middle speed tapping area						
	FC-PS	CT-PS	FC-PF	CT-PF	NPS	NPSF
	HSS NI	HF	HSS NI	HF	HSS	HSS
	For parallel pipe threads; For cast iron				For American parallel pipe threads; For general use	For American Dryseal parallel pipe threads; For general use
						
						
	⑧-47	⑧-48	⑧-79	⑧-80		
					⑧-98	⑧-100
					◆ ○	◆ ○
					◆ ◎	◆ ◎
					◆ ○	◆ ○
◆	◎	◆	◎	◆	◎	◆ ◎						
◆	○	◆	○	◆	○	◆ ○						
		◆	◎			◆ ◎						

Overall length	Thread length	Position on basic dia.	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	ℓs	Ds	K	ℓk

JIS

Z-PRO

AUSP Rc



Z-PRO
Coated Spiral Fluted Taps for Taper Pipe Threads

Specification

HSS Coating



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
~7 (m/min)	~7 (m/min)	~7 (m/min)	~5 (m/min)	~3 (m/min)	~10 (m/min)	~10 (m/min)

Product Features

●Proper tool projection length is secured, achieving a good chip ejection efficiency.
●Good internal thread surface and long tool life are achieved through adoption of the unique cutting edge shape and special coating.

Tapping Data

Tapping conditions [AUSP Rc 1/4-19]

Workpiece Materials	SS400
Tapping Speed	5m/min
Machine	Machining center
Holder	With tension and compression
Tapping Fluid	Water soluble cutting fluid

YAMAWA	Competitor
AUSP Rc Good surface roughness	Spiral fluted tap Gouges have occurred





・Compatible with tapping of a wide range of work materials
AUSP Rc Standard tapping conditions

Workpiece Materials		Standard Tapping Speed (m/min)
Stainless Steels	SUS304	~3
Alloy Steels	SCM/SCr	~5
High Carbon Steels	S45C~	~7
Medium Carbon Steels	S25C~S45C	~7
Low Carbon Steels	~S20C/SS400	~7
Aluminum Alloy Casting/ Zinc Alloy Casting	AC/ADC/ZDC	~10

Overall length	Thread length	Position on basic dia.	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	ℓs	Ds	K	ℓk

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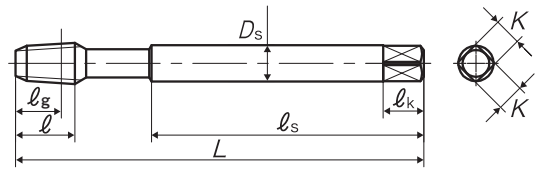

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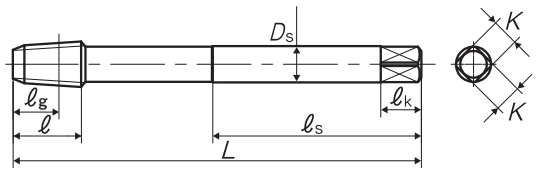

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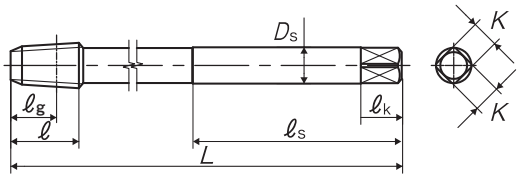


Segment : 1G

Size	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
Rc 1/16-28	SJRC010FET	2.5P	7.723	90	14	10.1	60	8	6	9	3	1	¥ 6,160
Rc 1/8-28	SJRC020FET	2.5P	9.728	90	15	10.1	46	8	6	9	3	2	¥ 6,160
Rc 1/4-19	SJRC040FET	2.5P	13.157	100	19	15	51	11	9	12	3	2	¥ 9,180
Rc 3/8-19	SJRC060FET	2.5P	16.662	100	21	15.4	51	14	11	14	3	2	¥ 14,400
Rc 1/2-14	SJRC080FET	2.5P	20.955	125	26	20.5	64	18	14	17	4	2	¥ 22,800
Rc 3/4-14	SJRC120FET	2.5P	26.441	140	28	21.8	71	23	17	20	4	2	¥ 37,800
Rc 1 -11	SJRC160FET	2.5P	33.249	160	33	26	82	26	21	24	4	2	¥ 67,700
Long shank, for Pipe Threads													
Rc 1/8-28	SJRC020FETG	2.5P	9.728	150	15	10.1	40	8	6	9	3	3	¥ 14,300
Rc 1/8-28	SJRC020FETK	2.5P	9.728	200	15	10.1	40	8	6	9	3	3	¥ 20,500 ※
Rc 1/4-19	SJRC040FETG	2.5P	13.157	150	19	15	50	11	9	12	3	3	¥ 16,500
Rc 1/4-19	SJRC040FETK	2.5P	13.157	200	19	15	50	11	9	12	3	3	¥ 23,600 ※
Rc 3/8-19	SJRC060FETG	2.5P	16.662	150	21	15.4	50	14	11	14	3	3	¥ 24,300
Rc 3/8-19	SJRC060FETK	2.5P	16.662	200	21	15.4	50	14	11	14	3	3	¥ 35,500 ※
Rc 1/2-14	SJRC080FETK	2.5P	20.955	200	26	20.5	60	18	14	17	4	3	¥ 42,200 ※
Rc 3/4-14	SJRC120FETK	2.5P	26.441	200	28	21.8	70	23	17	20	4	3	¥ 55,100 ※
Rc 1 -11	SJRC160FETK	2.5P	33.249	200	33	26	70	26	21	24	4	3	¥ 76,700 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

Z-PRO

AUSP Rp



Z-PRO
Coated Spiral Fluted Taps for Parallel Pipe Threads

Specification

HSS Coating



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	~3 (m/min)	5~15 (m/min)	5~15 (m/min)

Product Features

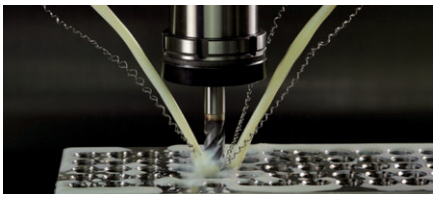
●New shape is adopted. Proper tool projection length is secured, achieving a good chip ejection efficiency.
●Good internal thread surface and long tool life are achieved by the adoption of the unique cutting edge shape and special coating.

Tapping Data

Tapping conditions [AUSP Rp 1/4-19]

Workpiece Materials	SUS304
Tapping Speed	5m/min
Machine	Machining center
Holder	Fixed
Tapping Fluid	Water soluble cutting fluid

Chips Do Not Interfere with the Holder.



Good Internal Thread

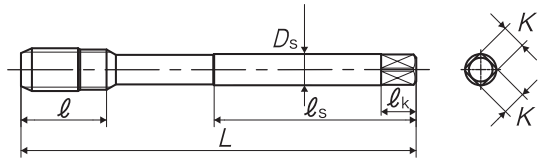


・Compatible with tapping of a wide range of work materials
AUSP Rp Standard tapping conditions

Workpiece Materials		Standard Tapping Speed (m/min)
Stainless Steels	SUS304	～3
Alloy Steels	SCM/SCr	5～15
High Carbon Steels	S45C～	5～15
Medium Carbon Steels	S25C～S45C	5～15
Low Carbon Steels	～S20C/SS400	5～15
Aluminum Alloy Casting/ Zinc Alloy Casting	AC/ADC/ZDC	5～15

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

TYPE : 1



Segment : 1G

Size	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
Rp 1/8-28	SJRP020FET	2.5P	9.728	90	15	46	8	6	9	3	1	¥ 5,060
Rp 1/4-19	SJRP040FET	2.5P	13.157	100	19	51	11	9	12	3	1	¥ 7,530
Rp 3/8-19	SJRP060FET	2.5P	16.662	100	21	51	14	11	14	3	1	¥ 11,900
Rp 1/2-14	SJRP080FET	2.5P	20.955	125	26	64	18	14	17	4	1	¥ 18,700
Rp 3/4-14	SJRP120FET	2.5P	26.441	140	28	71	23	17	20	4	1	¥ 31,000
Rp 1 -11	SJRP160FET	2.5P	33.249	160	33	82	26	21	24	4	1	¥ 55,600

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

Z-PRO

AUSP G



Z-PRO
Coated Spiral Fluted Taps for Parallel Pipe Threads

Specification

HSS | Coating



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	~3 (m/min)	5~15 (m/min)	5~15 (m/min)

Product Features

●New shape is adopted. Proper tool projection length is secured, achieving a good chip ejection efficiency.
●Good internal thread surface and long tool life are achieved by the adoption of the unique cutting edge shape and special coating.

Tapping Data

Tapping conditions [AUSP G 1/4-19]

Workpiece Materials	SUS304
Tapping Speed	5m/min
Machine	Machining center
Holder	Fixed
Tapping Fluid	Water soluble cutting fluid

Chips Do Not Interfere with the Holder.



Good Internal Thread

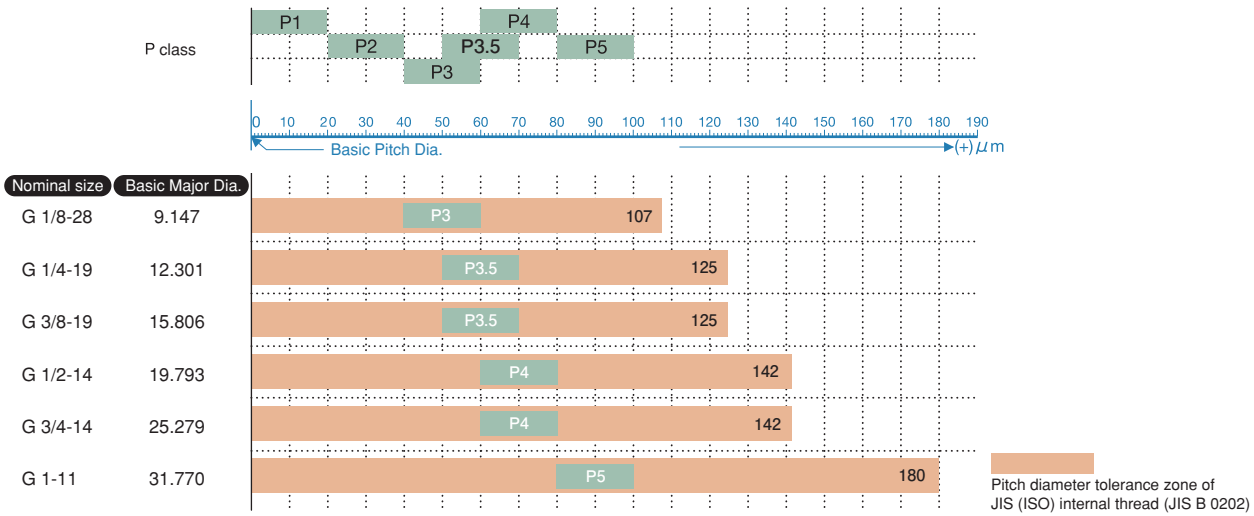


・Compatible with tapping of a wide range of work materials

AUSP G Standard tapping conditions

Workpiece Materials		Standard Tapping Speed (m/min)
Stainless Steels	SUS304	~3
Alloy Steels	SCM/SCr	5~15
High Carbon Steels	S45C~	5~15
Medium Carbon Steels	S25C~S45C	5~15
Low Carbon Steels	~S20C/SS400	5~15
Aluminum Alloy Casting/ Zinc Alloy Casting	AC/ADC/ZDC	5~15

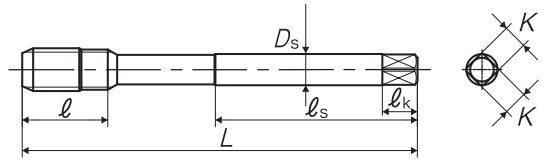
・Tap class and internal thread class



Think threads with YAMAWA

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
G 1/8-28	P3	SJG0020FET	2.5P	9.728	90	15	46	8	6	9	3	1	¥ 5,060
G 1/4-19	P3.5	SJG0040FET	2.5P	13.157	100	19	51	11	9	12	3	1	¥ 7,530
G 3/8-19	P3.5	SJG0060FET	2.5P	16.662	100	21	51	14	11	14	3	1	¥ 11,900
G 1/2-14	P4	SJG0080FET	2.5P	20.955	125	26	64	18	14	17	4	1	¥ 18,700
G 3/4-14	P4	SJG0120FET	2.5P	26.441	140	28	71	23	17	20	4	1	¥ 31,000
G 1 -11	P5	SJG0160FET	2.5P	33.249	160	33	82	26	21	24	4	1	¥ 55,600

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	ℓs	Ds	K	ℓk

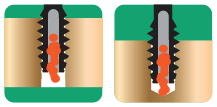
Rc

Hand Taps for Taper Pipe Threads



Specification

HSS

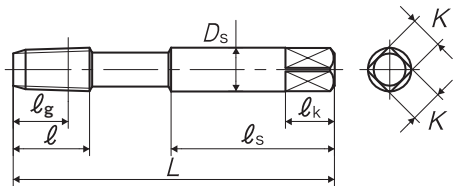


■The Rc is a hand tap for a tapered pipe threads conforming to ISO specifications. It is used for mating with external tapered pipe threads R(PT).

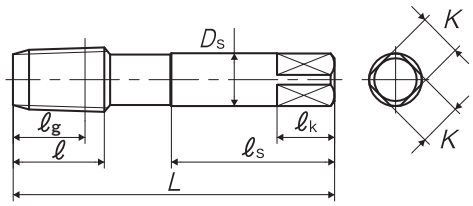
Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads														
Rc 1/16-28	II	TH2RC01K	2.5P	7.723	59	14	10.1	30	8	6	9	4	1	¥ 3,450
Rc 1/8-28	II	TH2RC02K	2.5P	9.728	59	15	10.1	30	8	6	9	4	2	¥ 3,450
Rc 1/4-19	II	TH2RC04-	2.5P	13.157	67	19	15	34	11	9	12	4	2	¥ 4,930
Rc 3/8-19	II	TH2RC06-	2.5P	16.662	75	21	15.4	38	14	11	14	4	2	¥ 8,100
Rc 1/2-14	II	TH2RC08Q	2.5P	20.955	87	26	20.5	44	18	14	17	4	2	¥ 13,400
Rc 3/4-14	II	TH2RC12Q	2.5P	26.441	96	28	21.8	49	23	17	20	4	2	¥ 21,600
Rc 1 -11	II	TH2RC16U	2.5P	33.249	109	33	26	56	26	21	24	5	2	¥ 39,800
Rc 1 1/4-11	II	TH2RC20U	2.5P	41.910	119	36	28.3	61	32	26	30	5	2	¥ 60,100
Rc 1 1/2-11	II	TH2RC24U	2.5P	47.803	125	37	28.3	64	38	29	32	6	2	¥ 84,100
Rc 2 -11	II	TH2RC32U	2.5P	59.614	140	41	32.7	71	46	35	38	6	2	¥137,000

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

PT



Hand Taps for Taper Pipe Threads, Long (ℓg) Type

Specification

HSS



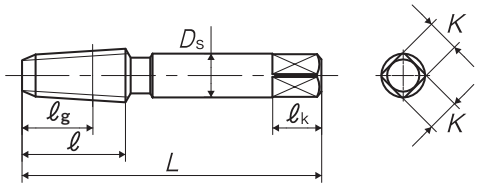


■The PT is a hand tap for tapered pipe threads and is used for tapping products whose main purpose is the tightness of the threaded portion when connecting pipe parts etc.

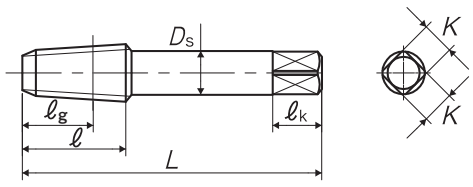
Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/16-28	II	TH2T01K-8	2.5P	7.723	55	19	13	8	6	9	4	1	¥ 3,450
PT 1/8-28	II	TH2T02K	2.5P	9.728	55	19	13	8	6	9	4	2	¥ 3,450
PT 1/4-19	II	TH2T04-	2.5P	13.157	62	28	21	11	9	12	4	2	¥ 4,930
PT 3/8-19	II	TH2T06-	2.5P	16.662	65	28	21	14	11	14	4	2	¥ 8,100
PT 1/2-14	II	TH2T08Q	2.5P	20.955	80	35	25	18	14	17	4	2	¥ 13,400
PT 5/8-14	II	TH2T10Q	2.5P	22.911	82	35	25	19	15	18	4	2	¥ 17,600 ※
PT 3/4-14	II	TH2T12Q	2.5P	26.441	85	35	25	23	17	20	4	2	¥ 21,600
PT 7/8-14	II	TH2T14Q	2.5P	30.201	90	40	28	24	19	22	4	2	¥ 35,100 ※
PT 1 -11	II	TH2T16U	2.5P	33.249	95	45	32	26	21	24	5	2	¥ 39,800
PT 1 1/8-11	II	TH2T18U	2.5P	37.897	100	45	32	28	21	24	5	2	¥ 56,700 ※
PT 1 1/4-11	II	TH2T20U	2.5P	41.910	105	45	32	32	26	30	5	2	¥ 60,100
PT 1 1/2-11	II	TH2T24U	2.5P	47.803	110	45	32	38	29	32	6	2	¥ 84,100
PT 1 3/4-11	II	TH2T28U	2.5P	53.746	115	45	32	42	32	35	6	2	¥125,000 ※
PT 2 -11	II	TH2T32U	2.5P	59.614	120	50	35	46	35	38	6	2	¥137,000
PT 2 1/4-11	II	TH2T36U	2.5P	65.710	145	65	50	50	38	42	6	2	¥223,000 ※
PT 2 1/2-11	II	TH2T40U	2.5P	75.184	145	65	50	55	41	44	8	2	¥229,000 ※
PT 3 -11	II	TH2T48U	2.5P	87.884	155	65	52	65	50	52	8	2	¥344,000 ※
PT 3 1/2-11	II	TH2T56U	2.5P	100.330	165	68	52	70	54	58	8	2	¥450,000 ※
PT 4 -11	II	TH2T64U	2.5P	113.030	170	70	55	75	58	62	10	2	¥609,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

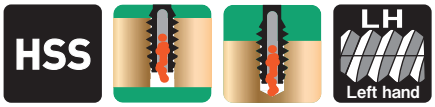
Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

PT LH



Hand Taps for Taper Pipe Threads Long (ℓg) Type for LH Threads

Specification

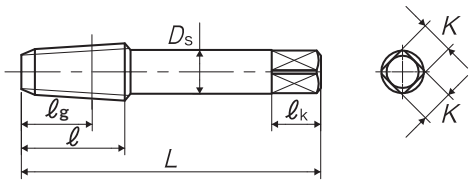


■The PT LH is a hand tap for left hand tapered pipe threads an is used for tapping products whose main purpose is the tightness of threaded parts in connection with pipe parts etc.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	TH2T02K--L	2.5P	9.728	55	19	13	8	6	9	4	1	¥ 4,490 ※
PT 1/4-19	II	TH2T04---L	2.5P	13.157	62	28	21	11	9	12	4	1	¥ 6,410 ※
PT 3/8-19	II	TH2T06---L	2.5P	16.662	65	28	21	14	11	14	4	1	¥ 10,600 ※
PT 1/2-14	II	TH2T08Q--L	2.5P	20.955	80	35	25	18	14	17	4	1	¥ 17,500 ※
PT 3/4-14	II	TH2T12Q--L	2.5P	26.441	85	35	25	23	17	20	4	1	¥ 28,100 ※
PT 1 -11	II	TH2T16U--L	2.5P	33.249	95	45	32	26	21	24	5	1	¥ 51,800 ※
PT 1 1/4-11	II	TH2T20U--L	2.5P	41.910	105	45	32	32	26	30	5	1	¥ 78,200 ※
PT 1 1/2-11	II	TH2T24U--L	2.5P	47.803	110	45	32	38	29	32	6	1	¥110,000 ※
PT 2 -11	II	TH2T32U--L	2.5P	59.614	120	50	35	46	35	38	6	1	¥179,000 ※

Overall length	Thread length	Position on basic dia.	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	ℓs	Ds	K	ℓk

JIS

PT-X



X Series Hand Taps for Taper Pipe Threads Short (ℓg) Type

Specification

HSS



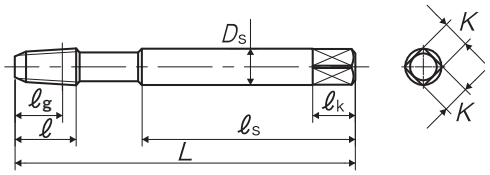


■PT-X hand tap, adopting new tap blank, ensures properly long projection length of the tool. Having short thread length, this tap is suitable for tapping of such machine components as have the limit in their thickness.

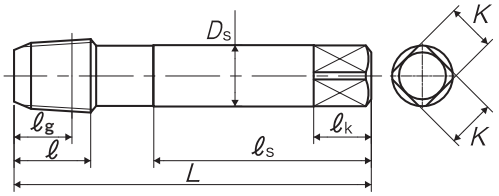
Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE : 1



TYPE : 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads														
PT 1/16-28	II	THX2T01K-8	2.5P	7.723	75	13.5	10.5	47	8	6	9	4	1	¥ 3,820
PT 1/8-28	II	THX2T02K	2.5P	9.728	75	13.5	10.5	48	8	6	9	4	2	¥ 3,820
PT 1/4-19	II	THX2T04-	2.5P	13.157	85	16.5	12.5	54	11	9	12	4	2	¥ 5,490
PT 3/8-19	II	THX2T06-	2.5P	16.662	95	18	14	60	14	11	14	4	2	¥ 9,120
PT 1/2-14	II	THX2T08Q	2.5P	20.955	105	22.5	17	64	18	14	17	4	2	¥ 14,900

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

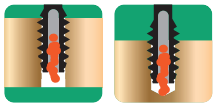
S-PT

Hand Taps for Taper Pipe Threads Short (ℓg) Type



Specification

HSS

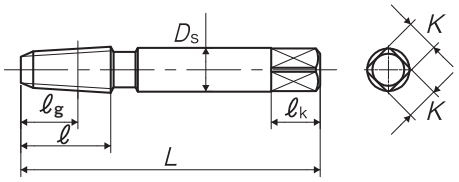


■The S-PT is a tapered pipe hand tap used for tapping when it is necessary to shorten the fitting length and is used in thread tapping of products such as parts for pipes.

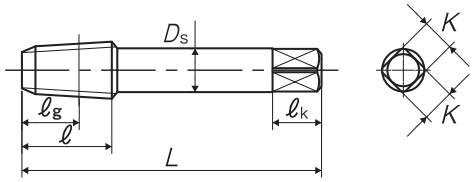
Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/16-28	II	TSPT01K-8	2.5P	7.723	55	16.5	10.5	8	6	9	4	1	¥ 3,450
PT 1/8-28	II	TSPT02K	2.5P	9.728	55	16.5	10.5	8	6	9	4	2	¥ 3,450
PT 1/4-19	II	TSPT04-	2.5P	13.157	62	19.5	12.5	11	9	12	4	2	¥ 4,930
PT 3/8-19	II	TSPT06-	2.5P	16.662	65	21	14	14	11	14	4	2	¥ 8,100
PT 1/2-14	II	TSPT08Q	2.5P	20.955	80	27	17	18	14	17	4	2	¥ 13,400
PT 3/4-14	II	TSPT12Q	2.5P	26.441	85	29	19	23	17	20	4	2	¥ 21,600
PT 1 -11	II	TSPT16U	2.5P	33.249	95	35	22	26	21	24	5	2	¥ 39,800
PT 1 1/4-11	II	TSPT20U	2.5P	41.910	105	37.5	24.5	32	26	30	5	2	¥ 60,100
PT 1 1/2-11	II	TSPT24U	2.5P	47.803	110	38.5	25.5	38	29	32	6	2	¥ 84,100
PT 1 3/4-11	II	TSPT28U	2.5P	53.746	115	39.5	26.5	42	32	35	6	2	¥125,000 ※
PT 2 -11	II	TSPT32U	2.5P	59.614	120	42.5	27.5	46	35	38	6	2	¥137,000
PT 2 1/2-11	II	TSPT40U	2.5P	75.184	145	47	32	55	41	44	8	2	¥229,000 ※
PT 3 -11	II	TSPT48U	2.5P	87.884	155	51	36	65	50	52	8	2	¥344,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

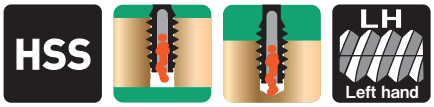
JIS

S-PT LH



Hand Taps for Taper Pipe Threads Short (ℓg) Type for LH Threads

Specification

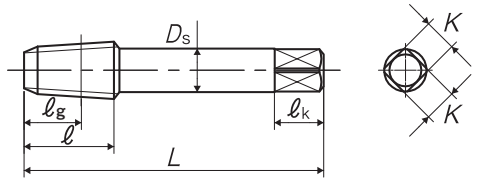


■The S-PT LH is a hand tap for left hand tapered pipe threads and is used where it is necessary to shorten the fitting length for products such as parts for pipes.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	TSPT02K--L	2.5P	9.728	55	16.5	10.5	8	6	9	4	1	¥ 4,490 ※
PT 1/4-19	II	TSPT04---L	2.5P	13.157	62	19.5	12.5	11	9	12	4	1	¥ 6,410 ※
PT 3/8-19	II	TSPT06---L	2.5P	16.662	65	21	14	14	11	14	4	1	¥ 10,600 ※
PT 1/2-14	II	TSPT08Q--L	2.5P	20.955	80	27	17	18	14	17	4	1	¥ 17,500 ※
PT 3/4-14	II	TSPT12Q--L	2.5P	26.441	85	29	19	23	17	20	4	1	¥ 28,100 ※
PT 1 -11	II	TSPT16U--L	2.5P	33.249	95	35	22	26	21	24	5	1	¥ 51,800 ※
PT 1 1/4-11	II	TSPT20U--L	2.5P	41.910	105	37.5	24.5	32	26	30	5	1	¥ 78,200 ※
PT 1 1/2-11	II	TSPT24U--L	2.5P	47.803	110	38.5	25.5	38	29	32	6	1	¥110,000 ※
PT 2 -11	II	TSPT32U--L	2.5P	59.614	120	42.5	27.5	46	35	38	6	1	¥179,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

LS-PT



Long Shank Hand Taps for Taper Pipe Threads Long (ℓg) Type

Specification

HSS



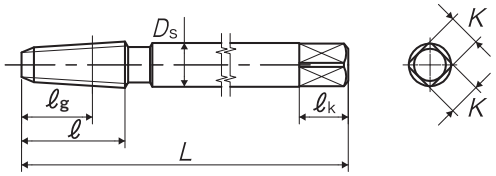


■The LS-PT is a long shank tapered pipe thread tap and is used for products whose main purpose is the tightness of threaded parts in connection with pipe parts etc.

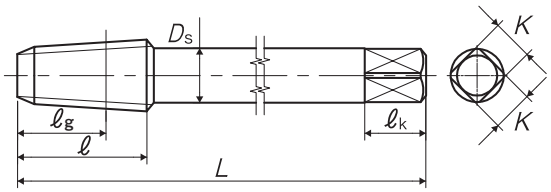
Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/16-28	II	L10T01K-8	2.5P	7.723	100	19	13	8	6	9	4	1	¥ 7,340 ※
PT 1/8-28	II	L10T02K	2.5P	9.728	100	19	13	8	6	9	4	2	¥ 7,340
PT 1/8-28	II	L15T02K	2.5P	9.728	150	19	13	8	6	9	4	2	¥ 11,700
PT 1/8-28	II	L20T02K	2.5P	9.728	200	19	13	8	6	9	4	2	¥ 16,700 ※
PT 1/4-19	II	L10T04-	2.5P	13.157	100	28	21	11	9	12	4	2	¥ 7,920
PT 1/4-19	II	L15T04-	2.5P	13.157	150	28	21	11	9	12	4	2	¥ 11,900
PT 1/4-19	II	L20T04-	2.5P	13.157	200	28	21	11	9	12	4	2	¥ 16,900 ※
PT 3/8-19	II	L10T06-	2.5P	16.662	100	28	21	14	11	14	4	2	¥ 13,400
PT 3/8-19	II	L12T06-	2.5P	16.662	120	28	21	14	11	14	4	2	¥ 13,700 ※
PT 3/8-19	II	L15T06-	2.5P	16.662	150	28	21	14	11	14	4	2	¥ 19,600
PT 3/8-19	II	L20T06-	2.5P	16.662	200	28	21	14	11	14	4	2	¥ 27,700 ※
PT 1/2-14	II	L15T08Q	2.5P	20.955	150	35	25	18	14	17	4	2	¥ 23,600
PT 1/2-14	II	L20T08Q	2.5P	20.955	200	35	25	18	14	17	4	2	¥ 33,600 ※
PT 3/4-14	II	L15T12Q	2.5P	26.441	150	35	25	23	17	20	4	2	¥ 36,100
PT 3/4-14	II	L20T12Q	2.5P	26.441	200	35	25	23	17	20	4	2	¥ 43,800 ※
PT 1 -11	II	L15T16U	2.5P	33.249	150	45	32	26	21	24	5	2	¥ 50,900
PT 1 -11	II	L20T16U	2.5P	33.249	200	45	32	26	21	24	5	2	¥ 62,100 ※
PT 1 1/4-11	II	L20T20U	2.5P	41.910	200	45	32	32	26	30	5	2	¥ 92,400 ※
PT 1 1/2-11	II	L20T24U	2.5P	47.803	200	45	32	38	29	32	6	2	¥118,000 ※
PT 2 -11	II	L20T32U	2.5P	59.614	200	50	35	46	35	38	6	2	¥167,000 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

LS-S-PT



Long Shank Hand Taps for Taper Pipe Threads, Short (ℓg) Type

Specification

HSS



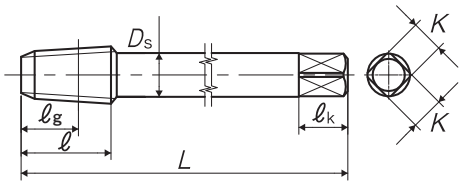


Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

■The LS-S-PT is a long shank tapered pipe tap and is used when it is necessary to shorten the fitting length in a product whose main purpose is the tightness of the threaded portion in the connection of pipe parts etc.

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	TSPT02KL10	2.5P	9.728	100	16.5	10.5	8	6	9	4	1	¥ 7,340
PT 1/8-28	II	TSPT02KL15	2.5P	9.728	150	16.5	10.5	8	6	9	4	1	¥ 11,700
PT 1/8-28	II	TSPT02KL20	2.5P	9.728	200	16.5	10.5	8	6	9	4	1	¥ 16,700 ※
PT 1/4-19	II	TSPT04-L10	2.5P	13.157	100	19.5	12.5	11	9	12	4	1	¥ 7,920
PT 1/4-19	II	TSPT04-L15	2.5P	13.157	150	19.5	12.5	11	9	12	4	1	¥ 11,900
PT 1/4-19	II	TSPT04-L20	2.5P	13.157	200	19.5	12.5	11	9	12	4	1	¥ 16,900 ※
PT 3/8-19	II	TSPT06-L10	2.5P	16.662	100	21	14	14	11	14	4	1	¥ 13,400
PT 3/8-19	II	TSPT06-L12	2.5P	16.662	120	21	14	14	11	14	4	1	¥ 13,700 ※
PT 3/8-19	II	TSPT06-L15	2.5P	16.662	150	21	14	14	11	14	4	1	¥ 19,600
PT 3/8-19	II	TSPT06-L20	2.5P	16.662	200	21	14	14	11	14	4	1	¥ 27,700 ※
PT 1/2-14	II	TSPT08QL15	2.5P	20.955	150	27	17	18	14	17	4	1	¥ 23,600
PT 1/2-14	II	TSPT08QL20	2.5P	20.955	200	27	17	18	14	17	4	1	¥ 33,600 ※
PT 3/4-14	II	TSPT12QL15	2.5P	26.441	150	29	19	23	17	20	4	1	¥ 36,100
PT 3/4-14	II	TSPT12QL20	2.5P	26.441	200	29	19	23	17	20	4	1	¥ 43,800 ※
PT 1 -11	II	TSPT16UL15	2.5P	33.249	150	35	22	26	21	24	5	1	¥ 50,900
PT 1 -11	II	TSPT16UL20	2.5P	33.249	200	35	22	26	21	24	5	1	¥ 62,100 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

SP-PT

Spiral Fluted Taps for Taper Pipe Threads, Long (ℓg) Type



Specification

HSS

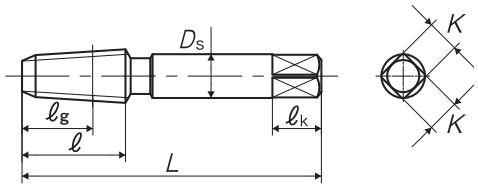


■The SP-PT is a spiral flute tapered pipe tap and is used for thread products whose main purpose is the tightness of threaded parts in connection with pipe parts etc.

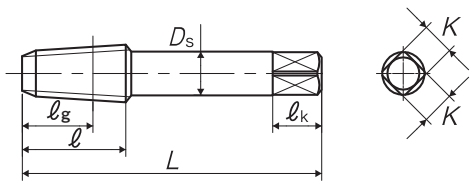
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE : 1



TYPE : 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/16-28	II	SH2T01K-8	2.5P	7.723	55	19	13	8	6	9	3	1	¥ 4,280 ※
PT 1/8-28	II	SH2T02K	2.5P	9.728	55	19	13	8	6	9	3	2	¥ 4,280
PT 1/4-19	II	SH2T04-	2.5P	13.157	62	28	21	11	9	12	3	2	¥ 6,140
PT 3/8-19	II	SH2T06-	2.5P	16.662	65	28	21	14	11	14	3	2	¥ 10,100
PT 1/2-14	II	SH2T08Q	2.5P	20.955	80	35	25	18	14	17	4	2	¥ 16,600
PT 3/4-14	II	SH2T12Q	2.5P	26.441	85	35	25	23	17	20	4	2	¥ 26,800
PT 1 -11	II	SH2T16U	2.5P	33.249	95	45	32	26	21	24	4	2	¥ 49,500
PT 1 1/4-11	II	SH2T20U	2.5P	41.910	105	45	32	32	26	30	4	2	¥ 74,800 ※
PT 1 1/2-11	II	SH2T24U	2.5P	47.803	110	45	32	38	29	32	4	2	¥105,000 ※
PT 2 -11	II	SH2T32U	2.5P	59.614	120	50	35	46	35	38	4	2	¥170,000 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

SP-S-PT



Spiral Fluted Taps for Taper Pipe Threads Short (ℓg) Type

Specification

HSS

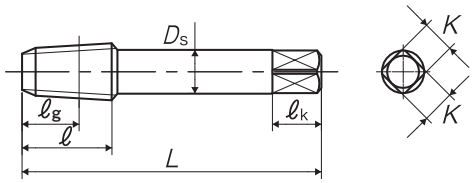


Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

■The SP-S-PT is a spiral flute tapered pipe tap and is used for thread tapping when it is necessary to shorten the fitting length with a product whose main purpose is the tightness of the threaded portion when connecting pipe parts etc.

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	SSPT02K	2.5P	9.728	55	16.5	10.5	8	6	9	3	1	¥ 4,280
PT 1/4-19	II	SSPT04-	2.5P	13.157	62	19.5	12.5	11	9	12	3	1	¥ 6,140
PT 3/8-19	II	SSPT06-	2.5P	16.662	65	21	14	14	11	14	3	1	¥ 10,100
PT 1/2-14	II	SSPT08Q	2.5P	20.955	80	27	17	18	14	17	4	1	¥ 16,600
PT 3/4-14	II	SSPT12Q	2.5P	26.441	85	29	19	23	17	20	4	1	¥ 26,800
PT 1 -11	II	SSPT16U	2.5P	33.249	95	35	22	26	21	24	4	1	¥ 49,500
PT 1 1/4-11	II	SSPT20U	2.5P	41.910	105	37.5	24.5	32	26	30	4	1	¥ 74,800 ※
PT 1 1/2-11	II	SSPT24U	2.5P	47.803	110	38.5	25.5	38	29	32	4	1	¥105,000 ※
PT 2 -11	II	SSPT32U	2.5P	59.614	120	42.5	27.5	46	35	38	4	1	¥170,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	ℓs	Ds	K	ℓk

SP-PT-X



X Series Spiral Fluted Taps for Taper Pipe Threads Short (ℓg) Type

Specification

HSS

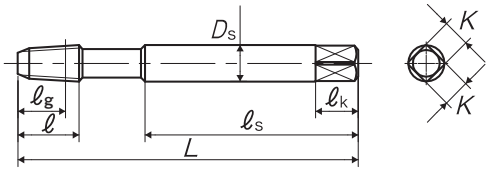


■SP-PT-X spiral fluted tap, adopting new blank, ensures properly long projection length of the tool. Having short thread length, this tap is suitable for tapping of such machine components as have the limit in their thickness.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE : 1



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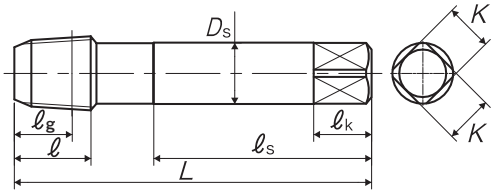


Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads														
PT 1/16-28	II	SHX2T01K-8	2.5P	7.723	75	13.5	10.5	47	8	6	9	3	1	¥ 4,280
PT 1/8-28	II	SHX2T02K	2.5P	9.728	75	13.5	10.5	48	8	6	9	3	2	¥ 4,280
PT 1/4-19	II	SHX2T04-	2.5P	13.157	85	16.5	12.5	54	11	9	12	3	2	¥ 6,140
PT 3/8-19	II	SHX2T06-	2.5P	16.662	95	18	14	60	14	11	14	3	2	¥ 10,100
PT 1/2-14	II	SHX2T08Q	2.5P	20.955	105	22.5	17	64	18	14	17	4	2	¥ 16,600

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

LS-SP-PT



Long Shank Spiral Fluted Taps for Taper Pipe Threads, Long (ℓg) Type

Specification

HSS

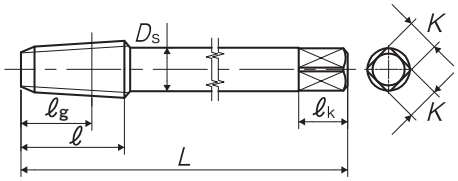


■The LS-SP-PT is a spiral flute long shank tapered pipe tap and is used for products whose main purpose is the tightness of threaded parts in connection with pipe parts, etc.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	SH2T02KL10	2.5P	9.728	100	19	13	8	6	9	3	1	¥ 9,130 ※
PT 1/8-28	II	SH2T02KL12	2.5P	9.728	120	19	13	8	6	9	3	1	¥ 10,600 ※
PT 1/8-28	II	SH2T02KL15	2.5P	9.728	150	19	13	8	6	9	3	1	¥ 14,700 ※
PT 1/4-19	II	SH2T04-L10	2.5P	13.157	100	28	21	11	9	12	3	1	¥ 9,860 ※
PT 1/4-19	II	SH2T04-L12	2.5P	13.157	120	28	21	11	9	12	3	1	¥ 11,500 ※
PT 1/4-19	II	SH2T04-L15	2.5P	13.157	150	28	21	11	9	12	3	1	¥ 15,100 ※
PT 3/8-19	II	SH2T06-L12	2.5P	16.662	120	28	21	14	11	14	3	1	¥ 16,800 ※
PT 3/8-19	II	SH2T06-L15	2.5P	16.662	150	28	21	14	11	14	3	1	¥ 24,400 ※
PT 1/2-14	II	SH2T08QL15	2.5P	20.955	150	35	25	18	14	17	4	1	¥ 29,400 ※
PT 3/4-14	II	SH2T12QL15	2.5P	26.441	150	35	25	23	17	20	4	1	¥ 44,900 ※
PT 1 -11	II	SH2T16UL15	2.5P	33.249	150	45	32	26	21	24	4	1	¥ 63,400 ※
PT 1 -11	II	SH2T16UL20	2.5P	33.249	200	45	32	26	21	24	4	1	¥ 77,200 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

LS-SP-S-PT



Long Shank Spiral Fluted Taps for Taper Pipe Threads, Short (ℓg) Type

Specification

HSS

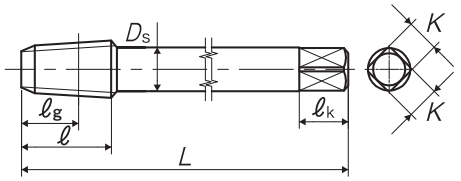


Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

■The LS-SP-S-PT is a spiral flute long shank tapered pipe tap and is used for tapping where it is necessary to shorten the fitting length with a product whose main purpose is the tightness of the threaded portion in connection with pipe parts etc.

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	SSPT02KL10	2.5P	9.728	100	16.5	10.5	8	6	9	3	1	¥ 9,130 ※
PT 1/8-28	II	SSPT02KL12	2.5P	9.728	120	16.5	10.5	8	6	9	3	1	¥ 10,600 ※
PT 1/8-28	II	SSPT02KL15	2.5P	9.728	150	16.5	10.5	8	6	9	3	1	¥ 14,700 ※
PT 1/4-19	II	SSPT04-L10	2.5P	13.157	100	19.5	12.5	11	9	12	3	1	¥ 9,860 ※
PT 1/4-19	II	SSPT04-L12	2.5P	13.157	120	19.5	12.5	11	9	12	3	1	¥ 11,500 ※
PT 1/4-19	II	SSPT04-L15	2.5P	13.157	150	19.5	12.5	11	9	12	3	1	¥ 15,100 ※
PT 3/8-19	II	SSPT06-L12	2.5P	16.662	120	21	14	14	11	14	3	1	¥ 16,800 ※
PT 3/8-19	II	SSPT06-L15	2.5P	16.662	150	21	14	14	11	14	3	1	¥ 24,400 ※
PT 1/2-14	II	SSPT08QL15	2.5P	20.955	150	27	17	18	14	17	4	1	¥ 29,400 ※
PT 3/4-14	II	SSPT12QL15	2.5P	26.441	150	29	19	23	17	20	4	1	¥ 44,900 ※
PT 1 -11	II	SSPT16UL15	2.5P	33.249	150	35	22	26	21	24	4	1	¥ 63,400 ※
PT 1 -11	II	SSPT16UL20	2.5P	33.249	200	35	22	26	21	24	4	1	¥ 77,200 ※

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

INT-PT



Interrupted Taps for Taper Pipe Threads, Long (ℓg) Type

Specification

HSS | OX Oxide

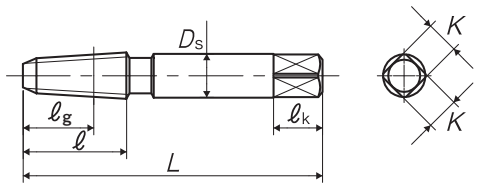


■INT-PT having low left-hand spiral flutes and having every other thread ground off, reduces cutting torque.
INT-PT is suitable for such sticky materials as stainless steels and chrome molybdenum steels.

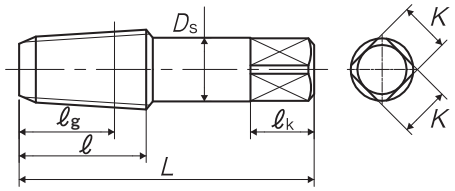
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Stainless steels ステンレス鋼	Cast steels 鋳鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/16-28	II	TINT01K-8	3P	7.723	55	19	13	8	6	9	3	1	¥ 5,140 ※
PT 1/8-28	II	TINT02K	3P	9.728	55	19	13	8	6	9	5	2	¥ 5,140
PT 1/4-19	II	TINT04-	3P	13.157	62	28	21	11	9	12	5	2	¥ 7,370
PT 3/8-19	II	TINT06-	3P	16.662	65	28	21	14	11	14	5	2	¥ 12,200
PT 1/2-14	II	TINT08Q	3P	20.955	80	35	25	18	14	17	5	2	¥ 20,000
PT 3/4-14	II	TINT12Q	3P	26.441	85	35	25	23	17	20	5	2	¥ 32,200
PT 1 -11	II	TINT16U	3P	33.249	95	45	32	26	21	24	5	2	¥ 59,400
PT 1 1/4-11	II	TINT20U	3P	41.910	105	45	32	32	26	30	5	2	¥ 89,800
PT 1 1/2-11	II	TINT24U	3P	47.803	110	45	32	38	29	32	7	2	¥126,000
PT 2 -11	II	TINT32U	3P	59.614	120	50	35	46	35	38	7	2	¥204,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

INT-S-PT



Interrupted Taps for Taper Pipe Threads, Short (ℓg) Type

Specification

HSS | OX Oxide

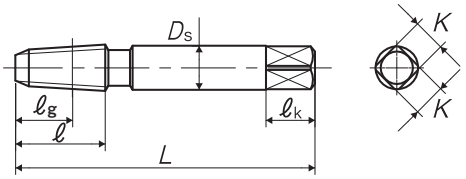


Recommended Tapping Speeds depending on Materials

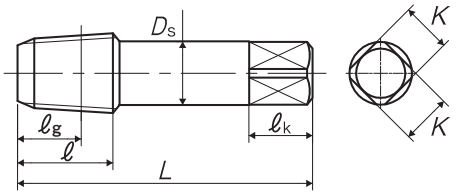
Low carbon steels 低炭素鋼	Stainless steels ステンレス鋼	Cast steels 鋳鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

■INT-S-PT Short Spiral Fluted Tap, having low left-hand spiral flutes and having every other thread ground off, reduces cutting torque.
INT-S-PT is suitable for such sticky materials as stainless steels and chrome molybdenum steels.

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/16-28	II	TIST01K-8	3P	7.723	55	16.5	10.5	8	6	9	3	1	¥ 5,140 ※
PT 1/8-28	II	TIST02K	3P	9.728	55	16.5	10.5	8	6	9	5	2	¥ 5,140
PT 1/4-19	II	TIST04-	3P	13.157	62	19.5	12.5	11	9	12	5	2	¥ 7,370
PT 3/8-19	II	TIST06-	3P	16.662	65	21	14	14	11	14	5	2	¥ 12,200
PT 1/2-14	II	TIST08Q	3P	20.955	80	27	17	18	14	17	5	2	¥ 20,000
PT 3/4-14	II	TIST12Q	3P	26.441	85	29	19	23	17	20	5	2	¥ 32,200
PT 1 -11	II	TIST16U	3P	33.249	95	35	22	26	21	24	5	2	¥ 59,400
PT 1 1/4-11	II	TIST20U	3P	41.910	105	37.5	24.5	32	26	30	5	2	¥ 89,800
PT 1 1/2-11	II	TIST24U	3P	47.803	110	38.5	25.5	38	29	32	7	2	¥126,000
PT 2 -11	II	TIST32U	3P	59.614	120	42.5	27.5	46	35	38	7	2	¥204,000 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

LS-INT-PT



Long Shank Interrupted Taps for Taper Pipe Threads, Long (ℓg) Type

Specification

HSS | OX Oxide

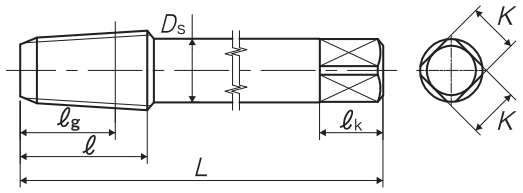


Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Stainless steels ステンレス鋼	Cast steels 鋳鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

■LS-INT-PT long shank spiral fluted tap, having low left-hand spiral flutes and having every other thread ground off, reduces cutting torque.
LS-INT-PT is suitable for such sticky materials as stainless steels and chrome molybdenum steels.

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	TINT02KL10	3P	9.728	100	19	13	8	6	9	5	1	¥ 11,000 ※
PT 1/8-28	II	TINT02KL12	3P	9.728	120	19	13	8	6	9	5	1	¥ 12,800 ※
PT 1/8-28	II	TINT02KL15	3P	9.728	150	19	13	8	6	9	5	1	¥ 17,700 ※
PT 1/4-19	II	TINT04-L10	3P	13.157	100	28	21	11	9	12	5	1	¥ 11,900 ※
PT 1/4-19	II	TINT04-L12	3P	13.157	120	28	21	11	9	12	5	1	¥ 13,800 ※
PT 1/4-19	II	TINT04-L15	3P	13.157	150	28	21	11	9	12	5	1	¥ 18,200 ※
PT 3/8-19	II	TINT06-L10	3P	16.662	100	28	21	14	11	14	5	1	¥ 20,000 ※
PT 3/8-19	II	TINT06-L12	3P	16.662	120	28	21	14	11	14	5	1	¥ 20,200 ※
PT 3/8-19	II	TINT06-L15	3P	16.662	150	28	21	14	11	14	5	1	¥ 29,300 ※
PT 1/2-14	II	TINT08QL15	3P	20.955	150	35	25	18	14	17	5	1	¥ 35,300 ※
PT 3/4-14	II	TINT12QL15	3P	26.441	150	35	25	23	17	20	5	1	¥ 53,900 ※
PT 1 -11	II	TINT16UL15	3P	33.249	150	45	32	26	21	24	5	1	¥ 76,100 ※
PT 1 -11	II	TINT16UL20	3P	33.249	200	45	32	26	21	24	5	1	¥ 92,700 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

LS-INT-S-PT



Long Shank Interrupted Taps for Taper Pipe Threads, Short (ℓg) Type

Specification

HSS | OX Oxide

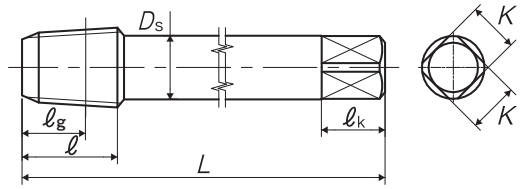


Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Stainless steels ステンレス鋼	Cast steels 鋳鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

■LS-INT-S-PT long shank short spiral fluted tap, having low left-hand spiral flutes and having every other thread ground off, reduces cutting torque.
LS-INT-S-PT is suitable for such sticky materials as stainless steels and chrome molybdenum steels.

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	TIST02KL10	3P	9.728	100	16.5	10.5	8	6	9	5	1	¥ 11,000 ※
PT 1/8-28	II	TIST02KL12	3P	9.728	120	16.5	10.5	8	6	9	5	1	¥ 12,800 ※
PT 1/8-28	II	TIST02KL15	3P	9.728	150	16.5	10.5	8	6	9	5	1	¥ 17,700 ※
PT 1/4-19	II	TIST04-L10	3P	13.157	100	19.5	12.5	11	9	12	5	1	¥ 11,900 ※
PT 1/4-19	II	TIST04-L12	3P	13.157	120	19.5	12.5	11	9	12	5	1	¥ 13,800 ※
PT 1/4-19	II	TIST04-L15	3P	13.157	150	19.5	12.5	11	9	12	5	1	¥ 18,200 ※
PT 3/8-19	II	TIST06-L10	3P	16.662	100	21	14	14	11	14	5	1	¥ 20,000 ※
PT 3/8-19	II	TIST06-L12	3P	16.662	120	21	14	14	11	14	5	1	¥ 20,200 ※
PT 3/8-19	II	TIST06-L15	3P	16.662	150	21	14	14	11	14	5	1	¥ 29,300 ※
PT 1/2-14	II	TIST08QL15	3P	20.955	150	27	17	18	14	17	5	1	¥ 35,300 ※
PT 3/4-14	II	TIST12QL15	3P	26.441	150	29	19	23	17	20	5	1	¥ 53,900 ※
PT 1 -11	II	TIST16UL15	3P	33.249	150	35	22	26	21	24	5	1	¥ 76,100 ※
PT 1 -11	II	TIST16UL20	3P	33.249	200	35	22	26	21	24	5	1	¥ 92,700 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

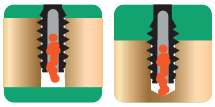
LC-PT



Hand Taps for Taper Pipe Threads Long (ℓg) Type, for Low Carbon Steels

Specification

HSS | OX Oxide

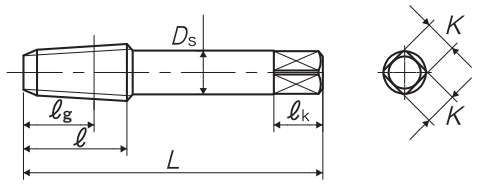


■Tap suitable for such soft steels (low carbon steels) as SS400 and S25C.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Cast steels 鋳鋼
~5 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	LCPT02K	2.5P	9.728	55	19	13	8	6	9	4	1	¥ 3,800 ※
PT 1/4-19	II	LCPT04-	2.5P	13.157	62	28	21	11	9	12	4	1	¥ 5,430 ※
PT 3/8-19	II	LCPT06-	2.5P	16.662	65	28	21	14	11	14	4	1	¥ 8,910 ※
PT 1/2-14	II	LCPT08Q	2.5P	20.955	80	35	25	18	14	17	4	1	¥ 14,800 ※
PT 3/4-14	II	LCPT12Q	2.5P	26.441	85	35	25	23	17	20	4	1	¥ 23,800 ※
PT 1 -11	II	LCPT16U	2.5P	33.249	95	45	32	26	21	24	5	1	¥ 43,800 ※
PT 1 1/4-11	II	LCPT20U	2.5P	41.910	105	45	32	32	26	30	5	1	¥ 66,200 ※
PT 1 1/2-11	II	LCPT24U	2.5P	47.803	110	45	32	38	29	32	6	1	¥ 92,600 ※
PT 2 -11	II	LCPT32U	2.5P	59.614	120	50	35	46	35	38	6	1	¥151,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

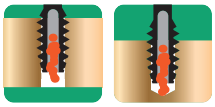
LC-S-PT



Hand Taps for Taper Pipe Threads Short (ℓg) Type, for Low Carbon Steels

Specification

HSS | OX Oxide

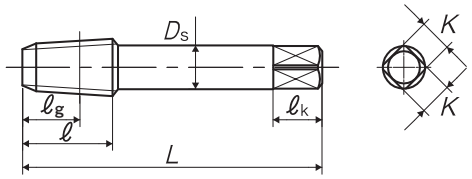


■Tap, having short thread portion, suitable for such soft steels (low carbon steels) as SS400 and S25C.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Cast steels 鋳鋼
~5 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	LCSPT02K	2.5P	9.728	55	16.5	10.5	8	6	9	4	1	¥ 3,800 ※
PT 1/4-19	II	LCSPT04-	2.5P	13.157	62	19.5	12.5	11	9	12	4	1	¥ 5,430 ※
PT 3/8-19	II	LCSPT06-	2.5P	16.662	65	21	14	14	11	14	4	1	¥ 8,910 ※
PT 1/2-14	II	LCSPT08Q	2.5P	20.955	80	27	17	18	14	17	4	1	¥ 14,800 ※
PT 3/4-14	II	LCSPT12Q	2.5P	26.441	85	29	19	23	17	20	4	1	¥ 23,800 ※
PT 1 -11	II	LCSPT16U	2.5P	33.249	95	35	22	26	21	24	5	1	¥ 43,800 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

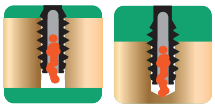
SU-PT



Hand Taps for Taper Pipe Threads Long (ℓg) Type, for Stainless Steels

Specification

HSS | OX Oxide

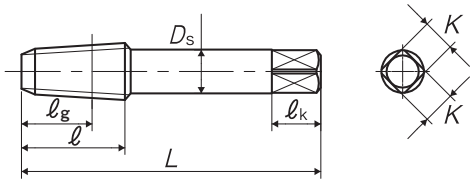


■SU-PT is the hand tap suitable for stainless steels which tend to work-harden and sticky, as well as chrome steels and molybdenum steels.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	TU2T02K	2.5P	9.728	55	19	13	8	6	9	4	1	¥ 3,970 ※
PT 1/4-19	II	TU2T04-	2.5P	13.157	62	28	21	11	9	12	4	1	¥ 5,670 ※
PT 3/8-19	II	TU2T06-	2.5P	16.662	65	28	21	14	11	14	4	1	¥ 9,320 ※
PT 1/2-14	II	TU2T08Q	2.5P	20.955	80	35	25	18	14	17	4	1	¥ 15,500 ※
PT 3/4-14	II	TU2T12Q	2.5P	26.441	85	35	25	23	17	20	4	1	¥ 24,900 ※
PT 1 -11	II	TU2T16U	2.5P	33.249	95	45	32	26	21	24	4	1	¥ 45,800 ※
PT 1 1/4-11	II	TU2T20U	2.5P	41.910	105	45	32	32	26	30	5	1	¥ 69,200 ※
PT 1 1/2-11	II	TU2T24U	2.5P	47.803	110	45	32	38	29	32	6	1	¥ 96,800 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

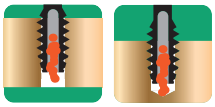
SU-S-PT



Hand Taps for Taper Pipe Threads Short (ℓg) Type, for Stainless Steels

Specification

HSS | OX Oxide

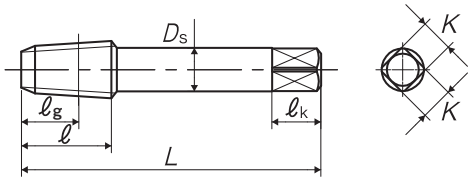


■SU-S-PT is the hand tap with short thread portion, suitable for stainless steels which tend to work-harden and sticky, as well as chrome steels and molybdenum steels.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	TUST02K	2.5P	9.728	55	16.5	10.5	8	6	9	4	1	¥ 3,970 ※
PT 1/4-19	II	TUST04-	2.5P	13.157	62	19.5	12.5	11	9	12	4	1	¥ 5,670 ※
PT 3/8-19	II	TUST06-	2.5P	16.662	65	21	14	14	11	14	4	1	¥ 9,320 ※
PT 1/2-14	II	TUST08Q	2.5P	20.955	80	27	17	18	14	17	4	1	¥ 15,500 ※
PT 3/4-14	II	TUST12Q	2.5P	26.441	85	29	19	23	17	20	4	1	¥ 24,900 ※
PT 1 -11	II	TUST16U	2.5P	33.249	95	35	22	26	21	24	4	1	¥ 45,800 ※
PT 1 1/4-11	II	TUST20U	2.5P	41.910	105	37.5	24.5	32	26	30	5	1	¥ 69,200 ※
PT 1 1/2-11	II	TUST24U	2.5P	47.803	110	38.5	25.5	38	29	32	6	1	¥ 96,800 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

SU-SP-PT



Spiral Fluted Taps for Taper Pipe Threads, Long (ℓg) Type for Stainless Steels

Specification

HSS | OX Oxide

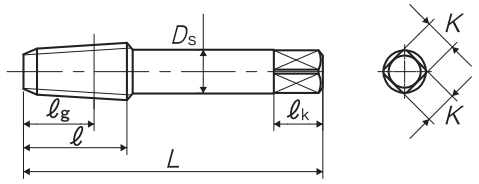


■SU-SP-PT is the tap suitable for stainless steels which tend to work-harden and sticky, as well as chrome steels and molybdenum steels, blind hole use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	SYPT022GEX	2P	9.728	55	19	13	8	6	9	4	1	¥ 4,930 ※
PT 1/4-19	II	SYPT042GEX	2P	13.157	62	28	21	11	9	12	4	1	¥ 7,070 ※
PT 3/8-19	II	SYPT062GEX	2P	16.662	65	28	21	14	11	14	4	1	¥ 11,700 ※
PT 1/2-14	II	SYPT082GEX	2P	20.955	80	35	25	18	14	17	4	1	¥ 19,100 ※
PT 3/4-14	II	SYPT122GEX	2P	26.441	85	35	25	23	17	20	4	1	¥ 30,900 ※
PT 1 -11	II	SYPT162GEX	2P	33.249	95	45	32	26	21	24	5	1	¥ 57,000 ※
PT 1 1/4-11	II	SYPT202GEX	2P	41.910	105	45	32	32	26	30	5	1	¥ 86,100 ※
PT 1 1/2-11	II	SYPT242GEX	2P	47.803	110	45	32	38	29	32	6	1	¥121,000 ※
PT 2 -11	II	SYPT322GEX	2P	59.614	120	50	35	46	35	38	6	1	¥196,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

SU-SP-S-PT



Spiral Fluted Taps for Taper Pipe Threads Short (ℓg) Type for Stainless Steels

Specification

HSS | OX Oxide

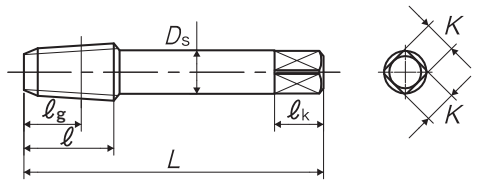


■SU-SP-S-PT is the tap with short thread portion, suitable for stainless steels which tend to work-harden and sticky, as well as chrome steels and molybdenum steels, blind hole use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	SYPT022GEXS	2P	9.728	55	16.5	10.5	8	6	9	4	1	¥ 4,930 ※
PT 1/4-19	II	SYPT042GEXS	2P	13.157	62	19.5	12.5	11	9	12	4	1	¥ 7,070 ※
PT 3/8-19	II	SYPT062GEXS	2P	16.662	65	21	14	14	11	14	4	1	¥ 11,700 ※
PT 1/2-14	II	SYPT082GEXS	2P	20.955	80	27	17	18	14	17	4	1	¥ 19,100 ※
PT 3/4-14	II	SYPT122GEXS	2P	26.441	85	29	19	23	17	20	4	1	¥ 30,900 ※
PT 1 -11	II	SYPT162GEXS	2P	33.249	95	35	22	26	21	24	5	1	¥ 57,000 ※
PT 1 1/4-11	II	SYPT202GEXS	2P	41.910	105	37.5	24.5	32	26	30	5	1	¥ 86,100 ※
PT 1 1/2-11	II	SYPT242GEXS	2P	47.803	110	38.5	25.5	38	29	32	6	1	¥121,000 ※
PT 2 -11	II	SYPT322GEXS	2P	59.614	120	42.5	27.5	46	35	38	6	1	¥196,000 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

FC-PT



Hand Taps for Taper Pipe Threads, Long (ℓg) Type, for Cast Irons

Specification

HSS | NI Nitride

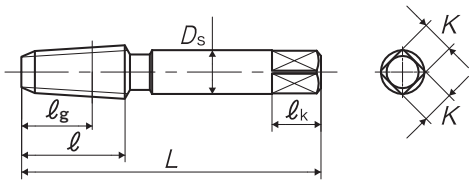


■FC-PT is suitable for hard and abrasive materials such as cast irons.

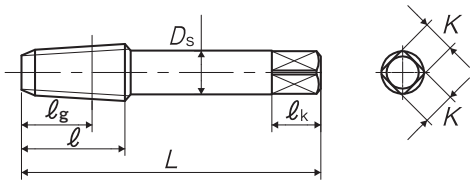
Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
~5 (m/min)	~5 (m/min)

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/16-28	II	FCPT01K-8	2.5P	7.723	55	19	13	8	6	9	4	1	¥ 3,970 ※
PT 1/8-28	II	FCPT02K	2.5P	9.728	55	19	13	8	6	9	4	2	¥ 3,970 ※
PT 1/4-19	II	FCPT04-	2.5P	13.157	62	28	21	11	9	12	4	2	¥ 5,670 ※
PT 3/8-19	II	FCPT06-	2.5P	16.662	65	28	21	14	11	14	4	2	¥ 9,320 ※
PT 1/2-14	II	FCPT08Q	2.5P	20.955	80	35	25	18	14	17	4	2	¥ 15,500 ※
PT 3/4-14	II	FCPT12Q	2.5P	26.441	85	35	25	23	17	20	4	2	¥ 24,900 ※
PT 1 -11	II	FCPT16U	2.5P	33.249	95	45	32	26	21	24	5	2	¥ 45,800 ※
PT 1 1/4-11	II	FCPT20U	2.5P	41.910	105	45	32	32	26	30	5	2	¥ 69,200 ※
PT 1 1/2-11	II	FCPT24U	2.5P	47.803	110	45	32	38	29	32	6	2	¥ 96,800 ※
PT 2 -11	II	FCPT32U	2.5P	59.614	120	50	35	46	35	38	6	2	¥158,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

FC-S-PT



Hand Taps for Taper Pipe Threads, Short (ℓg) Type, for Cast Irons

Specification

HSS | NI Nitride

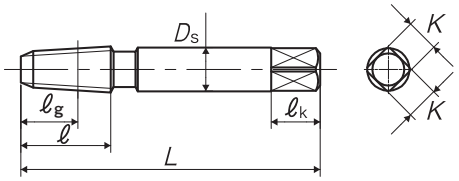


■FC-S-PT is the tap with short thread portion, suitable for hard and abrasive materials such as cast irons.

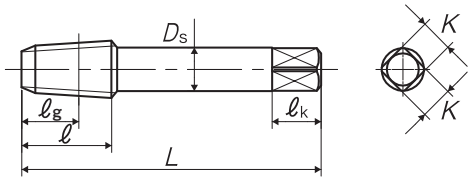
Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
~5 (m/min)	~5 (m/min)

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/16-28	II	FCSPT01K-8	2.5P	7.723	55	16.5	10.5	8	6	9	4	1	¥ 3,970 ※
PT 1/8-28	II	FCSPT02K	2.5P	9.728	55	16.5	10.5	8	6	9	4	2	¥ 3,970 ※
PT 1/4-19	II	FCSPT04-	2.5P	13.157	62	19.5	12.5	11	9	12	4	2	¥ 5,670 ※
PT 3/8-19	II	FCSPT06-	2.5P	16.662	65	21	14	14	11	14	4	2	¥ 9,320 ※
PT 1/2-14	II	FCSPT08Q	2.5P	20.955	80	27	17	18	14	17	4	2	¥ 15,500 ※
PT 3/4-14	II	FCSPT12Q	2.5P	26.441	85	29	19	23	17	20	4	2	¥ 24,900 ※
PT 1 -11	II	FCSPT16U	2.5P	33.249	95	35	22	26	21	24	5	2	¥ 45,800 ※
PT 1 1/4-11	II	FCSPT20U	2.5P	41.910	105	37.5	24.5	32	26	30	5	2	¥ 69,200 ※
PT 1 1/2-11	II	FCSPT24U	2.5P	47.803	110	38.5	25.5	38	29	32	6	2	¥ 96,800 ※
PT 2 -11	II	FCSPT32U	2.5P	59.614	120	42.5	27.5	46	35	38	6	2	¥158,000 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

CT-PT



Carbide Taps for Taper Pipe Threads, Long (ℓg) Type, for Cast Irons

Specification

HF



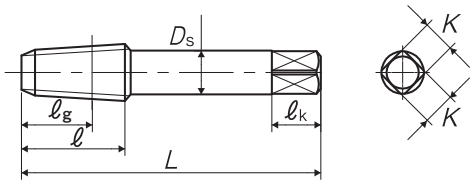


■The CT-PT is a hand tap for tapered pipe threads and is suitable for thread processing in mass production of materials that are hard and brittle such as cast iron. Those products are mainly used for connecting parts for pipes for thread resistance.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄	Brass castings 黄銅鋳物
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1L

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	TCPT02K	2.5P	9.728	55	19	13	8	6	9	4	1	¥ 30,300 ※
PT 1/4-19	II	TCPT04-	2.5P	13.157	62	28	21	11	9	12	4	1	¥ 47,200 ※
PT 3/8-19	II	TCPT06-	2.5P	16.662	65	28	21	14	11	14	4	1	¥ 59,000 ※
PT 1/2-14	II	TCPT08Q	2.5P	20.955	80	35	25	18	14	17	4	1	¥ 58,200 ※
PT 3/4-14	II	TCPT12Q	2.5P	26.441	85	35	25	23	17	20	4	1	¥ 72,100 ※
PT 1 -11	II	TCPT16U	2.5P	33.249	95	45	32	26	21	24	5	1	¥103,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

CT-S-PT



Carbide Taps for Taper Pipe Threads, Short (ℓg) Type, for Cast Irons

Specification

HF



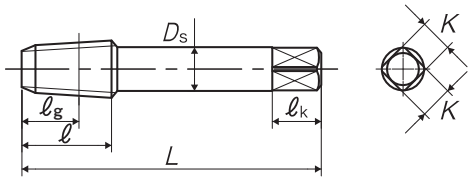


Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄	Brass castings 黄銅鋳物
~5 (m/min)	~5 (m/min)	~5 (m/min)

■The CT-S-PT is a hand tap for tapered pipe threads and is suitable for thread processing in mass produced hard and brittle material such as cast iron. It is used for tapping when the fitting length needs to be shortened. It produces a threaded product whose main purpose is the tightness of the threaded parts.

TYPE : 1



Segment : 1L

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PT 1/8-28	II	TCST02K	2.5P	9.728	55	16.5	10.5	8	6	9	4	1	¥ 30,300 ※
PT 1/4-19	II	TCST04-	2.5P	13.157	62	19.5	12.5	11	9	12	4	1	¥ 47,200 ※
PT 3/8-19	II	TCST06-	2.5P	16.662	65	21	14	14	11	14	4	1	¥ 59,000 ※
PT 1/2-14	II	TCST08Q	2.5P	20.955	80	27	17	18	14	17	4	1	¥ 58,200 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

Rp

Hand Taps for Parallel Pipe Threads



Specification

HSS



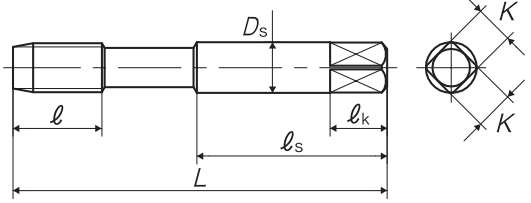


■This is a hand tap for parallel pipe threads based on ISO shape standards. It is used for engagement with the taper pipe external thread R (PT).

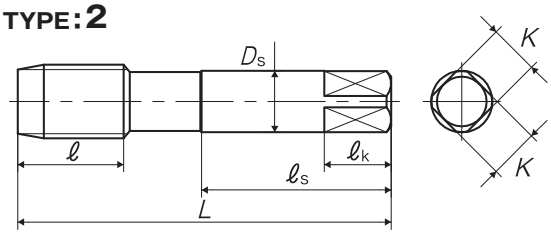
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
Rp 1/16-28	II	TH2RP01K	3.5P	7.723	59	14	30	8	6	9	4	1	¥ 2,820
Rp 1/8-28	II	TH2RP02K	3.5P	9.728	59	15	30	8	6	9	4	2	¥ 2,820
Rp 1/4-19	II	TH2RP04-	3.5P	13.157	67	19	34	11	9	12	4	2	¥ 4,100
Rp 3/8-19	II	TH2RP06-	3.5P	16.662	75	21	38	14	11	14	4	2	¥ 6,760
Rp 1/2-14	II	TH2RP08Q	3.5P	20.955	87	26	44	18	14	17	4	2	¥ 11,000
Rp 3/4-14	II	TH2RP12Q	3.5P	26.441	96	28	49	23	17	20	4	2	¥ 17,900
Rp 1 -11	II	TH2RP16U	3.5P	33.249	109	33	56	26	21	24	5	2	¥ 33,500
Rp 1 1/4-11	II	TH2RP20U	3.5P	41.910	119	36	61	32	26	30	5	2	¥ 52,900
Rp 1 1/2-11	II	TH2RP24U	3.5P	47.803	125	37	64	38	29	32	6	2	¥ 72,800
Rp 2 -11	II	TH2RP32U	3.5P	59.614	140	41	71	46	35	38	6	2	¥124,000

* For tapping with this tap, follow the bored hole size before threading of "PS" on page 41 of the Technical Materials.

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

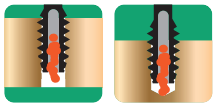
PS

Hand Taps for Parallel Pipe Threads



Specification

HSS

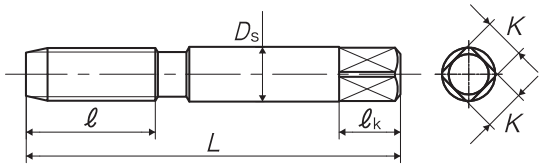


■The PS is a hand tap for parallel pipe threads and is used for products whose main purpose is the tightness of the threaded part in connection with pipe parts etc. The PS internal thread is used for fitting with PT external thread.

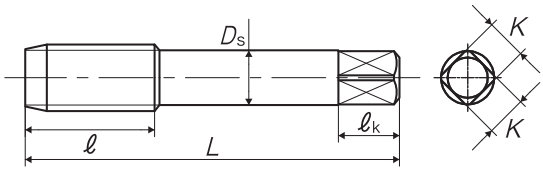
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PS 1/16-28	II	TH2P01K-8	3.5P	7.723	55	19	8	6	9	4	1	¥ 2,820 ※
PS 1/8-28	II	TH2P02K	3.5P	9.728	55	19	8	6	9	4	2	¥ 2,820
PS 1/8-28	II	TH2P02K1	1.5P	9.728	55	19	8	6	9	4	2	¥ 2,820 ※
PS 1/4-19	II	TH2P04-	3.5P	13.157	62	28	11	9	12	4	2	¥ 4,100
PS 1/4-19	II	TH2P04-1	1.5P	13.157	62	28	11	9	12	4	2	¥ 4,100 ※
PS 3/8-19	II	TH2P06-	3.5P	16.662	65	28	14	11	14	4	2	¥ 6,760
PS 3/8-19	II	TH2P06-1	1.5P	16.662	65	28	14	11	14	4	2	¥ 6,760 ※
PS 1/2-14	II	TH2P08Q	3.5P	20.955	80	35	18	14	17	4	2	¥ 11,000
PS 1/2-14	II	TH2P08Q1	1.5P	20.955	80	35	18	14	17	4	2	¥ 11,000 ※
PS 5/8-14	II	TH2P10Q	3.5P	22.911	82	35	19	15	18	4	2	¥ 15,400 ※
PS 3/4-14	II	TH2P12Q	3.5P	26.441	85	35	23	17	20	4	2	¥ 17,900
PS 3/4-14	II	TH2P12Q1	1.5P	26.441	85	35	23	17	20	4	2	¥ 17,900 ※
PS 7/8-14	II	TH2P14Q	3.5P	30.201	90	40	24	19	22	4	2	¥ 26,900 ※
PS 1 -11	II	TH2P16U	3.5P	33.249	95	45	26	21	24	5	2	¥ 33,500
PS 1 -11	II	TH2P16U1	1.5P	33.249	95	45	26	21	24	5	2	¥ 33,500 ※
PS 1 1/8-11	II	TH2P18U	3.5P	37.897	100	45	28	21	24	5	2	¥ 49,400 ※
PS 1 1/4-11	II	TH2P20U	3.5P	41.910	105	45	32	26	30	5	2	¥ 52,900
PS 1 1/4-11	II	TH2P20U1	1.5P	41.910	105	45	32	26	30	5	2	¥ 52,900 ※
PS 1 1/2-11	II	TH2P24U	3.5P	47.803	110	45	38	29	32	6	2	¥ 72,800
PS 1 1/2-11	II	TH2P24U1	1.5P	47.803	110	45	38	29	32	6	2	¥ 72,800 ※
PS 1 3/4-11	II	TH2P28U	3.5P	53.746	115	45	42	32	35	6	2	¥ 99,200 ※
PS 2 -11	II	TH2P32U	3.5P	59.614	120	50	46	35	38	6	2	¥124,000
PS 2 1/4-11	II	TH2P36U	3.5P	65.710	145	65	50	38	42	6	2	¥198,000 ※
PS 2 1/2-11	II	TH2P40U	3.5P	75.184	145	65	55	41	44	8	2	¥205,000 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
PS 3 -11	Ⅱ	TH2P48U	3.5P	87.884	155	65	65	50	52	8	2	¥307,000 ※
PS 3 1/2-11	Ⅱ	TH2P56U	3.5P	100.330	165	68	70	54	58	8	2	¥399,000 ※
PS 4 -11	Ⅱ	TH2P64U	3.5P	113.030	170	70	75	58	62	10	2	¥539,000 ※

※ = Specified Distribution Items. Made to order products.

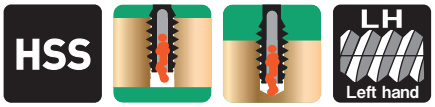
Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

PS LH



Hand Taps for Parallel Pipe Threads, for LH Threads

Specification

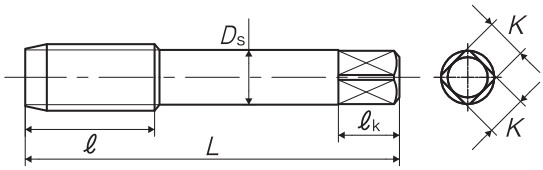


Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

■The PS LH is a hand tap for left hand parrallel pipe threads and is used for products whose main purpose is the tightness of threaded parts in connecting piping parts. The PS internal thread is used for fitting with PT external thread.

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PS 1/8-28	II	TH2P02K--L	3.5P	9.728	55	19	8	6	9	4	1	¥ 3,670 ※
PS 1/4-19	II	TH2P04---L	3.5P	13.157	62	28	11	9	12	4	1	¥ 5,330 ※
PS 3/8-19	II	TH2P06---L	3.5P	16.662	65	28	14	11	14	4	1	¥ 8,790 ※
PS 1/2-14	II	TH2P08Q--L	3.5P	20.955	80	35	18	14	17	4	1	¥ 14,300 ※
PS 3/4-14	II	TH2P12Q--L	3.5P	26.441	85	35	23	17	20	4	1	¥ 23,300 ※
PS 1 -11	II	TH2P16U--L	3.5P	33.249	95	45	26	21	24	5	1	¥ 43,600 ※
PS 1 1/4-11	II	TH2P20U--L	3.5P	41.910	105	45	32	26	30	5	1	¥ 68,800 ※
PS 1 1/2-11	II	TH2P24U--L	3.5P	47.803	110	45	38	29	32	6	1	¥ 94,700 ※
PS 2 -11	II	TH2P32U--L	3.5P	59.614	120	50	46	35	38	6	1	¥162,000 ※

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

LS-PS



Long Shank Hand Taps for Parallel Pipe Threads

Specification

HSS



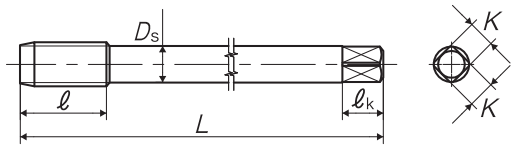


Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

■The LS-PS is a long shank tap for parallel pipe threads and is used for products whose main purpose is the tightness of the threaded part in connection with parts for pipes. The PS internal thread is used for fitting with PT external thread.

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PS 1/8-28	II	L10P02K	3.5P	9.728	100	19	8	6	9	4	1	¥ 5,200
PS 1/8-28	II	L15P02K	3.5P	9.728	150	19	8	6	9	4	1	¥ 9,330
PS 1/8-28	II	L20P02K	3.5P	9.728	200	19	8	6	9	4	1	¥ 13,400 ※
PS 1/4-19	II	L10P04-	3.5P	13.157	100	28	11	9	12	4	1	¥ 6,980
PS 1/4-19	II	L15P04-	3.5P	13.157	150	28	11	9	12	4	1	¥ 9,560
PS 1/4-19	II	L20P04-	3.5P	13.157	200	28	11	9	12	4	1	¥ 13,700 ※
PS 3/8-19	II	L10P06-	3.5P	16.662	100	28	14	11	14	4	1	¥ 8,970
PS 3/8-19	II	L15P06-	3.5P	16.662	150	28	14	11	14	4	1	¥ 16,100
PS 3/8-19	II	L20P06-	3.5P	16.662	200	28	14	11	14	4	1	¥ 22,700 ※
PS 1/2-14	II	L15P08Q	3.5P	20.955	150	35	18	14	17	4	1	¥ 19,800
PS 1/2-14	II	L20P08Q	3.5P	20.955	200	35	18	14	17	4	1	¥ 27,700 ※
PS 3/4-14	II	L15P12Q	3.5P	26.441	150	35	23	17	20	4	1	¥ 29,700
PS 3/4-14	II	L20P12Q	3.5P	26.441	200	35	23	17	20	4	1	¥ 36,000 ※
PS 1 -11	II	L15P16U	3.5P	33.249	150	45	26	21	24	5	1	¥ 43,500
PS 1 -11	II	L20P16U	3.5P	33.249	200	45	26	21	24	5	1	¥ 50,500 ※
PS 1 1/4-11	II	L20P20U	3.5P	41.910	200	45	32	26	30	5	1	¥ 79,000 ※
PS 1 1/2-11	II	L20P24U	3.5P	47.803	200	45	38	29	32	6	1	¥ 99,200 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

SP-PS

Spiral Fluted Taps for Parallel Pipe Threads



Specification

HSS

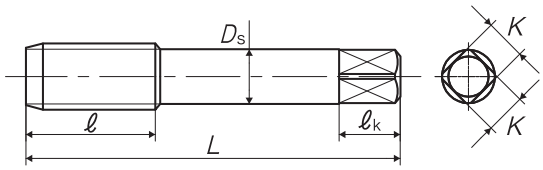


■The SP-PS is a spiral flute tap for parallel pipe threads and is used for products whose main purpose is the tightness of threaded parts in connection with pipe parts etc. The PS internal thread is used for fitting with PT external thread.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PS 1/8-28	II	SH2P02K	2.5P	9.728	55	19	8	6	9	3	1	¥ 3,110
PS 1/4-19	II	SH2P04-	2.5P	13.157	62	28	11	9	12	3	1	¥ 4,500
PS 3/8-19	II	SH2P06-	2.5P	16.662	65	28	14	11	14	3	1	¥ 7,430
PS 1/2-14	II	SH2P08Q	2.5P	20.955	80	35	18	14	17	4	1	¥ 12,100
PS 3/4-14	II	SH2P12Q	2.5P	26.441	85	35	23	17	20	4	1	¥ 19,700
PS 1 -11	II	SH2P16U	2.5P	33.249	95	45	26	21	24	4	1	¥ 36,800
PS 1 1/4-11	II	SH2P20U	2.5P	41.910	105	45	32	26	30	4	1	¥ 58,000 ※
PS 1 1/2-11	II	SH2P24U	2.5P	47.803	110	45	38	29	32	4	1	¥ 80,000 ※
PS 2 -11	II	SH2P32U	2.5P	59.614	120	50	46	35	38	4	1	¥136,000 ※

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

LS-SP-PS



Long Shank Spiral Fluted Taps for Parallel Pipe Threads

Specification

HSS

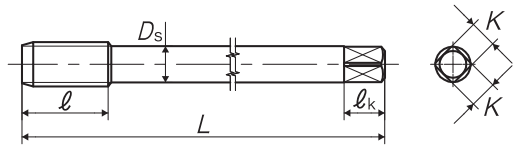


■The LS-SP-PS is a long shank spiral flute tap for parallel pipe threads and is used for products whose main purpose is the tightness of the threaded portion in connection with pipe parts etc. The PS internal thread is used for fitting with PT external thread.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PS 1/8-28	II	SH2P02KL10	2.5P	9.728	100	19	8	6	9	3	1	¥ 5,720 ※
PS 1/8-28	II	SH2P02KL12	2.5P	9.728	120	19	8	6	9	3	1	¥ 6,420 ※
PS 1/8-28	II	SH2P02KL15	2.5P	9.728	150	19	8	6	9	3	1	¥ 10,300 ※
PS 1/4-19	II	SH2P04-L10	2.5P	13.157	100	28	11	9	12	3	1	¥ 7,680 ※
PS 1/4-19	II	SH2P04-L15	2.5P	13.157	150	28	11	9	12	3	1	¥ 10,600 ※
PS 3/8-19	II	SH2P06-L12	2.5P	16.662	120	28	14	11	14	3	1	¥ 11,300 ※
PS 3/8-19	II	SH2P06-L15	2.5P	16.662	150	28	14	11	14	3	1	¥ 17,700 ※
PS 1/2-14	II	SH2P08QL15	2.5P	20.955	150	35	18	14	17	4	1	¥ 21,800 ※
PS 3/4-14	II	SH2P12QL15	2.5P	26.441	150	35	23	17	20	4	1	¥ 32,700 ※
PS 1 -11	II	SH2P16UL15	2.5P	33.249	150	45	26	21	24	4	1	¥ 47,700 ※
PS 1 -11	II	SH2P16UL20	2.5P	33.249	200	45	26	21	24	4	1	¥ 55,500 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

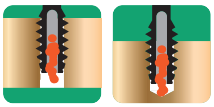
FC-PS

Hand Tap for Parallel Pipe Threads in Cast Irons



Specification

HSS | NI Nitride

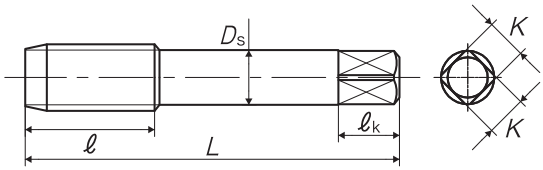


Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
5~10 (m/min)	5~10 (m/min)

■The FC-PS is a hand tap for parallel pipe threads and is suitable for thread processing of hard and brittle material in mass production such as cast iron. It produces parallel pipe threads for products whose main purpose is the tightness of thread. It is used for parts in connection with pipe parts etc. The PS internal thread is used for fitting with PT external.

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PS 1/8-28	II	FCPS02K	3.5P	9.728	55	19	8	6	9	4	1	¥ 3,250 ※
PS 1/4-19	II	FCPS04-	3.5P	13.157	62	28	11	9	12	4	1	¥ 4,720 ※
PS 3/8-19	II	FCPS06-	3.5P	16.662	65	28	14	11	14	4	1	¥ 7,780 ※
PS 1/2-14	II	FCPS08Q	3.5P	20.955	80	35	18	14	17	4	1	¥ 12,700 ※
PS 3/4-14	II	FCPS12Q	3.5P	26.441	85	35	23	17	20	4	1	¥ 20,600 ※
PS 1 -11	II	FCPS16U	3.5P	33.249	95	45	26	21	24	5	1	¥ 38,600 ※
PS 1 1/4-11	II	FCPS20U	3.5P	41.910	105	45	32	26	30	5	1	¥ 60,900 ※
PS 1 1/2-11	II	FCPS24U	3.5P	47.803	110	45	38	29	32	6	1	¥ 83,800 ※

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

CT-PS

Carbide Taps for Parallel Pipe Threads



Specification

HF



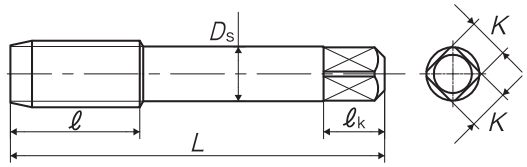


Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄	Brass castings 黄銅鋳物
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

■The CT-PS is a cemented carbide hand tap for parallel pipe threads and is suitable for thread processing of hard and brittle material such as cast iron. It is used on products whose main purpose is the tightness of the threaded part in connection with pipe parts etc. The PS internal thread is used for fitting with PT external thread.

TYPE : 1



Segment : 1L

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PS 1/8-28	II	TCPS02K	3.5P	9.728	55	19	8	6	9	4	1	¥ 26,000 ※
PS 1/4-19	II	TCPS04-	3.5P	13.157	62	28	11	9	12	4	1	¥ 40,800 ※
PS 3/8-19	II	TCPS06-	3.5P	16.662	65	28	14	11	14	4	1	¥ 50,300 ※
PS 1/2-14	II	TCPS08Q	3.5P	20.955	80	35	18	14	17	4	1	¥ 50,000 ※
PS 3/4-14	II	TCPS12Q	3.5P	26.441	85	35	23	17	20	4	1	¥ 68,400 ※
PS 1 -11	II	TCPS16U	3.5P	33.249	95	45	26	21	24	5	1	¥ 96,800 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

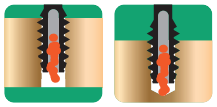
G

Hand Taps for Parallel Pipe Threads



Specification

HSS

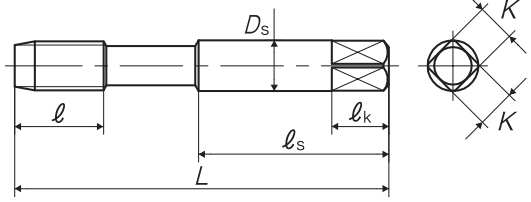


■The G tap is a hand tap for parallel pipe threads and conforms to the ISO thread specifications. It is used for fitting with the pipe parallel external thread G (PF).

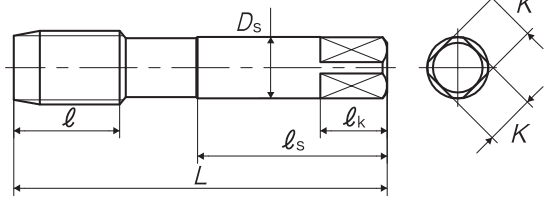
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
G 1/16-28	II	TH2G01K	3.5P	7.723	59	14	30	8	6	9	4	1	¥ 2,820
G 1/8-28	II	TH2G02K	3.5P	9.728	59	15	30	8	6	9	4	2	¥ 2,820
G 1/4-19	II	TH2G04-	3.5P	13.157	67	19	34	11	9	12	4	2	¥ 4,100
G 3/8-19	II	TH2G06-	3.5P	16.662	75	21	38	14	11	14	4	2	¥ 6,760
G 1/2-14	II	TH2G08Q	3.5P	20.955	87	26	44	18	14	17	4	2	¥ 11,000
G 3/4-14	II	TH2G12Q	3.5P	26.441	96	28	49	23	17	20	4	2	¥ 17,900
G 1 -11	II	TH2G16U	3.5P	33.249	109	33	56	26	21	24	4	2	¥ 33,500
G 1 1/4-11	II	TH2G20U	3.5P	41.910	119	36	61	32	26	30	4	2	¥ 52,900
G 1 1/2-11	II	TH2G24U	3.5P	47.803	125	37	64	38	29	32	6	2	¥ 72,800
G 2 -11	II	TH2G32U	3.5P	59.614	140	41	71	46	35	38	6	2	¥124,000

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

MEMO

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

SP G



Spiral Fluted Taps for Parallel Pipe Threads

Specification

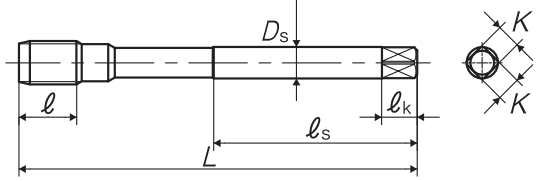
HSS

■Spiral flutes continuously curl the chips and discharge them back toward the shank of the tap. Spiral flute taps are the most suitable for blind hole processing.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

TYPE : 1 DIN5156



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/16-28	-	SVG0010NEB	2.5P	90	12	46	6	4.9	8	3	1
G 1/8-28	-	SVG0020NEB	2.5P	90	12	46	7	5.5	8	3	1
G 1/4-19	-	SVG0040NEB	2.5P	100	14	51	11	9	12	3	1
G 3/8-19	-	SVG0060NEB	2.5P	100	14	51	12	9	12	3	1
G 1/2-14	-	SVG0080NEB	2.5P	125	18	64	16	12	15	4	1
G 3/4-14	-	SVG0120NEB	2.5P	140	20	71	20	16	19	4	1
G 7/8-14	-	SVG0140NEB	2.5P	150	20	77	22	18	21	4	1
G 1 -11	-	SVG0160NEB	2.5P	160	20	82	25	20	23	4	1
G 1 1/8-11	-	SVG0180NEB	2.5P	170	20	87	28	22	25	4	1
G 1 1/4-11	-	SVG0200NEB	2.5P	170	20	87	32	24	27	4	1
G 1 1/2-11	-	SVG0240NEB	2.5P	190	25	97	36	29	32	4	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

SP OX G



Spiral Fluted Taps for Parallel Pipe Threads, Oxidized

Specification

HSS | OX Oxide

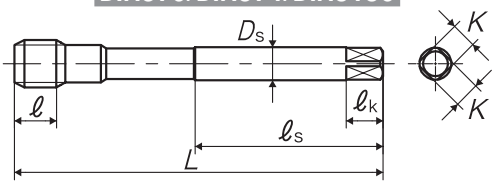


Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

■The SP OX G is a spiral flute tap for blind hole tapping. These taps have an applied oxidation treatment to prevent chip welding on the surface of the taps threaded portion. They are suitable for thread processing of soft steel materials where the chips easily weld to the tap like low carbon.

TYPE : 1 DIN376/DIN374/DIN5156



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/16-28	-	SVG0010NEX	2.5P	90	12	46	6	4.9	8	3	1
G 1/8-28	-	SVG0020NEX	2.5P	90	12	46	7	5.5	8	3	1
G 1/4-19	-	SVG0040NEX	2.5P	100	14	51	11	9	12	3	1
G 3/8-19	-	SVG0060NEX	2.5P	100	14	51	12	9	12	3	1
G 1/2-14	-	SVG0080NEX	2.5P	125	18	64	16	12	15	4	1
G 5/8-14	-	SVG0100NEX	2.5P	125	18	64	18	14.5	17	4	1
G 3/4-14	-	SVG0120NEX	2.5P	140	20	71	20	16	19	4	1
G 7/8-14	-	SVG0140NEX	2.5P	150	20	77	22	18	21	4	1
G 1 -11	-	SVG0160NEX	2.5P	160	20	82	25	20	23	4	1
G 1 1/8-11	-	SVG0180NEX	2.5P	170	20	87	28	22	25	4	1
G 1 1/4-11	-	SVG0200NEX	2.5P	170	20	87	32	24	27	4	1
G 1 1/2-11	-	SVG0240NEX	2.5P	190	25	97	36	29	32	4	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

SP V G



Spiral Fluted Taps for Parallel Pipe Threads, Coated

Specification

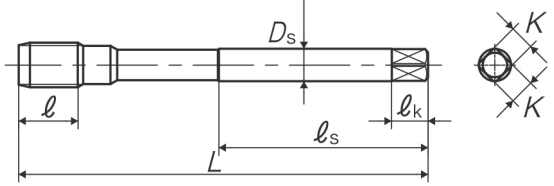
HSS Coating

■This is a coated spiral fluted tap for blind holes.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

TYPE : 1 DIN376/DIN374/DIN5156



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/8-28	-	9940R02TI	2.5P	90	12	46	7	5.5	8	3	1
G 1/4-19	-	9940R04TI	2.5P	100	14	51	11	9	12	3	1
G 3/8-19	-	9940R06TI	2.5P	100	14	51	12	9	12	3	1
G 1/2-14	-	9940R08TI	2.5P	125	18	64	16	12	15	4	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

SP-VA G



Spiral Fluted Taps for Parallel Pipe Threads, for Stainless Steels

Specification

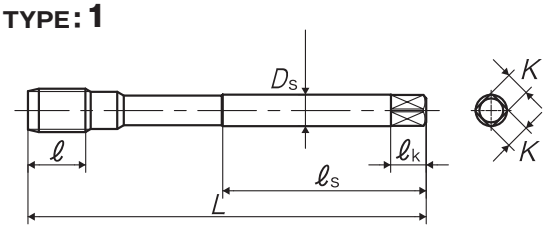
HSS | OX Oxide | <2D

■Most suitable for stainless steels, sticky and tending to work-harden, as well as chrome steels and molybdenum steels, blind hole use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)	~10 (m/min)

TYPE : 1



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/8-28	-	SVG0020GEX	2.5P	90	12	46	7	5.5	8	3	1
G 1/4-19	-	SVG0040GEX	2.5P	100	14	51	11	9	12	3	1
G 3/8-19	-	SVG0060GEX	2.5P	100	14	51	12	9	12	3	1
G 1/2-14	-	SVG0080GEX	2.5P	125	18	64	16	12	15	4	1
G 3/4-14	-	SVG0120GEX	2.5P	140	20	71	20	16	19	4	1
G 1 -11	-	SVG0160GEX	2.5P	160	20	82	25	20	23	4	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

SU2-SP G



Spiral Fluted Taps for Parallel Pipe Threads, for Tough Stainless Steels

Specification

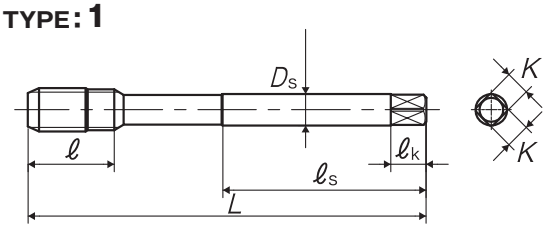
HSS | OX Oxide |  | Synchro nized

■SU2-SP G is the spiral fluted tap most suitable for tough stainless steels, blind hole use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
5~20 (m/min)	5~20 (m/min)	5~20 (m/min)	5~20 (m/min)	5~15 (m/min)

TYPE : 1



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/8-28	-	SVG0020GEXJ	3P	90	19	46	7	5.5	8	3	1
G 1/4-19	-	SVG0040GEXJ	3P	100	21	51	11	9	12	4	1
G 3/8-19	-	SVG0060GEXJ	3P	100	21	51	12	9	12	4	1
G 1/2-14	-	SVG0080GEXJ	3P	125	24	64	16	12	15	4	1
G 3/4-14	-	SVG0120GEXJ	3P	140	27	71	20	16	19	4	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

LO-SP G



Low Spiral Fluted Taps for Parallel Pipe Threads

Specification

HSS

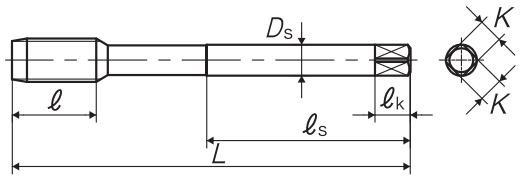


■Spiral flutes with low helix can break down chips and can eject them smoothly. Suitable for thermal refined high carbon steels and alloy tool steels. Effective in horizontal tapping.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/8-28	-	SVG0020NEBH	3.5P	90	19	46	7	5.5	8	3	1
G 1/4-19	-	SVG0040NEBH	3.5P	100	21	51	11	9	12	3	1
G 3/8-19	-	SVG0060NEBH	3.5P	100	21	51	12	9	12	3	1
G 1/2-14	-	SVG0080NEBH	3.5P	125	24	64	16	12	15	4	1
G 1 -11	-	SVG0160NEBH	3.5P	160	29	82	25	20	23	4	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

LO-SP OX G



Low Spiral Fluted Taps for Parallel Pipe Threads, Oxidized

Specification

HSS | OX Oxide

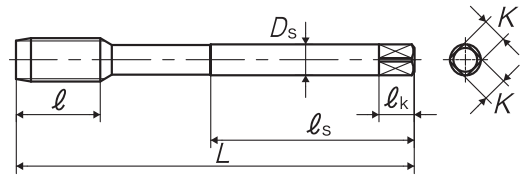


■Spiral flutes with low helix can break down chips and can eject them smoothly. Suitable for thermal refined high carbon steels and alloy tool steels. Effective in horizontal tapping.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/8-28	-	SVG0020NEXH	3.5P	90	19	46	7	5.5	8	3	1
G 1/4-19	-	SVG0040NEXH	3.5P	100	21	51	11	9	12	3	1
G 3/8-19	-	SVG0060NEXH	3.5P	100	21	51	12	9	12	3	1
G 1/2-14	-	SVG0080NEXH	3.5P	125	24	64	16	12	15	4	1
G 3/4-14	-	SVG0120NEXH	3.5P	140	27	71	20	16	19	4	1
G 1 -11	-	SVG0160NEXH	3.5P	160	29	82	25	20	23	4	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

PH-SP G



Spiral Fluted Taps for Parallel Pipe Threads, for Hard-to-Machine Materials

Specification

HSS | OX Oxide

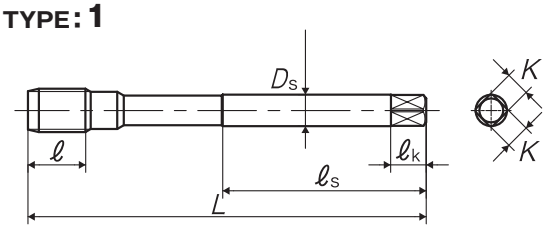


■Suitable for hard steels of 27-38HRC, such as forgings and thermal refined steels of high carbon steels and alloy steels, and die steels.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼
2~7 (m/min)	2~7 (m/min)	~5 (m/min)
		25~35HRC

TYPE : 1



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/8-28	-	SVG0020EEX	3P	90	12	46	7	5.5	8	3	1
G 1/4-19	-	SVG0040EEX	3P	100	14	51	11	9	12	4	1
G 3/8-19	-	SVG0060EEX	3P	100	14	51	12	9	12	4	1
G 1/2-14	-	SVG0080EEX	3P	125	18	64	16	12	15	4	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

PO G



Spiral Pointed Taps for Parallel Pipe Threads

Specification

HSS

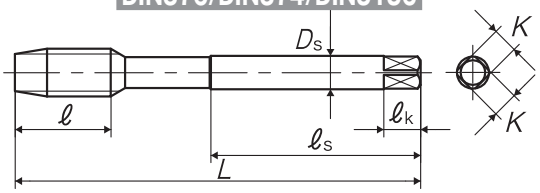


■The PO taps push the chips forward and discharge them in the direction of tapping. These taps cut a stable thread with few problems due to chips, making them ideal for through hole machining.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)

TYPE : 1 DIN376/DIN374/DIN5156



Segment

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/16-28	-	PVG0010NEB	5P	90	19	46	6	4.9	8	3	1
G 1/8-28	-	PVG0020NEB	5P	90	19	46	7	5.5	8	3	1
G 1/4-19	-	PVG0040NEB	5P	100	21	51	11	9	12	3	1
G 3/8-19	-	PVG0060NEB	5P	100	21	51	12	9	12	3	1
G 1/2-14	-	PVG0080NEB	5P	125	24	64	16	12	15	3	1
G 5/8-14	-	PVG0100NEB	5P	125	24	64	18	14.5	17	3	1
G 3/4-14	-	PVG0120NEB	5P	140	27	71	20	16	19	4	1
G 7/8-14	-	PVG0140NEB	5P	150	27	77	22	18	21	4	1
G 1 -11	-	PVG0160NEB	5P	160	29	82	25	20	23	4	1
G 1 1/8-11	-	PVG0180NEB	5P	170	29	87	28	22	25	4	1
G 1 1/4-11	-	PVG0200NEB	5P	170	29	87	32	24	27	4	1
G 1 1/2-11	-	PVG0240NEB	5P	190	31	97	36	29	32	4	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

PO OX G



Spiral Pointed Taps for Parallel Pipe Threads, Oxidized

Specification

HSS | OX Oxide

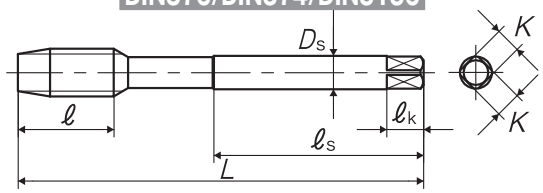


■The +PO is a spiral pointed tap for through hole tapping and is suitable for synchronous feed processing in middle to high thread processing of soft steel materials whose chips easily weld to the taps thread such as low carbon steels.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE : 1 DIN376/DIN374/DIN5156



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/16-28	-	PVG0010NEX	5P	90	19	46	6	4.9	8	3	1
G 1/8-28	-	PVG0020NEX	5P	90	19	46	7	5.5	8	3	1
G 1/4-19	-	PVG0040NEX	5P	100	21	51	11	9	12	3	1
G 3/8-19	-	PVG0060NEX	5P	100	21	51	12	9	12	3	1
G 1/2-14	-	PVG0080NEX	5P	125	24	64	16	12	15	3	1
G 5/8-14	-	PVG0100NEX	5P	125	24	64	18	14.5	17	3	1
G 3/4-14	-	PVG0120NEX	5P	140	27	71	20	16	19	4	1
G 7/8-14	-	PVG0140NEX	5P	150	27	77	22	18	21	4	1
G 1 -11	-	PVG0160NEX	5P	160	29	82	25	20	23	4	1
G 1 1/8-11	-	PVG0180NEX	5P	170	29	87	28	22	25	4	1
G 1 1/4-11	-	PVG0200NEX	5P	170	29	87	32	24	27	4	1
G 1 1/2-11	-	PVG0240NEX	5P	190	31	97	36	29	32	4	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

PO V G



Spiral Pointed Taps for Parallel Pipe Threads, Coated

Specification

HSS Coating

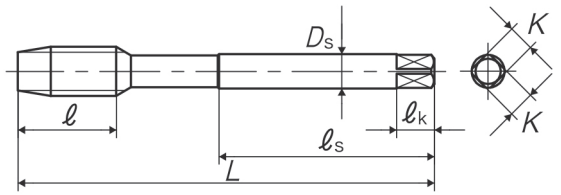


■Adopting the optimum coating for the tapping condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

TYPE : 1



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/8-28	-	9930R02TI	5P	90	19	46	7	5.5	8	3	1
G 1/4-19	-	9930R04TI	5P	100	21	51	11	9	12	3	1
G 3/8-19	-	9930R06TI	5P	100	21	51	12	9	12	3	1
G 1/2-14	-	9930R08TI	5P	125	24	64	16	12	15	3	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

PO-VA G



Spiral Pointed Taps for Parallel Pipe Threads, for Stainless Steels

Specification

HSS | OX Oxide

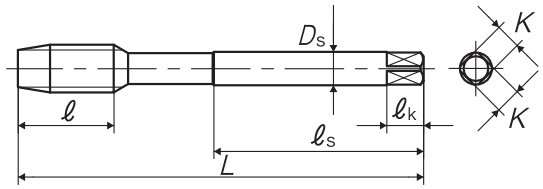


■Suitable for stainless steels tending to cause work harden and sticky, as well as chrome steels and molybdenum steels. Through hole use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
~15 (m/min)	~15 (m/min)	~15 (m/min)	~15 (m/min)	~10 (m/min)

TYPE : 1



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/8-28	-	PVG0020GEX	4.5P	90	19	46	7	5.5	8	3	1
G 1/4-19	-	PVG0040GEX	4.5P	100	21	51	11	9	12	3	1
G 3/8-19	-	PVG0060GEX	4.5P	100	21	51	12	9	12	3	1
G 1/2-14	-	PVG0080GEX	4.5P	125	24	64	16	12	15	3	1
G 3/4-14	-	PVG0120GEX	4.5P	140	27	71	20	16	19	4	1
G 1 -11	-	PVG0160GEX	4.5P	160	29	82	25	20	23	4	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

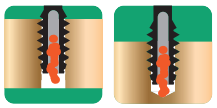
HT G



Hand Taps for Parallel Pipe Threads

Specification

HSS

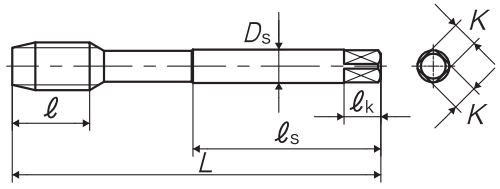


■Hand taps for parallel pipe threads conforming to the DIN dimensional standard. These are used for mating with external parallel pipe threads G (PF).

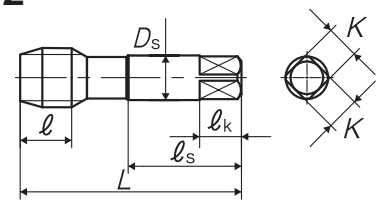
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE: 1



TYPE: 2



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For Pipe Threads											
G 1/16-28	-	TVG0010NEBC	2.5P	90	19	46	6	4.9	8	3	1
G 1/16-28	-	T9G0010NEB2	F	56	19	29	6	4.9	8	4	2
G 1/16-28	-	T9G0010NEB5	V	56	19	29	6	4.9	8	4	2
G 1/8-28	-	TVG0020NEBC	2.5P	90	19	46	7	5.5	8	3	1
G 1/8-28	-	T9G0020NEB2	F	63	19	32	7	5.5	8	4	2
G 1/8-28	-	T9G0020NEB5	V	63	19	32	7	5.5	8	4	2
G 1/8-28	-	6412G02S	SET	63	19	32	7	5.5	8	4	2
G 1/4-19	-	TVG0040NEBC	2.5P	100	21	51	11	9	12	3	1
G 1/4-19	-	T9G0040NEB2	F	70	21	36	11	9	12	4	2
G 1/4-19	-	T9G0040NEB5	V	70	21	36	11	9	12	4	2
G 1/4-19	-	6412G04S	SET	70	21	36	11	9	12	4	2
G 3/8-19	-	TVG0060NEBC	2.5P	100	21	51	12	9	12	3	1
G 3/8-19	-	T9G0060NEB2	F	70	21	36	12	9	12	4	2
G 3/8-19	-	T9G0060NEB5	V	70	21	36	12	9	12	4	2
G 3/8-19	-	6412G06S	SET	70	21	36	12	9	12	4	2
G 1/2-14	-	TVG0080NEBC	2.5P	125	24	64	16	12	15	3	1
G 1/2-14	-	T9G0080NEB2	F	80	21	41	16	12	15	4	2
G 1/2-14	-	T9G0080NEB5	V	80	21	41	16	12	15	4	2
G 1/2-14	-	6412G08S	SET	80	21	41	16	12	15	4	2
G 5/8-14	-	TVG0100NEBC	2.5P	125	24	64	18	14.5	17	4	1
G 5/8-14	-	T9G0100NEB2	F	80	21	41	18	14.5	17	4	2
G 5/8-14	-	T9G0100NEB5	V	80	21	41	18	14.5	17	4	2
G 3/4-14	-	TVG0120NEBC	2.5P	140	27	71	20	16	19	4	1
G 3/4-14	-	T9G0120NEB2	F	90	21	46	20	16	19	4	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
G 3/4-14	-	T9G0120NEB5	V	90	21	46	20	16	19	4	2
G 3/4-14	-	6412G12S	SET	90	21	46	20	16	19	4	2
G 7/8-14	-	TVG0140NEBC	2.5P	150	27	77	22	18	21	4	1
G 7/8-14	-	T9G0140NEB2	F	90	21	46	22	18	21	4	2
G 7/8-14	-	T9G0140NEB5	V	90	21	46	22	18	21	4	2
G 1 -11	-	TVG0160NEBC	2.5P	160	29	82	25	20	23	4	1
G 1 -11	-	T9G0160NEB2	F	100	24	51	25	20	23	4	2
G 1 -11	-	T9G0160NEB5	V	100	24	51	25	20	23	4	2
G 1 -11	-	6412G16S	SET	100	24	51	25	20	23	4	2
G 1 1/8-11	-	TVG0180NEBC	2.5P	170	29	87	28	22	25	4	1
G 1 1/8-11	-	T9G0180NEB2	F	125	39	64	28	22	25	4	2
G 1 1/8-11	-	T9G0180NEB5	V	125	39	64	28	22	25	4	2
G 1 1/4-11	-	TVG0200NEBC	2.5P	170	29	87	32	24	27	4	1
G 1 1/4-11	-	T9G0200NEB2	F	125	39	64	32	24	27	4	2
G 1 1/4-11	-	T9G0200NEB5	V	125	39	64	32	24	27	4	2
G 1 1/2-11	-	TVG0240NEBC	2.5P	190	31	97	36	29	32	6	1
G 1 1/2-11	-	T9G0240NEB2	F	140	39	71	36	29	32	6	2
G 1 1/2-11	-	T9G0240NEB5	V	140	39	71	36	29	32	6	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

Z-PRO

GGST G



Z-PRO
Straight Fluted Taps for Parallel Pipe Threads, for Cast Irons

Specification

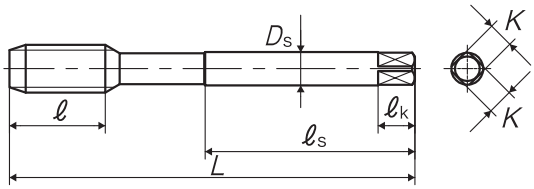


■Suitable for hard and abrasive materials such as cast irons. Considering comparatively quick wear, GGST G is properly oversized.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
5~20 (m/min)	5~20 (m/min)

TYPE : 1



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/8-28	-	3104130004	C (2.5P)	90	19	46	7	5.5	8	4	1
G 1/4-19	-	3104130006	C (2.5P)	100	21	51	11	9	12	4	1
G 3/8-19	-	3104130008	C (2.5P)	100	21	51	12	9	12	4	1
G 1/2-14	-	3104130009	C (2.5P)	125	24	64	16	12	15	4	1
G 3/4-14	-	3104130011	C (2.5P)	140	27	71	20	16	19	4	1
G 1 -11	-	3104130013	C (2.5P)	160	29	82	25	20	23	4	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

GG-HT G



Hand Taps for Parallel Pipe Threads, for Cast Irons

Specification

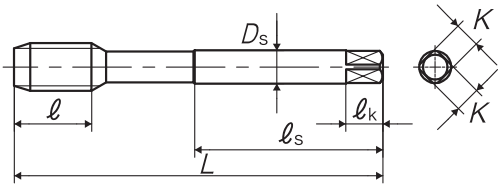


■Suitable for hard and abrasive materials such as cast irons. Considering comparatively quick wear, GG-HT G is properly oversized.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/8-28	-	TVG0020AENC	2.5P	90	19	46	7	5.5	8	4	1
G 1/4-19	-	TVG0040AENC	2.5P	100	21	51	11	9	12	4	1
G 3/8-19	-	TVG0060AENC	2.5P	100	21	51	12	9	12	4	1
G 1/2-14	-	TVG0080AENC	2.5P	125	24	64	16	12	15	4	1
G 3/4-14	-	TVG0120AENC	2.5P	140	27	71	20	16	19	4	1
G 1 -11	-	TVG0160AENC	2.5P	160	29	82	25	20	23	4	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

GG-HT G



Hand Taps for Parallel Pipe Threads, for Cast Irons (Coated)

Specification

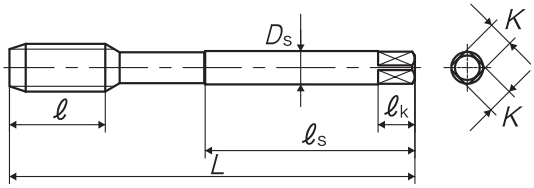
HSS | Coating | NI Nitride | <2D

■Suitable for hard and abrasive materials such as cast irons. Considering comparatively quick wear, GG-HT G is properly oversized.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	
For G Threads												
G 1/8-28	-	9926R02TC	2.5P	90	19	46	7	5.5	8	4	1	▲
G 1/4-19	-	9926R04TC	2.5P	100	21	51	11	9	12	4	1	▲
G 3/8-19	-	9926R06TC	2.5P	100	21	51	12	9	12	4	1	▲
G 1/2-14	-	9926R08TC	2.5P	125	24	64	16	12	15	4	1	▲

・Products marked with ▲ are while supplies last.

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

DIN

EH-HT G



Hand Taps for Parallel Pipe Threads, for Hard-to-Machine Materials

Specification

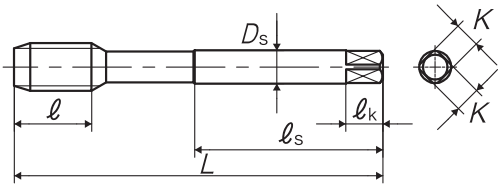


■EH-HT G is the hand tap suitable for hard steels of 35-45HRC, such as forgings and thermal refined steels of high carbon steels and alloy steels, and die steels.

Recommended Tapping Speeds depending on Materials

Thermal refined steels 調質鋼	Tool steels 工具鋼
~5 (m/min)	~5 (m/min)
35~45HRC	

TYPE : 1



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
For G Threads											
G 1/8-28	-	TVG0020DCBC	2.5P	90	19	46	7	5.5	8	4	1
G 1/4-19	-	TVG0040DCBC	2.5P	100	21	51	11	9	12	4	1
G 3/8-19	-	TVG0060DCBC	2.5P	100	21	51	12	9	12	4	1
G 1/2-14	-	TVG0080DCBC	2.5P	125	24	64	16	12	15	4	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

R-D G



Roll Taps for Parallel Pipe Threads, for General Purpose

Specification

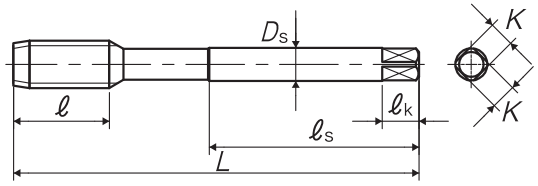
HSS 2

■Suitable for tapping internal threads used for simple joining in thin steel sheets such as SPC, SPH, or soft steels such as SS400, S20C.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

TYPE: 1 DIN376/DIN5156



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For G Threads											
G 1/8-28	-	RVG0026NEBB	2P	90	19	46	7	5.5	8	8	1
G 1/4-19	-	RVG0047NEBB	2P	100	21	51	11	9	12	8	1
G 3/8-19	-	RVG0067NEBB	2P	100	21	51	12	9	12	8	1

Number of oil grooves: G = 4

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

DIN

R-D G



Roll Taps for Parallel Pipe Threads, for General Purpose, Coated

Specification

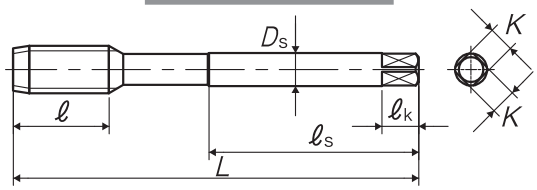
HSS | Coating | 2

■Suitable for tapping internal threads used for simple joining in thin steel sheets such as SPC, SPH, or soft steels such as SS400, S20C.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)

TYPE : 1 DIN376/DIN5156



Segment : 1H

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	Lobe	TYPE
For G Threads											
G 1/8-28	-	9953R02TI	2P	90	19	46	7	5.5	8	8	1
G 1/4-19	-	9953R04TI	2P	100	21	51	11	9	12	8	1
G 3/8-19	-	9953R06TI	2P	100	21	51	12	9	12	8	1

Number of oil grooves: G = 4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

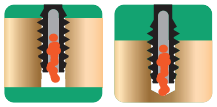
PF

Hand Taps for Parallel Pipe Threads



Specification

HSS

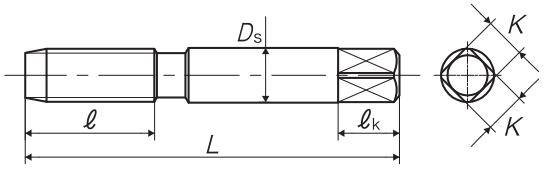


■The PF tap is a hand tap for parallel pipe threads and is used for products whose main purpose is to connect mechanical parts such as pipe parts. The PF internal thread is used for fitting with the PF external thread.

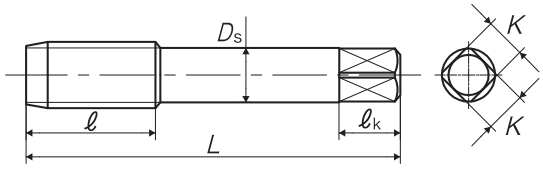
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE : 1



TYPE : 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PF 1/16-28	II	TH2F01K-8	3.5P	7.723	55	19	8	6	9	4	1	¥ 2,820 ※
PF 1/8-28	II	TH2F02K	3.5P	9.728	55	19	8	6	9	4	2	¥ 2,820
PF 1/8-28	II	TH2F02K1	1.5P	9.728	55	19	8	6	9	4	2	¥ 2,820 ※
PF 1/4-19	II	TH2F04-	3.5P	13.157	62	28	11	9	12	4	2	¥ 4,100
PF 1/4-19	II	TH2F04-1	1.5P	13.157	62	28	11	9	12	4	2	¥ 4,100 ※
PF 3/8-19	II	TH2F06-	3.5P	16.662	65	28	14	11	14	4	2	¥ 6,760
PF 3/8-19	II	TH2F06-1	1.5P	16.662	65	28	14	11	14	4	2	¥ 6,760 ※
PF 1/2-14	II	TH2F08Q	3.5P	20.955	80	35	18	14	17	4	2	¥ 11,000
PF 1/2-14	II	TH2F08Q1	1.5P	20.955	80	35	18	14	17	4	2	¥ 11,000 ※
PF 5/8-14	II	TH2F10Q	3.5P	22.911	82	35	19	15	18	4	2	¥ 15,400 ※
PF 3/4-14	II	TH2F12Q	3.5P	26.441	85	35	23	17	20	4	2	¥ 17,900
PF 3/4-14	II	TH2F12Q1	1.5P	26.441	85	35	23	17	20	4	2	¥ 17,900 ※
PF 7/8-14	II	TH2F14Q	3.5P	30.201	90	40	24	19	22	4	2	¥ 26,900 ※
PF 1 -11	II	TH2F16U	3.5P	33.249	95	45	26	21	24	4	2	¥ 33,500
PF 1 -11	II	TH2F16U1	1.5P	33.249	95	45	26	21	24	4	2	¥ 33,500 ※
PF 1 1/8-11	II	TH2F18U	3.5P	37.897	100	45	28	21	24	4	2	¥ 49,400 ※
PF 1 1/4-11	II	TH2F20U	3.5P	41.910	105	45	32	26	30	4	2	¥ 52,900
PF 1 1/4-11	II	TH2F20U1	1.5P	41.910	105	45	32	26	30	4	2	¥ 52,900 ※
PF 1 1/2-11	II	TH2F24U	3.5P	47.803	110	45	38	29	32	6	2	¥ 72,800
PF 1 1/2-11	II	TH2F24U1	1.5P	47.803	110	45	38	29	32	6	2	¥ 72,800 ※
PF 1 3/4-11	II	TH2F28U	3.5P	53.746	115	45	42	32	35	6	2	¥ 99,200 ※
PF 1 3/4-11	II	TH2F28U1	1.5P	53.746	115	45	42	32	35	6	2	¥ 99,200 ※
PF 2 -11	II	TH2F32U	3.5P	59.614	120	50	46	35	38	6	2	¥ 124,000
PF 2 -11	II	TH2F32U1	1.5P	59.614	120	50	46	35	38	6	2	¥ 124,000 ※
PF 2 1/2-11	II	TH2F40U	3.5P	75.184	145	65	55	41	44	8	2	¥ 205,000 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
PF 3 -11	II	TH2F48U	3.5P	87.884	155	65	65	50	52	8	2	¥307,000 ※
PF 3 -11	II	TH2F48U1	1.5P	87.884	155	65	65	50	52	8	2	¥307,000 ※
PF 3 1/2-11	II	TH2F56U	3.5P	100.330	165	68	70	54	58	8	2	¥399,000 ※
PF 4 -11	II	TH2F64U	3.5P	113.030	170	70	75	58	62	10	2	¥539,000 ※

※ = Specified Distribution Items. Made to order products.

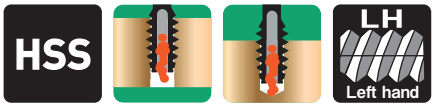
Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

PF LH



Hand Taps for Parallel Pipe Threads, for LH Threads

Specification

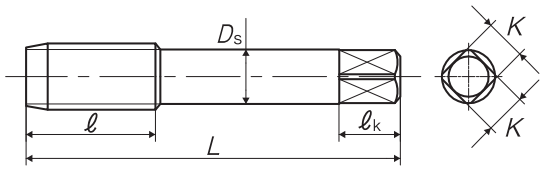


■The PF LH is a hand tap for left hand parrellel pipe threads and is used for tapping products whose main purpose is to connect mechanical parts such as pipe parts. The PF internal thread is used for fitting with the PF external thread.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PF 1/8-28	II	TH2F02K--L	3.5P	9.728	55	19	8	6	9	4	1	¥ 3,670 ※
PF 1/4-19	II	TH2F04---L	3.5P	13.157	62	28	11	9	12	4	1	¥ 5,330 ※
PF 3/8-19	II	TH2F06---L	3.5P	16.662	65	28	14	11	14	4	1	¥ 8,790 ※
PF 1/2-14	II	TH2F08Q--L	3.5P	20.955	80	35	18	14	17	4	1	¥ 14,300 ※
PF 3/4-14	II	TH2F12Q--L	3.5P	26.441	85	35	23	17	20	4	1	¥ 23,300 ※
PF 1 -11	II	TH2F16U--L	3.5P	33.249	95	45	26	21	24	4	1	¥ 43,600 ※
PF 1 1/4-11	II	TH2F20U--L	3.5P	41.910	105	45	32	26	30	4	1	¥ 68,800 ※
PF 1 1/2-11	II	TH2F24U--L	3.5P	47.803	110	45	38	29	32	6	1	¥ 94,700 ※
PF 2 -11	II	TH2F32U--L	3.5P	59.614	120	50	46	35	38	6	1	¥162,000 ※

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

LS-PF



Long Shank Hand Taps for Parallel Pipe Threads

Specification

HSS



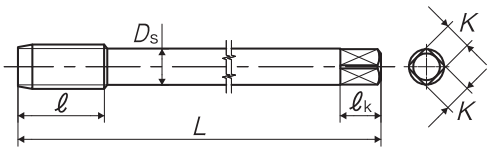


■The LS-PF is a long shank hand tap for parallel pipe threads and is used for tapping products whose main purpose is to connect mechanical parts such as pipe parts. The PF internal thread is used for fitting with the PF external thread.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PF 1/8-28	II	L10F02K	3.5P	9.728	100	19	8	6	9	4	1	¥ 5,200
PF 1/8-28	II	L15F02K	3.5P	9.728	150	19	8	6	9	4	1	¥ 9,330
PF 1/8-28	II	L20F02K	3.5P	9.728	200	19	8	6	9	4	1	¥ 13,400 ※
PF 1/4-19	II	L10F04-	3.5P	13.157	100	28	11	9	12	4	1	¥ 6,980
PF 1/4-19	II	L15F04-	3.5P	13.157	150	28	11	9	12	4	1	¥ 9,560
PF 1/4-19	II	L20F04-	3.5P	13.157	200	28	11	9	12	4	1	¥ 13,700 ※
PF 3/8-19	II	L10F06-	3.5P	16.662	100	28	14	11	14	4	1	¥ 8,970
PF 3/8-19	II	L15F06-	3.5P	16.662	150	28	14	11	14	4	1	¥ 16,100
PF 3/8-19	II	L20F06-	3.5P	16.662	200	28	14	11	14	4	1	¥ 22,700 ※
PF 1/2-14	II	L15F08Q	3.5P	20.955	150	35	18	14	17	4	1	¥ 19,800
PF 1/2-14	II	L20F08Q	3.5P	20.955	200	35	18	14	17	4	1	¥ 27,700 ※
PF 3/4-14	II	L15F12Q	3.5P	26.441	150	35	23	17	20	4	1	¥ 29,700
PF 3/4-14	II	L20F12Q	3.5P	26.441	200	35	23	17	20	4	1	¥ 36,000 ※
PF 1 -11	II	L15F16U	3.5P	33.249	150	45	26	21	24	4	1	¥ 43,500
PF 1 -11	II	L20F16U	3.5P	33.249	200	45	26	21	24	4	1	¥ 50,500 ※
PF 1 1/4-11	II	L20F20U	3.5P	41.910	200	45	32	26	30	4	1	¥ 79,000 ※
PF 1 1/2-11	II	L20F24U	3.5P	47.803	200	45	38	29	32	6	1	¥ 99,200 ※
PF 2 -11	II	L20F32U	3.5P	59.614	200	50	46	35	38	6	1	¥147,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

SP-PF

Spiral Fluted Taps for Parallel Pipe Threads



Specification

HSS

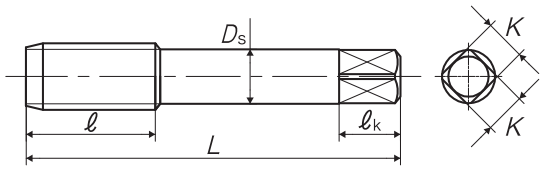


■The SP-PF is a spiral flute tap for parallel pipe threads and is used for tapping of products whose main purpose is to connect mechanical parts for pipes. The PF internal thread is used for fitting with the PF external thread.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PF 1/8-28	II	SH2F02K	2.5P	9.728	55	19	8	6	9	3	1	¥ 3,110
PF 1/4-19	II	SH2F04-	2.5P	13.157	62	28	11	9	12	3	1	¥ 4,500
PF 3/8-19	II	SH2F06-	2.5P	16.662	65	28	14	11	14	3	1	¥ 7,430
PF 1/2-14	II	SH2F08Q	2.5P	20.955	80	35	18	14	17	4	1	¥ 12,100
PF 3/4-14	II	SH2F12Q	2.5P	26.441	85	35	23	17	20	4	1	¥ 19,700
PF 1 -11	II	SH2F16U	2.5P	33.249	95	45	26	21	24	4	1	¥ 36,800
PF 1 1/4-11	II	SH2F20U	2.5P	41.910	105	45	32	26	30	4	1	¥ 58,000 ※
PF 1 1/2-11	II	SH2F24U	2.5P	47.803	110	45	38	29	32	4	1	¥ 80,000 ※
PF 2 -11	II	SH2F32U	2.5P	59.614	120	50	46	35	38	4	1	¥136,000 ※

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

LS-SP-PF



Long Shank Spiral Fluted Taps for Parallel Pipe Threads

Specification

HSS

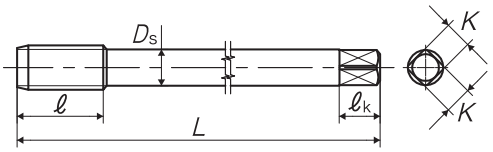


■The LS-SP-PF is a long shank spiral flute tap for parallel pipe threads and is used for tapping of products whose main purpose is to connect mechanical parts such as pipe parts. The PF internal thread is used for fitting with the PF external thread.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PF 1/8-28	II	SH2F02KL10	2.5P	9.728	100	19	8	6	9	3	1	¥ 5,720 ※
PF 1/8-28	II	SH2F02KL12	2.5P	9.728	120	19	8	6	9	3	1	¥ 6,420 ※
PF 1/8-28	II	SH2F02KL15	2.5P	9.728	150	19	8	6	9	3	1	¥ 10,300 ※
PF 1/4-19	II	SH2F04-L10	2.5P	13.157	100	28	11	9	12	3	1	¥ 7,680 ※
PF 1/4-19	II	SH2F04-L12	2.5P	13.157	120	28	11	9	12	3	1	¥ 8,680 ※
PF 1/4-19	II	SH2F04-L15	2.5P	13.157	150	28	11	9	12	3	1	¥ 10,600 ※
PF 3/8-19	II	SH2F06-L12	2.5P	16.662	120	28	14	11	14	3	1	¥ 11,300 ※
PF 3/8-19	II	SH2F06-L15	2.5P	16.662	150	28	14	11	14	3	1	¥ 17,700 ※
PF 1/2-14	II	SH2F08QL15	2.5P	20.955	150	35	18	14	17	4	1	¥ 21,800 ※
PF 3/4-14	II	SH2F12QL15	2.5P	26.441	150	35	23	17	20	4	1	¥ 32,700 ※
PF 1 -11	II	SH2F16UL15	2.5P	33.249	150	45	26	21	24	4	1	¥ 47,700 ※
PF 1 -11	II	SH2F16UL20	2.5P	33.249	200	45	26	21	24	4	1	¥ 55,500 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

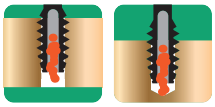
SU-PF



Hand Taps for Parallel Pipe Threads, for Stainless Steels

Specification

HSS | OX Oxide

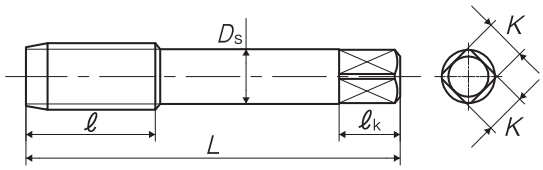


■The SU-PF is a hand tap suitable for machining stainless steel, chromium steel, molybdenum steel. These are materials that have a remarkably high work hardened ability.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼
5~10 (m/min)	5~10 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PF 1/8-28	II	TU2F02K	3.5P	9.728	55	19	8	6	9	4	1	¥ 3,250 ※
PF 1/4-19	II	TU2F04-	3.5P	13.157	62	28	11	9	12	4	1	¥ 4,720 ※
PF 3/8-19	II	TU2F06-	3.5P	16.662	65	28	14	11	14	4	1	¥ 7,780 ※
PF 1/2-14	II	TU2F08Q	3.5P	20.955	80	35	18	14	17	4	1	¥ 12,700 ※
PF 3/4-14	II	TU2F12Q	3.5P	26.441	85	35	23	17	20	4	1	¥ 20,600 ※
PF 1 -11	II	TU2F16U	3.5P	33.249	95	45	26	21	24	4	1	¥ 38,600 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓs	Ds	K	ℓk

JIS

SU-SP-PF



Spiral Fluted Taps for Parallel Pipe Threads, for Stainless Steels

Specification

HSS | OX Oxide

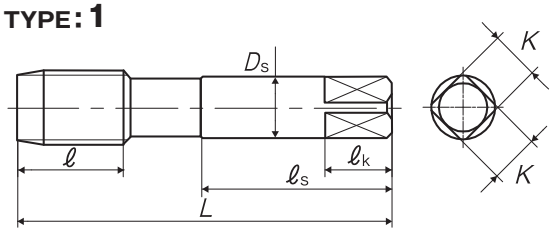


■The SU-SP-PF is a spiral flute tap suitable for machining stainless steel, chromium steel, molybdenum steel. These are materials that have a remarkably high work hardened ability.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	~5 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
PF 1/8-28	II	SYPF022GEX	2.5P	9.728	59	15	34	8	6	9	3	1	¥ 3,580 ※
PF 1/4-19	II	SYPF042GEX	2.5P	13.157	67	19	37	11	9	12	3	1	¥ 5,180 ※
PF 3/8-19	II	SYPF062GEX	2.5P	16.662	75	21	42	14	11	14	3	1	¥ 8,550 ※
PF 1/2-14	II	SYPF082GEX	2.5P	20.955	87	26	47	18	14	17	4	1	¥ 14,000 ※
PF 3/4-14	II	SYPF122GEX	2.5P	26.441	96	28	53	23	17	20	4	1	¥ 22,700 ※
PF 1 -11	II	SYPF162GEX	2.5P	33.249	109	33	60	26	21	24	4	1	¥ 42,400 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

FC-PF

Hand Taps for Parallel Pipe Threads, for Cast Irons



Specification

HSS | NI Nitride

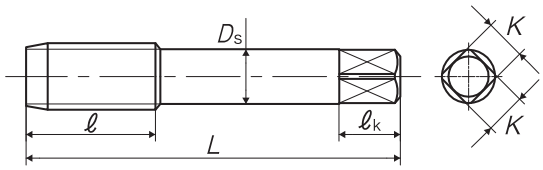


■The FC-PF is a tap suitable for thread processing of hard and brittle material such as cast iron.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PF 1/8-28	II	FCPF02K	3.5P	9.728	55	19	8	6	9	4	1	¥ 3,250 ※
PF 1/4-19	II	FCPF04-	3.5P	13.157	62	28	11	9	12	4	1	¥ 4,720 ※
PF 3/8-19	II	FCPF06-	3.5P	16.662	65	28	14	11	14	4	1	¥ 7,780 ※
PF 1/2-14	II	FCPF08Q	3.5P	20.955	80	35	18	14	17	4	1	¥ 12,700 ※
PF 3/4-14	II	FCPF12Q	3.5P	26.441	85	35	23	17	20	4	1	¥ 20,600 ※
PF 1 -11	II	FCPF16U	3.5P	33.249	95	45	26	21	24	4	1	¥ 38,600 ※
PF 1 1/4-11	II	FCPF20U	3.5P	41.910	105	45	32	26	30	4	1	¥ 60,900 ※
PF 1 1/2-11	II	FCPF24U	3.5P	47.803	110	45	38	29	32	6	1	¥ 83,800 ※
PF 2 -11	II	FCPF32U	3.5P	59.614	120	50	46	35	38	6	1	¥143,000 ※

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

CT-PF

Carbide Taps for Parallel Pipe Threads



Specification

HF

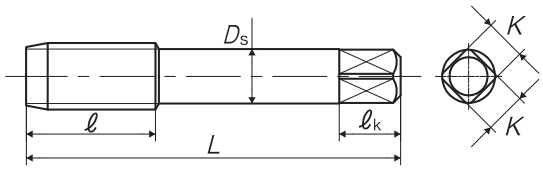


■CT-PF is suitable for hard and abrasive materials such as cast irons.

Recommended Tapping Speeds depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄	Brass castings 黄銅鋳物
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE : 1



Segment : 1L

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads												
PF 1/8-28	II	TCPF02K	3.5P	9.728	55	19	8	6	9	4	1	¥ 26,000 ※
PF 1/4-19	II	TCPF04-	3.5P	13.157	62	28	11	9	12	4	1	¥ 40,800 ※
PF 3/8-19	II	TCPF06-	3.5P	16.662	65	28	14	11	14	4	1	¥ 50,300 ※
PF 1/2-14	II	TCPF08Q	3.5P	20.955	80	35	18	14	17	4	1	¥ 50,000 ※
PF 3/4-14	II	TCPF12Q	3.5P	26.441	85	35	23	17	20	4	1	¥ 68,400 ※
PF 1 -11	II	TCPF16U	3.5P	33.249	95	45	26	21	24	4	1	¥ 96,800 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

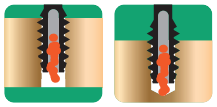
NPT

Hand Taps for American Taper Pipe Threads



Specification

HSS

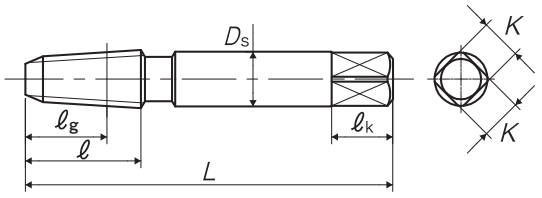


■The NPT tap is a hand tap for the American tapered pipe threads and is used for products whose main purpose is the tightness of threaded parts in the connection of parts for pipes.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



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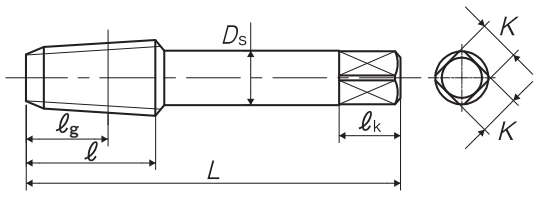


Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For American Pipe Threads													
1/16-27 NPT	ANSI G	TNPT01L	3P	7.770	54	17	12	8	6	9	4	1	¥ 5,380
1/8-27 NPT	ANSI G	TNPT02L	3P	10.117	55	19	12.05	8	6	9	4	2	¥ 5,380
1/4-18 NPT	ANSI G	TNPT04O	3P	13.426	62	28	17.45	11	9	12	4	2	¥ 7,630
3/8-18 NPT	ANSI G	TNPT06O	3P	16.866	65	28	17.65	14	11	14	4	2	¥ 12,800
1/2-14 NPT	ANSI G	TNPT08Q	3P	20.980	80	35	22.85	18	14	17	4	2	¥ 21,100
3/4-14 NPT	ANSI G	TNPT12Q	3P	26.325	85	35	22.95	23	17	20	4	2	¥ 34,400
1 -11 1/2 NPT	ANSI G	TNPT16T	3P	32.934	95	45	27.4	26	21	24	5	2	¥ 63,700
1 1/4-11 1/2 NPT	ANSI G	TNPT20T	3P	41.689	105	45	28.1	32	26	30	5	2	¥ 96,500 ※
1 1/2-11 1/2 NPT	ANSI G	TNPT24T	3P	47.760	110	45	28.4	38	29	32	6	2	¥138,000 ※
2 -11 1/2 NPT	ANSI G	TNPT32T	3P	59.797	120	50	28	46	35	38	6	2	¥216,000 ※
2 1/2-8 NPT	ANSI G	TNPT40X	3P	72.273	145	65	40.8	55	41	44	8	2	¥356,000 ※
3 -8 NPT	ANSI G	TNPT48X	3P	88.184	155	65	42.95	65	50	52	8	2	¥552,000 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ANSI

NPT

Hand Taps for American Taper Pipe Threads



Specification

HSS | OX Oxide

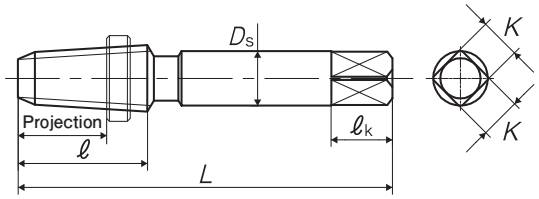


■The NPT tap is a hand tap for the American tapered pipe threads and is used for products whose main purpose is the tightness of threaded parts in the connection of parts for pipes.

Recommended Tapping Speed depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



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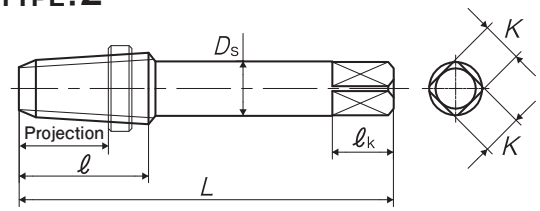


Segment : 1G

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Projection (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For American Pipe Threads											
1/16-27 NPT	ANSI G	Y83100	3P	2.125	0.687	0.312	0.312	0.234	0.375	4	1
1/16-27 NPT	ANSI G	Y83100BR	3P	2.125	0.687	0.312	0.312	0.234	0.375	4	1
1/8-27 NPT	ANSI G	Y83101	3P	2.125	0.75	0.312	0.437	0.328	0.375	4	1
1/8-27 NPT	ANSI G	Y83101BR	3P	2.125	0.75	0.312	0.437	0.328	0.375	4	1
1/8-27 NPT	ANSI G	Y83102	3P	2.125	0.75	0.312	0.312	0.234	0.375	4	2
1/8-27 NPT	ANSI G	Y83102BR	3P	2.125	0.75	0.312	0.312	0.234	0.375	4	2
1/4-18 NPT	ANSI G	Y83103	3P	2.437	1.062	0.459	0.562	0.421	0.437	4	1
1/4-18 NPT	ANSI G	Y83103BR	3P	2.437	1.062	0.459	0.562	0.421	0.437	4	1
3/8-18 NPT	ANSI G	Y83104	3P	2.562	1.062	0.454	0.7	0.531	0.5	4	1
3/8-18 NPT	ANSI G	Y83104BR	3P	2.562	1.062	0.454	0.7	0.531	0.5	4	1
1/2-14 NPT	ANSI G	Y83105	3P	3.125	1.375	0.579	0.687	0.515	0.625	4	2
1/2-14 NPT	ANSI G	Y83105BR	3P	3.125	1.375	0.579	0.687	0.515	0.625	4	2
3/4-14 NPT	ANSI G	Y83106	3P	3.25	1.375	0.565	0.906	0.679	0.687	4	2
3/4-14 NPT	ANSI G	Y83106BR	3P	3.25	1.375	0.565	0.906	0.679	0.687	4	2
1 -11 1/2 NPT	ANSI G	Y83107	3P	3.75	1.75	0.678	1.125	0.843	0.812	5	2
1 -11 1/2 NPT	ANSI G	Y83107BR	3P	3.75	1.75	0.678	1.125	0.843	0.812	5	2
1 1/4-11 1/2 NPT	ANSI G	Y83108	3P	4	1.75	0.686	1.312	0.984	0.937	5	2
1 1/4-11 1/2 NPT	ANSI G	Y83108BR	3P	4	1.75	0.686	1.312	0.984	0.937	5	2
1 1/2-11 1/2 NPT	ANSI G	Y83109	3P	4.25	1.75	0.699	1.5	1.125	1	6	2
1 1/2-11 1/2 NPT	ANSI G	Y83109BR	3P	4.25	1.75	0.699	1.5	1.125	1	6	2
2 -11 1/2 NPT	ANSI G	Y83110	3P	4.5	1.75	0.667	1.875	1.406	1.125	6	2
2 -11 1/2 NPT	ANSI G	Y83110BR	3P	4.5	1.75	0.667	1.875	1.406	1.125	6	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.
※ BR at the end of a product code indicates untreated products.

Think threads with YAMAWA

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ZELX MOLD NPT



Hand Taps for Hard-to-Machine Materials For American Taper Pipe Threads

Specification

HSS-Co

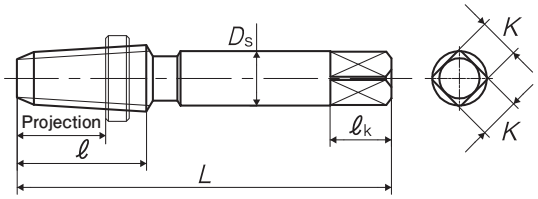


■Suitable for hard steels of 35 ～ 45HRC, such as forgings and thermal refined steels of high carbon steels and alloy steels, and die steels.

Recommended Tapping Speed depending on Materials

Thermal refined steels 調質鋼	Tool steels 工具鋼
~5 (m/min)	~5 (m/min)
35～45HRC	

TYPE: 1



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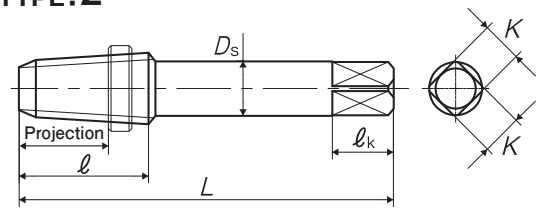


Segment : 1H

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Projection (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For American Pipe Threads											
1/8-27 NPT	ANSI G	Y89641	3P	2.125	0.75	0.312	0.437	0.328	0.375	4	1
1/4-18 NPT	ANSI G	Y89643	3P	2.437	1.062	0.459	0.562	0.421	0.437	4	1
3/8-18 NPT	ANSI G	Y89644	3P	2.562	1.062	0.454	0.7	0.531	0.5	4	1
1/2-14 NPT	ANSI G	Y89645	3P	3.125	1.375	0.579	0.687	0.515	0.625	4	2
3/4-14 NPT	ANSI G	Y89646	3P	3.25	1.375	0.565	0.906	0.679	0.687	5	2

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ANSI

NPT-CI



Hand Taps for American Taper Pipe Threads for Cast Irons

Specification

HSS | NI Nitride

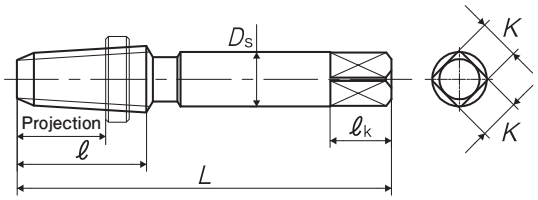


■Suitable for hard and abrasive materials such as cast irons.

Recommended Tapping Speed depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
~5 (m/min)	~5 (m/min)

TYPE: 1



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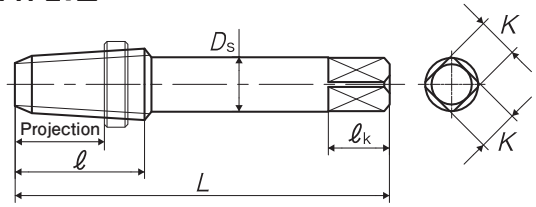


Segment : 1G

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Projection (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For American Pipe Threads											
1/8-27 NPT	ANSI G	Y83201	3P	2.125	0.75	0.312	0.437	0.328	0.375	4	1
1/8-27 NPT	ANSI G	Y83202	3P	2.125	0.75	0.312	0.312	0.234	0.375	4	2
1/4-18 NPT	ANSI G	Y83203	3P	2.437	1.062	0.459	0.562	0.421	0.437	4	1
3/8-18 NPT	ANSI G	Y83204	3P	2.562	1.062	0.454	0.7	0.531	0.5	4	1
1/2-14 NPT	ANSI G	Y83205	3P	3.125	1.375	0.579	0.687	0.515	0.625	4	2
3/4-14 NPT	ANSI G	Y83206	3P	3.25	1.375	0.565	0.906	0.679	0.687	5	2
1 -11 1/2 NPT	ANSI G	Y83207	3P	3.75	1.75	0.678	1.125	0.843	0.812	5	2
1 1/4-11 1/2 NPT	ANSI G	Y83208	3P	4	1.75	0.686	1.312	0.984	0.937	5	2
1 1/2-11 1/2 NPT	ANSI G	Y83209	3P	4.25	1.75	0.699	1.5	1.125	1	7	2
2 -11 1/2 NPT	ANSI G	Y83210	3P	4.5	1.75	0.667	1.875	1.406	1.125	7	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

S-NPT



Hand Taps for American Taper Pipe Threads, Short (ℓg) Type

Specification

HSS



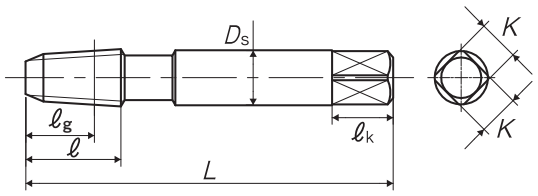


■The S-NPT is a hand tap for the American tapered pipe threads and is used for tapping where it is necessary to shorten the fitting length for piping parts. Its main purpose is tightness of threaded parts in connection with pipe parts etc.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE : 1



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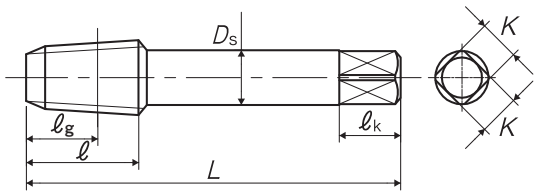


Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For American Pipe Threads													
1/16-27 NPT	ANSI G	TSNPT01L	3P	7.770	54	14	10.1	8	6	9	4	1	¥ 5,380 ※
1/8-27 NPT	ANSI G	TSNPT02L	3P	10.117	55	16.5	10.5	8	6	9	4	2	¥ 5,380 ※
1/4-18 NPT	ANSI G	TSNPT04O	3P	13.426	62	19.5	12.5	11	9	12	4	2	¥ 7,630 ※
3/8-18 NPT	ANSI G	TSNPT06O	3P	16.866	65	21	14	14	11	14	4	2	¥ 12,800 ※
1/2-14 NPT	ANSI G	TSNPT08Q	3P	20.980	80	27	17	18	14	17	4	2	¥ 21,100 ※
3/4-14 NPT	ANSI G	TSNPT12Q	3P	26.325	85	29	19	23	17	20	4	2	¥ 34,400 ※
1 -11 1/2 NPT	ANSI G	TSNPT16T	3P	32.934	95	35	22	26	21	24	5	2	¥ 63,700 ※
1 1/4-11 1/2 NPT	ANSI G	TSNPT20T	3P	41.689	105	37.5	24.5	32	26	30	5	2	¥ 96,500 ※
1 1/2-11 1/2 NPT	ANSI G	TSNPT24T	3P	47.760	110	38.5	25.5	38	29	32	6	2	¥138,000 ※
2 -11 1/2 NPT	ANSI G	TSNPT32T	3P	59.797	120	42.5	27.5	46	35	38	6	2	¥216,000 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

LS-NPT



Long Shank Hand Taps for American Taper Pipe Threads

Specification

HSS



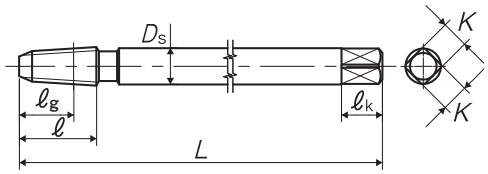


■The LS-NPT is a long shank tap for the American tapered pipe threads and is used for products whose main purpose is the tightness of threaded parts in connection with pipe parts etc.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



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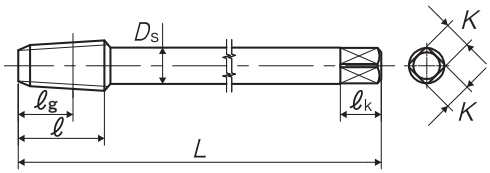


Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For American Pipe Threads													
1/16-27 NPT	ANSI G	TNPT01LL10	3P	7.770	100	17	12	8	6	9	4	1	¥ 9,410 ※
1/16-27 NPT	ANSI G	TNPT01LL15	3P	7.770	150	17	12	8	6	9	4	1	¥ 17,800 ※
1/8-27 NPT	ANSI G	TNPT02LL10	3P	10.117	100	19	12.05	8	6	9	4	2	¥ 9,410 ※
1/8-27 NPT	ANSI G	TNPT02LL15	3P	10.117	150	19	12.05	8	6	9	4	2	¥ 17,800 ※
1/4-18 NPT	ANSI G	TNPT04OL10	3P	13.426	100	28	17.45	11	9	12	4	2	¥ 13,400 ※
1/4-18 NPT	ANSI G	TNPT04OL15	3P	13.426	150	28	17.45	11	9	12	4	2	¥ 18,100 ※
3/8-18 NPT	ANSI G	TNPT06OL10	3P	16.866	100	28	17.65	14	11	14	4	2	¥ 15,700 ※
3/8-18 NPT	ANSI G	TNPT06OL15	3P	16.866	150	28	17.65	14	11	14	4	2	¥ 29,600 ※
1/2-14 NPT	ANSI G	TNPT08QL15	3P	20.980	150	35	22.85	18	14	17	4	2	¥ 35,800 ※
3/4-14 NPT	ANSI G	TNPT12QL15	3P	26.325	150	35	22.95	23	17	20	4	2	¥ 55,100 ※
1 -11 1/2 NPT	ANSI G	TNPT16TL15	3P	32.934	150	45	27.4	26	21	24	5	2	¥ 77,700 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

SP-NPT



Spiral Fluted Taps for American Taper Pipe Threads

Specification

HSS

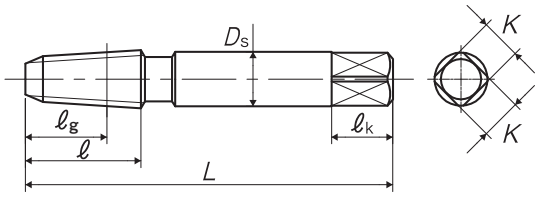


■The SP-NPT is a spiral flute tap for the American tapered pipe threads and is used for products whose main purpose is the tightness of threaded parts in connection with pipe parts etc.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



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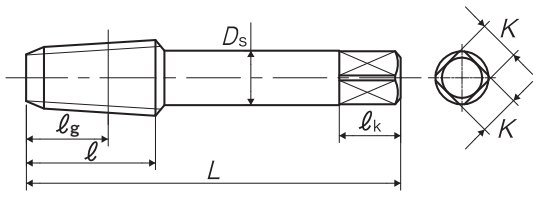


Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For American Pipe Threads													
1/16-27 NPT	ANSI G	SNPT01L	2.5P	7.770	54	17	12	8	6	9	3	1	¥ 6,690 ※
1/8-27 NPT	ANSI G	SNPT02L	2.5P	10.117	55	19	12.05	8	6	9	3	2	¥ 6,690 ※
1/4-18 NPT	ANSI G	SNPT04O	2.5P	13.426	62	28	17.45	11	9	12	3	2	¥ 9,500 ※
3/8-18 NPT	ANSI G	SNPT06O	2.5P	16.866	65	28	17.65	14	11	14	3	2	¥ 15,900 ※
1/2-14 NPT	ANSI G	SNPT08Q	2.5P	20.980	80	35	22.85	18	14	17	4	2	¥ 26,200 ※
3/4-14 NPT	ANSI G	SNPT12Q	2.5P	26.325	85	35	22.95	23	17	20	4	2	¥ 42,800 ※
1 -11 1/2 NPT	ANSI G	SNPT16T	2.5P	32.934	95	45	27.4	26	21	24	4	2	¥ 79,200 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ANSI

ZELX SS NPT



Taps for American Taper Pipe Threads

Specification

HSS | OX Oxide

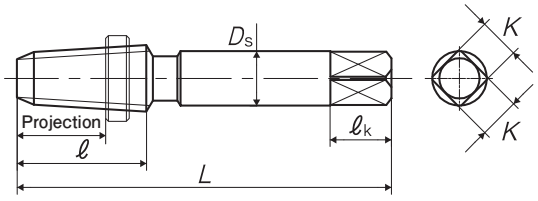


■Suitable for tapping stainless steels, chrome steels and chrome molybdenum steels.

Recommended Tapping Speed depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Ductile cast irons 強靭鋳鉄
~5 (m/min)	~5 (m/min)	~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



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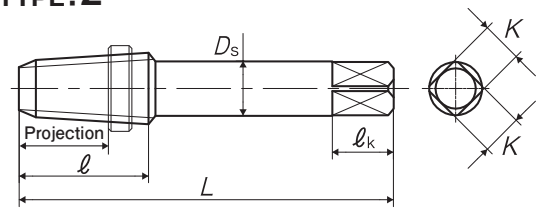


Segment : 1H

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Projection (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For American Pipe Threads											
1/16-27 NPT	ANSI G	Y83640	2.5P	2.125	0.687	0.312	0.312	0.234	0.375	4	1
1/8-27 NPT	ANSI G	Y83641	2.5P	2.125	0.75	0.312	0.437	0.328	0.375	4	1
1/8-27 NPT	ANSI G	Y83642	2.5P	2.125	0.75	0.312	0.312	0.234	0.375	4	2
1/4-18 NPT	ANSI G	Y83643	2.5P	2.437	1.062	0.459	0.562	0.421	0.437	4	1
3/8-18 NPT	ANSI G	Y83644	2.5P	2.562	1.062	0.454	0.7	0.531	0.5	4	1
1/2-14 NPT	ANSI G	Y83645	2.5P	3.125	1.375	0.579	0.687	0.515	0.625	4	2
3/4-14 NPT	ANSI G	Y83646	2.5P	3.25	1.375	0.565	0.906	0.679	0.687	4	2
1 -11 1/2 NPT	ANSI G	Y83647	2.5P	3.75	1.75	0.678	1.125	0.843	0.812	4	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

LS-SP-S-NPT



Long Shank Spiral Fluted Taps for American Taper Pipe Threads, Short (ℓg) Type

Specification

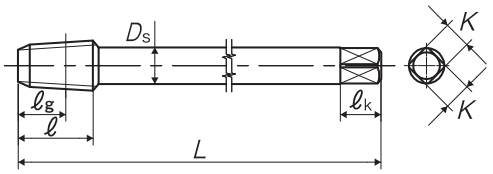
HSS

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

■ The SP-NPT is a long shank spiral flute tap for the American tapered pipe threads where it is necessary to shorten the fitting length and is used for products whose main purpose is the tightness of threaded parts in connection with pipe parts etc.

TYPE : 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For American Pipe Threads													
1/8-27 NPT	ANSI G	SSNPT02LL10	2.5P	10.117	100	16.5	10.5	8	6	9	3	1	¥ 11,800 ※
1/4-18 NPT	ANSI G	SSNPT04OL15	2.5P	13.426	150	19.5	12.5	11	9	12	3	1	¥ 22,400 ※
3/8-18 NPT	ANSI G	SSNPT06OL15	2.5P	16.866	150	21	14	14	11	14	3	1	¥ 37,000 ※
1/2-14 NPT	ANSI G	SSNPT08QL15	2.5P	20.980	150	27	17	18	14	17	4	1	¥ 44,600 ※
3/4-14 NPT	ANSI G	SSNPT12QL15	2.5P	26.325	150	29	19	23	17	20	4	1	¥ 68,500 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

INT-NPT

Interrupted Taps for American Taper Pipe Threads



Specification

HSS | OX Oxide

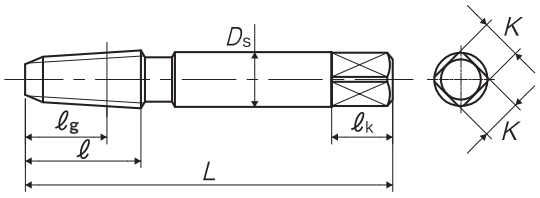


■INT-NPT having low left-hand spiral flutes and having every other thread ground off, reduces cutting torque. INT-NPT is suitable for such sticky materials as stainless steels and chrome molybdenum steels.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Stainless steels ステンレス鋼	Cast steels 鋳鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



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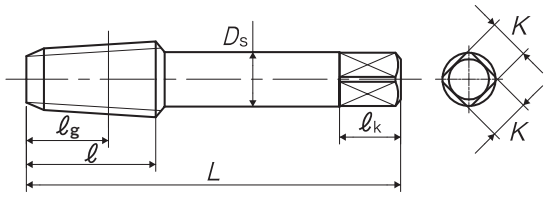

Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For American Pipe Threads													
1/16-27 NPT	ANSI G	TINPT01L	3P	7.770	54	17	12	8	6	9	3	1	¥ 8,030 ※
1/8-27 NPT	ANSI G	TINPT02L	3P	10.117	55	19	12.05	8	6	9	5	2	¥ 8,030 ※
1/4-18 NPT	ANSI G	TINPT04O	3P	13.426	62	28	17.45	11	9	12	5	2	¥ 11,400 ※
3/8-18 NPT	ANSI G	TINPT06O	3P	16.866	65	28	17.65	14	11	14	5	2	¥ 19,100 ※
1/2-14 NPT	ANSI G	TINPT08Q	3P	20.980	80	35	22.85	18	14	17	5	2	¥ 31,500 ※
3/4-14 NPT	ANSI G	TINPT12Q	3P	26.325	85	35	22.95	23	17	20	5	2	¥ 51,400 ※
1 -11 1/2 NPT	ANSI G	TINPT16T	3P	32.934	95	45	27.4	26	21	24	5	2	¥ 95,100 ※
1 1/4-11 1/2 NPT	ANSI G	TINPT20T	3P	41.689	105	45	28.1	32	26	30	5	2	¥146,000 ※
1 1/2-11 1/2 NPT	ANSI G	TINPT24T	3P	47.760	110	45	28.4	38	29	32	7	2	¥207,000 ※
2 -11 1/2 NPT	ANSI G	TINPT32T	3P	59.797	120	50	28	46	35	38	7	2	¥323,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

INT-NPT

Interrupted Taps for American Taper Pipe Threads



Specification

HSS | OX Oxide



Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Stainless steels ステンレス鋼	Cast steels 鋳鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

■INT-NPT having low left-hand spiral flutes and having every other thread ground off, reduces cutting torque. INT-NPT is suitable for such sticky materials as stainless steels and chrome molybdenum steels.

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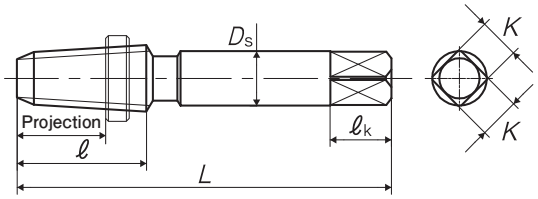

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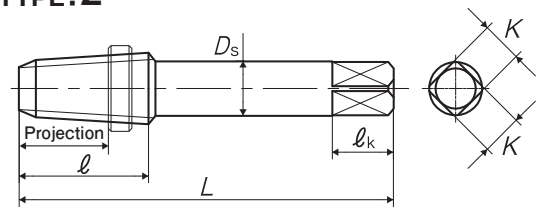

Segment : 1G

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Projection (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For American Pipe Threads											
1/8-27 NPT	ANSI G	Y83151	3P	2.125	0.75	0.312	0.437	0.328	0.375	5	1
1/8-27 NPT	ANSI G	Y83151BR	3P	2.125	0.75	0.312	0.437	0.328	0.375	5	1
1/8-27 NPT	ANSI G	Y83152	3P	2.125	0.75	0.312	0.312	0.234	0.375	5	2
1/8-27 NPT	ANSI G	Y83152BR	3P	2.125	0.75	0.312	0.312	0.234	0.375	5	2
1/4-18 NPT	ANSI G	Y83153	3P	2.437	1.062	0.459	0.562	0.421	0.437	5	1
1/4-18 NPT	ANSI G	Y83153BR	3P	2.437	1.062	0.459	0.562	0.421	0.437	5	1
3/8-18 NPT	ANSI G	Y83154	3P	2.562	1.062	0.454	0.7	0.531	0.5	5	1
3/8-18 NPT	ANSI G	Y83154BR	3P	2.562	1.062	0.454	0.7	0.531	0.5	5	1
1/2-14 NPT	ANSI G	Y83155	3P	3.125	1.375	0.579	0.687	0.515	0.625	5	2
1/2-14 NPT	ANSI G	Y83155BR	3P	3.125	1.375	0.579	0.687	0.515	0.625	5	2
3/4-14 NPT	ANSI G	Y83156	3P	3.25	1.375	0.565	0.906	0.679	0.687	5	2
3/4-14 NPT	ANSI G	Y83156BR	3P	3.25	1.375	0.565	0.906	0.679	0.687	5	2
1 -11 1/2 NPT	ANSI G	Y83157	3P	3.75	1.75	0.678	1.125	0.843	0.812	5	2
1 -11 1/2 NPT	ANSI G	Y83157BR	3P	3.75	1.75	0.678	1.125	0.843	0.812	5	2
1 1/4-11 1/2 NPT	ANSI G	Y83158	3P	4	1.75	0.686	1.312	0.984	0.937	5	2
1 1/4-11 1/2 NPT	ANSI G	Y83158BR	3P	4	1.75	0.686	1.312	0.984	0.937	5	2
1 1/2-11 1/2 NPT	ANSI G	Y83159	3P	4.25	1.75	0.699	1.5	1.125	1	7	2
1 1/2-11 1/2 NPT	ANSI G	Y83159BR	3P	4.25	1.75	0.699	1.5	1.125	1	7	2
2 -11 1/2 NPT	ANSI G	Y83160	3P	4.5	1.75	0.667	1.875	1.406	1.125	7	2
2 -11 1/2 NPT	ANSI G	Y83160BR	3P	4.5	1.75	0.667	1.875	1.406	1.125	7	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.
※ BR at the end of a product code indicates untreated products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

INT-S-NPT



Interrupted Taps for American Taper Pipe Threads, Short (ℓg) Type

Specification

HSS | OX Oxide



Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Stainless steels ステンレス鋼	Cast steels 鋳鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

■INT-S-NPT is the tap with short thread portion, and, having low left-hand spiral flutes and having every other thread ground off, reduces cutting torque. INT-S-NPT is suitable for such sticky materials as stainless steels and chrome molybdenum steels.

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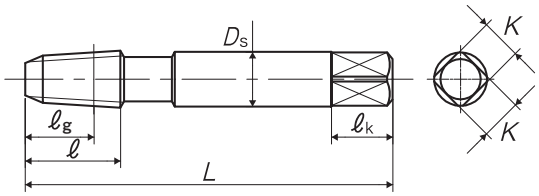

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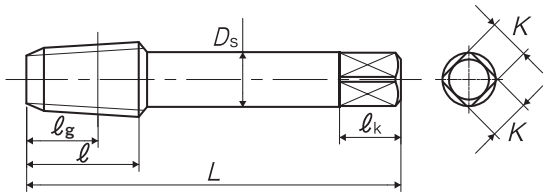


Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For American Pipe Threads													
1/16-27 NPT	ANSI G	TISNT01L	3P	7.770	54	14	10.1	8	6	9	3	1	¥ 8,030 ※
1/8-27 NPT	ANSI G	TISNT02L	3P	10.117	55	16.5	10.5	8	6	9	5	2	¥ 8,030 ※
1/4-18 NPT	ANSI G	TISNT04O	3P	13.426	62	19.5	12.5	11	9	12	5	2	¥ 11,400 ※
3/8-18 NPT	ANSI G	TISNT06O	3P	16.866	65	21	14	14	11	14	5	2	¥ 19,100 ※
1/2-14 NPT	ANSI G	TISNT08Q	3P	20.980	80	27	17	18	14	17	5	2	¥ 31,500 ※
3/4-14 NPT	ANSI G	TISNT12Q	3P	26.325	85	29	19	23	17	20	5	2	¥ 51,400 ※
1 -11 1/2 NPT	ANSI G	TISNT16T	3P	32.934	95	35	22	26	21	24	5	2	¥ 95,100 ※
1 1/4-11 1/2 NPT	ANSI G	TISNT20T	3P	41.689	105	37.5	24.5	32	26	30	5	2	¥146,000 ※
1 1/2-11 1/2 NPT	ANSI G	TISNT24T	3P	47.760	110	38.5	25.5	38	29	32	7	2	¥207,000 ※
2 -11 1/2 NPT	ANSI G	TISNT32T	3P	59.797	120	42.5	27.5	46	35	38	7	2	¥323,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

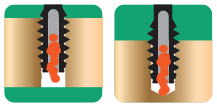
NPTF

Hand Taps for American Dryseal Taper Pipe Threads



Specification

HSS

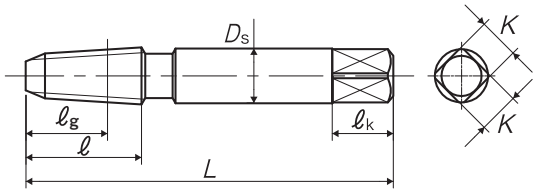


■The NPTF is a hand tap for the American dry seal tapered pipe threads and is used for products whose main purpose is the tightness of the threaded part in connection with pipe parts, etc.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



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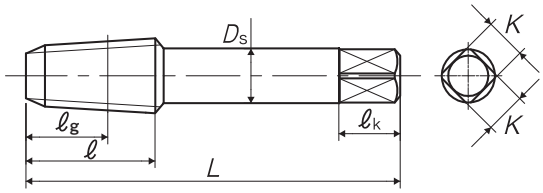


Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For American Pipe Threads													
1/16-27 NPTF	ANSI G	TNTF01L	3P	7.770	54	17	12	8	6	9	4	1	¥ 6,460
1/8-27 NPTF	ANSI G	TNTF02L	3P	10.117	55	19	12.05	8	6	9	4	2	¥ 6,460
1/4-18 NPTF	ANSI G	TNTF04O	3P	13.426	62	28	17.45	11	9	12	4	2	¥ 9,160
3/8-18 NPTF	ANSI G	TNTF06O	3P	16.866	65	28	17.65	14	11	14	4	2	¥ 15,400
1/2-14 NPTF	ANSI G	TNTF08Q	3P	20.980	80	35	22.85	18	14	17	4	2	¥ 25,400
3/4-14 NPTF	ANSI G	TNTF12Q	3P	26.325	85	35	22.95	23	17	20	4	2	¥ 41,300
1 -11 1/2 NPTF	ANSI G	TNTF16T	3P	32.934	95	45	27.4	26	21	24	5	2	¥ 76,500
1 1/4-11 1/2 NPTF	ANSI G	TNTF20T	3P	41.689	105	45	28.1	32	26	30	5	2	¥116,000 ※
1 1/2-11 1/2 NPTF	ANSI G	TNTF24T	3P	47.760	110	45	28.4	38	29	32	6	2	¥166,000 ※
2 -11 1/2 NPTF	ANSI G	TNTF32T	3P	59.797	120	50	28	46	35	38	6	2	¥260,000 ※

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ANSI

NPTF

Hand Taps for American Dryseal Taper Pipe Threads



Specification

HSS | OX Oxide

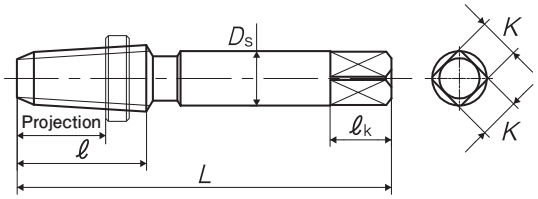


■The NPTF is a hand tap for the American dry seal tapered pipe threads and is used for products whose main purpose is the tightness of the threaded part in connection with pipe parts, etc.

Recommended Tapping Speed depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



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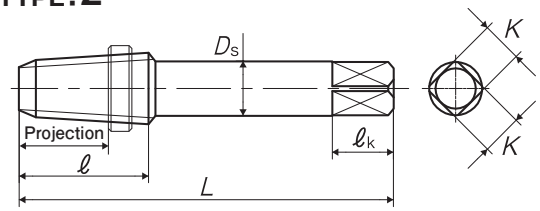


Segment : 1G

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Projection (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Dryseal American Pipe Threads											
1/16-27 NPTF	ANSI G	Y83125	3P	2.125	0.687	0.312	0.312	0.234	0.375	4	1
1/16-27 NPTF	ANSI G	Y83125BR	3P	2.125	0.687	0.312	0.312	0.234	0.375	4	1
1/8-27 NPTF	ANSI G	Y83126	3P	2.125	0.75	0.312	0.437	0.328	0.375	4	1
1/8-27 NPTF	ANSI G	Y83126BR	3P	2.125	0.75	0.312	0.437	0.328	0.375	4	1
1/8-27 NPTF	ANSI G	Y83127	3P	2.125	0.75	0.312	0.312	0.234	0.375	4	2
1/8-27 NPTF	ANSI G	Y83127BR	3P	2.125	0.75	0.312	0.312	0.234	0.375	4	2
1/4-18 NPTF	ANSI G	Y83128	3P	2.437	1.062	0.459	0.562	0.421	0.437	4	1
1/4-18 NPTF	ANSI G	Y83128BR	3P	2.437	1.062	0.459	0.562	0.421	0.437	4	1
3/8-18 NPTF	ANSI G	Y83129	3P	2.562	1.062	0.454	0.7	0.531	0.5	4	1
3/8-18 NPTF	ANSI G	Y83129BR	3P	2.562	1.062	0.454	0.7	0.531	0.5	4	1
1/2-14 NPTF	ANSI G	Y83130	3P	3.125	1.375	0.579	0.687	0.515	0.625	4	2
1/2-14 NPTF	ANSI G	Y83130BR	3P	3.125	1.375	0.579	0.687	0.515	0.625	4	2
3/4-14 NPTF	ANSI G	Y83131	3P	3.25	1.375	0.565	0.906	0.679	0.687	5	2
3/4-14 NPTF	ANSI G	Y83131BR	3P	3.25	1.375	0.565	0.906	0.679	0.687	5	2
1 -11 1/2 NPTF	ANSI G	Y83132	3P	3.75	1.75	0.678	1.125	0.843	0.812	5	2
1 -11 1/2 NPTF	ANSI G	Y83132BR	3P	3.75	1.75	0.678	1.125	0.843	0.812	5	2
1 1/4-11 1/2 NPTF	ANSI G	Y83133	3P	4	1.75	0.686	1.312	0.984	0.937	5	2
1 1/4-11 1/2 NPTF	ANSI G	Y83133BR	3P	4	1.75	0.686	1.312	0.984	0.937	5	2
1 1/2-11 1/2 NPTF	ANSI G	Y83134	3P	4.25	1.75	0.699	1.5	1.125	1	6	2
1 1/2-11 1/2 NPTF	ANSI G	Y83134BR	3P	4.25	1.75	0.699	1.5	1.125	1	6	2
2 -11 1/2 NPTF	ANSI G	Y83135	3P	4.5	1.75	0.667	1.875	1.406	1.125	6	2
2 -11 1/2 NPTF	ANSI G	Y83135BR	3P	4.5	1.75	0.667	1.875	1.406	1.125	6	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.
※ BR at the end of a product code indicates untreated products.

Think threads with YAMAWA

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

NPTF-CI



Hand Taps for American Dryseal Taper Pipe Threads, for Cast Irons

Specification

HSS | NI Nitride

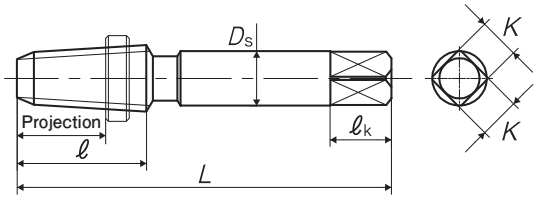


■Suitable for hard and abrasive materials such as cast irons.

Recommended Tapping Speed depending on Materials

Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
~5 (m/min)	~5 (m/min)

TYPE: 1



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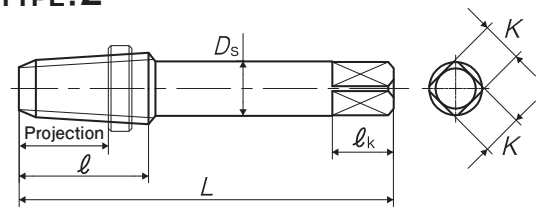


Segment : 1G

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Projection (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Dryseal American Pipe Threads											
1/8-27 NPTF	ANSI G	Y83226	3P	2.125	0.75	0.312	0.437	0.328	0.375	4	1
1/8-27 NPTF	ANSI G	Y83227	3P	2.125	0.75	0.312	0.312	0.234	0.375	4	2
1/4-18 NPTF	ANSI G	Y83228	3P	2.437	1.062	0.459	0.562	0.421	0.437	4	1
3/8-18 NPTF	ANSI G	Y83229	3P	2.562	1.062	0.454	0.7	0.531	0.5	4	1
1/2-14 NPTF	ANSI G	Y83230	3P	3.125	1.375	0.579	0.687	0.515	0.625	4	2
3/4-14 NPTF	ANSI G	Y83231	3P	3.25	1.375	0.565	0.906	0.679	0.687	5	2
1 -11 1/2 NPTF	ANSI G	Y83232	3P	3.75	1.75	0.678	1.125	0.843	0.812	5	2
1 1/4-11 1/2 NPTF	ANSI G	Y83233	3P	4	1.75	0.686	1.312	0.984	0.937	5	2
1 1/2-11 1/2 NPTF	ANSI G	Y83234	3P	4.25	1.75	0.699	1.5	1.125	1	7	2
2 -11 1/2 NPTF	ANSI G	Y83235	3P	4.5	1.75	0.667	1.875	1.406	1.125	7	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

ANSI

ZELX SS NPTF



Taps for American Dryseal Taper Pipe Threads

Specification

HSS | OX Oxide

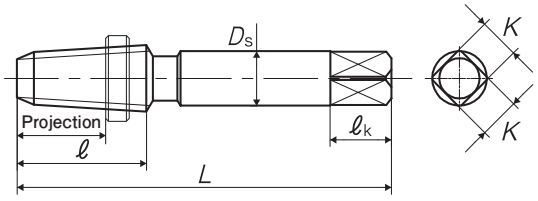


■Suitable for tapping stainless steels, chrome steels and chrome molybdenum steels.

Recommended Tapping Speed depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Ductile cast irons 強靭鋳鉄
~5 (m/min)	~5 (m/min)	~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



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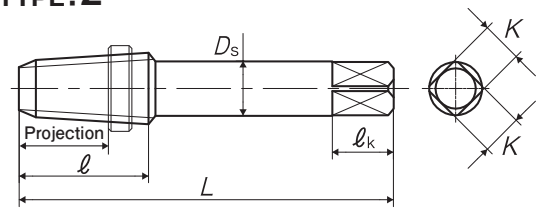


Segment : 1H

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Projection (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Dryseal American Pipe Threads											
1/16-27 NPTF	ANSI G	Y83660	2.5P	2.125	0.687	0.312	0.312	0.234	0.375	4	1
1/8-27 NPTF	ANSI G	Y83661	2.5P	2.125	0.75	0.312	0.437	0.328	0.375	4	1
1/8-27 NPTF	ANSI G	Y83662	2.5P	2.125	0.75	0.312	0.312	0.234	0.375	4	2
1/4-18 NPTF	ANSI G	Y83663	2.5P	2.437	1.062	0.459	0.562	0.421	0.437	4	1
3/8-18 NPTF	ANSI G	Y83664	2.5P	2.562	1.062	0.454	0.7	0.531	0.5	4	1
1/2-14 NPTF	ANSI G	Y83665	2.5P	3.125	1.375	0.579	0.687	0.515	0.625	4	2
3/4-14 NPTF	ANSI G	Y83666	2.5P	3.25	1.375	0.565	0.906	0.679	0.687	4	2
1 -11 1/2 NPTF	ANSI G	Y83667	2.5P	3.75	1.75	0.678	1.125	0.843	0.812	4	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Overall length	Thread length	Position on basic dia.	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	Ds	K	ℓk

JIS

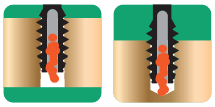
LS-NPTF



Long Shank Hand Taps for American Dryseal Taper Pipe Threads

Specification

HSS

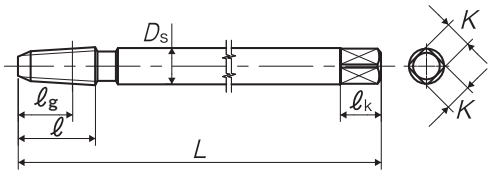


■The LS-NPTF is a long shank hand tap for the American dry seal tapered pipe threads and is used for products whose main purpose is to withstand screw threads in connection with parts for pipes.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
~5 (m/min)	~5 (m/min)	~5 (m/min)

TYPE: 1



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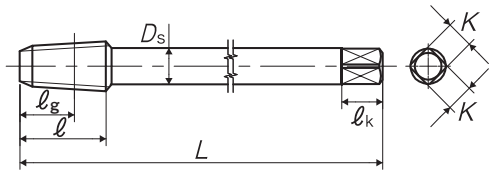


Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For American Pipe Threads													
1/16-27 NPTF	ANSI G	TNTF01LL10	3P	7.770	100	17	12	8	6	9	4	1	¥ 10,900 ※
1/16-27 NPTF	ANSI G	TNTF01LL15	3P	7.770	150	17	12	8	6	9	4	1	¥ 20,500 ※
1/8-27 NPTF	ANSI G	TNTF02LL10	3P	10.117	100	19	12.05	8	6	9	4	2	¥ 10,900 ※
1/8-27 NPTF	ANSI G	TNTF02LL15	3P	10.117	150	19	12.05	8	6	9	4	2	¥ 20,500 ※
1/4-18 NPTF	ANSI G	TNTF04QL10	3P	13.426	100	28	17.45	11	9	12	4	2	¥ 15,500 ※
1/4-18 NPTF	ANSI G	TNTF04QL15	3P	13.426	150	28	17.45	11	9	12	4	2	¥ 20,900 ※
3/8-18 NPTF	ANSI G	TNTF06QL10	3P	16.866	100	28	17.65	14	11	14	4	2	¥ 18,100 ※
3/8-18 NPTF	ANSI G	TNTF06QL15	3P	16.866	150	28	17.65	14	11	14	4	2	¥ 34,100 ※
1/2-14 NPTF	ANSI G	TNTF08QL15	3P	20.980	150	35	22.85	18	14	17	4	2	¥ 41,200 ※
3/4-14 NPTF	ANSI G	TNTF12QL15	3P	26.325	150	35	22.95	23	17	20	4	2	¥ 63,400 ※
1 -11 1/2 NPTF	ANSI G	TNTF16TL15	3P	32.934	150	45	27.4	26	21	24	5	2	¥ 89,400 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

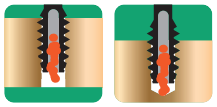
NPS

Hand Taps for American Parallel Pipe Threads



Specification

HSS

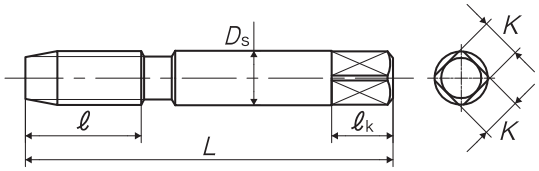


■The NPS tap is a hand tap for American parallel pipe threads and is used for products whose main purpose is the tightness of the threaded part in connecting pipe parts and the like.

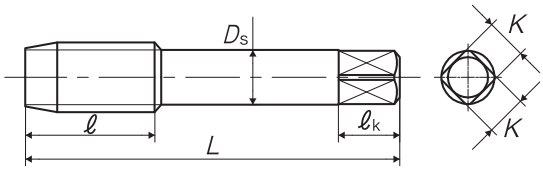
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For American Pipe Threads												
1/16-27 NPS	ANSI G	TNPS01L	5P	7.770	54	17	8	6	9	4	1	¥ 4,450 ※
1/8-27 NPS	ANSI G	TNPS02L	5P	10.117	55	19	8	6	9	4	2	¥ 4,450 ※
1/4-18 NPS	ANSI G	TNPS04O	5P	13.426	62	28	11	9	12	4	2	¥ 6,520 ※
3/8-18 NPS	ANSI G	TNPS06O	5P	16.866	65	28	14	11	14	4	2	¥ 10,800 ※
1/2-14 NPS	ANSI G	TNPS08Q	5P	20.980	80	35	18	14	17	4	2	¥ 17,600 ※
3/4-14 NPS	ANSI G	TNPS12Q	5P	26.325	85	35	23	17	20	4	2	¥ 28,800 ※
1 -11 1/2 NPS	ANSI G	TNPS16T	5P	32.934	95	45	26	21	24	5	2	¥ 53,500 ※
1 1/4-11 1/2 NPS	ANSI G	TNPS20T	5P	41.689	105	45	32	26	30	5	2	¥ 82,200 ※
1 1/2-11 1/2 NPS	ANSI G	TNPS24T	5P	47.760	110	45	38	29	32	6	2	¥117,000 ※
2 -11 1/2 NPS	ANSI G	TNPS32T	5P	59.797	120	50	46	35	38	6	2	¥195,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

NPS

Hand Taps for American Parallel Pipe Threads



Specification

HSS | OX Oxide

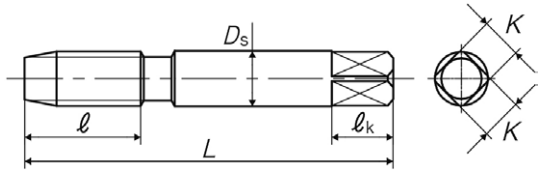


■The NPS tap is a hand tap for American parallel pipe threads and is used for products whose main purpose is the tightness of the threaded part in connecting pipe parts and the like.

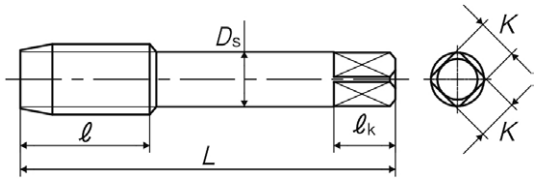
Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE: 1



TYPE: 2



Segment : 1G

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For American Pipe Threads										
1/8-27 NPS	ANSI G	Y83301	4P	2.125	0.75	0.437	0.328	0.375	4	1
1/8-27 NPS	ANSI G	Y83301BR	4P	2.125	0.75	0.437	0.328	0.375	4	1
1/8-27 NPS	ANSI G	Y83302	4P	2.125	0.75	0.312	0.234	0.375	4	2
1/8-27 NPS	ANSI G	Y83302BR	4P	2.125	0.75	0.312	0.234	0.375	4	2
1/4-18 NPS	ANSI G	Y83303	4P	2.437	1.062	0.562	0.421	0.437	4	1
1/4-18 NPS	ANSI G	Y83303BR	4P	2.437	1.062	0.562	0.421	0.437	4	1
3/8-18 NPS	ANSI G	Y83304	4P	2.562	1.062	0.7	0.531	0.5	4	1
3/8-18 NPS	ANSI G	Y83304BR	4P	2.562	1.062	0.7	0.531	0.5	4	1
1/2-14 NPS	ANSI G	Y83305	4P	3.125	1.375	0.687	0.515	0.625	4	2
1/2-14 NPS	ANSI G	Y83305BR	4P	3.125	1.375	0.687	0.515	0.625	4	2
3/4-14 NPS	ANSI G	Y83306	4P	3.25	1.375	0.906	0.679	0.687	5	2
3/4-14 NPS	ANSI G	Y83306BR	4P	3.25	1.375	0.906	0.679	0.687	5	2
1 -11 1/2 NPS	ANSI G	Y83307	4P	3.75	1.75	1.125	0.843	0.812	5	2
1 -11 1/2 NPS	ANSI G	Y83307BR	4P	3.75	1.75	1.125	0.843	0.812	5	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.
※ BR at the end of a product code indicates untreated products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

JIS

NPSF

Hand Taps for American Dryseal Parallel Pipe Threads



Specification

HSS



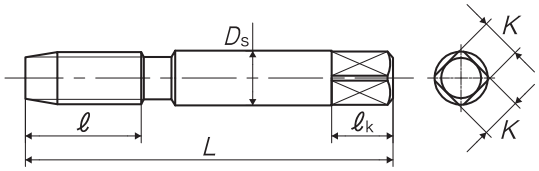


■The NPSF is a hand tap for the American dry seal parallel pipe threads and is used for screw tapping of products whose main purpose is the tightness of threaded parts in connection with pipe parts etc.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

TYPE: 1



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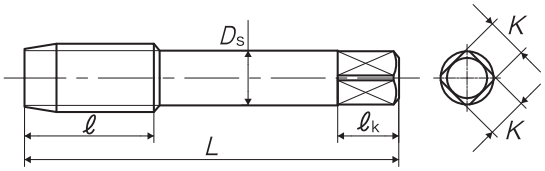


Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For American Pipe Threads												
1/16-27 NPSF	ANSI G	TNSF01L	5P	7.770	54	17	8	6	9	4	1	¥ 5,340 ※
1/8-27 NPSF	ANSI G	TNSF02L	5P	10.117	55	19	8	6	9	4	2	¥ 5,340 ※
1/4-18 NPSF	ANSI G	TNSF04O	5P	13.426	62	28	11	9	12	4	2	¥ 7,830 ※
3/8-18 NPSF	ANSI G	TNSF06O	5P	16.866	65	28	14	11	14	4	2	¥ 13,000 ※
1/2-14 NPSF	ANSI G	TNSF08Q	5P	20.980	80	35	18	14	17	4	2	¥ 21,200 ※
3/4-14 NPSF	ANSI G	TNSF12Q	5P	26.325	85	35	23	17	20	4	2	¥ 34,600 ※
1 -11 1/2 NPSF	ANSI G	TNSF16T	5P	32.934	95	45	26	21	24	5	2	¥ 64,200 ※
1 1/4-11 1/2 NPSF	ANSI G	TNSF20T	5P	41.689	105	45	32	26	30	5	2	¥ 98,700 ※
1 1/2-11 1/2 NPSF	ANSI G	TNSF24T	5P	47.760	110	45	38	29	32	6	2	¥141,000 ※
2 -11 1/2 NPSF	ANSI G	TNSF32T	5P	59.797	120	50	46	35	38	6	2	¥234,000 ※

※ = Specified Distribution Items. Made to order products.

Overall length	Thread length	Shank dia.	Size of square	Length of square
L	ℓ	Ds	K	ℓk

NPSF

Hand Taps for American Dryseal Parallel Pipe Threads



Specification

HSS | OX Oxide

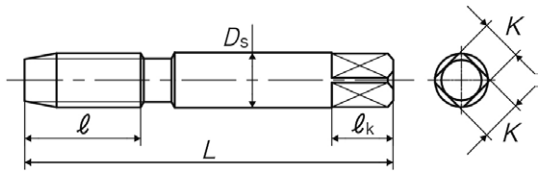


Recommended Tapping Speed depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)	5~10 (m/min)

■The NPSF is a hand tap for the American dry seal parallel pipe threads and is used for screw tapping of products whose main purpose is the tightness of threaded parts in connection with pipe parts etc.

TYPE: 1



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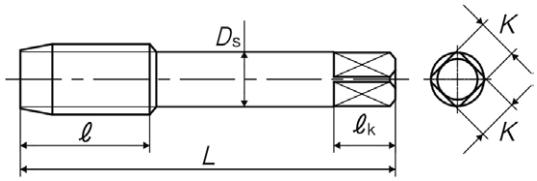


Segment : 1G

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Dryseal American Pipe Threads										
1/8-27 NPSF	ANSI G	Y83326	4P	2.125	0.75	0.437	0.328	0.375	4	1
1/8-27 NPSF	ANSI G	Y83326BR	4P	2.125	0.75	0.437	0.328	0.375	4	1
1/8-27 NPSF	ANSI G	Y83327	4P	2.125	0.75	0.312	0.234	0.375	4	2
1/8-27 NPSF	ANSI G	Y83327BR	4P	2.125	0.75	0.312	0.234	0.375	4	2
1/4-18 NPSF	ANSI G	Y83328	4P	2.437	1.062	0.562	0.421	0.437	4	1
1/4-18 NPSF	ANSI G	Y83328BR	4P	2.437	1.062	0.562	0.421	0.437	4	1
3/8-18 NPSF	ANSI G	Y83329	4P	2.562	1.062	0.7	0.531	0.5	4	1
1/2-14 NPSF	ANSI G	Y83330	4P	3.125	1.375	0.687	0.515	0.625	4	2
1/2-14 NPSF	ANSI G	Y83330BR	4P	3.125	1.375	0.687	0.515	0.625	4	2
3/4-14 NPSF	ANSI G	Y83331	4P	3.25	1.375	0.906	0.679	0.687	5	2
3/4-14 NPSF	ANSI G	Y83331BR	4P	3.25	1.375	0.906	0.679	0.687	5	2
1 -11 1/2 NPSF	ANSI G	Y83332	4P	3.75	1.75	1.125	0.843	0.812	5	2
1 -11 1/2 NPSF	ANSI G	Y83332BR	4P	3.75	1.75	1.125	0.843	0.812	5	2

※ This product is different from JIS products in shape and dimensions, please be careful when using.
※ BR at the end of a product code indicates untreated products.

JIS • ANSI • DIN

LINE UP

⑨ THREAD MILLS / PREMIUM THREAD MILLS

	JIS	ANSI	DIN
Z-PRO PRML	⑨-3		
Z-PRO PRML TI	⑨-5		
MC-CSLC	⑨-7		
MC-HLC	⑨-11		



・For improvement, spec may change without advance notice.

Selection chart of Thread Mills

Recommended tap ◎: Most suitable tap ○: Suitable tap
Recommended tapping fluid ◆: Insoluble ◆: Water-soluble

Tapping conditions	Helical tapping area							
Product symbol	MC-HLC		MC-CSLC		Z-PRO PRML		Z-PRO PRML TI	
Tap material / Surface treatment	HSS-Co	Coating	HF	Coating	HF	Coating	HF	Coating
Name	For general use		For general use, carbide				For heat-resistant alloys, carbide	
								
Bored Hole Shape								
For Metric Threads	⑨-11		⑨-8		⑨-4		⑨-6	
For Unified Threads					⑨-4		⑨-6	
For Whitworth Threads								
For Screw Threads used on Sewing Machines								
Pipe Threads	⑨-12		⑨-9					
American Pipe Threads								
For Miniature Threads								
For Trapezoidal Threads								

～S25C	Low carbon steels	◆◆	○	◆◆	○	◆◆	◎		
S25C～S45C	Medium carbon steels	◆◆	○	◆◆	○	◆◆	◎		
S45C～	High carbon steels	◆◆	○	◆◆	○	◆◆	◎		
SCM	Alloy steels	◆◆	○	◆◆	○	◆◆	◎		
25～35HRC	Heat treated steel	◆◆	○	◆◆	○	◆◆	◎		
35～45HRC	Heat treated steel			◆◆	○	◆◆	○		
45～55HRC	Heat treated steel								
55～63HRC	Heat treated steel								
SUS	Stainless steels (SUS)	◆◆	○	◆◆	○	◆◆	○	◆◆	◎
SKD	Tool steels	◆◆	○	◆◆	○	◆◆	◎		
SC	Cast steels	◆◆	○	◆◆	○	◆◆	◎		
FC	Cast irons	◆◆	○	◆◆	○	◆◆	◎		
FCD	Ductile cast irons	◆◆	○	◆◆	○	◆◆	◎		
Cu	Copper	◆◆	○	◆◆	○	◆◆	○		
Bs	Brass	◆◆	○	◆◆	○	◆◆	○		
BsC	Brass castings	◆◆	○	◆◆	○	◆◆	○		
PB	Bronze	◆◆	○	◆◆	○	◆◆	○		
AL	Wrought aluminum	◆	○	◆	○	◆	○		
AC, ADC	Wrought aluminum	◆	○	◆	○	◆	○		
Mg	Magnesium alloy die castings	◆	○	◆	○	◆	○		
ZDC	Zinc alloy die castings	◆	○	◆	○	◆	○		
	Titanium alloys							◆	◎
	Nickel base alloys								
	Thermosetting plastic								
	Thermoplastic resin								

Think threads with YAMAWA

MEMO

Cutter dia.	Overall length	Thread length	Thread+Neck length	Shank dia.
Dc	L	ℓ	ℓn	Ds

JIS

Z-PRO

PRML

Z-PRO
Premium Thread Mills



Specification

HF | Coating | <2D

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
60~100 (m/min)	60~100 (m/min)	40~100 (m/min)	40~100 (m/min)	40~100 (m/min)	40~100 (m/min)	40~100 (m/min)	40~100 (m/min)
				25~35HRC	35~45HRC		

Product Features

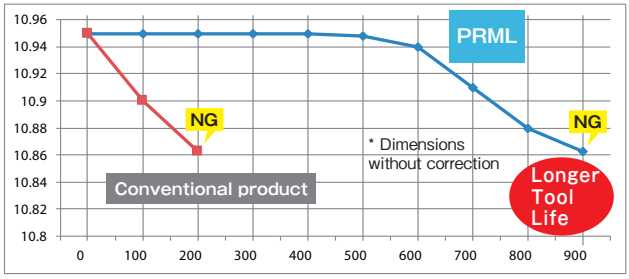
- The same PRML can process right and left hand internal threads by using the helical interpolating process.
- Because it cuts at the first thread, it won't make the internal threads taper and the internal threads become highly accurate.
- When cutting, the load on the tool is small and the tool life is long.
- Cutting resistance is reduced by turning the tool counterclockwise and machining it from the top to the bottom with 1 pass cutting.

Cutting Data

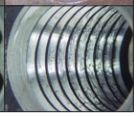
Processing Conditions [9.0P1.75 M12×1.75]

Workpiece Material	SCM440 (30HRC)
Cutting Speed	100m/min
Feed per Tooth	0.06mm/t
Cutting Length	24mm
Bored Hole Size	ϕ10.3
Number of Passes	1Time
Machinery Type	Tapping center (BT 30)
Cutting Fluid	Water soluble cutting fluid, 20 to 1 dilution

Pitch diameter change graph

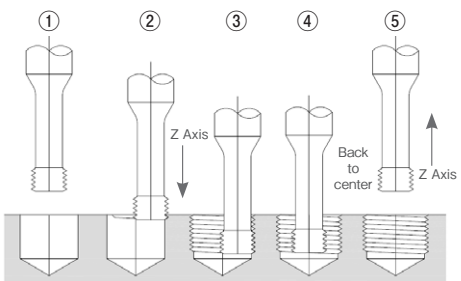


Use the internal coolant supply for blind hole applications.

	Internal Coolant Supply	External Coolant Supply
Chips left in Hole		
Surface Finish		

Instructions

Use a counterclockwise spindle rotation for a left hand cutting tool. Process from top to the bottom like ② ~ ③. The program can be created from our web site.



Processing Conditions:

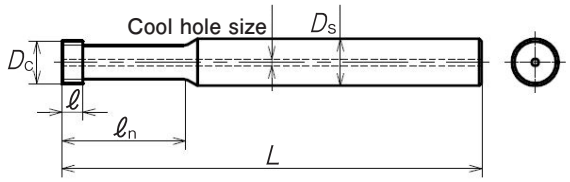
Workpiece Material	Cutting Speed (m/min)	Feed per Tooth fz (mm/t)
Thermal refined steel 35 ~ 45HRC	40 ~ 100	0.02 ~ 0.05
Thermal refined steel 25 ~ 35HRC	40 ~ 100	0.03 ~ 0.06
Cast Iron FC	40 ~ 100	0.02 ~ 0.05
Ductile Cast Iron FCD	40 ~ 100	0.02 ~ 0.05
Alloy Steel SCM	40 ~ 100	0.04 ~ 0.06
High Carbon Steel S45C ~	40 ~ 100	0.04 ~ 0.06
Medium Carbon Steel S25C ~ S45C	60 ~ 100	0.03 ~ 0.05
Low Carbon Steel ~ S20C / SS400	60 ~ 100	0.03 ~ 0.05

◇Tool feed speed calculation formula
Feed speed (mm/min) = fz x No. of flutes x Revolution speed x (Nominal dia. of internal thread - Cutter dia. (Dc)) / Nominal dia. of internal thread

Think threads with YAMAWA

Cutter dia.	Overall length	Thread length	Thread+Neck length	Shank dia.
Dc	L	ℓ	ℓn	Ds

TYPE : 1



Segment : 1L

Tool No.	Code	Dc (mm)	Pitch (mm)	L (mm)	ℓ (mm)	ℓn (mm)	Ds (mm)	No. of flutes	Coolant hole size (mm)	Min. size	Max. threading length	TYPE	MSRP
For Metric Threads													
3.5P0.8	MH3.5KNEXLM	3.5	0.8	60	2.4	12	6	3	0.5	5	10	1	¥ 16,200
4.0P1.0	MH4.0MNEXLM	4	1	60	3	14	6	3	0.5	6	12	1	¥ 16,200
4.0P0.75	MH4.0JNEXLM	4	0.75	60	2.3	14	6	3	0.5	6	12	1	¥ 16,200
6.0P1.25	MH6.0NNEXLM	6	1.25	70	3.8	18	6	4	1	8	16	1	¥ 22,100
6.0P1.0	MH6.0MNEXLM	6	1	70	3	18	6	4	1	8	16	1	¥ 22,100
7.5P1.5	MH7.5ONEXLM	7.5	1.5	80	4.5	22	8	4	1	10	20	1	¥ 23,100
7.5P1.25	MH7.5NNEXLM	7.5	1.25	80	3.8	22	8	4	1	10	20	1	¥ 23,100
7.5P1.0	MH7.5MNEXLM	7.5	1	80	3	22	8	4	1	10	20	1	¥ 23,100
9.0P1.75	MH9.0PNEXLM	9	1.75	90	5.3	26	10	4	1.5	12	24	1	¥ 26,400
9.0P1.5	MH9.0ONEXLM	9	1.5	90	4.5	26	10	4	1.5	12	24	1	¥ 26,400
9.0P1.25	MH9.0NNEXLM	9	1.25	90	3.8	26	10	4	1.5	12	24	1	¥ 26,400

Tool No.	Code	Dc (mm)	Number of threads	L (mm)	ℓ (mm)	ℓn (mm)	Ds (mm)	No. of flutes	Coolant hole size (mm)	Min. size	Max. threading length	TYPE	MSRP
For Unified Threads													
3.5U24	MH3.5MNEXLU	3.5	24	60	3.2	11.7	6	3	0.5	No10	9.7	1	¥ 16,200
3.5U32	MH3.5JNEXLU	3.5	32	60	2.4	11.7	6	3	0.5	No10	9.7	1	¥ 16,200
4.5U20	MH4.5NNEXLU	4.5	20	60	3.8	14.7	6	4	0.5	1/4	12.7	1	¥ 17,900
4.5U28	MH4.5KNEXLU	4.5	28	60	2.7	14.7	6	4	0.5	1/4	12.7	1	¥ 17,900
5.8U18	MH5.8ONEXLU	5.8	18	70	4.2	17.9	6	4	1	5/16	15.9	1	¥ 22,100
5.8U24	MH5.8MNEXLU	5.8	24	70	3.2	21.1	6	4	1	5/16	19.1	1	¥ 22,100
6.0U16	MH6.0PNEXLU	6	16	70	4.8	21.1	6	4	1	3/8	19.1	1	¥ 22,100
8.0U14	MH8.0QNEXLU	8	14	80	5.4	24.2	8	4	1	7/16	22.2	1	¥ 23,100
8.0U20	MH8.0NNEXLU	8	20	80	3.8	27.4	8	4	1	7/16	25.4	1	¥ 23,100
9.0U13	MH9.0RNEXLU	9	13	90	5.9	27.4	10	4	1.5	1/2	25.4	1	¥ 26,400

※ = Specified Distribution Items. Made to order products.

Cutter dia.	Overall length	Thread length	Thread+Neck length	Shank dia.
Dc	L	ℓ	ℓn	Ds

JIS

Z-PRO

PRML TI



Z-PRO
Premium Thread Mills for Heat-Resistant Alloys

Specification

HF | Coating | <2D

Recommended Tapping Speeds depending on Materials

Stainless steels ステンレス鋼	Titanium alloy チタン合金
60~80 (m/min)	40~60 (m/min)

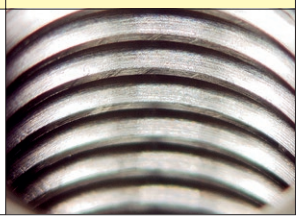
Product Features

- The same PRML TI can process right and left hand internal threads by using the helical interpolating process.
- This is most suitable for tapping heat-resistant alloys.
- Because it cuts at the first thread, it won't make the internal threads taper and the internal threads become highly accurate.
- When cutting, the load on the tool is small and the tool life is long.
- Cutting resistance is reduced by turning the tool counterclockwise and machining it from the top to the bottom with 1 pass cutting.

Cutting Data

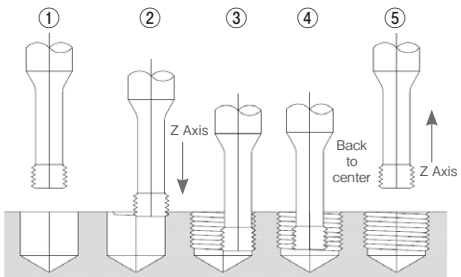
Processing Conditions [6.0P1.0]

Workpiece Material	Ti-6Aℓ-4V
Cutting Speed	50m/min
Feed per Tooth	0.04mm/t
Cutting Length	10mm
Bored Hole Size	ϕ7.0
Number of Passes	1Time
Machinery Type	Machining center (BT30)
Cutting Fluid	Water soluble cutting fluid, 20 to 1 dilution

	Internal Thread Surface
After Cutting of 100 Holes	

Instructions

Use a counterclockwise spindle rotation for a left hand cutting tool. Process from top to the bottom like ② ~ ③. The program can be created from our web site.



Processing Conditions:

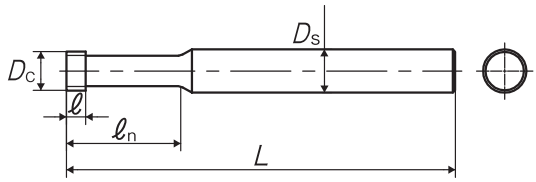
Workpiece Material	Cutting Speed (m/min)	Feed per Tooth fz (mm/t)
Titanium Alloy	40 ~ 60	0.02 ~ 0.06
Austenitic Stainless Steel	60 ~ 80	0.06 ~ 0.08
Martensitic Stainless Steel	40 ~ 60	0.02 ~ 0.06

1) These cutting conditions are based on water soluble cutting fluid. Depending on the condition of the cutting fluid, satisfactory performance may not be delivered.
2) Being careful of the nozzle position, supply enough oil obliquely from above the tool during use.

・Formulas for revolution speed and feed speed of tool
Revolution speed (min^{-1}) = 1000 x Cutting speed / 3.14 / Cutter dia. (Dc)
Feed speed (mm/min) = fz x No. of flutes x Revolution speed x (Nominal dia. of internal thread - Cutter dia. (Dc)) / Nominal dia. of internal thread

Cutter dia.	Overall length	Thread length	Thread+Neck length	Shank dia.
Dc	L	ℓ	ℓn	Ds

TYPE : 1



Segment : 1L

Tool No.	Code	Dc (mm)	Pitch mm)	L (mm)	ℓ (mm)	ℓn (mm)	Ds (mm	No. of flutes	Min. size	Max. threading length	TYPE	MSRP
For Metric Threads												
6.0P1.25	MH6.0NNIWLM	6	1.25	70	3.8	18	6	4	8	16	1	¥ 20,200
6.0P1.0	MH6.0MNIWLM	6	1	70	3	18	6	4	8	16	1	¥ 20,200
7.5P1.5	MH7.5ONIWLM	7.5	1.5	80	4.5	22	8	4	10	20	1	¥ 21,100
7.5P1.25	MH7.5NNIWLM	7.5	1.25	80	3.8	22	8	4	10	20	1	¥ 21,100
7.5P1.0	MH7.5MNIWLM	7.5	1	80	3	22	8	4	10	20	1	¥ 21,100
9.0P1.75	MH9.0PNIWLM	9	1.75	90	5.3	26	10	4	12	24	1	¥ 24,100
9.0P1.5	MH9.0ONIWLM	9	1.5	90	4.5	26	10	4	12	24	1	¥ 24,100
9.0P1.25	MH9.0NNIWLM	9	1.25	90	3.8	26	10	4	12	24	1	¥ 24,100

Tool No.	Code	Dc (mm)	Number of threads	L (mm)	ℓ (mm)	ℓn (mm)	Ds (mm)	No. of flutes	Min. size	Max. threading length	TYPE	MSRP
For Unified Threads												
5.8U18	MH5.8ONIWLU	5.8	18	70	4.2	17.9	6	4	5/16	15.9	1	¥ 20,200
5.8U24	MH5.8MNIWLU	5.8	24	70	3.2	21.1	6	4	5/16	19.1	1	¥ 20,200
6.0U16	MH6.0PNIWLU	6	16	70	4.8	21.1	6	4	3/8	19.1	1	¥ 20,200
8.0U14	MH8.0QNIWLU	8	14	80	5.4	24.2	8	4	7/16	22.2	1	¥ 21,100
8.0U20	MH8.0NNIWLU	8	20	80	3.8	27.4	8	4	7/16	25.4	1	¥ 21,100
9.0U13	MH9.0RNIWLU	9	13	90	5.9	27.4	10	4	1/2	25.4	1	¥ 24,100

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Cutter dia.	Overall length	Thread length	Shank dia.
Dc	L	ℓ	Ds

JIS

MC-CSLC



Carbide Thread Mills for Metric Internal Threads

Specification

HF **Coating**

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Cast irons 鋳鉄	Brass 黄銅	Aluminum alloy castings アルミ合金鋳物
50~120 (m/min)	30~80 (m/min)	30~60 (m/min)	30~100 (m/min)	30~60 (m/min)	50~120 (m/min)	50~120 (m/min)	60~150 (m/min)
			25~35HRC				

Product Features

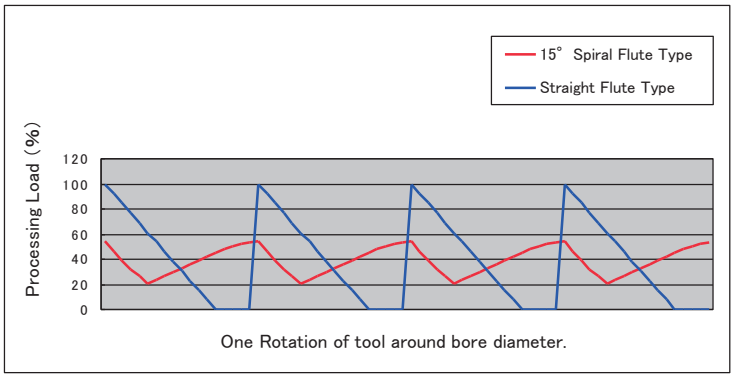
- The same MC-CSLC can process right and left hand internal threads by using the helical interpolating process. The MC-CSLC can process different diameters of internal threads with one tool if they have the same pitch.
- The MC-CSLC can be used for a wide range of work piece materials such as aluminum, aluminum alloy, copper, copper alloy, cast iron, stainless steel, tool steel, alloy steel, carbon steel, thermal refined steel.
- The tool is produced from an ultrafine grain cemented carbide material that offers high wear resistance. It has a special coating to gain additional tool life.
- Blind hole internal thread machining with a few incomplete threads is possible.
- The MC-CSLC is a spiral fluted thread mill that reduces processing torque when compared to straight flute type.

Cutting data

Cutting Conditions [M14×1.5]

Cutter Diameter	ϕ10
Cutting length	20mm
Number of Flutes	4
Bored Hole Size	ϕ12.5
Flute type	Straight and spiral

Comparison of cutting torques



* The graph above is simulation figures, not an actual measurement value.

The graph on the upper right is a diagram of the machining torque change of a straight flute thread mill compared to a spiral flute thread mill. The spiral flute thread mill reduces torque by 40% and has a lower fluctuation rate than a straight flute thread mill.

・For the details of how to use thread mills, please refer to Technical information P.72 to P.78.

Cutter dia.	Overall length	Thread length	Shank dia.
Dc	L	ℓ	Ds

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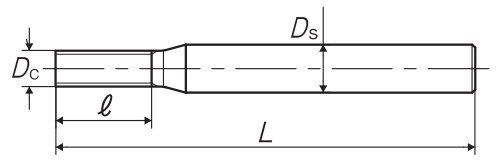

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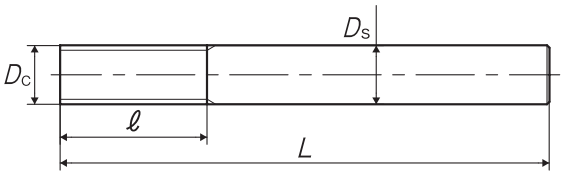

Segment : 1L

Tool No.	Code	Cutter diameter Dc (mm)	Pitch (mm)	L (mm)	ℓ (mm)	Ds (mm)	No. of flutes	Min.size	TYPE	MSRP
For Metric Threads										
035083N080M	CSLCN3.5K	3.5	0.8	50	8	6	3	5	1	¥ 48,300 ※
035083N075M	CSLCN3.5J	3.5	0.75	50	8	6	3	5	1	¥ 48,300 ※
040123N100M	CSLCN4.0M	4	1	60	12	6	3	6	1	¥ 50,800 ※
060163N125M	CSLCN6.0N	6	1.25	70	16	8	3	8	1	¥ 51,900
060163N100M	CSLCN6.0M	6	1	70	16	8	3	8	1	¥ 51,900
060163N050M	CSLCN6.0G	6	0.5	70	16	8	3	8	1	¥ 51,900
075203N150M	CSLCN7.5O	7.5	1.5	70	20	8	3	10	2	¥ 64,000
075203N125M	CSLCN7.5N	7.5	1.25	70	20	8	3	10	2	¥ 64,000 ※
080203N100M	CSLCN8.0M	8	1	70	20	8	3	12	2	¥ 65,800 ※
080203N050M	CSLCN8.0G	8	0.5	70	20	8	3	12	2	¥ 65,800 ※
090244N175M	CSLCN9.0P	9	1.75	90	24	10	4	12	2	¥ 71,500
090244N125M	CSLCN9.0N	9	1.25	90	24	10	4	12	2	¥ 71,500
100254N200M	CSLCN010Q	10	2	90	25	10	4	14	2	¥ 84,900
100254N150M	CSLCN010O	10	1.5	90	25	10	4	14	2	¥ 84,900
100254N100M	CSLCN010M	10	1	90	25	10	4	14	2	¥ 84,900
100254N050M	CSLCN010G	10	0.5	90	25	10	4	14	2	¥ 84,900
120304N200M	CSLCN012Q	12	2	100	30	12	4	17	2	¥103,000
120304N150M	CSLCN012O	12	1.5	100	30	12	4	17	2	¥103,000
120304N100M	CSLCN012M	12	1	100	30	12	4	17	2	¥103,000
160404N250M	CSLCN016R	16	2.5	110	40	16	4	23	2	¥148,000
160404N200M	CSLCN016Q	16	2	110	40	16	4	23	2	¥148,000
160404N150M	CSLCN016O	16	1.5	110	40	16	4	23	2	¥148,000
200505N300M	CSLCN020S	20	3	140	50	20	5	28	2	¥216,000
200505N200M	CSLCN020Q	20	2	140	50	20	5	28	2	¥216,000
200505N150M	CSLCN020O	20	1.5	140	50	20	5	28	2	¥216,000

※ = Specified Distribution Items. Made to order products.

Cutter dia.	Overall length	Thread length	Shank dia.
Dc	L	ℓ	Ds

MC-CSLC



Carbide Thread Mills for Taper Pipe Threads

Specification

HF **Coating**

■MC-CSLC is the tool cutting threads by using helical interpolating process. One MC-CSLC can produce external and internal threads of different diameter, and both right hand threads and left hand threads, as far as the thread pitch is same.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Cast irons 鋳鉄	Brass 黄銅	Aluminum alloy castings アルミ合金鋳物
50~120 (m/min)	30~80 (m/min)	30~60 (m/min)	30~100 (m/min)	30~60 (m/min)	50~120 (m/min)	50~120 (m/min)	60~150 (m/min)
		25~35HRC					

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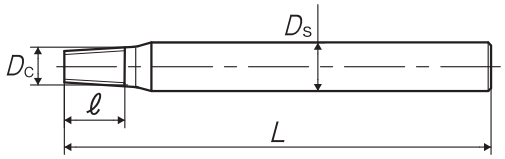

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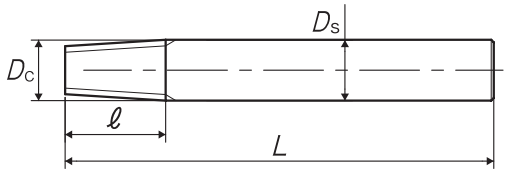


Segment : 1L

Tool No.	Code	Cutter diameter Dc (mm)	Number of threads	L (mm)	ℓ (mm)	Ds (mm)	No. of flutes	Processable thread size	TYPE	MSRP
For PT Threads										
065103X28R	CSLCX6.5KR	6.5	28	70	10	8	3	1/8	1	¥ 70,200
080153X19R	CSLCX8.0-R	8	19	70	15	8	3	1/4・3/8	2	¥ 78,800
120204X14R	CSLCX012QR	12	14	80	20	12	4	1/2・3/4	2	¥115,000
160264X11R	CSLCX016UR	16	11	90	26	16	4	1 ～	2	¥161,000
200305X11R	CSLCX020UR	20	11	110	30	20	5	1 ～	2	¥240,000

・For the details of how to use thread mills, please refer to Technical information P.72 to P.78.

Cutter dia.	Overall length	Thread length	Shank dia.
Dc	L	ℓ	Ds

JIS

MC-CSLC



Carbide Thread Mills for Parallel Pipe Threads

Specification

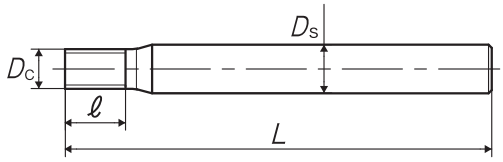
HF Coating

■MC-CSLC is the tool cutting threads by using helical interpolating process. One MC-CSLC can produce external and internal threads of different diameter, and both right hand threads and left hand threads, as far as the thread pitch is same.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Cast irons 鋳鉄	Brass 黄銅	Aluminum alloy castings アルミ合金鋳物
50~120 (m/min)	30~80 (m/min)	30~60 (m/min)	30~100 (m/min)	30~60 (m/min)	50~120 (m/min)	50~120 (m/min)	60~150 (m/min)
		25~35HRC					

TYPE: 1



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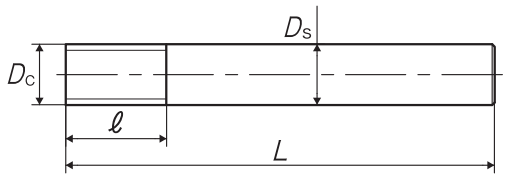

Segment : 1L

Tool No.	Code	Cutter diameter Dc (mm)	Number of threads	L (mm)	ℓ (mm)	Ds (mm)	No. of flutes	Processable thread size	TYPE	MSRP
For PF Threads										
065103X28G	CSLCX6.5KG	6.5	28	70	10	8	3	1/8	1	¥ 64,000
080153X19G	CSLCX8.0-G	8	19	70	15	8	3	1/4・3/8	2	¥ 71,500
120204X14G	CSLCX012QG	12	14	80	20	12	4	1/2・3/4	2	¥103,000
160264X11G	CSLCX016UG	16	11	90	26	16	4	1 ～	2	¥148,000
200305X11G	CSLCX020UG	20	11	110	30	20	5	1 ～	2	¥216,000

・For the details of how to use thread mills, please refer to Technical information P.72 to P.78.

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Cutter dia.	Overall length	Thread length	Thread+Neck length	Shank dia.
Dc	L	ℓ	ℓn	Ds

MC-HLC



Thread Mills for Metric Internal Threads

Specification

HSS-Co | Coating

■MC-HLC is the tool cutting threads by using helical interpolating process. One MC-HLC can produce internal threads of different diameter, both right hand threads and left hand threads, as far as the thread pitch is same.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄	Brass 黄銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
25~40 (m/min)	20~35 (m/min)	20~35 (m/min)	30~45 (m/min)	30~45 (m/min)	40~70 (m/min)	50~80 (m/min)	50~80 (m/min)

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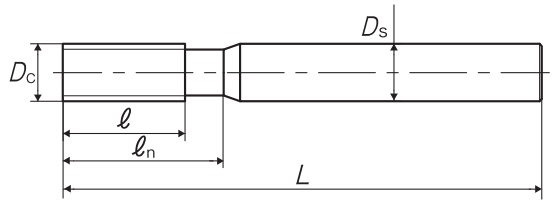

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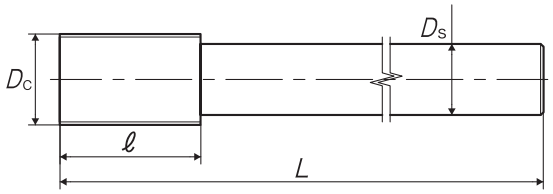


Segment : 57

Tool No.	Code	Cutter diameter Dc (mm)	Pitch (mm)	L (mm)	ℓ (mm)	ℓn (mm)	Ds (mm)	No. of flutes	Min.size	TYPE	MSRP
For Metric Threads											
10204N150M	HLCN010O	10	1.5	90	20	27	10	4	14	1	¥ 37,700 ※
10204N100M	HLCN010M	10	1	90	20	27	10	4	14	1	¥ 41,300 ※
12254N200M	HLCN012Q	12	2	100	25	33	12	4	17	1	¥ 40,100 ※
12254N150M	HLCN012O	12	1.5	100	25	33	12	4	17	1	¥ 40,100 ※
12254N100M	HLCN012M	12	1	100	25	33	12	4	17	1	¥ 44,200 ※
16304N250M	HLCN016R	16	2.5	110	30	42	16	4	23	1	¥ 45,200 ※
16304N200M	HLCN016Q	16	2	110	30	42	16	4	23	1	¥ 45,200 ※
16304N150M	HLCN016O	16	1.5	110	30	42	16	4	23	1	¥ 45,200 ※
16304N100M	HLCN016M	16	1	110	30	42	16	4	23	1	¥ 49,200 ※
20505N350M	HLCN020T	20	3.5	140	50	64	20	5	28	1	¥ 51,500 ※
20505N300M	HLCN020S	20	3	140	50	64	20	5	28	1	¥ 51,500 ※
20505N200M	HLCN020Q	20	2	140	50	64	20	5	28	1	¥ 51,500 ※
20505N150M	HLCN020O	20	1.5	140	50	64	20	5	28	1	¥ 51,500 ※
20505N100M	HLCN020M	20	1	140	50	64	20	5	28	1	¥ 56,100 ※
25506N350M	HLCN025T	25	3.5	160	50	-	20	6	36	2	¥ 60,400 ※
25506N300M	HLCN025S	25	3	160	50	-	20	6	36	2	¥ 60,400 ※
25506N200M	HLCN025Q	25	2	160	50	-	20	6	36	2	¥ 60,400 ※
25506N150M	HLCN025O	25	1.5	160	50	-	20	6	36	2	¥ 60,400 ※
25506N100M	HLCN025M	25	1	160	50	-	20	6	36	2	¥ 65,300 ※
32506N300M	HLCN032S	32	3	200	50	-	25	6	45	2	¥ 70,300 ※
32506N200M	HLCN032Q	32	2	200	50	-	25	6	45	2	¥ 70,300 ※
32506N150M	HLCN032O	32	1.5	200	50	-	25	6	45	2	¥ 70,300 ※

・For the details of how to use thread mills, please refer to Technical information P.72 to P.78.

Cutter dia.	Overall length	Thread length	Thread+Neck length	Shank dia.
Dc	L	ℓ	ℓn	Ds

JIS

MC-HLC



Thread Mills for Taper Pipe Threads

Specification

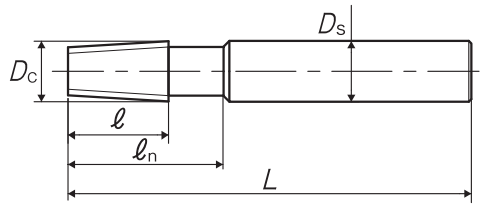
HSS-Co | Coating

■MC-HLC is the tool cutting threads by using helical interpolating process. One MC-HLC can produce external and internal threads of different diameter, and both right hand threads and left hand threads, as far as the thread pitch is same.

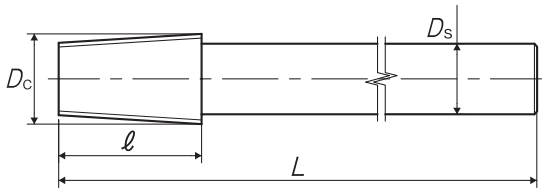
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄	Brass 黄銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
25~40 (m/min)	20~35 (m/min)	20~35 (m/min)	30~45 (m/min)	30~45 (m/min)	40~70 (m/min)	50~80 (m/min)	50~80 (m/min)

TYPE: 1



TYPE: 2



Segment : 57

Tool No.	Code	Cutter diameter Dc (mm)	Number of threads	L (mm)	ℓ (mm)	ℓn (mm)	Ds (mm)	No. of flutes	Processable thread size	TYPE	MSRP
For PT Threads											
10154X19R	HLCX010-R	10	19	70	15	24	10	4	3/8	1	¥ 43,600 ※
12204X14R	HLCX012QR	12	14	80	20	30	12	4	1/2・3/4	1	¥ 46,500 ※
20305X11R	HLCX020UR	20	11	100	30	48	20	5	1～2	1	¥ 55,400 ※
32506X11R	HLCX032UR	32	11	200	50	-	25	6	2 1/2～6	2	¥ 71,900 ※

・For the details of how to use thread mills, please refer to Technical information P.72 to P.78.

※ = Specified Distribution Items. Made to order products.

Cutter dia.	Overall length	Thread length	Thread+Neck length	Shank dia.
Dc	L	ℓ	ℓn	Ds

MC-HLC



Thread Mills for Parallel Pipe Threads

Specification

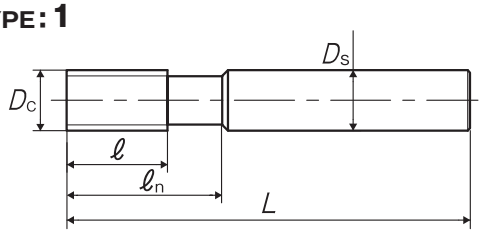
HSS-Co | Coating

■MC-HLC is the tool cutting threads by using helical interpolating process. One MC-HLC can produce external and internal threads of different diameter, and both right hand threads and left hand threads, as far as the thread pitch is same.

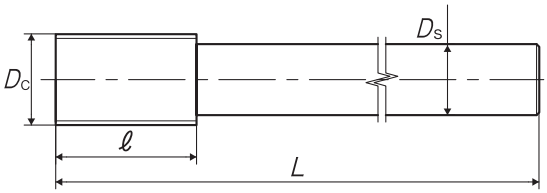
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄	Brass 黄銅	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
25~40 (m/min)	20~35 (m/min)	20~35 (m/min)	30~45 (m/min)	30~45 (m/min)	40~70 (m/min)	50~80 (m/min)	50~80 (m/min)

TYPE: 1



TYPE: 2



Segment : 57

Tool No.	Code	Cutter diameter Dc (mm)	Number of threads	L (mm)	ℓ (mm)	ℓn (mm)	Ds (mm)	No. of flutes	Processable thread size	TYPE	MSRP
For PF Threads											
10154X19G	HLCX010-G	10	19	70	15	24	10	4	3/8	1	¥ 37,100 ※
12204X14G	HLCX012QG	12	14	80	20	30	12	4	1/2・3/4	1	¥ 39,300 ※
20305X11G	HLCX020UG	20	11	100	30	48	20	5	1～2	1	¥ 46,700 ※
32506X11G	HLCX032UG	32	11	200	50	-	25	6	2 1/2～6	2	¥ 66,600 ※

・For the details of how to use thread mills, please refer to Technical information P.72 to P.78.

JIS • ANSI • DIN

LINE UP

⑩ DIES

	JIS	ANSI	DIN
D	⑩-1		
D LH	⑩-16		
D PT	⑩-26		
D PT LH	⑩-27		
D PF	⑩-28		
D PF LH	⑩-29		
D NPT	⑩-30		
D NPTF	⑩-31		
D NPSM	⑩-32		
DPO	⑩-33		⑩-39
SP-D	⑩-43		
HS-D	⑩-44		
MS-RS-D RS -D	⑩-47		
N-RSD	⑩-51		
DA SS	⑩-53		
RD-DA	⑩-55	⑩-57	



・For improvement, spec may change without advance notice.

Outside diameter	Thickness
D	T

JIS

D

Solid Round Dies



Specification

Front face

HSS 2.5

Recommended Tapping Speeds depending on Materials

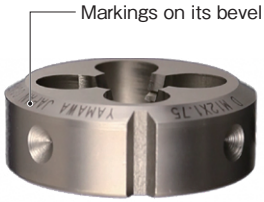
Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)

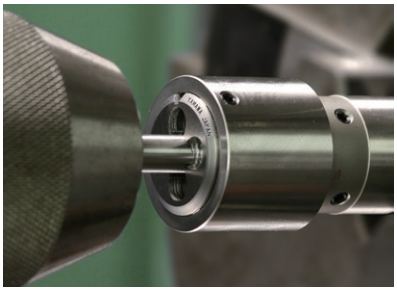
Product Features

New Solid Round Dies-D are born, with improved accuracy of run-out tolerance.
The Solid Round Dies-D, realize consistent thread cutting by adopting HSS material.

①The side with markings on its bevel, is the front face.This makes it easy to determine the cutting direction.

Solid Round Dies-D Front face

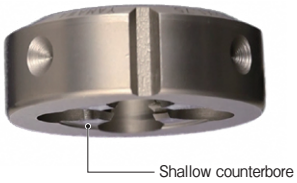


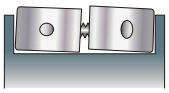
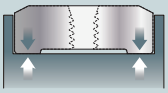


Above is the picture of RD-DA (refer to ⑩-55)

②The rear face becomes the base for cutting. The rear face has a recess so that the die can fit tightly in the die holder when installing.

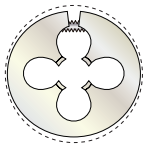
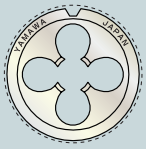
Solid Round Dies-D Rear face
(Basis for cutting)



Adjustable Dies	Solid Round Dies-D
	 Stable basis face

・Solid Round Dies-D cannot be used from Rear face.

③D is solid type and does not need the adjusting screw. Compared with adjustable type, accuracy of D's outside diameter has been greatly improved.

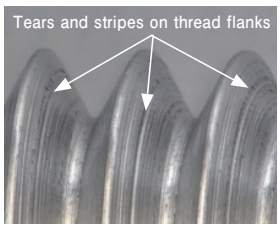
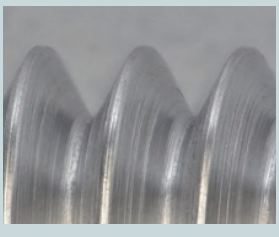
Adjustable Dies	Solid Round Dies-D
	

④D has succeeded in solving difficult problems related to adjustable dies and achieved the high precision cutting of external threads.

Cutting condition

Die size [DII M6×1 (20)]

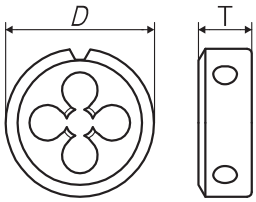
Work material	Free cutting steel
Cutting speed	2.6m/min
Feed	Free
Machine	Engine lathe
Cutting Fluid	Non-water soluble cutting oil

Adjustable Dies	Solid Round Dies-D
 Tears and stripes on thread flanks	

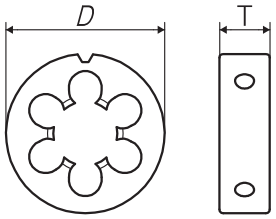
※External threads cut by Solid Round Dies-D have less tears and stripes on thread flank face.

Outside diameter	Thickness
D	T

TYPE : 1 D ≦ 50



TYPE : 2 D ≧ 63



Segment : 30

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
For Metric Threads							
M1 × 0.25	Ⅱ	TYD1.0BDNEBC	16	5	3	1	¥ 9,600
M1 × 0.25	Ⅱ	TYE1.0BDNEBC	20	7	3	1	¥ 9,600
M1 × 0.2	Ⅱ	TYE1.0ADNEBC	20	7	3	1	¥ 16,000 ※
M1.2 × 0.25	Ⅱ	TYD1.2BDNEBC	16	5	3	1	¥ 9,600
M1.2 × 0.25	Ⅱ	TYE1.2BDNEBC	20	7	3	1	¥ 9,600
M1.2 × 0.2	Ⅱ	TYE1.2ADNEBC	20	7	3	1	¥ 16,000 ※
M1.4 × 0.3	Ⅱ	TYD1.4CDNEBC	16	5	3	1	¥ 9,600
M1.4 × 0.3	Ⅱ	TYE1.4CDNEBC	20	7	3	1	¥ 9,600
M1.4 × 0.2	Ⅱ	TYE1.4ADNEBC	20	7	3	1	¥ 16,000 ※
M1.6 × 0.35	Ⅱ	TYD1.6DDNEBC	16	5	3	1	¥ 9,600
M1.6 × 0.35	Ⅱ	TYE1.6DDNEBC	20	7	3	1	¥ 9,600
M1.6 × 0.2	Ⅱ	TYE1.6ADNEBC	20	7	3	1	¥ 16,000 ※
M1.7 × 0.35	Ⅱ	TYD1.7DDNEBC	16	5	3	1	¥ 9,600
M1.7 × 0.35	Ⅱ	TYE1.7DDNEBC	20	7	3	1	¥ 9,600
M1.7 × 0.2	Ⅱ	TYE1.7ADNEBC	20	7	3	1	¥ 16,000 ※
M1.8 × 0.35	Ⅱ	TYD1.8DDNEBC	16	5	3	1	¥ 9,600 ※
M1.8 × 0.35	Ⅱ	TYE1.8DDNEBC	20	7	3	1	¥ 9,600 ※
M1.8 × 0.2	Ⅱ	TYE1.8ADNEBC	20	7	3	1	¥ 16,000 ※
M2 × 0.4	Ⅱ	TYD2.0EDNEBC	16	5	3	1	¥ 7,350
M2 × 0.4	Ⅱ	TYE2.0EDNEBC	20	7	3	1	¥ 6,420
M2 × 0.4	Ⅱ	TYG2.0EDNEBC	25	9	3	1	¥ 7,680 ※
M2 × 0.25	Ⅱ	TYD2.0BDNEBC	16	5	3	1	¥ 11,700 ※
M2 × 0.25	Ⅱ	TYE2.0BDNEBC	20	7	3	1	¥ 10,300 ※
M2.2 × 0.45	Ⅱ	TYD2.2FDNEBC	16	5	3	1	¥ 7,350 ※
M2.2 × 0.45	Ⅱ	TYE2.2FDNEBC	20	7	3	1	¥ 6,420 ※
M2.2 × 0.25	Ⅱ	TYD2.2BDNEBC	16	5	3	1	¥ 11,700 ※
M2.3 × 0.4	Ⅱ	TYD2.3EDNEBC	16	5	3	1	¥ 7,350 ※
M2.3 × 0.4	Ⅱ	TYE2.3EDNEBC	20	7	3	1	¥ 6,420
M2.3 × 0.25	Ⅱ	TYE2.3BDNEBC	20	7	3	1	¥ 10,300 ※
M2.5 × 0.45	Ⅱ	TYE2.5FDNEBC	20	7	3	1	¥ 6,420
M2.5 × 0.45	Ⅱ	TYG2.5FDNEBC	25	9	3	1	¥ 7,680 ※
M2.5 × 0.35	Ⅱ	TYE2.5DDNEBC	20	7	3	1	¥ 10,300 ※
M2.6 × 0.45	Ⅱ	TYE2.6FDNEBC	20	7	3	1	¥ 6,420
M2.6 × 0.45	Ⅱ	TYG2.6FDNEBC	25	9	3	1	¥ 7,680 ※
M2.6 × 0.35	Ⅱ	TYE2.6DDNEBC	20	7	3	1	¥ 10,300 ※
M3 × 0.5	Ⅱ	TYD3.0GDNEBC	16	5	3	1	¥ 7,350 ※
M3 × 0.5	Ⅱ	TYE3.0GDNEBC	20	7	3	1	¥ 6,420
M3 × 0.5	Ⅱ	TYG3.0GDNEBC	25	9	3	1	¥ 7,680
3M0.6	Ⅱ	TYE3.0HDNEBC	20	7	3	1	¥ 6,780 ※
3M0.6	Ⅱ	TYG3.0HDNEBC	25	9	3	1	¥ 8,160 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M3 × 0.35	Ⅱ	TYE3.0DDNEBC	20	7	3	1	¥ 10,300
M3 × 0.35	Ⅱ	TYG3.0DDNEBC	25	9	3	1	¥ 12,200 ※
M3.5 × 0.6	Ⅱ	TYE3.5HDNEBC	20	7	3	1	¥ 6,420
M3.5 × 0.6	Ⅱ	TYG3.5HDNEBC	25	9	3	1	¥ 7,680 ※
M3.5 × 0.5	Ⅱ	TYE3.5GDNEBC	20	7	3	1	¥ 9,600 ※
M3.5 × 0.35	Ⅱ	TYE3.5DDNEBC	20	7	3	1	¥ 10,300
M4 × 0.7	Ⅱ	TYE4.0IDNEBC	20	7	3	1	¥ 6,420
M4 × 0.7	Ⅱ	TYG4.0IDNEBC	25	9	3	1	¥ 7,680
M4 × 0.7	Ⅱ	TYJ4.0IDNEBC	38	13	4	1	¥ 12,000 ※
4M0.75	Ⅱ	TYE4.0JDNEBC	20	7	3	1	¥ 6,780
4M0.75	Ⅱ	TYG4.0JDNEBC	25	9	3	1	¥ 8,160 ※
M4 × 0.5	Ⅱ	TYE4.0GDNEBC	20	7	3	1	¥ 8,000
M4 × 0.5	Ⅱ	TYG4.0GDNEBC	25	9	3	1	¥ 12,000 ※
M4 × 0.35	Ⅱ	TYE4.0DDNEBC	20	7	3	1	¥ 10,300 ※
M4.5 × 0.75	Ⅱ	TYE4.5JDNEBC	20	7	4	1	¥ 7,470 ※
M4.5 × 0.5	Ⅱ	TYE4.5GDNEBC	20	7	4	1	¥ 9,600 ※
M5 × 0.8	Ⅱ	TYE5.0KDNEBC	20	7	4	1	¥ 6,420
M5 × 0.8	Ⅱ	TYG5.0KDNEBC	25	9	3	1	¥ 7,680
M5 × 0.8	Ⅱ	TYJ5.0KDNEBC	38	13	4	1	¥ 12,000 ※
5M0.9	Ⅱ	TYE5.0LDNEBC	20	7	4	1	¥ 6,780 ※
5M0.9	Ⅱ	TYG5.0LDNEBC	25	9	3	1	¥ 8,160 ※
M5 × 0.75	Ⅱ	TYE5.0JDNEBC	20	7	4	1	¥ 8,310 ※
M5 × 0.5	Ⅱ	TYE5.0GDNEBC	20	7	4	1	¥ 8,000
M5 × 0.5	Ⅱ	TYG5.0GDNEBC	25	9	3	1	¥ 12,000
M5.5 × 0.9	Ⅱ	TYE5.5LDNEBC	20	7	4	1	¥ 7,470 ※
M5.5 × 0.5	Ⅱ	TYE5.5GDNEBC	20	7	4	1	¥ 9,600 ※
M6 × 1	Ⅱ	TYE6.0MDNEBC	20	7	4	1	¥ 6,420
M6 × 1	Ⅱ	TYG6.0MDNEBC	25	9	4	1	¥ 7,680
M6 × 1	Ⅱ	TYJ6.0MDNEBC	38	13	4	1	¥ 12,000
M6 × 0.75	Ⅱ	TYE6.0JDNEBC	20	7	4	1	¥ 8,310
M6 × 0.75	Ⅱ	TYG6.0JDNEBC	25	9	4	1	¥ 9,920
M6 × 0.75	Ⅱ	TYJ6.0JDNEBC	38	13	4	1	¥ 19,400 ※
M6 × 0.5	Ⅱ	TYE6.0GDNEBC	20	7	4	1	¥ 8,000
M6 × 0.5	Ⅱ	TYG6.0GDNEBC	25	9	4	1	¥ 12,000
M7 × 1	Ⅱ	TYG7.0MDNEBC	25	9	4	1	¥ 7,680
M7 × 0.75	Ⅱ	TYG7.0JDNEBC	25	9	4	1	¥ 9,920
M7 × 0.5	Ⅱ	TYG7.0GDNEBC	25	9	4	1	¥ 12,000
M8 × 1.25	Ⅱ	TYG8.0NDNEBC	25	9	4	1	¥ 7,680
M8 × 1.25	Ⅱ	TYJ8.0NDNEBC	38	13	4	1	¥ 10,300
M8 × 1.25	Ⅱ	TYM8.0NDNEBC	50	16	4	1	¥ 16,800
M8 × 1	Ⅱ	TYG8.0MDNEBC	25	9	4	1	¥ 8,960
M8 × 1	Ⅱ	TYJ8.0MDNEBC	38	13	4	1	¥ 14,200
M8 × 0.75	Ⅱ	TYG8.0JDNEBC	25	9	4	1	¥ 9,920
M8 × 0.5	Ⅱ	TYG8.0GDNEBC	25	9	4	1	¥ 12,000
M9 × 1.25	Ⅱ	TYG9.0NDNEBC	25	9	5	1	¥ 8,160 ※
M9 × 1	Ⅱ	TYG9.0MDNEBC	25	9	5	1	¥ 8,960
M9 × 0.75	Ⅱ	TYG9.0JDNEBC	25	9	5	1	¥ 9,920
M9 × 0.5	Ⅱ	TYG9.0GDNEBC	25	9	5	1	¥ 12,000

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M10 × 1.5	II	TYG0100DNEBC	25	9	5	1	¥ 7,680
M10 × 1.5	II	TYJ0100DNEBC	38	13	4	1	¥ 10,300
M10 × 1.5	II	TYM0100DNEBC	50	16	4	1	¥ 16,800
M10 × 1.25	II	TYG010NDNEBC	25	9	5	1	¥ 7,680
M10 × 1.25	II	TYJ010NDNEBC	38	13	4	1	¥ 10,300
M10 × 1.25	II	TYM010NDNEBC	50	16	4	1	¥ 19,900 ※
M10 × 1	II	TYG010MDNEBC	25	9	5	1	¥ 8,960
M10 × 1	II	TYJ010MDNEBC	38	13	4	1	¥ 14,200
M10 × 0.75	II	TYG010JDNEBC	25	9	5	1	¥ 9,920
M10 × 0.75	II	TYJ010JDNEBC	38	13	4	1	¥ 19,400
M10 × 0.5	II	TYG010GDNEBC	25	9	5	1	¥ 12,000
M11 × 1.5	II	TYJ0110DNEBC	38	13	4	1	¥ 12,000 ※
M11 × 1.25	II	TYJ011NDNEBC	38	13	4	1	¥ 10,300 ※
M11 × 1	II	TYJ011MDNEBC	38	13	4	1	¥ 14,200
M11 × 0.75	II	TYJ011JDNEBC	38	13	4	1	¥ 19,400
M11 × 0.5	II	TYJ011GDNEBC	38	13	4	1	¥ 22,000 ※
M12 × 1.75	II	TYJ012PDNEBC	38	13	4	1	¥ 10,300
M12 × 1.75	II	TYM012PDNEBC	50	16	4	1	¥ 16,800
M12 × 1.5	II	TYJ0120DNEBC	38	13	4	1	¥ 10,300
M12 × 1.5	II	TYM0120DNEBC	50	16	4	1	¥ 16,800 ※
M12 × 1.25	II	TYJ012NDNEBC	38	13	4	1	¥ 10,300
M12 × 1.25	II	TYM012NDNEBC	50	16	4	1	¥ 19,900 ※
M12 × 1	II	TYJ012MDNEBC	38	13	4	1	¥ 14,200
M12 × 1	II	TYM012MDNEBC	50	16	4	1	¥ 22,800 ※
M12 × 0.75	II	TYJ012JDNEBC	38	13	4	1	¥ 19,400
M12 × 0.5	II	TYJ012GDNEBC	38	13	4	1	¥ 22,000
M13 × 1.5	II	TYJ0130DNEBC	38	13	5	1	¥ 10,300 ※
M13 × 1.25	II	TYJ013NDNEBC	38	13	5	1	¥ 14,200 ※
M13 × 1	II	TYJ013MDNEBC	38	13	5	1	¥ 14,200 ※
M13 × 0.75	II	TYJ013JDNEBC	38	13	5	1	¥ 19,400 ※
M13 × 0.5	II	TYJ013GDNEBC	38	13	5	1	¥ 22,000 ※
M14 × 2	II	TYJ014QDNEBC	38	13	5	1	¥ 10,300
M14 × 2	II	TYM014QDNEBC	50	16	4	1	¥ 16,800
M14 × 1.5	II	TYJ0140DNEBC	38	13	5	1	¥ 10,300
M14 × 1.5	II	TYM0140DNEBC	50	16	4	1	¥ 16,800 ※
M14 × 1.25	II	TYJ014NDNEBC	38	13	5	1	¥ 14,200
M14 × 1	II	TYJ014MDNEBC	38	13	5	1	¥ 14,200
M14 × 0.75	II	TYJ014JDNEBC	38	13	5	1	¥ 19,400 ※
M14 × 0.5	II	TYJ014GDNEBC	38	13	5	1	¥ 22,000 ※
M15 × 2	II	TYJ015QDNEBC	38	13	5	1	¥ 12,000 ※
M15 × 1.5	II	TYJ0150DNEBC	38	13	5	1	¥ 10,300 ※
M15 × 1.25	II	TYJ015NDNEBC	38	13	5	1	¥ 14,200 ※
M15 × 1	II	TYJ015MDNEBC	38	13	5	1	¥ 14,200
M15 × 0.75	II	TYJ015JDNEBC	38	13	5	1	¥ 19,400 ※
M15 × 0.5	II	TYJ015GDNEBC	38	13	5	1	¥ 22,000 ※
M16 × 2	II	TYJ016QDNEBC	38	13	5	1	¥ 10,300
M16 × 2	II	TYM016QDNEBC	50	16	4	1	¥ 16,800
M16 × 1.5	II	TYJ0160DNEBC	38	13	5	1	¥ 10,300
M16 × 1.5	II	TYM0160DNEBC	50	16	4	1	¥ 16,800

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M16 × 1.25	II	TYJ016NDNEBC	38	13	5	1	¥ 14,200 ※
M16 × 1	II	TYJ016MDNEBC	38	13	5	1	¥ 14,200
M16 × 1	II	TYM016MDNEBC	50	16	4	1	¥ 22,800
M16 × 0.75	II	TYJ016JDNEBC	38	13	5	1	¥ 19,400 ※
M16 × 0.5	II	TYJ016GDNEBC	38	13	5	1	¥ 22,000 ※
M17 × 2	II	TYM017QDNEBC	50	16	5	1	¥ 20,500 ※
M17 × 1.5	II	TYM017ODNEBC	50	16	5	1	¥ 16,800 ※
M17 × 1	II	TYM017MDNEBC	50	16	5	1	¥ 22,800
M17 × 0.5	II	TYM017GDNEBC	50	16	5	1	¥ 38,400 ※
M18 × 2.5	II	TYM018RDNEBC	50	16	5	1	¥ 16,800
M18 × 2	II	TYM018QDNEBC	50	16	5	1	¥ 20,500 ※
M18 × 1.5	II	TYM018ODNEBC	50	16	5	1	¥ 16,800
M18 × 1	II	TYM018MDNEBC	50	16	5	1	¥ 22,800
M18 × 0.5	II	TYM018GDNEBC	50	16	5	1	¥ 38,400 ※
M19 × 1.5	II	TYM019ODNEBC	50	16	5	1	¥ 16,800 ※
M19 × 1	II	TYM019MDNEBC	50	16	5	1	¥ 22,800 ※
M20 × 2.5	II	TYM020RDNEBC	50	16	5	1	¥ 16,800
M20 × 2	II	TYM020QDNEBC	50	16	5	1	¥ 20,500
M20 × 1.5	II	TYM020ODNEBC	50	16	5	1	¥ 16,800
M20 × 1.25	II	TYM020NDNEBC	50	16	5	1	¥ 22,800 ※
M20 × 1	II	TYM020MDNEBC	50	16	5	1	¥ 22,800
M20 × 0.5	II	TYM020GDNEBC	50	16	5	1	¥ 38,400 ※
M21 × 1.5	II	TYM021ODNEBC	50	16	5	1	¥ 16,800 ※
M21 × 1	II	TYM021MDNEBC	50	16	5	1	¥ 22,800 ※
M22 × 2.5	II	TYM022RDNEBC	50	16	6	1	¥ 16,800
M22 × 2	II	TYM022QDNEBC	50	16	6	1	¥ 20,500 ※
M22 × 1.5	II	TYM022ODNEBC	50	16	6	1	¥ 16,800
M22 × 1.25	II	TYM022NDNEBC	50	16	6	1	¥ 22,800 ※
M22 × 1	II	TYM022MDNEBC	50	16	6	1	¥ 22,800
M22 × 0.5	II	TYM022GDNEBC	50	16	6	1	¥ 38,400 ※
M23 × 1.5	II	TYM023ODNEBC	50	16	6	1	¥ 16,800 ※
M23 × 1	II	TYM023MDNEBC	50	16	6	1	¥ 22,800 ※
M24 × 3	II	TYM024SDNEBC	50	16	6	1	¥ 16,800
M24 × 2	II	TYM024QDNEBC	50	16	6	1	¥ 20,500
M24 × 1.5	II	TYM024ODNEBC	50	16	6	1	¥ 16,800
M24 × 1.25	II	TYM024NDNEBC	50	16	6	1	¥ 22,800 ※
M24 × 1	II	TYM024MDNEBC	50	16	6	1	¥ 22,800
M25 × 3	II	TYM025SDNEBC	50	16	6	1	¥ 16,800 ※
M25 × 2	II	TYM025QDNEBC	50	16	6	1	¥ 20,500 ※
M25 × 1.5	II	TYM025ODNEBC	50	16	6	1	¥ 16,800
M25 × 1.25	II	TYM025NDNEBC	50	16	6	1	¥ 22,800 ※
M25 × 1	II	TYM025MDNEBC	50	16	6	1	¥ 22,800 ※
M26 × 2	II	TYR026QDNEBC	63	20	6	2	¥ 48,200 ※
M26 × 1.5	II	TYR026ODNEBC	63	20	6	2	¥ 48,200
M26 × 1	II	TYR026MDNEBC	63	20	6	2	¥ 67,500 ※
M27 × 3	II	TYR027SDNEBC	63	20	6	2	¥ 48,200
M27 × 2	II	TYR027QDNEBC	63	20	6	2	¥ 48,200 ※
M27 × 1.5	II	TYR027ODNEBC	63	20	6	2	¥ 48,200
M27 × 1	II	TYR027MDNEBC	63	20	6	2	¥ 67,500 ※

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M28 × 2	Ⅱ	TYR028QDNEBC	63	20	6	2	¥ 48,200 ※
M28 × 1.5	Ⅱ	TYR028ODNEBC	63	20	6	2	¥ 48,200 ※
M28 × 1	Ⅱ	TYR028MDNEBC	63	20	6	2	¥ 67,500 ※
M30 × 3.5	Ⅱ	TYR030TDNEBC	63	20	6	2	¥ 48,200
M30 × 3.5	Ⅱ	TYU030TDNEBC	75	25	6	2	¥ 82,300 ※
M30 × 3	Ⅱ	TYR030SDNEBC	63	20	6	2	¥ 48,200 ※
M30 × 3	Ⅱ	TYU030SDNEBC	75	25	6	2	¥ 88,000 ※
M30 × 2	Ⅱ	TYR030QDNEBC	63	20	6	2	¥ 48,200 ※
M30 × 2	Ⅱ	TYU030QDNEBC	75	25	6	2	¥ 88,000 ※
M30 × 1.5	Ⅱ	TYR030ODNEBC	63	20	6	2	¥ 48,200
M30 × 1.5	Ⅱ	TYU030ODNEBC	75	25	6	2	¥ 88,000 ※
M30 × 1	Ⅱ	TYR030MDNEBC	63	20	6	2	¥ 67,500 ※
M30 × 1	Ⅱ	TYU030MDNEBC	75	25	6	2	¥ 116,000 ※
M30 × 0.5	Ⅱ	TYU030GDNEBC	75	25	6	2	¥ 116,000 ※
M32 × 3	Ⅱ	TYR032SDNEBC	63	20	6	2	¥ 48,200 ※
M32 × 3	Ⅱ	TYU032SDNEBC	75	25	6	2	¥ 88,000 ※
M32 × 2	Ⅱ	TYR032QDNEBC	63	20	6	2	¥ 48,200 ※
M32 × 2	Ⅱ	TYU032QDNEBC	75	25	6	2	¥ 88,000 ※
M32 × 1.5	Ⅱ	TYR032ODNEBC	63	20	6	2	¥ 48,200 ※
M32 × 1.5	Ⅱ	TYU032ODNEBC	75	25	6	2	¥ 88,000 ※
M32 × 1	Ⅱ	TYR032MDNEBC	63	20	6	2	¥ 67,500 ※
M32 × 1	Ⅱ	TYU032MDNEBC	75	25	6	2	¥ 116,000 ※
M32 × 0.5	Ⅱ	TYU032GDNEBC	75	25	6	2	¥ 116,000 ※
M33 × 3.5	Ⅱ	TYR033TDNEBC	63	20	6	2	¥ 48,200 ※
M33 × 3.5	Ⅱ	TYU033TDNEBC	75	25	6	2	¥ 82,300 ※
M33 × 3	Ⅱ	TYR033SDNEBC	63	20	6	2	¥ 48,200 ※
M33 × 3	Ⅱ	TYU033SDNEBC	75	25	6	2	¥ 88,000 ※
M33 × 2	Ⅱ	TYR033QDNEBC	63	20	6	2	¥ 48,200 ※
M33 × 2	Ⅱ	TYU033QDNEBC	75	25	6	2	¥ 88,000 ※
M33 × 1.5	Ⅱ	TYR033ODNEBC	63	20	6	2	¥ 48,200 ※
M33 × 1.5	Ⅱ	TYU033ODNEBC	75	25	6	2	¥ 88,000 ※
M33 × 1	Ⅱ	TYR033MDNEBC	63	20	6	2	¥ 67,500 ※
M33 × 1	Ⅱ	TYU033MDNEBC	75	25	6	2	¥ 116,000 ※
M34 × 3	Ⅱ	TYU034SDNEBC	75	25	6	2	¥ 88,000 ※
M34 × 2	Ⅱ	TYU034QDNEBC	75	25	6	2	¥ 88,000 ※
M34 × 1.5	Ⅱ	TYU034ODNEBC	75	25	6	2	¥ 88,000 ※
M34 × 1	Ⅱ	TYU034MDNEBC	75	25	6	2	¥ 116,000 ※
M35 × 3	Ⅱ	TYU035SDNEBC	75	25	6	2	¥ 88,000 ※
M35 × 2	Ⅱ	TYU035QDNEBC	75	25	6	2	¥ 88,000 ※
M35 × 1.5	Ⅱ	TYU035ODNEBC	75	25	6	2	¥ 88,000 ※
M35 × 1.25	Ⅱ	TYU035NDNEBC	75	25	6	2	¥ 116,000 ※
M35 × 1	Ⅱ	TYU035MDNEBC	75	25	6	2	¥ 116,000 ※
M36 × 4	Ⅱ	TYU036UDNEBC	75	25	6	2	¥ 82,300 ※
M36 × 3	Ⅱ	TYU036SDNEBC	75	25	6	2	¥ 88,000 ※
M36 × 2	Ⅱ	TYU036QDNEBC	75	25	6	2	¥ 88,000 ※
M36 × 1.5	Ⅱ	TYU036ODNEBC	75	25	6	2	¥ 88,000 ※
M36 × 1	Ⅱ	TYU036MDNEBC	75	25	6	2	¥ 116,000 ※
M36 × 0.5	Ⅱ	TYU036GDNEBC	75	25	6	2	¥ 116,000 ※
M37 × 1.5	Ⅱ	TYU037ODNEBC	75	25	6	2	¥ 88,000 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M37 × 1	Ⅱ	TYU037MDNEBC	75	25	6	2	¥116,000 ※
M38 × 4	Ⅱ	TYU038UDNEBC	75	25	6	2	¥ 88,000 ※
M38 × 3	Ⅱ	TYU038SDNEBC	75	25	6	2	¥ 88,000 ※
M38 × 2	Ⅱ	TYU038QDNEBC	75	25	6	2	¥ 88,000 ※
M38 × 1.5	Ⅱ	TYU038ODNEBC	75	25	6	2	¥ 88,000 ※
M38 × 1	Ⅱ	TYU038MDNEBC	75	25	6	2	¥116,000 ※
M39 × 4	Ⅱ	TYU039UDNEBC	75	25	6	2	¥ 82,300 ※
M39 × 3	Ⅱ	TYU039SDNEBC	75	25	6	2	¥ 88,000 ※
M39 × 2	Ⅱ	TYU039QDNEBC	75	25	6	2	¥ 88,000 ※
M39 × 1.5	Ⅱ	TYU039ODNEBC	75	25	6	2	¥ 88,000 ※
M39 × 1	Ⅱ	TYU039MDNEBC	75	25	6	2	¥116,000 ※
M40 × 4	Ⅱ	TYU040UDNEBC	75	25	8	2	¥ 88,000 ※
M40 × 3	Ⅱ	TYU040SDNEBC	75	25	8	2	¥ 88,000 ※
M40 × 2	Ⅱ	TYU040QDNEBC	75	25	8	2	¥ 88,000 ※
M40 × 1.5	Ⅱ	TYU040ODNEBC	75	25	8	2	¥ 88,000 ※
M40 × 1	Ⅱ	TYU040MDNEBC	75	25	8	2	¥116,000 ※
M42 × 4.5	Ⅱ	TYU042VDNEBC	75	25	8	2	¥ 83,700 ※
M42 × 4	Ⅱ	TYU042UDNEBC	75	25	8	2	¥ 88,000 ※
M42 × 3	Ⅱ	TYU042SDNEBC	75	25	8	2	¥ 88,000 ※
M42 × 2	Ⅱ	TYU042QDNEBC	75	25	8	2	¥ 88,000 ※
M42 × 1.5	Ⅱ	TYU042ODNEBC	75	25	8	2	¥ 88,000 ※
M42 × 1	Ⅱ	TYU042MDNEBC	75	25	8	2	¥116,000 ※
M44 × 2	Ⅱ	TYU044QDNEBC	75	25	8	2	¥ 88,000 ※
M44 × 1.5	Ⅱ	TYU044ODNEBC	75	25	8	2	¥ 88,000 ※
M45 × 4.5	Ⅱ	TYU045VDNEBC	75	25	8	2	¥ 88,000 ※
M45 × 4.5	Ⅱ	TYW045VDNEBC	100	30	8	2	¥192,000 ※
M45 × 4.5	Ⅱ	TYY045VDNEBC	105	30	8	2	¥192,000 ※
M45 × 4	Ⅱ	TYU045UDNEBC	75	25	8	2	¥ 88,000 ※
M45 × 4	Ⅱ	TYW045UDNEBC	100	30	8	2	¥192,000 ※
M45 × 4	Ⅱ	TYY045UDNEBC	105	30	8	2	¥192,000 ※
M45 × 3	Ⅱ	TYU045SDNEBC	75	25	8	2	¥ 88,000 ※
M45 × 3	Ⅱ	TYW045SDNEBC	100	30	8	2	¥192,000 ※
M45 × 3	Ⅱ	TYY045SDNEBC	105	30	8	2	¥192,000 ※
M45 × 2	Ⅱ	TYU045QDNEBC	75	25	8	2	¥ 88,000 ※
M45 × 2	Ⅱ	TYW045QDNEBC	100	30	8	2	¥192,000 ※
M45 × 2	Ⅱ	TYY045QDNEBC	105	30	8	2	¥192,000 ※
M45 × 1.5	Ⅱ	TYU045ODNEBC	75	25	8	2	¥ 88,000 ※
M45 × 1.5	Ⅱ	TYW045ODNEBC	100	30	8	2	¥192,000 ※
M45 × 1.5	Ⅱ	TYY045ODNEBC	105	30	8	2	¥192,000 ※
M45 × 1	Ⅱ	TYU045MDNEBC	75	25	8	2	¥116,000 ※
M45 × 1	Ⅱ	TYW045MDNEBC	100	30	8	2	¥248,000 ※
M45 × 1	Ⅱ	TYY045MDNEBC	105	30	8	2	¥248,000 ※
M46 × 4	Ⅱ	TYU046UDNEBC	75	25	8	2	¥ 88,000 ※
M46 × 4	Ⅱ	TYW046UDNEBC	100	30	8	2	¥192,000 ※
M46 × 4	Ⅱ	TYY046UDNEBC	105	30	8	2	¥192,000 ※
M46 × 3	Ⅱ	TYU046SDNEBC	75	25	8	2	¥ 88,000 ※
M46 × 3	Ⅱ	TYW046SDNEBC	100	30	8	2	¥192,000 ※
M46 × 3	Ⅱ	TYY046SDNEBC	105	30	8	2	¥192,000 ※
M46 × 2	Ⅱ	TYU046QDNEBC	75	25	8	2	¥ 88,000 ※

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M46 × 2	II	TYW046QDNEBC	100	30	8	2	¥ 192,000 ※
M46 × 2	II	TYY046QDNEBC	105	30	8	2	¥ 192,000 ※
M46 × 1.5	II	TYU046ODNEBC	75	25	8	2	¥ 88,000 ※
M46 × 1.5	II	TYW046ODNEBC	100	30	8	2	¥ 192,000 ※
M46 × 1.5	II	TYY046ODNEBC	105	30	8	2	¥ 192,000 ※
M48 × 5	II	TYU048WDNEBC	75	25	8	2	¥ 88,000 ※
M48 × 5	II	TYW048WDNEBC	100	36	8	2	¥ 192,000 ※
M48 × 5	II	TYY048WDNEBC	105	36	8	2	¥ 192,000 ※
M48 × 4	II	TYU048UDNEBC	75	25	8	2	¥ 88,000 ※
M48 × 4	II	TYW048UDNEBC	100	30	8	2	¥ 192,000 ※
M48 × 4	II	TYY048UDNEBC	105	30	8	2	¥ 192,000 ※
M48 × 3	II	TYU048SDNEBC	75	25	8	2	¥ 88,000 ※
M48 × 3	II	TYW048SDNEBC	100	30	8	2	¥ 192,000 ※
M48 × 3	II	TYY048SDNEBC	105	30	8	2	¥ 192,000 ※
M48 × 2	II	TYU048QDNEBC	75	25	8	2	¥ 88,000 ※
M48 × 2	II	TYW048QDNEBC	100	30	8	2	¥ 192,000 ※
M48 × 2	II	TYY048QDNEBC	105	30	8	2	¥ 192,000 ※
M48 × 1.5	II	TYU048ODNEBC	75	25	8	2	¥ 88,000 ※
M48 × 1.5	II	TYW048ODNEBC	100	30	8	2	¥ 192,000 ※
M48 × 1.5	II	TYY048ODNEBC	105	30	8	2	¥ 192,000 ※
M48 × 1.25	II	TYU048NDNEBC	75	25	8	2	¥ 116,000 ※
M48 × 1	II	TYU048MDNEBC	75	25	8	2	¥ 116,000 ※
M48 × 1	II	TYW048MDNEBC	100	30	8	2	¥ 248,000 ※
M48 × 1	II	TYY048MDNEBC	105	30	8	2	¥ 248,000 ※
M50 × 4	II	TYU050UDNEBC	75	25	8	2	¥ 88,000 ※
M50 × 4	II	TYW050UDNEBC	100	30	8	2	¥ 192,000 ※
M50 × 4	II	TYY050UDNEBC	105	30	8	2	¥ 192,000 ※
M50 × 3	II	TYU050SDNEBC	75	25	8	2	¥ 88,000 ※
M50 × 3	II	TYW050SDNEBC	100	30	8	2	¥ 192,000 ※
M50 × 3	II	TYY050SDNEBC	105	30	8	2	¥ 192,000 ※
M50 × 2	II	TYU050QDNEBC	75	25	8	2	¥ 88,000 ※
M50 × 2	II	TYW050QDNEBC	100	30	8	2	¥ 192,000 ※
M50 × 2	II	TYY050QDNEBC	105	30	8	2	¥ 192,000 ※
M50 × 1.5	II	TYU050ODNEBC	75	25	8	2	¥ 88,000 ※
M50 × 1.5	II	TYW050ODNEBC	100	30	8	2	¥ 192,000 ※
M50 × 1.5	II	TYY050ODNEBC	105	30	8	2	¥ 192,000 ※
M50 × 1	II	TYU050MDNEBC	75	25	8	2	¥ 116,000 ※
M50 × 1	II	TYW050MDNEBC	100	30	8	2	¥ 248,000 ※
M50 × 1	II	TYY050MDNEBC	105	30	8	2	¥ 248,000 ※
M52 × 5	II	TYW052WDNEBC	100	36	8	2	¥ 192,000 ※
M52 × 5	II	TYY052WDNEBC	105	36	8	2	¥ 192,000 ※
M52 × 4	II	TYW052UDNEBC	100	30	8	2	¥ 192,000 ※
M52 × 4	II	TYY052UDNEBC	105	30	8	2	¥ 192,000 ※
M52 × 3	II	TYW052SDNEBC	100	30	8	2	¥ 192,000 ※
M52 × 3	II	TYY052SDNEBC	105	30	8	2	¥ 192,000 ※
M52 × 2	II	TYW052QDNEBC	100	30	8	2	¥ 192,000 ※
M52 × 2	II	TYY052QDNEBC	105	30	8	2	¥ 192,000 ※
M52 × 1.5	II	TYW052ODNEBC	100	30	8	2	¥ 192,000 ※
M52 × 1.5	II	TYY052ODNEBC	105	30	8	2	¥ 192,000 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M55 × 4	II	TYW055UDNEBC	100	30	8	2	¥ 192,000 ※
M55 × 4	II	TYY055UDNEBC	105	30	8	2	¥ 192,000 ※
M55 × 3	II	TYW055SDNEBC	100	30	8	2	¥ 192,000 ※
M55 × 3	II	TYY055SDNEBC	105	30	8	2	¥ 192,000 ※
M55 × 2	II	TYW055QDNEBC	100	30	8	2	¥ 192,000 ※
M55 × 2	II	TYY055QDNEBC	105	30	8	2	¥ 192,000 ※
M55 × 1.5	II	TYW055ODNEBC	100	30	8	2	¥ 192,000 ※
M55 × 1.5	II	TYY055ODNEBC	105	30	8	2	¥ 192,000 ※
M56 × 5.5	II	TYW056XDNEBC	100	36	8	2	¥ 192,000 ※
M56 × 5.5	II	TYY056XDNEBC	105	36	8	2	¥ 192,000 ※
M56 × 5.5	II	TYC056XDNEBC	120	36	8	2	¥ 243,000 ※
M56 × 5.5	II	TYF056XDNEBC	125	36	8	2	¥ 243,000 ※
M56 × 4	II	TYW056UDNEBC	100	30	8	2	¥ 192,000 ※
M56 × 4	II	TYY056UDNEBC	105	30	8	2	¥ 192,000 ※
M56 × 4	II	TYC056UDNEBC	120	30	8	2	¥ 243,000 ※
M56 × 4	II	TYF056UDNEBC	125	30	8	2	¥ 243,000 ※
M56 × 3	II	TYW056SDNEBC	100	30	8	2	¥ 192,000 ※
M56 × 3	II	TYY056SDNEBC	105	30	8	2	¥ 192,000 ※
M56 × 3	II	TYC056SDNEBC	120	30	8	2	¥ 243,000 ※
M56 × 3	II	TYF056SDNEBC	125	30	8	2	¥ 243,000 ※
M56 × 2	II	TYW056QDNEBC	100	30	8	2	¥ 192,000 ※
M56 × 2	II	TYY056QDNEBC	105	30	8	2	¥ 192,000 ※
M56 × 2	II	TYC056QDNEBC	120	30	8	2	¥ 243,000 ※
M56 × 2	II	TYF056QDNEBC	125	30	8	2	¥ 243,000 ※
M56 × 1.5	II	TYW056ODNEBC	100	30	8	2	¥ 192,000 ※
M56 × 1.5	II	TYY056ODNEBC	105	30	8	2	¥ 192,000 ※
M56 × 1.5	II	TYC056ODNEBC	120	30	8	2	¥ 243,000 ※
M56 × 1.5	II	TYF056ODNEBC	125	30	8	2	¥ 243,000 ※
M58 × 4	II	TYW058UDNEBC	100	30	8	2	¥ 192,000 ※
M58 × 4	II	TYY058UDNEBC	105	30	8	2	¥ 192,000 ※
M58 × 4	II	TYC058UDNEBC	120	30	8	2	¥ 243,000 ※
M58 × 4	II	TYF058UDNEBC	125	30	8	2	¥ 243,000 ※
M58 × 3	II	TYW058SDNEBC	100	30	8	2	¥ 192,000 ※
M58 × 3	II	TYY058SDNEBC	105	30	8	2	¥ 192,000 ※
M58 × 3	II	TYC058SDNEBC	120	30	8	2	¥ 243,000 ※
M58 × 3	II	TYF058SDNEBC	125	30	8	2	¥ 243,000 ※
M58 × 2	II	TYW058QDNEBC	100	30	8	2	¥ 192,000 ※
M58 × 2	II	TYY058QDNEBC	105	30	8	2	¥ 192,000 ※
M58 × 2	II	TYC058QDNEBC	120	30	8	2	¥ 243,000 ※
M58 × 2	II	TYF058QDNEBC	125	30	8	2	¥ 243,000 ※
M58 × 1.5	II	TYW058ODNEBC	100	30	8	2	¥ 192,000 ※
M58 × 1.5	II	TYY058ODNEBC	105	30	8	2	¥ 192,000 ※
M58 × 1.5	II	TYC058ODNEBC	120	30	8	2	¥ 243,000 ※
M58 × 1.5	II	TYF058ODNEBC	125	30	8	2	¥ 243,000 ※
M60 × 5.5	II	TYW060XDNEBC	100	36	8	2	¥ 192,000 ※
M60 × 5.5	II	TYY060XDNEBC	105	36	8	2	¥ 192,000 ※
M60 × 5.5	II	TYC060XDNEBC	120	36	8	2	¥ 243,000 ※
M60 × 5.5	II	TYF060XDNEBC	125	36	8	2	¥ 243,000 ※
M60 × 4	II	TYW060UDNEBC	100	30	8	2	¥ 192,000 ※

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M60 × 4	II	TYY060UDNEBC	105	30	8	2	¥ 192,000 ※
M60 × 4	II	TYC060UDNEBC	120	30	8	2	¥ 243,000 ※
M60 × 4	II	TYF060UDNEBC	125	30	8	2	¥ 243,000 ※
M60 × 3	II	TYW060SDNEBC	100	30	8	2	¥ 192,000 ※
M60 × 3	II	TYY060SDNEBC	105	30	8	2	¥ 192,000 ※
M60 × 3	II	TYC060SDNEBC	120	30	8	2	¥ 243,000 ※
M60 × 3	II	TYF060SDNEBC	125	30	8	2	¥ 243,000 ※
M60 × 2	II	TYW060QDNEBC	100	30	8	2	¥ 192,000 ※
M60 × 2	II	TYY060QDNEBC	105	30	8	2	¥ 192,000 ※
M60 × 2	II	TYC060QDNEBC	120	30	8	2	¥ 243,000 ※
M60 × 2	II	TYF060QDNEBC	125	30	8	2	¥ 243,000 ※
M60 × 1.5	II	TYW060ODNEBC	100	30	8	2	¥ 192,000 ※
M60 × 1.5	II	TYY060ODNEBC	105	30	8	2	¥ 192,000 ※
M60 × 1.5	II	TYC060ODNEBC	120	30	8	2	¥ 243,000 ※
M60 × 1.5	II	TYF060ODNEBC	125	30	8	2	¥ 243,000 ※
M62 × 4	II	TYW062UDNEBC	100	30	8	2	¥ 192,000 ※
M62 × 4	II	TYY062UDNEBC	105	30	8	2	¥ 192,000 ※
M62 × 4	II	TYC062UDNEBC	120	30	8	2	¥ 243,000 ※
M62 × 4	II	TYF062UDNEBC	125	30	8	2	¥ 243,000 ※
M62 × 3	II	TYW062SDNEBC	100	30	8	2	¥ 192,000 ※
M62 × 3	II	TYY062SDNEBC	105	30	8	2	¥ 192,000 ※
M62 × 3	II	TYC062SDNEBC	120	30	8	2	¥ 243,000 ※
M62 × 3	II	TYF062SDNEBC	125	30	8	2	¥ 243,000 ※
M62 × 2	II	TYW062QDNEBC	100	30	8	2	¥ 192,000 ※
M62 × 2	II	TYY062QDNEBC	105	30	8	2	¥ 192,000 ※
M62 × 2	II	TYC062QDNEBC	120	30	8	2	¥ 243,000 ※
M62 × 2	II	TYF062QDNEBC	125	30	8	2	¥ 243,000 ※
M62 × 1.5	II	TYW062ODNEBC	100	30	8	2	¥ 192,000 ※
M62 × 1.5	II	TYY062ODNEBC	105	30	8	2	¥ 192,000 ※
M62 × 1.5	II	TYC062ODNEBC	120	30	8	2	¥ 243,000 ※
M62 × 1.5	II	TYF062ODNEBC	125	30	8	2	¥ 243,000 ※
M64 × 6	II	TYW064YDNEBC	100	36	8	2	¥ 192,000 ※
M64 × 6	II	TYY064YDNEBC	105	36	8	2	¥ 192,000 ※
M64 × 6	II	TYC064YDNEBC	120	36	8	2	¥ 243,000 ※
M64 × 6	II	TYF064YDNEBC	125	36	8	2	¥ 243,000 ※
M64 × 4	II	TYW064UDNEBC	100	30	8	2	¥ 192,000 ※
M64 × 4	II	TYY064UDNEBC	105	30	8	2	¥ 192,000 ※
M64 × 4	II	TYC064UDNEBC	120	30	8	2	¥ 243,000 ※
M64 × 4	II	TYF064UDNEBC	125	30	8	2	¥ 243,000 ※
M64 × 3	II	TYW064SDNEBC	100	30	8	2	¥ 192,000 ※
M64 × 3	II	TYY064SDNEBC	105	30	8	2	¥ 192,000 ※
M64 × 3	II	TYC064SDNEBC	120	30	8	2	¥ 243,000 ※
M64 × 3	II	TYF064SDNEBC	125	30	8	2	¥ 243,000 ※
M64 × 2	II	TYW064QDNEBC	100	30	8	2	¥ 192,000 ※
M64 × 2	II	TYY064QDNEBC	105	30	8	2	¥ 192,000 ※
M64 × 2	II	TYC064QDNEBC	120	30	8	2	¥ 243,000 ※
M64 × 2	II	TYF064QDNEBC	125	30	8	2	¥ 243,000 ※
M64 × 1.5	II	TYW064ODNEBC	100	30	8	2	¥ 192,000 ※
M64 × 1.5	II	TYY064ODNEBC	105	30	8	2	¥ 192,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M64 × 1.5	Ⅱ	TYC0640DNEBC	120	30	8	2	¥ 243,000 ※
M64 × 1.5	Ⅱ	TYF0640DNEBC	125	30	8	2	¥ 243,000 ※
M65 × 6	Ⅱ	TYY065YDNEBC	105	36	8	2	¥ 192,000 ※
M65 × 6	Ⅱ	TYC065YDNEBC	120	36	8	2	¥ 243,000 ※
M65 × 6	Ⅱ	TYF065YDNEBC	125	36	8	2	¥ 243,000 ※
M65 × 4	Ⅱ	TYY065UDNEBC	105	30	8	2	¥ 192,000 ※
M65 × 4	Ⅱ	TYC065UDNEBC	120	30	8	2	¥ 243,000 ※
M65 × 4	Ⅱ	TYF065UDNEBC	125	30	8	2	¥ 243,000 ※
M65 × 3	Ⅱ	TYY065SDNEBC	105	30	8	2	¥ 192,000 ※
M65 × 3	Ⅱ	TYC065SDNEBC	120	30	8	2	¥ 243,000 ※
M65 × 3	Ⅱ	TYF065SDNEBC	125	30	8	2	¥ 243,000 ※
M65 × 2	Ⅱ	TYY065QDNEBC	105	30	8	2	¥ 192,000 ※
M65 × 2	Ⅱ	TYC065QDNEBC	120	30	8	2	¥ 243,000 ※
M65 × 2	Ⅱ	TYF065QDNEBC	125	30	8	2	¥ 243,000 ※
M65 × 1.5	Ⅱ	TYY065ODNEBC	105	30	8	2	¥ 192,000 ※
M65 × 1.5	Ⅱ	TYC065ODNEBC	120	30	8	2	¥ 243,000 ※
M65 × 1.5	Ⅱ	TYF065ODNEBC	125	30	8	2	¥ 243,000 ※
M68 × 6	Ⅱ	TYY068YDNEBC	105	36	8	2	¥ 192,000 ※
M68 × 6	Ⅱ	TYC068YDNEBC	120	36	10	2	¥ 243,000 ※
M68 × 6	Ⅱ	TYF068YDNEBC	125	36	10	2	¥ 243,000 ※
M68 × 4	Ⅱ	TYY068UDNEBC	105	30	8	2	¥ 192,000 ※
M68 × 4	Ⅱ	TYC068UDNEBC	120	30	10	2	¥ 243,000 ※
M68 × 4	Ⅱ	TYF068UDNEBC	125	30	10	2	¥ 243,000 ※
M68 × 3	Ⅱ	TYY068SDNEBC	105	30	8	2	¥ 192,000 ※
M68 × 3	Ⅱ	TYC068SDNEBC	120	30	10	2	¥ 243,000 ※
M68 × 3	Ⅱ	TYF068SDNEBC	125	30	10	2	¥ 243,000 ※
M68 × 2	Ⅱ	TYY068QDNEBC	105	30	8	2	¥ 192,000 ※
M68 × 2	Ⅱ	TYC068QDNEBC	120	30	10	2	¥ 243,000 ※
M68 × 2	Ⅱ	TYF068QDNEBC	125	30	10	2	¥ 243,000 ※
M68 × 1.5	Ⅱ	TYY068ODNEBC	105	30	8	2	¥ 192,000 ※
M68 × 1.5	Ⅱ	TYC068ODNEBC	120	30	10	2	¥ 243,000 ※
M68 × 1.5	Ⅱ	TYF068ODNEBC	125	30	10	2	¥ 243,000 ※
M70 × 6	Ⅱ	TYC070YDNEBC	120	36	10	2	¥ 243,000 ※
M70 × 6	Ⅱ	TYF070YDNEBC	125	36	10	2	¥ 243,000 ※
M70 × 4	Ⅱ	TYC070UDNEBC	120	30	10	2	¥ 243,000 ※
M70 × 4	Ⅱ	TYF070UDNEBC	125	30	10	2	¥ 243,000 ※
M70 × 3	Ⅱ	TYC070SDNEBC	120	30	10	2	¥ 243,000 ※
M70 × 3	Ⅱ	TYF070SDNEBC	125	30	10	2	¥ 243,000 ※
M70 × 2	Ⅱ	TYC070QDNEBC	120	30	10	2	¥ 243,000 ※
M70 × 2	Ⅱ	TYF070QDNEBC	125	30	10	2	¥ 243,000 ※
M70 × 1.5	Ⅱ	TYC070ODNEBC	120	30	10	2	¥ 243,000 ※
M70 × 1.5	Ⅱ	TYF070ODNEBC	125	30	10	2	¥ 243,000 ※
M72 × 6	Ⅱ	TYC072YDNEBC	120	36	10	2	¥ 243,000 ※
M72 × 6	Ⅱ	TYF072YDNEBC	125	36	10	2	¥ 243,000 ※
M72 × 4	Ⅱ	TYC072UDNEBC	120	30	10	2	¥ 243,000 ※
M72 × 4	Ⅱ	TYF072UDNEBC	125	30	10	2	¥ 243,000 ※
M72 × 3	Ⅱ	TYC072SDNEBC	120	30	10	2	¥ 243,000 ※
M72 × 3	Ⅱ	TYF072SDNEBC	125	30	10	2	¥ 243,000 ※
M72 × 2	Ⅱ	TYC072QDNEBC	120	30	10	2	¥ 243,000 ※
M72 × 2	Ⅱ	TYF072QDNEBC	125	30	10	2	¥ 243,000 ※

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M72 × 1.5	Ⅱ	TYC072ODNEBC	120	30	10	2	¥ 243,000 ※
M72 × 1.5	Ⅱ	TYF072ODNEBC	125	30	10	2	¥ 243,000 ※
M75 × 6	Ⅱ	TYC075YDNEBC	120	36	10	2	¥ 243,000 ※
M75 × 6	Ⅱ	TYF075YDNEBC	125	36	10	2	¥ 243,000 ※
M75 × 4	Ⅱ	TYC075UDNEBC	120	30	10	2	¥ 243,000 ※
M75 × 4	Ⅱ	TYF075UDNEBC	125	30	10	2	¥ 243,000 ※
M75 × 3	Ⅱ	TYC075SDNEBC	120	30	10	2	¥ 243,000 ※
M75 × 3	Ⅱ	TYF075SDNEBC	125	30	10	2	¥ 243,000 ※
M75 × 2	Ⅱ	TYC075QDNEBC	120	30	10	2	¥ 243,000 ※
M75 × 2	Ⅱ	TYF075QDNEBC	125	30	10	2	¥ 243,000 ※
M75 × 1.5	Ⅱ	TYC075ODNEBC	120	30	10	2	¥ 243,000 ※
M75 × 1.5	Ⅱ	TYF075ODNEBC	125	30	10	2	¥ 243,000 ※
M76 × 6	Ⅱ	TYC076YDNEBC	120	36	10	2	¥ 243,000 ※
M76 × 6	Ⅱ	TYF076YDNEBC	125	36	10	2	¥ 243,000 ※
M76 × 4	Ⅱ	TYC076UDNEBC	120	30	10	2	¥ 243,000 ※
M76 × 4	Ⅱ	TYF076UDNEBC	125	30	10	2	¥ 243,000 ※
M76 × 3	Ⅱ	TYC076SDNEBC	120	30	10	2	¥ 243,000 ※
M76 × 3	Ⅱ	TYF076SDNEBC	125	30	10	2	¥ 243,000 ※
M76 × 2	Ⅱ	TYC076QDNEBC	120	30	10	2	¥ 243,000 ※
M76 × 2	Ⅱ	TYF076QDNEBC	125	30	10	2	¥ 243,000 ※
M76 × 1.5	Ⅱ	TYC076ODNEBC	120	30	10	2	¥ 243,000 ※
M76 × 1.5	Ⅱ	TYF076ODNEBC	125	30	10	2	¥ 243,000 ※
M78 × 2	Ⅱ	TYC078QDNEBC	120	30	10	2	¥ 243,000 ※
M78 × 2	Ⅱ	TYF078QDNEBC	125	30	10	2	¥ 243,000 ※
M80 × 6	Ⅱ	TYC080YDNEBC	120	36	10	2	¥ 243,000 ※
M80 × 6	Ⅱ	TYF080YDNEBC	125	36	10	2	¥ 243,000 ※
M80 × 4	Ⅱ	TYC080UDNEBC	120	30	10	2	¥ 243,000 ※
M80 × 4	Ⅱ	TYF080UDNEBC	125	30	10	2	¥ 243,000 ※
M80 × 3	Ⅱ	TYC080SDNEBC	120	30	10	2	¥ 243,000 ※
M80 × 3	Ⅱ	TYF080SDNEBC	125	30	10	2	¥ 243,000 ※
M80 × 2	Ⅱ	TYC080QDNEBC	120	30	10	2	¥ 243,000 ※
M80 × 2	Ⅱ	TYF080QDNEBC	125	30	10	2	¥ 243,000 ※
M80 × 1.5	Ⅱ	TYC080ODNEBC	120	30	10	2	¥ 243,000 ※
M80 × 1.5	Ⅱ	TYF080ODNEBC	125	30	10	2	¥ 243,000 ※
For Unified Threads							
No.0-80UNF	Ⅱ	TYDUN0BDNEBC	16	5	3	1	¥ 8,460 ※
No.0-80UNF	Ⅱ	TYEUN0BDNEBC	20	7	3	1	¥ 11,200 ※
No.1-64UNC	Ⅱ	TYEUN1DDNEBC	20	7	3	1	¥ 11,200 ※
No.1-72UNF	Ⅱ	TYEUN1CDNEBC	20	7	3	1	¥ 11,200 ※
No.2-56UNC	Ⅱ	TYDUN2EDNEBC	16	5	3	1	¥ 8,460 ※
No.2-56UNC	Ⅱ	TYEUN2EDNEBC	20	7	3	1	¥ 11,200 ※
No.2-64UNF	Ⅱ	TYEUN2DDNEBC	20	7	3	1	¥ 11,200 ※
No.3-48UNC	Ⅱ	TYEUN3FDNEBC	20	7	3	1	¥ 11,200 ※
No.3-56UNF	Ⅱ	TYEUN3EDNEBC	20	7	3	1	¥ 11,200 ※
No.4-40UNC	Ⅱ	TYEUN4HDNEBC	20	7	3	1	¥ 7,350
No.4-48UNF	Ⅱ	TYEUN4FDNEBC	20	7	3	1	¥ 7,350 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
No.5-40UNC	Ⅱ	TYEUN5HDNEBC	20	7	3	1	¥ 7,350 ※
No.5-44UNF	Ⅱ	TYEUN5GDNEBC	20	7	3	1	¥ 7,350 ※
No.6-32UNC	Ⅱ	TYEUN6JDNEBC	20	7	3	1	¥ 7,350
No.6-40UNF	Ⅱ	TYEUN6HDNEBC	20	7	3	1	¥ 7,350 ※
No.8-32UNC	Ⅱ	TYEUN8JDNEBC	20	7	3	1	¥ 7,350
No.8-36UNF	Ⅱ	TYEUN8IDNEBC	20	7	3	1	¥ 7,350 ※
No.10-24UNC	Ⅱ	TYEUNAMDNEBC	20	7	4	1	¥ 7,350 ※
No.10-32UNF	Ⅱ	TYEUNAJDNEBC	20	7	4	1	¥ 7,350
No.12-24UNC	Ⅱ	TYEUNCMDNEBC	20	7	4	1	¥ 7,350 ※
No.12-28UNF	Ⅱ	TYEUNCKDNEBC	20	7	4	1	¥ 7,350 ※
1/4-20UNC	Ⅱ	TYEU04NDNEBC	20	7	4	1	¥ 7,350
1/4-20UNC	Ⅱ	TYGU04NDNEBC	25	9	4	1	¥ 8,840 ※
1/4-28UNF	Ⅱ	TYEU04KDNEBC	20	7	4	1	¥ 7,350
1/4-28UNF	Ⅱ	TYGU04KDNEBC	25	9	4	1	¥ 8,840
1/4-32UNEF	Ⅱ	TYGU04JDNEBC	25	9	4	1	¥ 10,500 ※
5/16-18UNC	Ⅱ	TYGU05ODNEBC	25	9	4	1	¥ 8,840 ※
5/16-18UNC	Ⅱ	TYJU05ODNEBC	38	13	4	1	¥ 11,900 ※
5/16-24UNF	Ⅱ	TYGU05MDNEBC	25	9	4	1	¥ 8,840
5/16-24UNF	Ⅱ	TYJU05MDNEBC	38	13	4	1	¥ 11,900 ※
5/16-32UNEF	Ⅱ	TYGU05JDNEBC	25	9	4	1	¥ 10,500 ※
3/8-16UNC	Ⅱ	TYGU06PDNEBC	25	9	5	1	¥ 8,840
3/8-16UNC	Ⅱ	TYJU06PDNEBC	38	13	4	1	¥ 11,900 ※
3/8-24UNF	Ⅱ	TYGU06MDNEBC	25	9	5	1	¥ 8,840
3/8-24UNF	Ⅱ	TYJU06MDNEBC	38	13	4	1	¥ 11,900
3/8-32UNEF	Ⅱ	TYGU06JDNEBC	25	9	5	1	¥ 10,500 ※
7/16-14UNC	Ⅱ	TYJU07QDNEBC	38	13	4	1	¥ 11,900 ※
7/16-20UNF	Ⅱ	TYJU07NDNEBC	38	13	4	1	¥ 11,900
7/16-24UNS	Ⅱ	TYJU07MDNEBC	38	13	4	1	¥ 13,800 ※
7/16-28UNEF	Ⅱ	TYJU07KDNEBC	38	13	4	1	¥ 13,800 ※
1/2-13UNC	Ⅱ	TYJU08RDNEBC	38	13	4	1	¥ 11,900
1/2-13UNC	Ⅱ	TYMU08RDNEBC	50	16	4	1	¥ 19,300 ※
1/2-20UNF	Ⅱ	TYJU08NDNEBC	38	13	4	1	¥ 11,900
1/2-20UNF	Ⅱ	TYMU08NDNEBC	50	16	4	1	¥ 19,300 ※
1/2-28UNEF	Ⅱ	TYJU08KDNEBC	38	13	4	1	¥ 13,800 ※
9/16-12UNC	Ⅱ	TYJU09SDNEBC	38	13	5	1	¥ 11,900 ※
9/16-18UNF	Ⅱ	TYJU09ODNEBC	38	13	5	1	¥ 11,900
9/16-20UN	Ⅱ	TYJU09NDNEBC	38	13	5	1	¥ 13,800 ※
9/16-24UNEF	Ⅱ	TYJU09MDNEBC	38	13	5	1	¥ 13,800 ※
5/8-11UNC	Ⅱ	TYJU10UDNEBC	38	13	5	1	¥ 11,900 ※
5/8-11UNC	Ⅱ	TYMU10UDNEBC	50	16	4	1	¥ 19,300 ※
5/8-18UNF	Ⅱ	TYJU10ODNEBC	38	13	5	1	¥ 11,900 ※
5/8-18UNF	Ⅱ	TYMU10ODNEBC	50	16	4	1	¥ 19,300 ※
5/8-24UNEF	Ⅱ	TYJU10MDNEBC	38	13	5	1	¥ 13,800 ※
3/4-10UNC	Ⅱ	TYMU12VDNEBC	50	16	5	1	¥ 19,300 ※
3/4-16UNF	Ⅱ	TYMU12PDNEBC	50	16	5	1	¥ 19,300
3/4-20UNEF	Ⅱ	TYMU12NDNEBC	50	16	5	1	¥ 23,800 ※
7/8-9UNC	Ⅱ	TYMU14WDNEBC	50	16	6	1	¥ 19,300 ※
7/8-14UNF	Ⅱ	TYMU14QDNEBC	50	16	6	1	¥ 19,300
1 -8UNC	Ⅱ	TYMU16XDNEBC	50	16	6	1	¥ 19,300 ※
1 -12UNF	Ⅱ	TYMU16SDNEBC	50	16	6	1	¥ 19,300 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
1 -14UNS	Ⅱ	TYMU16QDNEBC	50	16	6	1	¥ 23,800 ※
1 -20UNEF	Ⅱ	TYMU16NDNEBC	50	16	6	1	¥ 23,800 ※
1 1/8-7UNC	Ⅱ	TYRU18YDNEBC	63	20	6	2	¥ 50,100 ※
1 1/8-8UN	Ⅱ	TYRU18XDNEBC	63	20	6	2	¥ 50,100 ※
1 1/8-12UNF	Ⅱ	TYRU18SDNEBC	63	20	6	2	¥ 50,100 ※
1 1/4-7UNC	Ⅱ	TYRU20YDNEBC	63	20	6	2	¥ 50,100 ※
1 1/4-8UN	Ⅱ	TYRU20XDNEBC	63	20	6	2	¥ 50,100 ※
1 1/4-12UNF	Ⅱ	TYRU20SDNEBC	63	20	6	2	¥ 50,100 ※
1 3/8-6UNC	Ⅱ	TYUU22ZDNEBC	75	25	6	2	¥ 91,100 ※
1 3/8-12UNF	Ⅱ	TYUU22SDNEBC	75	25	6	2	¥ 91,100 ※
1 1/2-6UNC	Ⅱ	TYUU24ZDNEBC	75	25	6	2	¥ 91,100 ※
1 1/2-8UN	Ⅱ	TYUU24XDNEBC	75	25	6	2	¥ 91,100 ※
1 1/2-12UNF	Ⅱ	TYUU24SDNEBC	75	25	6	2	¥ 91,100 ※
1 5/8-12UN	Ⅱ	TYUU26SDNEBC	75	25	8	2	¥ 91,100 ※
1 3/4-5UNC	Ⅱ	TYUU28ODNEBC	75	25	8	2	¥ 91,100 ※
1 3/4-12UN	Ⅱ	TYUU28SDNEBC	75	25	8	2	¥ 91,100 ※
2 -12UN	Ⅱ	TYUU32SDNEBC	75	25	8	2	¥ 91,100 ※
For Whitworth Threads							
1/16W60	Ⅱ	TYEW01-DNEBC	20	7	3	1	¥ 11,200 ※
3/32W48	Ⅱ	TYEW1HFDNEBC	20	7	3	1	¥ 11,200 ※
1/8W40	Ⅱ	TYEW02HDNEBC	20	7	3	1	¥ 7,350
5/32W32	Ⅱ	TYEW2HJDNEBC	20	7	3	1	¥ 7,350
3/16W24	Ⅱ	TYEW03MDNEBC	20	7	4	1	¥ 7,350
3/16W24	Ⅱ	TYGW03MDNEBC	25	9	3	1	¥ 8,840 ※
7/32W24	Ⅱ	TYEW3HMDNEBC	20	7	4	1	¥ 7,350 ※
1/4W20	Ⅱ	TYEW04NDNEBC	20	7	4	1	¥ 7,350
1/4W20	Ⅱ	TYGW04NDNEBC	25	9	4	1	¥ 8,840 ※
1/4W20	Ⅱ	TYJW04NDNEBC	38	13	4	1	¥ 11,900 ※
5/16W18	Ⅱ	TYGW05ODNEBC	25	9	4	1	¥ 8,840
5/16W18	Ⅱ	TYJW05ODNEBC	38	13	4	1	¥ 11,900 ※
3/8W16	Ⅱ	TYGW06PDNEBC	25	9	5	1	¥ 8,840
3/8W16	Ⅱ	TYJW06PDNEBC	38	13	4	1	¥ 11,900
3/8W16	Ⅱ	TYMW06PDNEBC	50	16	4	1	¥ 19,300 ※
7/16W14	Ⅱ	TYJW07QDNEBC	38	13	4	1	¥ 11,900 ※
7/16W14	Ⅱ	TYMW07QDNEBC	50	16	4	1	¥ 19,300 ※
1/2W12	Ⅱ	TYJW08SDNEBC	38	13	4	1	¥ 11,900
1/2W12	Ⅱ	TYMW08SDNEBC	50	16	4	1	¥ 19,300 ※
9/16W12	Ⅱ	TYJW09SDNEBC	38	13	5	1	¥ 11,900 ※
5/8W11	Ⅱ	TYJW10UDNEBC	38	13	5	1	¥ 11,900
5/8W11	Ⅱ	TYMW10UDNEBC	50	16	4	1	¥ 19,300
3/4W10	Ⅱ	TYMW12VDNEBC	50	16	5	1	¥ 19,300
7/8W9	Ⅱ	TYMW14WDNEBC	50	16	6	1	¥ 19,300
1 W8	Ⅱ	TYMW16XDNEBC	50	16	6	1	¥ 19,300
1 1/8W7	Ⅱ	TYRW18YDNEBC	63	20	6	2	¥ 50,100 ※
1 1/4W7	Ⅱ	TYRW20YDNEBC	63	20	6	2	¥ 50,100 ※
1 3/8W6	Ⅱ	TYUW22ZDNEBC	75	25	6	2	¥ 91,100 ※
1 1/2W6	Ⅱ	TYUW24ZDNEBC	75	25	6	2	¥ 91,100 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

D Solid Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
For Screw Threads used on Sewing Machines							
3/32SM56	Ⅱ	TYES06EDNEBC	20	7	3	1	¥ 11,200 ※
1/8SM40	Ⅱ	TYES08HDNEBC	20	7	3	1	¥ 8,310 ※
1/8SM44	Ⅱ	TYES08GDNEBC	20	7	3	1	¥ 8,310 ※
9/64SM40	Ⅱ	TYES09HDNEBC	20	7	3	1	¥ 8,310 ※
11/64SM40	Ⅱ	TYES11HDNEBC	20	7	4	1	¥ 8,310 ※
3/16SM28	Ⅱ	TYES12KDNEBC	20	7	4	1	¥ 8,310 ※
3/16SM32	Ⅱ	TYES12JDNEBC	20	7	4	1	¥ 8,310 ※
7/32SM32	Ⅱ	TYES14JDNEBC	20	7	4	1	¥ 8,310 ※
15/64SM28	Ⅱ	TYES15KDNEBC	20	7	4	1	¥ 8,310 ※
1/4SM24	Ⅱ	TYES16MDNEBC	20	7	4	1	¥ 8,310 ※
1/4SM40	Ⅱ	TYES16HDNEBC	20	7	4	1	¥ 8,310 ※

JIS

D LH

Solid Round Dies for Left Hand Threads



Specification

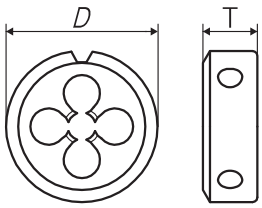
HSS | LH Left hand | Front face 2.5

■Solid round dies for left hand thread processing with improved runout accuracy.

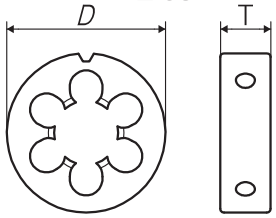
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)

TYPE : 1 D ≦ 50



TYPE : 2 D ≧ 63



Segment : 30

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
For Metric Threads							
M1 × 0.25	II	GYE1.0BDNEBC	20	7	3	1	¥ 14,400 ※
M1.4 × 0.3	II	GYE1.4CDNEBC	20	7	3	1	¥ 14,400 ※
M1.6 × 0.35	II	GYE1.6DDNEBC	20	7	3	1	¥ 14,400 ※
M1.7 × 0.35	II	GYE1.7DDNEBC	20	7	3	1	¥ 14,400 ※
M2 × 0.4	II	GYE2.0EDNEBC	20	7	3	1	¥ 9,630 ※
M2.3 × 0.4	II	GYE2.3EDNEBC	20	7	3	1	¥ 9,630 ※
M2.5 × 0.45	II	GYE2.5FDNEBC	20	7	3	1	¥ 9,630 ※
M2.6 × 0.45	II	GYE2.6FDNEBC	20	7	3	1	¥ 9,630 ※
M3 × 0.5	II	GYE3.0GDNEBC	20	7	3	1	¥ 9,630
M3 × 0.5	II	GYG3.0GDNEBC	25	9	3	1	¥ 11,600 ※
M3 × 0.35	II	GYE3.0DDNEBC	20	7	3	1	¥ 15,400 ※
M3.5 × 0.6	II	GYE3.5HDNEBC	20	7	3	1	¥ 9,630 ※
M3.5 × 0.35	II	GYE3.5DDNEBC	20	7	3	1	¥ 15,400 ※
M4 × 0.7	II	GYE4.0IDNEBC	20	7	3	1	¥ 9,630
M4 × 0.7	II	GYG4.0IDNEBC	25	9	3	1	¥ 11,600
M4 × 0.5	II	GYE4.0GDNEBC	20	7	3	1	¥ 12,000 ※
M5 × 0.8	II	GYE5.0KDNEBC	20	7	4	1	¥ 9,630
M5 × 0.8	II	GYG5.0KDNEBC	25	9	3	1	¥ 11,600
M5 × 0.5	II	GYE5.0GDNEBC	20	7	4	1	¥ 12,000 ※
M6 × 1	II	GYE6.0MDNEBC	20	7	4	1	¥ 9,630
M6 × 1	II	GYG6.0MDNEBC	25	9	4	1	¥ 11,600
M6 × 1	II	GYJ6.0MDNEBC	38	13	4	1	¥ 18,000 ※
M6 × 0.75	II	GYE6.0JDNEBC	20	7	4	1	¥ 12,500 ※
M6 × 0.5	II	GYE6.0GDNEBC	20	7	4	1	¥ 12,000 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

D LH Solid Round Dies for Left Hand Threads

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M7 × 1	Ⅱ	GYG7.0MDNEBC	25	9	4	1	¥ 11,600 ※
M7 × 0.75	Ⅱ	GYG7.0JDNEBC	25	9	4	1	¥ 14,900 ※
M7 × 0.5	Ⅱ	GYG7.0GDNEBC	25	9	4	1	¥ 18,000 ※
M8 × 1.25	Ⅱ	GYG8.0NDNEBC	25	9	4	1	¥ 11,600
M8 × 1.25	Ⅱ	GYJ8.0NDNEBC	38	13	4	1	¥ 15,400
M8 × 1	Ⅱ	GYG8.0MDNEBC	25	9	4	1	¥ 13,500 ※
M8 × 1	Ⅱ	GYJ8.0MDNEBC	38	13	4	1	¥ 21,300 ※
M8 × 0.75	Ⅱ	GYG8.0JDNEBC	25	9	4	1	¥ 14,900 ※
M8 × 0.5	Ⅱ	GYG8.0GDNEBC	25	9	4	1	¥ 18,000 ※
M9 × 1.25	Ⅱ	GYG9.0NDNEBC	25	9	5	1	¥ 12,300 ※
M9 × 1	Ⅱ	GYG9.0MDNEBC	25	9	5	1	¥ 13,500 ※
M9 × 0.75	Ⅱ	GYG9.0JDNEBC	25	9	5	1	¥ 14,900 ※
M9 × 0.5	Ⅱ	GYG9.0GDNEBC	25	9	5	1	¥ 18,000 ※
M10 × 1.5	Ⅱ	GYG010ODNEBC	25	9	5	1	¥ 11,600
M10 × 1.5	Ⅱ	GYJ010ODNEBC	38	13	4	1	¥ 15,400
M10 × 1.25	Ⅱ	GYG010NDNEBC	25	9	5	1	¥ 11,600 ※
M10 × 1.25	Ⅱ	GYJ010NDNEBC	38	13	4	1	¥ 15,400 ※
M10 × 1	Ⅱ	GYG010MDNEBC	25	9	5	1	¥ 13,500 ※
M10 × 1	Ⅱ	GYJ010MDNEBC	38	13	4	1	¥ 21,300 ※
M10 × 0.75	Ⅱ	GYG010JDNEBC	25	9	5	1	¥ 14,900 ※
M10 × 0.5	Ⅱ	GYG010GDNEBC	25	9	5	1	¥ 18,000 ※
M11 × 1.5	Ⅱ	GYJ011ODNEBC	38	13	4	1	¥ 18,000 ※
M11 × 1.25	Ⅱ	GYJ011NDNEBC	38	13	4	1	¥ 15,400 ※
M11 × 1	Ⅱ	GYJ011MDNEBC	38	13	4	1	¥ 21,300 ※
M11 × 0.5	Ⅱ	GYJ011GDNEBC	38	13	4	1	¥ 33,000 ※
M12 × 1.75	Ⅱ	GYJ012PDNEBC	38	13	4	1	¥ 15,400
M12 × 1.5	Ⅱ	GYJ012ODNEBC	38	13	4	1	¥ 15,400 ※
M12 × 1.25	Ⅱ	GYJ012NDNEBC	38	13	4	1	¥ 15,400 ※
M12 × 1	Ⅱ	GYJ012MDNEBC	38	13	4	1	¥ 21,300 ※
M12 × 0.75	Ⅱ	GYJ012JDNEBC	38	13	4	1	¥ 29,000 ※
M12 × 0.5	Ⅱ	GYJ012GDNEBC	38	13	4	1	¥ 33,000 ※
M14 × 2	Ⅱ	GYJ014QDNEBC	38	13	5	1	¥ 15,400 ※
M14 × 1.5	Ⅱ	GYJ014ODNEBC	38	13	5	1	¥ 15,400 ※
M14 × 1.25	Ⅱ	GYJ014NDNEBC	38	13	5	1	¥ 21,300 ※
M14 × 1	Ⅱ	GYJ014MDNEBC	38	13	5	1	¥ 21,300 ※
M15 × 1.5	Ⅱ	GYJ015ODNEBC	38	13	5	1	¥ 15,400 ※
M15 × 1	Ⅱ	GYJ015MDNEBC	38	13	5	1	¥ 21,300 ※
M16 × 2	Ⅱ	GYJ016QDNEBC	38	13	5	1	¥ 15,400
M16 × 2	Ⅱ	GYM016QDNEBC	50	16	4	1	¥ 25,200
M16 × 1.5	Ⅱ	GYJ016ODNEBC	38	13	5	1	¥ 15,400 ※
M16 × 1.5	Ⅱ	GYM016ODNEBC	50	16	4	1	¥ 25,200 ※
M16 × 1	Ⅱ	GYJ016MDNEBC	38	13	5	1	¥ 21,300 ※
M16 × 1	Ⅱ	GYM016MDNEBC	50	16	4	1	¥ 34,200 ※
M17 × 1	Ⅱ	GYM017MDNEBC	50	16	5	1	¥ 34,200 ※
M18 × 2.5	Ⅱ	GYM018RDNEBC	50	16	5	1	¥ 25,200 ※
M18 × 2	Ⅱ	GYM018QDNEBC	50	16	5	1	¥ 30,800 ※
M18 × 1.5	Ⅱ	GYM018ODNEBC	50	16	5	1	¥ 25,200 ※
M18 × 1	Ⅱ	GYM018MDNEBC	50	16	5	1	¥ 34,200 ※
M20 × 2.5	Ⅱ	GYM020RDNEBC	50	16	5	1	¥ 25,200
M20 × 2	Ⅱ	GYM020QDNEBC	50	16	5	1	¥ 30,800 ※

Outside diameter	Thickness
D	T

D LH Solid Round Dies for Left Hand Threads

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M20 × 1.5	Ⅱ	GYM020ODNEBC	50	16	5	1	¥ 25,200 ※
M20 × 1	Ⅱ	GYM020MDNEBC	50	16	5	1	¥ 34,200 ※
M22 × 2.5	Ⅱ	GYM022RDNEBC	50	16	6	1	¥ 25,200 ※
M22 × 2	Ⅱ	GYM022QDNEBC	50	16	6	1	¥ 30,800 ※
M22 × 1.5	Ⅱ	GYM022ODNEBC	50	16	6	1	¥ 25,200 ※
M22 × 1	Ⅱ	GYM022MDNEBC	50	16	6	1	¥ 34,200 ※
M24 × 3	Ⅱ	GYM024SDNEBC	50	16	6	1	¥ 25,200 ※
M24 × 2	Ⅱ	GYM024QDNEBC	50	16	6	1	¥ 30,800 ※
M24 × 1.5	Ⅱ	GYM024ODNEBC	50	16	6	1	¥ 25,200 ※
M24 × 1	Ⅱ	GYM024MDNEBC	50	16	6	1	¥ 34,200 ※
M25 × 1.5	Ⅱ	GYM025ODNEBC	50	16	6	1	¥ 25,200 ※
M26 × 1.5	Ⅱ	GYR026ODNEBC	63	20	6	2	¥ 72,300 ※
M27 × 3	Ⅱ	GYR027SDNEBC	63	20	6	2	¥ 72,300 ※
M27 × 1.5	Ⅱ	GYR027ODNEBC	63	20	6	2	¥ 72,300 ※
M28 × 1.5	Ⅱ	GYR028ODNEBC	63	20	6	2	¥ 72,300 ※
M30 × 3.5	Ⅱ	GYR030TDNEBC	63	20	6	2	¥ 72,300 ※
M30 × 3.5	Ⅱ	GYU030TDNEBC	75	25	6	2	¥124,000 ※
M30 × 3	Ⅱ	GYR030SDNEBC	63	20	6	2	¥ 72,300 ※
M30 × 3	Ⅱ	GYU030SDNEBC	75	25	6	2	¥132,000 ※
M30 × 2	Ⅱ	GYR030QDNEBC	63	20	6	2	¥ 72,300 ※
M30 × 2	Ⅱ	GYU030QDNEBC	75	25	6	2	¥132,000 ※
M30 × 1.5	Ⅱ	GYR030ODNEBC	63	20	6	2	¥ 72,300 ※
M30 × 1.5	Ⅱ	GYU030ODNEBC	75	25	6	2	¥132,000 ※
M30 × 1	Ⅱ	GYU030MDNEBC	75	25	6	2	¥174,000 ※
M30 × 0.5	Ⅱ	GYU030GDNEBC	75	25	6	2	¥174,000 ※
M32 × 3	Ⅱ	GYU032SDNEBC	75	25	6	2	¥132,000 ※
M32 × 2	Ⅱ	GYU032QDNEBC	75	25	6	2	¥132,000 ※
M32 × 1.5	Ⅱ	GYU032ODNEBC	75	25	6	2	¥132,000 ※
M32 × 1	Ⅱ	GYU032MDNEBC	75	25	6	2	¥174,000 ※
M32 × 0.5	Ⅱ	GYU032GDNEBC	75	25	6	2	¥174,000 ※
M33 × 3.5	Ⅱ	GYU033TDNEBC	75	25	6	2	¥124,000 ※
M33 × 3	Ⅱ	GYU033SDNEBC	75	25	6	2	¥132,000 ※
M33 × 2	Ⅱ	GYU033QDNEBC	75	25	6	2	¥132,000 ※
M33 × 1.5	Ⅱ	GYU033ODNEBC	75	25	6	2	¥132,000 ※
M33 × 1	Ⅱ	GYU033MDNEBC	75	25	6	2	¥174,000 ※
M34 × 3	Ⅱ	GYU034SDNEBC	75	25	6	2	¥132,000 ※
M34 × 2	Ⅱ	GYU034QDNEBC	75	25	6	2	¥132,000 ※
M34 × 1.5	Ⅱ	GYU034ODNEBC	75	25	6	2	¥132,000 ※
M34 × 1	Ⅱ	GYU034MDNEBC	75	25	6	2	¥174,000 ※
M35 × 3	Ⅱ	GYU035SDNEBC	75	25	6	2	¥132,000 ※
M35 × 2	Ⅱ	GYU035QDNEBC	75	25	6	2	¥132,000 ※
M35 × 1.5	Ⅱ	GYU035ODNEBC	75	25	6	2	¥132,000 ※
M35 × 1.25	Ⅱ	GYU035NDNEBC	75	25	6	2	¥174,000 ※
M35 × 1	Ⅱ	GYU035MDNEBC	75	25	6	2	¥174,000 ※
M36 × 4	Ⅱ	GYU036UDNEBC	75	25	6	2	¥124,000 ※
M36 × 3	Ⅱ	GYU036SDNEBC	75	25	6	2	¥132,000 ※
M36 × 2	Ⅱ	GYU036QDNEBC	75	25	6	2	¥132,000 ※
M36 × 1.5	Ⅱ	GYU036ODNEBC	75	25	6	2	¥132,000 ※
M36 × 1	Ⅱ	GYU036MDNEBC	75	25	6	2	¥174,000 ※
M36 × 0.5	Ⅱ	GYU036GDNEBC	75	25	6	2	¥174,000 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

D LH Solid Round Dies for Left Hand Threads

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M37 × 1.5	Ⅱ	GYU037ODNEBC	75	25	6	2	¥132,000 ※
M37 × 1	Ⅱ	GYU037MDNEBC	75	25	6	2	¥174,000 ※
M38 × 4	Ⅱ	GYU038UDNEBC	75	25	6	2	¥132,000 ※
M38 × 3	Ⅱ	GYU038SDNEBC	75	25	6	2	¥132,000 ※
M38 × 2	Ⅱ	GYU038QDNEBC	75	25	6	2	¥132,000 ※
M38 × 1.5	Ⅱ	GYU038ODNEBC	75	25	6	2	¥132,000 ※
M38 × 1	Ⅱ	GYU038MDNEBC	75	25	6	2	¥174,000 ※
M39 × 4	Ⅱ	GYU039UDNEBC	75	25	6	2	¥124,000 ※
M39 × 3	Ⅱ	GYU039SDNEBC	75	25	6	2	¥132,000 ※
M39 × 2	Ⅱ	GYU039QDNEBC	75	25	6	2	¥132,000 ※
M39 × 1.5	Ⅱ	GYU039ODNEBC	75	25	6	2	¥132,000 ※
M39 × 1	Ⅱ	GYU039MDNEBC	75	25	6	2	¥174,000 ※
M40 × 4	Ⅱ	GYU040UDNEBC	75	25	8	2	¥132,000 ※
M40 × 3	Ⅱ	GYU040SDNEBC	75	25	8	2	¥132,000 ※
M40 × 2	Ⅱ	GYU040QDNEBC	75	25	8	2	¥132,000 ※
M40 × 1.5	Ⅱ	GYU040ODNEBC	75	25	8	2	¥132,000 ※
M40 × 1	Ⅱ	GYU040MDNEBC	75	25	8	2	¥174,000 ※
M42 × 4.5	Ⅱ	GYU042VDNEBC	75	25	8	2	¥126,000 ※
M42 × 4	Ⅱ	GYU042UDNEBC	75	25	8	2	¥132,000 ※
M42 × 3	Ⅱ	GYU042SDNEBC	75	25	8	2	¥132,000 ※
M42 × 2	Ⅱ	GYU042QDNEBC	75	25	8	2	¥132,000 ※
M42 × 1.5	Ⅱ	GYU042ODNEBC	75	25	8	2	¥132,000 ※
M42 × 1	Ⅱ	GYU042MDNEBC	75	25	8	2	¥174,000 ※
M44 × 2	Ⅱ	GYU044QDNEBC	75	25	8	2	¥132,000 ※
M44 × 1.5	Ⅱ	GYU044ODNEBC	75	25	8	2	¥132,000 ※
M45 × 4.5	Ⅱ	GYU045VDNEBC	75	25	8	2	¥132,000 ※
M45 × 4.5	Ⅱ	GYW045VDNEBC	100	30	8	2	¥287,000 ※
M45 × 4.5	Ⅱ	GYY045VDNEBC	105	30	8	2	¥287,000 ※
M45 × 4	Ⅱ	GYU045UDNEBC	75	25	8	2	¥132,000 ※
M45 × 4	Ⅱ	GYW045UDNEBC	100	30	8	2	¥287,000 ※
M45 × 4	Ⅱ	GYY045UDNEBC	105	30	8	2	¥287,000 ※
M45 × 3	Ⅱ	GYU045SDNEBC	75	25	8	2	¥132,000 ※
M45 × 3	Ⅱ	GYW045SDNEBC	100	30	8	2	¥287,000 ※
M45 × 3	Ⅱ	GYY045SDNEBC	105	30	8	2	¥287,000 ※
M45 × 2	Ⅱ	GYU045QDNEBC	75	25	8	2	¥132,000 ※
M45 × 2	Ⅱ	GYW045QDNEBC	100	30	8	2	¥287,000 ※
M45 × 2	Ⅱ	GYY045QDNEBC	105	30	8	2	¥287,000 ※
M45 × 1.5	Ⅱ	GYU045ODNEBC	75	25	8	2	¥132,000 ※
M45 × 1.5	Ⅱ	GYW045ODNEBC	100	30	8	2	¥287,000 ※
M45 × 1.5	Ⅱ	GYY045ODNEBC	105	30	8	2	¥287,000 ※
M45 × 1	Ⅱ	GYU045MDNEBC	75	25	8	2	¥174,000 ※
M45 × 1	Ⅱ	GYW045MDNEBC	100	30	8	2	¥372,000 ※
M45 × 1	Ⅱ	GYY045MDNEBC	105	30	8	2	¥372,000 ※
M46 × 4	Ⅱ	GYU046UDNEBC	75	25	8	2	¥132,000 ※
M46 × 4	Ⅱ	GYW046UDNEBC	100	30	8	2	¥287,000 ※
M46 × 4	Ⅱ	GYY046UDNEBC	105	30	8	2	¥287,000 ※
M46 × 3	Ⅱ	GYU046SDNEBC	75	25	8	2	¥132,000 ※
M46 × 3	Ⅱ	GYW046SDNEBC	100	30	8	2	¥287,000 ※
M46 × 3	Ⅱ	GYY046SDNEBC	105	30	8	2	¥287,000 ※
M46 × 2	Ⅱ	GYU046QDNEBC	75	25	8	2	¥132,000 ※

Outside diameter	Thickness
D	T

D LH Solid Round Dies for Left Hand Threads

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M46 × 2	Ⅱ	GYW046QDNEBC	100	30	8	2	¥287,000 ※
M46 × 2	Ⅱ	GYY046QDNEBC	105	30	8	2	¥287,000 ※
M46 × 1.5	Ⅱ	GYU046ODNEBC	75	25	8	2	¥132,000 ※
M46 × 1.5	Ⅱ	GYW046ODNEBC	100	30	8	2	¥287,000 ※
M46 × 1.5	Ⅱ	GYY046ODNEBC	105	30	8	2	¥287,000 ※
M48 × 5	Ⅱ	GYU048WDNEBC	75	25	8	2	¥132,000 ※
M48 × 5	Ⅱ	GYW048WDNEBC	100	36	8	2	¥287,000 ※
M48 × 5	Ⅱ	GYY048WDNEBC	105	36	8	2	¥287,000 ※
M48 × 4	Ⅱ	GYU048UDNEBC	75	25	8	2	¥132,000 ※
M48 × 4	Ⅱ	GYW048UDNEBC	100	30	8	2	¥287,000 ※
M48 × 4	Ⅱ	GYY048UDNEBC	105	30	8	2	¥287,000 ※
M48 × 3	Ⅱ	GYU048SDNEBC	75	25	8	2	¥132,000 ※
M48 × 3	Ⅱ	GYW048SDNEBC	100	30	8	2	¥287,000 ※
M48 × 3	Ⅱ	GYY048SDNEBC	105	30	8	2	¥287,000 ※
M48 × 2	Ⅱ	GYU048QDNEBC	75	25	8	2	¥132,000 ※
M48 × 2	Ⅱ	GYW048QDNEBC	100	30	8	2	¥287,000 ※
M48 × 2	Ⅱ	GYY048QDNEBC	105	30	8	2	¥287,000 ※
M48 × 1.5	Ⅱ	GYU048ODNEBC	75	25	8	2	¥132,000 ※
M48 × 1.5	Ⅱ	GYW048ODNEBC	100	30	8	2	¥287,000 ※
M48 × 1.5	Ⅱ	GYY048ODNEBC	105	30	8	2	¥287,000 ※
M48 × 1.25	Ⅱ	GYU048NDNEBC	75	25	8	2	¥174,000 ※
M48 × 1	Ⅱ	GYU048MDNEBC	75	25	8	2	¥174,000 ※
M48 × 1	Ⅱ	GYW048MDNEBC	100	30	8	2	¥372,000 ※
M48 × 1	Ⅱ	GYY048MDNEBC	105	30	8	2	¥372,000 ※
M50 × 4	Ⅱ	GYU050UDNEBC	75	25	8	2	¥132,000 ※
M50 × 4	Ⅱ	GYW050UDNEBC	100	30	8	2	¥287,000 ※
M50 × 4	Ⅱ	GYY050UDNEBC	105	30	8	2	¥287,000 ※
M50 × 3	Ⅱ	GYU050SDNEBC	75	25	8	2	¥132,000 ※
M50 × 3	Ⅱ	GYW050SDNEBC	100	30	8	2	¥287,000 ※
M50 × 3	Ⅱ	GYY050SDNEBC	105	30	8	2	¥287,000 ※
M50 × 2	Ⅱ	GYU050QDNEBC	75	25	8	2	¥132,000 ※
M50 × 2	Ⅱ	GYW050QDNEBC	100	30	8	2	¥287,000 ※
M50 × 2	Ⅱ	GYY050QDNEBC	105	30	8	2	¥287,000 ※
M50 × 1.5	Ⅱ	GYU050ODNEBC	75	25	8	2	¥132,000 ※
M50 × 1.5	Ⅱ	GYW050ODNEBC	100	30	8	2	¥287,000 ※
M50 × 1.5	Ⅱ	GYY050ODNEBC	105	30	8	2	¥287,000 ※
M50 × 1	Ⅱ	GYU050MDNEBC	75	25	8	2	¥174,000 ※
M50 × 1	Ⅱ	GYW050MDNEBC	100	30	8	2	¥372,000 ※
M50 × 1	Ⅱ	GYY050MDNEBC	105	30	8	2	¥372,000 ※
M52 × 5	Ⅱ	GYW052WDNEBC	100	36	8	2	¥287,000 ※
M52 × 5	Ⅱ	GYY052WDNEBC	105	36	8	2	¥287,000 ※
M52 × 4	Ⅱ	GYW052UDNEBC	100	30	8	2	¥287,000 ※
M52 × 4	Ⅱ	GYY052UDNEBC	105	30	8	2	¥287,000 ※
M52 × 3	Ⅱ	GYW052SDNEBC	100	30	8	2	¥287,000 ※
M52 × 3	Ⅱ	GYY052SDNEBC	105	30	8	2	¥287,000 ※
M52 × 2	Ⅱ	GYW052QDNEBC	100	30	8	2	¥287,000 ※
M52 × 2	Ⅱ	GYY052QDNEBC	105	30	8	2	¥287,000 ※
M52 × 1.5	Ⅱ	GYW052ODNEBC	100	30	8	2	¥287,000 ※
M52 × 1.5	Ⅱ	GYY052ODNEBC	105	30	8	2	¥287,000 ※
M55 × 4	Ⅱ	GYW055UDNEBC	100	30	8	2	¥287,000 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

D LH Solid Round Dies for Left Hand Threads

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M55 × 4	II	GYY055UDNEBC	105	30	8	2	¥287,000 ※
M55 × 3	II	GYW055SDNEBC	100	30	8	2	¥287,000 ※
M55 × 3	II	GYY055SDNEBC	105	30	8	2	¥287,000 ※
M55 × 2	II	GYW055QDNEBC	100	30	8	2	¥287,000 ※
M55 × 2	II	GYY055QDNEBC	105	30	8	2	¥287,000 ※
M55 × 1.5	II	GYW055ODNEBC	100	30	8	2	¥287,000 ※
M55 × 1.5	II	GYY055ODNEBC	105	30	8	2	¥287,000 ※
M56 × 5.5	II	GYW056XDNEBC	100	36	8	2	¥287,000 ※
M56 × 5.5	II	GYY056XDNEBC	105	36	8	2	¥287,000 ※
M56 × 5.5	II	GYC056XDNEBC	120	36	8	2	¥364,000 ※
M56 × 5.5	II	GYF056XDNEBC	125	36	8	2	¥364,000 ※
M56 × 4	II	GYW056UDNEBC	100	30	8	2	¥287,000 ※
M56 × 4	II	GYY056UDNEBC	105	30	8	2	¥287,000 ※
M56 × 4	II	GYC056UDNEBC	120	30	8	2	¥364,000 ※
M56 × 4	II	GYF056UDNEBC	125	30	8	2	¥364,000 ※
M56 × 3	II	GYW056SDNEBC	100	30	8	2	¥287,000 ※
M56 × 3	II	GYY056SDNEBC	105	30	8	2	¥287,000 ※
M56 × 3	II	GYC056SDNEBC	120	30	8	2	¥364,000 ※
M56 × 3	II	GYF056SDNEBC	125	30	8	2	¥364,000 ※
M56 × 2	II	GYW056QDNEBC	100	30	8	2	¥287,000 ※
M56 × 2	II	GYY056QDNEBC	105	30	8	2	¥287,000 ※
M56 × 2	II	GYC056QDNEBC	120	30	8	2	¥364,000 ※
M56 × 2	II	GYF056QDNEBC	125	30	8	2	¥364,000 ※
M56 × 1.5	II	GYW056ODNEBC	100	30	8	2	¥287,000 ※
M56 × 1.5	II	GYY056ODNEBC	105	30	8	2	¥287,000 ※
M56 × 1.5	II	GYC056ODNEBC	120	30	8	2	¥364,000 ※
M56 × 1.5	II	GYF056ODNEBC	125	30	8	2	¥364,000 ※
M58 × 4	II	GYW058UDNEBC	100	30	8	2	¥287,000 ※
M58 × 4	II	GYY058UDNEBC	105	30	8	2	¥287,000 ※
M58 × 4	II	GYC058UDNEBC	120	30	8	2	¥364,000 ※
M58 × 4	II	GYF058UDNEBC	125	30	8	2	¥364,000 ※
M58 × 3	II	GYW058SDNEBC	100	30	8	2	¥287,000 ※
M58 × 3	II	GYY058SDNEBC	105	30	8	2	¥287,000 ※
M58 × 3	II	GYC058SDNEBC	120	30	8	2	¥364,000 ※
M58 × 3	II	GYF058SDNEBC	125	30	8	2	¥364,000 ※
M58 × 2	II	GYW058QDNEBC	100	30	8	2	¥287,000 ※
M58 × 2	II	GYY058QDNEBC	105	30	8	2	¥287,000 ※
M58 × 2	II	GYC058QDNEBC	120	30	8	2	¥364,000 ※
M58 × 2	II	GYF058QDNEBC	125	30	8	2	¥364,000 ※
M58 × 1.5	II	GYW058ODNEBC	100	30	8	2	¥287,000 ※
M58 × 1.5	II	GYY058ODNEBC	105	30	8	2	¥287,000 ※
M58 × 1.5	II	GYC058ODNEBC	120	30	8	2	¥364,000 ※
M58 × 1.5	II	GYF058ODNEBC	125	30	8	2	¥364,000 ※
M60 × 5.5	II	GYW060XDNEBC	100	36	8	2	¥287,000 ※
M60 × 5.5	II	GYY060XDNEBC	105	36	8	2	¥287,000 ※
M60 × 5.5	II	GYC060XDNEBC	120	36	8	2	¥364,000 ※
M60 × 5.5	II	GYF060XDNEBC	125	36	8	2	¥364,000 ※
M60 × 4	II	GYW060UDNEBC	100	30	8	2	¥287,000 ※
M60 × 4	II	GYY060UDNEBC	105	30	8	2	¥287,000 ※
M60 × 4	II	GYC060UDNEBC	120	30	8	2	¥364,000 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

D LH Solid Round Dies for Left Hand Threads

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M60 × 4	II	GYF060UDNEBC	125	30	8	2	¥364,000 ※
M60 × 3	II	GYW060SDNEBC	100	30	8	2	¥287,000 ※
M60 × 3	II	GYY060SDNEBC	105	30	8	2	¥287,000 ※
M60 × 3	II	GYC060SDNEBC	120	30	8	2	¥364,000 ※
M60 × 3	II	GYF060SDNEBC	125	30	8	2	¥364,000 ※
M60 × 2	II	GYW060QDNEBC	100	30	8	2	¥287,000 ※
M60 × 2	II	GYY060QDNEBC	105	30	8	2	¥287,000 ※
M60 × 2	II	GYC060QDNEBC	120	30	8	2	¥364,000 ※
M60 × 2	II	GYF060QDNEBC	125	30	8	2	¥364,000 ※
M60 × 1.5	II	GYW060ODNEBC	100	30	8	2	¥287,000 ※
M60 × 1.5	II	GYY060ODNEBC	105	30	8	2	¥287,000 ※
M60 × 1.5	II	GYC060ODNEBC	120	30	8	2	¥364,000 ※
M60 × 1.5	II	GYF060ODNEBC	125	30	8	2	¥364,000 ※
M62 × 4	II	GYW062UDNEBC	100	30	8	2	¥287,000 ※
M62 × 4	II	GYY062UDNEBC	105	30	8	2	¥287,000 ※
M62 × 4	II	GYC062UDNEBC	120	30	8	2	¥364,000 ※
M62 × 4	II	GYF062UDNEBC	125	30	8	2	¥364,000 ※
M62 × 3	II	GYW062SDNEBC	100	30	8	2	¥287,000 ※
M62 × 3	II	GYY062SDNEBC	105	30	8	2	¥287,000 ※
M62 × 3	II	GYC062SDNEBC	120	30	8	2	¥364,000 ※
M62 × 3	II	GYF062SDNEBC	125	30	8	2	¥364,000 ※
M62 × 2	II	GYW062QDNEBC	100	30	8	2	¥287,000 ※
M62 × 2	II	GYY062QDNEBC	105	30	8	2	¥287,000 ※
M62 × 2	II	GYC062QDNEBC	120	30	8	2	¥364,000 ※
M62 × 2	II	GYF062QDNEBC	125	30	8	2	¥364,000 ※
M62 × 1.5	II	GYW062ODNEBC	100	30	8	2	¥287,000 ※
M62 × 1.5	II	GYY062ODNEBC	105	30	8	2	¥287,000 ※
M62 × 1.5	II	GYC062ODNEBC	120	30	8	2	¥364,000 ※
M62 × 1.5	II	GYF062ODNEBC	125	30	8	2	¥364,000 ※
M64 × 6	II	GYW064YDNEBC	100	36	8	2	¥287,000 ※
M64 × 6	II	GYY064YDNEBC	105	36	8	2	¥287,000 ※
M64 × 6	II	GYC064YDNEBC	120	36	8	2	¥364,000 ※
M64 × 6	II	GYF064YDNEBC	125	36	8	2	¥364,000 ※
M64 × 4	II	GYW064UDNEBC	100	30	8	2	¥287,000 ※
M64 × 4	II	GYY064UDNEBC	105	30	8	2	¥287,000 ※
M64 × 4	II	GYC064UDNEBC	120	30	8	2	¥364,000 ※
M64 × 4	II	GYF064UDNEBC	125	30	8	2	¥364,000 ※
M64 × 3	II	GYW064SDNEBC	100	30	8	2	¥287,000 ※
M64 × 3	II	GYY064SDNEBC	105	30	8	2	¥287,000 ※
M64 × 3	II	GYC064SDNEBC	120	30	8	2	¥364,000 ※
M64 × 3	II	GYF064SDNEBC	125	30	8	2	¥364,000 ※
M64 × 2	II	GYW064QDNEBC	100	30	8	2	¥287,000 ※
M64 × 2	II	GYY064QDNEBC	105	30	8	2	¥287,000 ※
M64 × 2	II	GYC064QDNEBC	120	30	8	2	¥364,000 ※
M64 × 2	II	GYF064QDNEBC	125	30	8	2	¥364,000 ※
M64 × 1.5	II	GYW064ODNEBC	100	30	8	2	¥287,000 ※
M64 × 1.5	II	GYY064ODNEBC	105	30	8	2	¥287,000 ※
M64 × 1.5	II	GYC064ODNEBC	120	30	8	2	¥364,000 ※
M64 × 1.5	II	GYF064ODNEBC	125	30	8	2	¥364,000 ※
M65 × 6	II	GYY065YDNEBC	105	36	8	2	¥287,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Outside diameter	Thickness
D	T

D LH Solid Round Dies for Left Hand Threads

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M65 × 6	Ⅱ	GYC065YDNEBC	120	36	8	2	¥364,000 ※
M65 × 6	Ⅱ	GYF065YDNEBC	125	36	8	2	¥364,000 ※
M65 × 4	Ⅱ	GYY065UDNEBC	105	30	8	2	¥287,000 ※
M65 × 4	Ⅱ	GYC065UDNEBC	120	30	8	2	¥364,000 ※
M65 × 4	Ⅱ	GYF065UDNEBC	125	30	8	2	¥364,000 ※
M65 × 3	Ⅱ	GYY065SDNEBC	105	30	8	2	¥287,000 ※
M65 × 3	Ⅱ	GYC065SDNEBC	120	30	8	2	¥364,000 ※
M65 × 3	Ⅱ	GYF065SDNEBC	125	30	8	2	¥364,000 ※
M65 × 2	Ⅱ	GYY065QDNEBC	105	30	8	2	¥287,000 ※
M65 × 2	Ⅱ	GYC065QDNEBC	120	30	8	2	¥364,000 ※
M65 × 2	Ⅱ	GYF065QDNEBC	125	30	8	2	¥364,000 ※
M65 × 1.5	Ⅱ	GYY065ODNEBC	105	30	8	2	¥287,000 ※
M65 × 1.5	Ⅱ	GYC065ODNEBC	120	30	8	2	¥364,000 ※
M65 × 1.5	Ⅱ	GYF065ODNEBC	125	30	8	2	¥364,000 ※
M68 × 6	Ⅱ	GYY068YDNEBC	105	36	8	2	¥287,000 ※
M68 × 6	Ⅱ	GYC068YDNEBC	120	36	10	2	¥364,000 ※
M68 × 6	Ⅱ	GYF068YDNEBC	125	36	10	2	¥364,000 ※
M68 × 4	Ⅱ	GYY068UDNEBC	105	30	8	2	¥287,000 ※
M68 × 4	Ⅱ	GYC068UDNEBC	120	30	10	2	¥364,000 ※
M68 × 4	Ⅱ	GYF068UDNEBC	125	30	10	2	¥364,000 ※
M68 × 3	Ⅱ	GYY068SDNEBC	105	30	8	2	¥287,000 ※
M68 × 3	Ⅱ	GYC068SDNEBC	120	30	10	2	¥364,000 ※
M68 × 3	Ⅱ	GYF068SDNEBC	125	30	10	2	¥364,000 ※
M68 × 2	Ⅱ	GYY068QDNEBC	105	30	8	2	¥287,000 ※
M68 × 2	Ⅱ	GYC068QDNEBC	120	30	10	2	¥364,000 ※
M68 × 2	Ⅱ	GYF068QDNEBC	125	30	10	2	¥364,000 ※
M68 × 1.5	Ⅱ	GYY068ODNEBC	105	30	8	2	¥287,000 ※
M68 × 1.5	Ⅱ	GYC068ODNEBC	120	30	10	2	¥364,000 ※
M68 × 1.5	Ⅱ	GYF068ODNEBC	125	30	10	2	¥364,000 ※
M70 × 6	Ⅱ	GYC070YDNEBC	120	36	10	2	¥364,000 ※
M70 × 6	Ⅱ	GYF070YDNEBC	125	36	10	2	¥364,000 ※
M70 × 4	Ⅱ	GYC070UDNEBC	120	30	10	2	¥364,000 ※
M70 × 4	Ⅱ	GYF070UDNEBC	125	30	10	2	¥364,000 ※
M70 × 3	Ⅱ	GYC070SDNEBC	120	30	10	2	¥364,000 ※
M70 × 3	Ⅱ	GYF070SDNEBC	125	30	10	2	¥364,000 ※
M70 × 2	Ⅱ	GYC070QDNEBC	120	30	10	2	¥364,000 ※
M70 × 2	Ⅱ	GYF070QDNEBC	125	30	10	2	¥364,000 ※
M70 × 1.5	Ⅱ	GYC070ODNEBC	120	30	10	2	¥364,000 ※
M70 × 1.5	Ⅱ	GYF070ODNEBC	125	30	10	2	¥364,000 ※
M72 × 6	Ⅱ	GYC072YDNEBC	120	36	10	2	¥364,000 ※
M72 × 6	Ⅱ	GYF072YDNEBC	125	36	10	2	¥364,000 ※
M72 × 4	Ⅱ	GYC072UDNEBC	120	30	10	2	¥364,000 ※
M72 × 4	Ⅱ	GYF072UDNEBC	125	30	10	2	¥364,000 ※
M72 × 3	Ⅱ	GYC072SDNEBC	120	30	10	2	¥364,000 ※
M72 × 3	Ⅱ	GYF072SDNEBC	125	30	10	2	¥364,000 ※
M72 × 2	Ⅱ	GYC072QDNEBC	120	30	10	2	¥364,000 ※
M72 × 2	Ⅱ	GYF072QDNEBC	125	30	10	2	¥364,000 ※
M72 × 1.5	Ⅱ	GYC072ODNEBC	120	30	10	2	¥364,000 ※
M72 × 1.5	Ⅱ	GYF072ODNEBC	125	30	10	2	¥364,000 ※
M75 × 6	Ⅱ	GYC075YDNEBC	120	36	10	2	¥364,000 ※

Outside diameter	Thickness
D	T

D LH Solid Round Dies for Left Hand Threads

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M75 × 6	II	GYF075YDNEBC	125	36	10	2	¥364,000 ※
M75 × 4	II	GYC075UDNEBC	120	30	10	2	¥364,000 ※
M75 × 4	II	GYF075UDNEBC	125	30	10	2	¥364,000 ※
M75 × 3	II	GYC075SDNEBC	120	30	10	2	¥364,000 ※
M75 × 3	II	GYF075SDNEBC	125	30	10	2	¥364,000 ※
M75 × 2	II	GYC075QDNEBC	120	30	10	2	¥364,000 ※
M75 × 2	II	GYF075QDNEBC	125	30	10	2	¥364,000 ※
M75 × 1.5	II	GYC075ODNEBC	120	30	10	2	¥364,000 ※
M75 × 1.5	II	GYF075ODNEBC	125	30	10	2	¥364,000 ※
M76 × 6	II	GYC076YDNEBC	120	36	10	2	¥364,000 ※
M76 × 6	II	GYF076YDNEBC	125	36	10	2	¥364,000 ※
M76 × 4	II	GYC076UDNEBC	120	30	10	2	¥364,000 ※
M76 × 4	II	GYF076UDNEBC	125	30	10	2	¥364,000 ※
M76 × 3	II	GYC076SDNEBC	120	30	10	2	¥364,000 ※
M76 × 3	II	GYF076SDNEBC	125	30	10	2	¥364,000 ※
M76 × 2	II	GYC076QDNEBC	120	30	10	2	¥364,000 ※
M76 × 2	II	GYF076QDNEBC	125	30	10	2	¥364,000 ※
M76 × 1.5	II	GYC076ODNEBC	120	30	10	2	¥364,000 ※
M76 × 1.5	II	GYF076ODNEBC	125	30	10	2	¥364,000 ※
M78 × 2	II	GYC078QDNEBC	120	30	10	2	¥364,000 ※
M78 × 2	II	GYF078QDNEBC	125	30	10	2	¥364,000 ※
M80 × 6	II	GYC080YDNEBC	120	36	10	2	¥364,000 ※
M80 × 6	II	GYF080YDNEBC	125	36	10	2	¥364,000 ※
M80 × 4	II	GYC080UDNEBC	120	30	10	2	¥364,000 ※
M80 × 4	II	GYF080UDNEBC	125	30	10	2	¥364,000 ※
M80 × 3	II	GYC080SDNEBC	120	30	10	2	¥364,000 ※
M80 × 3	II	GYF080SDNEBC	125	30	10	2	¥364,000 ※
M80 × 2	II	GYC080QDNEBC	120	30	10	2	¥364,000 ※
M80 × 2	II	GYF080QDNEBC	125	30	10	2	¥364,000 ※
M80 × 1.5	II	GYC080ODNEBC	120	30	10	2	¥364,000 ※
M80 × 1.5	II	GYF080ODNEBC	125	30	10	2	¥364,000 ※
For Unified Threads							
1/4-20UNC	II	GYGU04NDNEBC	25	9	4	1	¥ 13,300 ※
1/4-28UNF	II	GYGU04KDNEBC	25	9	4	1	¥ 13,300 ※
5/16-18UNC	II	GYGU05ODNEBC	25	9	4	1	¥ 13,300 ※
5/16-24UNF	II	GYGU05MDNEBC	25	9	4	1	¥ 13,300 ※
3/8-16UNC	II	GYGU06PDNEBC	25	9	5	1	¥ 13,300 ※
3/8-24UNF	II	GYGU06MDNEBC	25	9	5	1	¥ 13,300 ※
3/8-24UNF	II	GYJU06MDNEBC	38	13	4	1	¥ 17,800 ※
7/16-20UNF	II	GYJU07NDNEBC	38	13	4	1	¥ 17,800 ※
1/2-13UNC	II	GYJU08RDNEBC	38	13	4	1	¥ 17,800 ※
1/2-20UNF	II	GYJU08NDNEBC	38	13	4	1	¥ 17,800 ※
9/16-12UNC	II	GYJU09SDNEBC	38	13	5	1	¥ 17,800 ※
9/16-18UNF	II	GYJU09ODNEBC	38	13	5	1	¥ 17,800 ※
5/8-11UNC	II	GYMU10UDNEBC	50	16	4	1	¥ 28,900 ※
5/8-18UNF	II	GYMU10ODNEBC	50	16	4	1	¥ 28,900 ※
3/4-10UNC	II	GYMU12VDNEBC	50	16	5	1	¥ 28,900 ※
3/4-16UNF	II	GYMU12PDNEBC	50	16	5	1	¥ 28,900 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

D LH Solid Round Dies for Left Hand Threads

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
7/8-9UNC	Ⅱ	GYMU14WDNEBC	50	16	6	1	¥ 28,900 ※
7/8-14UNF	Ⅱ	GYMU14QDNEBC	50	16	6	1	¥ 28,900 ※
			For Whitworth Threads				
3/16W24	Ⅱ	GYEW03MDNEBC	20	7	4	1	¥ 11,100 ※
5/16W18	Ⅱ	GYGW05ODNEBC	25	9	4	1	¥ 13,300 ※
3/8W16	Ⅱ	GYGW06PDNEBC	25	9	5	1	¥ 13,300 ※
3/8W16	Ⅱ	GYJW06PDNEBC	38	13	4	1	¥ 17,800 ※
7/16W14	Ⅱ	GYJW07QDNEBC	38	13	4	1	¥ 17,800 ※
1/2W12	Ⅱ	GYJW08SDNEBC	38	13	4	1	¥ 17,800 ※
5/8W11	Ⅱ	GYJW10UDNEBC	38	13	5	1	¥ 17,800 ※
3/4W10	Ⅱ	GYMW12VDNEBC	50	16	5	1	¥ 28,900 ※
7/8W9	Ⅱ	GYMW14WDNEBC	50	16	6	1	¥ 28,900 ※
1 W8	Ⅱ	GYMW16XDNEBC	50	16	6	1	¥ 28,900 ※

Outside diameter	Thickness	Position of basic dia.
D	T	ℓg

JIS

D PT

Solid Round Dies for Taper Pipe Threads



Specification

Front face

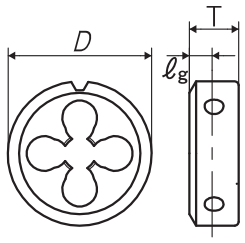
HSS 2.5

■The D PT is a solid round dies for PT external tapered pipe thread processing with improved runout accuracy.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Cast irons 鋳鉄	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)

TYPE : 1



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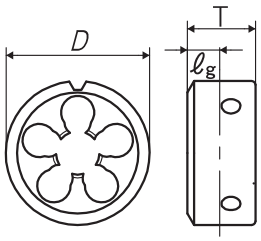

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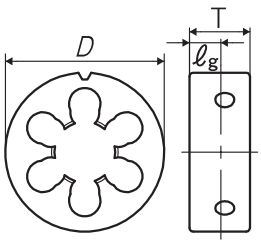


Segment : 3G

Size	Code	D (mm)	T (mm)	ℓg (mm)	Clearance holes	TYPE	MSRP
For PT Threads							
PT 1/16-28	TYJPT010NEBC	38	13	6	4	1	¥ 14,100 ※
PT 1/8-28	TYJPT020NEBC	38	13	6	4	1	¥ 14,100
PT 1/4-19	TYJPT040NEBC	38	18	8.5	5	2	¥ 14,100
PT 3/8-19	TYMPT060NEBC	50	22	10	5	2	¥ 22,600
PT 1/2-14	TYMPT080NEBC	50	22	12	6	2	¥ 22,600
PT 5/8-14	TYRPT100NEBC	63	24	12	6	3	¥ 66,900 ※
PT 3/4-14	TYRPT120NEBC	63	24	12.5	6	3	¥ 59,300
PT 7/8-14	TYUPT140NEBC	75	30	12.5	6	3	¥120,000 ※
PT 1 -11	TYUPT160NEBC	75	30	15	6	3	¥105,000
PT 1 1/4-11	TYUPT200NEBC	75	30	15	6	3	¥105,000 ※
PT 1 1/2-11	TYUPT240NEBC	75	30	15	6	3	¥105,000 ※
PT 2 -11	TYYPT320NEBC	105	36	17.5	8	3	¥255,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Outside diameter	Thickness	Position of basic dia.
D	T	ℓg

JIS

D PT LH

Solid Round Dies for Taper Pipe Threads, for Left Hand Threads



Specification

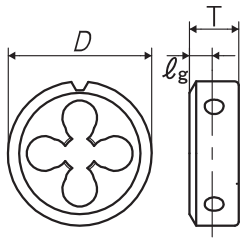
HSS | LH Left hand | Front face 2.5

■The D PT LH are solid round dies for left hand external PT tapered pipe threads that have improved die runout accuracy.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Cast irons 鋳鉄	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)

TYPE : 1



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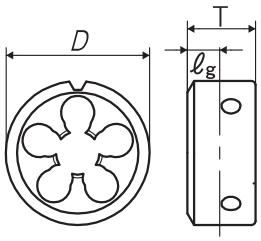

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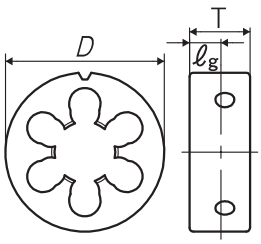


Segment : 3G

Size	Code	D (mm)	T (mm)	ℓg (mm)	Clearance holes	TYPE	MSRP
For PT Threads							
PT 1/8-28	GYJPT020NEBC	38	13	6	4	1	¥ 21,200 ※
PT 1/4-19	GYJPT040NEBC	38	18	8.5	5	2	¥ 21,200 ※
PT 3/8-19	GYMPT060NEBC	50	22	10	5	2	¥ 33,900 ※
PT 1/2-14	GYMPT080NEBC	50	22	12	6	2	¥ 33,900 ※
PT 3/4-14	GYRPT120NEBC	63	24	12.5	6	3	¥ 89,000 ※
PT 1 -11	GYUPT160NEBC	75	30	15	6	3	¥158,000 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

JIS

D PF

Solid Round Dies for Parallel Pipe Threads



Specification

Front face

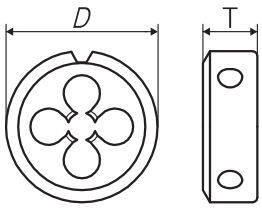
HSS 2.5

■Solid round dies for PF external threads with improved die runout accuracy.

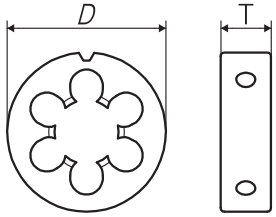
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Cast irons 鋳鉄	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)

TYPE : 1 D ≦ 50



TYPE : 2 D ≧ 63



Segment : 3G

Size	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
For PF Threads						
PF 1/16-28	TYGPF010NEBC	25	9	4	1	¥ 9,350 ※
PF 1/8-28	TYGPF020NEBC	25	9	5	1	¥ 9,350 ※
PF 1/8-28	TYJPF020NEBC	38	13	4	1	¥ 9,720
PF 1/4-19	TYJPF040NEBC	38	13	5	1	¥ 9,720
PF 3/8-19	TYJPF060NEBC	38	13	6	1	¥ 9,720 ※
PF 3/8-19	TYMPF060NEBC	50	16	5	1	¥ 15,900
PF 1/2-14	TYMPF080NEBC	50	16	5	1	¥ 15,900
PF 5/8-14	TYMPF100NEBC	50	16	6	1	¥ 17,900 ※
PF 3/4-14	TYMPF120NEBC	50	16	6	1	¥ 15,900 ※
PF 3/4-14	TYRPF120NEBC	63	20	6	2	¥ 45,800
PF 1 -11	TYUPF160NEBC	75	25	6	2	¥ 78,400
PF 1 1/4-11	TYUPF200NEBC	75	25	8	2	¥ 78,400 ※
PF 1 1/2-11	TYUPF240NEBC	75	25	8	2	¥ 78,400 ※
PF 2 -11	TYYPF320NEBC	105	30	8	2	¥188,000 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

JIS

D PF LH

Solid Round Dies for Parallel Pipe Threads, for Left Hand Threads



Specification

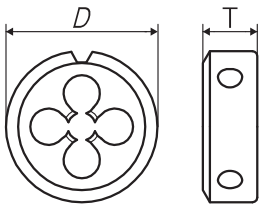
HSS | LH Left hand | Front face 2.5

■Solid round dies for external PF left hand threads with improved runout accuracy.

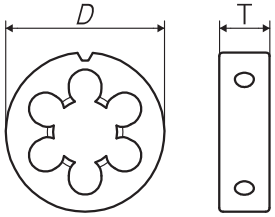
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Cast irons 鋳鉄	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)

TYPE: 1 D ≦ 50



TYPE: 2 D ≧ 63



Segment : 3G

Size	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
For PF Threads						
PF 1/8-28	GYJPF020NEBC	38	13	4	1	¥ 14,600 ※
PF 1/4-19	GYJPF040NEBC	38	13	5	1	¥ 14,600 ※
PF 3/8-19	GYMPF060NEBC	50	16	5	1	¥ 23,900 ※
PF 1/2-14	GYMPF080NEBC	50	16	5	1	¥ 23,900 ※
PF 3/4-14	GYRPF120NEBC	63	20	6	2	¥ 68,700 ※
PF 1 -11	GYUPF160NEBC	75	25	6	2	¥118,000 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness	Position of basic dia.
D	T	ℓg

JIS

D NPT

Solid Round Dies for American Taper Pipe Threads



Specification

Front face

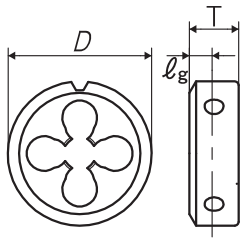
HSS 2.5

■The D NPT are solid round dies for American external tapered pipe threads with improved runout accuracy.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Cast irons 鋳鉄	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)

TYPE : 1



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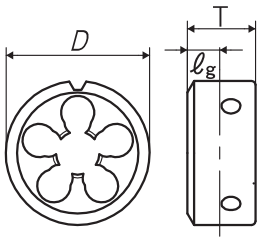
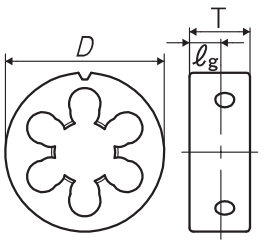


TYPE : 3



Segment : 3G

Size	Code	D (mm)	T (mm)	ℓg (mm)	Clearance holes	TYPE	MSRP
For NPT Threads							
1/16-27 NPT	TYJNT010NEBC	38	13	5	4	1	¥ 16,800 ※
1/8-27 NPT	TYJNT020NEBC	38	13	5	4	1	¥ 16,800
1/4-18 NPT	TYJNT040NEBC	38	18	8	5	2	¥ 16,800
3/8-18 NPT	TYMNT060NEBC	50	22	8	5	2	¥ 27,100 ※
1/2-14 NPT	TYMNT080NEBC	50	22	10	6	2	¥ 27,100 ※
3/4-14 NPT	TYRNT120NEBC	63	24	10	6	3	¥ 70,900 ※
1 -11 1/2 NPT	TYUNT160NEBC	75	30	13	6	3	¥126,000 ※
1 1/4-11 1/2 NPT	TYUNT200NEBC	75	30	13.5	6	3	¥126,000 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Outside diameter	Thickness	Position of basic dia.
D	T	ℓg

JIS

D NPTF

Solid Round Dies for American Dryseal Taper Pipe Threads



Specification

Front face

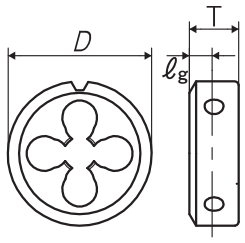
HSS 2.5

■The D NPTF are solid round dies for the American dryseal external tapered pipe threads for dry sealed tubes with improved runout accuracy.

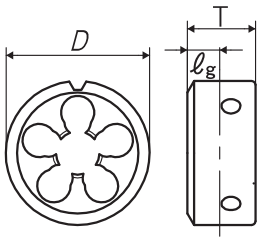
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Cast irons 鋳鉄	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)

TYPE:1



TYPE:2



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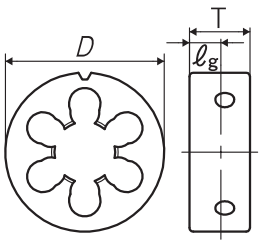


Segment : 3G

Size	Code	D (mm)	T (mm)	ℓg (mm)	Clearance holes	TYPE	MSRP
For NPTF Threads							
1/16-27 NPTF	TYJNF010NEBC	38	13	6	4	1	¥ 18,400 ※
1/8-27 NPTF	TYJNF020NEBC	38	13	6	4	1	¥ 18,400 ※
1/4-18 NPTF	TYJNF040NEBC	38	18	10	5	2	¥ 18,400 ※
3/8-18 NPTF	TYMNF060NEBC	50	22	10	5	2	¥ 29,700 ※
1/2-14 NPTF	TYMNF080NEBC	50	22	12	6	2	¥ 29,700 ※
3/4-14 NPTF	TYRNF120NEBC	63	24	12	6	3	¥ 78,200 ※
1 -11 1/2 NPTF	TYUNF160NEBC	75	30	15	6	3	¥140,000 ※
1 1/4-11 1/2 NPTF	TYUNF200NEBC	75	30	15.5	6	3	¥140,000 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

JIS

D NPSM

Solid Round Dies for American Parallel Pipe Threads



Specification

Front face

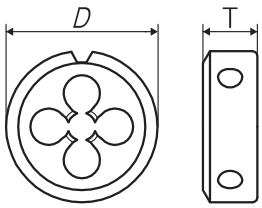
HSS 2.5

■The D NPSM is a solid round dies for parallel external thread processing of American tapered pipe threads that have improved die runout accuracy.

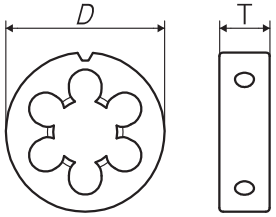
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Cast irons 鋳鉄	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)

TYPE : 1 D ≦ 50



TYPE : 2 D ≧ 63



Segment : 3G

Size	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
For NPSM Threads						
1/16-27 NPSM	TYJSM010NEBC	38	13	4	1	¥ 11,400 ※
1/8-27 NPSM	TYJSM020NEBC	38	13	4	1	¥ 11,400 ※
1/4-18 NPSM	TYJSM040NEBC	38	13	5	1	¥ 11,400 ※
3/8-18 NPSM	TYMSM060NEBC	50	16	5	1	¥ 18,200 ※
1/2-14 NPSM	TYMSM080NEBC	50	16	5	1	¥ 18,200 ※
3/4-14 NPSM	TYRSM120NEBC	63	20	6	2	¥ 52,200 ※
1 -11 1/2 NPSM	TYUSM160NEBC	75	25	6	2	¥ 89,800 ※
1 1/4-11 1/2 NPSM	TYUSM200NEBC	75	25	8	2	¥ 89,800 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

JIS

DPO

Spiral Pointed HSS Round Dies



Specification

Front face

HSS 1.5

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)

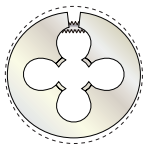
Product Features

①Chip trouble is reduced by ejecting chips ahead of dies, achieving continuous machining of highly accurate external threads.

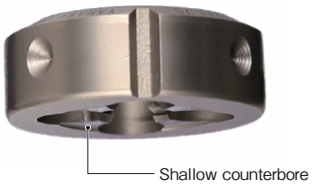
②The adoption of new die classes allows you to select a class according to your needs. Note that non-standard classes of products are available as specified distribution items (made to order products).

Front face



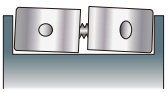
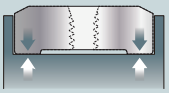
Adjustable Dies	Solid Round Dies
	

Rear face (Basis for cutting)



③Markings on the bevel of the die front face make it easy to determine the machining direction.

④A recess in the die rear face allows a closer fit of the end face to the holder.

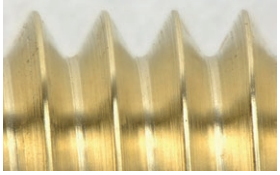
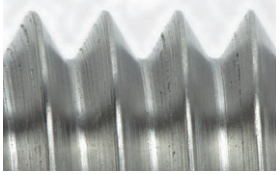
Adjustable Dies	Solid Round Dies
	 Stable basis face

⑤Long life is achieved by the adoption of high-speed tool steel (HSS).

Cutting condition

Die size [DPO S5 M6×1(20)]

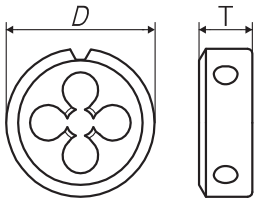
Work Material	Brass・S45C
Cutting Speed	Brass 5m/min・S45C 2m/min
Machine	Vertical machining center with synchronous feed
Cutting Fluid	Water soluble cutting fluid

Brass	S45C
	

Think threads with YAMAWA

Outside diameter	Thickness
D	T

TYPE : 1 D ≦ 50



Oversize

Segment : 30

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
For Metric Threads							
M2 × 0.4	S5	PYE2.0ETNEBA	20	7	3	1	¥ 7,390
M2 × 0.4	S5	PYG2.0ETNEBA	25	9	3	1	¥ 8,840
M2 × 0.4	S2	PYE2.0EQNEBA	20	7	3	1	¥ 7,390 ※
M2 × 0.4	S2	PYG2.0EQNEBA	25	9	3	1	¥ 8,840 ※
M2 × 0.25	S4	PYE2.0BSNEBA	20	7	3	1	¥ 11,900
M2 × 0.25	S2	PYE2.0BQNEBA	20	7	3	1	¥ 11,900 ※
M2.2 × 0.45	S6	PYE2.2FUNEBA	20	7	3	1	¥ 7,390 ※
M2.2 × 0.45	S2	PYE2.2FQNEBA	20	7	3	1	¥ 7,390 ※
M2.3 × 0.4	S5	PYE2.3ETNEBA	20	7	3	1	¥ 7,390
M2.3 × 0.4	S2	PYE2.3EQNEBA	20	7	3	1	¥ 7,390 ※
M2.5 × 0.45	S6	PYE2.5FUNEBA	20	7	3	1	¥ 7,390
M2.5 × 0.45	S6	PYG2.5FUNEBA	25	9	3	1	¥ 8,840
M2.5 × 0.45	S2	PYE2.5FQNEBA	20	7	3	1	¥ 7,390 ※
M2.5 × 0.45	S2	PYG2.5FQNEBA	25	9	3	1	¥ 8,840 ※
M2.5 × 0.35	S5	PYE2.5DTNEBA	20	7	3	1	¥ 11,900
M2.5 × 0.35	S2	PYE2.5DQNEBA	20	7	3	1	¥ 11,900 ※
M2.6 × 0.45	S6	PYE2.6FUNEBA	20	7	3	1	¥ 7,390 ※
M2.6 × 0.45	S6	PYG2.6FUNEBA	25	9	3	1	¥ 8,840
M2.6 × 0.45	S2	PYE2.6FQNEBA	20	7	3	1	¥ 7,390 ※
M2.6 × 0.45	S2	PYG2.6FQNEBA	25	9	3	1	¥ 8,840 ※
M3 × 0.5	S6	PYE3.0GUNEBA	20	7	3	1	¥ 7,390
M3 × 0.5	S6	PYG3.0GUNEBA	25	9	3	1	¥ 8,840
M3 × 0.5	S2	PYE3.0GQNEBA	20	7	3	1	¥ 7,390 ※
M3 × 0.5	S2	PYG3.0GQNEBA	25	9	3	1	¥ 8,840 ※
M3 × 0.35	S5	PYE3.0DTNEBA	20	7	3	1	¥ 11,900
M3 × 0.35	S5	PYG3.0DTNEBA	25	9	3	1	¥ 14,100
M3 × 0.35	S2	PYE3.0DQNEBA	20	7	3	1	¥ 11,900 ※
M3 × 0.35	S2	PYG3.0DQNEBA	25	9	3	1	¥ 14,100 ※
M3.5 × 0.6	S4	PYE3.5HSNEBA	20	7	3	1	¥ 7,390
M3.5 × 0.6	S4	PYG3.5HSNEBA	25	9	3	1	¥ 8,840
M3.5 × 0.6	S2	PYE3.5HQNEBA	20	7	3	1	¥ 7,390 ※
M3.5 × 0.6	S2	PYG3.5HQNEBA	25	9	3	1	¥ 8,840 ※
M3.5 × 0.35	S5	PYE3.5DTNEBA	20	7	3	1	¥ 11,900 ※
M3.5 × 0.35	S2	PYE3.5DQNEBA	20	7	3	1	¥ 11,900 ※
M4 × 0.7	S4	PYE4.0ISNEBA	20	7	3	1	¥ 7,390
M4 × 0.7	S4	PYG4.0ISNEBA	25	9	3	1	¥ 8,840
M4 × 0.7	S4	PYJ4.0ISNEBA	38	13	4	1	¥ 13,800
M4 × 0.7	S2	PYE4.0IQNEBA	20	7	3	1	¥ 7,390 ※
M4 × 0.7	S2	PYG4.0IQNEBA	25	9	3	1	¥ 8,840 ※
M4 × 0.7	S2	PYJ4.0IQNEBA	38	13	4	1	¥ 13,800 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

DPO Spiral Pointed HSS Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M4 × 0.5	S6	PYE4.0GUNEBA	20	7	3	1	¥ 9,200
M4 × 0.5	S6	PYG4.0GUNEBA	25	9	3	1	¥ 13,800
M4 × 0.5	S2	PYE4.0GQNEBA	20	7	3	1	¥ 9,200 ※
M4 × 0.5	S2	PYG4.0GQNEBA	25	9	3	1	¥ 13,800 ※
M4.5 × 0.75	S4	PYE4.5JSNEBA	20	7	4	1	¥ 8,600 ※
M4.5 × 0.75	S2	PYE4.5JQNEBA	20	7	4	1	¥ 8,600 ※
M4.5 × 0.5	S6	PYE4.5GUNEBA	20	7	4	1	¥ 11,100
M4.5 × 0.5	S2	PYE4.5GQNEBA	20	7	4	1	¥ 11,100 ※
M5 × 0.8	S4	PYE5.0KSNEBA	20	7	4	1	¥ 7,390
M5 × 0.8	S4	PYG5.0KSNEBA	25	9	3	1	¥ 8,840
M5 × 0.8	S4	PYJ5.0KSNEBA	38	13	4	1	¥ 13,800
M5 × 0.8	S2	PYE5.0KQNEBA	20	7	4	1	¥ 7,390 ※
M5 × 0.8	S2	PYG5.0KQNEBA	25	9	3	1	¥ 8,840 ※
M5 × 0.8	S2	PYJ5.0KQNEBA	38	13	4	1	¥ 13,800 ※
M5 × 0.5	S6	PYE5.0GUNEBA	20	7	4	1	¥ 9,200
M5 × 0.5	S6	PYG5.0GUNEBA	25	9	3	1	¥ 13,800
M5 × 0.5	S2	PYE5.0GQNEBA	20	7	4	1	¥ 9,200 ※
M5 × 0.5	S2	PYG5.0GQNEBA	25	9	3	1	¥ 13,800 ※
M5.5 × 0.5	S6	PYE5.5GUNEBA	20	7	4	1	¥ 11,100
M5.5 × 0.5	S2	PYE5.5GQNEBA	20	7	4	1	¥ 11,100 ※
M6 × 1	S5	PYE6.0MTNEBA	20	7	4	1	¥ 7,390
M6 × 1	S5	PYG6.0MTNEBA	25	9	4	1	¥ 8,840
M6 × 1	S5	PYJ6.0MTNEBA	38	13	4	1	¥ 13,800
M6 × 1	S2	PYE6.0MQNEBA	20	7	4	1	¥ 7,390 ※
M6 × 1	S2	PYG6.0MQNEBA	25	9	4	1	¥ 8,840 ※
M6 × 1	S2	PYJ6.0MQNEBA	38	13	4	1	¥ 13,800 ※
M6 × 0.75	S4	PYE6.0JSNEBA	20	7	4	1	¥ 9,560
M6 × 0.75	S4	PYG6.0JSNEBA	25	9	4	1	¥ 11,500
M6 × 0.75	S4	PYJ6.0JSNEBA	38	13	4	1	¥ 22,400
M6 × 0.75	S2	PYE6.0JQNEBA	20	7	4	1	¥ 9,560 ※
M6 × 0.75	S2	PYG6.0JQNEBA	25	9	4	1	¥ 11,500 ※
M6 × 0.75	S2	PYJ6.0JQNEBA	38	13	4	1	¥ 22,400 ※
M6 × 0.5	S6	PYE6.0GUNEBA	20	7	4	1	¥ 9,200
M6 × 0.5	S6	PYG6.0GUNEBA	25	9	4	1	¥ 13,800
M6 × 0.5	S2	PYE6.0GQNEBA	20	7	4	1	¥ 9,200 ※
M6 × 0.5	S2	PYG6.0GQNEBA	25	9	4	1	¥ 13,800 ※
M7 × 1	S5	PYG7.0MTNEBA	25	9	4	1	¥ 8,840
M7 × 1	S2	PYG7.0MQNEBA	25	9	4	1	¥ 8,840 ※
M7 × 0.75	S4	PYG7.0JSNEBA	25	9	4	1	¥ 11,500
M7 × 0.75	S2	PYG7.0JQNEBA	25	9	4	1	¥ 11,500 ※
M8 × 1.25	S5	PYG8.0NTNEBA	25	9	4	1	¥ 8,840
M8 × 1.25	S5	PYJ8.0NTNEBA	38	13	4	1	¥ 11,900
M8 × 1.25	S5	PYM8.0NTNEBA	50	16	4	1	¥ 19,400
M8 × 1.25	S2	PYG8.0NQNEBA	25	9	4	1	¥ 8,840 ※
M8 × 1.25	S2	PYJ8.0NQNEBA	38	13	4	1	¥ 11,900 ※
M8 × 1.25	S2	PYM8.0NQNEBA	50	16	4	1	¥ 19,400 ※
M8 × 1	S5	PYG8.0MTNEBA	25	9	4	1	¥ 10,400
M8 × 1	S5	PYJ8.0MTNEBA	38	13	4	1	¥ 16,400
M8 × 1	S2	PYG8.0MQNEBA	25	9	4	1	¥ 10,400 ※
M8 × 1	S2	PYJ8.0MQNEBA	38	13	4	1	¥ 16,400 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

DPO Spiral Pointed HSS Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M8 × 0.75	S4	PYG8.0JSNEBA	25	9	4	1	¥ 11,500
M8 × 0.75	S2	PYG8.0JQNEBA	25	9	4	1	¥ 11,500 ※
M8 × 0.5	S6	PYG8.0GUNEBA	25	9	4	1	¥ 13,800
M8 × 0.5	S2	PYG8.0GQNEBA	25	9	4	1	¥ 13,800 ※
M9 × 1.25	S5	PYG9.0NTNEBA	25	9	5	1	¥ 9,390
M9 × 1.25	S2	PYG9.0NQNEBA	25	9	5	1	¥ 9,390 ※
M9 × 1	S5	PYG9.0MTNEBA	25	9	5	1	¥ 10,400
M9 × 1	S2	PYG9.0MQNEBA	25	9	5	1	¥ 10,400 ※
M9 × 0.75	S4	PYG9.0JSNEBA	25	9	5	1	¥ 11,500
M9 × 0.75	S2	PYG9.0JQNEBA	25	9	5	1	¥ 11,500 ※
M10 × 1.5	S4	PYG100SNEBA	25	9	5	1	¥ 8,840
M10 × 1.5	S4	PYJ100SNEBA	38	13	4	1	¥ 11,900
M10 × 1.5	S4	PYM100SNEBA	50	16	4	1	¥ 19,400
M10 × 1.5	S2	PYG100QNEBA	25	9	5	1	¥ 8,840 ※
M10 × 1.5	S2	PYJ100QNEBA	38	13	4	1	¥ 11,900 ※
M10 × 1.5	S2	PYM100QNEBA	50	16	4	1	¥ 19,400 ※
M10 × 1.25	S5	PYG010NTNEBA	25	9	5	1	¥ 8,840
M10 × 1.25	S5	PYJ010NTNEBA	38	13	4	1	¥ 11,900
M10 × 1.25	S2	PYG010NQNEBA	25	9	5	1	¥ 8,840 ※
M10 × 1.25	S2	PYJ010NQNEBA	38	13	4	1	¥ 11,900 ※
M10 × 1	S5	PYG010MTNEBA	25	9	5	1	¥ 10,400
M10 × 1	S5	PYJ010MTNEBA	38	13	4	1	¥ 16,400
M10 × 1	S2	PYG010MQNEBA	25	9	5	1	¥ 10,400 ※
M10 × 1	S2	PYJ010MQNEBA	38	13	4	1	¥ 16,400 ※
M10 × 0.75	S4	PYG010JSNEBA	25	9	5	1	¥ 11,500
M10 × 0.75	S4	PYJ010JSNEBA	38	13	4	1	¥ 22,400
M10 × 0.75	S2	PYG010JQNEBA	25	9	5	1	¥ 11,500 ※
M10 × 0.75	S2	PYJ010JQNEBA	38	13	4	1	¥ 22,400 ※
M10 × 0.5	S6	PYG010GUNEBA	25	9	5	1	¥ 13,800 ※
M10 × 0.5	S2	PYG010GQNEBA	25	9	5	1	¥ 13,800 ※
M11 × 1.5	S4	PYJ011OSNEBA	38	13	4	1	¥ 13,800
M11 × 1.5	S2	PYJ011OQNEBA	38	13	4	1	¥ 13,800 ※
M11 × 1	S5	PYJ011MTNEBA	38	13	4	1	¥ 16,400
M11 × 1	S2	PYJ011MQNEBA	38	13	4	1	¥ 16,400 ※
M11 × 0.75	S4	PYJ011JSNEBA	38	13	4	1	¥ 22,400 ※
M11 × 0.75	S2	PYJ011JQNEBA	38	13	4	1	¥ 22,400 ※
M12 × 1.75	S4	PYJ012PSNEBA	38	13	4	1	¥ 11,900
M12 × 1.75	S4	PYM012PSNEBA	50	16	4	1	¥ 19,400
M12 × 1.75	S2	PYJ012PQNEBA	38	13	4	1	¥ 11,900 ※
M12 × 1.75	S2	PYM012PQNEBA	50	16	4	1	¥ 19,400 ※
M12 × 1.5	S4	PYJ012OSNEBA	38	13	4	1	¥ 11,900
M12 × 1.5	S2	PYJ012OQNEBA	38	13	4	1	¥ 11,900 ※
M12 × 1.25	S6	PYJ012NUNEBA	38	13	4	1	¥ 11,900
M12 × 1.25	S2	PYJ012NQNEBA	38	13	4	1	¥ 11,900 ※
M12 × 1	S5	PYJ012MTNEBA	38	13	4	1	¥ 16,400
M12 × 1	S2	PYJ012MQNEBA	38	13	4	1	¥ 16,400 ※
M12 × 0.75	S5	PYJ012JTNEBA	38	13	4	1	¥ 22,400 ※
M12 × 0.75	S2	PYJ012JQNEBA	38	13	4	1	¥ 22,400 ※
M12 × 0.5	S6	PYJ012GUNEBA	38	13	4	1	¥ 25,300
M12 × 0.5	S2	PYJ012GQNEBA	38	13	4	1	¥ 25,300 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

DPO Spiral Pointed HSS Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M14 × 2	S4	PYJ014QSNEBA	38	13	5	1	¥ 11,900
M14 × 2	S4	PYM014QSNEBA	50	16	4	1	¥ 19,400
M14 × 2	S2	PYJ014QQNEBA	38	13	5	1	¥ 11,900 ※
M14 × 2	S2	PYM014QQNEBA	50	16	4	1	¥ 19,400 ※
M14 × 1.5	S4	PYJ014OSNEBA	38	13	5	1	¥ 11,900
M14 × 1.5	S2	PYJ014OQNEBA	38	13	5	1	¥ 11,900 ※
M14 × 1.25	S6	PYJ014NUNEBA	38	13	5	1	¥ 16,400
M14 × 1.25	S2	PYJ014NQNEBA	38	13	5	1	¥ 16,400 ※
M14 × 1	S5	PYJ014MTNEBA	38	13	5	1	¥ 16,400
M14 × 1	S2	PYJ014MQNEBA	38	13	5	1	¥ 16,400 ※
M15 × 1.5	S4	PYJ015OSNEBA	38	13	5	1	¥ 11,900
M15 × 1.5	S2	PYJ015OQNEBA	38	13	5	1	¥ 11,900 ※
M15 × 1	S5	PYJ015MTNEBA	38	13	5	1	¥ 16,400
M15 × 1	S2	PYJ015MQNEBA	38	13	5	1	¥ 16,400 ※
M16 × 2	S4	PYJ016QSNEBA	38	13	5	1	¥ 11,900
M16 × 2	S4	PYM016QSNEBA	50	16	4	1	¥ 19,400
M16 × 2	S2	PYJ016QQNEBA	38	13	5	1	¥ 11,900 ※
M16 × 2	S2	PYM016QQNEBA	50	16	4	1	¥ 19,400 ※
M16 × 1.5	S4	PYJ016OSNEBA	38	13	5	1	¥ 11,900
M16 × 1.5	S4	PYM016OSNEBA	50	16	4	1	¥ 19,400
M16 × 1.5	S2	PYJ016OQNEBA	38	13	5	1	¥ 11,900 ※
M16 × 1.5	S2	PYM016OQNEBA	50	16	4	1	¥ 19,400 ※
M16 × 1	S5	PYJ016MTNEBA	38	13	5	1	¥ 16,400
M16 × 1	S5	PYM016MTNEBA	50	16	4	1	¥ 26,300 ※
M16 × 1	S2	PYJ016MQNEBA	38	13	5	1	¥ 16,400 ※
M16 × 1	S2	PYM016MQNEBA	50	16	4	1	¥ 26,300 ※
M17 × 1.5	S4	PYM017OSNEBA	50	16	5	1	¥ 19,400
M17 × 1.5	S2	PYM017OQNEBA	50	16	5	1	¥ 19,400 ※
M17 × 1	S5	PYM017MTNEBA	50	16	5	1	¥ 26,300
M17 × 1	S2	PYM017MQNEBA	50	16	5	1	¥ 26,300 ※
M18 × 2.5	S5	PYM018RTNEBA	50	16	5	1	¥ 19,400
M18 × 2.5	S2	PYM018RQNEBA	50	16	5	1	¥ 19,400 ※
M18 × 2	S4	PYM018QSNEBA	50	16	5	1	¥ 23,600
M18 × 2	S2	PYM018QQNEBA	50	16	5	1	¥ 23,600 ※
M18 × 1.5	S4	PYM018OSNEBA	50	16	5	1	¥ 19,400
M18 × 1.5	S2	PYM018OQNEBA	50	16	5	1	¥ 19,400 ※
M18 × 1	S5	PYM018MTNEBA	50	16	5	1	¥ 26,300
M18 × 1	S2	PYM018MQNEBA	50	16	5	1	¥ 26,300 ※
M20 × 2.5	S5	PYM020RTNEBA	50	16	5	1	¥ 19,400
M20 × 2.5	S2	PYM020RQNEBA	50	16	5	1	¥ 19,400 ※
M20 × 2	S4	PYM020QSNEBA	50	16	5	1	¥ 23,600
M20 × 2	S2	PYM020QQNEBA	50	16	5	1	¥ 23,600 ※
M20 × 1.5	S4	PYM020OSNEBA	50	16	5	1	¥ 19,400
M20 × 1.5	S2	PYM020OQNEBA	50	16	5	1	¥ 19,400 ※
M20 × 1	S5	PYM020MTNEBA	50	16	5	1	¥ 26,300
M20 × 1	S2	PYM020MQNEBA	50	16	5	1	¥ 26,300 ※
M22 × 2.5	S5	PYM022RTNEBA	50	16	6	1	¥ 19,400
M22 × 2.5	S2	PYM022RQNEBA	50	16	6	1	¥ 19,400 ※
M22 × 2	S4	PYM022QSNEBA	50	16	6	1	¥ 23,600
M22 × 2	S2	PYM022QQNEBA	50	16	6	1	¥ 23,600 ※

Outside diameter	Thickness
D	T

DPO Spiral Pointed HSS Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M22 × 1.5	S4	PYM0220SNEBA	50	16	6	1	¥ 19,400
M22 × 1.5	S2	PYM0220QNEBA	50	16	6	1	¥ 19,400 ※
M22 × 1.25	S4	PYM022NSNEBA	50	16	6	1	¥ 26,300
M22 × 1.25	S2	PYM022NQNEBA	50	16	6	1	¥ 26,300 ※
M22 × 1	S5	PYM022MTNEBA	50	16	6	1	¥ 26,300
M22 × 1	S2	PYM022MQNEBA	50	16	6	1	¥ 26,300 ※
M24 × 3	S5	PYM024STNEBA	50	16	6	1	¥ 19,400
M24 × 3	S2	PYM024SQNEBA	50	16	6	1	¥ 19,400 ※
M24 × 2	S5	PYM024QTNEBA	50	16	6	1	¥ 23,600
M24 × 2	S2	PYM024QQNEBA	50	16	6	1	¥ 23,600 ※
M24 × 1.5	S4	PYM0240SNEBA	50	16	6	1	¥ 19,400
M24 × 1.5	S2	PYM0240QNEBA	50	16	6	1	¥ 19,400 ※
M24 × 1	S6	PYM024MUNEBA	50	16	6	1	¥ 26,300
M24 × 1	S2	PYM024MQNEBA	50	16	6	1	¥ 26,300 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

DIN

DPO

Spiral Pointed HSS Round Dies



Specification

HSS | Front face 1.5 (M, UN, G) | Front face 2 (NPT)

■Troubles due to chips are reduced by the spiral pointed flutes pushing out the chips ahead of dies.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)	2.5~5 (m/min)

Segment : 32 (G,NPT=33)

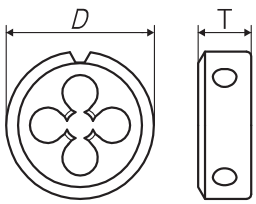
Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE
For Metric Threads						
M1 × 0.25	6h	PDD1.0BLNEBC	16	5	3	1
M1.1 × 0.25	6h	PDD1.1BLNEBC	16	5	3	1
M1.2 × 0.25	6h	PDD1.2BLNEBC	16	5	3	1
M1.4 × 0.3	6h	PDD1.4CLNEBC	16	5	3	1
M1.6 × 0.35	6g	PDD1.6DLNEBC	16	5	3	1
M1.7 × 0.35	6g	PDD1.7DLNEBC	16	5	3	1
M1.8 × 0.35	6g	PDD1.8DLNEBC	16	5	3	1
M2 × 0.4	6g	PDD2.0ELNEBC	16	5	3	1
M2 × 0.25	6g	PDD2.0BLNEBC	16	5	3	1
M2.2 × 0.45	6g	PDD2.2FLNEBC	16	5	3	1
M2.3 × 0.4	6g	PDD2.3ELNEBC	16	5	3	1
M2.5 × 0.45	6g	PDD2.5FLNEBC	16	5	3	1
M2.5 × 0.35	6g	PDD2.5DLNEBC	16	5	3	1
M2.6 × 0.45	6g	PDD2.6FLNEBC	16	5	3	1
M3 × 0.5	6g	PDE3.0GLNEBC	20	5	3	1
M3 × 0.35	6g	PDE3.0DLNEBC	20	5	3	1
M3.5 × 0.6	6g	PDE3.5HLNEBC	20	5	3	1
M4 × 0.7	6g	PDE4.0ILNEBC	20	5	3	1
M4 × 0.5	6g	PDE4.0GLNEBC	20	5	3	1
M5 × 0.8	6g	PDE5.0KLNEBC	20	7	4	1
M5 × 0.5	6g	PDE5.0GLNEBC	20	5	4	1
M6 × 1	6g	PDE6.0MLNEBC	20	7	4	1
M6 × 0.75	6g	PDE6.0JLNEBC	20	7	4	1
M6 × 0.5	6g	PDE6.0GLNEBC	20	5	4	1
M7 × 1	6g	PDG7.0MLNEBC	25	9	4	1
M7 × 0.75	6g	PDG7.0JLNEBC	25	9	4	1
M8 × 1.25	6g	PDG8.0NLNEBC	25	9	4	1
M8 × 1	6g	PDG8.0MLNEBC	25	9	4	1
M8 × 0.75	6g	PDG8.0JLNEBC	25	9	4	1
M8 × 0.5	6g	PDG8.0GLNEBC	25	9	4	1
M9 × 1.25	6g	PDG9.0NLNEBC	25	9	5	1
M9 × 1	6g	PDG9.0MLNEBC	25	9	5	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Outside diameter	Thickness
D	T

TYPE: 1



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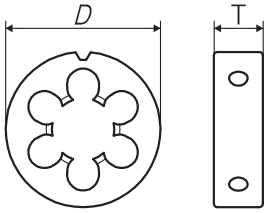

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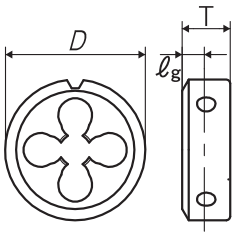

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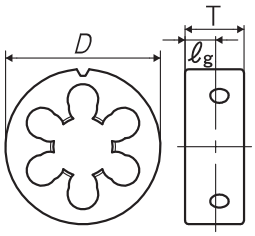


Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE
M10 × 1.5	6g	PDH010OLNEBC	30	11	4	1
M10 × 1.25	6g	PDH010NLNEBC	30	11	4	1
M10 × 1	6g	PDH010MLNEBC	30	11	4	1
M10 × 0.75	6g	PDH010JLNEBC	30	11	4	1
M10 × 0.5	6g	PDH010GLNEBC	30	11	4	1
M11 × 1.5	6g	PDH011OLNEBC	30	11	5	1
M12 × 1.75	6g	PDJ012PLNEBC	38	14	4	1
M12 × 1.5	6g	PDJ012OLNEBC	38	10	4	1
M12 × 1.25	6g	PDJ012NLNEBC	38	10	4	1
M12 × 1	6g	PDJ012MLNEBC	38	10	4	1
M12 × 0.75	6g	PDJ012JLNEBC	38	10	4	1
M12 × 0.5	6g	PDJ012GLNEBC	38	10	4	1
M14 × 2	6g	PDJ014QLNEBC	38	14	5	1
M14 × 1.5	6g	PDJ014OLNEBC	38	10	5	1
M14 × 1.25	6g	PDJ014NLNEBC	38	10	5	1
M14 × 1	6g	PDJ014MLNEBC	38	10	5	1
M15 × 1.5	6g	PDJ015OLNEBC	38	10	5	1
M16 × 2	6g	PDL016QLNEBC	45	18	5	1
M16 × 1.5	6g	PDL016OLNEBC	45	14	5	1
M16 × 1	6g	PDL016MLNEBC	45	14	5	1
M18 × 2.5	6g	PDL018RLNEBC	45	18	5	1
M18 × 2	6g	PDL018QLNEBC	45	14	5	1
M18 × 1.5	6g	PDL018OLNEBC	45	14	5	1
M18 × 1	6g	PDL018MLNEBC	45	14	5	1
M20 × 2.5	6g	PDL020RLNEBC	45	18	5	1
M20 × 2	6g	PDL020QLNEBC	45	14	5	1
M20 × 1.5	6g	PDL020OLNEBC	45	14	5	1
M20 × 1	6g	PDL020MLNEBC	45	14	5	1
M22 × 2.5	6g	PDP022RLNEBC	55	22	5	1
M22 × 2	6g	PDP022QLNEBC	55	16	5	1
M22 × 1.5	6g	PDP022OLNEBC	55	16	5	1
M22 × 1	6g	PDP022MLNEBC	55	16	5	1
M24 × 3	6g	PDP024SLNEBC	55	22	5	1

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Outside diameter	Thickness
D	T

DPO Spiral Pointed HSS Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE
M24 × 2	6g	PDP024QLNEBC	55	16	5	1
M24 × 1.5	6g	PDP024OLNEBC	55	16	5	1
M24 × 1	6g	PDP024MLNEBC	55	16	5	1
M26 × 1.5	6g	PDP026OLNEBC	55	16	6	1
M27 × 3	6g	PDS027SLNEBC	65	25	6	2
M27 × 2	6g	PDS027QLNEBC	65	18	6	2
M27 × 1.5	6g	PDS027OLNEBC	65	18	6	2
M27 × 1	6g	PDS027MLNEBC	65	18	6	2
M28 × 2	6g	PDS028QLNEBC	65	18	6	2
M28 × 1.5	6g	PDS028OLNEBC	65	18	6	2
M30 × 3.5	6g	PDS030TLNEBC	65	25	6	2
M30 × 1.5	6g	PDS030OLNEBC	65	18	6	2
M33 × 3.5	6g	PDS033TLNEBC	65	25	8	2
M36 × 4	6g	PDS036ULNEBC	65	25	8	2
For Unified Threads						
No.0-80UNF	2A	PDDUN0BGNEBC	16	5	3	1
No.1-64UNC	2A	PDDUN1DGNEBC	16	5	3	1
No.1-72UNF	2A	PDDUN1CGNEBC	16	5	3	1
No.2-56UNC	2A	PDDUN2EGNEBC	16	5	3	1
No.2-64UNF	2A	PDDUN2DGNEBC	16	5	3	1
No.3-48UNC	2A	PDDUN3FGNEBC	16	5	3	1
No.3-56UNF	2A	PDDUN3EGNEBC	16	5	3	1
No.4-40UNC	2A	PDEUN4HGNEBC	20	5	3	1
No.4-48UNF	2A	PDEUN4FGNEBC	20	5	3	1
No.5-40UNC	2A	PDEUN5HGNEBC	20	5	3	1
No.5-44UNF	2A	PDEUN5GGNEBC	20	5	3	1
No.6-32UNC	2A	PDEUN6JGNEBC	20	7	3	1
No.6-40UNF	2A	PDEUN6HGNEBC	20	5	3	1
No.8-32UNC	2A	PDEUN8JGNEBC	20	7	3	1
No.8-36UNF	2A	PDEUN8IGNEBC	20	7	3	1
No.10-24UNC	2A	PDEUNAMGNEBC	20	7	4	1
No.10-32UNF	2A	PDEUNAJGNEBC	20	7	4	1
No.12-24UNC	2A	PDEUNCMGNEBC	20	7	4	1
No.12-28UNF	2A	PDEUNCKGNEBC	20	7	4	1
1/4-20UNC	2A	PDGU04NGNEBC	25	9	4	1
1/4-28UNF	2A	PDGU04KGNEBC	25	9	4	1
5/16-18UNC	2A	PDGU05OGNEBC	25	9	4	1
5/16-24UNF	2A	PDGU05MGNEBC	25	9	4	1
3/8-16UNC	2A	PDHU06PGNEBC	30	11	4	1
3/8-24UNF	2A	PDHU06MGNEBC	30	11	4	1
7/16-14UNC	2A	PDHU07QGNEBC	30	11	5	1
7/16-20UNF	2A	PDHU07NGNEBC	30	11	5	1
1/2-13UNC	2A	PDJU08RGNEBC	38	14	4	1
1/2-20UNF	2A	PDJU08NGNEBC	38	10	4	1
9/16-12UNC	2A	PDJU09SGNEBC	38	14	5	1
9/16-18UNF	2A	PDJU09OGNEBC	38	10	5	1
5/8-11UNC	2A	PDLU10UGNEBC	45	18	5	1
5/8-18UNF	2A	PDLU10OGNEBC	45	14	5	1
3/4-10UNC	2A	PDLU12VGNEBC	45	18	5	1
3/4-16UNF	2A	PDLU12PGNEBC	45	14	5	1

Think threads with YAMAWA

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Outside diameter	Thickness	Position of basic dia.
D	T	ℓg

DPO Spiral Pointed HSS Round Dies

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE
7/8-9UNC	2A	PDPU14WGNEBC	55	22	5	1
7/8-14UNF	2A	PDPU14QGNEBC	55	16	5	1
1 -8UNC	2A	PDPU16XGNEBC	55	22	5	1
1 -12UNF	2A	PDPU16SGNEBC	55	16	5	1

Size	Code	D (mm)	T (mm)	Clearance holes	TYPE
For PF Threads					
G 1/8-28	PVHG0020NEBC	30	11	4	1
G 1/4-19	PVJG0040NEBC	38	10	5	1
G 3/8-19	PVLG0060NEBC	45	14	5	1
G 1/2-14	PVLG0080NEBC	45	16	5	1
G 5/8-14	PVPG0100NEBC	55	16	5	1
G 3/4-14	PVPG0120NEBC	55	16	6	1
G 7/8-14	PVSG0140NEBC	65	18	6	2
G 1 -11	PVSG0160NEBC	65	18	8	2
G 1 1/4-11	PVUG0200NEBC	75	20	8	2
G 1 1/2-11	PVXG0240NEBC	90	22	8	2

Size	Code	D (mm)	T (mm)	ℓg (mm)	Clearance holes	TYPE
For NPSM Threads						
1/8-27 NPT	PDJNT020NEBC	38	10	5	4	3
1/4-18 NPT	PDJNT040NEBC	38	15	8	5	3
3/8-18 NPT	PDLNT060NEBC	45	15	8	5	3
1/2-14 NPT	PDLNT080NEBC	45	19	10	6	3
3/4-14 NPT	PDSNT120NEBC	65	20	10	6	4
1 -11 1/2 NPT	PDSNT160NEBC	65	25	12.5	8	4

※ This product is different from JIS products in shape and dimensions, please be careful when using.

Think threads with YAMAWA

Outside diameter	Thickness
D	T

SP-D

Spiral Fluted HSS Round Dies



Specification

Front face

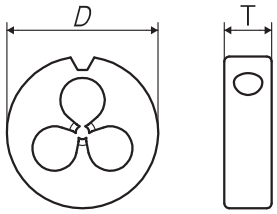
HSS 1.5

■The chip holes in the die are spiral fluted. The continuous metal chips are pushed out backward to reduce chip problems.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼
2.5~5 (m/min)	2.5~5 (m/min)

TYPE : 1



Segment : 32

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
For Metric Threads							
M3 × 0.5	P1	SEP3.0G	20	7	3	1	¥ 11,100 ※
M4 × 0.7	P1	SEP4.0I	20	7	3	1	¥ 11,100 ※
M5 × 0.8	P1	SEP5.0K	20	7	4	1	¥ 11,100 ※
M6 × 1	P1	SEP6.0M	20	7	4	1	¥ 11,100 ※
M8 × 1.25	P1	SGP8.0N	25	9	4	1	¥ 12,700 ※

Outside diameter	Thickness
D	T

JIS

HS-D

HSS Round Dies for Auto Lathe, for Stainless Steel



Specification

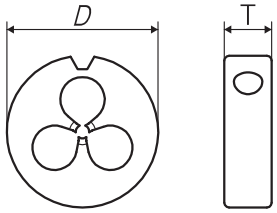
HSS | OX Oxide | Front face 2

■The HS-D is a HSS round dies for auto lathe, for stainless steels.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼
3~6 (m/min)	3~6 (m/min)	~2.5 (m/min)

TYPE : 1



Segment : 32

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
For Metric Threads							
M1 × 0.25	P1	HBP1.0B	10	3	3	1	¥ 9,830 ※
M1 × 0.25	P1	HDP1.0B	16	5	3	1	¥ 11,200 ※
M1 × 0.25	P2	HBQ1.0B	10	3	3	1	¥ 9,830 ※
M1 × 0.25	P2	HDQ1.0B	16	5	3	1	¥ 11,200 ※
M1.1 × 0.25	P1	HBP1.1B	10	3	3	1	¥ 9,830 ※
M1.1 × 0.25	P1	HDP1.1B	16	5	3	1	¥ 11,200 ※
M1.1 × 0.25	P2	HBQ1.1B	10	3	3	1	¥ 9,830 ※
M1.1 × 0.25	P2	HDQ1.1B	16	5	3	1	¥ 11,200 ※
M1.2 × 0.25	P1	HBP1.2B	10	3	3	1	¥ 9,830 ※
M1.2 × 0.25	P1	HDP1.2B	16	5	3	1	¥ 11,200 ※
M1.2 × 0.25	P2	HBQ1.2B	10	3	3	1	¥ 9,830 ※
M1.2 × 0.25	P2	HDQ1.2B	16	5	3	1	¥ 11,200 ※
M1.4 × 0.3	P1	HBP1.4C	10	3	3	1	¥ 9,830 ※
M1.4 × 0.3	P1	HDP1.4C	16	5	3	1	¥ 11,200 ※
M1.4 × 0.3	P2	HBQ1.4C	10	3	3	1	¥ 9,830 ※
M1.4 × 0.3	P2	HDQ1.4C	16	5	3	1	¥ 11,200 ※
M1.6 × 0.35	P1	HBP1.6D	10	3	3	1	¥ 9,830 ※
M1.6 × 0.35	P1	HDP1.6D	16	5	3	1	¥ 11,200 ※
M1.6 × 0.35	P2	HBQ1.6D	10	3	3	1	¥ 9,830 ※
M1.6 × 0.35	P2	HDQ1.6D	16	5	3	1	¥ 11,200 ※
M1.7 × 0.35	P1	HBP1.7D	10	3	3	1	¥ 9,830 ※
M1.7 × 0.35	P1	HDP1.7D	16	5	3	1	¥ 11,200 ※
M1.7 × 0.35	P2	HBQ1.7D	10	3	3	1	¥ 9,830 ※
M1.7 × 0.35	P2	HDQ1.7D	16	5	3	1	¥ 11,200 ※
M1.8 × 0.35	P1	HBP1.8D	10	3	3	1	¥ 9,830 ※
M1.8 × 0.35	P1	HDP1.8D	16	5	3	1	¥ 11,200 ※
M1.8 × 0.35	P2	HBQ1.8D	10	3	3	1	¥ 9,830 ※
M1.8 × 0.35	P2	HDQ1.8D	16	5	3	1	¥ 11,200 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Outside diameter	Thickness
D	T

HS-D HSS Round Dies for Auto Lathe, for Stainless Steels

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M2 × 0.4	P1	HBP2.0E	10	3	3	1	¥ 7,760 ※
M2 × 0.4	P1	HDP2.0E	16	5	4	1	¥ 8,570
M2 × 0.4	P1	HEP2.0E	20	7	4	1	¥ 10,400
M2 × 0.4	P2	HBQ2.0E	10	3	3	1	¥ 7,760 ※
M2 × 0.4	P2	HDQ2.0E	16	5	4	1	¥ 8,570 ※
M2 × 0.4	P2	HEQ2.0E	20	7	4	1	¥ 10,400 ※
M2 × 0.25	P1	HBP2.0B	10	3	3	1	¥ 11,200 ※
M2 × 0.25	P1	HDP2.0B	16	5	4	1	¥ 12,400 ※
M2 × 0.25	P2	HBQ2.0B	10	3	3	1	¥ 11,200 ※
M2 × 0.25	P2	HDQ2.0B	16	5	4	1	¥ 12,400 ※
M2.2 × 0.45	P1	HBP2.2F	10	3	3	1	¥ 7,760 ※
M2.2 × 0.45	P1	HDP2.2F	16	5	4	1	¥ 8,570 ※
M2.2 × 0.45	P2	HBQ2.2F	10	3	3	1	¥ 7,760 ※
M2.2 × 0.45	P2	HDQ2.2F	16	5	4	1	¥ 8,570 ※
M2.3 × 0.4	P1	HBP2.3E	10	3	3	1	¥ 7,760 ※
M2.3 × 0.4	P1	HDP2.3E	16	5	4	1	¥ 8,570 ※
M2.3 × 0.4	P2	HBQ2.3E	10	3	3	1	¥ 7,760 ※
M2.3 × 0.4	P2	HDQ2.3E	16	5	4	1	¥ 8,570 ※
M2.5 × 0.45	P1	HBP2.5F	10	3	3	1	¥ 7,760 ※
M2.5 × 0.45	P1	HDP2.5F	16	5	4	1	¥ 8,570 ※
M2.5 × 0.45	P1	HEP2.5F	20	7	4	1	¥ 10,400 ※
M2.5 × 0.45	P2	HBQ2.5F	10	3	3	1	¥ 7,760 ※
M2.5 × 0.45	P2	HDQ2.5F	16	5	4	1	¥ 8,570 ※
M2.5 × 0.45	P2	HEQ2.5F	20	7	4	1	¥ 10,400 ※
M2.5 × 0.35	P1	HBP2.5D	10	3	3	1	¥ 11,200 ※
M2.5 × 0.35	P1	HDP2.5D	16	5	4	1	¥ 12,400 ※
M2.5 × 0.35	P2	HBQ2.5D	10	3	3	1	¥ 11,200 ※
M2.5 × 0.35	P2	HDQ2.5D	16	5	4	1	¥ 12,400 ※
M2.6 × 0.45	P1	HBP2.6F	10	3	3	1	¥ 7,760 ※
M2.6 × 0.45	P1	HDP2.6F	16	5	4	1	¥ 8,570 ※
M2.6 × 0.45	P1	HEP2.6F	20	7	4	1	¥ 10,400 ※
M2.6 × 0.45	P2	HBQ2.6F	10	3	3	1	¥ 7,760 ※
M2.6 × 0.45	P2	HDQ2.6F	16	5	4	1	¥ 8,570 ※
M2.6 × 0.45	P2	HEQ2.6F	20	7	4	1	¥ 10,400 ※
M2.6 × 0.35	P1	HBP2.6D	10	3	3	1	¥ 11,200 ※
M2.6 × 0.35	P1	HDP2.6D	16	5	4	1	¥ 12,400 ※
M2.6 × 0.35	P2	HBQ2.6D	10	3	3	1	¥ 11,200 ※
M2.6 × 0.35	P2	HDQ2.6D	16	5	4	1	¥ 12,400 ※
M3 × 0.5	P1	HDP3.0G	16	5	4	1	¥ 8,570
M3 × 0.5	P1	HEP3.0G	20	7	4	1	¥ 8,180
M3 × 0.5	P2	HDQ3.0G	16	5	4	1	¥ 8,570 ※
M3 × 0.5	P2	HEQ3.0G	20	7	4	1	¥ 8,180 ※
M3 × 0.35	P1	HDP3.0D	16	5	4	1	¥ 12,400 ※
M3 × 0.35	P1	HEP3.0D	20	7	4	1	¥ 11,800 ※
M3 × 0.35	P2	HDQ3.0D	16	5	4	1	¥ 12,400 ※
M3 × 0.35	P2	HEQ3.0D	20	7	4	1	¥ 11,800 ※
M3.5 × 0.6	P1	HDP3.5H	16	5	4	1	¥ 8,570 ※
M3.5 × 0.6	P1	HEP3.5H	20	7	4	1	¥ 8,180 ※
M3.5 × 0.6	P2	HDQ3.5H	16	5	4	1	¥ 8,570 ※

Outside diameter	Thickness
D	T

HS-D HSS Round Dies for Auto Lathe, for Stainless Steels

Size	Class	Code	D (mm)	T (mm)	Clearance holes	TYPE	MSRP
M3.5 × 0.6	P2	HEQ3.5H	20	7	4	1	¥ 8,180 ※
M4 × 0.7	P1	HDP4.0I	16	5	4	1	¥ 8,570
M4 × 0.7	P1	HEP4.0I	20	7	4	1	¥ 8,180
M4 × 0.7	P2	HDQ4.0I	16	5	4	1	¥ 8,570 ※
M4 × 0.7	P2	HEQ4.0I	20	7	4	1	¥ 8,180 ※
M4 × 0.5	P1	HDP4.0G	16	5	4	1	¥ 11,300 ※
M4 × 0.5	P1	HEP4.0G	20	7	4	1	¥ 10,700 ※
M4 × 0.5	P2	HDQ4.0G	16	5	4	1	¥ 11,300 ※
M4 × 0.5	P2	HEQ4.0G	20	7	4	1	¥ 10,700 ※
M5 × 0.8	P1	HEP5.0K	20	7	4	1	¥ 8,180
M5 × 0.8	P2	HEQ5.0K	20	7	4	1	¥ 8,180 ※
M5 × 0.5	P1	HEP5.0G	20	7	4	1	¥ 10,700 ※
M5 × 0.5	P2	HEQ5.0G	20	7	4	1	¥ 10,700 ※
M6 × 1	P1	HEP6.0M	20	7	4	1	¥ 8,180
M6 × 1	P2	HEQ6.0M	20	7	4	1	¥ 8,180 ※
M6 × 0.75	P1	HEP6.0J	20	7	4	1	¥ 10,700 ※
M6 × 0.75	P2	HEQ6.0J	20	7	4	1	¥ 10,700 ※
M6 × 0.5	P1	HEP6.0G	20	7	4	1	¥ 11,800 ※
M6 × 0.5	P2	HEQ6.0G	20	7	4	1	¥ 11,800 ※
M7 × 0.75	P1	HEP7.0J	20	7	4	1	¥ 11,300 ※
M7 × 0.75	P2	HEQ7.0J	20	7	4	1	¥ 11,300 ※
M7 × 0.5	P1	HEP7.0G	20	7	4	1	¥ 13,200 ※
M7 × 0.5	P2	HEQ7.0G	20	7	4	1	¥ 13,200 ※
M8 × 1.25	P1	HEP8.0N	20	7	5	1	¥ 8,180 ※
M8 × 1.25	P1	HGP8.0N	25	9	4	1	¥ 9,400
M8 × 1.25	P2	HEQ8.0N	20	7	5	1	¥ 8,180 ※
M8 × 1.25	P2	HGQ8.0N	25	9	4	1	¥ 9,400 ※
M8 × 1	P1	HEP8.0M	20	7	5	1	¥ 10,700 ※
M8 × 1	P1	HGP8.0M	25	9	4	1	¥ 11,300 ※
M8 × 1	P2	HEQ8.0M	20	7	5	1	¥ 10,700 ※
M8 × 1	P2	HGQ8.0M	25	9	4	1	¥ 11,300 ※
M8 × 0.75	P1	HEP8.0J	20	7	5	1	¥ 11,300 ※
M8 × 0.75	P1	HGP8.0J	25	9	4	1	¥ 12,400 ※
M8 × 0.75	P2	HEQ8.0J	20	7	5	1	¥ 11,300 ※
M8 × 0.75	P2	HGQ8.0J	25	9	4	1	¥ 12,400 ※
M8 × 0.5	P1	HEP8.0G	20	7	5	1	¥ 13,200 ※
M8 × 0.5	P2	HEQ8.0G	20	7	5	1	¥ 13,200 ※
M9 × 1	P1	HEP9.0M	20	7	5	1	¥ 11,800 ※
M9 × 1	P2	HEQ9.0M	20	7	5	1	¥ 11,800 ※
M9 × 0.75	P1	HEP9.0J	20	7	5	1	¥ 11,800 ※
M9 × 0.75	P2	HEQ9.0J	20	7	5	1	¥ 11,800 ※
M10 × 1.5	P1	HGP010O	25	9	5	1	¥ 9,400
M10 × 1.5	P2	HGQ010O	25	9	5	1	¥ 9,400 ※
M10 × 1.25	P1	HGP010N	25	9	5	1	¥ 9,400 ※
M10 × 1.25	P2	HGQ010N	25	9	5	1	¥ 9,400 ※
M10 × 1	P1	HGP010M	25	9	5	1	¥ 12,400 ※
M10 × 1	P2	HGQ010M	25	9	5	1	¥ 12,400 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

JIS

MS-RS-D
R S-D

Rolling Dies



Specification

HSS | NI Nitride

■The MS-RS-D/RS-D is a rolling die capable of machining high precision external threads with a excellent surface finish. The threads are created by plastic forming of the material without creating chips.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅
3~6 (m/min)	3~6 (m/min)	3~6 (m/min)	3~6 (m/min)

MS-RS-D

Segment : 34

Size	Class	Code	D (mm)	T (mm)	TYPE	MSRP
For Miniature Screw Threads						
S0.5 × 0.125	R2	RA20.5-	6	2	1	¥ 18,200 ※
S0.6 × 0.15	R2	RA20.6-	6	2	1	¥ 18,200 ※
S0.7 × 0.175	R3	RA20.7-	6	2	1	¥ 18,200 ※
S0.8 × 0.2	R3	RO20.8-	8	3	1	¥ 18,200 ※
S0.9 × 0.225	R3	RO20.9-	8	3	1	¥ 18,200 ※

RS-D

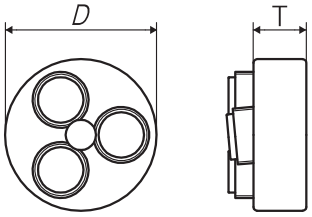
Recommended class

Segment : 34

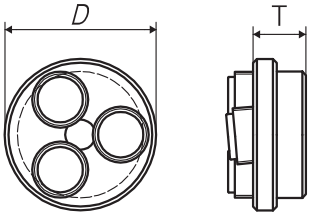
Size	Class	Code	D (mm)	T (mm)	TYPE	MSRP
For Metric Threads						
M1 × 0.25	R2	RBQ1.0B	10	3.5	1	¥ 16,800 ※
M1 × 0.25	R3	RBR1.0B	10	3.5	1	¥ 16,800 ※
M1 × 0.25	R4	RBS1.0B	10	3.5	1	¥ 16,800 ※
M1.1 × 0.25	R1	RBP1.1B	10	3.5	1	¥ 16,800 ※
M1.1 × 0.25	R2	RBQ1.1B	10	3.5	1	¥ 16,800 ※
M1.1 × 0.25	R3	RBR1.1B	10	3.5	1	¥ 16,800 ※
M1.2 × 0.25	R2	RBQ1.2B	10	3.5	1	¥ 16,800 ※
M1.2 × 0.25	R3	RBR1.2B	10	3.5	1	¥ 16,800 ※
M1.2 × 0.25	R4	RBS1.2B	10	3.5	1	¥ 16,800 ※
M1.4 × 0.3	R2	RBQ1.4C	10	3.5	1	¥ 16,800 ※
M1.4 × 0.3	R2	RDQ1.4C	16	5	1	¥ 20,100 ※
M1.4 × 0.3	R3	RBR1.4C	10	3.5	1	¥ 16,800 ※
M1.4 × 0.3	R3	RDR1.4C	16	5	1	¥ 20,100 ※
M1.4 × 0.3	R4	RBS1.4C	10	3.5	1	¥ 16,800 ※
M1.4 × 0.3	R4	RDS1.4C	16	5	1	¥ 20,100 ※
M1.6 × 0.35	R2	RQQ1.6D	12×10	4.5	2	¥ 18,200 ※
M1.6 × 0.35	R2	RDQ1.6D	16	5	1	¥ 20,100 ※
M1.6 × 0.35	R3	RQR1.6D	12×10	4.5	2	¥ 18,200 ※
M1.6 × 0.35	R3	RDR1.6D	16	5	1	¥ 20,100 ※
M1.6 × 0.35	R4	RQS1.6D	12×10	4.5	2	¥ 18,200 ※

Outside diameter	Thickness
D	T

TYPE: 1



TYPE: 2



Size	Class	Code	D (mm)	T (mm)	TYPE	MSRP
M1.6 × 0.35	R4	RDS1.6D	16	5	1	¥ 20,100 ※
M1.7 × 0.35	R2	RQQ1.7D	12×10	4.5	2	¥ 18,200 ※
M1.7 × 0.35	R2	RDQ1.7D	16	5	1	¥ 20,100 ※
M1.7 × 0.35	R3	RQR1.7D	12×10	4.5	2	¥ 18,200 ※
M1.7 × 0.35	R3	RDR1.7D	16	5	1	¥ 20,100 ※
M1.7 × 0.35	R4	RQS1.7D	12×10	4.5	2	¥ 18,200 ※
M1.7 × 0.35	R4	RDS1.7D	16	5	1	¥ 20,100 ※
M1.8 × 0.35	R2	RDQ1.8D	16	5	1	¥ 20,100 ※
M1.8 × 0.35	R3	RDR1.8D	16	5	1	¥ 20,100 ※
M1.8 × 0.35	R4	RDS1.8D	16	5	1	¥ 20,100 ※
M2 × 0.4	R2	RDQ2.0E	16	5	1	¥ 20,100 ※
M2 × 0.4	R3	RDR2.0E	16	5	1	¥ 20,100 ※
M2 × 0.4	R4	RDS2.0E	16	5	1	¥ 20,100 ※
M2 × 0.25	R2	RDQ2.0B	16	5	1	¥ 23,900 ※
M2 × 0.25	R3	RDR2.0B	16	5	1	¥ 23,900 ※
M2 × 0.25	R4	RDS2.0B	16	5	1	¥ 23,900 ※
M2.2 × 0.45	R2	RDQ2.2F	16	5	1	¥ 20,100 ※
M2.2 × 0.45	R3	RDR2.2F	16	5	1	¥ 20,100 ※
M2.2 × 0.45	R4	RDS2.2F	16	5	1	¥ 20,100 ※
M2.3 × 0.4	R2	RDQ2.3E	16	5	1	¥ 20,100 ※
M2.3 × 0.4	R3	RDR2.3E	16	5	1	¥ 20,100 ※
M2.3 × 0.4	R4	RDS2.3E	16	5	1	¥ 20,100 ※
M2.3 × 0.25	R2	RDQ2.3B	16	5	1	¥ 23,900 ※
M2.3 × 0.25	R3	RDR2.3B	16	5	1	¥ 23,900 ※
M2.3 × 0.25	R4	RDS2.3B	16	5	1	¥ 23,900 ※
M2.5 × 0.45	R2	RDQ2.5F	16	5	1	¥ 20,100 ※
M2.5 × 0.45	R2	REQ2.5F	20	7	1	¥ 24,900 ※
M2.5 × 0.45	R4	RDS2.5F	16	5	1	¥ 20,100 ※
M2.5 × 0.45	R4	RES2.5F	20	7	1	¥ 24,900 ※
M2.5 × 0.45	R5	RDT2.5F	16	5	1	¥ 20,100 ※
M2.5 × 0.45	R5	RET2.5F	20	7	1	¥ 24,900 ※

※ = Specified Distribution Items. Made to order products.

Outside diameter	Thickness
D	T

RS-D Rolling Dies

Size	Class	Code	D (mm)	T (mm)	TYPE	MSRP
M2.5 × 0.35	R2	RDQ2.5D	16	5	1	¥ 23,900 ※
M2.5 × 0.35	R3	RDR2.5D	16	5	1	¥ 23,900 ※
M2.5 × 0.35	R4	RDS2.5D	16	5	1	¥ 23,900 ※
M2.6 × 0.45	R2	RDQ2.6F	16	5	1	¥ 20,100 ※
M2.6 × 0.45	R2	REQ2.6F	20	7	1	¥ 24,900 ※
M2.6 × 0.45	R4	RDS2.6F	16	5	1	¥ 20,100 ※
M2.6 × 0.45	R4	RES2.6F	20	7	1	¥ 24,900 ※
M2.6 × 0.45	R5	RDT2.6F	16	5	1	¥ 20,100 ※
M2.6 × 0.45	R5	RET2.6F	20	7	1	¥ 24,900 ※
M2.6 × 0.35	R2	RDQ2.6D	16	5	1	¥ 23,900 ※
M2.6 × 0.35	R4	RDS2.6D	16	5	1	¥ 23,900 ※
M2.6 × 0.35	R5	RDT2.6D	16	5	1	¥ 23,900 ※
M3 × 0.5	R2	REQ3.0G	20	7	1	¥ 24,900 ※
M3 × 0.5	R4	RES3.0G	20	7	1	¥ 24,900 ※
M3 × 0.5	R5	RET3.0G	20	7	1	¥ 24,900 ※
M3 × 0.35	R2	REQ3.0D	20	7	1	¥ 29,500 ※
M3 × 0.35	R4	RES3.0D	20	7	1	¥ 29,500 ※
M3 × 0.35	R5	RET3.0D	20	7	1	¥ 29,500 ※
M3.5 × 0.35	R2	REQ3.5D	20	7	1	¥ 29,500 ※
M3.5 × 0.35	R4	RES3.5D	20	7	1	¥ 29,500 ※
M3.5 × 0.35	R5	RET3.5D	20	7	1	¥ 29,500 ※
M4 × 0.5	R3	RER4.0G	20	7	1	¥ 29,500 ※
M4 × 0.5	R5	RET4.0G	20	7	1	¥ 29,500 ※
M4 × 0.5	R6	REU4.0G	20	7	1	¥ 29,500 ※
M5 × 0.5	R3	RER5.0G	20	7	1	¥ 29,500 ※
M5 × 0.5	R4	RES5.0G	20	7	1	¥ 29,500 ※
M5 × 0.5	R5	RET5.0G	20	7	1	¥ 29,500 ※
M5 × 0.5	R6	REU5.0G	20	7	1	¥ 29,500 ※

MEMO

Outside diameter	Thickness
D	T

JIS

N-RSD

New Rolling Dies



Specification

Front face

HSS 2

Recommended Tapping Speeds depending on Materials

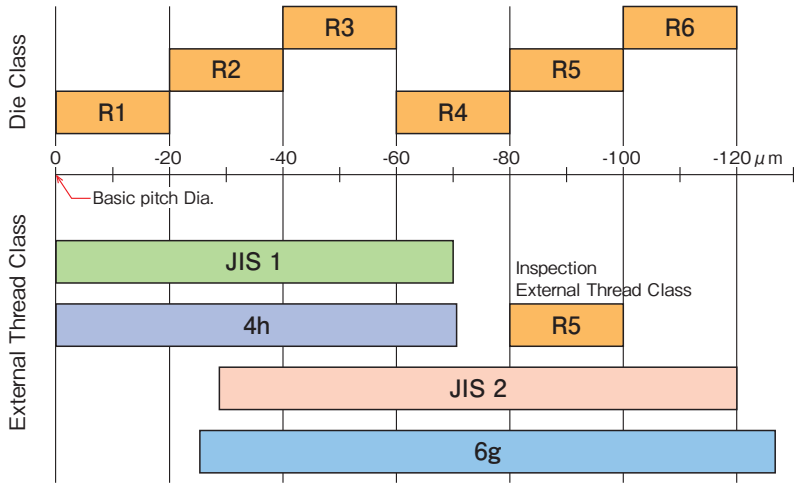
Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅
3~6 (m/min)	3~6 (m/min)	3~6 (m/min)	3~6 (m/min)

Product Features

- The new N-RSD rolling dies are capable of producing high precision screw threads through material deformation while producing an excellent surface finish without creating chips.
- The N-RSD has made major improvements in thread rolling efficiency starting with sizes P=0.5 and offers a dramatic improvement in tool life that could not be resolved with conventional rolling dies.
- The lower forming load on the dies chamfer at the starting point is greatly reduced compared to conventional products, achieving longer tool life.
- Ideal for small quantity thread rolling on various kinds of screw threads. Ideal for small diameter and long threads that are difficult to handle with thread rollers.
- YAMAWA recommends using automatic machines, lathes and machining centers wtih the N-RSD thread rolling dies.

Pitch diameter tolerance class comparison chart of die class (R class) and an external thread class.

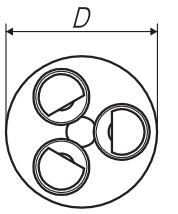
Comparative example with M6×1



- Die class: Class R is the pitch diameter tolerance zone for inspection of external threads machined with rolling dies.
- External thread surface finish accuracy may differ slightly from inspection external thread specification depending on the type of workpiece and processing conditions.

Outside diameter	Thickness
D	T

TYPE : 1



Segment : 34

Size	Class	Code	D (mm)	T (mm)	TYPE	MSRP
For Metric Threads						
M3 × 0.5	R4	NRGS3.0G	25	9	1	¥ 27,900 ※
M4 × 0.7	R4	NRGS4.0I	25	9	1	¥ 31,300 ※
M5 × 0.8	R5	NRGT5.0K	25	9	1	¥ 32,900 ※
M6 × 1	R5	NRHT6.0M	30	11	1	¥ 34,600 ※
M8 × 1.25	R6	NRJU8.0N	38	13	1	¥ 56,000 ※

※ = Specified Distribution Items. Made to order products.

Shank dia.	Holder dia.	Recess dia.	Overall length	Shank length	Depth of die mounting	Cutting depth	Outside dia of Die	Thickness of Die
Ds	D_1	D_2	L	ℓ_s	ℓ	ℓ_1	D	T

JIS

DA SS

Die Attachment for Machining Center



Specification

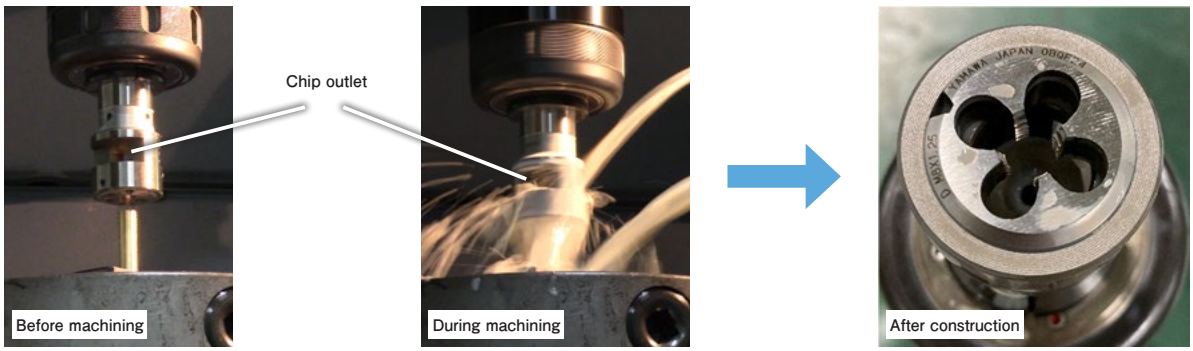
Bearing steel

Synchro nized

Product Features

- The exclusive tooling for YAMAWA solid dies, with functions to compensate feed error and misalignment of centering.
- In combination with NC tooling, external threads can be made easily to complicated workpieces.
- Stable and consecutive threading is achieved by removing remaining chips through the chip outlet.
- The coolant through hole is standardized to support the internal coolant supply.

Machining Data



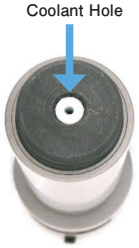
No remaining chips

◎ Cutting condition (Rigid feed)

Tool size	M8×1.25	Cutting length	16mm
Work Material	Brass	Machine	Vertical-type machining center
Cutting Speed	5m/min	Cutting Fluid	Water-soluble cutting oil

Stable and consecutive threading is achieved by removing remaining chips through the chip outlet! It can also be used with external lubrication equipment.

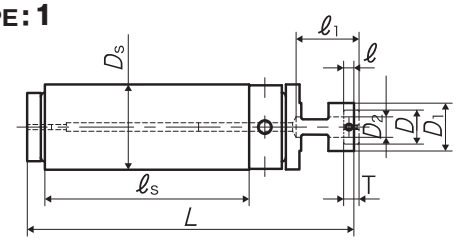
Coolant Through Hole Specifications



Water-soluble cutting oil passes through the coolant through hole provided in the center of the die attachment to accelerate chip ejection, lubrication, and cooling.

Shank dia.	Holder dia.	Recess dia.	Overall length	Shank length	Depth of die mounting	Cutting depth	Outside dia of Die	Thickness of Die
Ds	D_1	D_2	L	ℓ_s	ℓ	ℓ_1	D	T

TYPE : 1



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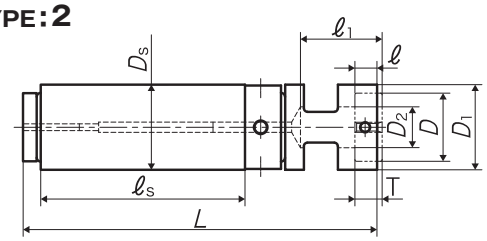
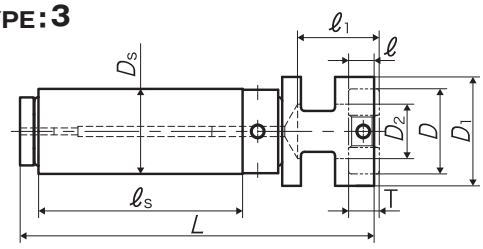


TYPE : 3



Segment : 3A

Code	Ds (mm)	D_1 (mm)	D_2 (mm)	L (mm)	ℓ_s (mm)	ℓ (mm)	ℓ_1 (mm)	D (mm)	T (mm)	TYPE	MSRP
DASS201060	20	14	6	96	60	3	16	10	3	1	¥ 40,100 □
DASS201660	20	20	10	96	60	4.5	16	16	5	2	¥ 40,100 □
DASS202060	20	25	12	103	60	6.5	22.5	20	7	3	¥ 45,500 □
DASS252060	25	25	12	104	60	6.5	22.5	20	7	2	¥ 47,400 □
DASS252560	25	32	16	104	60	7.5	22	25	9	3	¥ 47,400 □
DASS323870	32	50	26	132	70	11	36	38	13	3	¥ 58,700 □

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Think threads with YAMAWA

Shank dia.	Holder dia.	Recess dia.	Overall length	Shank length	Depth of die mounting	Cutting depth	Outside dia of Die	Thickness of Die
Ds	D_1	D_2	L	ℓ_s	ℓ	ℓ_1	D	T

RD-DA

Die Attachment (Designed Specially for Solid Round Dies)



Specification

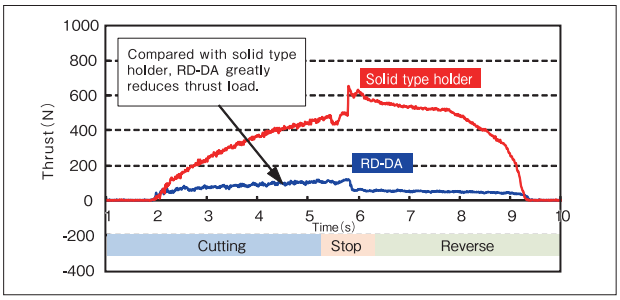
Bearing steel

Synchro nized

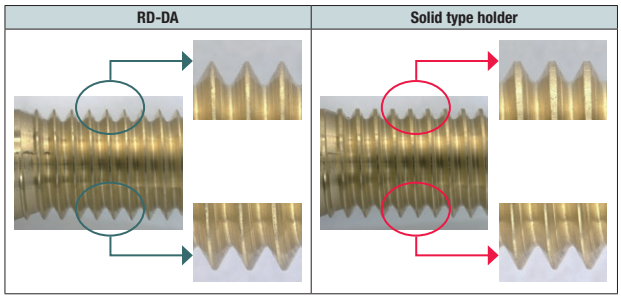
■Tooling designed specially for solid dies, with the mechanism to compensate for feed error and to absorb misalignment.

■Combined with CNC toolings, this attachment enables the cutting of external threads on complex workpieces with ease.

●Due to the mechanism to compensate for feed error, the thrust in the axial direction decreases and the tool life becomes longer.



●By automatic centering, RD-DA absorbs misalignment in radial direction and realizes the high precision thread cutting of external threads.



Cutting data

Cutting condition (Rigid feed)

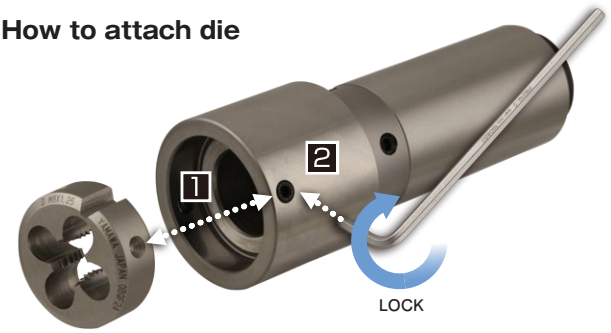
Tool Size	M10×1.5	Cutting Length	15mm
Work Material	Brass	Machine	Vertical MC
Cutting Speed	5m/min	Cutting Fluid	Tapping spray

Cutting data

Cutting condition (Rigid feed)

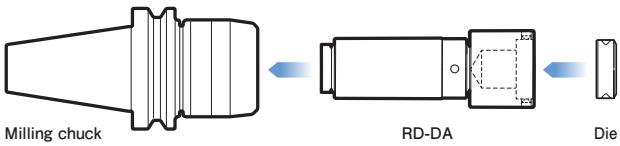
Tool Size	M8×1.25	Cutting Length	12mm
Work Material	Brass	Machine	Vertical MC
Cutting Speed	5m/min	Cutting Fluid	Water soluble cutting fluid

How to attach die



①Align push-hole or V groove of the die with the side lock screw on RD-DA and attach die.
②Turn the side lock screw by hex wrench and fasten die tightly.
③Make sure the die is fastened tightly and use RD-DA with NC toolings.

Example of use



Combined with NC toolings, RD-DA can be used with MC.

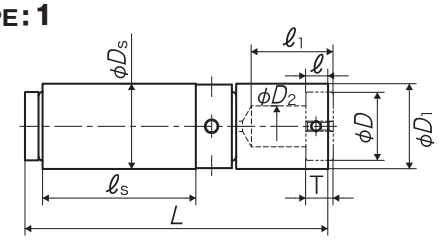


Click here for the RD-DA instruction manual

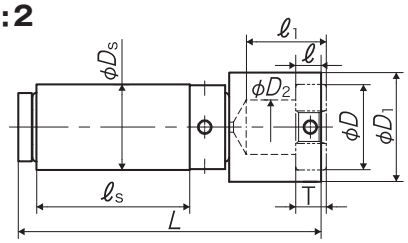
Think threads with YAMAWA

Shank dia.	Holder dia.	Recess dia.	Overall length	Shank length	Depth of die mounting	Cutting depth	Outside dia of Die	Thickness of Die
Ds	D_1	D_2	L	ℓ_s	ℓ	ℓ_1	D	T

TYPE : 1



TYPE : 2



Segment : 3A

Code	Ds (mm)	D_1 (mm)	D_2 (mm)	L (mm)	ℓs (mm)	ℓ (mm)	ℓ_1 (mm)	D (mm)	T (mm)	TYPE	MSRP
DA10-20	20	20	6	71	40	3	11	10	3	1	¥ 30,500 □ ▲
DA16-20	20	20	10	76	40	4.5	16	16	5	1	¥ 30,500 □ ▲
DA20-25	25	25	12	89	45	6.5	22.5	20	7	1	¥ 34,900 □ ▲
DA25-25	25	32	16	89	45	7.5	22	25	9	2	¥ 36,800 □ ▲
DA38-32	32	50	26	122	60	11	36	38	13	2	¥ 46,100 □ ▲

Remarks: Products marked with ▲ in the MSRP column are while supplies last.

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

Shank dia.	Holder dia.	Recess dia.	Overall length	Shank length	Depth of die mounting	Cutting depth	Outside dia of Die	Thickness of Die
Ds	D_1	D_2	L	ℓ_s	ℓ	ℓ_1	D	T

ANSI

RD-DA

Die Attachment (Designed Specially for Solid Round Dies)



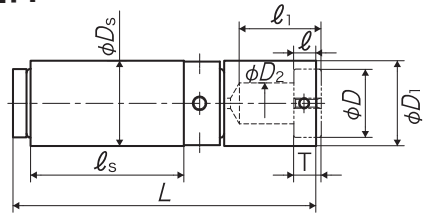
Specification

Bearing steel

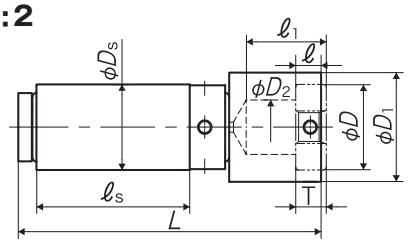
Synchro nized

- Tooling designed specially for solid dies, with the mechanism to compensate for feed error and to absorb misalignment.
- Combined with CNC toolings, this attachment enables the cutting of external threads on complex workpieces with ease.

TYPE : 1



TYPE : 2



Segment : 3A

Code	Ds (inch)	D_1 (inch)	D_2 (inch)	L (inch)	ℓs (inch)	ℓ (inch)	ℓ_1 (inch)	D (inch)	T (inch)	TYPE	
DA10-.75	0.75	0.787	0.236	2.795	1.574	0.118	0.433	0.394	0.137	1	▲
DA16-.75	0.75	0.787	0.393	2.992	1.574	0.177	0.63	0.63	0.196	1	▲
DA20-1	1	0.984	0.472	3.503	1.771	0.255	0.885	0.787	0.275	1	▲
DA25-1	1	1.26	0.63	3.503	1.771	0.295	0.866	0.984	0.354	2	▲
DA38-1.25	1.25	1.968	1.023	4.803	2.362	0.433	1.417	1.496	0.511	2	▲

Note: Products marked with an ▲ in the stock column are available while supplies last.

※ This product is different from JIS products in shape and dimensions, please be careful when using.

JIS • ANSI • DIN

LINE UP

⑪ CENTER DRILLS / CENTERING TOOLS



	JIS	ANSI	DIN
CESA	⑪-1		
CE-S	⑪-2		
CE-S (I)	⑪-3		
CD-S	⑪-4		
CD-S (I)	⑪-5		
CD-S LH	⑪-6		
CE-S V	⑪-7		
CE-S V (I)	⑪-8		
CD-S V	⑪-9		
CD-S V (I)	⑪-10		
C-CD-S	⑪-11		
CE-SL	⑪-12		
CD-SL	⑪-13		
CE-SL V	⑪-14		
CD-SL V	⑪-15		
C-CD-SL	⑪-16		
CEQA	⑪-17		
CE-Q	⑪-18		
CD-Q	⑪-19		
CD-Q LH	⑪-20		
CE-Q V	⑪-21		
CD-Q V	⑪-22		
C-CD-Q	⑪-23		
CE-QL	⑪-24		
CE-QL V	⑪-25		
C-CD-QL	⑪-26		
CESB	⑪-27		
CE-S (II)	⑪-28		
CD-S (II)	⑪-29		
CESC	⑪-30		
CEIR	⑪-31		
CD-R	⑪-32		
CE-T	⑪-33		
MHCDS	⑪-35		
AUCES	⑪-37		
AUCDS	⑪-37		
AUPEQ	⑪-39		
AUPES	⑪-39		
SHANK EXTENSION	⑪-41		
POINT DRILLS	⑪-43		
PE-Q	⑪-44		
PE-Q V	⑪-45		
C-PE-Q V	⑪-46		
PE-QL V	⑪-47		
PE-S	⑪-48		
PE-S V	⑪-49		
C-PE-S V	⑪-50		
PE-SL V	⑪-51		
NC-SD V	⑪-53		
NC-SD	⑪-53		
CS-Q	⑪-55		
CS-QM	⑪-56		
CS-G	⑪-57		
JOINT TOOLS	⑪-59		
JO-CES	⑪-60		
JO-CES V	⑪-60		
JO-CDS	⑪-61		
JO-CDS V	⑪-61		
JO-C-CDS	⑪-62		
JO-CDS (II)	⑪-62		
JO-PEQ	⑪-63		
JO-PEQ V	⑪-63		
JO-C-PEQ V	⑪-64		
JO-NCSD V	⑪-64		
JO-CSQM	⑪-65		
JO-HOLDER	⑪-65		

・For improvement, spec may change without advance notice.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

CESA



High Helix Center Drills-JIS Type A 60°

Specification

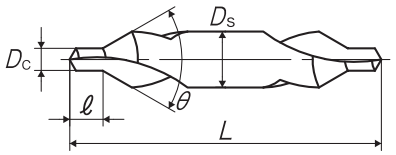
HSS

■High helix center drills - JIS Type A suitable for soft or relatively tough materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~10 (m/min)	25~50 (m/min)	25~50 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
0.5 × 60° × 3.15	CEA0.5	0.5	3.15	31.5	0.8	1.06	1	¥ 2,480
0.63 × 60° × 3.15	CEA0.63	0.63	3.15	31.5	1	1.32	1	¥ 2,230
0.8 × 60° × 3.15	CEA0.8	0.8	3.15	31.5	1.2	1.7	1	¥ 1,710
1 × 60° × 3.15	CEA1.0	1	3.15	31.5	1.5	2.12	1	¥ 1,520
1.25 × 60° × 3.15	CEA1.25	1.25	3.15	31.5	1.9	2.65	1	¥ 1,400
1.6 × 60° × 4	CEA1.6	1.6	4	35.5	2.4	3.35	1	¥ 1,340
2 × 60° × 5	CEA2.0	2	5	40	3	4.25	1	¥ 1,120
2.5 × 60° × 6.3	CEA2.5	2.5	6.3	45	3.8	5.3	1	¥ 1,210
3.15 × 60° × 8	CEA3.15	3.15	8	50	4.8	6.7	1	¥ 1,620
4 × 60° × 10	CEA4.0	4	10	56	6	8.5	1	¥ 2,960
5 × 60° × 12.5	CEA5.0	5	12.5	63	7.5	10.6	1	¥ 3,970
6.3 × 60° × 16	CEA6.3	6.3	16	71	9.2	13.2	1	¥ 7,660
8 × 60° × 20	CEA8.0	8	20	80	11.5	17	1	¥ 15,600
10 × 60° × 25	CEA010	10	25	100	14.2	21.2	1	¥ 27,300

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CE-S

High Helix Center Drills-Type A 60°



Specification

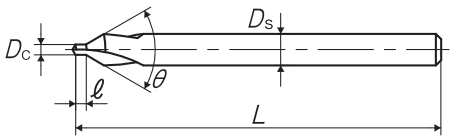
HSS

■High helix center drills - Type A suitable for soft or relatively tough materials.

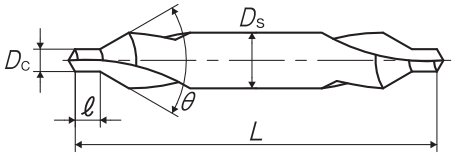
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~10 (m/min)	25~50 (m/min)	25~50 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE: 1



TYPE: 2



Unit: Inch

Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
0.3 × 60° × 3	CE0.3	0.3	3	35	0.3	1	1	¥ 2,280 ※
0.4 × 60° × 3	CE0.4	0.4	3	35	0.4	1	1	¥ 2,080 ※
0.5 × 60° × 3.5	CE0.5	0.5	3.5	35	0.5	1.5	2	¥ 3,010
0.6 × 60° × 3.5	CE0.6	0.6	3.5	35	0.6	1.5	2	¥ 2,730
0.7 × 60° × 3.5	CE0.7	0.7	3.5	35	0.7	2	2	¥ 2,420
0.8 × 60° × 3.5	CE0.8	0.8	3.5	35	0.8	2	2	¥ 2,070
0.9 × 60° × 4	CE0.9	0.9	4	35	0.9	2.5	2	¥ 1,940
1 × 60° × 4	CE1.0	1	4	35	1	2.5	2	¥ 1,700
1.2 × 60° × 5	CE1.2	1.2	5	40	1.2	3	2	¥ 1,550
1.5 × 60° × 5	CE1.5	1.5	5	40	1.5	4	2	¥ 1,330
2 × 60° × 6	CE2.0	2	6	45	2	5	2	¥ 1,480
2.5 × 60° × 7.7	CE2.5	2.5	7.7	50	2.5	6.5	2	¥ 1,810
3 × 60° × 7.7	CE3.0	3	7.7	55	3	6.5	2	¥ 1,810
3 × 60° × 8	CE3.0-8	3	8	55	3	6.5	2	¥ 1,940
4 × 60° × 10	CE4.0	4	10	65	4.5	8.5	2	¥ 3,610
5 × 60° × 11	CE5.0	5	11	78	5.5	9	2	¥ 3,900
5 × 60° × 12	CE5.0-12	5	12	78	5.5	10	2	¥ 4,830
6 × 60° × 16	CE6.0-16	6	16	90	6.5	13.5	2	¥ 9,370
6 × 60° × 18	CE6.0	6	18	90	6.5	15	2	¥ 13,200
8 × 60° × 18	CE8.0	8	18	100	8.5	15	2	¥ 15,100
10 × 60° × 18	CE010	10	18	100	11	15	2	¥ 15,100
12 × 60° × 25	CE012	12	25	120	13	21	2	¥ 32,000
1/16 × 60° × 5	CEU04	1/16	5	40	1.5	4	2	¥ 1,450 ※
3/32 × 60° × 7.7	CEU06	3/32	7.7	50	2.5	6	2	¥ 1,990 ※
1/8 × 60° × 7.7	CEU08	1/8	7.7	55	3	6.5	2	¥ 1,990 ※
3/16 × 60° × 11	CEU12	3/16	11	78	5.5	9	2	¥ 4,340 ※
1/4 × 60° × 18	CEU16	1/4	18	90	6.5	15	2	¥ 14,400 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

CE-S(I)



High Helix Center Drills-Type A 60°, (Old JIS Type 1)

Specification

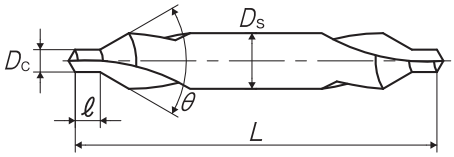
HSS

■High helix center drills - old JIS Type A suitable for soft or relatively tough materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~10 (m/min)	25~50 (m/min)	25~50 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
2.5 × 60° × 8	CE12.5	2.5	8	50	3.5	6.5	1	¥ 1,940
3 × 60° × 10	CE13.0	3	10	55	4	8	1	¥ 3,060
4 × 60° × 12	CE14.0	4	12	66	5	10	1	¥ 4,360
5 × 60° × 14	CE15.0	5	14	78	6.5	12	1	¥ 6,560

JIS

CD-S

Low Helix Center Drills-Type A 60°



Specification

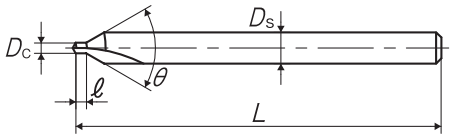
HSS

■Low helix center drills - Type A suitable for relatively hard materials.

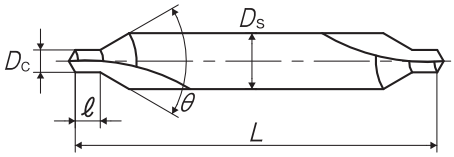
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
15~30 (m/min)	15~30 (m/min)	15~30 (m/min)	10~25 (m/min)	15~30 (m/min)	10~15 (m/min)	10~20 (m/min)

TYPE: 1



TYPE: 2



Unit: Inch

Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
0.3 × 60° × 3	CY0.3	0.3	3	35	0.3	1	1	¥ 2,280 ※
0.4 × 60° × 3	CY0.4	0.4	3	35	0.4	1	1	¥ 2,080 ※
0.5 × 60° × 3.5	CY0.5	0.5	3.5	35	0.5	1.5	2	¥ 3,010
0.6 × 60° × 3.5	CY0.6	0.6	3.5	35	0.6	1.5	2	¥ 2,730
0.7 × 60° × 3.5	CY0.7	0.7	3.5	35	0.7	2	2	¥ 2,420 ※
0.8 × 60° × 3.5	CY0.8	0.8	3.5	35	0.8	2	2	¥ 2,070
0.9 × 60° × 4	CY0.9	0.9	4	35	0.9	2.5	2	¥ 1,940 ※
1 × 60° × 4	CY1.0	1	4	35	1	2.5	2	¥ 1,700
1.2 × 60° × 5	CY1.2	1.2	5	40	1.2	3	2	¥ 1,550
1.5 × 60° × 5	CY1.5	1.5	5	40	1.5	4	2	¥ 1,330
2 × 60° × 6	CY2.0	2	6	45	2	5	2	¥ 1,480
2.5 × 60° × 7.7	CY2.5	2.5	7.7	50	2.5	6.5	2	¥ 1,810
3 × 60° × 7.7	CY3.0	3	7.7	55	3	6.5	2	¥ 1,810
3 × 60° × 8	CY3.0-8	3	8	55	3	6.5	2	¥ 1,940
4 × 60° × 10	CY4.0	4	10	65	4.5	8.5	2	¥ 3,610
5 × 60° × 11	CY5.0	5	11	78	5.5	9	2	¥ 3,900
6 × 60° × 16	CY6.0-16	6	16	90	6.5	13.5	2	¥ 9,370
6 × 60° × 18	CY6.0	6	18	90	6.5	15	2	¥ 13,200
1/8 × 60° × 7.7	CYU08	1/8	7.7	55	3	6.5	2	¥ 1,990 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

CD-S(I)



Low Helix Center Drills-Type A 60°, (Old JIS Type 1)

Specification

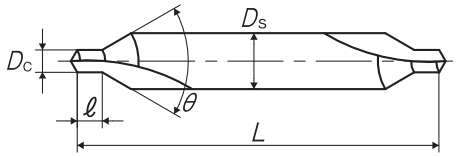
HSS

■The CD-S(I) is an old JIS 1 low helix center hole drill suitable for relatively hard materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
15~30 (m/min)	15~30 (m/min)	15~30 (m/min)	10~25 (m/min)	15~30 (m/min)	10~15 (m/min)	10~20 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
2.5 × 60° × 8	C12.5	2.5	8	50	3.5	6.5	1	¥ 1,940
3 × 60° × 10	C13.0	3	10	55	4	8	1	¥ 3,060
4 × 60° × 12	C14.0	4	12	66	5	10	1	¥ 4,360
5 × 60° × 14	C15.0	5	14	78	6.5	12	1	¥ 6,560

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CD-S LH



Low Helix Center Drills-Type A 60°, Left Hand Cut

Specification

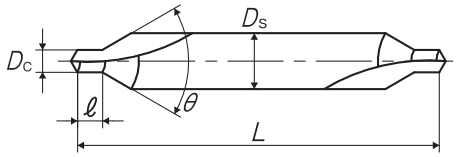
HSS LH

■Low helix center drills - Type A suitable for relatively hard materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
15~30 (m/min)	15~30 (m/min)	15~30 (m/min)	10~25 (m/min)	15~30 (m/min)	10~15 (m/min)	10~20 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
0.5 × 60° × 3.5	CY0.5-L	0.5	3.5	35	0.5	1.5	1	¥ 3,920 ※
0.7 × 60° × 3.5	CY0.7-L	0.7	3.5	35	0.7	2	1	¥ 3,150 ※
0.8 × 60° × 3.5	CY0.8-L	0.8	3.5	35	0.8	2	1	¥ 2,700 ※
0.9 × 60° × 4	CY0.9-L	0.9	4	35	0.9	2.5	1	¥ 2,530 ※
1 × 60° × 4	CY1.0-L	1	4	35	1	2.5	1	¥ 2,210 ※
1.2 × 60° × 5	CY1.2-L	1.2	5	40	1.2	3	1	¥ 2,020 ※
1.5 × 60° × 5	CY1.5-L	1.5	5	40	1.5	4	1	¥ 1,730 ※
2 × 60° × 6	CY2.0-L	2	6	45	2	5	1	¥ 1,930 ※
2.5 × 60° × 7.7	CY2.5-L	2.5	7.7	50	2.5	6.5	1	¥ 2,360 ※
3 × 60° × 7.7	CY3.0-L	3	7.7	55	3	6.5	1	¥ 2,360 ※
4 × 60° × 10	CY4.0-L	4	10	65	4.5	8.5	1	¥ 4,700 ※
5 × 60° × 11	CY5.0-L	5	11	78	5.5	9	1	¥ 5,070 ※
6 × 60° × 16	CY6.0-L16	6	16	90	6.5	13.5	1	¥ 12,200 ※
6 × 60° × 18	CY6.0-L	6	18	90	6.5	15	1	¥ 17,200 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

CE-S V



High Helix Center Drills-Type A 60°, Coated

Specification

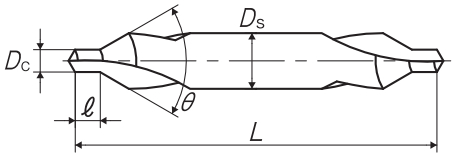
HSS Coating

■The CE-S V is a coated type A high helix center hole drill with excellent wear resistance and welding resistance.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
20~40 (m/min)	20~40 (m/min)	5~15 (m/min)	30~60 (m/min)	30~60 (m/min)	25~50 (m/min)	25~50 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60° × 4	VCE1.0	1	4	35	1	2.5	1	¥ 3,560
1.5 × 60° × 5	VCE1.5	1.5	5	40	1.5	4	1	¥ 3,120
2 × 60° × 6	VCE2.0	2	6	45	2	5	1	¥ 3,310
2.5 × 60° × 7.7	VCE2.5	2.5	7.7	50	2.5	6.5	1	¥ 3,760
3 × 60° × 7.7	VCE3.0	3	7.7	55	3	6.5	1	¥ 3,760
3 × 60° × 8	VCE3.0-8	3	8	55	3	6.5	1	¥ 4,240 ※
4 × 60° × 10	VCE4.0	4	10	65	4.5	8.5	1	¥ 6,140
5 × 60° × 11	VCE5.0	5	11	78	5.5	9	1	¥ 6,880
6 × 60° × 18	VCE6.0	6	18	90	6.5	15	1	¥ 20,000

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CE-S V(I)



High Helix Center Drills-Type A 60°, Coated, (Old JIS Type 1)

Specification

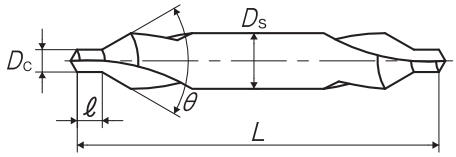
HSS Coating

■Optimum coating suitable for the cutting condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
20~40 (m/min)	20~40 (m/min)	5~15 (m/min)	30~60 (m/min)	30~60 (m/min)	25~50 (m/min)	25~50 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
2.5 × 60° × 8	VCE12.5	2.5	8	50	3.5	6.5	1	¥ 4,240 ※
3 × 60° × 10	VCE13.0	3	10	55	4	8	1	¥ 5,880 ※
4 × 60° × 12	VCE14.0	4	12	66	5	10	1	¥ 7,900 ※
5 × 60° × 14	VCE15.0	5	14	78	6.5	12	1	¥ 11,600 ※

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

CD-S V



Type A Low Helix Coated 60° Center Hole Drill

Specification

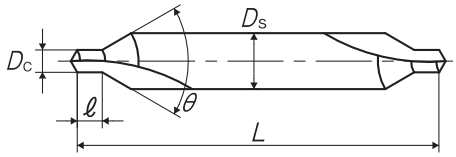
HSS Coating

■The CD-S V is a coated type A center hole drill with excellent abrasion resistance and welding resistance.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
20~40 (m/min)	20~40 (m/min)	20~40 (m/min)	15~30 (m/min)	20~40 (m/min)	10~20 (m/min)	10~25 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60° × 4	VCY1.0	1	4	35	1	2.5	1	¥ 3,560 ※
1.5 × 60° × 5	VCY1.5	1.5	5	40	1.5	4	1	¥ 3,120 ※
2 × 60° × 6	VCY2.0	2	6	45	2	5	1	¥ 3,310 ※
2.5 × 60° × 7.7	VCY2.5	2.5	7.7	50	2.5	6.5	1	¥ 3,760 ※
3 × 60° × 7.7	VCY3.0	3	7.7	55	3	6.5	1	¥ 3,760 ※
4 × 60° × 10	VCY4.0	4	10	65	4.5	8.5	1	¥ 6,140 ※
5 × 60° × 11	VCY5.0	5	11	78	5.5	9	1	¥ 6,880 ※
6 × 60° × 18	VCY6.0	6	18	90	6.5	15	1	¥ 20,000 ※

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CD-S V(I)



Coating Low Helix A Type 60° Center Hole Drill Former JIS Type 1

Specification

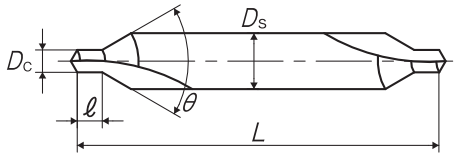
HSS Coating

■The CD-S V(I) is a coated low helix former JIS type 1 center hole drill with excellent wear resistance and welding resistance.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
20~40 (m/min)	20~40 (m/min)	20~40 (m/min)	15~30 (m/min)	20~40 (m/min)	10~20 (m/min)	10~25 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
2.5 × 60° × 8	VC12.5	2.5	8	50	3.5	6.5	1	¥ 4,240 ※
3 × 60° × 10	VC13.0	3	10	55	4	8	1	¥ 5,880 ※
4 × 60° × 12	VC14.0	4	12	66	5	10	1	¥ 7,900 ※
5 × 60° × 14	VC15.0	5	14	78	6.5	12	1	¥ 11,600 ※

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

C-CD-S

Carbide Center Drills-Type A 60°



Specification

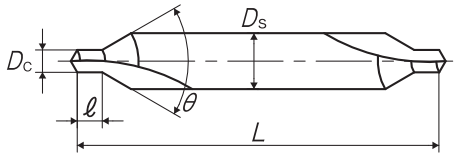
HF

■Low helix carbide center drills - Type A suitable for hard materials and mass production.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼	Cast irons 鋳鉄	Brass castings 黄銅鋳物	Aluminum alloy castings アルミ合金鋳物
30~50 (m/min)	20~40 (m/min)	10~25 (m/min) 25~35HRC	5~15 (m/min) 35~45HRC	30~50 (m/min)	30~60 (m/min)	30~60 (m/min)

TYPE : 1



Segment : 52

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60° × 4	CCD1.0	1	4	35	1	2.5	1	¥ 14,400
1.2 × 60° × 5	CCD1.2	1.2	5	40	1.2	3	1	¥ 20,700 ※
1.5 × 60° × 5	CCD1.5	1.5	5	40	1.5	4	1	¥ 18,200
2 × 60° × 6	CCD2.0	2	6	45	2	5	1	¥ 22,200
2.5 × 60° × 7.7	CCD2.5	2.5	7.7	50	2.5	6.5	1	¥ 28,600
2.5 × 60° × 8	CCD2.5-8	2.5	8	50	2.5	6.5	1	¥ 29,700 ※
3 × 60° × 7.7	CCD3.0	3	7.7	55	3	6.5	1	¥ 28,600
3 × 60° × 8	CCD3.0-8	3	8	55	3	6.5	1	¥ 29,700 ※
4 × 60° × 10	CCD4.0	4	10	65	4.5	8.5	1	¥ 45,100
5 × 60° × 11	CCD5.0	5	11	78	5.5	9	1	¥ 48,500
5 × 60° × 12	CCD5.0-12	5	12	78	5.5	10	1	¥ 48,800 ※
6 × 60° × 18	CCD6.0	6	18	90	6.5	15	1	¥122,000 ※

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

CE-SL



Long Shank High Helix Center Drills-Type A 60°

Specification

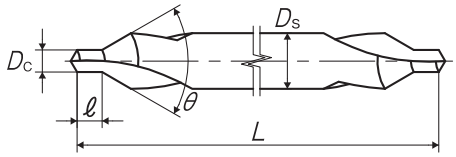
HSS

■Long shank high helix center drills - Type A suitable for soft or relatively tough materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~25 (m/min)	10~25 (m/min)	5~10 (m/min)	20~40 (m/min)	20~40 (m/min)	15~30 (m/min)	15~30 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60° × 4	CEL1.0	1	4	100	1	2.5	1	¥ 7,130
1 × 60° × 4	CEM1.0	1	4	150	1	2.5	1	¥ 10,800
1.5 × 60° × 5	CEL1.5	1.5	5	100	1.5	4	1	¥ 5,330
1.5 × 60° × 5	CEM1.5	1.5	5	150	1.5	4	1	¥ 8,750
2 × 60° × 6	CEL2.0	2	6	100	2	5	1	¥ 5,980
2 × 60° × 6	CEM2.0	2	6	150	2	5	1	¥ 9,060
2.5 × 60° × 8	CEL2.5	2.5	8	100	2.5	6.5	1	¥ 7,130
2.5 × 60° × 8	CEM2.5	2.5	8	150	2.5	6.5	1	¥ 10,800
3 × 60° × 8	CEL3.0	3	8	100	3	6.5	1	¥ 7,130
3 × 60° × 8	CEM3.0	3	8	150	3	6.5	1	¥ 10,800
3 × 60° × 8	CEN3.0	3	8	200	3	6.5	1	¥ 14,200 ※
4 × 60° × 10	CEL4.0	4	10	100	4.5	8.5	1	¥ 8,000
4 × 60° × 10	CEM4.0	4	10	150	4.5	8.5	1	¥ 11,700
4 × 60° × 10	CEN4.0	4	10	200	4.5	8.5	1	¥ 15,400 ※
5 × 60° × 12	CEL5.0	5	12	100	5.5	10	1	¥ 10,200
5 × 60° × 12	CEM5.0	5	12	150	5.5	10	1	¥ 15,700
5 × 60° × 12	CEN5.0	5	12	200	5.5	10	1	¥ 20,600 ※

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CD-SL



Long Shank Low Helix Center Drills-Type A 60°

Specification

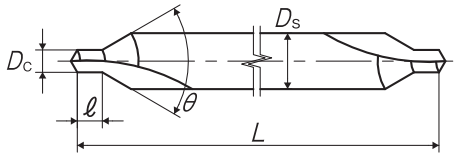
HSS

■Long shank low helix center drills - Type A suitable for relatively hard materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~20 (m/min)	10~25 (m/min)	5~10 (m/min)	5~15 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60° × 4	CDL1.0	1	4	100	1	2.5	1	¥ 7,130
1 × 60° × 4	CDM1.0	1	4	150	1	2.5	1	¥ 10,800
1.5 × 60° × 5	CDL1.5	1.5	5	100	1.5	4	1	¥ 5,330
1.5 × 60° × 5	CDM1.5	1.5	5	150	1.5	4	1	¥ 8,750
2 × 60° × 6	CDL2.0	2	6	100	2	5	1	¥ 5,980
2 × 60° × 6	CDM2.0	2	6	150	2	5	1	¥ 9,060
2.5 × 60° × 8	CDL2.5	2.5	8	100	2.5	6.5	1	¥ 7,130
2.5 × 60° × 8	CDM2.5	2.5	8	150	2.5	6.5	1	¥ 10,800
3 × 60° × 8	CDL3.0	3	8	100	3	6.5	1	¥ 7,130
3 × 60° × 8	CDM3.0	3	8	150	3	6.5	1	¥ 10,800
3 × 60° × 8	CDN3.0	3	8	200	3	6.5	1	¥ 14,200 ※
4 × 60° × 10	CDL4.0	4	10	100	4.5	8.5	1	¥ 8,000
4 × 60° × 10	CDM4.0	4	10	150	4.5	8.5	1	¥ 11,700
4 × 60° × 10	CDN4.0	4	10	200	4.5	8.5	1	¥ 15,400 ※
5 × 60° × 12	CDL5.0	5	12	100	5.5	10	1	¥ 10,200
5 × 60° × 12	CDM5.0	5	12	150	5.5	10	1	¥ 15,700
5 × 60° × 12	CDN5.0	5	12	200	5.5	10	1	¥ 20,600 ※

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CE-SL V



Long Shank High Helix Center Drills-Type A 60°, Coated

Specification

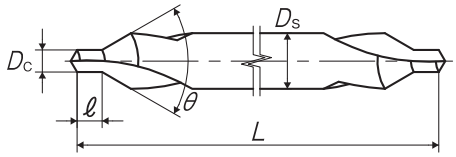
HSS Coating

■Long shank high helix center drills - Type A suitable for relatively hard materials and coated to improve wear resistance and anti-welding.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~10 (m/min)	25~50 (m/min)	25~50 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60° × 4	VCEL1.0	1	4	100	1	2.5	1	¥ 9,870
1 × 60° × 4	VCEM1.0	1	4	150	1	2.5	1	¥ 16,100
1.5 × 60° × 5	VCEL1.5	1.5	5	100	1.5	4	1	¥ 8,020
1.5 × 60° × 5	VCEM1.5	1.5	5	150	1.5	4	1	¥ 14,200
2 × 60° × 6	VCEL2.0	2	6	100	2	5	1	¥ 8,830
2 × 60° × 6	VCEM2.0	2	6	150	2	5	1	¥ 14,600
2.5 × 60° × 8	VCEL2.5	2.5	8	100	2.5	6.5	1	¥ 9,970
2.5 × 60° × 8	VCEM2.5	2.5	8	150	2.5	6.5	1	¥ 16,100
3 × 60° × 8	VCEL3.0	3	8	100	3	6.5	1	¥ 9,970
3 × 60° × 8	VCEM3.0	3	8	150	3	6.5	1	¥ 16,100
4 × 60° × 10	VCEL4.0	4	10	100	4.5	8.5	1	¥ 12,100
4 × 60° × 10	VCEM4.0	4	10	150	4.5	8.5	1	¥ 18,800
5 × 60° × 12	VCEL5.0	5	12	100	5.5	10	1	¥ 15,800
5 × 60° × 12	VCEM5.0	5	12	150	5.5	10	1	¥ 22,800

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

CD-SL V



Long Shank Low Helix Center Drills-Type A 60°, Coated

Specification

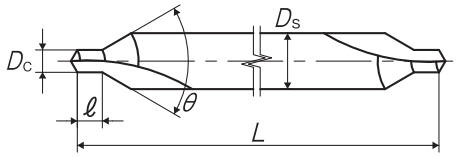
HSS Coating

■Long shank low helix center drills - Type A suitable for relatively hard materials and coated to improve wear resistance and anti-welding.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
15~30 (m/min)	15~30 (m/min)	15~30 (m/min)	10~25 (m/min)	15~30 (m/min)	10~15 (m/min)	10~20 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60° × 4	VCDL1.0	1	4	100	1	2.5	1	¥ 9,870 ※
1 × 60° × 4	VCDM1.0	1	4	150	1	2.5	1	¥ 16,100 ※
1.5 × 60° × 5	VCDL1.5	1.5	5	100	1.5	4	1	¥ 8,020 ※
1.5 × 60° × 5	VCDM1.5	1.5	5	150	1.5	4	1	¥ 14,200 ※
2 × 60° × 6	VCDL2.0	2	6	100	2	5	1	¥ 8,830 ※
2 × 60° × 6	VCDM2.0	2	6	150	2	5	1	¥ 14,600 ※
2.5 × 60° × 8	VCDL2.5	2.5	8	100	2.5	6.5	1	¥ 9,970 ※
2.5 × 60° × 8	VCDM2.5	2.5	8	150	2.5	6.5	1	¥ 16,100 ※
3 × 60° × 8	VCDL3.0	3	8	100	3	6.5	1	¥ 9,970 ※
3 × 60° × 8	VCDM3.0	3	8	150	3	6.5	1	¥ 16,100 ※
4 × 60° × 10	VCDL4.0	4	10	100	4.5	8.5	1	¥ 12,100 ※
4 × 60° × 10	VCDM4.0	4	10	150	4.5	8.5	1	¥ 18,800 ※
5 × 60° × 12	VCDL5.0	5	12	100	5.5	10	1	¥ 15,800 ※
5 × 60° × 12	VCDM5.0	5	12	150	5.5	10	1	¥ 22,800 ※

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

C-CD-SL



Long Shank Low Helix Carbide Center Drills-Type A 60°

Specification

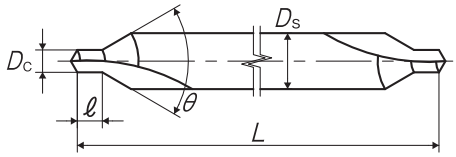
HF

■Long shank low helix carbide center drills - Type A suitable for hard materials and mass production.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼	Cast irons 鋳鉄	Brass castings 黄銅鋳物	Aluminum alloy castings アルミ合金鋳物
25~40 (m/min)	15~30 (m/min)	10~20 (m/min) 25~35HRC	5~10 (m/min) 35~45HRC	25~40 (m/min)	25~50 (m/min)	25~50 (m/min)

TYPE : 1



Segment : 52

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60° × 4	CCDL1.0	1	4	100	1	2.5	1	¥ 19,300 ※
1.5 × 60° × 5	CCDL1.5	1.5	5	100	1.5	4	1	¥ 22,200 ※
2 × 60° × 6	CCDL2.0	2	6	100	2	5	1	¥ 25,100 ※
2 × 60° × 6	CCDM2.0	2	6	150	2	5	1	¥ 30,400 ※
2.5 × 60° × 8	CCDL2.5	2.5	8	100	2.5	6.5	1	¥ 33,300 ※
2.5 × 60° × 8	CCDM2.5	2.5	8	150	2.5	6.5	1	¥ 40,300 ※
3 × 60° × 8	CCDL3.0	3	8	100	3	6.5	1	¥ 33,300 ※
3 × 60° × 8	CCDM3.0	3	8	150	3	6.5	1	¥ 40,300 ※
4 × 60° × 10	CCDL4.0	4	10	100	4.5	8.5	1	¥ 42,000 ※
4 × 60° × 10	CCDM4.0	4	10	150	4.5	8.5	1	¥ 50,900 ※
5 × 60° × 12	CCDL5.0	5	12	100	5.5	10	1	¥ 51,200 ※
5 × 60° × 12	CCDM5.0	5	12	150	5.5	10	1	¥ 61,100 ※

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CEQA



High Helix Center Drills-JIS Type A 90°

Specification

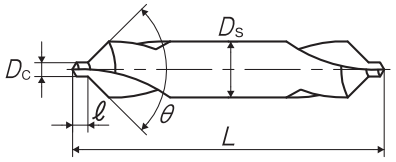
HSS

■High helix center drills - JIS Type A center drill for machining 90° center hole. Suitable for soft and relatively tough materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~10 (m/min)	25~50 (m/min)	25~50 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 90° × 4	CEA1.0Q	1	4	35.5	1.1	2.8	1	¥ 1,610
1.25 × 90° × 5	CEA1.25Q	1.25	5	40	1.4	3.55	1	¥ 1,340
1.6 × 90° × 6.3	CEA1.6Q	1.6	6.3	45	1.8	4.5	1	¥ 1,450
2 × 90° × 8	CEA2.0Q	2	8	50	2.2	5.6	1	¥ 1,950
2.5 × 90° × 10	CEA2.5Q	2.5	10	56	2.8	7.1	1	¥ 3,560
3.15 × 90° × 11.2	CEA3.15Q	3.15	11.2	60	3.6	9	1	¥ 3,970
4 × 90° × 12.5	CEA4.0Q	4	12.5	63	4.5	11.2	1	¥ 4,760
5 × 90° × 16	CEA5.0Q	5	16	71	5.6	14	1	¥ 9,200
6.3 × 90° × 20	CEA6.3Q	6.3	20	80	7.1	18	1	¥ 18,700
8 × 90° × 25	CEA8.0Q	8	25	100	9	22.4	1	¥ 32,700
10 × 90° × 31.5	CEA010Q	10	31.5	125	11.2	28	1	¥ 46,400
12.5 × 90° × 35.5	CEA12.5Q	12.5	35.5	140	14	31.5	1	¥ 83,700

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

CE-Q

High Helix Center Drills-Type A 90°



Specification

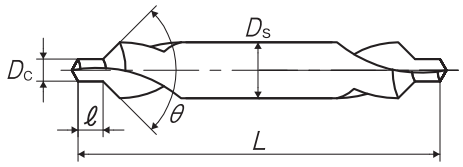
HSS

■High helix center drills - Type A center drill for machining 90° center hole. Suitable for soft and relatively tough materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~10 (m/min)	25~50 (m/min)	25~50 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
0.5 × 90° × 3.5	CY0.5Z	0.5	3.5	35	0.5	1.5	1	¥ 3,620 ※
0.6 × 90° × 3.5	CY0.6Z	0.6	3.5	35	0.6	2	1	¥ 3,280 ※
0.7 × 90° × 3.5	CY0.7Z	0.7	3.5	35	0.7	2	1	¥ 2,910
0.8 × 90° × 3.5	CY0.8Z	0.8	3.5	35	0.8	2.5	1	¥ 2,490
0.9 × 90° × 4	CY0.9Z	0.9	4	35	0.9	2.5	1	¥ 2,330 ※
1 × 90° × 4	CY1.0Z	1	4	35	1	3	1	¥ 2,040
1.2 × 90° × 5	CY1.2Z	1.2	5	40	1.2	3.5	1	¥ 1,860 ※
1.5 × 90° × 5	CY1.5Z	1.5	5	40	1.5	4	1	¥ 1,600
2 × 90° × 6	CY2.0Z	2	6	45	2	5	1	¥ 1,780
2.5 × 90° × 7.7	CY2.5Z	2.5	7.7	50	2.5	6.5	1	¥ 2,180
3 × 90° × 7.7	CY3.0Z	3	7.7	55	3	6.5	1	¥ 2,180
4 × 90° × 10	CY4.0Z	4	10	65	4.5	8.5	1	¥ 4,340
5 × 90° × 11	CY5.0Z	5	11	78	5.5	9	1	¥ 4,680
6 × 90° × 16	CY6.0Z-16	6	16	90	6.5	13.5	1	¥ 11,300
6 × 90° × 18	CY6.0Z	6	18	90	6.5	15	1	¥ 15,900

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CD-Q

Low Helix Center Drills-Type A 90°



Specification

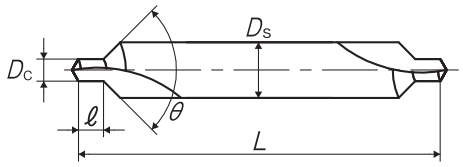
HSS

■Low helix center drills - Type A center drill for machining 90° center hole. Suitable for relatively hard materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
15~30 (m/min)	15~30 (m/min)	15~30 (m/min)	10~25 (m/min)	15~30 (m/min)	10~15 (m/min)	10~20 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
0.5 × 90° × 3.5	CY0.5Q	0.5	3.5	35	0.5	1.5	1	¥ 3,620 ※
0.6 × 90° × 3.5	CY0.6Q	0.6	3.5	35	0.6	2	1	¥ 3,280 ※
0.8 × 90° × 3.5	CY0.8Q	0.8	3.5	35	0.8	2.5	1	¥ 2,490 ※
1 × 90° × 4	CY1.0Q	1	4	35	1	3	1	¥ 2,040
1.2 × 90° × 5	CY1.2Q	1.2	5	40	1.2	3.5	1	¥ 1,860 ※
1.5 × 90° × 5	CY1.5Q	1.5	5	40	1.5	4	1	¥ 1,600
2 × 90° × 6	CY2.0Q	2	6	45	2	5	1	¥ 1,780
2.5 × 90° × 7.7	CY2.5Q	2.5	7.7	50	2.5	6.5	1	¥ 2,180
3 × 90° × 7.7	CY3.0Q	3	7.7	55	3	6.5	1	¥ 2,180
4 × 90° × 10	CY4.0Q	4	10	65	4.5	8.5	1	¥ 4,340
5 × 90° × 11	CY5.0Q	5	11	78	5.5	9	1	¥ 4,680
6 × 90° × 16	CY6.0Q-16	6	16	90	6.5	13.5	1	¥ 11,300 ※
6 × 90° × 18	CY6.0Q	6	18	90	6.5	15	1	¥ 15,900 ※

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

CD-Q LH



Low Helix Center Drills - Type A 90°, Left Hand Cut

Specification

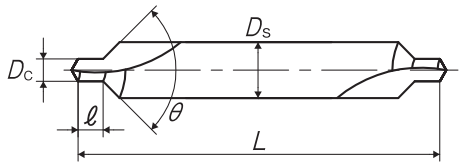
HSS LH

■Low helix left hand center drills - Type A center drill for machining 90° center hole. Suitable for relatively hard materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
15~30 (m/min)	15~30 (m/min)	15~30 (m/min)	10~25 (m/min)	15~30 (m/min)	10~15 (m/min)	10~20 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 90° × 4	CY1.0Q-L	1	4	35	1	3	1	¥ 2,660 ※
1.2 × 90° × 5	CY1.2Q-L	1.2	5	40	1.2	3.5	1	¥ 2,420 ※
1.5 × 90° × 5	CY1.5Q-L	1.5	5	40	1.5	4	1	¥ 2,080 ※
2 × 90° × 6	CY2.0Q-L	2	6	45	2	5	1	¥ 2,320 ※
2.5 × 90° × 7.7	CY2.5Q-L	2.5	7.7	50	2.5	6.5	1	¥ 2,840 ※
2.5 × 90° × 8	CY2.5Q8L	2.5	8	50	2.5	6.5	1	¥ 3,030 ※
3 × 90° × 7.7	CY3.0Q-L	3	7.7	55	3	6.5	1	¥ 2,840 ※
3 × 90° × 8	CY3.0Q8L	3	8	55	3	6.5	1	¥ 3,030 ※
4 × 90° × 10	CY4.0Q-L	4	10	65	4.5	8.5	1	¥ 5,650 ※
5 × 90° × 12	CY5.0Q12L	5	12	78	5.5	10	1	¥ 7,540 ※
6 × 90° × 18	CY6.0Q-L	6	18	90	6.5	15	1	¥ 20,700 ※

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CE-Q V



High Helix Center Drills-Type A 90°, Coated

Specification

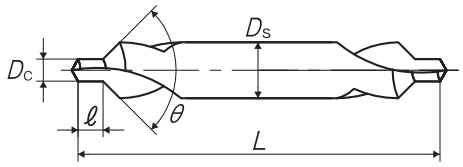
HSS Coating

■High helix center drills - Type A center drill for machining 90° center hole. Coated to improve wear resistance and anti-welding.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
20~40 (m/min)	20~40 (m/min)	5~15 (m/min)	30~60 (m/min)	30~60 (m/min)	25~50 (m/min)	25~50 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 90° × 4	VCY1.0Z	1	4	35	1	3	1	¥ 3,850
1.5 × 90° × 5	VCY1.5Z	1.5	5	40	1.5	4	1	¥ 3,480
2 × 90° × 6	VCY2.0Z	2	6	45	2	5	1	¥ 3,660
2.5 × 90° × 7.7	VCY2.5Z	2.5	7.7	50	2.5	6.5	1	¥ 4,280
3 × 90° × 7.7	VCY3.0Z	3	7.7	55	3	6.5	1	¥ 4,280
4 × 90° × 10	VCY4.0Z	4	10	65	4.5	8.5	1	¥ 6,880
5 × 90° × 11	VCY5.0Z	5	11	78	5.5	9	1	¥ 7,440
6 × 90° × 18	VCY6.0Z	6	18	90	6.5	15	1	¥ 21,400

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CD-Q V



Low Helix Center Drills-Type A 90°, Coated

Specification

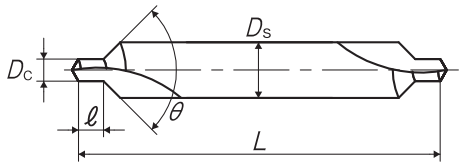
HSS Coating

■Low helix center drills - Type A center drill for machining 90° center hole. Coated to improve wear resistance and anti-welding.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
20~40 (m/min)	20~40 (m/min)	20~40 (m/min)	15~30 (m/min)	20~40 (m/min)	10~20 (m/min)	10~25 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 90° × 4	VCY1.0Q	1	4	35	1	3	1	¥ 3,850 ※
1.5 × 90° × 5	VCY1.5Q	1.5	5	40	1.5	4	1	¥ 3,480 ※
2 × 90° × 6	VCY2.0Q	2	6	45	2	5	1	¥ 3,660 ※
2.5 × 90° × 7.7	VCY2.5Q	2.5	7.7	50	2.5	6.5	1	¥ 4,280 ※
3 × 90° × 7.7	VCY3.0Q	3	7.7	55	3	6.5	1	¥ 4,280 ※
4 × 90° × 10	VCY4.0Q	4	10	65	4.5	8.5	1	¥ 6,880 ※
5 × 90° × 11	VCY5.0Q	5	11	78	5.5	9	1	¥ 7,440 ※
6 × 90° × 18	VCY6.0Q	6	18	90	6.5	15	1	¥ 21,400 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

C-CD-Q



Low Helix Carbide Center Drills-Type A 90°

Specification

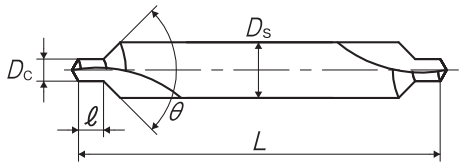
HF

■Low helix center drills - Type A center drill for machining 90° center hole. Suitable for hard materials and mass production.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼	Cast irons 鋳鉄	Brass castings 黄銅鋳物	Aluminum alloy castings アルミ合金鋳物
30~50 (m/min)	20~40 (m/min)	10~25 (m/min) 25~35HRC	5~15 (m/min) 35~45HRC	30~50 (m/min)	30~60 (m/min)	30~60 (m/min)

TYPE : 1



Segment : 52

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 90° × 4	CC1.0Q	1	4	35	1	3	1	¥ 14,400 ※
1.5 × 90° × 5	CC1.5Q	1.5	5	40	1.5	4	1	¥ 18,200 ※
2 × 90° × 6	CC2.0Q	2	6	45	2	5	1	¥ 22,200 ※
2.5 × 90° × 7.7	CC2.5Q	2.5	7.7	50	2.5	6.5	1	¥ 28,600 ※
2.5 × 90° × 8	CC2.5Q-8	2.5	8	50	2.5	6.5	1	¥ 29,700 ※
3 × 90° × 7.7	CC3.0Q	3	7.7	55	3	6.5	1	¥ 28,600 ※
3 × 90° × 8	CC3.0Q-8	3	8	55	3	6.5	1	¥ 29,700 ※
4 × 90° × 10	CC4.0Q	4	10	65	4.5	8.5	1	¥ 45,100 ※
5 × 90° × 11	CC5.0Q	5	11	78	5.5	9	1	¥ 48,500 ※
5 × 90° × 12	CC5.0Q-12	5	12	78	5.5	10	1	¥ 48,800 ※
6 × 90° × 18	CC6.0Q	6	18	90	6.5	15	1	¥122,000 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CE-QL



Long Shank High Helix Center Drills-Type A 90°

Specification

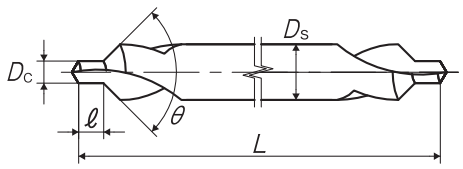
HSS

■Long shank high helix center drills - Type A center drill for machining 90° center hole. Suitable for soft or relatively tough materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~25 (m/min)	10~25 (m/min)	5~10 (m/min)	20~40 (m/min)	20~40 (m/min)	15~30 (m/min)	15~30 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 90° × 4	CL1.0Z	1	4	100	1	3	1	¥ 8,560
1 × 90° × 4	CM1.0Z	1	4	150	1	3	1	¥ 13,000 ※
1.5 × 90° × 5	CL1.5Z	1.5	5	100	1.5	4	1	¥ 6,400
1.5 × 90° × 5	CM1.5Z	1.5	5	150	1.5	4	1	¥ 10,500
2 × 90° × 6	CL2.0Z	2	6	100	2	5	1	¥ 7,180
2 × 90° × 6	CM2.0Z	2	6	150	2	5	1	¥ 10,900
2.5 × 90° × 8	CL2.5Z	2.5	8	100	2.5	6.5	1	¥ 8,560
2.5 × 90° × 8	CM2.5Z	2.5	8	150	2.5	6.5	1	¥ 13,000
3 × 90° × 8	CL3.0Z	3	8	100	3	6.5	1	¥ 8,560
3 × 90° × 8	CM3.0Z	3	8	150	3	6.5	1	¥ 13,000
4 × 90° × 10	CL4.0Z	4	10	100	4.5	8.5	1	¥ 9,600
4 × 90° × 10	CM4.0Z	4	10	150	4.5	8.5	1	¥ 14,100
5 × 90° × 12	CL5.0Z	5	12	100	5.5	10	1	¥ 12,300
5 × 90° × 12	CM5.0Z	5	12	150	5.5	10	1	¥ 18,900

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

CE-QL V



Long Shank High Helix Center Drills-Type A 90°, Coated

Specification

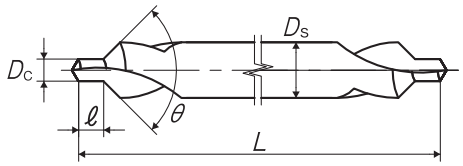
HSS Coating

■Long shank high helix center drills - Type A center drill for machining 90° center hole. Coated to improve wear resistance and anti-welding.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~10 (m/min)	25~50 (m/min)	25~50 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 90° × 4	VCL1.0Z	1	4	100	1	3	1	¥ 11,600
1 × 90° × 4	VCM1.0Z	1	4	150	1	3	1	¥ 18,800 ※
1.5 × 90° × 5	VCL1.5Z	1.5	5	100	1.5	4	1	¥ 9,340
1.5 × 90° × 5	VCM1.5Z	1.5	5	150	1.5	4	1	¥ 15,500 ※
2 × 90° × 6	VCL2.0Z	2	6	100	2	5	1	¥ 9,780
2 × 90° × 6	VCM2.0Z	2	6	150	2	5	1	¥ 15,800
2.5 × 90° × 8	VCL2.5Z	2.5	8	100	2.5	6.5	1	¥ 11,400
2.5 × 90° × 8	VCM2.5Z	2.5	8	150	2.5	6.5	1	¥ 18,100
3 × 90° × 8	VCL3.0Z	3	8	100	3	6.5	1	¥ 11,400
3 × 90° × 8	VCM3.0Z	3	8	150	3	6.5	1	¥ 18,100
4 × 90° × 10	VCL4.0Z	4	10	100	4.5	8.5	1	¥ 14,500
4 × 90° × 10	VCM4.0Z	4	10	150	4.5	8.5	1	¥ 21,400
5 × 90° × 12	VCL5.0Z	5	12	100	5.5	10	1	¥ 17,800
5 × 90° × 12	VCM5.0Z	5	12	150	5.5	10	1	¥ 26,100

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

C-CD-QL



Long Shank Low Helix Carbide Center Drills-Type A 90°

Specification

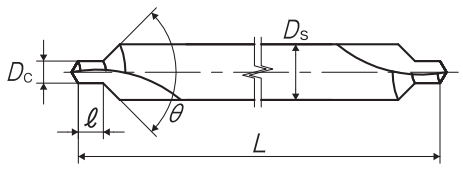
HF

■The C-CD-QL is a carbide long shank low helix center hole drill suitable for hard materials and mass production of center with 90° center holes.

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼	Cast irons 鋳鉄	Brass castings 黄銅鋳物	Aluminum alloy castings アルミ合金鋳物
25~40 (m/min)	15~30 (m/min)	10~20 (m/min) 25~35HRC	5~10 (m/min) 35~45HRC	25~40 (m/min)	25~50 (m/min)	25~50 (m/min)

TYPE : 1



Segment : 52

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 90° × 4	CCL1.0Q	1	4	100	1	3	1	¥ 19,300 ※
1.5 × 90° × 5	CCL1.5Q	1.5	5	100	1.5	4	1	¥ 22,200 ※
2 × 90° × 6	CCL2.0Q	2	6	100	2	5	1	¥ 25,100 ※
2 × 90° × 6	CCM2.0Q	2	6	150	2	5	1	¥ 30,400 ※
2.5 × 90° × 8	CCL2.5Q	2.5	8	100	2.5	6.5	1	¥ 33,300 ※
2.5 × 90° × 8	CCM2.5Q	2.5	8	150	2.5	6.5	1	¥ 40,300 ※
3 × 90° × 8	CCL3.0Q	3	8	100	3	6.5	1	¥ 33,300 ※
3 × 90° × 8	CCM3.0Q	3	8	150	3	6.5	1	¥ 40,300 ※
4 × 90° × 10	CCL4.0Q	4	10	100	4.5	8.5	1	¥ 42,000 ※
4 × 90° × 10	CCM4.0Q	4	10	150	4.5	8.5	1	¥ 50,900 ※
5 × 90° × 12	CCL5.0Q	5	12	100	5.5	10	1	¥ 51,200 ※
5 × 90° × 12	CCM5.0Q	5	12	150	5.5	10	1	¥ 61,100 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Drill dia.	Shank dia.	Maximum dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	D1	L	ℓ	Dw

JIS

CESB



High Helix Center Drills-JIS Type B 60°

Specification

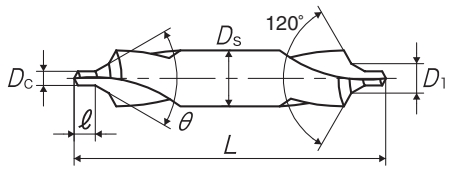
HSS

■High helix center drills - JIS Type B suitable for soft or relatively tough materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~10 (m/min)	25~50 (m/min)	25~50 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	D1 (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
0.5 × 60° × 3.15	CEB0.5	0.5	3.15	1.06	31.5	0.8	1.6	1	¥ 3,280
0.63 × 60° × 3.15	CEB0.63	0.63	3.15	1.32	31.5	1	2	1	¥ 2,940
0.8 × 60° × 3.15	CEB0.8	0.8	3.15	1.7	31.5	1.2	2.5	1	¥ 2,520
1 × 60° × 4	CEB1.0	1	4	2.12	35.5	1.5	3.15	1	¥ 2,140
1.25 × 60° × 5	CEB1.25	1.25	5	2.65	40	1.9	4	1	¥ 2,010
1.6 × 60° × 6.3	CEB1.6	1.6	6.3	3.35	45	2.4	5	1	¥ 2,550
2 × 60° × 8	CEB2.0	2	8	4.25	50	3	6.3	1	¥ 2,550
2.5 × 60° × 10	CEB2.5	2.5	10	5.3	56	3.8	8	1	¥ 3,710
3.15 × 60° × 11.2	CEB3.15	3.15	11.2	6.7	60	4.8	10	1	¥ 5,490
4 × 60° × 14	CEB4.0	4	14	8.5	67	6	12.5	1	¥ 7,110
5 × 60° × 18	CEB5.0	5	18	10.6	75	7.5	16	1	¥ 14,700
6.3 × 60° × 20	CEB6.3	6.3	20	13.2	80	9.2	18	1	¥ 19,900
8 × 60° × 25	CEB8.0	8	25	17	100	11.5	22.4	1	¥ 29,300
10 × 60° × 31.5	CEB010	10	31.5	21.2	125	14.2	28	1	¥ 53,800

Drill dia.	Shank dia.	Maximum dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	D_1	L	ℓ	Dw

JIS

CE-S(II)



High Helix Center Drills-Type B 60°, (Old JIS Type 2)

Specification

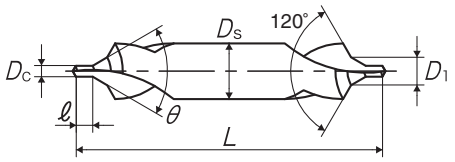
HSS

■High helix center drills - old JIS Type 2 suitable for soft or relatively tough materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~10 (m/min)	25~50 (m/min)	25~50 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	D_1 (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60° × 6	CE21.0	1	6	2.5	45	1.5	4	1	¥ 3,270
1.5 × 60° × 8	CE21.5	1.5	8	4	50	2	6	1	¥ 3,100
2 × 60° × 10	CE22.0	2	10	5	55	3	8	1	¥ 4,510
2.5 × 60° × 12	CE22.5	2.5	12	6.5	60	3.5	10	1	¥ 6,520
3 × 60° × 14	CE23.0	3	14	8	65	4	12	1	¥ 8,530
4 × 60° × 18	CE24.0	4	18	10	76	5	14	1	¥ 17,800
5 × 60° × 22	CE25.0	5	22	12	88	6.5	17	1	¥ 24,600
6 × 60° × 25	CE26.0	6	25	15	100	8	21	1	¥ 35,300

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Maximum dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	D1	L	ℓ	Dw

CD-S(II)



Low Helix Center Drills-Type B 60°, (Old JIS Type 2)

Specification

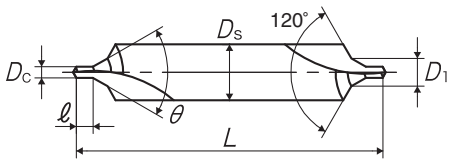
HSS

■The CD-S(II) is an old JIS type 2 center hole drill suitable for relatively hard materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
15~30 (m/min)	15~30 (m/min)	15~30 (m/min)	10~25 (m/min)	15~30 (m/min)	10~15 (m/min)	10~20 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	D1 (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60° × 6	C21.0	1	6	2.5	45	1.5	4	1	¥ 3,270
1.5 × 60° × 8	C21.5	1.5	8	4	50	2	6	1	¥ 3,100
2 × 60° × 10	C22.0	2	10	5	55	3	8	1	¥ 4,510
2.5 × 60° × 12	C22.5	2.5	12	6.5	60	3.5	10	1	¥ 6,520
3 × 60° × 14	C23.0	3	14	8	65	4	12	1	¥ 8,530
4 × 60° × 18	C24.0	4	18	10	76	5	14	1	¥ 17,800
5 × 60° × 22	C25.0	5	22	12	88	6.5	17	1	¥ 24,600
6 × 60° × 25	C26.0	6	25	15	100	8	21	1	¥ 35,300

Drill dia.	Shank dia.	–	Maximum dia.	Overall length	Drill length	Larger cut length	Workpiece end-face Hole size
Dc	Ds	D_2	D_1	L	ℓ	ℓ_2	Dw

JIS

CESC



High Helix Center Drills-JIS Type C 60°

Specification

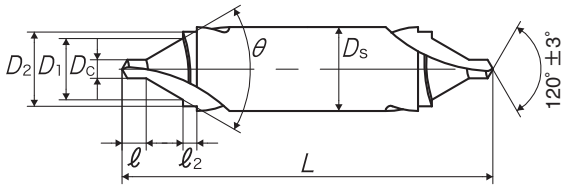
HSS

■High helix center drills - JIS Type C suitable for soft or relatively tough materials.

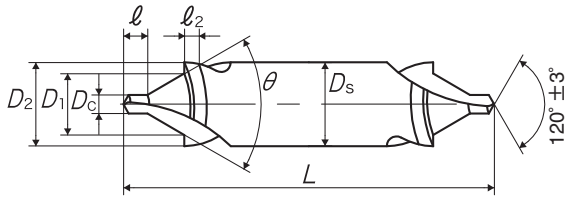
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~10 (m/min)	25~50 (m/min)	25~50 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE: 1



TYPE: 2



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	D_2 (mm)	D_1 (mm)	L (mm)	ℓ (mm)	ℓ_2 (mm)	Dw (mm)	TYPE	MSRP
0.5 × 60° × 3.15	CEC0.5	0.5	3.15	1.6	1.06	31.5	0.8	0.6	1.6	1	¥ 4,590
0.63 × 60° × 3.15	CEC0.63	0.63	3.15	2	1.32	31.5	1	0.8	2	1	¥ 4,130
0.8 × 60° × 3.15	CEC0.8	0.8	3.15	2.5	1.7	31.5	1.2	1	2.5	1	¥ 3,540
1 × 60° × 3.15	CEC1.0	1	3.15	3.15	2.12	31.5	1.5	1.2	3.15	2	¥ 3,540
1.25 × 60° × 4	CEC1.25	1.25	4	4	2.65	35.5	1.9	1.5	4	2	¥ 3,320
1.6 × 60° × 5	CEC1.6	1.6	5	5	3.35	40	2.4	1.8	5	2	¥ 2,810
2 × 60° × 6.3	CEC2.0	2	6.3	6.3	4.25	45	3	2.2	6.3	2	¥ 2,920
2.5 × 60° × 8	CEC2.5	2.5	8	8	5.3	50	3.8	3	8	2	¥ 3,320
3.15 × 60° × 10	CEC3.15	3.15	10	10	6.7	56	4.8	3.5	10	2	¥ 4,820
4 × 60° × 12.5	CEC4.0	4	12.5	12.5	8.5	63	6	4.2	12.5	2	¥ 6,100
5 × 60° × 16	CEC5.0	5	16	16	10.6	71	7.5	5.5	16	2	¥ 10,800
6.3 × 60° × 18	CEC6.3	6.3	18	18	13.2	75	9.2	5.5	18	2	¥ 20,000
8 × 60° × 22.4	CEC8.0	8	22.4	22.4	17	90	11.5	5.5	22.4	2	¥ 29,900
10 × 60° × 28	CEC010	10	28	28	21.2	112	14.2	7	28	2	¥ 68,800

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CEIR



High Helix Center Drills-JIS Type R

Specification

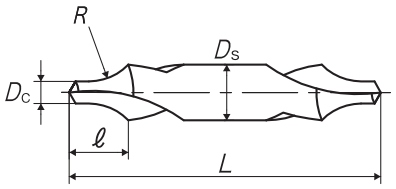
HSS

■The CEIR is a high helix JIS type R center hole drill.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~10 (m/min)	25~50 (m/min)	25~50 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE : 1



Segment : 51

Size Dc × R × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Rmax (mm)	Rmin (mm)	Dw (mm)	TYPE	MSRP
1 × R × 3.15	CE1.0RI	1	3.15	31.5	3	3.15	2.5	2.12	1	¥ 1,520
1.25 × R × 3.15	CE1.25RI	1.25	3.15	31.5	3.35	4	3.15	2.65	1	¥ 1,400
1.6 × R × 4	CE1.6RI	1.6	4	35.5	4.25	5	4	3.35	1	¥ 1,340
2 × R × 5	CE2.0RI	2	5	40	5.3	6.3	5	4.25	1	¥ 1,120
2.5 × R × 6.3	CE2.5RI	2.5	6.3	45	6.7	8	6.3	5.3	1	¥ 1,210
3.15 × R × 8	CE3.15RI	3.15	8	50	8.5	10	8	6.7	1	¥ 1,620
4 × R × 10	CE4.0RI	4	10	56	10.6	12.5	10	8.5	1	¥ 2,960
5 × R × 12.5	CE5.0RI	5	12.5	63	13.2	16	12.5	10.6	1	¥ 3,970
6.3 × R × 16	CE6.3RI	6.3	16	71	17	20	16	13.2	1	¥ 7,660
8 × R × 20	CE8.0RI	8	20	80	21.2	25	20	17	1	¥ 15,600
10 × R × 25	CE010RI	10	25	100	26.5	31.5	25	21.2	1	¥ 27,300

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

JIS

CD-R

Low Helix Center Drills-Type R



Specification

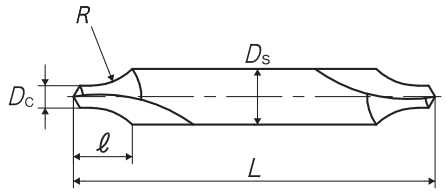
HSS

■The CD-R is a high helix type R center hole drill.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
15~30 (m/min)	15~30 (m/min)	15~30 (m/min)	10~25 (m/min)	15~30 (m/min)	10~15 (m/min)	10~20 (m/min)

TYPE : 1



Segment : 51

Size Dc × R × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Rmax (mm)	Dw (mm)	TYPE	MSRP
0.7 × R × 3.5	CY0.7R	0.7	3.5	35	2.5	2.5	2	1	¥ 3,390 ※
0.8 × R × 3.5	CY0.8R	0.8	3.5	35	2.6	2.5	2	1	¥ 2,890 ※
1 × R × 4	CY1.0R	1	4	35	3.25	3.15	2.5	1	¥ 2,540 ※
1.5 × R × 5	CY1.5R	1.5	5	40	4.6	5	4	1	¥ 2,000
2 × R × 6	CY2.0R	2	6	45	5.75	6.3	5	1	¥ 2,230
2.5 × R × 7.7	CY2.5R	2.5	7.7	50	7.3	8	6.5	1	¥ 2,890
3 × R × 7.7	CY3.0R	3	7.7	55	8.3	10	6.5	1	¥ 3,780
4 × R × 10	CY4.0R	4	10	65	10.6	12.5	8.5	1	¥ 6,130
5 × R × 11	CY5.0R	5	11	78	12.4	16	9	1	¥ 7,790 ※
6 × R × 16	CY6.0R-16	6	16	90	16.9	20	13.5	1	¥ 11,800 ※
6 × R × 18	CY6.0R	6	18	90	17.8	20	15	1	¥ 16,600 ※

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

CE-T



High Helix A Type 75° Center Hole Drill

Specification

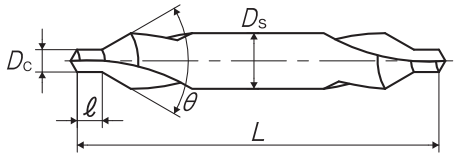
HSS

■High helix center drills - Type A center drill for machining 75° center hole. Suitable for soft or relatively tough materials.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~10 (m/min)	25~50 (m/min)	25~50 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 75° × 4	CE1.0T	1	4	35	1	2.5	1	¥ 2,130 ※
1.5 × 75° × 5	CE1.5T	1.5	5	40	1.5	4	1	¥ 1,670 ※
2 × 75° × 6	CE2.0T	2	6	45	2	5	1	¥ 1,850 ※
2.5 × 75° × 7.7	CE2.5T	2.5	7.7	50	2.5	6.5	1	¥ 2,270 ※
3 × 75° × 7.7	CE3.0T	3	7.7	55	3	6.5	1	¥ 2,270 ※
4 × 75° × 10	CE4.0T	4	10	65	4.5	8.5	1	¥ 4,520 ※
5 × 75° × 11	CE5.0T	5	11	78	5.5	9	1	¥ 4,880 ※
6 × 75° × 18	CE6.0T	6	18	90	6.5	15	1	¥ 16,500 ※
8 × 75° × 18	CE8.0T	8	18	100	8.5	15	1	¥ 18,900 ※
10 × 75° × 18	CE010T	10	18	100	11	15	1	¥ 18,900 ※

MEMO

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

MHCDS



Center Drills for Carbon Steels of Medium Hardness for Running at High Speed

Specification

HSS-Co | Coating

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
20~40 (m/min)	20~40 (m/min)	20~40 (m/min)	10~20 (m/min)	10~20 (m/min)	15~30 (m/min)	15~40 (m/min)
			25~35HRC			

Product Features

- In order to improve positioning accuracy of projection and shank tolerance, MHCDS has the cutting edge only on one end.
- Considering clearance between center point and bottom of center hole, cutting edge length (ℓ) is made as short as possible to increase toughness.
- To increase centrality, drill point has 3 rakes and X thinning design, which enables high speed cutting and feeding.
- Increased centrality leads to great improvement of surface finish and circularity of center-drilled hole.

Cutting Data

Great extension of tool life with MHCDS

Right pictures show difference of the damage on cutting edge between CD-S and MHCDS after 480 hole cuttings under same cutting condition (stated in right) MHCDS has smaller wear and edge damage. This tells we can continue to use MHCDS further.

Cutting condition [3×60°×8]

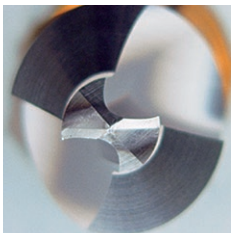
Work material	S55C
Cutting speed	30m/min (1,200min^{-1})
Feed	0.15mm/rev
Machine	NC lathe
Cutting Fluid	Water soluble cutting fluid

<After drilling 480 holes> **Large wear**



CD-S

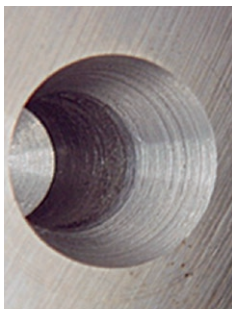
<After drilling 480 holes> **Small wear**



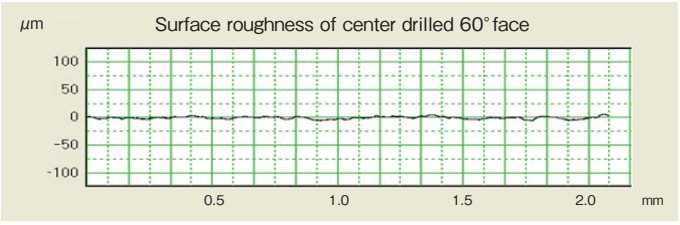
MHCDS

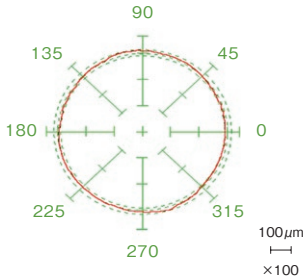
Great improvement in surface roughness and circularity with MHCDS

Under the cutting condition stated above, the surface finish of center-drilled hole has greatly been improved.
Circularity of center drilled hole as well as run-out tolerance of turning axis has been improved.



Enlarged picture





Circularity of center drilled 60° face

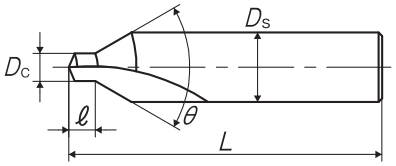
Recommended cutting condition

●Material : Carbon Steels(S55C) Alloy Steels(SCM440)

Designation Dc×θ×Ds	Feed (mm/rev)	Revolution speed (min^{-1})
1×60°×4	0.1	3,800
1.5×60°×5		2,400
2×60°×6	0.15	1,900
2.5×60°×8		1,500
3×60°×8		1,200
4×60°×10	0.2	1,000
5×60°×12		800
6×60°×16		600

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

TYPE : 1



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60° × 4	VMHCD1.0S	1	4	30	1	2.5	1	¥ 2,600
1.5 × 60° × 5	VMHCD1.5S	1.5	5	30	1.5	4	1	¥ 2,470
2 × 60° × 6	VMHCD2.0S	2	6	30	1.9	5	1	¥ 2,700
2.5 × 60° × 8	VMHCD2.5S	2.5	8	40	2.4	6.5	1	¥ 3,270
3 × 60° × 8	VMHCD3.0S	3	8	40	2.8	6.5	1	¥ 3,270
4 × 60° × 10	VMHCD4.0S	4	10	45	3.8	8.5	1	¥ 4,780
5 × 60° × 12	VMHCD5.0S	5	12	55	4.6	10	1	¥ 6,170
6 × 60° × 16	VMHCD6.0S	6	16	65	5.5	13.5	1	¥ 14,400

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

AUCES

Coated Type A 60° High Helix Single End Center Hole Drill



Specification

HSS

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼
20~40 (m/min)	20~40 (m/min)	10~20 (m/min)

Coating

Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
30~60 (m/min)	30~60 (m/min)	25~60 (m/min)	25~60 (m/min)

Recommended Tapping Speeds depending on Materials

AUCDS

Coated Type A 60° Low Helix Single End Center Hole Drill



Specification

HSS

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼
20~40 (m/min)	20~40 (m/min)	20~40 (m/min)	15~30 (m/min) 25~35HRC

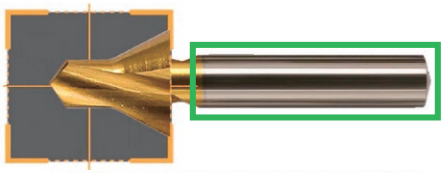
Coating

Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
20~40 (m/min)	10~40 (m/min)	10~40 (m/min)

Recommended Tapping Speeds depending on Materials

Product Features

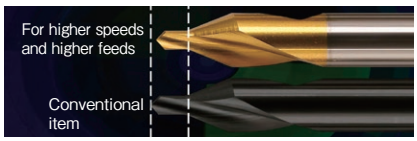
- To improve the tools precision and accuracy, YAMAWA adopted a single end design.
- Higher quality center holes can be achieved with the AUCES and AUSDS coated, single end design center hole drill.
- Because of the single end design, the tool length in the holder is constant and the tool projection is constant.



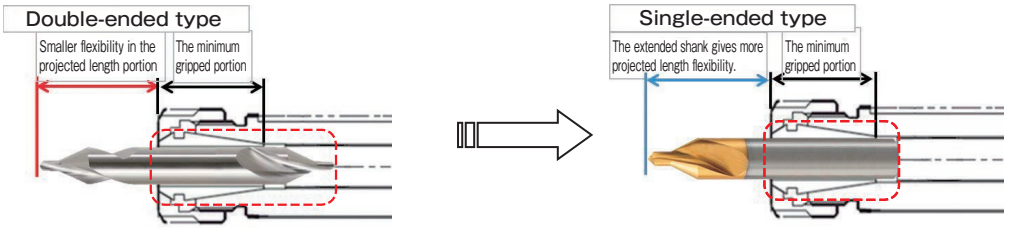
Compared with a double end center hole drill, the accuracy of the drill part and shank accuracy are improved with a single end center hole drill.



The position of the tool identification markings is made at the back of the shank part to avoid clamping at the marking position of the drill.



The drill length (ℓ) is shorter than the conventional double end product. Higher speed, higher feed machining is possible.



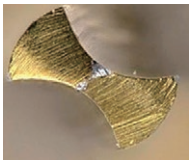
Cutting Data

Tool Type	Coated Single-End Center Hole Drill AUCES	Coated Double Ended Center Hole Drill CE-SV
Size	ϕ3×60°×8	
Workpiece Material & Hardness	S50C (96～98HRB)	
Cutting Speed	10m/min, 30m/min	
Feed Per Rev.	0.05mm/rev, 0.12mm/rev	
Large Diameter	ϕ6	
Machinery Type	Vertical machining center	
Cutting Fluid	Water soluble cutting fluid (20 to 1 dilution)	

Tool Type	Coated Single-End Center Hole Drill AUCES	Coated Double Ended Center Hole Drill CE-SV
Size	ϕ1×60°×4	
Workpiece Material	S50C	
Cutting Speed	30m/min	
Feed Per Rev.	0.04mm/rev	
Large Diameter	ϕ3	

Machining Conditions	Single End Center Hole Drill AUCES	Double End Center hole drill CE-SV
Workpiece Material : S50C Cutting Speed 10m/min Feed Rate: 0.05mm/rev		
Material S50C Cutting Speed 30m/min Feed Rate: :0.12mm/rev		

Coated Single End Center Hole Drill AUCES



Coated Double End Center Hole Drill CE-SV

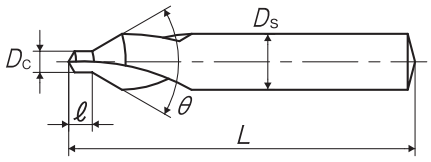


Think threads with YAMAWA

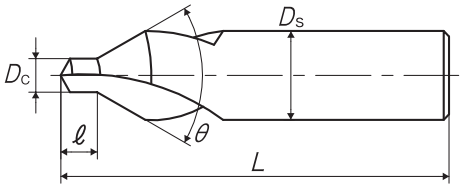
Drill dia.	Shank dia.	Overall length	Drill length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	Dw

AUCES Coated Type A 60° High Helix Single End Center Hole Drill

TYPE: 1



TYPE: 2

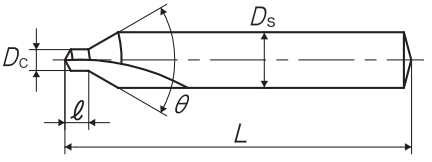


Segment : 51

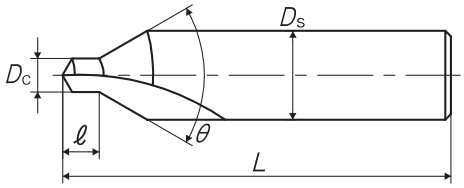
Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60°× 4	YH61.00ZNEVD	1	4	35	1.1	2.5	1	¥ 1,660
1.5 × 60°× 5	YH61.50ZNEVE	1.5	5	40	1.6	4	1	¥ 1,580
2 × 60°× 6	YH62.00ZNEVF	2	6	45	2.1	5	1	¥ 1,720
2.5 × 60°× 8	YH62.50ZNEVI	2.5	8	50	2.7	6.5	1	¥ 2,090
3 × 60°× 8	YH63.00ZNEVI	3	8	50	3.2	6.5	1	¥ 2,090
4 × 60°× 10	YH64.00ZNEVJ	4	10	55	4.3	8.5	1	¥ 3,050
5 × 60°× 12	YH65.00ZNEVM	5	12	65	5.3	10	1	¥ 3,940
6 × 60°× 16	YH66.00ZNEVP	6	16	70	6.4	13.5	2	¥ 9,180

AUCDS Coated Type A 60 °Low Helix Single End Center Hole Drill

TYPE: 1



TYPE: 2



Segment : 51

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	Dw (mm)	TYPE	MSRP
1 × 60°× 4	YL61.00ZNEVD	1	4	35	1.1	2.5	1	¥ 1,660
1.5 × 60°× 5	YL61.50ZNEVE	1.5	5	40	1.6	4	1	¥ 1,580
2 × 60°× 6	YL62.00ZNEVF	2	6	45	2.1	5	1	¥ 1,720
2.5 × 60°× 8	YL62.50ZNEVI	2.5	8	50	2.7	6.5	1	¥ 2,090
3 × 60°× 8	YL63.00ZNEVI	3	8	50	3.2	6.5	1	¥ 2,090
4 × 60°× 10	YL64.00ZNEVJ	4	10	55	4.3	8.5	1	¥ 3,050
5 × 60°× 12	YL65.00ZNEVM	5	12	65	5.3	10	1	¥ 3,940
6 × 60°× 16	YL66.00ZNEVP	6	16	70	6.4	13.5	2	¥ 9,180

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length
Dc	Ds	L	ℓ1

AUPEQ

Coated Single End Point Drill PE-90°



Specification

	Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
HSS	38~48 (m/min)	33~43 (m/min)	28~38 (m/min)	26~33 (m/min)

	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄	Aluminum alloy castings アルミ合金鋳物
Coating	13~17 (m/min)	13~20 (m/min)	40~50 (m/min)	84~120 (m/min)

25~35HRC

AUPES

Coated Single End Point Drill PE-60°



Specification

	Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
HSS	38~48 (m/min)	33~43 (m/min)	28~38 (m/min)	26~33 (m/min)

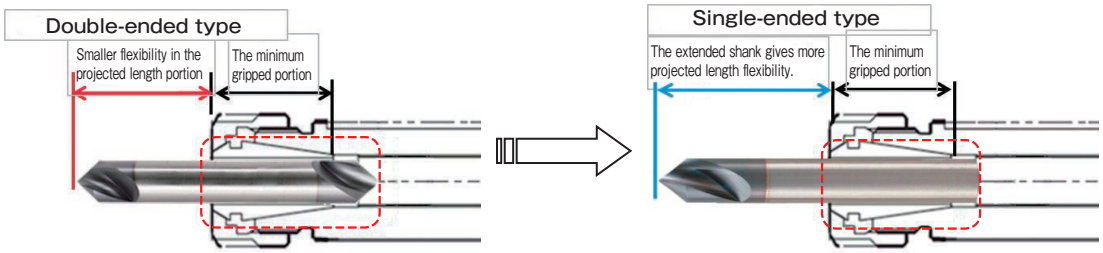
	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄	Aluminum alloy castings アルミ合金鋳物
Coating	13~17 (m/min)	13~20 (m/min)	40~50 (m/min)	84~120 (m/min)

25~35HRC

Product Features

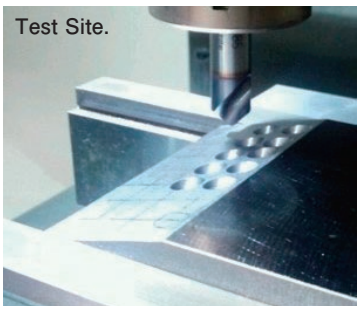
- ●An excellent surface finish can be obtained while maintaining cutting edge sharpness from the high helix flute design.
- ●Accuracy improvements are also achieved from the single end design.
- ●A design for higher rigidity enables high speed cutting.
- ●The breakage problem of the drill portion of the center hole drill has been solved.
- ●Simultaneous combining the center positioning and chamfering is possible. It can also be used as a multi function tool like groove processing.
- ●Higher precision machining can be achieved with the two stage point shape design.
- ●With a single end center point drill, the degree of chip space widens, so the chips are discharged smoothly.

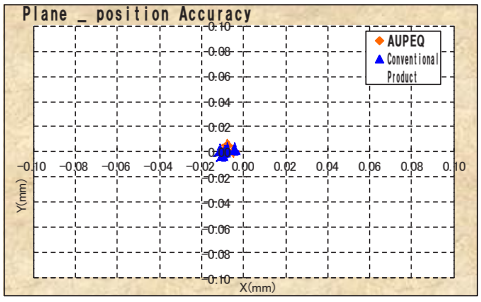
Differences in projection length and degrees of freedom between single end and double end point drills

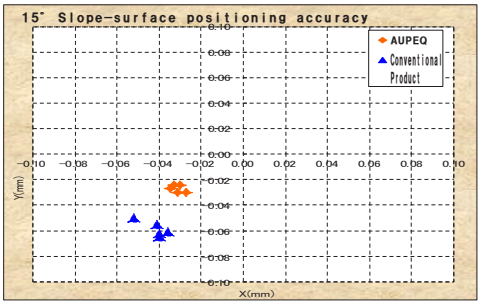


■Cutting data

Tool Type	Coated Single End Point Drill AUPEQ	Coated Double End Point Drill Competitor's Item
Size	ϕ12×90°	
Workpiece Material	SCM440(alloy steel)	
Surface Condition	flat 15°incline surface	
Cutting Speed	10m/min	
Feed Per Rev.	0.05mm/rev	
Processing Length	ϕ8 flat surface	
Cutting Fluid	Water soluble cutting fluid (x20)	
Machinery Type	Vertical machining center	





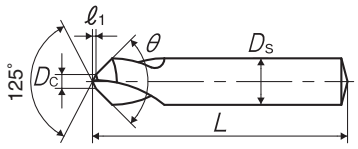


AUPEQ / AUPES improves positioning accuracy dramatically.
High precision positioning is possible as shown in the above figure.

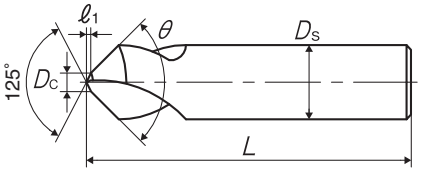
Drill dia.	Shank dia.	Overall length	Drill length
Dc	Ds	L	ℓ1

AUPEQ Coated Single End Point Drill PE-90°

TYPE: 1



TYPE: 2

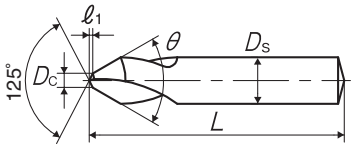


Segment : 56

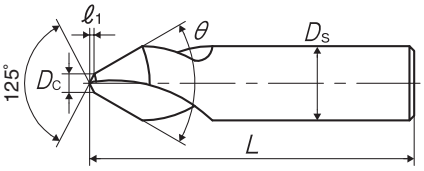
Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ1 (mm)	TYPE	MSRP
3 × 0.5 × 90°	PZ93.00ZNETZ	0.5	3	35	0.13	1	¥ 3,220
4 × 1 × 90°	PZ94.00ZNETZ	1	4	35	0.26	1	¥ 2,910
6 × 2 × 90°	PZ96.00ZNETZ	2	6	45	0.52	1	¥ 3,240
8 × 2.5 × 90°	PZ98.00ZNETZ	2.5	8	50	0.65	1	¥ 3,980
10 × 3 × 90°	PZ910.0ZNETZ	3	10	55	0.78	1	¥ 5,150
12 × 3.5 × 90°	PZ912.0ZNETZ	3.5	12	65	0.91	1	¥ 6,610
16 × 4 × 90°	PZ916.0ZNETZ	4	16	70	1.04	2	¥ 9,870
20 × 5 × 90°	PZ920.0ZNETZ	5	20	80	1.30	2	¥ 15,100

AUPES Coated Single End Point Drill PE-60°

TYPE: 1



TYPE: 2



Segment : 56

Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ1 (mm)	TYPE	MSRP
3 × 0.5 × 60°	PZ63.00ZNETZ	0.5	3	35	0.13	1	¥ 3,220
4 × 1 × 60°	PZ64.00ZNETZ	1	4	35	0.26	1	¥ 2,910
6 × 2 × 60°	PZ66.00ZNETZ	2	6	45	0.52	1	¥ 3,240
8 × 2.5 × 60°	PZ68.00ZNETZ	2.5	8	50	0.65	1	¥ 3,980
10 × 3 × 60°	PZ610.0ZNETZ	3	10	55	0.78	1	¥ 5,150
12 × 3.5 × 60°	PZ612.0ZNETZ	3.5	12	65	0.91	1	¥ 6,610
16 × 4 × 60°	PZ616.0ZNETZ	4	16	70	1.04	2	¥ 9,870
20 × 5 × 60°	PZ620.0ZNETZ	5	20	80	1.30	2	¥ 15,100

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

JIS

SHANK EXTENSION



Shank Extension

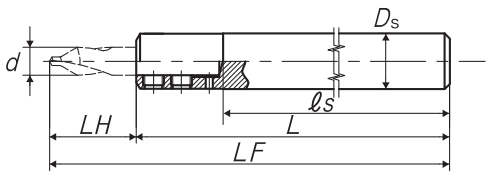
Specification

Alloy steel

Product Features

●The shank extension can provide a long overall length (LF) of 150 mm when used with a coated single end center drill (AUCES/AUCDS) or coated single end point drill (AUPEQ/AUPES).
●The shank diameter Ds is 16 mm or 20 mm, so it can be held by a general holder.

TYPE : 1



Area : 5A

Size d × Ds × LF	Product Code	d (mm)	Ds (mm)	L (mm)	LF (mm)	LH (mm)	ℓs (mm)	Shape type	Manufacturer's Retail Price
6 × 16 × 150	SE0616M	6	16	128	150	22	105	1	¥ 13,100 □
8 × 16 × 150	SE0816M	8	16	125	150	25	100	1	¥ 13,100 □
10 × 20 × 150	SE1020M	10	20	123	150	27	95	1	¥ 14,700 □

Note:
・Insert the center hole drill or the point drill all the way into the shank extension, alternately tighten the two set screws so to develop a balanced fastening. Secure the tool tight in the holder. Also, note that tightening only one set screw will cause run-out.

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products. □=In stock at manufacturer.

MEMO

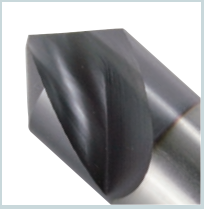
Point dia.	Shank dia.	Overall length	Point length
Dc	Ds	L	ℓ1

POINT DRILLS

Product Features



- The improved design enables better rigidity for high speed cutting.
- A stronger helical flute design helps improve workpiece surface finishes while maintaining good cutting edge sharpness.



The drill point angle is 125°, The chamfer angle is available as a 90° or 60°. Simultaneous centering and chamfering with one tool! Chamfering and groove processing are also possible!

- Unlike a normal center hole drill, there is no drill part with a Point Drill, so the problems with breakage of the drill portion is eliminated.
- Simultaneous combining the positioning and chamfering are possible. It can also be used as a multi-function tool for groove machining.
- High precision machining can be achieved with the two stage point shape.

Usage example

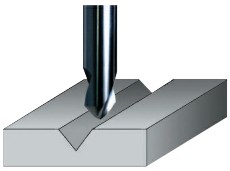
Centering and Chamfering



Chamfering



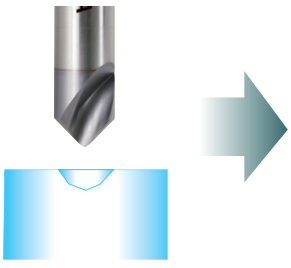
Groove Machining



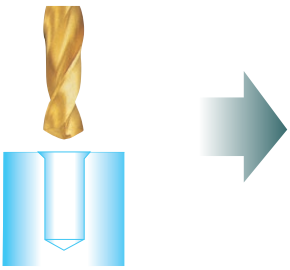
Drill and tap processing

Point Drill

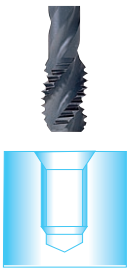
Centering/ Chamfering machining at the same time



Drilling



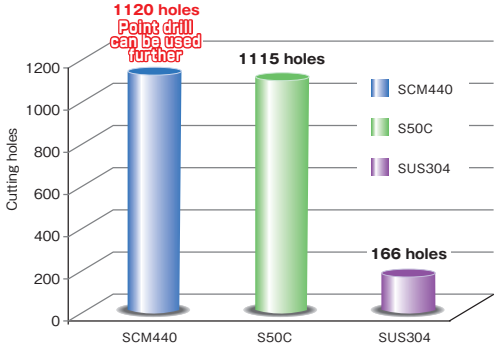
Tapping



Centering continuous processing data

Tool	Workpiece Material	Cutting Speed	Feed Rate	Chamfer Hole Diameter	Cutting Depth	Machine	Cutting fluid
PE-Q 12× (3.5) ×90°	SCM440 (Alloy steel)	25m/min	0.15mm/rev	φ8.0	3.0mm	Machining Center Vertical type	Water - soluble oil (20-fold dilution)
	S50C (Carbon steel)	25m/min	0.2mm/rev				
	SUS304 (Stainless steel)	15m/min	0.1mm/rev				

Comparison of the number of holes processed in various workpiece materials.



Point dia.	Shank dia.	Overall length	Point length
Dc	Ds	L	ℓ1

JIS

PE-Q

Point Drills 90°



Specification

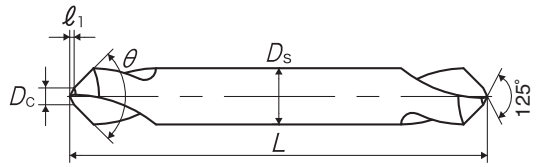
HSS

■PE-Q is the point drill enabling positioning (125° edge angle) and chamfering (90°) simultaneously. High cutting accuracy is available owing to a good cutting-start due to 2 step flat design.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄	Aluminum alloy castings アルミ合金鋳物
30~40 (m/min)	25~35 (m/min)	20~30 (m/min)	20~25 (m/min)	10~15 (m/min)	30~40 (m/min)	70~100 (m/min)

TYPE : 1



Segment : 56

Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ1 (mm)	TYPE	MSRP
3 × 0.5 × 90°	PE3.0Q	0.5	3	40	0.13	1	¥ 2,930
4 × 1 × 90°	PE4.0Q	1	4	45	0.26	1	¥ 2,380
6 × 2 × 90°	PE6.0Q	2	6	55	0.52	1	¥ 2,260
8 × 2.5 × 90°	PE8.0Q	2.5	8	65	0.65	1	¥ 2,710
10 × 3 × 90°	PE010Q	3	10	75	0.78	1	¥ 4,050
12 × 3.5 × 90°	PE012Q	3.5	12	85	0.91	1	¥ 5,330
16 × 4 × 90°	PE016Q	4	16	90	1.04	1	¥ 9,090
20 × 5 × 90°	PE020Q	5	20	100	1.30	1	¥ 13,600

※ = Specified Distribution Items. Made to order products.

Point dia.	Shank dia.	Overall length	Point length
Dc	Ds	L	ℓ1

PE-Q V

Point Drills 90°, Coated



Specification

HSS Coating

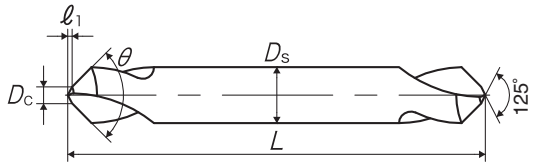
■PE-Q V is the coated point drill enabling positioning (125° edge angle) and chamfering (90°) simultaneously. High cutting accuracy is available owing to a good cutting-start due to 2 step flat design. Optimum coating suitable for the cutting condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄
40~50 (m/min)	30~45 (m/min)	30~46 (m/min)	25~35 (m/min)	10~20 (m/min) 25~35HRC	15~20 (m/min)	40~50 (m/min)

Aluminum alloy castings アルミ合金鋳物 85~120 (m/min)

TYPE : 1



Segment : 56

Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ1 (mm)	TYPE	MSRP
3 × 0.5 × 90°	VPE3.0Q	0.5	3	40	0.13	1	¥ 4,930
4 × 1 × 90°	VPE4.0Q	1	4	45	0.26	1	¥ 4,560
6 × 2 × 90°	VPE6.0Q	2	6	55	0.52	1	¥ 4,990
8 × 2.5 × 90°	VPE8.0Q	2.5	8	65	0.65	1	¥ 6,250
10 × 3 × 90°	VPE010Q	3	10	75	0.78	1	¥ 8,000
12 × 3.5 × 90°	VPE012Q	3.5	12	85	0.91	1	¥ 10,200
16 × 4 × 90°	VPE016Q	4	16	90	1.04	1	¥ 15,300
20 × 5 × 90°	VPE020Q	5	20	100	1.30	1	¥ 23,500

Point dia.	Shank dia.	Overall length	Point length
Dc	Ds	L	ℓ_1

JIS

C-PE-Q V



Carbide Point Drills 90°, Coated

Specification

HF Coating

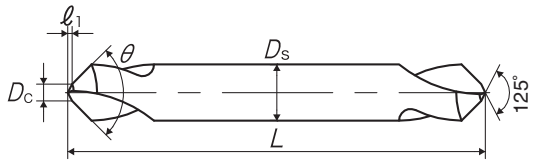
■C-PE-Q V is the carbide point drill enabling positioning (125° edge angle) and chamfering (90°) simultaneously. High cutting accuracy is available owing to a good cutting-start due to 2 step flat design. Optimum coating suitable for the cutting condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄
85~100 (m/min)	75~90 (m/min)	65~80 (m/min)	60~70 (m/min)	30~40 (m/min) 25~35HRC	35~45 (m/min)	90~100 (m/min)

Aluminum alloy castings アルミ合金鋳物
120~160 (m/min)

TYPE : 1



Segment : 52

Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ_1 (mm)	TYPE	MSRP
3 × 0.5 × 90°	VCPE3.0Q	0.5	3	40	0.13	1	¥ 16,100
4 × 1 × 90°	VCPE4.0Q	1	4	45	0.26	1	¥ 14,700
6 × 2 × 90°	VCPE6.0Q	2	6	55	0.52	1	¥ 19,900
8 × 2.5 × 90°	VCPE8.0Q	2.5	8	65	0.65	1	¥ 25,300
10 × 3 × 90°	VCPE010Q	3	10	75	0.78	1	¥ 35,200
12 × 3.5 × 90°	VCPE012Q	3.5	12	85	0.91	1	¥ 41,200
16 × 4 × 90°	VCPE016Q	4	16	90	1.04	1	¥ 61,500

※ = Specified Distribution Items. Made to order products.

Point dia.	Shank dia.	Overall length	Point length
Dc	Ds	L	ℓ1

PE-QL V



Long Shank Point Drills 90°, Coated

Specification

HSS Coating

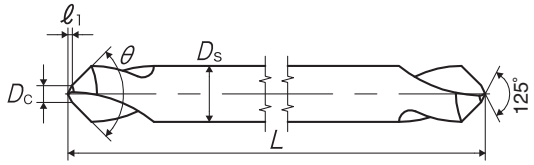
■PE-QL V is the long shank coated point drill enabling positioning (125° edge angle) and chamfering (90°) simultaneously. High cutting accuracy is available owing to a good cutting-start due to 2 step flat design. Optimum coating suitable for the cutting condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄
30~40 (m/min)	25~35 (m/min)	20~30 (m/min)	20~25 (m/min)	10~15 (m/min) 25~35HRC	10~15 (m/min)	30~40 (m/min)

Aluminum alloy castings アルミ合金鋳物: 65~95 (m/min)

TYPE : 1



Segment : 56

Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ1 (mm)	TYPE	MSRP
4 × 1 × 90°	VPEL4.0Q	1	4	100	0.26	1	¥ 9,230
6 × 2 × 90°	VPEL6.0Q	2	6	100	0.52	1	¥ 9,710
8 × 2.5 × 90°	VPEL8.0Q	2.5	8	100	0.65	1	¥ 10,900
8 × 2.5 × 90°	VPEM8.0Q	2.5	8	150	0.65	1	¥ 14,600
10 × 3 × 90°	VPEL010Q	3	10	100	0.78	1	¥ 13,100
10 × 3 × 90°	VPEM010Q	3	10	150	0.78	1	¥ 16,800
12 × 3.5 × 90°	VPEL012Q	3.5	12	100	0.91	1	¥ 15,500
12 × 3.5 × 90°	VPEM012Q	3.5	12	150	0.91	1	¥ 19,700
16 × 4 × 90°	VPEM016Q	4	16	150	1.04	1	¥ 25,200
20 × 5 × 90°	VPEM020Q	5	20	150	1.30	1	¥ 34,500

Point dia.	Shank dia.	Overall length	Point length
Dc	Ds	L	ℓ1

JIS

PE-S

Point Drills 60°



Specification

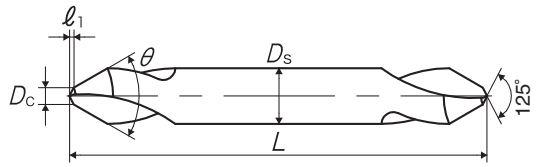
HSS

■PE-S is the point drill enabling positioning (125° edge angle) and chamfering (60°) simultaneously. High cutting accuracy is available owing to a good cutting-start due to 2 step flat design.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄	Aluminum alloy castings アルミ合金鋳物
30~40 (m/min)	25~35 (m/min)	20~30 (m/min)	20~25 (m/min)	10~15 (m/min)	30~40 (m/min)	70~100 (m/min)

TYPE : 1



Segment : 56

Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ1 (mm)	TYPE	MSRP
3 × 0.5 × 60°	PE3.0S	0.5	3	40	0.13	1	¥ 2,930
4 × 1 × 60°	PE4.0S	1	4	45	0.26	1	¥ 2,380
6 × 2 × 60°	PE6.0S	2	6	55	0.52	1	¥ 2,260
8 × 2.5 × 60°	PE8.0S	2.5	8	65	0.65	1	¥ 2,710
10 × 3 × 60°	PE010S	3	10	75	0.78	1	¥ 4,050
12 × 3.5 × 60°	PE012S	3.5	12	85	0.91	1	¥ 5,330
16 × 4 × 60°	PE016S	4	16	90	1.04	1	¥ 9,090
20 × 5 × 60°	PE020S	5	20	100	1.30	1	¥ 13,600

※ = Specified Distribution Items. Made to order products.

Point dia.	Shank dia.	Overall length	Point length
Dc	Ds	L	ℓ1

PE-S V

Point Drills 60°, Coated



Specification

HSS Coating

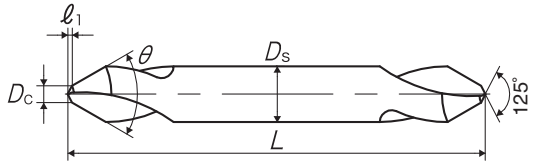
■PE-S V is the coated point drill enabling positioning (125° edge angle) and chamfering (60°) simultaneously. High cutting accuracy is available owing to a good cutting-start due to 2 step flat design. Optimum coating suitable for the cutting condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄
40~50 (m/min)	30~45 (m/min)	30~40 (m/min)	25~35 (m/min)	10~15 (m/min) 25~35HRC	10~20 (m/min)	40~50 (m/min)

Aluminum alloy castings アルミ合金鋳物 85~120 (m/min)

TYPE : 1



Segment : 56

Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ1 (mm)	TYPE	MSRP
3 × 0.5 × 60°	VPE3.0S	0.5	3	40	0.13	1	¥ 4,930
4 × 1 × 60°	VPE4.0S	1	4	45	0.26	1	¥ 4,560
6 × 2 × 60°	VPE6.0S	2	6	55	0.52	1	¥ 4,990
8 × 2.5 × 60°	VPE8.0S	2.5	8	65	0.65	1	¥ 6,250
10 × 3 × 60°	VPE010S	3	10	75	0.78	1	¥ 8,000
12 × 3.5 × 60°	VPE012S	3.5	12	85	0.91	1	¥ 10,200
16 × 4 × 60°	VPE016S	4	16	90	1.04	1	¥ 15,300
20 × 5 × 60°	VPE020S	5	20	100	1.30	1	¥ 23,500

Point dia.	Shank dia.	Overall length	Point length
Dc	Ds	L	ℓ_1

JIS

C-PE-S V

Carbide Point Drills 60°, Coated



Specification

HF Coating

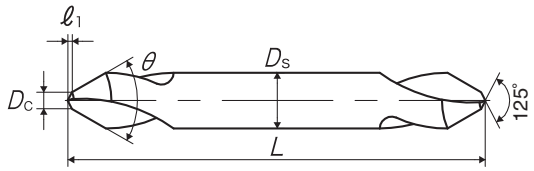
■C-PE-S V is the carbide point drill enabling positioning (125° edge angle) and chamfering (60°) simultaneously. High cutting accuracy is available owing to a good cutting-start due to 2 step flat design. Optimum coating suitable for the cutting condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄
85~100 (m/min)	75~90 (m/min)	65~80 (m/min)	60~70 (m/min)	30~40 (m/min)	35~45 (m/min)	90~100 (m/min)
				25~35HRC		

Aluminum alloy castings アルミ合金鋳物: 120~160 (m/min)

TYPE : 1



Segment : 52

Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ_1 (mm)	TYPE	MSRP
6 × 2 × 60°	VCPE6.0S	2	6	55	0.52	1	¥ 19,900
8 × 2.5 × 60°	VCPE8.0S	2.5	8	65	0.65	1	¥ 25,300
10 × 3 × 60°	VCPE010S	3	10	75	0.78	1	¥ 35,200

※ = Specified Distribution Items. Made to order products.

Point dia.	Shank dia.	Overall length	Point length
Dc	Ds	L	ℓ1

PE-SL V



Long Shank Point Drills 60°, Coated

Specification

HSS Coating

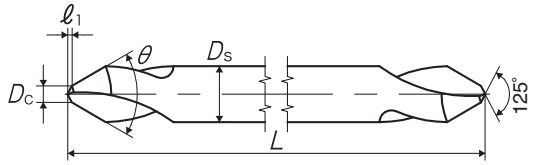
■PE-SL V is the point drill enabling positioning (125°edge angle) and chamfering (60°) simultaneously. High cutting accuracy is available owing to a good cutting-start due to 2 step flat design. Optimum coating suitable for the cutting condition.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄
30~40 (m/min)	25~35 (m/min)	20~30 (m/min)	20~25 (m/min)	10~15 (m/min) 25~35HRC	10~15 (m/min)	30~40 (m/min)

Aluminum alloy castings アルミ合金鋳物 65~95 (m/min)

TYPE : 1



Segment : 56

Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ1 (mm)	TYPE	MSRP
4 × 1 × 60°	VPEL4.0S	1	4	100	0.26	1	¥ 9,230
6 × 2 × 60°	VPEL6.0S	2	6	100	0.52	1	¥ 9,710
8 × 2.5 × 60°	VPEL8.0S	2.5	8	100	0.65	1	¥ 10,900
8 × 2.5 × 60°	VPEM8.0S	2.5	8	150	0.65	1	¥ 14,600
10 × 3 × 60°	VPEL010S	3	10	100	0.78	1	¥ 13,100
10 × 3 × 60°	VPEM010S	3	10	150	0.78	1	¥ 16,800
12 × 3.5 × 60°	VPEL012S	3.5	12	100	0.91	1	¥ 15,500
12 × 3.5 × 60°	VPEM012S	3.5	12	150	0.91	1	¥ 19,700
16 × 4 × 60°	VPEM016S	4	16	150	1.04	1	¥ 25,200

MEMO

Dia.	Shank dia.	Overall length	Flute length
Dc	Ds	L	ℓ

NC-SD V

NC Starting Drills for Chamfering (90°), Coated



Specification

HSS-Co

Coating

Recommended Tapping Speeds depending on Materials

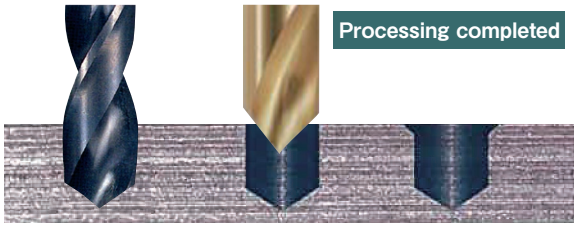
Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
25~40 (m/min)	25~35 (m/min)	25~30 (m/min)	15~25 (m/min)

Stainless steels ステンレス鋼	Tool steels 工具鋼	Cast irons 鋳鉄	Aluminum alloy castings アルミ合金鋳物
5~10 (m/min)	5~10 (m/min)	20~35 (m/min)	60~90 (m/min)

Product Features

After drilling with a general purpose drill, using a NC - SD V (90°) that is larger than the drilled hole diameter makes an excellent chamfer surface finish.

Universal Drill NC-SD V 90°



NC-SD

NC Starting Drills for Center Positioning (125°)



Specification

HSS-Co

Recommended Tapping Speeds depending on Materials

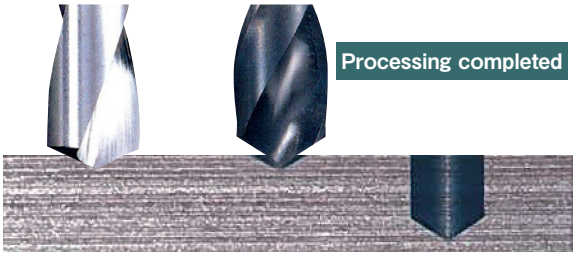
Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
20~30 (m/min)	20~30 (m/min)	20~25 (m/min)	10~20 (m/min)

Stainless steels ステンレス鋼	Tool steels 工具鋼	Cast irons 鋳鉄	Aluminum alloy castings アルミ合金鋳物
5~10 (m/min)	5~10 (m/min)	15~30 (m/min)	50~70 (m/min)

Product Features

The NC starting drill with a 125° drill point is a positioning drill dedicated to centering to increase hole positioning accuracy. The NC starting drill with a 125° drill is selected to be slightly larger than the tip angle of the general-purpose drill. This creates a highly accurate hole positioning without causing chipping on the cutting edge of the drill.

NC-SD 125° Universal Drill



Difference between starting drill and center hole drill

It is also possible to use a center hole drill for positioning. If the center hole drill is used first and is allowed to go too deep, there is a chance the general purpose drill will hit the hole diameter instead of the center of the hole location. This can cause the drills cutting edge to chip.



Recommended cutting conditions.

Unit: min^{-1}

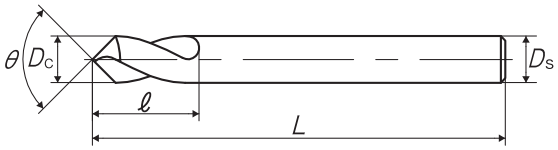
Workpiece Material	Cutting Speed (m/min)	Diameter (mm)									
		φ 3	φ 4	φ 5	φ 6	φ 8	φ 10	φ 12	φ 16	φ 20	φ 25
SS400	25 ~ 40	3400	2600	2100	1700	1300	1050	850	640	510	410
S50C	25 ~ 32	3000	2300	1800	1500	1150	900	750	560	450	360
FC250	20 ~ 35	2900	2200	1750	1450	1100	860	720	540	430	350
SCM440	15 ~ 25	2200	1600	1300	1100	800	640	540	400	320	260
SUS304	7 ~ 12	1100	800	640	540	400	320	270	200	160	130
SKD61	8 ~ 15	1200	880	700	590	440	360	300	220	180	150
SKD11	7 ~ 12	1100	800	640	540	400	320	270	200	160	130
AC4C	60 ~ 90	8000	6000	4800	4000	3000	2400	2000	1500	1200	1000

* Standard feed rates (mm / rev) should be 1% to 3% of the drill diameter. In the case of machining on a curved surface or an inclined surface, please set a consistent feed rate of 0.1 mm / rev.

Dia.	Shank dia.	Overall length	Flute length
Dc	Ds	L	ℓ

NC-SD V NC Starting Drills for Chamfering (90°), Coated

TYPE : 1

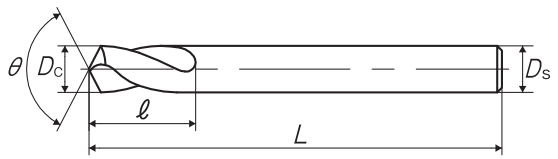


Segment : 56

Size Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	TYPE	MSRP
3 × 90°	VCS-D3.0Q	3	3	46	10	1	¥ 2,650
4 × 90°	VCS-D4.0Q	4	4	55	12	1	¥ 3,140
5 × 90°	VCS-D5.0Q	5	5	62	13	1	¥ 3,410
6 × 90°	VCS-D6.0Q	6	6	66	15	1	¥ 3,600
8 × 90°	VCS-D8.0Q	8	8	79	20	1	¥ 4,770
10 × 90°	VCS-D010Q	10	10	89	23	1	¥ 6,530
12 × 90°	VCS-D012Q	12	12	102	26	1	¥ 9,760
16 × 90°	VCS-D016Q	16	16	115	32	1	¥ 13,100
20 × 90°	VCS-D020Q	20	20	131	40	1	¥ 18,400
25 × 90°	VCS-D025Q	25	25	151	50	1	¥ 28,900

NC-SD NC Starting Drills for Center Positioning (125°)

TYPE : 1



Segment : 56

Size Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	TYPE	MSRP
3 × 125°	CS-D3.0	3	3	46	10	1	¥ 2,050
4 × 125°	CS-D4.0	4	4	55	12	1	¥ 2,300
5 × 125°	CS-D5.0	5	5	62	13	1	¥ 2,600
6 × 125°	CS-D6.0	6	6	66	15	1	¥ 2,780
8 × 125°	CS-D8.0	8	8	79	20	1	¥ 3,430
10 × 125°	CS-D010	10	10	89	23	1	¥ 5,220
12 × 125°	CS-D012	12	12	102	26	1	¥ 7,810
16 × 125°	CS-D016	16	16	115	32	1	¥ 9,570
20 × 125°	CS-D020	20	20	131	40	1	¥ 13,800
25 × 125°	CS-D025	25	25	151	50	1	¥ 20,200

※ = Specified Distribution Items. Made to order products.

Dia.	Tool end dia.	Shank dia.	Overall length	Cutting edge length
D_1	Dc	Ds	L	ℓ



CS-Q

Countersinks 90°, Machining Center Use

Specification

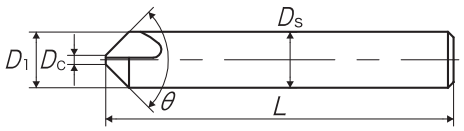
HSS

■CS-Q is suitable for the machining of high accuracy on the chamfering of round hole and on the chamfering of attaching face of screw bolts. Having one cutting edge, this tool is suitable for machining center use.

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Cast irons 鋳鉄	Aluminum alloy castings アルミ合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~15 (m/min)	10~15 (m/min)	10~15 (m/min)	10~30 (m/min)	15~45 (m/min)

TYPE: 1



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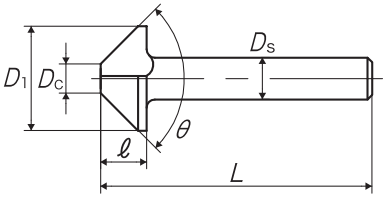


Segment : 53

Size $D_1 \times \theta \times Ds$	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	No. of flutes	TYPE	MSRP
4 × 90° × 4	CS4.0Q	0.6	4	50	-	1	1	¥ 1,000 ※
6 × 90° × 6	CS6.0Q	1	6	50	-	1	1	¥ 1,200
8 × 90° × 8	CS8.0Q	1.3	8	50	-	1	1	¥ 1,400
10 × 90° × 8	CS010Q	1.6	8	46	5.5	1	2	¥ 3,170
15 × 90° × 10	CS015Q	3.2	10	56	7.5	1	2	¥ 4,580
20 × 90° × 10	CS020Q	4	10	60	10	1	2	¥ 6,110
25 × 90° × 10	CS025Q	7	10	65	11	1	2	¥ 8,080
30 × 90° × 12	CS030Q	9	12	70	12.5	1	2	¥ 10,300
35 × 90° × 12	CS035Q	11	12	75	15	1	2	¥ 14,700
40 × 90° × 12	CS040Q	12.5	12	80	17	1	2	¥ 19,300
45 × 90° × 12	CS045Q	14	12	85	18.5	1	2	¥ 23,600
50 × 90° × 12	CS050Q	16	12	90	20	1	2	¥ 28,200
60 × 90° × 16	CS060Q	20	16	100	24	1	2	¥ 41,300

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Dia.	Tool end dia.	Shank dia.	Overall length	Cutting edge length
D_1	Dc	Ds	L	ℓ

CS-QM

Countersinks 90° and 60°, Drilling Machine Use



Specification

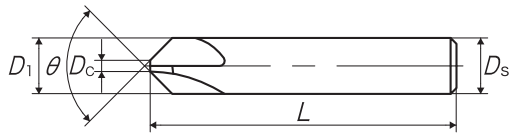
HSS

■CS-QM is suitable for the machining of high accuracy on the chamfering of round hole and on the chamfering of attaching face of screw bolts. Having plural cutting edges, this tool is suitable for drilling machine use.

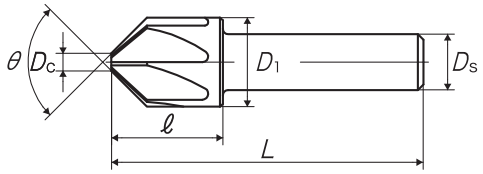
Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Cast irons 鋳鉄	Aluminum alloy castings アルミ合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~15 (m/min)	5~10 (m/min)	10~15 (m/min)	10~30 (m/min)	15~45 (m/min)

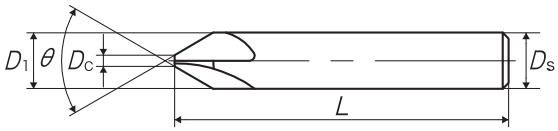
TYPE: 1



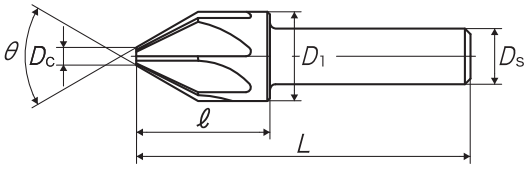
TYPE: 2



TYPE: 3



TYPE: 4



Segment : 53

Size $D_1 \times \theta \times Ds$	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	No. of flutes	TYPE	MSRP
6 × 90° × 6	CS6.0QM9	1.2	6	42	-	3	1	¥ 1,700
8 × 90° × 8	CS8.0QM9	1.6	8	44	-	3	1	¥ 2,070
10 × 90° × 8	CS010QM9	2	8	46	14	3	2	¥ 3,620
12 × 90° × 8	CS012QM9	2.5	8	48	16	5	2	¥ 4,240
16 × 90° × 10	CS016QM9	3.2	10	56	20	5	2	¥ 4,780
20 × 90° × 10	CS020QM9	4	10	60	24	5	2	¥ 6,350
25 × 90° × 10	CS025QM9	7	10	65	29	7	2	¥ 8,520
30 × 90° × 12	CS030QM9	9	12	68	32	7	2	¥ 10,900
35 × 90° × 12	CS035QM9	11	12	70	34	7	2	¥ 15,300
40 × 90° × 12	CS040QM9	12.5	12	71	35	7	2	¥ 20,300
6 × 60° × 6	CS6.0QM6	1.2	6	46	-	3	3	¥ 1,800 ※
8 × 60° × 8	CS8.0QM6	1.6	8	48	-	3	3	¥ 2,160
10 × 60° × 8	CS010QM6	2	8	50	18	3	4	¥ 3,750 ※
12 × 60° × 8	CS012QM6	2.5	8	52	20	5	4	¥ 4,390 ※
16 × 60° × 10	CS016QM6	3.2	10	60	24	5	4	¥ 4,940
20 × 60° × 10	CS020QM6	4	10	64	28	5	4	¥ 6,670
25 × 60° × 10	CS025QM6	7	10	69	33	7	4	¥ 10,300
30 × 60° × 12	CS030QM6	9	12	76	40	7	4	¥ 13,000 ※
35 × 60° × 12	CS035QM6	11	12	79	43	7	4	¥ 18,500 ※
40 × 60° × 12	CS040QM6	12.5	12	81	45	7	4	¥ 24,100 ※

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length
Dc	Ds	L	ℓ

JIS

CS-G

Submarine Gate Cutter, 20°, 30°



Specification

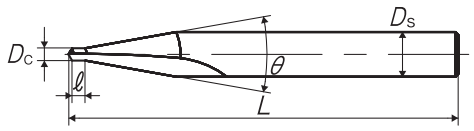
HSS

■CS-G is the special drill for making submarine gate (tunnel gate) on the die mold of plastic injection machine.

Recommended Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

TYPE: 1



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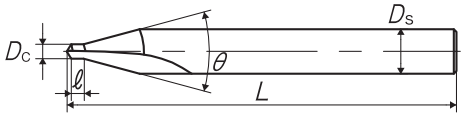


Segment : 54

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	No. of flutes	TYPE	MSRP
0.5 × 20° × 6	CS-G0.52-J	0.5	6	57	0.5	2	1	¥ 5,020 ※
0.5 × 30° × 6	CS-G0.53-J	0.5	6	57	0.5	2	2	¥ 5,020 ※
0.5 × 20° × 6	CS-G0.52-LS	0.5	6	100	0.5	2	1	¥ 6,460 ※
0.5 × 30° × 6	CS-G0.53-LS	0.5	6	100	0.5	2	2	¥ 6,460 ※
0.6 × 20° × 6	CS-G0.62-J	0.6	6	57	0.5	2	1	¥ 4,240 ※
0.6 × 30° × 6	CS-G0.63-J	0.6	6	57	0.5	2	2	¥ 4,240 ※
0.6 × 20° × 6	CS-G0.62-LS	0.6	6	100	0.5	2	1	¥ 5,490 ※
0.6 × 30° × 6	CS-G0.63-LS	0.6	6	100	0.5	2	2	¥ 5,490 ※
0.7 × 20° × 6	CS-G0.72-J	0.7	6	57	0.5	2	1	¥ 3,880 ※
0.7 × 30° × 6	CS-G0.73-J	0.7	6	57	0.5	2	2	¥ 3,880 ※
0.7 × 20° × 6	CS-G0.72-LS	0.7	6	100	0.5	2	1	¥ 5,020 ※
0.7 × 30° × 6	CS-G0.73-LS	0.7	6	100	0.5	2	2	¥ 5,020 ※
0.8 × 20° × 6	CS-G0.82-J	0.8	6	57	0.5	2	1	¥ 3,620 ※
0.8 × 30° × 6	CS-G0.83-J	0.8	6	57	0.5	2	2	¥ 3,620 ※
0.8 × 20° × 6	CS-G0.82-LS	0.8	6	100	0.5	2	1	¥ 4,690 ※
0.8 × 30° × 6	CS-G0.83-LS	0.8	6	100	0.5	2	2	¥ 4,690 ※
0.9 × 20° × 6	CS-G0.92-LS	0.9	6	100	0.5	2	1	¥ 4,170 ※
0.9 × 30° × 6	CS-G0.93-LS	0.9	6	100	0.5	2	2	¥ 4,170 ※
1 × 20° × 6	CS-G1.02-J	1	6	57	0.5	2	1	¥ 2,830 ※
1 × 20° × 8	CS-G1.028J	1	8	57	0.5	2	1	¥ 3,240 ※
1 × 30° × 6	CS-G1.03-J	1	6	57	0.5	2	2	¥ 2,830 ※
1 × 30° × 8	CS-G1.038J	1	8	57	0.5	2	2	¥ 3,240 ※
1 × 20° × 8	CS-G1.028K	1	8	70	0.5	2	1	¥ 3,620 ※
1 × 30° × 8	CS-G1.038K	1	8	70	0.5	2	2	¥ 3,620 ※
1 × 20° × 6	CS-G1.02-LS	1	6	100	0.5	2	1	¥ 3,690 ※

Think threads with YAMAWA

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length
Dc	Ds	L	ℓ

Size Dc × θ × Ds	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	No. of flutes	TYPE	MSRP
1 × 20° × 8	CS-G1.028LS	1	8	100	0.5	2	1	¥ 4,690 ※
1 × 30° × 6	CS-G1.03-LS	1	6	100	0.5	2	2	¥ 3,690 ※
1 × 30° × 8	CS-G1.038LS	1	8	100	0.5	2	2	¥ 4,690 ※
1.5 × 20° × 8	CS-G1.52-K	1.5	8	70	0.5	2	1	¥ 3,620 ※
1.5 × 30° × 8	CS-G1.53-K	1.5	8	70	0.5	2	2	¥ 3,620 ※
1.5 × 20° × 8	CS-G1.52-LS	1.5	8	100	0.5	2	1	¥ 4,690 ※
1.5 × 30° × 8	CS-G1.53-LS	1.5	8	100	0.5	2	2	¥ 4,690 ※
2 × 20° × 8	CS-G2.02-K	2	8	70	0.5	2	1	¥ 3,620 ※
2 × 30° × 8	CS-G2.03-K	2	8	70	0.5	2	2	¥ 3,620 ※
2 × 20° × 8	CS-G2.02-LS	2	8	100	0.5	2	1	¥ 4,690 ※
2 × 30° × 8	CS-G2.03-LS	2	8	100	0.5	2	2	¥ 4,690 ※

※ = Specified Distribution Items. Made to order products.

Drill dia.	Shank dia.	Overall length	Drill length	Body length	–	Workpiece end-face Hole size
Dc	Ds	L	ℓ	ℓ2	H	Dw

JOINT TOOLS

Product Features

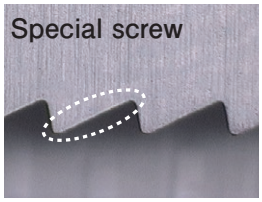
1 Economics

Various types of tools suitable for different machining applications can be mounted onto one holder. If the tool becomes damaged, you can simply replace the tool portion without replacing the holder.

2 Strengthened fastening power

YAMAWA utilizes a special screw thread to join the tool to the holder. The thread contact surface is widened, and the fastening force is strengthened.

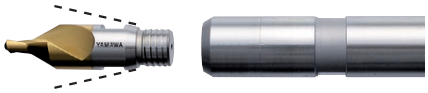




3 Superior Runout Accuracy

Using a conical alignment surface improves concentricity accuracy and produces less runout.

Fastening portion (fitting of matching conical surfaces).



4 High rigidity

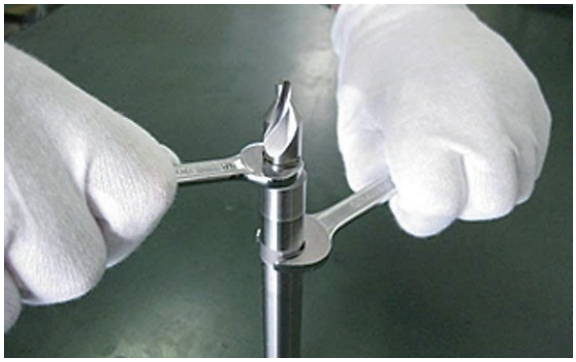
By strengthening the fastening force, a high rigidity is guaranteed and machining with a high load is possible.

Joint Tool



Notes

· Use a spanner wrench (JIS B 4630) when exchanging the cutting tools.
· For the size of the spanner, refer to the H dimension in the dimension table.
· Please note that excessive tightening may cause breakage of the cutting tool or holder.



[Reference] Tightening torque (N · m)

Applicable holder Shank diameter	Tightening torque
14	5
16	10
20	30

JIS

JO-CES

Joint- High Helix Center Drills-Type A 60°



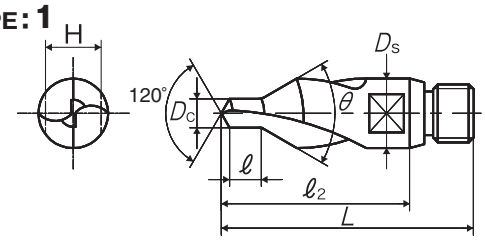
Specification

HSS

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~25 (m/min)	10~25 (m/min)	5~10 (m/min)	20~40 (m/min)	20~40 (m/min)	15~30 (m/min)	15~30 (m/min)

TYPE: 1



■The JO-CES is a high helix JIS type A center hole drill joint tool that is particularly suitable for soft material and relatively free machining materials.

Segment : 5C

Size Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	ℓ2 (mm)	H (mm)	Adaptable holder Shank dia.	Dw (mm)	TYPE	MSRP
4 × 60°	JCE4.0	4	10	37.5	4.5	27.5	8	14	8.5	1	¥ 3,090
5 × 60°	JCE5.0	5	12	43.5	5.5	32.5	10	16	10	1	¥ 3,180
6 × 60°	JCE6.0	6	16	48.5	6.5	34.5	13	20	13.5	1	¥ 3,980

JIS

JO-CES V

Joint- High Helix Center Drills-Type A 60°, Coated



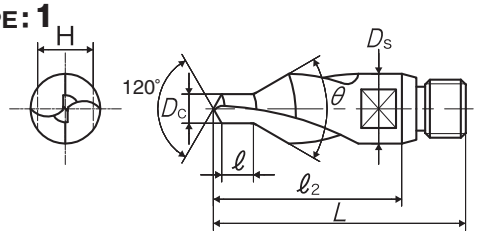
Specification

HSS Coating

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	Stainless steels ステンレス鋼	Brass 黄銅	Brass castings 黄銅鋳物	Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
15~30 (m/min)	15~30 (m/min)	5~15 (m/min)	25~30 (m/min)	25~30 (m/min)	20~40 (m/min)	20~40 (m/min)

TYPE: 1



■Optimum coating suitable for the cutting condition.

Segment : 5C

Size Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	ℓ2 (mm)	H (mm)	Adaptable holder Shank dia.	Dw (mm)	TYPE	MSRP
4 × 60°	JVCE4.0	4	10	37.5	4.5	27.5	8	14	8.5	1	¥ 5,450
5 × 60°	JVCE5.0	5	12	43.5	5.5	32.5	10	16	10	1	¥ 6,270
6 × 60°	JVCE6.0	6	16	48.5	6.5	34.5	13	20	13.5	1	¥ 8,580

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Drill dia.	Shank dia.	Overall length	Drill length	Body length	Workpiece end-face Hole size
Dc	Ds	L	ℓ	ℓ2	Dw

JIS

JO-CDS

Joint- Low Helix Center Drills-Type A 60°



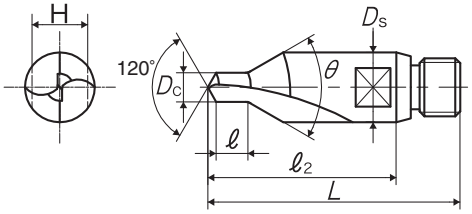
Specification

HSS

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~20 (m/min)	10~25 (m/min)	5~10 (m/min)	5~15 (m/min)

TYPE: 1



■The JO-CDS is a low helix type A center hole drill joint tool suitable for comparatively hard materials.

Segment : 5C

Size Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	ℓ2 (mm)	H (mm)	Adaptable holder Shank dia.	Dw (mm)	TYPE	MSRP
4 × 60°	JCY4.0	4	10	37.5	4.5	27.5	8	14	8.5	1	¥ 3,090
5 × 60°	JCY5.0	5	12	43.5	5.5	32.5	10	16	10	1	¥ 3,180
6 × 60°	JCY6.0	6	16	48.5	6.5	34.5	13	20	13.5	1	¥ 3,980

JIS

JO-CDS V

Joint- Low Helix Center Drills-Type A 60°, Coated



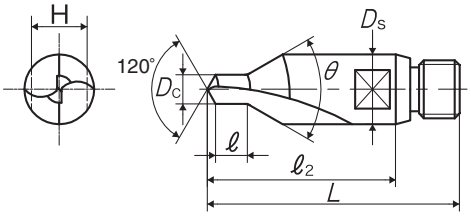
Specification

HSS Coating

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
15~30 (m/min)	15~30 (m/min)	15~30 (m/min)	10~25 (m/min)	15~30 (m/min)	8~15 (m/min)	10~20 (m/min)

TYPE: 1



■ Optimum coating suitable for the cutting.

Segment : 5C

Size Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	ℓ2 (mm)	H (mm)	Adaptable holder Shank dia.	Dw (mm)	TYPE	MSRP
4 × 60°	JVCY4.0	4	10	37.5	4.5	27.5	8	14	8.5	1	¥ 5,450
5 × 60°	JVCY5.0	5	12	43.5	5.5	32.5	10	16	10	1	¥ 6,270
6 × 60°	JVCY6.0	6	16	48.5	6.5	34.5	13	20	13.5	1	¥ 8,580

JIS

JO-C-CDS



Joint- Low Helix Carbide Center Drills-Type A 60°

Specification

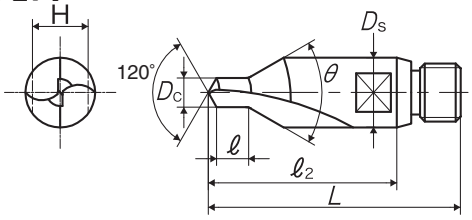
HF

Recommended Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Thermal refined steels 調質鋼	Cast irons 鋳鉄	Brass castings 黄銅鋳物	Aluminum alloy castings アルミ合金鋳物
25~40 (m/min)	15~30 (m/min)	10~20 (m/min) 25~35HRC	5~10 (m/min) 35~45HRC	25~40 (m/min)	25~50 (m/min)	25~50 (m/min)

■The JO-C-CDS is a carbide type A center hole drill joint tool suitable for hard materials and mass production processing.

TYPE: 1



Segment : 5C

Size Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	ℓ2 (mm)	H (mm)	Adaptable holder Shank dia.	Dw (mm)	TYPE	MSRP
4 × 60°	JCCY4.0	4	10	37.5	4.5	27.5	8	14	8.5	1	¥ 16,100
5 × 60°	JCCY5.0	5	12	43.5	5.5	32.5	10	16	10	1	¥ 19,400
6 × 60°	JCCY6.0	6	16	48.5	6.5	34.5	13	20	13.5	1	¥ 47,000

JIS

JO-CDS(II)



Joint- Low Helix Center Drills-Type B 60°, (Old JIS Type 2)

Specification

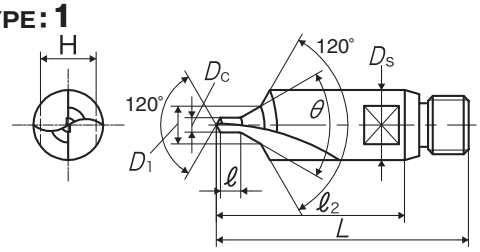
HSS

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Cast steels 鋳鋼	Cast irons 鋳鉄	Ductile cast irons 強靭鋳鉄
10~25 (m/min)	10~25 (m/min)	10~25 (m/min)	10~20 (m/min)	10~25 (m/min)	5~10 (m/min)	5~15 (m/min)

■The JO-CDS(II) is a old JIS type 2 center hole drill joint tool suitable for relatively hard materials.

TYPE: 1



Segment : 5C

Size Dc × θ	Code	Dc (mm)	Ds (mm)	D1 (mm)	L (mm)	ℓ (mm)	ℓ2 (mm)	H (mm)	Adaptable holder Shank dia.	Dw (mm)	TYPE	MSRP
2 × 60°	JC22.0	2	10	5	37.5	3	27.5	8	14	8	1	¥ 3,250
2.5 × 60°	JC22.5	2.5	12	6.5	43.5	3.5	32.5	10	16	10	1	¥ 3,280
3 × 60°	JC23.0	3	16	8	48.5	4	34.5	13	20	12	1	¥ 4,040

※ = Specified Distribution Items. Made to order products.

Point dia.	Shank dia.	Overall length	Point length	Body length
Dc	Ds	L	ℓ1	ℓ2

JIS

JO-PEQ

Joint- Point Drills 90°



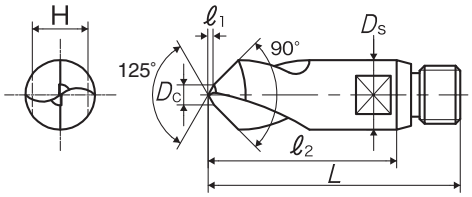
Specification Recommended Tapping Speeds depending on Materials

HSS

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄	Aluminum alloy castings アルミ合金鋳物
25~30 (m/min)	20~30 (m/min)	20~25 (m/min)	15~20 (m/min)	5~10 (m/min)	25~30 (m/min)	55~80 (m/min)

■The JO-PEQ is a point drill joint tool that can perform simultaneous combined machining of positioning and chamfering.

TYPE: 1



Segment : 5C

Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ1 (mm)	ℓ2 (mm)	H (mm)	Adaptable holder Shank dia.	TYPE	MSRP
10 × 3 × 90°	JPE010Q	3	10	37.5	0.78	27.5	8	14	1	¥ 2,910
12 × 3.5 × 90°	JPE012Q	3.5	12	43.5	0.91	32.5	10	16	1	¥ 2,980
16 × 4 × 90°	JPE016Q	4	16	48.5	1.04	34.5	13	20	1	¥ 3,820

JIS

JO-PEQ V

Joint- Point Drills 90°, Coated



Specification Recommended Tapping Speeds depending on Materials

HSS

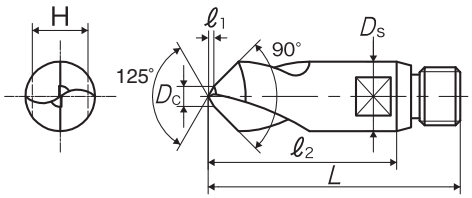
Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄
30~40 (m/min)	25~35 (m/min)	20~30 (m/min)	20~25 (m/min)	10~15 (m/min)	10~15 (m/min)	30~40 (m/min)
				25~35HRC		

Coating

Aluminum alloy castings アルミ合金鋳物
70~95 (m/min)

■The JO-PEQ V has excellent wear resistance and welding resistance, coating point drill joint tool.

TYPE: 1



Segment : 5C

Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ1 (mm)	ℓ2 (mm)	H (mm)	Adaptable holder Shank dia.	TYPE	MSRP
10 × 3 × 90°	JVPE010Q	3	10	37.5	0.78	27.5	8	14	1	¥ 4,460
12 × 3.5 × 90°	JVPE012Q	3.5	12	43.5	0.91	32.5	10	16	1	¥ 4,960
16 × 4 × 90°	JVPE016Q	4	16	48.5	1.04	34.5	13	20	1	¥ 5,920

Point dia.	Shank dia.	Overall length	Point length	Body length
Dc	Ds	L	ℓ1	ℓ2

JIS

JO-C-PEQ V

Joint- Carbide Point Drills 90°, Coated



Specification　Recommended Tapping Speeds depending on Materials

HF

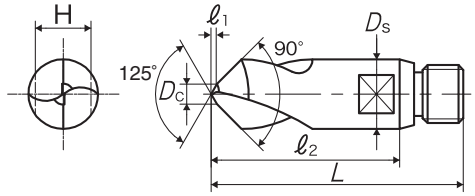
Coating

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast irons 鋳鉄
70~80 (m/min)	60~70 (m/min)	50~60 (m/min)	50~55 (m/min)	25~30 (m/min)	30~35 (m/min)	70~80 (m/min)
				25~35HRC		

Aluminum alloy castings アルミ合金鋳物: 95~130 (m/min)

■The JO-C-PEQ V is a coated carbide point drill joint tool that can perform simultaneous combined machining of positioning and chamfering.

TYPE: 1



Segment : 5C

Size Ds × Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ1 (mm)	ℓ2 (mm)	H (mm)	Adaptable holder Shank dia.	TYPE	MSRP
10 × 3 × 90°	JVCPE010Q	3	10	37.5	0.78	27.5	8	14	1	¥ 23,000
12 × 3.5 × 90°	JVCPE012Q	3.5	12	43.5	0.91	32.5	10	16	1	¥ 23,000
16 × 4 × 90°	JVCPE016Q	4	16	48.5	1.04	34.5	13	20	1	¥ 32,800

Drill dia.	Shank dia.	Overall length	Body length
Dc	Ds	L	ℓ2

JIS

JO-NCSD V

Joint- NC Starting Drills for Chamfering 90°, Coated



Specification　Recommended Tapping Speeds depending on Materials

HSS-Co

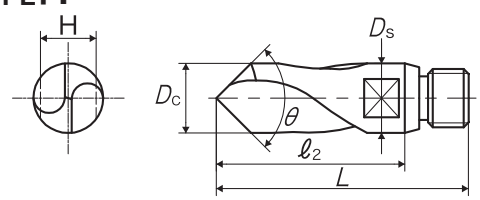
Coating

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Cast irons 鋳鉄
20~30 (m/min)	20~30 (m/min)	20~25 (m/min)	10~20 (m/min)	5~10 (m/min)	5~10 (m/min)	15~30 (m/min)

Aluminum alloy castings アルミ合金鋳物: 50~70 (m/min)

■ Optimum coating suitable for the cutting.

TYPE: 1



Segment : 5C

Size Dc × θ	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ2 (mm)	H (mm)	Adaptable holder Shank dia.	TYPE	MSRP
10 × 90°	JVCS-D010Q	10	10	37.5	27.5	8	14	1	¥ 4,310
12 × 90°	JVCS-D012Q	12	12	43.5	32.5	10	16	1	¥ 4,850
16 × 90°	JVCS-D016Q	16	16	48.5	34.5	13	20	1	¥ 5,730

※ = Specified Distribution Items. Made to order products.

Think threads with YAMAWA

Drill dia.	Tool end dia.	Shank dia.	Overall length	Cutting edge length	Body length
D_2	Dc	Ds	L	ℓ	ℓ_2

JIS

JO-CSQM

Joint- Countersinks 90°, Drilling Machine Use



Specification

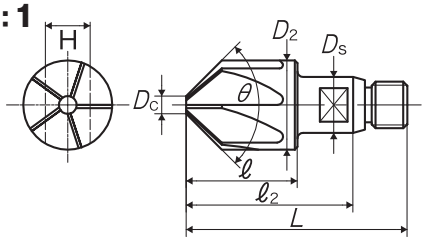
HSS

Recommended Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Tool steels 工具鋼	Cast irons 鋳鉄
10~15 (m/min)	10~15 (m/min)	10~15 (m/min)	5~10 (m/min)	5~10 (m/min)	5~10 (m/min)	10~25 (m/min)

Aluminum alloy castings アルミ合金鋳物
12~36 (m/min)

TYPE : 1



■The JO-CSQM is a countersink joint tool for chamfering with a drilling machine.

Segment : 5C

Size $D_2 \times \theta$	Code	Dc (mm)	Ds (mm)	L (mm)	ℓ (mm)	ℓ_2 (mm)	H (mm)	No. of flutes	Adaptable holder Shank dia.	TYPE	MSRP
16 × 90°	JCS016QM9	3.2	10	37.5	20	27.5	8	5	14	1	¥ 3,600
20 × 90°	JCS020QM9	4	12	43.5	24	32.5	10	5	16	1	¥ 4,070

Shank dia.	Overall length	Body length
Ds	L	ℓ

JIS

JO-HOLDER

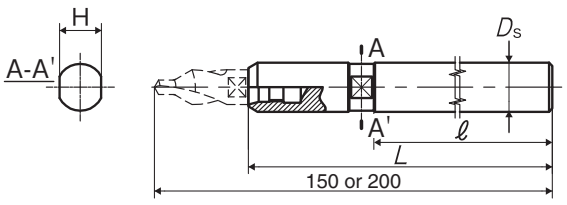
Holders for Joint Tools, for 150mm and for 200mm



Specification

Alloy steel

TYPE : 1



■A holder exclusively for the Joint Tools. After installing into the Joint tool, we offer long types of 150 mm and 200 mm including the tool length.

Segment : 5A

Size	Code	Ds (mm)	L (mm)	ℓ (mm)	H (mm)	Applicable cutting edge shank dia.	TYPE	MSRP
14 × 150	JH1014M	14	122.5	86	12	10	1	¥ 8,780 □
16 × 150	JH1216M	16	117.5	80	14	12	1	¥ 8,740 □
20 × 150	JH1620M	20	115.5	74	17	16	1	¥ 9,180 □
14 × 200	JH1014N	14	172.5	136	12	10	1	¥ 10,100 □
16 × 200	JH1216N	16	167.5	130	14	12	1	¥ 9,980 □
20 × 200	JH1620N	20	165.5	124	17	16	1	¥ 11,200 □

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※ = Specified Distribution Items. Made to order products. □= In stock at manufacture.

LINE UP

⑫ PRECISION MACHINERY/ MEDICAL SURGICAL INSTRUMENTS

jobtap	⑫-1
TTTsystem	⑫-2
CH-T	⑫-3
Medical Surgical Instruments and Parts	⑫-4



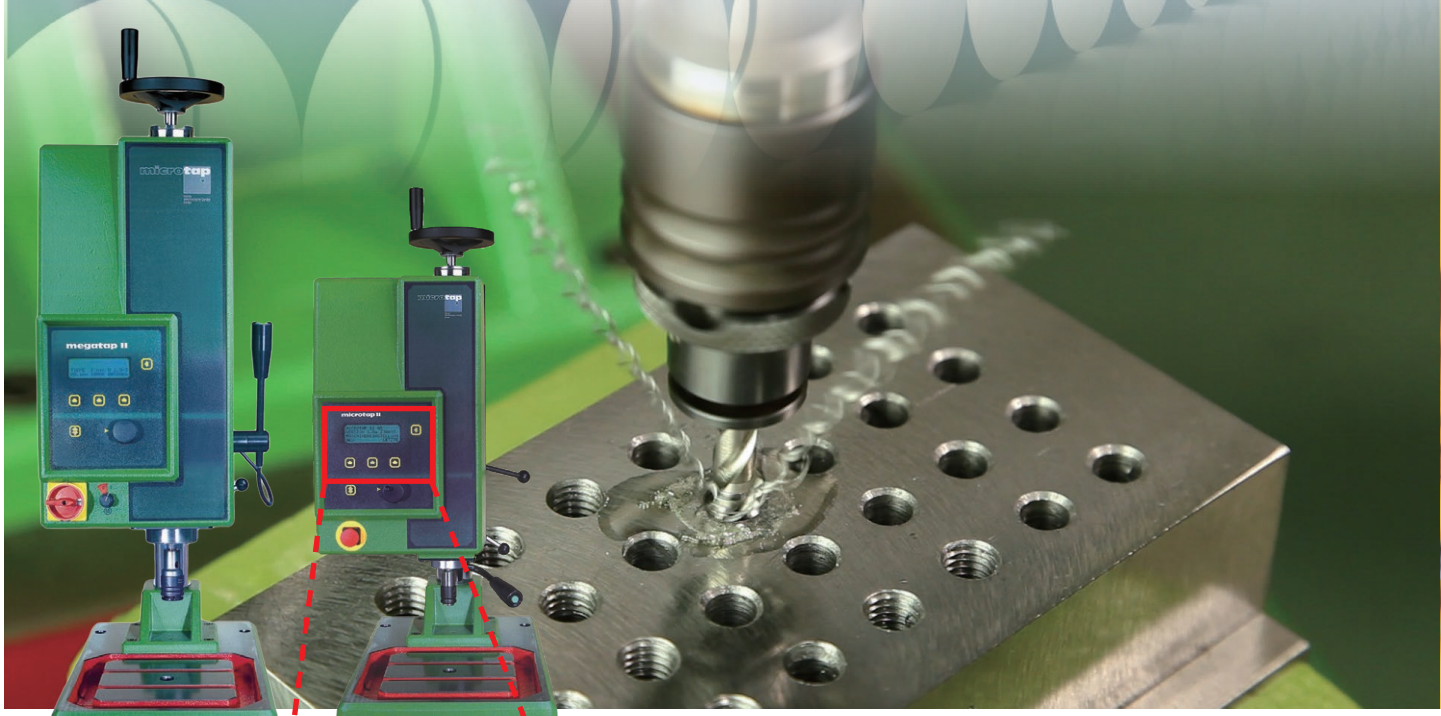
・For improvement, spec may change without advance notice.

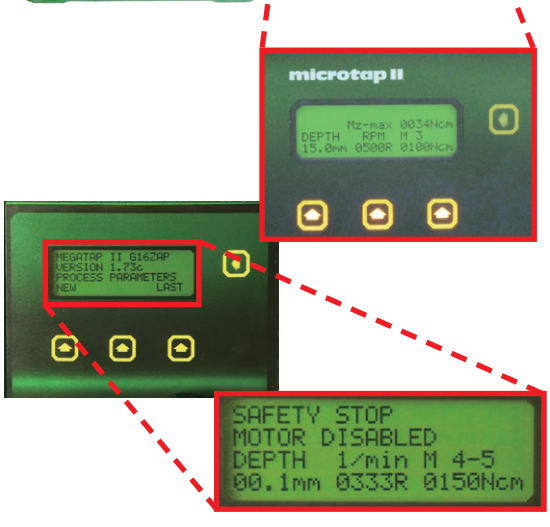
jobtap

Precision Tapping Machine

Epoch-making tapping machine that resolves tapping-related problems!

Resolve tap breakage problems completely!





Breakage is anticipated in tapping with small sizes or in tapping hard-to-machine materials, such as stainless steels, titanium alloys and high hardness materials. The machine delivers satisfactory results even in difficult tapping situations!

1. Detects machining torque in real time to control tapping.
2. Displays the recommended control torque when a tap size is input.
3. Accepts any control torque value setting.
4. 4 Stops tapping and returns the main spindle to the original position when the control torque value is detected.
5. Prevents tap breakage when set below breakage torque.

Access here for details.
➡**https://www.tapping-torque-test.com**

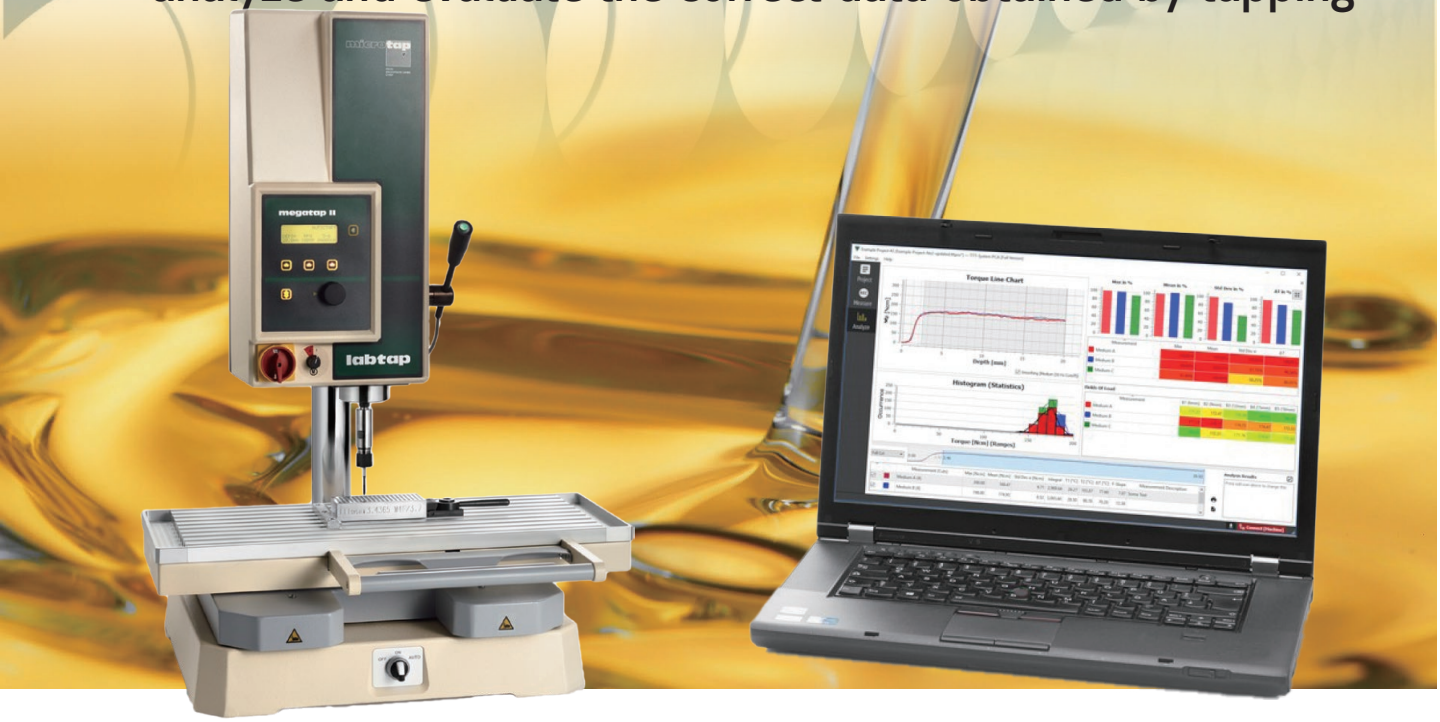
Think threads with YAMAWA

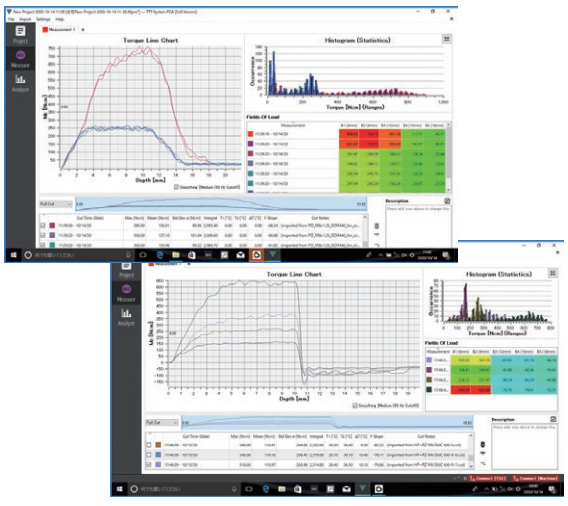
TTTsystem

Tapping-Torque-Test

Visualizes torque data in real time. Provides an at-a-glance view of lubricant effectiveness and tool properties.

As well as jobtap functions, functions have been added to analyze and evaluate the correct data obtained by tapping





The system is widely used throughout the world as a machine for evaluating the lubrication performance of oil or surface treatments and evaluating tapping performance!

1. Measures tapping torque in real time and renders that data in graph form immediately.
2. Measures the tap temperatures before and after tapping with an infrared sensor and renders that data in graph form.
3. Superimposes multiple obtained data on a graph to make it easy to compare data, enabling analysis and evaluation to be performed in real time.

Access here for details.
➡**https://www.tapping-torque-test.com**

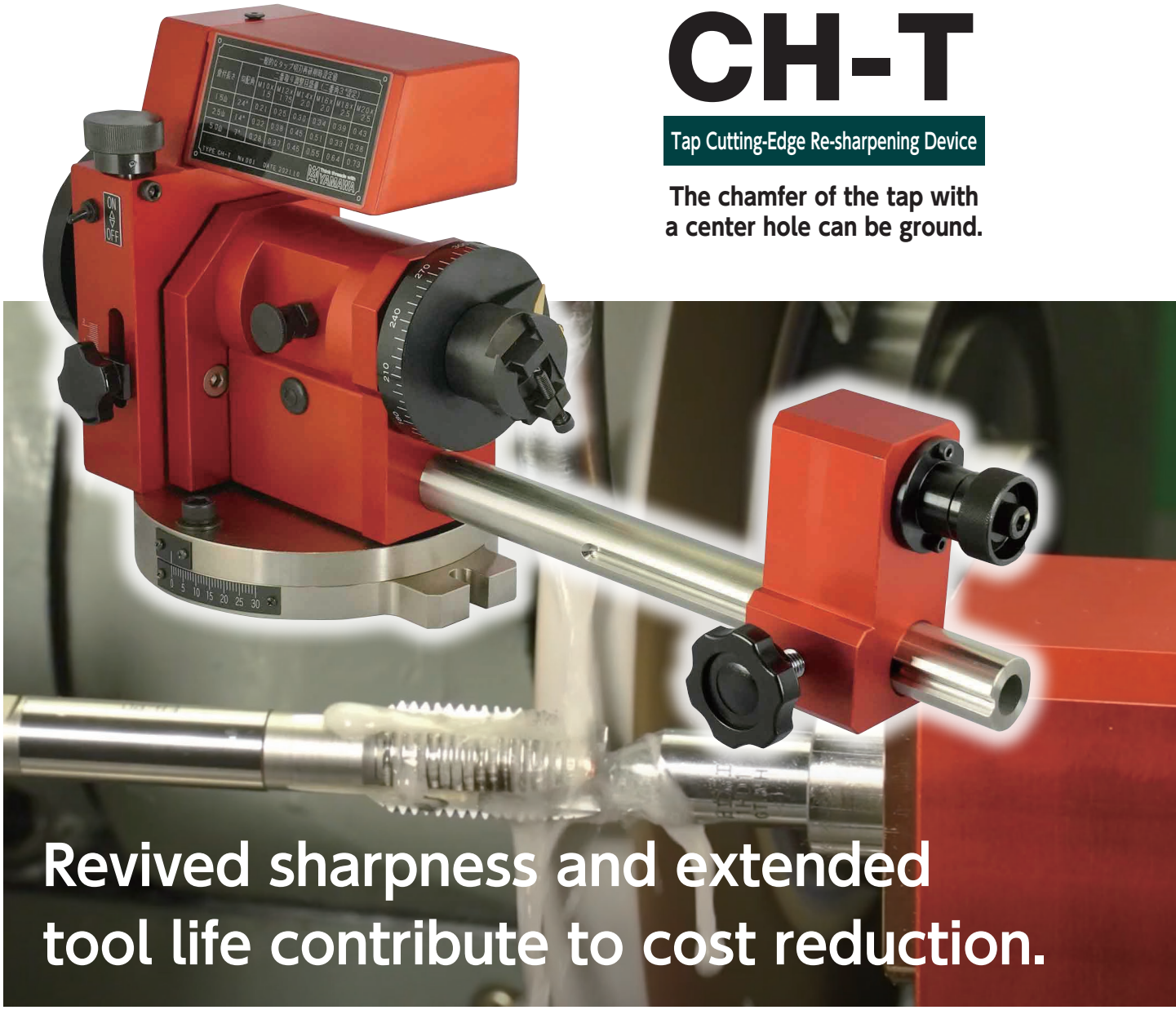
Watch the TTTsystem introduction video here.➡

Think threads with YAMAWA

CH-T

Tap Cutting-Edge Re-sharpening Device

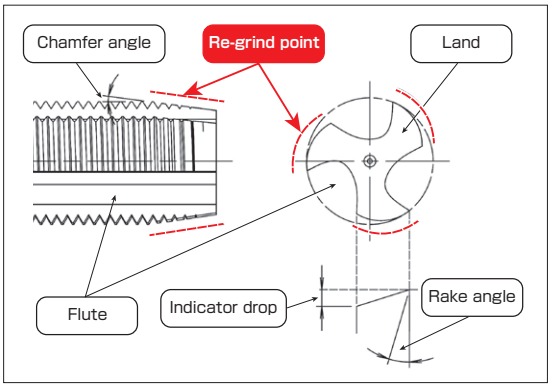
The chamfer of the tap with a center hole can be ground.



Revived sharpness and extended tool life contribute to cost reduction.

Re-grinding the chamfer flank face is easy!

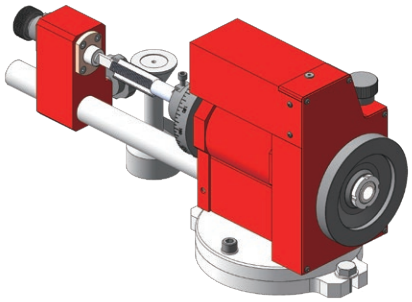
When damage on the chamfer part is due to usual wear, minor welding, or chipping, re-grinding the flank face of the chamfer is often more effective than the rake face. Using this device ensures correct and comparatively easy re-grinding.



Mounting conditions

The CH-T tap cutting-edge re-sharpening device can be mounted on a general-purpose tool grinder or a general-purpose cylindrical grinder. Reduced weight also ensures easy removal.

① Use a grinding wheel with a diameter of around ϕ200.
② The table top depth (installation surface) must be at least 200 mm.
③ There must be a T-slot on the grinder top (installation surface).
④ A power source of 100 VAC is required close to the grinder installation.



Watch the CH-T Tap Cutting-Edge Re-sharpening Device introduction video here. ➡

Think threads with YAMAWA



Medical Surgical Instruments and Parts

Taking advantage of a technology developed through the manufacture of precision cutting tools, we supply medical taps, medical drills, medical reamers, etc.

Medical Device Manufacturing Registration: 07BZ000069

Surgical instruments for dental implants

Surgical instruments for inserting dental implants into jawbones, arrangement, or shattering of bone fragments.



Surgical instruments for orthopedics

Surgical instruments used for reconstructive surgery on cruciate ligament, biceps brachial, etc.



Large surgical instruments used for big bones, including femur fracture surgery.



Note: All our medical surgical instruments are supplied on an OEM basis. Therefore, we do not have direct dealings with medical service companies.

MEMO

YAMAWA
LINE-UPS ARRANGED ON SIZES



M2 Taps	Sizes-3	M9 ~ M24 Taps	Sizes-55
M2 Dies	Sizes-5	M9 ~ M24 Dies	Sizes-74
M3 Taps	Sizes-6	M25 ~ M48 Taps	Sizes-78
M3 Dies	Sizes-9	M25 ~ M48 Dies	Sizes-88
M4 Taps	Sizes-10	M50 ~ M100 Taps	Sizes-93
M4 Dies	Sizes-13	M50 ~ M100 Dies	Sizes-97
M5 Taps	Sizes-14	For Unified threads Taps	Sizes-103
M5 Dies	Sizes-17	For Unified threads Dies	Sizes-115
M6 Taps	Sizes-18	For Whitworth threads Taps	Sizes-118
M6 Dies	Sizes-22	For Whitworth threads Dies	Sizes-122
M8 Taps	Sizes-23	For Screw threads used on sewing machines Taps (SM)	Sizes-123
M8 Dies	Sizes-27	For Screw threads used on sewing machines Dies (SM)	Sizes-124
M10 Taps	Sizes-28	For Pipe threads Taps	Sizes-125
M10 Dies	Sizes-34	For Pipe threads Dies	Sizes-131
M12 Taps	Sizes-35	For American pipe threads Taps	Sizes-132
M12 Dies	Sizes-43	For American pipe threads Dies	Sizes-134
M1 ~ M8.5 Taps	Sizes-44	For Miniature threads Taps	Sizes-135
M1 ~ M8.5 Dies	Sizes-52	For Miniature threads Dies	Sizes-137

Explanation of catalogue contents

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For cast irons	Carbide	12 13 16	N-CT FC	TCNR2.0E3	HT	P3	40	3	3P	⑤-8
				TCNR2.0E1					1.5P	⑤-8
For aluminum		15 16 17 18 19 20 21	AL+SP	ASHPQ2.0E	SP	P2	42	3	2.5P	①-122
			AL-SP 1.5P	SY2.0EQLENA					1.5P	①-123
		18 19 21	LA-HT	TY2.0EQLEN5	HT	P2	42	3	5P	④-102
				TY2.0EQLENA					1.5P	④-102

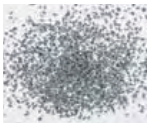
Page shown in line-ups depending on products

Classification of materials

Kind	Chip shape after boring (drilling)		No.	Examples of materials
Ferrous		Chip or powder like	⑫⑬	Cast iron, Ductile cast iron
			⑧	Thermal refined steel (50～63HRC)
			⑦	Thermal refined steel (45～55HRC)
			⑥	Thermal refined steel (35～45HRC)
			⑤	Thermal refined steel (25～35HRC)
			③④⑩	High carbon steel, Alloy steel, Tool steel
			②⑪	Medium carbon steel, Cast steel
			⑨	Stainless steel
		Continuous	①	Low carbon steel
Non-ferrous		Continuous	㉒	Titanium alloy
			㉓	Nickel base alloy
			⑭⑮⑰⑱	Copper, Brass, Bronze, Wrought aluminum
		Chip or powder like	⑯⑲⑳㉑	Brass casting, Aluminum alloy casting, Magnesium alloy, Zinc alloy
			㉔㉕	Thermosetting plastic, Thermoplastic resin

Hardness of materials : Please refer to material composition table shown in technical data.

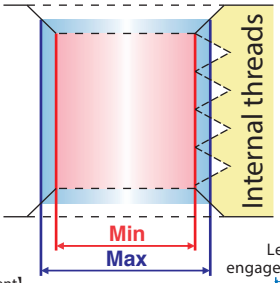
Flute shape of taps and chip ejection

SP= Spiral	PO= Spiral point	SL= LH spiral	HT= Straight	RO= Forming
				
 Continuous chips	 Chip ejection		 Broken chips stored in flutes	No chips thread forming

Think threads with YAMAWA

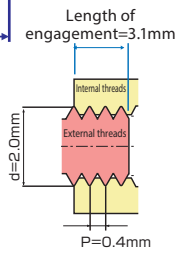
Flowchart : M2 tapping

Boring before tapping — Check 1

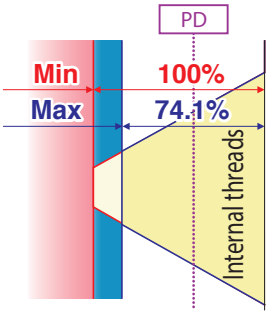


【Length of engagement】
On "middle" engagement class, 7H class can be chosen in case of "L" engagement length.

Symbol	Engagement length classification \ Engagement classification	Fine	Middle	Coarse	Engagement length
S	Short engagement length	4H	5H	–	S≦1(mm)
M	Normal engagement length	5H	6H	7H	1<M≦3(mm)
L	Long engagement length	6H	7H	8H	3<L(mm)



Engagement ratio on cutting taps

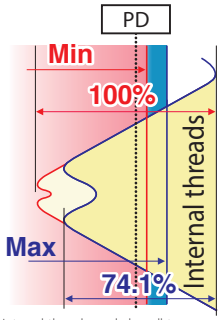


Unit : mm

	Drill size (ref.)	D1 Min	D1 Max
Bored hole size	1.6	1.567	1.679
Engagement ratio	92.4%	100%	74.1%

D1 is minor diameter of JIS 6H(2nd Class) of internal threads

Engagement ratio on roll taps



Internal threads made by roll taps are different from those made by cutting taps on the shape of minor dimameter.

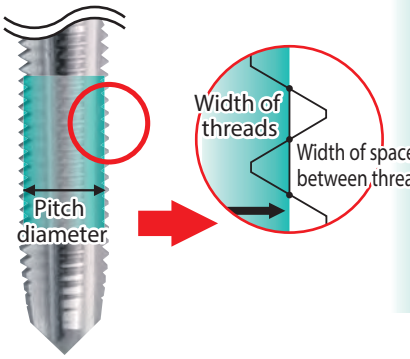
Unit : mm

*Hole size for thread forming taps	
Min	Max
1.79	1.84

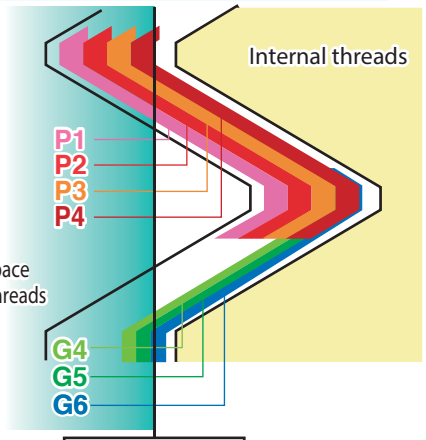
Forming condition changes depending on workpiece's Material and shape. Above is for customer's reference.

Threading — Check 2

【Pitch diameter】
Diameter of imaginary cylinder or cone which makes equal the width of threads and width of space between the threads



Tolerance area of tap's pitch diameter



【Thread class of cutting taps】

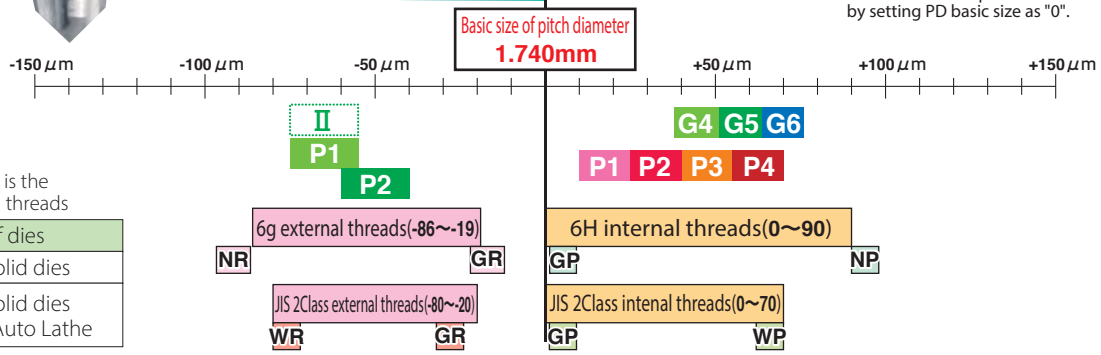
Class	PD tolerance
P1	10μm～25μm
P2	25μm～40μm
P3	40μm～55μm
P4	55μm～70μm

*Above shows the plus tolerance by setting PD basic size as "0".

【Thread class of roll taps】

Class	PD tolerance
G4	38μm～51μm
G5	51μm～64μm
G6	64μm～76μm

*Above shows the plus tolerance by setting PD basic size as "0".



Tolerance of dies is the target of external threads

Class of dies	
Ⅱ	Solid dies
P1 P2	Solid dies for Auto Lathe

Relative position of PD tolerance area of external threads, internal threads, taps and gages.

Gage check — Check 3

(−) ← Basic size of pitch diameter → (+)
1.740mm

Unit : μm

Ring gage pitch diameter (for external threads inspection)			
NR6g	-96 ～ -86	GR6g	-22 ～ -12
WRⅡ	-80 ～ -72	GRⅡ	-32 ～ -24

NR : NOT GO ring gage GR : GO ring gage
WR : NOT GO working ring gage

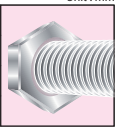
Unit : μm

Plug gage pitch diameter (for internal threads inspection)			
GP6H	2 ～ 10	NP6H	90 ～ 98
GPⅡ	4 ～ 12	WPⅡ	62 ～ 70

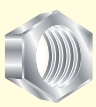
GP : GO plug gage NP : NOT GO plug gage
WP : NOT GO working plug gage

Unit : mm

Accuracy of external threads			
	Major diameter	Pitch diameter	Minor diameter
6g	1.886～1.981	1.654～1.721	–
JIS 2class	1.890～1.980	1.660～1.720	～1.490



Unit : mm



Accuracy of internal threads			
	Major diameter	Pitch diameter	Minor diameter
6H	–	1.740～1.830	1.567～1.679
JIS 2class	–	1.740～1.810	1.567～1.679

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Taps ／ M2 × 0.4

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
General purpose		1	R-Y	RY2.0E3	RO	-	42	3	3P	⑥-63
Standard		2 3	SP	SPP2.0E	SP	P1	42	3	2.5P	①-39
			+SP	SNPP2.0E						①-57
			SP 1.5P	SY2.0EPNEBA					1.5P	①-58
			PO	POQ2.0E	PO	P2			5P	③-13
		1 2 3	HT	TNMP2.0E5	HT	P1	42	3	5P	④-5
				TNMP2.0E1					1.5P	④-5
	Oversize	2 3	SP	SPQ2.0E	SP	P2	42	3	2.5P	①-39
				SPR2.0E		P3				①-39
				SPS2.0E		P4				①-39
			PO	POR2.0E	PO	P3			5P	③-13
				POS2.0E		P4				③-13
		1 2 3	HT	TNMR2.0E5	HT	P3	42	3	5P	④-5
				TNMR2.0E1					1.5P	④-5
				TNMS2.0E5		P4			5P	④-5
				TNMS2.0E1					1.5P	④-5
For left hand threads		2 3	SP LH	SPP2.0E--L	SP	P1	42	3	2.5P	①-79
		1 2 3	HT LH	TNMP2.0E5-L	HT	P1	42	3	5P	④-66
				TNMP2.0E1-L					1.5P	④-66
Oxidizing		1 2 3	SP OX	SPP2.0EX	SP	P1	42	3	2.5P	①-65
			PO OX	POQ2.0EX	PO	P2			5P	③-34
	Oversize	1 2 3	PO OX	POR2.0EX	PO	P3	42	3	5P	③-34
Coating		1 2 3 4 9 19 21	AU+SP	VSAPQ2.0E	SP	P2	42	3	2.5P	①-86
		1 2 3 4 9 10 13 18 19	VUPO	1102101021	PO	P2	45	3	5P	③-4
		1 2 3 4	PO V	VPOQ2.0E	PO	P2	42	3	5P	③-48
		1 2 9 14 18 19 21	R+V	RVP42.0EP	RO	G4	42	3	4P	⑥-39
				RVP42.0EB					2P	⑥-39
				RVP52.0EP		G5			4P	⑥-39
				RVP52.0EB					2P	⑥-39
				RVP62.0EP		G6			4P	⑥-39
				RVP62.0EB					2P	⑥-39
Long		2 3	LS-SP	SPFP2.0EL07	SP	P1	70	3	2.5P	①-89
			LS-PO	POFQ2.0EL07	PO	P2			5P	③-51
		1 2 3	LS-HT	TNFP2.0E507	HT	P1	70	3	5P	④-73
				TNFP2.0E107					1.5P	④-73
Thread forming taps for steels		1 2	N+RZ	NRZP42.0EP	RO	G4	42	3	4P	⑥-14
				NRZP42.0EB					2P	⑥-14
				NRZP52.0EP		G5			4P	⑥-14
				NRZP52.0EB					2P	⑥-14
				NRZP62.0EP		G6			4P	⑥-14
				NRZP62.0EB					2P	⑥-14
For high carbon steels		2 3 5	HC+PO	PCPQ2.0E	PO	P2	42	3	5P	③-76
For medium hardness carbon steels		2 3 4 5 6 10	MHSL	1109101021	SL	P2	45	3	5P	②-4
	Long	2 3 4 5 6 10	MHSL	2209101021	SL	P2	100	3	5P	②-4
Carbide taps for ultra hard materials		8	UH-CT	UHCR2.0E5	HT	P3	40	4	5P	⑤-28
For stainless steels		2 3 4 9	SU+SP	SUPP2.0E	SP	P1	42	3	2.5P	①-100
		1 2 3 4 9	SU+PO	PUPQ2.0E	PO	P2	42	3	5P	③-60
		1 2 9	SU-HT	TUMQ2.0E4	HT	P2	42	3	4P	④-90
				TUMQ2.0E1					1.5P	④-90
For stainless steels	Oversize	2 3 4 9	SU+SP	SUPQ2.0E	SP	P2	42	3	2.5P	①-100
				SUPR2.0E		P3				①-100
		1 2 3 4 9	SU+PO	PUPR2.0E	PO	P3	42	3	5P	③-60
For cast irons	Carbide	12 13 16	N-CT FC	TCNR2.0E3	HT	P3	40	3	3P	⑤-10
				TCNR2.0E1					1.5P	⑤-10
For aluminum		15 16 17 18 19 20 21	AL+SP	ASHPQ2.0E	SP	P2	42	3	2.5P	①-136
			AL-SP 1.5P	SY2.0EQLENA					1.5P	①-137
		18 19 21	LA-HT	TY2.0EQLEN5	HT	P2	42	3	5P	④-110
				TY2.0EQLENA					1.5P	④-110
	Carbide	19 21	N-CT LA	TCNR2.0E3A	HT	P3	40	3	3P	⑤-3
				TCNR2.0E1A					1.5P	⑤-3
Thread forming taps for non-ferrous materials		18 19 21	N+RS	NRSP42.0EP	RO	G4	42	3	4P	⑥-26
				NRSP42.0EB					2P	⑥-26
				NRSP52.0EP		G5			4P	⑥-26
				NRSP52.0EB					2P	⑥-26
				NRSP62.0EP		G6			4P	⑥-26
				NRSP62.0EB					2P	⑥-26
Short chamfer		19 20 21	MG-HT	TMGMQ2.0E1	HT	P2	42	3	1P	④-118
For Plastics	Thermosetting	24	PL1	TPLM2.0E3	HT	P4	42	3	3P	④-120
	Thermoplastic	24 25	PL2	TY2.0ESMEN3	HT	P4	42	3	3P	④-122
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL+RZ	OLRZP42.0EP	RO	G4	42	3	4P	⑥-42
				OLRZP52.0EP		G5				⑥-42
				OLRZP62.0EP		G6				⑥-42
High performance thread forming taps		1 2 3 4 5 9 19	HP+RZ	HRZP42.0EB	RO	G4	42	3	2P	⑥-48
				HRZP52.0EB		G5				⑥-48
Torqueless thread forming taps	Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM42.0E1	RO	G4	42	3	1P	⑥-58
	Seamless	1 2 9	SURZ	SURZ42.0EB	RO	G4	42	3	2P	⑥-60
For deep hole use		2 3 4 13	S-SP	SSMP2.0E	SP	P1	42	3	2.5P	①-123
		1 2 3 4	S-PO	PSMQ2.0E	PO	P2	42	3	5P	③-73
	Oversize	2 3 4 13	S-SP	SSMR2.0E	SP	P3	42	3	2.5P	①-123
		1 2 3 4	S-PO	PSMR2.0E	PO	P3	42	3	5P	③-73
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW2.0E1LEB5	HT	I b	46	3	5P	⑦-3
				TW2.0E1LEBA					1.5P	⑦-3
Nut taps		1 2	NT	NH22.0E	HT	II b	75	1.4	25P	⑦-27

Taps ／ M2 × 0.25

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard		2 3	SP	SPP2.0B	SP	P1	42	3	2.5P	①-39
			PO	POP2.0B	PO				5P	③-13
		1 2 3	HT	TNMP2.0B5	HT	P1	42	3	5P	④-5
				TNMP2.0B1					1.5P	④-5
Thread forming taps for steels		1 2	N-RZ	NRZM42.0BP	RO	G4	42	3	4P	⑥-15
				NRZM42.0BB					2P	⑥-15
				NRZM52.0BP		G5			4P	⑥-15
				NRZM52.0BB					2P	⑥-15
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM42.0BP	RO	G4	42	3	4P	⑥-27
				NRSM42.0BB					2P	⑥-27
				NRSM52.0BP		G5			4P	⑥-27
				NRSM52.0BB					2P	⑥-27

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P: B:









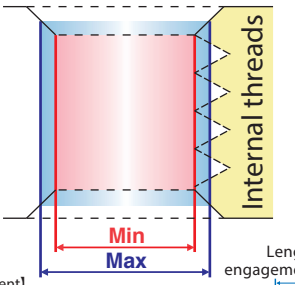




Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M2 × 0.4										
Solid dies		HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYD2.0EDNEBC	⑩-2
						20	7		TYE2.0EDNEBC	⑩-2
						25	9		TYG2.0EDNEBC	⑩-2
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE2.0EDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	20	7	1.5P	PYE2.0ETNEBA	⑩-34
						25	9		PYG2.0ETNEBA	⑩-34
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE2.0EQNEBA	⑩-34
						25	9		PYG2.0EQNEBA	⑩-34
Rolling dies		HSS	1 2 9 15	RS-D	R2	16	5	-	RDQ2.0E	⑩-48
					R3				RDR2.0E	⑩-48
					R4				RDS2.0E	⑩-48
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP2.0E	⑩-45
						16	5		HDP2.0E	⑩-45
						20	7		HEP2.0E	⑩-45
					P2	10	3		HBQ2.0E	⑩-45
						16	5		HDQ2.0E	⑩-45
						20	7		HEQ2.0E	⑩-45
Dies ／ M2 × 0.25										
Solid dies		HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYD2.0BDNEBC	⑩-2
						20	7		TYE2.0BDNEBC	⑩-2
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	20	7	1.5P	PYE2.0BSNEBA	⑩-34
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE2.0BQNEBA	⑩-34
Rolling dies		HSS	1 2 9 15	RS-D	R2	16	5	-	RDQ2.0B	⑩-48
					R3				RDR2.0B	⑩-48
					R4				RDS2.0B	⑩-48
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP2.0B	⑩-45
						16	5		HDP2.0B	⑩-45
					P2	10	3		HBQ2.0B	⑩-45
						16	5		HDQ2.0B	⑩-45

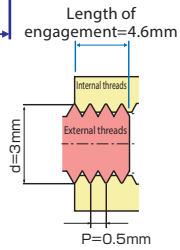
Flowchart : M3 tapping

Boring before tapping — Check 1

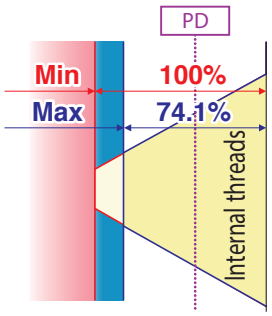


【Length of engagement】
On "middle" engagement class, 7H class can be chosen in case of "L" engagement length.

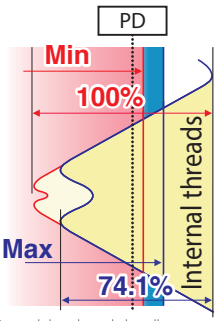
Symbol	Engagement length classification \ Engagement classification	Fine	Middle	Coarse	Engagement length
S	Short engagement length	4H	5H	–	S≦1.5(mm)
M	Normal engagement length	5H	6H	7H	1.5<M≦4.5(mm)
L	Long engagement length	6H	7H	8H	4.5<L(mm)



Engagement ratio on cutting taps



Engagement ratio on roll taps



Internal threads made by roll taps are different from those made by cutting taps on the shape of minor dimameter.

Unit : mm

	Drill size (ref.)	D1 Min	D1 Max
Bored hole size	2.5	2.459	2.599
Engagement ratio	92.4%	100%	74.1%

D1 is minor diameter of JIS 6H(2nd Class) of internal threads

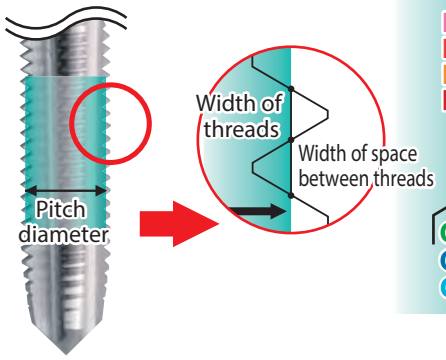
Unit : mm

*Hole size for thread forming taps	
Min	Max
2.75	2.82

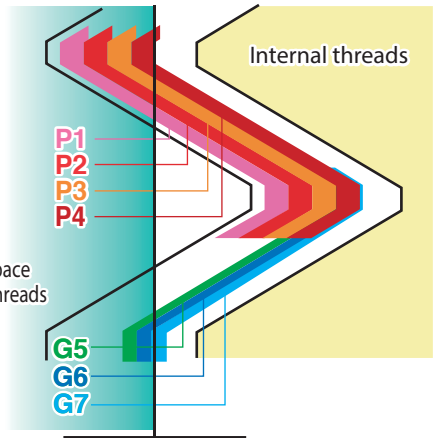
Forming condition changes depending on workpiece's Material and shape. Above is for customer's reference.

Threading — Check 2

【Pitch diameter】
Diameter of imaginary cylinder or cone which makes equal the width of threads and width of space between the threads



Tolerance area of tap's pitch diameter



【Thread class of cutting taps】

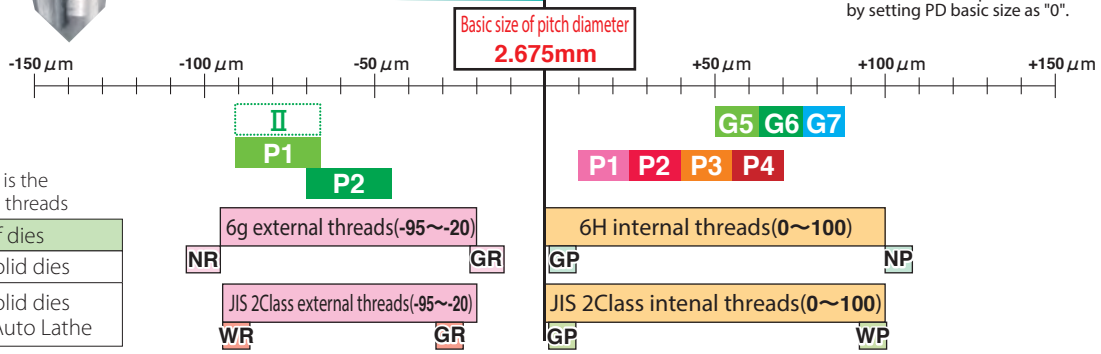
Class	PD tolerance
P1	10μm～25μm
P2	25μm～40μm
P3	40μm～55μm
P4	55μm～70μm

*Above shows the plus tolerance by setting PD basic size as "0".

【Thread class of roll taps】

Class	PD tolerance
G5	51μm～64μm
G6	64μm～76μm
G7	76μm～89μm

*Above shows the plus tolerance by setting PD basic size as "0".



Tolerance of dies is the target of external threads

Class of dies	
Ⅱ	Solid dies
P1 P2	Solid dies for Auto Lathe

Relative position of PD tolerance area of external threads, internal threads, taps and gages.

Gage check — Check 3

(–) ← Basic size of pitch diameter → (+)
2.675mm

Unit : μm

Ring gage pitch diameter (for external threads inspection)			
NR6g	-105～-95	GR6g	-23～-13
WRⅡ	-95～-87	GRⅡ	-32～-24

NR : NOT GO ring gage
GR : GO ring gage
WR : NOT GO working ring gage

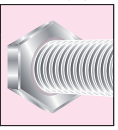
Unit : μm

Plug gage pitch diameter (for internal threads inspection)			
GP6H	2～10	NP6H	100～108
GPⅡ	4～12	WPⅡ	92～100

GP : GO plug gage
NP : NOT GO plug gage
WP : NOT GO working plug gage

Unit : mm

Accuracy of external threads			
	Major diameter	Pitch diameter	Minor diameter
6g	2.874～2.980	2.580～2.655	–
JIS 2class	2.874～2.980	2.580～2.655	～2.367



Unit : mm

Accuracy of internal threads			
	Major diameter	Pitch diameter	Minor diameter
6H	–	2.675～2.775	2.459～2.599
JIS 2class	–	2.675～2.775	2.459～2.599



Think threads with YAMAWA

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Taps ／ M3 × 0.5

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
General purpose		1	ISP	SI73.0GBP	SP	-	46	4	2.5P	①-62
			IPO	PI73.0GBP	PO				5P	③-32
		1 2	IHT	HI73.0G5BP	HT	-	46	4	5P	④-52
				HI73.0G2BP					2P	④-52
		1	R-Y	RY3.0G3	RO	-	46	4	3P	⑥-63
Standard		2 3	SP	SPP3.0G	SP	P1	46	4	2.5P	①-39
			+SP	SNPP3.0G						①-57
			SP 1.5P	SY3.0GPNEBA					1.5P	①-58
			PO	POQ3.0G	PO	P2			5P	③-13
			+PO	PNPQ3.0G						③-30
		1 2 3	HT	TNMQ3.0G5	HT	P2	46	4	5P	④-6
				TNMQ3.0G1					1.5P	④-6
	Oversize	2 3	SP	SPQ3.0G	SP	P2	46	4	2.5P	①-39
				SPR3.0G		P3				①-39
				SPS3.0G		P4				①-39
			PO	POR3.0G	PO	P3			5P	③-13
				POS3.0G		P4				③-13
		1 2 3	HT	TNMR3.0G5	HT	P3	46	4	5P	④-6
				TNMR3.0G1					1.5P	④-6
				TNMS3.0G5		P4			5P	④-6
				TNMS3.0G1					1.5P	④-6
				TNMT3.0G5		P5			5P	④-6
				TNMT3.0G1					1.5P	④-6
	Long neck	1 2	LKSL	1307101035	SL	P3	56	4	5P	②-11
For left hand threads		2 3	SP LH	SPP3.0G--L	SP	P1	46	4	2.5P	①-79
			PO LH	POQ3.0G--L	PO	P2			5P	③-46
		1 2 3	HT LH	TNMQ3.0G5-L	HT	P2	46	4	5P	④-66
				TNMQ3.0G1-L					1.5P	④-66
Oxidizing		1 2 3	SP OX	SPP3.0GX	SP	P1	46	4	2.5P	①-65
			PO OX	POQ3.0GX	PO	P2			5P	③-34
	Oversize	1 2 3	SP OX	SPQ3.0GX	SP	P2	46	4	2.5P	①-65
				SPR3.0GX		P3				①-65
			PO OX	POR3.0GX	PO				5P	③-34
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101035	SP	P2	56	4	2.5P	①-6
		1 2 3 4 9 19 21	AU+SP	VSAPQ3.0G	SP	P2	46	4	2.5P	①-86
			AU+SL	VSAPQ3.0GL	SL				5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101035	PO	P2	56	4	5P	③-4
		1 2 3 4	PO V	VPOQ3.0G	PO	P2	46	4	5P	③-48
		1 2 9 14 18 19 21	R+V	RVP53.0GP	RO	G5	46	4	4P	⑥-39
				RVP53.0GB					2P	⑥-39
				RVP63.0GP		G6			4P	⑥-39
				RVP63.0GB					2P	⑥-39
				RVP73.0GP		G7			4P	⑥-39
				RVP73.0GB					2P	⑥-39
				RVP83.0GP		G8			4P	⑥-39

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Coating	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201035	SP	P3	56	4	2.5P	①-6
				1101301035		P4				①-6
		1 2 3 4 9 10 13 18 19	VUPO	1102201035	PO	P3	56	4	5P	③-4
				1102301035		P4				③-4
	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101035	SP	P2	56	4	1.5P	①-14
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101035	SP	P2	100	4	2.5P	①-7
		1 2 3 4 9 10 13 18 19	VUPO	2102101035	PO	P2	100	4	5P	③-6
Long		2 3	LS-SP	SPFP3.0GL07	SP	P1	70	4	2.5P	①-89
				SPFP3.0GL10			100			①-89
				SPFP3.0GL12			120			①-89
				SPFP3.0GL15			150			①-89
			LS-PO	POFQ3.0GL07	PO	P2	70		5P	③-51
				POFQ3.0GL10			100			③-51
				POFQ3.0GL12			120			③-51
				POFQ3.0GL15			150			③-51
		1 2 3	LS-HT	TNFP3.0G507	HT	P1	70	4	5P	④-73
				TNFP3.0G510			100			④-73
				TNFP3.0G512			120			④-73
				TNFP3.0G515			150			④-73
				TNFP3.0G107			70		1.5P	④-73
				TNFP3.0G110			100			④-73
				TNFP3.0G112			120			④-74
				TNFP3.0G115			150			④-74
	Oversize	2 3	LS-SP	SPFQ3.0GL10	SP	P2	100	4	2.5P	①-89
				SPFQ3.0GL15			150			①-89
				SPFR3.0GL10		P3	100			①-89
				SPFR3.0GL15			150			①-89
			LS-PO	POFR3.0GL10	PO		100		5P	③-51
				POFR3.0GL15			150			③-51
		1 2 3	LS-HT	TNFR3.0G510	HT	P3	100	4	5P	④-74
				TNFR3.0G515			150			④-74
				TNFR3.0G110			100		1.5P	④-74
				TNFR3.0G115			150			④-74
	With neck	2 3	LS-SP-K	SY3.0GPFEBE	SP	P1	100	4	2.5P	①-97
				SY3.0GPFEBF			120			①-97
				SY3.0GPFEBG			150			①-97
			LS-PO-K	PY3.0GQFEBE	PO	P2	100		4.5P	③-58
				PY3.0GQFEBF			120			③-58
				PY3.0GQFEBG			150			③-58
	Long neck	1 2	LKSL XL	2008101035	SL	P3	100	4	5P	②-12
	For left hand threads	2 3	LS-SP LH	SPFP3.0GL10L	SP	P1	100	4	2.5P	①-95
		1 2 3	LS-HT LH	TNFP3.0G510L	HT	P1	100	4	5P	④-84
				TNFP3.0G110L					1.5P	④-84
	Coating	1 2 3 4	LS-SP V	VSPFP3.0GL10	SP	P1	100	4	2.5P	①-96
			LS-PO V	VPOFQ3.0GL10	PO	P2			5P	③-57
		2 3 4	LS-HT V	TNFP3.0G510V	HT	P1	100	4	5P	④-86
				TNFP3.0G110V					1.5P	④-86
For soft structural steels		1 2	E-SP	ESHMP3.0G	SP	P1	46	4	2.5P	①-130
				ESHMP3.0G-3						①-130

Icons of main materials

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7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Thread forming taps for steels	1 2	N+RZ	NRZP53.0GP	RO	G5	46	4	4P	⑥-15
			NRZP53.0GB					2P	⑥-15
			NRZP63.0GP		G6			4P	⑥-15
			NRZP63.0GB					2P	⑥-15
			NRZP73.0GP		G7			4P	⑥-15
			NRZP73.0GB					2P	⑥-15
			NRZP83.0GP		G8			4P	⑥-15
			NRZP83.0GB					2P	⑥-15
Long	1 2	LS-N-RZ	NRZF53.0GP10	RO	G5	100	4	4P	⑥-23
			NRZF53.0GB10					2P	⑥-23
			NRZF63.0GP10		G6			4P	⑥-23
			NRZF63.0GB10					2P	⑥-23
For steels	1 2 3 4 5 9 11	HVSP	SY3.0GREEXJ	SP	P3	56	4	2.5P	①-24
For high carbon steels	2 3	HC+SP	SCPP3.0G	SP	P1	46	4	2.5P	①-132
	2 3 5	HC-PO	PCMQ3.0G	PO	P2	46	4	5P	③-76
Oxidizing	2 3	HC+SP OX	SCPP3.0GX	SP	P1	46	4	2.5P	①-134
For hard-to-machine materials	3 5 6	EH-PO	EPHMR3.0G	PO	P3	46	4	4.5P	③-82
	6 10	EH-HT	ETHMR3.0G5	HT	P3	46	4	5P	④-124
			ETHMR3.0G1					2.5P	④-124
Powdered HSS	3 5 6	PM-SP	SY3.0GRDPB	SP	P3	46	4	2.75P	①-168
		LS-PM-SP	S43.0GRDPBE			100			①-175
		PM-PO	PY3.0GRDPB	PO		46		5.5P	③-92
		LS-PM-PO	P43.0GRDPBE			100			③-98
For titanium alloys	22	ZET-B	ZETBMQ3.0G	SP	P2	46	4	3P	①-154
		ZET-P	ZETPMR3.0G	SL	P3			5P	②-22
For nickel base alloys	1 2 9 23	ZEN-B	ZENBMQ3.0G	SP	P2	46	4	3P	①-162
		ZEN-P	ZENPMR3.0G	PO	P3			4.5P	③-86
For medium hardness carbon steels	2 3 4 5 6 10	MHSL	1109101035	SL	P3	56	4	5P	②-4
Long	2 3 4 5 6 10	MHSL	2109101035	SL	P3	100	4	5P	②-4
Carbide taps for hard materials	7	EH-CT	EHCR3.0G5	HT	P3	46	4	5P	⑤-24
Carbide taps for ultra hard materials	8	UH-CT	UHCR3.0G5	HT	P3	46	5	5P	⑤-28
For stainless steels	2 3 4 9	SU+SP	SUPP3.0G	SP	P1	46	4	2.5P	①-100
	1 2 3 4 9	SU+SL	SUPQ3.0GL	SL	P2	46	4	5P	②-18
		SU-PO	PUMQ3.0G	PO					③-60
	1 2 9	SU-HT	TUMQ3.0G4	HT	P2	46	4	4P	④-90
			TUMQ3.0G1					1.5P	④-90
Oversize	2 3 4 9	SU+SP	SUPQ3.0G	SP	P2	46	4	2.5P	①-100
			SUPR3.0G		P3				①-100
	1 2 3 4 9	SU-PO	PUMR3.0G	PO	P3	46	4	5P	③-60
			PUMS3.0G		P4				③-60
For deep hole use	1 2 3 4 9	SU-S-SP	SSMP3.0G-SU	SP	P1	46	4	2.5P	①-119
	1 2 3 9	LS-SU-S-SP	SY3.0GPGEXES	SP	P1	100	4	2.5P	①-120
		LS-SU-S-PO	PY3.0GQGEXES	PO	P2			4.5P	③-70
For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MQ3.0G	SP	P2	46	4	3P	①-116
For cast irons	12 13	FC-HT	TY3.0GRAEN5	HT	P3	46	4	5P	④-94
			TY3.0GRAENA					1.5P	④-94
Carbide	12 13 16	N-CT FC	TCNR3.0G3	HT	P3	46	4	3P	⑤-11
			TCNR3.0G1					1.5P	⑤-11
Long shank, carbide	12 13 16	LS-N-CT	TY3.0GRAWB3E	HT	P3	100	4	3P	⑤-18
			TY3.0GRAWBAE					1.5P	⑤-18

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For aluminum	15 16 17 18 19 20 21	AL+SP	ASHPQ3.0G	SP	P2	46	4	2.5P	①-136
		AL-SP 1.5P	SY3.0GQLENA					1.5P	①-137
	18 19 21	LA-HT	TY3.0GQLEN5	HT	P2	46	4	5P	④-110
			TY3.0GQLENA					1.5P	④-110
Carbide	19 21	N-CT LA	TCNR3.0G3A	HT	P3	46	4	3P	⑤-3
			TCNR3.0G1A					1.5P	⑤-3
Carbide spiral fluted taps	18 19 21	N-CT-SP	SY3.0GRKWB	SP	P3	46	4	2.5P	⑤-20
Carbide spiral pointed taps	15 16 17 18 19 20 21	N-CT-PO	PCNR3.0G	PO	P3	46	4	5P	⑤-21
Thread forming taps for non-ferrous materials	18 19 21	N+RS	NRSP53.0GP	RO	G5	46	4	4P	⑥-27
			NRSP53.0GB					2P	⑥-27
			NRSP63.0GP		G6			4P	⑥-27
			NRSP63.0GB					2P	⑥-27
			NRSP73.0GP		G7			4P	⑥-27
			NRSP73.0GB					2P	⑥-27
			NRSP83.0GP		G8			4P	⑥-27
			NRSP83.0GB					2P	⑥-27
Long	18 19 21	LS-N-RS	NRSF53.0GP10	RO	G5	100	4	4P	⑥-36
			NRSF53.0GB10					2P	⑥-36
			NRSF63.0GP10		G6			4P	⑥-36
			NRSF63.0GB10					2P	⑥-36
Short chamfer	19 20 21	MG-HT	TMGMQ3.0G1	HT	P2	46	4	1P	④-118
For Plastics Thermosetting	24	PL1	TPLM3.0G3	HT	P5	46	4	3P	④-120
For Plastics Thermoplastic	24 25	PL2	TY3.0GTMEN3	HT	P5	46	4	3P	④-122
For high speed	1 2	F-SP	VFSHMQ3.0G	SP	P2	46	4	2.5P	①-178
		F-SL	VFSHMQ3.0GL	SL				5P	②-28
Long	1 2	LS-F-SP	S43.0GQFEVES	SP	P2	100	4	2.5P	①-182
		LS-F-SL	L43.0GQFEVE	SL				5P	②-32
Thread forming taps for dry tapping	1 2 3 4 5 9 19	OL+RZ	OLRZP53.0GP	RO	G5	46	4	4P	⑥-42
			OLRZP63.0GP		G6				⑥-42
High performance thread forming taps	1 2 3 4 5 9 19	HP+RZ	HRZP53.0GP	RO	G5	46	4	4P	⑥-48
			HRZP53.0GB					2P	⑥-48
			HRZP63.0GP		G6			4P	⑥-48
			HRZP63.0GB					2P	⑥-48
Torqueless thread forming taps Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM53.0G1	RO	G5	46	4	1P	⑥-58
Torqueless thread forming taps Seamless	1 2 9	SURZ	SURZ53.0GB	RO	G5	46	4	2P	⑥-60
For deep hole use	2 3 4 13	S-SP	SSMP3.0G-3	SP	P1	46	4	2.5P	①-123
	1 2 3 4	S-PO	PSMQ3.0G	PO	P2	46	4	5P	③-73
Oversize	2 3 4 13	S-SP	SSMQ3.0G	SP	P2	46	4	2.5P	①-123
			SSMR3.0G		P3				①-123
	1 2 3 4	S-PO	PSMR3.0G	PO	P3	46	4	5P	③-73
Low spiral	2 3	LO-SP 8°	LSHMP3.0G8	SP	P1	46	4	2.5P	①-144
		LO-SP 15°	LSHMP3.0G15						①-144
		LO-SP 20°	LSHMP3.0G20						①-144
For helical coil wire screw thread inserts	18 19 21	AL-HT STI	TW3.0G1LEB5	HT	I b	52	5	5P	⑦-3
			TW3.0G1LEBA					1.5P	⑦-3
	15 16 17 18 19 20 21	AL-SP STI	SW3.0G1LEN	SP	I b	52	5	2.5P	⑦-10
		AL-PO STI	PW3.0G1LEB	PO				5P	⑦-18
	18 19 21	N-RS STI	RW3.0G3LENP	RO	G3	52	5	4P	⑦-25
			RW3.0G3LENB					2P	⑦-25

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

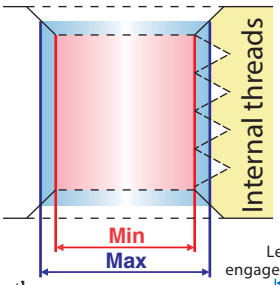
Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For helical coil wire screw thread inserts	Oversize	18 19 21	AL-HT STI	TW3.0G3LEB5	HT	I b+30	52	5	5P	⑦-3
				TW3.0G3LEBA					1.5P	⑦-3
		15 16 17 18 19 20 21	AL-SP STI	SW3.0G3LEN	SP	I b+30	52	5	2.5P	⑦-10
	Carbide	19 21	N-CT LA STI	TW3.0G1LWB5	HT	I b	52	5	5P	⑦-26
				TW3.0G1LWBA					1.5P	⑦-26
Nut taps		1 2	NT	NH23.0G	HT	II b	90	2.1	30P	⑦-27
Taps ／ 3M 0.6										
Standard		2 3	SP	SPP3.0H	SP	P1	46	4	2.5P	①-39
			PO	POQ3.0H	PO	P2			5P	③-13
		1 2 3	HT	TNMQ3.0H5	HT	P2	46	4	5P	④-6
				TNMQ3.0H1					1.5P	④-6
For left hand threads		1 2 3	HT LH	TNMQ3.0H5-L	HT	P2	46	4	5P	④-66
				TNMQ3.0H1-L					1.5P	④-66
Oxidizing		1 2 3	SP OX	SPP3.0HX	SP	P1	46	4	2.5P	①-65
			PO OX	POQ3.0HX	PO	P2			5P	③-34
For stainless steels		2 3 4 9	SU+SP	SUPP3.0H	SP	P1	46	4	2.5P	①-100
		1 2 3 4 9	SU-PO	PUMQ3.0H	PO	P2	46	4	5P	③-60
For deep hole use		1 2 3 4	S-PO	PSMQ3.0H	PO	P2	46	4	5P	③-73
Nut taps		1 2	NT	NH23.0H	HT	II b	90	2.1	25P	⑦-27
Taps ／ M3 × 0.35										
Standard		2 3	SP	SPP3.0D	SP	P1	46	4	2.5P	①-39
			PO	POQ3.0D	PO	P2			5P	③-13
		1 2 3	HT	TNMQ3.0D5	HT	P2	46	4	5P	④-6
				TNMQ3.0D1					1.5P	④-6
For left hand threads		1 2 3	HT LH	TNMQ3.0D5-L	HT	P2	46	4	5P	④-66
				TNMQ3.0D1-L					1.5P	④-66
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101036	SP	P2	56	4	2.5P	①-6
		1 2 3 4 9 10 13 18 19	VUPO	1102101036	PO	P2	56	4	5P	③-4
	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201036	SP	P3	56	4	2.5P	①-6
				1101301036		P4				①-6
		1 2 3 4 9 10 13 18 19	VUPO	1102201036	PO	P3	56	4	5P	③-4
				1102301036		P4				③-4
	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101036	SP	P2	56	4	1.5P	①-14
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101036	SP	P2	100	4	2.5P	①-7
		1 2 3 4 9 10 13 18 19	VUPO	2102101036	PO	P2	100	4	5P	③-6
Thread forming taps for steels		1 2	N-RZ	NRZM53.0DP	RO	G5	46	4	4P	⑥-16
				NRZM53.0DB					2P	⑥-16
For steels		1 2 3 4 5 9 11	HVSP	SY3.0DREEXJ	SP	P3	56	4	2.5P	①-24
For cast irons	Carbide	12 13 16	N-CT FC	TCNR3.0D3	HT	P3	46	4	3P	⑤-11
				TCNR3.0D1					1.5P	⑤-11
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM53.0DP	RO	G5	46	4	4P	⑥-28
				NRSM53.0DB					2P	⑥-28
				NRSM63.0DP		G6			4P	⑥-28
				NRSM63.0DB					2P	⑥-28

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M3 × 0.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYD3.0GDNEBC	⑩-2
						20	7		TYE3.0GDNEBC	⑩-2
						25	9		TYG3.0GDNEBC	⑩-2
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE3.0GDNEBC	⑩-16
						25	9		GYG3.0GDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S6	20	7	1.5P	PYE3.0GUNEBA	⑩-34
						25	9		PYG3.0GUNEBA	⑩-34
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE3.0GQNEBA	⑩-34
						25	9		PYG3.0GQNEBA	⑩-34
Rolling dies		HSS	1 2 9 15	RS-D	R2	20	7	-	REQ3.0G	⑩-49
					R4				RES3.0G	⑩-49
					R5				RET3.0G	⑩-49
New rolling dies		HSS	1 2 9 15	N-RSD	R4	25	9	2P	NRGS3.0G	⑩-52
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	16	5	2P	HDP3.0G	⑩-45
						20	7		HEP3.0G	⑩-45
					P2	16	5		HDQ3.0G	⑩-45
						20	7		HEQ3.0G	⑩-45
Spiral dies		HSS	1 2	SP-D	P1	20	7	1.5P	SEP3.0G	⑩-43
Dies ／ 3M 0.6										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE3.0HDNEBC	⑩-2
						25	9		TYG3.0HDNEBC	⑩-2
Dies ／ M3 × 0.35										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE3.0DDNEBC	⑩-3
						25	9		TYG3.0DDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE3.0DDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	20	7	1.5P	PYE3.0DTNEBA	⑩-34
						25	9		PYG3.0DTNEBA	⑩-34
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE3.0DQNEBA	⑩-34
						25	9		PYG3.0DQNEBA	⑩-34
Rolling dies		HSS	1 2 9 15	RS-D	R2	20	7	-	REQ3.0D	⑩-49
					R4				RES3.0D	⑩-49
					R5				RET3.0D	⑩-49
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	16	5	2P	HDP3.0D	⑩-45
						20	7		HEP3.0D	⑩-45
					P2	16	5		HDQ3.0D	⑩-45
						20	7		HEQ3.0D	⑩-45

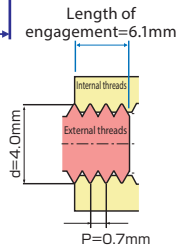
Flowchart : M4 tapping

Boring before tapping — Check 1

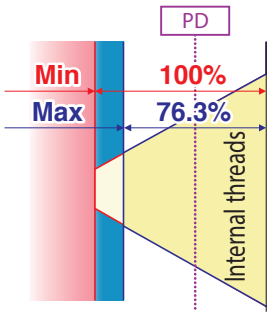


【Length of engagement】
On "middle" engagement class, 7H class can be chosen in case of "L" engagement length.

Symbol	Engagement length classification \ Engagement classification	Fine	Middle	Coarse	Engagement length
S	Short engagement length	4H	5H	–	S≦2(mm)
M	Normal engagement length	5H	6H	7H	2<M≦6(mm)
L	Long engagement length	6H	7H	8H	6<L(mm)



Engagement ratio on cutting taps

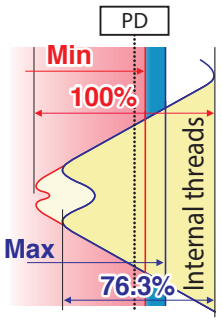


Unit : mm

	Drill size (ref.)	D1 Min	D1 Max
Bored hole size	3.3	3.242	3.422
Engagement ratio	92.4%	100%	76.3%

D1 is minor diameter of JIS 6H(2nd Class) of internal threads

Engagement ratio on roll taps



Internal threads made by roll taps are different from those made by cutting taps on the shape of minor dimameter.

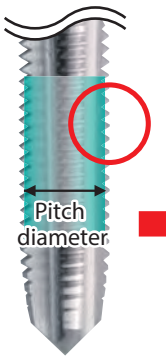
Unit : mm

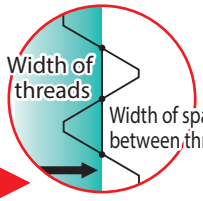
*Hole size for thread forming taps	
Min	Max
3.65	3.72

Forming condition changes depending on workpiece's Material and shape. Above is for customer's reference.

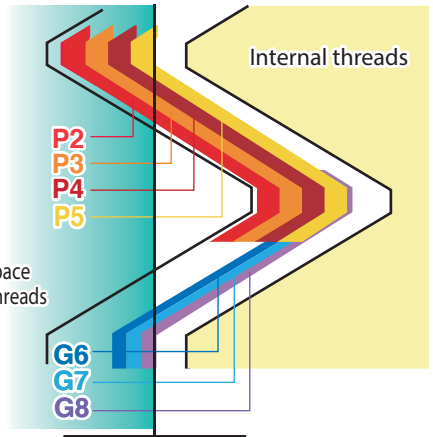
Threading — Check 2

【Pitch diameter】
Diameter of imaginary cylinder or cone which makes equal the width of threads and width of space between the threads





Tolerance area of tap's pitch diameter



【Thread class of cutting taps】

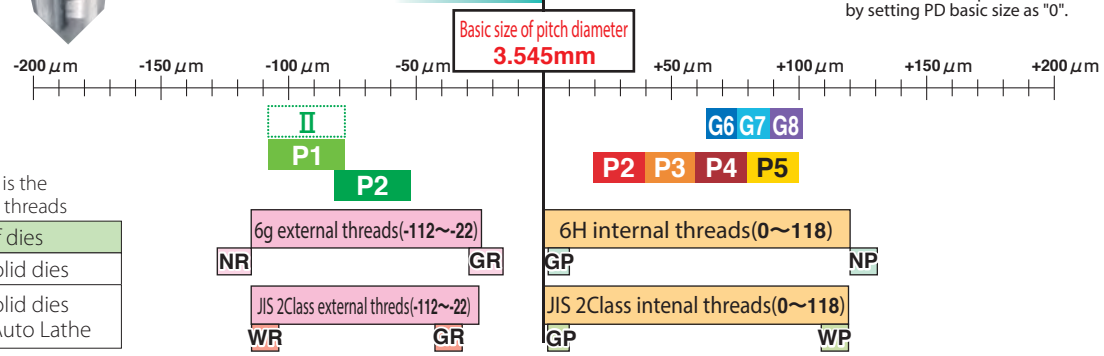
Class	PD tolerance
P2	20μm~40μm
P3	40μm~60μm
P4	60μm~80μm
P5	80μm~100μm

*Above shows the plus tolerance by setting PD basic size as "0".

【Thread class of roll taps】

Class	PD tolerance
G6	64μm~76μm
G7	76μm~89μm
G8	89μm~102μm

*Above shows the plus tolerance by setting PD basic size as "0".



Tolerance of dies is the target of external threads

Class of dies	
Ⅱ	Solid dies
P1 P2	Solid dies for Auto Lathe

Relative position of PD tolerance area of external threads, internal threads, taps and gages.

Gage check — Check 3

(−) ← Basic size of pitch diameter → (+)
3.545mm

Unit : μm

Ring gage pitch diameter (for external threads inspection)			
NR6g	-126 ~-112	GR6g	-31 ~-17
WRⅡ	-112 ~-104	GRⅡ	-34 ~-26

NR : NOT GO ring gage **GR** : GO ring gage
WR : NOT GO working ring gage

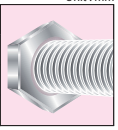
Unit : μm

Plug gage pitch diameter (for internal threads inspection)			
GP6H	2 ~ 10	NP6H	118 ~ 126
GPⅡ	4 ~ 12	WPⅡ	110 ~ 118

GP : GO plug gage **NP** : NOT GO plug gage
WP : NOT GO working plug gage

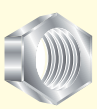
Unit : mm

Accuracy of external threads			
	Major diameter	Pitch diameter	Minor diameter
6g	3.838~3.978	3.433~3.523	–
JIS 2class	3.838~3.978	3.433~3.523	~3.119



Unit : mm

Accuracy of internal threads			
	Major diameter	Pitch diameter	Minor diameter
6H	–	3.545~3.663	3.242~3.422
JIS 2class	–	3.545~3.663	3.242~3.422



Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Taps ／ M4 × 0.7

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
General purpose		1	ISP	SI74.0IBP	SP	-	52	5	2.5P	①-62
			IPO	PI74.0IBP	PO				5P	③-32
		1 2	IHT	HI74.0I5BP	HT	-	52	5	5P	④-52
				HI74.0I2BP					2P	④-52
		1	R-Y	RY4.0I3	RO	-	52	5	3P	⑥-63
Standard		2 3	SP	SPQ4.0I	SP	P2	52	5	2.5P	①-39
			+SP	SNPQ4.0I						①-57
			SP 1.5P	SY4.0IQNEBA					1.5P	①-58
			PO	POQ4.0I	PO				5P	③-13
			+PO	PNPQ4.0I						③-30
		1 2 3	HT	TNMQ4.0I5	HT	P2	52	5	5P	④-6
				TNMQ4.0I1					1.5P	④-6
	Oversize	2 3	SP	SPR4.0I	SP	P3	52	5	2.5P	①-39
				SPS4.0I		P4				①-39
			PO	POR4.0I	PO	P3			5P	③-13
				POS4.0I		P4				③-13
		1 2 3	HT	TNMR4.0I53	HT	P3	52	5	5P	④-6
				TNMR4.0I13					1.5P	④-6
				TNMS4.0I53		P4			5P	④-6
				TNMS4.0I13					1.5P	④-6
				TNMT4.0I53		P5			5P	④-6
				TNMT4.0I13					1.5P	④-6
	Long neck	1 2	LKSL	1307101042	SL	P3	63	5	5P	②-11
For left hand threads		2 3	SP LH	SPQ4.0I--L	SP	P2	52	5	2.5P	①-79
			PO LH	POQ4.0I--L	PO				5P	③-46
		1 2 3	HT LH	TNMQ4.0I53-L	HT	P2	52	5	5P	④-66
				TNMQ4.0I13-L					1.5P	④-66
Oxidizing		1 2 3	SP OX	SPQ4.0IX	SP	P2	52	5	2.5P	①-65
			PO OX	POQ4.0IX	PO				5P	③-34
	Oversize	1 2 3	SP OX	SPR4.0IX	SP	P3	52	5	2.5P	①-65
			PO OX	POR4.0IX	PO				5P	③-34
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101042	SP	P2	63	5	2.5P	①-6
		1 2 3 4 9 19 21	AU+SP	VSAPQ4.0I	SP	P2	52	5	2.5P	①-86
			AU+SL	VSAPR4.0IL	SL	P3			5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101042	PO	P3	63	5	5P	③-4
		1 2 3 4	PO V	VPOQ4.0I	PO	P2	52	5	5P	③-48
		1 2 9 14 18 19 21	R+V	RVP54.0IP	RO	G5	52	5	4P	⑥-39
				RVP54.0IB					2P	⑥-39
				RVP64.0IP		G6			4P	⑥-39
				RVP64.0IB					2P	⑥-39
				RVP74.0IP		G7			4P	⑥-39
				RVP74.0IB					2P	⑥-39
				RVP84.0IP		G8			4P	⑥-39
				RVP84.0IB					2P	⑥-39

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Coating	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201042	SP	P3	63	5	2.5P	①-6
				1101301042		P4				①-6
		1 2 3 4 9 10 13 18 19	VUPO	1102201042	PO	P4	63	5	5P	③-4
				1102301042		P5				③-4
	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101042	SP	P2	63	5	1.5P	①-14
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101042	SP	P2	100	5	2.5P	①-7
		1 2 3 4 9 10 13 18 19	VUPO	2102101042	PO	P3	100	5	5P	③-6
Long		2 3	LS-SP	SPFQ4.0IL07	SP	P2	70	5	2.5P	①-89
				SPFQ4.0IL10			100			①-89
				SPFQ4.0IL12			120			①-89
				SPFQ4.0IL15			150			①-89
			LS-PO	POFQ4.0IL07	PO		70		5P	③-51
				POFQ4.0IL10			100			③-51
				POFQ4.0IL12			120			③-51
				POFQ4.0IL15			150			③-51
		1 2 3	LS-HT	TNFQ4.0I507	HT	P2	70	5	5P	④-74
				TNFQ4.0I510			100			④-74
				TNFQ4.0I512			120			④-74
				TNFQ4.0I515			150			④-74
				TNFQ4.0I107			70		1.5P	④-74
				TNFQ4.0I110			100			④-74
				TNFQ4.0I112			120			④-74
				TNFQ4.0I115			150			④-74
	Oversize	2 3	LS-SP	SPFR4.0IL10	SP	P3	100	5	2.5P	①-89
				SPFR4.0IL15			150			①-90
			LS-PO	POFR4.0IL10	PO		100		5P	③-52
				POFR4.0IL15			150			③-52
		1 2 3	LS-HT	TNFR4.0I510	HT	P3	100	5	5P	④-74
				TNFR4.0I515			150			④-74
				TNFR4.0I110			100		1.5P	④-74
				TNFR4.0I115			150			④-74
	With neck	2 3	LS-SP-K	SY4.0IQFEBE	SP	P2	100	5	2.5P	①-97
				SY4.0IQFEBF			120			①-97
				SY4.0IQFEBG			150			①-97
			LS-PO-K	PY4.0IQFEBE	PO		100		4.5P	③-58
				PY4.0IQFEBF			120			③-58
				PY4.0IQFEBG			150			③-58
	Long neck	1 2	LKSL XL	2008101042	SL	P3	100	5	5P	②-12
	For left hand threads	2 3	LS-SP LH	SPFQ4.0IL10L	SP	P2	100	5	2.5P	①-95
		1 2 3	LS-HT LH	TNFQ4.0I510L	HT	P2	100	5	5P	④-84
				TNFQ4.0I110L					1.5P	④-84
	Coating	1 2 3 4	LS-SP V	VSPFQ4.0IL10	SP	P2	100	5	2.5P	①-96
			LS-PO V	VPOFQ4.0IL10	PO				5P	③-57
		2 3 4	LS-HT V	TNFQ4.0I510V	HT	P2	100	5	5P	④-86
				TNFQ4.0I110V					1.5P	④-86
For soft structural steels		1 2	E-SP	ESHMQ4.0I	SP	P2	52	5	2.5P	①-130

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Thread forming taps for steels	1 2	N+RZ	NRZP54.0IP	RO	G5	52	5	4P	⑥-15
			NRZP54.0IB					2P	⑥-15
			NRZP64.0IP		G6			4P	⑥-15
			NRZP64.0IB					2P	⑥-15
			NRZP74.0IP		G7			4P	⑥-15
			NRZP74.0IB					2P	⑥-15
			NRZP84.0IP		G8			4P	⑥-15
			NRZP84.0IB					2P	⑥-15
Long	1 2	LS-N-RZ	NRZF64.0IP10	RO	G6	100	5	4P	⑥-23
			NRZF64.0IB10					2P	⑥-23
			NRZF74.0IP10		G7			4P	⑥-23
			NRZF74.0IB10					2P	⑥-23
For steels	1 2 3 4 5 9 11	HVSP	SY4.0ISEEXJ	SP	P4	63	5	2.5P	①-24
For high carbon steels	2 3	HC+SP	SCPQ4.0I	SP	P2	52	5	2.5P	①-132
	2 3 5	HC-PO	PCMQ4.0I	PO	P2	52	5	5P	③-76
Oxidizing	2 3	HC+SP OX	SCPQ4.0IX	SP	P2	52	5	2.5P	①-134
For hard-to-machine materials	3 5 6	EH-PO	EPHMR4.0I	PO	P3	52	5	4.5P	③-82
	6 10	EH-HT	ETHMR4.0I5	HT	P3	52	5	5P	④-124
			ETHMR4.0I1					2.5P	④-124
Powdered HSS	3 5 6	PM-SP	SY4.0IRDPB	SP	P3	52	5	2.75P	①-168
		LS-PM-SP	S44.0IRDPBE			100			①-175
		PM-PO	PY4.0IRDPB	PO		52		5.5P	③-92
		LS-PM-PO	P44.0IRDPBE			100			③-98
For titanium alloys	22	ZET-B	ZETBMR4.0I	SP	P3	52	5	3P	①-154
		ZET-P	ZETPMR4.0I	SL				5P	②-22
For nickel base alloys	1 2 9 23	ZEN-B	ZENBMR4.0I	SP	P3	52	5	3P	①-162
		ZEN-P	ZENPMR4.0I	PO				4.5P	③-86
For medium hardness carbon steels	2 3 4 5 6 10	MHSL	1109101042	SL	P3	63	5	5P	②-4
Long	2 3 4 5 6 10	MHSL	2109101042	SL	P3	100	5	5P	②-4
Carbide taps for hard materials	7	EH-CT	EHCR4.0I5	HT	P3	52	5	5P	⑤-24
Carbide taps for ultra hard materials	8	UH-CT	UHCR4.0I5	HT	P3	52	5.5	5P	⑤-28
For stainless steels	2 3 4 9	SU+SP	SUPQ4.0I	SP	P2	52	5	2.5P	①-100
	1 2 3 4 9	SU+SL	SUPQ4.0IL	SL	P2	52	5	5P	②-18
		SU-PO	PUMQ4.0I	PO					③-60
	1 2 9	SU-HT	TUMQ4.0I4	HT	P2	52	5	4P	④-90
			TUMQ4.0I1					1.5P	④-90
Oversize	2 3 4 9	SU+SP	SUPR4.0I	SP	P3	52	5	2.5P	①-100
			SUPS4.0I		P4				①-100
	1 2 3 4 9	SU-PO	PUMR4.0I	PO	P3	52	5	5P	③-60
			PUMS4.0I		P4				③-60
For deep hole use	1 2 3 4 9	SU-S-SP	SSMQ4.0I-SU	SP	P2	52	5	2.5P	①-119
	1 2 3 9	LS-SU-S-SP	SY4.0IQGEXES	SP	P2	100	5	2.5P	①-120
			SY4.0IQGEXGS			150			①-120
		LS-SU-S-PO	PY4.0IQGEXES	PO		100		4.5P	③-70
			PY4.0IQGEXGS			150			③-70
For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MQ4.0I	SP	P2	52	5	3P	①-116
For cast irons	12 13	FC-HT	TY4.0IRAEN5	HT	P3	52	5	5P	④-94
			TY4.0IRAENA					1.5P	④-94
Carbide	12 13 16	N-CT FC	TCNR4.0I3	HT	P3	52	5	3P	⑤-11
			TCNR4.0I1					1.5P	⑤-11
Long shank, carbide	12 13 16	LS-N-CT	TY4.0IRAWB3E	HT	P3	100	5	3P	⑤-18
			TY4.0IRAWBAE					1.5P	⑤-18

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For aluminum	15 16 17 18 19 20 21	AL+SP	ASHPR4.0I	SP	P3	52	5	2.5P	①-136
		AL-SP 1.5P	SY4.0IRLENA					1.5P	①-137
	18 19 21	LA-HT	TY4.0IRLEN5	HT	P3	52	5	5P	④-110
			TY4.0IRLENA					1.5P	④-110
Carbide	19 21	N-CT LA	TCNR4.0I3A	HT	P3	52	5	3P	⑤-3
			TCNR4.0I1A					1.5P	⑤-3
Carbide spiral fluted taps	18 19 21	N-CT-SP	SY4.0IRKWB	SP	P3	52	5	2.5P	⑤-20
Carbide spiral pointed taps	15 16 17 18 19 20 21	N-CT-PO	PCNR4.0I	PO	P3	52	5	5P	⑤-21
Thread forming taps for non-ferrous materials	18 19 21	N+RS	NRSP54.0IP	RO	G5	52	5	4P	⑥-27
			NRSP54.0IB					2P	⑥-27
			NRSP64.0IP		G6			4P	⑥-27
			NRSP64.0IB					2P	⑥-27
			NRSP74.0IP		G7			4P	⑥-27
			NRSP74.0IB					2P	⑥-27
			NRSP84.0IP		G8			4P	⑥-27
			NRSP84.0IB					2P	⑥-27
Long	18 19 21	LS-N-RS	NRSF64.0IP10	RO	G6	100	5	4P	⑥-36
			NRSF64.0IB10					2P	⑥-36
			NRSF74.0IP10		G7			4P	⑥-36
			NRSF74.0IB10					2P	⑥-36
For Plastics Thermosetting	24	PL1	TPLM4.0I3	HT	P5	52	5	3P	④-120
For Plastics Thermoplastic	24 25	PL2	TY4.0ITMEN3	HT	P5	52	5	3P	④-122
For high speed	1 2	F-SP	VFSHMQ4.0I	SP	P2	52	5	2.5P	①-178
		F-SL	VFSHMQ4.0IL	SL				5P	②-28
Long	1 2	LS-F-SP	S44.0IQFEVES	SP	P2	100	5	2.5P	①-182
		LS-F-SL	L44.0IQFEVE	SL				5P	②-32
Thread forming taps for dry tapping	1 2 3 4 5 9 19	OL+RZ	OLRZP64.0IP	RO	G6	52	5	4P	⑥-42
			OLRZP74.0IP		G7				⑥-42
High performance thread forming taps	1 2 3 4 5 9 19	HP+RZ	HRZP64.0IP	RO	G6	52	5	4P	⑥-49
			HRZP64.0IB					2P	⑥-49
			HRZP74.0IP		G7			4P	⑥-49
			HRZP74.0IB					2P	⑥-49
Torqueless thread forming taps Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM64.0I1	RO	G6	52	5	1P	⑥-58
For deep hole use	2 3 4 13	S-SP	SSMQ4.0I	SP	P2	52	5	2.5P	①-123
	1 2 3 4	S-PO	PSMQ4.0I	PO	P2	52	5	5P	③-73
Oversize	2 3 4 13	S-SP	SSMR4.0I	SP	P3	52	5	2.5P	①-123
	1 2 3 4	S-PO	PSMR4.0I	PO	P3	52	5	5P	③-73
			PSMS4.0I		P4				③-73
Low spiral	2 3	LO-SP 8°	LSHMQ4.0I8	SP	P2	52	5	2.5P	①-144
		LO-SP 15°	LSHMQ4.0I15						①-144
		LO-SP 20°	LSHMQ4.0I20						①-144
For helical coil wire screw thread inserts	18 19 21	AL-HT STI	TW4.0I1LEB5	HT	I b	60	5.5	5P	⑦-3
			TW4.0I1LEBA					1.5P	⑦-3
	15 16 17 18 19 20 21	AL-SP STI	SW4.0I1LEN	SP	I b	60	5.5	2.5P	⑦-10
		AL-PO STI	PW4.0I1LEB	PO				5P	⑦-18
	18 19 21	N-RS STI	RW4.0I4LENP	RO	G4	60	5.5	4P	⑦-25
			RW4.0I4LENB					2P	⑦-25
Oversize	18 19 21	AL-HT STI	TW4.0I3LEB5	HT	I b+30	60	5.5	5P	⑦-3
			TW4.0I3LEBA					1.5P	⑦-3
	15 16 17 18 19 20 21	AL-SP STI	SW4.0I3LEN	SP	I b+30	60	5.5	2.5P	⑦-10
Carbide	19 21	N-CT LA STI	TW4.0I1LWB5	HT	I b	60	5.5	5P	⑦-26
			TW4.0I1LWBA					1.5P	⑦-26

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

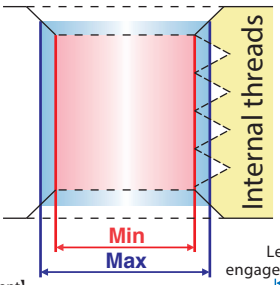
	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Nut taps	1 2	NT	NH24.0I	HT	II b	100	2.8	27P	⑦-27
Taps ／ 4M 0.75									
Standard	2 3	SP	SPQ4.0J	SP	P2	52	5	2.5P	①-39
		PO	POQ4.0J	PO				5P	③-13
	1 2 3	HT	TNMQ4.0J53	HT	P2	52	5	5P	④-7
			TNMQ4.0J13					1.5P	④-7
For left hand threads	1 2 3	HT LH	TNMQ4.0J53-L	HT	P2	52	5	5P	④-66
			TNMQ4.0J13-L					1.5P	④-66
Oxidizing	1 2 3	PO OX	POQ4.0JX	PO	P2	52	5	5P	③-34
For stainless steels	2 3 4 9	SU+SP	SUPQ4.0J	SP	P2	52	5	2.5P	①-100
	1 2 3 4 9	SU-PO	PUMQ4.0J	PO	P2	52	5	5P	③-61
For deep hole use	1 2 3 4	S-PO	PSMQ4.0J	PO	P2	52	5	5P	③-73
Nut taps	1 2	NT	NH24.0J	HT	II b	100	2.8	25P	⑦-27
Taps ／ M4 × 0.5									
Standard	2 3	SP	SPP4.0G	SP	P1	52	5	2.5P	①-39
		PO	POQ4.0G	PO	P2			5P	③-13
	1 2 3	HT	TNMQ4.0G5	HT	P2	52	5	5P	④-7
			TNMQ4.0G1					1.5P	④-7
For left hand threads	1 2 3	HT LH	TNMQ4.0G5-L	HT	P2	52	5	5P	④-66
			TNMQ4.0G1-L					1.5P	④-66
Oxidizing	1 2 3	SP OX	SPP4.0GX	SP	P1	52	5	2.5P	①-65
Coating	1 2 3 4 9 10 13 18 19	VUSP	1101101043	SP	P2	63	5	2.5P	①-6
	1 2 3 4 9 10 13 18 19	VUPO	1102101043	PO	P2	63	5	5P	③-4
Oxidizing Coating — Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201043	SP	P3	63	5	2.5P	①-6
			1101301043		P4				①-6
	1 2 3 4 9 10 13 18 19	VUPO	1102201043	PO	P3	63	5	5P	③-4
			1102301043		P4				③-4
Coating — Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101043	SP	P2	63	5	1.5P	①-14
Coating — Long	1 2 3 4 9 10 13 18 19	VUSP	2101101043	SP	P2	100	5	2.5P	①-7
	1 2 3 4 9 10 13 18 19	VUPO	2102101043	PO	P2	100	5	5P	③-6
Thread forming taps for steels	1 2	N-RZ	NRZM54.0GP	RO	G5	52	5	4P	⑥-16
			NRZM54.0GB					2P	⑥-16
			NRZM64.0GP		G6			4P	⑥-16
			NRZM64.0GB					2P	⑥-16
			NRZM74.0GB		G7				⑥-16
For steels	1 2 3 4 5 9 11	HVSP	SY4.0GSEEXJ	SP	P4	63	5	2.5P	①-24
For cast irons — Carbide	12 13 16	N-CT FC	TCNR4.0G3	HT	P3	52	5	3P	⑤-11
			TCNR4.0G1					1.5P	⑤-11
For aluminum — Carbide	19 21	N-CT LA	TCNR4.0G3A	HT	P3	52	5	3P	⑤-3
			TCNR4.0G1A					1.5P	⑤-3
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM64.0GP	RO	G6	52	5	4P	⑥-28
			NRSM64.0GB					2P	⑥-28
			NRSM74.0GP		G7			4P	⑥-28
			NRSM74.0GB					2P	⑥-28

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M4 × 0.7									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE4.0IDNEBC	⑩-3
					25	9		TYG4.0IDNEBC	⑩-3
					38	13		TYJ4.0IDNEBC	⑩-3
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE4.0IDNEBC	⑩-16
					25	9		GYG4.0IDNEBC	⑩-16
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	20	7	1.5P	PYE4.0ISNEBA	⑩-34
					25	9		PYG4.0ISNEBA	⑩-34
					38	13		PYJ4.0ISNEBA	⑩-34
Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE4.0IQNEBA	⑩-34
					25	9		PYG4.0IQNEBA	⑩-34
					38	13		PYJ4.0IQNEBA	⑩-34
New rolling dies	HSS	1 2 9 15	N-RSD	R4	25	9	2P	NRGS4.0I	⑩-52
Auto dies for automatic lathe — For stainless steels	HSS	1 2 9	HS-D	P1	16	5	2P	HDP4.0I	⑩-46
					20	7		HEP4.0I	⑩-46
				P2	16	5		HDQ4.0I	⑩-46
					20	7		HEQ4.0I	⑩-46
Spiral dies	HSS	1 2	SP-D	P1	20	7	1.5P	SEP4.0I	⑩-43
Dies ／ 4M 0.75									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE4.0JDNEBC	⑩-3
					25	9		TYG4.0JDNEBC	⑩-3
Dies ／ M4 × 0.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE4.0GDNEBC	⑩-3
					25	9		TYG4.0GDNEBC	⑩-3
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE4.0GDNEBC	⑩-16
Point solid dies	HSS	1 2 15 16 18 19	DPO	S6	20	7	1.5P	PYE4.0GUNEBA	⑩-35
					25	9		PYG4.0GUNEBA	⑩-35
Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE4.0GQNEBA	⑩-35
					25	9		PYG4.0GQNEBA	⑩-35
Rolling dies	HSS	1 2 9 15	RS-D	R3	20	7	-	RER4.0G	⑩-49
				R5				RET4.0G	⑩-49
				R6				REU4.0G	⑩-49
Auto dies for automatic lathe — For stainless steels	HSS	1 2 9	HS-D	P1	16	5	2P	HDP4.0G	⑩-46
					20	7		HEP4.0G	⑩-46
				P2	16	5		HDQ4.0G	⑩-46
					20	7		HEQ4.0G	⑩-46
Dies ／ M4 × 0.35									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE4.0DDNEBC	⑩-3

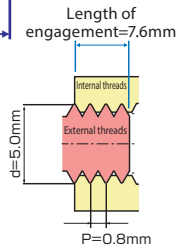
Flowchart : M5 tapping

Boring before tapping — Check 1

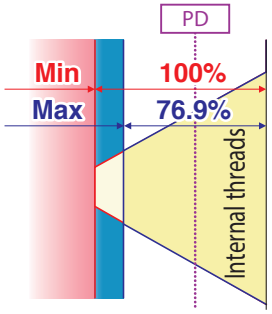


【Length of engagement】
On "middle" engagement class, 7H class can be chosen in case of "L" engagement length.

Symbol	Engagement length classification \ Engagement classification	Fine	Middle	Coarse	Engagement length
S	Short engagement length	4H	5H	–	S≦2.5(mm)
M	Normal engagement length	5H	6H	7H	2.5<M≦7.5(mm)
L	Long engagement length	6H	7H	8H	7.5<L(mm)



Engagement ratio on cutting taps

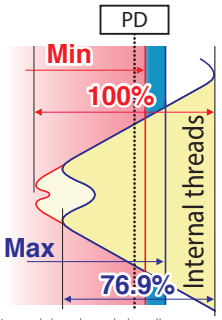


Unit : mm

	Drill size (ref.)	D1 Min	D1 Max
Bored hole size	4.2	4.134	4.334
Engagement ratio	92.4%	100%	76.9%

D1 is minor diameter of JIS 6H(2nd Class) of internal threads

Engagement ratio on roll taps



Internal threads made by roll taps are different from those made by cutting taps on the shape of minor dimameter.

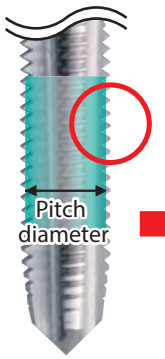
Unit : mm

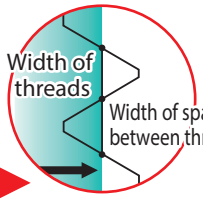
*Hole size for thread forming taps	
Min	Max
4.59	4.67

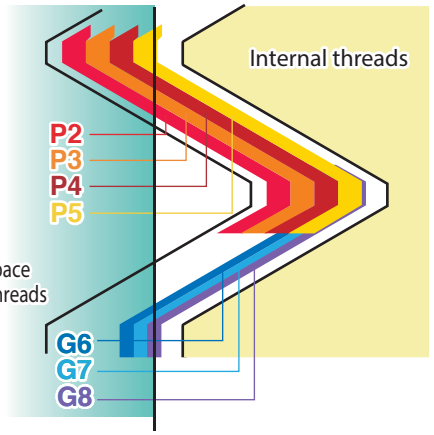
Forming condition changes depending on workpiece's Material and shape. Above is for customer's reference.

Threading — Check 2

【Pitch diameter】
Diameter of imaginary cylinder or cone which makes equal the width of threads and width of space between the threads







【Thread class of cutting taps】

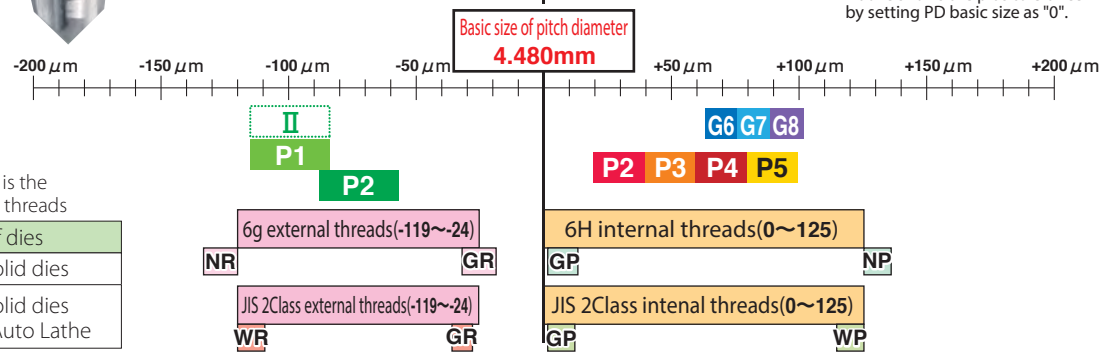
Class	PD tolerance
P2	20μm~40μm
P3	40μm~60μm
P4	60μm~80μm
P5	80μm~100μm

*Above shows the plus tolerance by setting PD basic size as "0".

【Thread class of roll taps】

Class	PD tolerance
G6	64μm~76μm
G7	76μm~89μm
G8	89μm~102μm

*Above shows the plus tolerance by setting PD basic size as "0".



Tolerance of dies is the target of external threads

Class of dies	
Ⅱ	Solid dies
P1 P2	Solid dies for Auto Lathe

Relative position of PD tolerance area of external threads, internal threads, taps and gages.

Gage check — Check 3

(–) ← Basic size of pitch diameter → (+)
4.480mm

Unit : μm

Ring gage pitch diameter (for external threads inspection)			
NR6g	-133 ~ -119	GR6g	-33 ~-19
WRⅡ	-119 ~ -111	GRⅡ	-36 ~-28

NR : NOT GO ring gage **GR** : GO ring gage
WR : NOT GO working ring gage

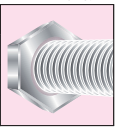
Unit : μm

Plug gage pitch diameter (for internal threads inspection)			
GP6H	2 ~ 10	NP6H	125~133
GPⅡ	4 ~ 12	WPⅡ	117~125

GP : GO plug gage **NP** : NOT GO plug gage
WP : NOT GO working plug gage

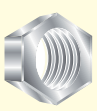
Unit : mm

Accuracy of external threads			
	Major diameter	Pitch diameter	Minor diameter
6g	4.826~4.976	4.361~4.456	–
JIS 2class	4.826~4.976	4.361~4.456	~3.994



Unit : mm

Accuracy of internal threads			
	Major diameter	Pitch diameter	Minor diameter
6H	–	4.480~4.605	4.134~4.334
JIS 2Class	–	4.480~4.605	4.134~4.334



Think threads with YAMAWA

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Taps ／ M5 × 0.8

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
General purpose		1	ISP	SI75.0KBP	SP	-	60	5.5	2.5P	①-62
			IPO	PI75.0KBP	PO				5P	③-32
		1 2	IHT	HI75.0K5BP	HT	-	60	5.5	5P	④-52
				HI75.0K2BP					2P	④-52
		1	R-Y	RY5.0K3	RO	-	60	5.5	3P	⑥-63
Standard		2 3	SP	SPQ5.0K	SP	P2	60	5.5	2.5P	①-39
			+SP	SNPQ5.0K						①-57
			SP 1.5P	SY5.0KQNEBA					1.5P	①-58
			PO	POQ5.0K	PO				5P	③-13
			+PO	PNPQ5.0K						③-30
		1 2 3	HT	TNMR5.0K5	HT	P3	60	5.5	5P	④-7
				TNMR5.0K1					1.5P	④-7
				TNMR5.0K1F						④-7
	Oversize	2 3	SP	SPR5.0K	SP	P3	60	5.5	2.5P	①-40
				SPS5.0K		P4				①-40
			PO	POR5.0K	PO	P3			5P	③-13
				POS5.0K		P4				③-13
		1 2 3	HT	TNMS5.0K53	HT	P4	60	5.5	5P	④-7
				TNMS5.0K13					1.5P	④-7
				TNMS5.0K13F						④-7
				TNMT5.0K53		P5			5P	④-7
				TNMT5.0K13					1.5P	④-7
	Long neck	1 2	LKSL	1307101049	SL	P3	70	5.5	5P	②-11
For left hand threads		2 3	SP LH	SPQ5.0K--L	SP	P2	60	5.5	2.5P	①-79
			PO LH	POQ5.0K--L	PO				5P	③-46
		1 2 3	HT LH	TNMR5.0K53-L	HT	P3	60	5.5	5P	④-66
				TNMR5.0K13-L					1.5P	④-66
				TNMR5.0K13FL						④-66
Oxidizing		1 2 3	SP OX	SPQ5.0KX	SP	P2	60	5.5	2.5P	①-65
			PO OX	POQ5.0KX	PO				5P	③-34
	Oversize	1 2 3	SP OX	SPR5.0KX	SP	P3	60	5.5	2.5P	①-65
			PO OX	POR5.0KX	PO				5P	③-34
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101049	SP	P2	70	5.5	2.5P	①-6
		1 2 3 4 9 19 21	AU+SP	VSAPQ5.0K	SP	P2	60	5.5	2.5P	①-86
			AU+SL	VSAPR5.0KL	SL	P3			5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101049	PO	P3	70	5.5	5P	③-5
		1 2 3 4	PO V	VPOQ5.0K	PO	P2	60	5.5	5P	③-48
		1 2 9 14 18 19 21	R+V	RVP55.0KP	RO	G5	60	5.5	4P	⑥-39
				RVP55.0KB					2P	⑥-39
				RVP65.0KP		G6			4P	⑥-39
				RVP65.0KB					2P	⑥-39
				RVP75.0KP		G7			4P	⑥-39
				RVP75.0KB					2P	⑥-39
				RVP85.0KP		G8			4P	⑥-39
				RVP85.0KB					2P	⑥-39
	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201049	SP	P3	70	5.5	2.5P	①-6
				1101301049		P4				①-6
		1 2 3 4 9 10 13 18 19	VUPO	1102201049	PO	P4	70	5.5	5P	③-5
				1102301049		P5				③-5

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Coating	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101049	SP	P2	70	5.5	1.5P	①-14
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101049	SP	P2	100	5.5	2.5P	①-7
		1 2 3 4 9 10 13 18 19	VUPO	2102101049	PO	P3	100	5.5	5P	③-6
Long		2 3	LS-SP	SPFQ5.0KL12	SP	P2	120	5.5	2.5P	①-90
				SPFQ5.0KL15			150			①-90
				SPFQ5.0KL10			100			①-90
			LS-PO	POFQ5.0KL10	PO				5P	③-52
				POFQ5.0KL12			120			③-52
				POFQ5.0KL15			150			③-52
		1 2 3	LS-HT	TNFQ5.0K507	HT	P2	70	5.5	5P	④-74
				TNFQ5.0K510			100			④-74
				TNFQ5.0K512			120			④-74
				TNFQ5.0K515			150			④-74
				TNFQ5.0K107			70		1.5P	④-74
				TNFQ5.0K110			100			④-74
				TNFQ5.0K112			120			④-74
				TNFQ5.0K115			150			④-74
	Oversize	2 3	LS-SP	SPFR5.0KL10	SP	P3	100	5.5	2.5P	①-90
				SPFR5.0KL15			150			①-90
			LS-PO	POFR5.0KL10	PO		100		5P	③-52
				POFR5.0KL15			150			③-52
				POFS5.0KL15		P4				③-52
		1 2 3	LS-HT	TNFR5.0K510	HT	P3	100	5.5	5P	④-74
				TNFR5.0K515			150			④-74
				TNFR5.0K110			100		1.5P	④-74
				TNFR5.0K115			150			④-74
	With neck	2 3	LS-SP-K	SY5.0KQFEBE	SP	P2	100	5.5	2.5P	①-97
				SY5.0KQFEBF			120			①-97
				SY5.0KQFEBG			150			①-97
			LS-PO-K	PY5.0KQFEBE	PO		100		4.5P	③-58
				PY5.0KQFEBF			120			③-58
				PY5.0KQFEBG			150			③-58
	Long neck	1 2	LKSL XL	2008101049	SL	P3	120	5.5	5P	②-12
	For left hand threads	2 3	LS-SP LH	SPFQ5.0KL10L	SP	P2	100	5.5	2.5P	①-95
		1 2 3	LS-HT LH	TNFQ5.0K510L	HT	P2	100	5.5	5P	④-84
				TNFQ5.0K110L					1.5P	④-84
	Oxidizing	1 2	LS-SP OX	SPFQ5.0KL12X	SP	P2	120	5.5	2.5P	①-94
	Coating	1 2 3 4	LS-SP V	VSPFQ5.0KL10	SP	P2	100	5.5	2.5P	①-96
			LS-PO V	VPOFQ5.0KL10	PO				5P	③-57
		2 3 4	LS-HT V	TNFQ5.0K510V	HT	P2	100	5.5	5P	④-86
				TNFQ5.0K110V					1.5P	④-86
For soft structural steels		1 2	E-SP	ESHMQ5.0K	SP	P2	60	5.5	2.5P	①-130
Thread forming taps for steels		1 2	N+RZ	NRZP55.0KP	RO	G5	60	5.5	4P	⑥-15
				NRZP55.0KB					2P	⑥-15
				NRZP65.0KP		G6			4P	⑥-15
				NRZP65.0KB					2P	⑥-15
				NRZP75.0KP		G7			4P	⑥-15
				NRZP75.0KB					2P	⑥-15
				NRZP85.0KP		G8			4P	⑥-15
				NRZP85.0KB					2P	⑥-15

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Thread forming taps for steels	Long	1 2	LS-N-RZ	NRZF65.0KP10	RO	G6	100	5.5	4P	⑥-23
				NRZF65.0KB10					2P	⑥-23
				NRZF75.0KP10		G7			4P	⑥-23
				NRZF75.0KB10					2P	⑥-23
For steels		1 2 3 4 5 9 11	HVSP	SY5.0KSEEXJ	SP	P4	70	5.5	2.5P	①-24
For high carbon steels		2 3	HC+SP	SCPQ5.0K	SP	P2	60	5.5	2.5P	①-132
		2 3 5	HC-PO	PCMQ5.0K	PO	P2	60	5.5	5P	③-76
	Oxidizing	2 3	HC+SP OX	SCPQ5.0KX	SP	P2	60	5.5	2.5P	①-134
For hard-to-machine materials		3 5 6	EH-PO	EPHMR5.0K	PO	P3	60	5.5	4.5P	③-82
		6 10	EH-HT	ETHMR5.0K5	HT	P3	60	5.5	5P	④-124
				ETHMR5.0K1					2.5P	④-124
	Powdered HSS	3 5 6	PM-SP	SY5.0KRDPB	SP	P3	60	5.5	2.75P	①-168
			LS-PM-SP	S45.0KRDPBE			100			①-175
			PM-PO	PY5.0KRDPB	PO		60		5.5P	③-92
			LS-PM-PO	P45.0KRDPBE			100			③-98
For titanium alloys		22	ZET-B	ZETBMR5.0K	SP	P3	60	5.5	3P	①-154
			ZET-P	ZETPMR5.0K	SL				5P	②-22
For nickel base alloys		1 2 9 23	ZEN-B	ZENBMR5.0K	SP	P3	60	5.5	3P	①-162
			ZEN-P	ZENPMR5.0K	PO				4.5P	③-86
For medium hardness carbon steels		2 3 4 5 6 10	MHSL	1109101049	SL	P3	70	5.5	5P	②-4
	Long	2 3 4 5 6 10	MHSL	2109101049	SL	P3	100	5.5	5P	②-4
Carbide taps for hard materials		7	EH-CT	EHCR5.0K5	HT	P3	60	5.5	5P	⑤-24
Carbide taps for ultra hard materials		8	UH-CT	UHCR5.0K5	HT	P3	60	6	5P	⑤-28
For stainless steels		2 3 4 9	SU+SP	SUPQ5.0K	SP	P2	60	5.5	2.5P	①-100
		1 2 3 4 9	SU+SL	SUPR5.0KL	SL	P3	60	5.5	5P	②-18
			SU-PO	PUMQ5.0K	PO	P2				③-61
		1 2 9	SU-HT	TUMQ5.0K4	HT	P2	60	5.5	4P	④-90
				TUMQ5.0K1					1.5P	④-90
	Oversize	2 3 4 9	SU+SP	SUPR5.0K	SP	P3	60	5.5	2.5P	①-100
				SUPS5.0K		P4				①-101
		1 2 3 4 9	SU-PO	PUMR5.0K	PO	P3	60	5.5	5P	③-61
				PUMS5.0K		P4				③-61
	For deep hole use	1 2 3 4 9	SU-S-SP	SSMQ5.0K-SU	SP	P2	60	5.5	2.5P	①-119
		1 2 3 9	LS-SU-S-SP	SY5.0KQGEXES	SP	P2	100	5.5	2.5P	①-120
				SY5.0KQGEXGS			150			①-120
			LS-SU-S-PO	PY5.0KQGEXES	PO		100		4.5P	③-70
				PY5.0KQGEXGS			150			③-70
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MQ5.0K	SP	P2	60	5.5	3P	①-116
For cast irons		12 13	FC-HT	TY5.0KRAEN5	HT	P3	60	5.5	5P	④-94
				TY5.0KRAENA					1.5P	④-94
	Carbide	12 13 16	N-CT FC	TCNR5.0K3	HT	P3	60	5.5	3P	⑤-11
				TCNR5.0K1					1.5P	⑤-11
	Long shank, carbide	12 13 16	LS-N-CT	TY5.0KRAWB3E	HT	P3	100	5.5	3P	⑤-18
				TY5.0KRAWBAE					1.5P	⑤-18
For aluminum		15 16 17 18 19 20 21	AL+SP	ASHPR5.0K	SP	P3	60	5.5	2.5P	①-136
			AL-SP 1.5P	SY5.0KRLENA					1.5P	①-137
		18 19 21	LA-HT	TY5.0KRLEN5	HT	P3	60	5.5	5P	④-110
				TY5.0KRLENA					1.5P	④-110
	Carbide	19 21	N-CT LA	TCNR5.0K3A	HT	P3	60	5.5	3P	⑤-3
				TCNR5.0K1A					1.5P	⑤-3
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY5.0KRKWB	SP	P3	60	5.5	2.5P	⑤-20

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For aluminum	Carbide spiral pointed taps	15 16 17 18 19 20 21	N-CT-PO	PCNR5.0K	PO	P3	60	5.5	5P	⑤-21
Thread forming taps for non-ferrous materials		18 19 21	N+RS	NRSP55.0KP	RO	G5	60	5.5	4P	⑥-27
				NRSP55.0KB					2P	⑥-27
				NRSP65.0KP		G6			4P	⑥-27
				NRSP65.0KB					2P	⑥-27
				NRSP75.0KP		G7			4P	⑥-27
				NRSP75.0KB					2P	⑥-27
				NRSP85.0KB		G8				⑥-27
	Long	18 19 21	LS-N-RS	NRSF65.0KP10	RO	G6	100	5.5	4P	⑥-36
				NRSF65.0KB10					2P	⑥-36
				NRSF75.0KP10		G7			4P	⑥-36
				NRSF75.0KB10					2P	⑥-36
For Plastics	Thermosetting	24	PL1	TPLM5.0K3	HT	P5	60	5.5	3P	④-120
	Thermoplastic	24 25	PL2	TY5.0KTMEN3	HT	P5	60	5.5	3P	④-122
For high speed		1 2	F-SP	VFSHMQ5.0K	SP	P2	60	5.5	2.5P	①-178
			F-SL	VFSHMQ5.0KL	SL				5P	②-28
	Long	1 2	LS-F-SP	S45.0KQFEVES	SP	P2	100	5.5	2.5P	①-182
			LS-F-SL	L45.0KQFEVE	SL				5P	②-32
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL+RZ	OLRZP65.0KP	RO	G6	60	5.5	4P	⑥-42
				OLRZP75.0KP		G7				⑥-42
High performance thread forming taps		1 2 3 4 5 9 19	HP+RZ	HRZP65.0KP	RO	G6	60	5.5	4P	⑥-49
				HRZP65.0KB					2P	⑥-49
				HRZP75.0KP		G7			4P	⑥-49
				HRZP75.0KB					2P	⑥-49
Torqueless thread forming taps	Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM65.0K1	RO	G6	60	5.5	1P	⑥-58
For deep hole use		2 3 4 13	S-SP	SSMQ5.0K	SP	P2	60	5.5	2.5P	①-124
		1 2 3 4	S-PO	PSMQ5.0K	PO	P2	60	5.5	5P	③-73
	Oversize	2 3 4 13	S-SP	SSMR5.0K	SP	P3	60	5.5	2.5P	①-124
		1 2 3 4	S-PO	PSMR5.0K	PO	P3	60	5.5	5P	③-73
				PSMS5.0K		P4				③-73
Low spiral		2 3	LO-SP 15°	LSHMQ5.0K15	SP	P2	60	5.5	2.5P	①-144
			LO-SP 20°	LSHMQ5.0K20						①-144
			LO-SP 8°	LSHMQ5.0K8						①-144
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW5.0K1LEB5	HT	I b	62	6	5P	⑦-3
				TW5.0K1LEBA					1.5P	⑦-3
		15 16 17 18 19 20 21	AL-SP STI	SW5.0K1LEN	SP	I b	62	6	2.5P	⑦-10
			AL-PO STI	PW5.0K1LEB	PO				5P	⑦-18
		18 19 21	N-RS STI	RW5.0K4LENP	RO	G4	62	6	4P	⑦-25
				RW5.0K4LENB					2P	⑦-25
	Oversize	18 19 21	AL-HT STI	TW5.0K3LEB5	HT	I b+30	62	6	5P	⑦-3
				TW5.0K3LEBA					1.5P	⑦-3
		15 16 17 18 19 20 21	AL-SP STI	SW5.0K3LEN	SP	I b+30	62	6	2.5P	⑦-10
	Carbide	19 21	N-CT LA STI	TW5.0K1LWB5	HT	I b	62	6	5P	⑦-26
				TW5.0K1LWBA					1.5P	⑦-26
Nut taps		1 2	NT	NH25.0K	HT	II b	110	3.6	28P	⑦-27

Taps ／ 5M 0.9

Standard		2 3	SP	SPQ5.0L	SP	P2	60	5.5	2.5P	①-40
			PO	POQ5.0L	PO				5P	③-13
		1 2 3	HT	TNMQ5.0L53	HT	P2	60	5.5	5P	④-7
				TNMQ5.0L13					1.5P	④-7

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

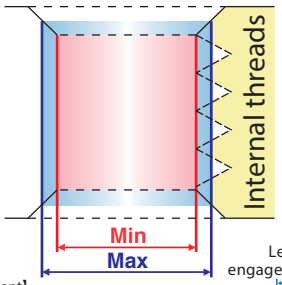
	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For left hand threads		1 2 3	HT LH	TNMQ5.0L53-L	HT	P2	60	5.5	5P	④-66
				TNMQ5.0L13-L					1.5P	④-66
Oxidizing		1 2 3	PO OX	POQ5.0LX	PO	P2	60	5.5	5P	③-35
For stainless steels		2 3 4 9	SU+SP	SUPQ5.0L	SP	P2	60	5.5	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMQ5.0L	PO	P2	60	5.5	5P	③-61
For deep hole use		1 2 3 4	S-PO	PSMQ5.0L	PO	P2	60	5.5	5P	③-73
Nut taps		1 2	NT	NH25.0L	HT	II b	110	3.6	24P	⑦-27
Taps ／ M5 × 0.75										
Standard		2 3	SP	SPQ5.0J	SP	P2	60	5.5	2.5P	①-40
		1 2 3	HT	TNMQ5.0J5	HT	P2	60	5.5	5P	④-7
				TNMQ5.0J1					1.5P	④-7
Taps ／ M5 × 0.5										
Standard		2 3	SP	SPP5.0G	SP	P1	60	5.5	2.5P	①-40
			PO	POQ5.0G	PO	P2			5P	③-13
		1 2 3	HT	TNMQ5.0G5	HT	P2	60	5.5	5P	④-7
				TNMQ5.0G1					1.5P	④-7
	Oversize	1 2 3	HT	TNMR5.0G5	HT	P3	60	5.5	5P	④-7
				TNMR5.0G1					1.5P	④-7
For left hand threads		1 2 3	HT LH	TNMQ5.0G5-L	HT	P2	60	5.5	5P	④-66
				TNMQ5.0G1-L					1.5P	④-66
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101051	SP	P2	70	5.5	2.5P	①-6
		1 2 3 4 9 10 13 18 19	VUPO	1102101051	PO	P2	70	5.5	5P	③-5
	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201051	SP	P3	70	5.5	2.5P	①-6
				1101301051		P4				①-6
		1 2 3 4 9 10 13 18 19	VUPO	1102201051	PO	P3	70	5.5	5P	③-5
				1102301051		P4				③-5
	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101051	SP	P2	70	5.5	1.5P	①-14
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101051	SP	P2	100	5.5	2.5P	①-8
		1 2 3 4 9 10 13 18 19	VUPO	2102101051	PO	P2	100	5.5	5P	③-6
Thread forming taps for steels		1 2	N-RZ	NRZM65.0GP	RO	G6	60	5.5	4P	⑥-16
				NRZM65.0GB					2P	⑥-16
For steels		1 2 3 4 5 9 11	HVSP	SY5.0GSEEXJ	SP	P4	70	5.5	2.5P	①-24
For medium hardness carbon steels		2 3 4 5 6 10	MHSL	1109101051	SL	P3	70	5.5	5P	②-4
	Long	2 3 4 5 6 10	MHSL	2109101051	SL	P3	100	5.5	5P	②-4
For cast irons	Carbide	12 13 16	N-CT FC	TCNR5.0G3	HT	P3	52	5.5	3P	⑤-11
				TCNR5.0G1					1.5P	⑤-11
For aluminum	Carbide	19 21	N-CT LA	TCNR5.0G3A	HT	P3	52	5.5	3P	⑤-3
				TCNR5.0G1A					1.5P	⑤-3
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM65.0GP	RO	G6	60	5.5	4P	⑥-28
				NRSM65.0GB					2P	⑥-28
				NRSM75.0GP		G7			4P	⑥-28
				NRSM75.0GB					2P	⑥-28

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M5 × 0.8										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE5.0KDNEBC	⑩-3
						25	9		TYG5.0KDNEBC	⑩-3
						38	13		TYJ5.0KDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE5.0KDNEBC	⑩-16
						25	9		GYG5.0KDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	20	7	1.5P	PYE5.0KSNEBA	⑩-35
						25	9		PYG5.0KSNEBA	⑩-35
						38	13		PYJ5.0KSNEBA	⑩-35
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE5.0KQNEBA	⑩-35
						25	9		PYG5.0KQNEBA	⑩-35
						38	13		PYJ5.0KQNEBA	⑩-35
New rolling dies		HSS	1 2 9 15	N-RSD	R5	25	9	2P	NRGT5.0K	⑩-52
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP5.0K	⑩-46
					P2				HEQ5.0K	⑩-46
Spiral dies		HSS	1 2	SP-D	P1	20	7	1.5P	SEP5.0K	⑩-43
Dies ／ 5M 0.9										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE5.0LDNEBC	⑩-3
						25	9		TYG5.0LDNEBC	⑩-3
Dies ／ M5 × 0.75										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE5.0JDNEBC	⑩-3
Dies ／ M5 × 0.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE5.0GDNEBC	⑩-3
						25	9		TYG5.0GDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE5.0GDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S6	20	7	1.5P	PYE5.0GUNEBA	⑩-35
						25	9		PYG5.0GUNEBA	⑩-35
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE5.0GQNEBA	⑩-35
						25	9		PYG5.0GQNEBA	⑩-35
Rolling dies		HSS	1 2 9 15	RS-D	R3	20	7	-	RER5.0G	⑩-49
					R4				RES5.0G	⑩-49
					R5				RET5.0G	⑩-49
					R6				REU5.0G	⑩-49
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP5.0G	⑩-46
					P2				HEQ5.0G	⑩-46

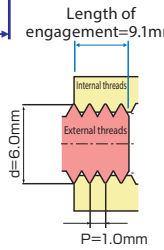
Flowchart : M6 tapping

Boring before tapping — Check 1

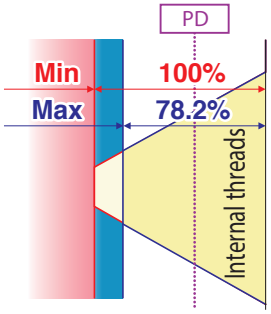


【Length of engagement】
On "middle" engagement class, 7H class can be chosen in case of "L" engagement length.

Symbol	Engagement length classification \ Engagement classification	Fine	Middle	Coarse	Engagement length
S	Short engagement length	4H	5H	–	S≦3(mm)
M	Normal engagement length	5H	6H	7H	3<M≦9(mm)
L	Long engagement length	6H	7H	8H	9<L(mm)



Engagement ratio on cutting taps

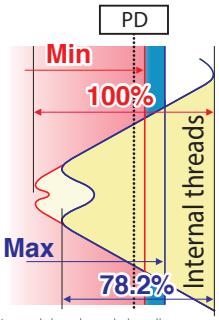


Unit : mm

	Drill size (ref.)	D1 Min	D1 Max
Bored hole size	5.0	4.917	5.153
Engagement ratio	92.4%	100%	78.2%

D1 is minor diameter of JIS 6H(2nd Class) of internal threads

Engagement ratio on roll taps



Internal threads made by roll taps are different from those made by cutting taps on the shape of minor dimameter.

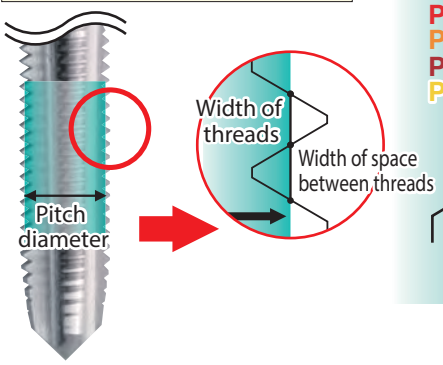
Unit : mm

*Hole size for thread forming taps	
Min	Max
5.49	5.59

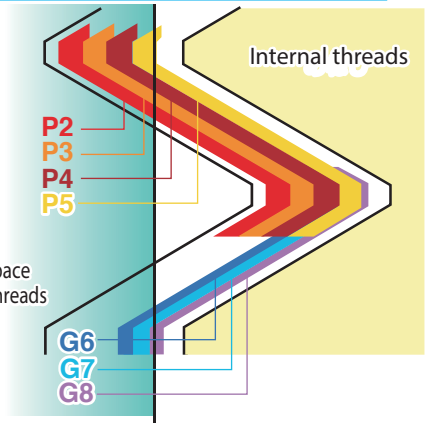
Forming condition changes depending on workpiece's Material and shape. Above is for customer's reference.

Threading — Check 2

【Pitch diameter】
Diameter of imaginary cylinder or cone which makes equal the width of threads and width of space between the threads



Tolerance area of tap's pitch diameter



【Thread class of cutting taps】

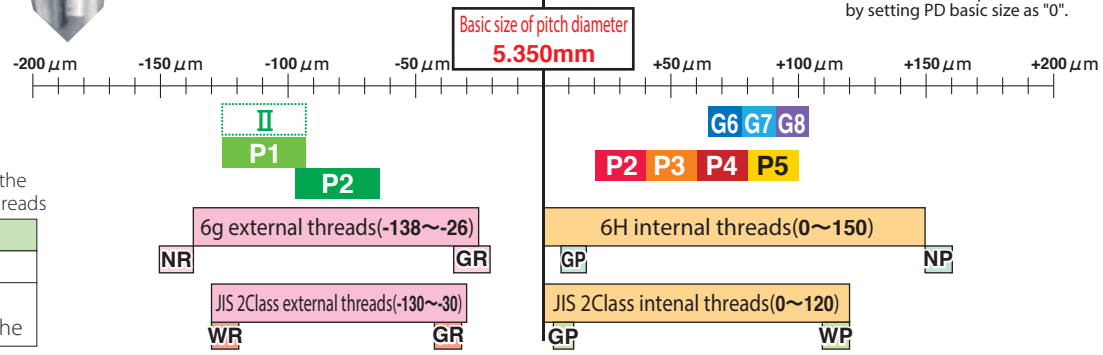
Class	PD tolerance
P2	20μm~40μm
P3	40μm~60μm
P4	60μm~80μm
P5	80μm~100μm

*Above shows the plus tolerance by setting PD basic size as "0".

【Thread class of roll taps】

Class	PD tolerance
G6	64μm~76μm
G7	76μm~89μm
G8	89μm~102μm

*Above shows the plus tolerance by setting PD basic size as "0".



Tolerance of dies is the target of external threads

Class of dies	
Ⅱ	Solid dies
P1	Solid dies for Auto Lathe
P2	

Relative position of PD tolerance area of external threads, internal threads, taps and gages.

Gage check — Check 3

(−) ← Basic size of pitch diameter → (+)
5.350mm

Unit : μm

Ring gage pitch diameter (for external threads inspection)			
NR6g	-152～-138	GR6g	-35～-21
WRⅡ	-130～-122	GRⅡ	-42～-34

NR : NOT GO ring gage **GR** : GO ring gage
WR : NOT GO working ring gage

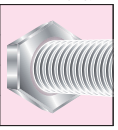
Unit : μm

Plug gage pitch diameter (for internal threads inspection)			
GP6H	7～17	NP6H	150～160
GPⅡ	4～12	WPⅡ	112～120

GP : GO plug gage **NP** : NOT GO plug gage
WP : NOT GO working plug gage

Unit : mm

Accuracy of external threads			
	Major diameter	Pitch diameter	Minor diameter
6g	5.794~5.974	5.212~5.324	–
JIS 2class	5.820~5.970	5.220~5.320	~4.743





Unit : mm

Accuracy of internal threads			
	Major diameter	Pitch diameter	Minor diameter
6H	–	5.350~5.500	4.917~5.153
JIS 2class	–	5.350~5.470	4.917~5.153

Think threads with YAMAWA

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Taps ／ M6 × 1

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
General purpose		1	ISP	SI76.0MBP	SP	-	62	6	2.5P	①-62
			IPO	PI76.0MBP	PO				5P	③-32
		1 2	IHT	HI76.0M5BP	HT	-	62	6	5P	④-52
				HI76.0M2BP					2P	④-52
		1	R-Y	RY6.0M3	RO	-	62	6	3P	⑥-63
Standard		2 3	SP	SPQ6.0M	SP	P2	62	6	2.5P	①-40
				SPQ6.0M-T						①-40
			+SP	SNPQ6.0M						①-57
			SP 1.5P	SY6.0MQNEBA					1.5P	①-58
			PO	POQ6.0M	PO				5P	③-14
			+PO	PNPQ6.0M						③-30
		1 2 3	HT	TNMQ6.0M5	HT	P2	62	6	5P	④-7
				TNMQ6.0M1					1.5P	④-7
				TNMQ6.0M1F						④-7
	Oversize	2 3	SP	SPR6.0M	SP	P3	62	6	2.5P	①-40
				SPS6.0M		P4				①-40
			PO	POR6.0M	PO	P3			5P	③-14
				POS6.0M		P4				③-14
		1 2 3	HT	TNMR6.0M53	HT	P3	62	6	5P	④-7
				TNMR6.0M13					1.5P	④-7
				TNMR6.0M13F						④-7
				TNMS6.0M53		P4			5P	④-7
				TNMS6.0M13					1.5P	④-7
				TNMS6.0M13F						④-7
				TNMT6.0M53		P5			5P	④-7
				TNMT6.0M13					1.5P	④-7
	Long neck	1 2	LKSL	1307101055	SL	P4	80	6	5P	②-11
For left hand threads		2 3	SP LH	SPQ6.0M--L	SP	P2	62	6	2.5P	①-79
			PO LH	POQ6.0M--L	PO				5P	③-46
		1 2 3	HT LH	TNMQ6.0M53-L	HT	P2	62	6	5P	④-66
				TNMQ6.0M13-L					1.5P	④-66
				TNMQ6.0M13FL						④-66
Oxidizing		1 2 3	SP OX	SPQ6.0MX	SP	P2	62	6	2.5P	①-65
			PO OX	POQ6.0MX	PO				5P	③-35
	Oversize	1 2 3	SP OX	SPR6.0MX	SP	P3	62	6	2.5P	①-65
			PO OX	POR6.0MX	PO				5P	③-35
				POS6.0MX		P4				③-35
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101055	SP	P2	80	6	2.5P	①-6
		1 2 3 4 9 19 21	AU+SP	VSAPQ6.0M	SP	P2	62	6	2.5P	①-86
			AU+SL	VSAPR6.0ML	SL	P3			5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101055	PO	P3	80	6	5P	③-5
		1 2 3 4	PO V	VPOQ6.0M	PO	P2	62	6	5P	③-48
		1 2 9 14 18 19 21	R+V	RVP66.0MP	RO	G6	62	6	4P	⑥-40
				RVP66.0MB					2P	⑥-40
				RVP76.0MP		G7			4P	⑥-40
				RVP76.0MB					2P	⑥-40
				RVP86.0MP		G8			4P	⑥-40
				RVP86.0MB					2P	⑥-40

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Coating	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201055	SP	P3	80	6	2.5P	①-6
				1101301055		P4				①-6
		1 2 3 4 9 10 13 18 19	VUPO	1102201055	PO	P4	80	6	5P	③-5
				1102301055		P5				③-5
	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101055	SP	P2	80	6	1.5P	①-14
	Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101055	SP	P2	80	6	2.5P	①-20
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101055	SP	P2	100	6	2.5P	①-8
		1 2 3 4 9 10 13 18 19	VUPO	2102101055	PO	P3	100	6	5P	③-6
Long		2 3	LS-SP	SPFQ6.0ML10	SP	P2	100	6	2.5P	①-90
				SPFQ6.0ML12			120			①-90
				SPFQ6.0ML15			150			①-90
				SPFQ6.0ML20			200			①-90
			LS-PO	POFQ6.0ML10	PO		100		5P	③-52
				POFQ6.0ML12			120			③-52
				POFQ6.0ML15			150			③-52
				POFQ6.0ML20			200			③-52
		1 2 3	LS-HT	TNFQ6.0M510	HT	P2	100	6	5P	④-74
				TNFQ6.0M512			120			④-74
				TNFQ6.0M515			150			④-74
				TNFQ6.0M520			200			④-74
				TNFQ6.0M110			100		1.5P	④-74
				TNFQ6.0M112			120			④-74
				TNFQ6.0M115			150			④-74
				TNFQ6.0M120			200			④-74
	Oversize	2 3	LS-SP	SPFR6.0ML10	SP	P3	100	6	2.5P	①-90
				SPFR6.0ML15			150			①-90
			LS-PO	POFR6.0ML10	PO		100		5P	③-52
				POFR6.0ML15			150			③-52
				POFS6.0ML15		P4				③-52
		1 2 3	LS-HT	TNFR6.0M510	HT	P3	100	6	5P	④-74
				TNFR6.0M515			150			④-74
				TNFR6.0M110			100		1.5P	④-74
				TNFR6.0M115			150			④-74
	With neck	2 3	LS-SP-K	SY6.0MQFEBE	SP	P2	100	6	2.5P	①-97
				SY6.0MQFEBF			120			①-97
				SY6.0MQFEBG			150			①-97
			LS-PO-K	PY6.0MQFEBE	PO		100		4.5P	③-58
				PY6.0MQFEBF			120			③-58
				PY6.0MQFEBG			150			③-58
	Long neck	1 2	LKSL XL	2008101055	SL	P4	120	6	5P	②-12
	For left hand threads	2 3	LS-SP LH	SPFQ6.0ML10L	SP	P2	100	6	2.5P	①-95
				SPFQ6.0ML15L			150			①-95
		1 2 3	LS-HT LH	TNFQ6.0M510L	HT	P2	100	6	5P	④-84
				TNFQ6.0M515L			150			④-84
				TNFQ6.0M110L			100		1.5P	④-84
				TNFQ6.0M115L			150			④-84

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Long	Coating	1 2 3 4	LS-SP V	VSPFQ6.0ML10	SP	P2	100	6	2.5P	①-96
				VSPFQ6.0ML15			150			①-96
			LS-PO V	VPOFQ6.0ML10	PO		100		5P	③-57
				VPOFQ6.0ML15			150			③-57
		2 3 4	LS-HT V	TNFQ6.0M510V	HT	P2	100	6	5P	④-86
				TNFQ6.0M515V			150			④-86
				TNFQ6.0M110V			100		1.5P	④-86
				TNFQ6.0M115V			150			④-86
For soft structural steels		1 2	E-SP	ESHMQ6.0M	SP	P2	62	6	2.5P	①-130
Thread forming taps for steels		1 2	N+RZ	NRZP56.0MP	RO	G5	62	6	4P	⑥-15
				NRZP56.0MB					2P	⑥-15
				NRZP66.0MP		G6			4P	⑥-15
				NRZP66.0MB					2P	⑥-15
				NRZP76.0MP		G7			4P	⑥-15
				NRZP76.0MB					2P	⑥-15
				NRZP86.0MP		G8			4P	⑥-15
				NRZP86.0MB					2P	⑥-15
	Long	1 2	LS-N-RZ	NRZF76.0MP10	RO	G7	100	6	4P	⑥-23
				NRZF76.0MP15			150			⑥-23
				NRZF76.0MB10			100		2P	⑥-23
				NRZF76.0MB15			150			⑥-23
				NRZF86.0MP10		G8	100		4P	⑥-23
				NRZF86.0MP15			150			⑥-23
				NRZF86.0MB10			100		2P	⑥-23
				NRZF86.0MB15			150			⑥-23
For steels		1 2 3 4 5 9 11	HVSP	SY6.0MSEEXJ	SP	P4	80	6	2.5P	①-24
For high carbon steels		2 3	HC+SP	SCPQ6.0M	SP	P2	62	6	2.5P	①-132
		2 3 5	HC-PO	PCMQ6.0M	PO	P2	62	6	5P	③-76
	Oxidizing	2 3	HC+SP OX	SCPQ6.0MX	SP	P2	62	6	2.5P	①-134
		2 3 5	HC-PO OX	PCMQ6.0MX	PO	P2	62	6	5P	③-78
For hard-to-machine materials		3 5 6	EH-PO	EPHMR6.0M	PO	P3	62	6	4.5P	③-82
		6 10	EH-HT	ETHMR6.0M5	HT	P3	62	6	5P	④-124
				ETHMR6.0M1					2.5P	④-124
	Powdered HSS	3 5 6	PM-SP	SY6.0MRDPB	SP	P3	62	6	2.75P	①-168
			LS-PM-SP	S46.0MRDPBE			100			①-175
				S46.0MRDPBG			150			①-175
			PM-PO	PY6.0MRDPB	PO		62		5.5P	③-92
			LS-PM-PO	P46.0MRDPBE			100			③-98
				P46.0MRDPBG			150			③-98
For titanium alloys		22	ZET-B	ZETBMR6.0M	SP	P3	62	6	3P	①-154
			ZET-P	ZETPMR6.0M	SL				5P	②-22
For nickel base alloys		1 2 9 23	ZEN-B	ZENBMR6.0M	SP	P3	62	6	3P	①-162
			ZEN-P	ZENPMR6.0M	PO				4.5P	③-86
For medium hardness carbon steels		2 3 4 5 10	MHSL	1109101055	SL	P3	80	6	5P	②-4
			MHSL-J	MHSLR6.0M5			62			②-6
Carbide taps for hard materials		7	EH-CT	EHCR6.0M5	HT	P3	62	6	5P	⑤-24
Carbide taps for ultra hard materials		8	UH-CT	UHCR6.0M5	HT	P3	62	6.2	5P	⑤-28
For stainless steels		2 3 4 9	SU+SP	SUPQ6.0M	SP	P2	62	6	2.5P	①-101
		1 2 3 4 9	SU+SL	SUPQ6.0ML	SL	P2	62	6	5P	②-18
			SU-PO	PUMQ6.0M	PO					③-61
		1 2 9	SU-HT	TUMQ6.0M4	HT	P2	62	6	4P	④-90
				TUMQ6.0M1					1.5P	④-90

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For stainless steels	Oversize	2 3 4 9	SU+SP	SUPR6.0M	SP	P3	62	6	2.5P	①-101
				SUPS6.0M		P4				①-101
		1 2 3 4 9	SU-PO	PUMR6.0M	PO	P3	62	6	5P	③-61
				PUMS6.0M		P4				③-61
	For deep hole use	1 2 3 4 9	SU-S-SP	SSMQ6.0M-SU	SP	P2	62	6	2.5P	①-119
		1 2 3 9	LS-SU-S-SP	SY6.0MQGEXES	SP	P2	100	6	2.5P	①-120
				SY6.0MQGEXGS			150			①-120
			LS-SU-S-PO	PY6.0MQGEXES	PO		100		4.5P	③-70
				PY6.0MQGEXGS			150			③-70
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MQ6.0M	SP	P2	62	6	3P	①-116
For cast irons		12 13	FC-HT	TY6.0MRAEN5	HT	P3	62	6	5P	④-94
				TY6.0MRAENA					1.5P	④-94
	Carbide	12 13 16	N-CT FC	TCNR6.0M3	HT	P3	62	6	3P	⑤-11
				TCNR6.0M3F						⑤-11
				TCNR6.0M1					1.5P	⑤-11
				TCNR6.0M1F						⑤-11
	Long shank, carbide	12 13 16	LS-N-CT	TY6.0MRAWB3E	HT	P3	100	6	3P	⑤-18
				TY6.0MRAWBAE					1.5P	⑤-18
For aluminum		15 16 17 18 19 20 21	AL+SP	ASHPR6.0M	SP	P3	62	6	2.5P	①-136
			AL-SP 1.5P	SY6.0MRLENA					1.5P	①-137
		18 19 21	LA-HT	TY6.0MRLEN5	HT	P3	62	6	5P	④-110
				TY6.0MRLENA					1.5P	④-110
	AXE	12 19 21	AXE-HT	TAXEMR6.0M1	HT	P3	62	6	1.5P	④-114
	Carbide	19 21	N-CT LA	TCNR6.0M3A	HT	P3	62	6	3P	⑤-3
				TCNR6.0M1A					1.5P	⑤-3
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY6.0MRKWB	SP	P3	62	6	2.5P	⑤-20
	Carbide spiral pointed taps	15 16 17 18 19 20 21	N-CT-PO	PCNR6.0M	PO	P3	62	6	5P	⑤-21
For aluminum (with coolant hole)	Carbide	18 19 21	MC-AD-CT	(MCADR6.0M1)	HT	P3	100	6	1.5P	⑤-42
Thread forming taps for non-ferrous materials		18 19 21	N+RS	NRSP56.0MP	RO	G5	62	6	4P	⑥-27
				NRSP56.0MB					2P	⑥-27
				NRSP66.0MP		G6			4P	⑥-27
				NRSP66.0MB					2P	⑥-27
				NRSP76.0MP		G7			4P	⑥-27
				NRSP76.0MB					2P	⑥-27
				NRSP86.0MP		G8			4P	⑥-27
				NRSP86.0MB					2P	⑥-27
	Long	18 19 21	LS-N-RS	NRSF76.0MP10	RO	G7	100	6	4P	⑥-36
				NRSF76.0MP15			150			⑥-36
				NRSF76.0MB10			100		2P	⑥-36
				NRSF76.0MB15			150			⑥-36
				NRSF86.0MP10		G8	100		4P	⑥-36
				NRSF86.0MP15			150			⑥-36
				NRSF86.0MB10			100		2P	⑥-36
				NRSF86.0MB15			150			⑥-36
For Plastics	Thermosetting	24	PL1	TPLM6.0M3	HT	P5	62	6	3P	④-120
	Thermoplastic	24 25	PL2	TY6.0MTMEN3	HT	P5	62	6	3P	④-122
X series	For general steels	2 3	XSP	(SNXQ6.0M)	SP	P2	80	6	2.5P	①-212
			XSL	(SNXQ6.0ML)	SL				5P	②-38
	Coating	1 2 3 4 9 19 21	AUXSP	(VSAXQ6.0M)	SP	P2	80	6	2.5P	①-214
			AUXSL	(VSAXQ6.0ML)	SL				5P	②-40
	For stainless steels	1 2 3 4 9	SUXSP	(SUXQ6.0M)	SP	P2	80	6	2.5P	①-218
			SUXSL	(SUXQ6.0ML)	SL				5P	②-44

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For high speed		1 2	F-SP	VFSHMQ6.0M	SP	P2	62	6	2.5P	①-178
			F-SL	VFSHMQ6.0ML	SL				5P	②-28
	Long	1 2	LS-F-SP	S46.0MQFEVES	SP	P2	100	6	2.5P	①-182
			LS-F-SL	L46.0MQFEVE	SL				5P	②-32
Ultra fast tapping(with coolant hole)	For steels	1 2 3 4	HFIHS	HFIHSS6.0M	SP	P4	62	6	2.5P	①-186
			HFISP	HFISPS6.0M						①-190
	Carbide taps for cast irons	12 13 16	HFICT-P	HFICTPR6.0M	HT	P3	62	6	4P	⑤-36
			HFICT-B	HFICTBR6.0M					2.5P	⑤-38
	For non-ferrous materials	18 19 20 21	HFAHS	HFAHSS6.0M	SP	P4	62	6	2.5P	①-194
			HFASP	HFASPS6.0M						①-198
	Carbide taps for non-ferrous materials	16 19 20 21	HFACT-P	HFACTPR6.0M	HT	P3	62	6	4P	⑤-32
			HFACT-B	HFACTBR6.0M					2.5P	⑤-34
For dry tapping (with coolant hole)	For steels	2 3 4	HDISP	HDISPS6.0M	SP	P4	62	6	2.5P	①-202
	For non-ferrous materials	18 19 20 21	HDASP	HDASPS6.0M	SP	P4	62	6	2.5P	①-206
Ultra fast tapping (with coolant hole)	For both steels and non ferrous materials	2 3 4	HDISL	HDISLS6.0M	SL	P4	62	6	5.5P	②-34
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL+RZ	OLRZP66.0MP	RO	G6	62	6	4P	⑥-42
				OLRZP76.0MP		G7				⑥-42
High performance thread forming taps		1 2 3 4 5 9 19	HP+RZ	HRZP66.0MP	RO	G6	62	6	4P	⑥-49
				HRZP66.0MB					2P	⑥-49
				HRZP76.0MP		G7			4P	⑥-49
				HRZP76.0MB					2P	⑥-49
Thread forming taps for carbon steels of medium hardness		2 3 4 5	MHRZ	1110101055	RO	G8	80	6	4P	⑥-4
				1111101055					2P	⑥-4
			MHRZ-J	RY6.0M8OCTP			62		4P	⑥-8
				RY6.0M8OCTB					2P	⑥-8
	Long	2 3 4 5	MHRZ	2110101055	RO	G8	100	6	4P	⑥-4
				2310101055			150			⑥-4
				2111101055			100		2P	⑥-4
				2311101055			150			⑥-4
Torqueless thread forming taps	Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM66.0M1	RO	G6	62	6	1P	⑥-58
For deep hole use		2 3 4 13	S-SP	SSMQ6.0M	SP	P2	62	6	2.5P	①-124
		1 2 3 4	S-PO	PSMQ6.0M	PO	P2	62	6	5P	③-73
	Oversize	2 3 4 13	S-SP	SSMR6.0M	SP	P3	62	6	2.5P	①-124
		1 2 3 4	S-PO	PSMR6.0M	PO	P3	62	6	5P	③-73
				PSMS6.0M		P4				③-73
Low spiral		2 3	LO-SP 15°	LSHMQ6.0M15	SP	P2	62	6	2.5P	①-144
			LO-SP 20°	LSHMQ6.0M20						①-144
			LO-SP 8°	LSHMQ6.0M8						①-144
	Long	2 3	LS-LO-SP	LSHFQ6.0ML10	SP	P2	100	6	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW6.0M1LEB5	HT	I b	70	6.2	5P	⑦-3
				TW6.0M1LEBA					1.5P	⑦-3
		15 16 17 18 19 20 21	AL-SP STI	SW6.0M1LEN	SP	I b	70	6.2	2.5P	⑦-10
			AL-PO STI	PW6.0M1LEB	PO				5P	⑦-18
		18 19 21	N-RS STI	RW6.0M4LENP	RO	G4	70	6.2	4P	⑦-25
				RW6.0M4LENB					2P	⑦-25
	Oversize	18 19 21	AL-HT STI	TW6.0M3LEB5	HT	I b+30	70	6.2	5P	⑦-3
				TW6.0M3LEBA					1.5P	⑦-3
		15 16 17 18 19 20 21	AL-SP STI	SW6.0M3LEN	SP	I b+30	70	6.2	2.5P	⑦-10
	Carbide	19 21	N-CT LA STI	TW6.0M1LWB5	HT	I b	65	6.2	5P	⑦-26
				TW6.0M1LWBA					1.5P	⑦-26

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
With coolant hole		1 2 3 4	MC-SP	(MSHQ6.0ML10)	SP	P2	100	6	2.5P	①-209
				(MSHQ6.0ML15)			150			①-209
			MC-PO	(MPHQ6.0ML10)	PO		100		5P	③-100
				(MPHQ6.0ML15)			150			③-100
		1 2 3	MC-HT	(ML106.0M5-Q)	HT	P2	100	6	5P	④-137
				(ML156.0M5-Q)			150			④-137
				(ML106.0M1-Q)			100		1.5P	④-137
				(ML156.0M1-Q)			150			④-137
For tapping aluminum cast holes (with oil hole)	Carbide	19	ACHSP	SY6.0MRLXT	SP	P3	80	6	2.5P	⑤-40
Nut taps		1 2	NT	NH26.0M	HT	II b	120	4.5	26P	⑦-27

Taps ／ M6 × 0.75

Standard		2 3	SP	SPQ6.0J	SP	P2	62	6	2.5P	①-40
			PO	POQ6.0J	PO				5P	③-14
		1 2 3	HT	TNMQ6.0J5	HT	P2	62	6	5P	④-7
				TNMQ6.0J1					1.5P	④-7
	Oversize	2 3	SP	SPR6.0J	SP	P3	62	6	2.5P	①-40
				SPS6.0J		P4				①-40
			PO	POR6.0J	PO	P3			5P	③-14
		1 2 3	HT	TNMR6.0J5	HT	P3	62	6	5P	④-7
				TNMR6.0J1					1.5P	④-7
				TNMS6.0J5		P4			5P	④-7
				TNMS6.0J1					1.5P	④-7
For left hand threads		1 2 3	HT LH	TNMQ6.0J5-L	HT	P2	62	6	5P	④-66
				TNMQ6.0J1-L					1.5P	④-66
Oxidizing		1 2 3	SP OX	SPQ6.0JX	SP	P2	62	6	2.5P	①-65
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101056	SP	P2	80	6	2.5P	①-6
		1 2 3 4 9 10 13 18 19	VUPO	1102101056	PO	P2	80	6	5P	③-5
	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201056	SP	P3	80	6	2.5P	①-6
				1101301056		P4				①-6
		1 2 3 4 9 10 13 18 19	VUPO	1102201056	PO	P3	80	6	5P	③-5
				1102301056		P4				③-5
	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101056	SP	P2	80	6	1.5P	①-14
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101056	SP	P2	100	6	2.5P	①-8
		1 2 3 4 9 10 13 18 19	VUPO	2102101056	PO	P2	100	6	5P	③-6
Long		2 3	LS-SP	SPFQ6.0JL10	SP	P2	100	6	2.5P	①-90
Thread forming taps for steels		1 2	N-RZ	NRZM66.0JP	RO	G6	62	6	4P	⑥-16
				NRZM66.0JB					2P	⑥-16
				NRZM76.0JP		G7			4P	⑥-16
				NRZM76.0JB					2P	⑥-16
For steels		1 2 3 4 5 9 11	HVSP	SY6.0JSEEXJ	SP	P4	80	6	2.5P	①-24
For stainless steels		2 3 4 9	SU-SP	SUMQ6.0J	SP	P2	62	6	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMQ6.0J	PO	P2	62	6	5P	③-61
		1 2 9	SU-HT	TUMQ6.0J4	HT	P2	62	6	4P	④-90
				TUMQ6.0J1					1.5P	④-90
For cast irons	Carbide	12 13 16	N-CT FC	TCNR6.0J3	HT	P3	62	6	3P	⑤-11
				TCNR6.0J1					1.5P	⑤-11
For aluminum	Carbide	19 21	N-CT LA	TCNR6.0J3A	HT	P3	62	6	3P	⑤-3
				TCNR6.0J1A					1.5P	⑤-3

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM66.0JP	RO	G6	62	6	4P	⑥-28
				NRSM66.0JB					2P	⑥-28
				NRSM76.0JP		G7			4P	⑥-28
				NRSM76.0JB					2P	⑥-28
Nut taps		1 2	NT	NH26.0J	HT	II	115	4.5	24P	⑦-27
Taps ／ M6 × 0.5										
Standard		2 3	SP	SPP6.0G	SP	P1	62	6	2.5P	①-40
			PO	POQ6.0G	PO	P2			5P	③-14
		1 2 3	HT	TNMQ6.0G5	HT	P2	62	6	5P	④-7
				TNMQ6.0G1					1.5P	④-7
	Oversize	2 3	SP	SPQ6.0G	SP	P2	62	6	2.5P	①-40
				SPR6.0G		P3				①-40
For left hand threads		1 2 3	HT LH	TNMQ6.0G5-L	HT	P2	62	6	5P	④-66
				TNMQ6.0G1-L					1.5P	④-66
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101057	SP	P2	80	6	2.5P	①-6
		1 2 3 4 9 10 13 18 19	VUPO	1102101057	PO	P2	80	6	5P	③-5
	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201057	SP	P3	80	6	2.5P	①-6
				1101301057		P4				①-6
		1 2 3 4 9 10 13 18 19	VUPO	1102201057	PO	P3	80	6	5P	③-5
				1102301057		P4				③-5
	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101057	SP	P2	80	6	1.5P	①-14
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101057	SP	P2	100	6	2.5P	①-8
		1 2 3 4 9 10 13 18 19	VUPO	2102101057	PO	P2	100	6	5P	③-6
Thread forming taps for steels		1 2	N-RZ	NRZM66.0GP	RO	G6	62	6	4P	⑥-16
				NRZM66.0GB					2P	⑥-16
For steels		1 2 3 4 5 9 11	HVSP	SY6.0GSEEXJ	SP	P4	80	6	2.5P	①-24
For cast irons	Carbide	12 13 16	N-CT FC	TCNR6.0G3	HT	P3	55	6	3P	⑤-11
				TCNR6.0G1					1.5P	⑤-11
For aluminum	Carbide	19 21	N-CT LA	TCNR6.0G3A	HT	P3	55	6	3P	⑤-4
				TCNR6.0G1A					1.5P	⑤-4
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM66.0GP	RO	G6	62	6	4P	⑥-28
				NRSM66.0GB					2P	⑥-28

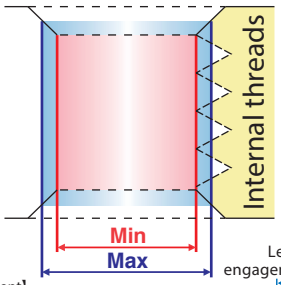
Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M6 × 1										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE6.0MDNEBC	⑩-3
						25	9		TYG6.0MDNEBC	⑩-3
						38	13		TYJ6.0MDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE6.0MDNEBC	⑩-16
						25	9		GYG6.0MDNEBC	⑩-16
						38	13		GYJ6.0MDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	20	7	1.5P	PYE6.0MTNEBA	⑩-35
						25	9		PYG6.0MTNEBA	⑩-35
						38	13		PYJ6.0MTNEBA	⑩-35
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE6.0MQNEBA	⑩-35
						25	9		PYG6.0MQNEBA	⑩-35
						38	13		PYJ6.0MQNEBA	⑩-35
New rolling dies		HSS	1 2 9 15	N-RSD	R5	30	11	2P	NRHT6.0M	⑩-52
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP6.0M	⑩-46
					P2				HEQ6.0M	⑩-46
Spiral dies		HSS	1 2	SP-D	P1	20	7	1.5P	SEP6.0M	⑩-43
Dies ／ M6 × 0.75										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE6.0JDNEBC	⑩-3
						25	9		TYG6.0JDNEBC	⑩-3
						38	13		TYJ6.0JDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE6.0JDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	20	7	1.5P	PYE6.0JSNEBA	⑩-35
						25	9		PYG6.0JSNEBA	⑩-35
						38	13		PYJ6.0JSNEBA	⑩-35
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE6.0JQNEBA	⑩-35
						25	9		PYG6.0JQNEBA	⑩-35
						38	13		PYJ6.0JQNEBA	⑩-35
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP6.0J	⑩-46
					P2				HEQ6.0J	⑩-46
Dies ／ M6 × 0.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE6.0GDNEBC	⑩-3
						25	9		TYG6.0GDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE6.0GDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S6	20	7	1.5P	PYE6.0GUNEBA	⑩-35
						25	9		PYG6.0GUNEBA	⑩-35
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE6.0GQNEBA	⑩-35
						25	9		PYG6.0GQNEBA	⑩-35
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP6.0G	⑩-46
					P2				HEQ6.0G	⑩-46

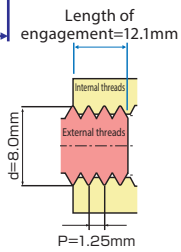
Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Flowchart : M8 tapping

Boring before tapping — Check 1

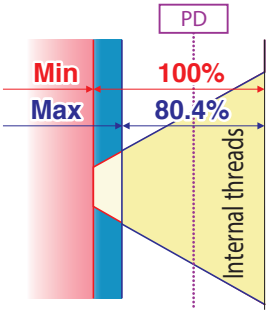




【Length of engagement】
On "middle" engagement class, 7H class can be chosen in case of "L" engagement length.

Symbol	Engagement classification / Engagement length classification	Fine	Middle	Coarse	Engagement length
S	Short engagement length	4H	5H	–	S≦4(mm)
M	Normal engagement length	5H	6H	7H	4<M≦12(mm)
L	Long engagement length	6H	7H	8H	12<L(mm)

Engagement ratio on cutting taps

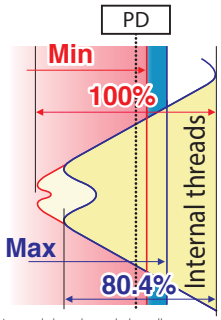


Unit : mm

	Drill size (ref.)	D1 Min	D1 Max
Bored hole size	6.8	6.647	6.912
Engagement ratio	88.7%	100%	80.4%

D1 is minor diameter of JIS 6H(2nd Class) of internal threads

Engagement ratio on roll taps



Internal threads made by roll taps are different from those made by cutting taps on the shape of minor dimameter.

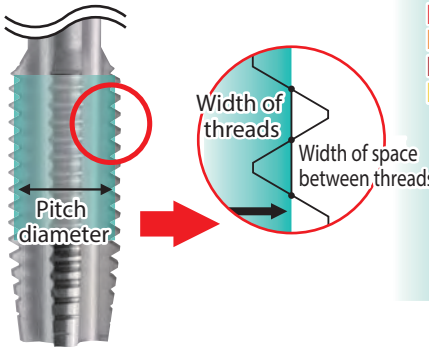
Unit : mm

*Hole size for thread forming taps	
Min	Max
7.36	7.49

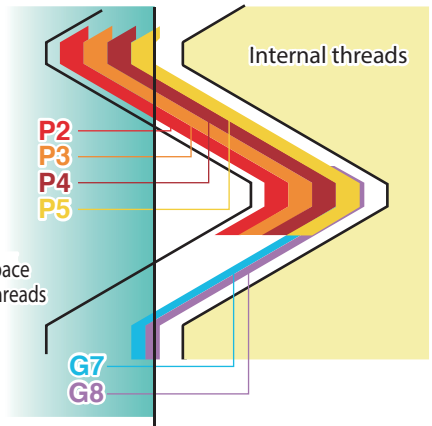
Forming condition changes depending on workpiece's Material and shape. Above is for customer's reference.

Threading — Check 2

【Pitch diameter】
Diameter of imaginary cylinder or cone which makes equal the width of threads and width of space between the threads



Tolerance area of tap's pitch diameter



【Thread class of cutting taps】

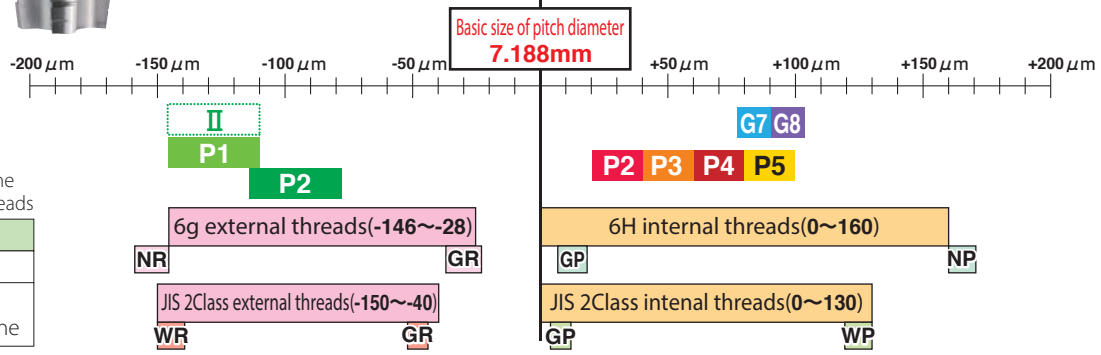
Class	PD tolerance
P2	20μm~40μm
P3	40μm~60μm
P4	60μm~80μm
P5	80μm~100μm

*Above shows the plus tolerance by setting PD basic size as "0".

【Thread class of roll taps】

Class	PD tolerance
G7	76μm~89μm
G8	89μm~102μm

*Above shows the plus tolerance by setting PD basic size as "0".



Relative position of PD tolerance area of external threads, internal threads, taps and gages.

Tolerance of dies is the target of external threads

Class of dies	
Ⅱ	Solid dies
P1	Solid dies for Auto Lathe
P2	

Gage check — Check 3

(–) ← Basic size of pitch diameter → (+)
7.188mm

Unit : μm

Ring gage pitch diameter(for external threads inspection)			
NR6g	-160 ~-146	GR6g	-37~-23
WRⅡ	-150 ~-142	GRⅡ	-52 ~-44

NR : NOT GO ring gage **GR** : GO ring gage
WR : NOT GO working ring gage

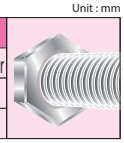
Unit : μm

Plug gage pitch diameter(for internal threads inspection)			
GP6H	7 ~ 17	NP6H	160 ~ 170
GPⅡ	4 ~ 12	WPⅡ	122 ~ 130

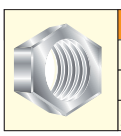
GP : GO plug gage **NP** : NOT GO plug gage
WP : NOT GO working plug gage

Unit : mm

Accuracy of external threads	Major diameter	Pitch diameter	Minor diameter
6g	7.760~7.972	7.042~7.160	–
JIS 2class	7.790~7.960	7.038~7.148	~6.427



Unit : mm



Accuracy of internal threads	Major diameter	Pitch diameter	Minor diameter
6H	–	7.188~7.348	6.647~6.912
JIS 2class	–	7.188~7.318	6.647~6.912

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Taps ／ M8 × 1.25

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
General purpose	1	ISP	SI78.0NBP	SP	-	70	6.2	2.5P	①-62
		IPO	PI78.0NBP	PO				5P	③-32
	1 2	IHT	HI78.0N5BP	HT	-	70	6.2	5P	④-52
			HI78.0N2BP					2P	④-52
	1	R-Y	RY8.0N3	RO	-	70	6.2	3P	⑥-63
Standard	2 3	SP	SPQ8.0N	SP	P2	70	6.2	2.5P	①-40
		+SP	SNPQ8.0N						①-57
		SP 1.5P	SY8.0NQNEBA					1.5P	①-58
		PO	POR8.0N	PO	P3			5P	③-14
	1 2 3	HT	TNMR8.0N5	HT	P3	70	6.2	5P	④-8
			TNMR8.0N1					1.5P	④-8
			TNMR8.0N5F					5P	④-8
			TNMR8.0N1F					1.5P	④-8
Oversize	2 3	SP	SPR8.0N	SP	P3	70	6.2	2.5P	①-40
			SPS8.0N		P4				①-40
		PO	POS8.0N	PO				5P	③-14
	1 2 3	HT	TNMS8.0N5F	HT	P4	70	6.2	5P	④-8
			TNMS8.0N1F					1.5P	④-8
			TNMT8.0N5F		P5			5P	④-8
			TNMT8.0N1F					1.5P	④-8
For left hand threads	2 3	SP LH	SPQ8.0N--L	SP	P2	70	6.2	2.5P	①-79
		PO LH	POR8.0N--L	PO	P3			5P	③-46
	1 2 3	HT LH	TNMR8.0N5TL	HT	P3	70	6.2	5P	④-67
			TNMR8.0N1TL					1.5P	④-67
			TNMR8.0N5-L					5P	④-67
			TNMR8.0N1-L					1.5P	④-67
Oxidizing	1 2 3	SP OX	SPQ8.0NX	SP	P2	70	6.2	2.5P	①-65
		PO OX	POR8.0NX	PO	P3			5P	③-35
Oversize	1 2 3	SP OX	SPR8.0NX	SP	P3	70	6.2	2.5P	①-65
		PO OX	POS8.0NX	PO	P4			5P	③-35
Coating	1 2 3 4 9 10 13 18 19	VUSP	1101101064	SP	P3	90	6.2	2.5P	①-7
	1 2 3 4 9 19 21	AU+SP	VSAPR8.0N	SP	P3	70	6.2	2.5P	①-86
		AU+SL	VSAPR8.0NL	SL				5P	②-14
	1 2 3 4 9 10 13 18 19	VUPO	1102101064	PO	P3	90	6.2	5P	③-5
	1 2 3 4	PO V	VPOR8.0N	PO	P3	70	6.2	5P	③-48
Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201064	SP	P4	90	6.2	2.5P	①-7
			1101301064		P5				①-7
	1 2 3 4 9 10 13 18 19	VUPO	1102201064	PO	P4	90	6.2	5P	③-5
			1102301064		P5				③-5
Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101064	SP	P3	90	6.2	1.5P	①-14
Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101064	SP	P3	90	6.2	2.5P	①-20
Long	1 2 3 4 9 10 13 18 19	VUSP	2101101064	SP	P3	150	6.2	2.5P	①-8
	1 2 3 4 9 10 13 18 19	VUPO	2102101064	PO	P3	150	6.2	5P	③-6
Long	2 3	LS-SP	SPQ8.0NL10	SP	P2	100	6.2	2.5P	①-90
			SPQ8.0NL12			120			①-90
			SPQ8.0NL15			150			①-90
			SPQ8.0NL20			200			①-90
		LS-PO	POR8.0NL10	PO	P3	100		5P	③-52
			POR8.0NL12			120			③-52
Long	2 3	LS-PO	POR8.0NL15	PO	P3	150	6.2	5P	③-52
			POR8.0NL20			200			③-52
	1 2 3	LS-HT	TNMQ8.0N510	HT	P2	100	6.2	5P	④-74
			TNMQ8.0N512			120			④-74
			TNMQ8.0N515			150			④-74
			TNMQ8.0N520			200			④-74
			TNMQ8.0N110			100		1.5P	④-74
			TNMQ8.0N112			120			④-74
			TNMQ8.0N115			150			④-74
			TNMQ8.0N120			200			④-74
Oversize	2 3	LS-SP	SPR8.0NL10	SP	P3	100	6.2	2.5P	①-90
			SPR8.0NL15			150			①-90
		LS-PO	POS8.0NL15	PO	P4			5P	③-52
	1 2 3	LS-HT	TNMR8.0N510	HT	P3	100	6.2	5P	④-75
			TNMR8.0N515			150			④-75
			TNMR8.0N520			200			④-75
			TNMR8.0N110			100		1.5P	④-75
			TNMR8.0N115			150			④-75
			TNMR8.0N120			200			④-75
For left hand threads	2 3	LS-SP LH	SPQ8.0NL15-L	SP	P2	150	6.2	2.5P	①-95
	1 2 3	LS-HT LH	TNMQ8.0N510L	HT	P2	100	6.2	5P	④-84
			TNMQ8.0N515L			150			④-84
			TNMQ8.0N110L			100		1.5P	④-84
			TNMQ8.0N115L			150			④-84
Oxidizing	1 2	LS-SP OX	SPQ8.0NL10X	SP	P2	100	6.2	2.5P	①-94
			SPQ8.0NL12X			120			①-94
Coating	1 2 3 4	LS-SP V	VSPQ8.0NL10	SP	P2	100	6.2	2.5P	①-96
			VSPQ8.0NL15			150			①-96
		LS-PO V	VPOR8.0NL10	PO	P3	100		5P	③-57
			VPOR8.0NL15			150			③-57
	2 3 4	LS-HT V	TNMQ8.0N510V	HT	P2	100	6.2	5P	④-86
			TNMQ8.0N515V			150			④-86
			TNMQ8.0N110V			100		1.5P	④-86
			TNMQ8.0N115V			150			④-86
For soft structural steels	1 2	E-SP	ESHMQ8.0N	SP	P2	70	6.2	2.5P	①-130
Thread forming taps for steels	1 2	N-RZ	NRZM78.0NP	RO	G7	70	6.2	4P	⑥-16
			NRZM78.0NB					2P	⑥-16
			NRZM88.0NP		G8			4P	⑥-16
			NRZM88.0NB					2P	⑥-16
Long	1 2	LS-N-RZ	NRZM78.0NP10	RO	G7	100	6.2	4P	⑥-23
			NRZM78.0NP15			150			⑥-23
			NRZM78.0NB10			100		2P	⑥-23
			NRZM78.0NB15			150			⑥-23
For steels	1 2 3 4 5 9 11	HVSP	SY8.0NSEEXJ	SP	P4	90	6.2	2.5P	①-24
For Zinc Plating	1 2 3 4 5 9 11	HVSP ZP	1112201064	SP	P4+0.1	90	6.2	2.5P	①-32
Oversize			1112301064		P4+02				①-32
			1112401064		P4+03				①-32
For high carbon steels	2 3	HC-SP	SCMQ8.0N	SP	P2	70	6.2	2.5P	①-132
	2 3 5	HC-PO	PCMR8.0N	PO	P3	70	6.2	5P	③-76
Oxidizing	2 3	HC-SP OX	SCMQ8.0NX	SP	P2	70	6.2	2.5P	①-134
	2 3 5	HC-PO OX	PCMR8.0NX	PO	P3	70	6.2	5P	③-78

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For hard-to-machine materials		3 5 6	EH-PO	EPHMS8.0N	PO	P4	70	6.2	4.5P	③-82
		6 10	EH-HT	ETHMS8.0N5	HT	P4	70	6.2	5P	④-124
				ETHMS8.0N1					2.5P	④-124
	Powdered HSS	3 5 6	PM-SP	SY8.0NRDPB	SP	P3	70	6.2	2.75P	①-168
			LS-PM-SP	SY8.0NRDPBE			100			①-175
				SY8.0NRDPBG			150			①-175
			PM-PO	PY8.0NSDPB	PO	P4	70		5.5P	③-92
			LS-PM-PO	PY8.0NSDPBE			100			③-98
				PY8.0NSDPBG			150			③-98
For titanium alloys		22	ZET-B	ZETBMR8.0N	SP	P3	70	6.2	3P	①-154
			ZET-P	ZETPMS8.0N	SL	P4			5P	②-22
For nickel base alloys		1 2 9 23	ZEN-B	ZENBMR8.0N	SP	P3	70	6.2	3P	①-162
			ZEN-P	ZENPMS8.0N	PO	P4			4.5P	③-86
For medium hardness carbon steels		3 4 5	MHSP	SY8.0NSOCLJ	SP	P4	90	6.2	2.5P	①-34
		2 3 4 5 10	MHSL	1109101064	SL	P4	90	6.2	5P	②-4
			MHSL-J	MHSLS8.0N5			70			②-6
Carbide taps for hard materials		7	EH-CT	EHCS8.0N5	HT	P4	70	6.2	5P	⑤-24
Carbide taps for ultra hard materials		8	UH-CT	UHCS8.0N5	HT	P4	70	7	5P	⑤-28
For stainless steels		2 3 4 9	SU-SP	SUMQ8.0N	SP	P2	70	6.2	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMR8.0N	PO	P3	70	6.2	5P	③-61
		1 2 9	SU-HT	TUMR8.0N4	HT	P3	70	6.2	4P	④-90
				TUMR8.0N1					1.5P	④-90
	Oversize	2 3 4 9	SU-SP	SUMR8.0N	SP	P3	70	6.2	2.5P	①-101
				SUMS8.0N		P4				①-101
		1 2 3 4 9	SU-PO	PUMS8.0N	PO	P4	70	6.2	5P	③-61
				PUMT8.0N		P5				③-61
	For deep hole use	1 2 3 4 9	SU-S-SP	SSMQ8.0N-SU	SP	P2	70	6.2	2.5P	①-119
		1 2 3 9	LS-SU-S-SP	SY8.0NQGEXES	SP	P2	100	6.2	2.5P	①-120
				SY8.0NQGEXGS			150			①-120
				SY8.0NQGEXKS			200			①-120
			LS-SU-S-PO	PY8.0NRGEXES	PO	P3	100		5P	③-70
				PY8.0NRGEXGS			150			③-70
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR8.0N	SP	P3	70	6.2	3P	①-116
For cast irons		12 13	FC-HT	TY8.0NRAEN5	HT	P3	70	6.2	5P	④-94
				TY8.0NRAENA					1.5P	④-94
	Carbide	12 13 16	N-CT FC	TCNR8.0N3	HT	P3	70	6.2	3P	⑤-11
				TCNR8.0N1					1.5P	⑤-11
				TCNS8.0N3		P4			3P	⑤-11
				TCNS8.0N1					1.5P	⑤-11
	Long shank, carbide	12 13 16	LS-N-CT	TY8.0NRAWB3E	HT	P3	100	6.2	3P	⑤-18
				TY8.0NRAWB3G			150			⑤-18
				TY8.0NRAWBAE			100		1.5P	⑤-18
				TY8.0NRAWBAG			150			⑤-18
For aluminum		15 16 17 18 19 20 21	AL-SP	ASHMR8.0N	SP	P3	70	6.2	2.5P	①-136
			AL-SP 1.5P	SY8.0NRLENA					1.5P	①-137
		18 19 21	LA-HT	TY8.0NRLEN5	HT	P3	70	6.2	5P	④-110
				TY8.0NRLENA					1.5P	④-110
	AXE	12 19 21	AXE-HT	TAXEMR8.0N1	HT	P3	70	6.2	1.5P	④-114
	Carbide	19 21	N-CT LA	TCNR8.0N3A	HT	P3	70	6.2	3P	⑤-4
				TCNR8.0N1A					1.5P	⑤-4
				TCNS8.0N3A		P4			3P	⑤-4
				TCNS8.0N1A					1.5P	⑤-4

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For aluminum	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY8.0NRKWB	SP	P3	70	6.2	2.5P	⑤-20
	Carbide spiral pointed taps	15 16 17 18 19 20 21	N-CT-PO	PCNR8.0N	PO	P3	70	6.2	5P	⑤-21
For aluminum (with coolant hole)	Carbide	18 19 21	MC-AD-CT	(MCADR8.0N1)	HT	P3	100	6.2	1.5P	⑤-42
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM78.0NP	RO	G7	70	6.2	4P	⑥-28
				NRSM78.0NB					2P	⑥-28
				NRSM88.0NP		G8			4P	⑥-28
				NRSM88.0NB					2P	⑥-28
	Long	18 19 21	LS-N-RS	NRSM78.0NP10	RO	G7	100	6.2	4P	⑥-36
				NRSM78.0NP15			150			⑥-36
				NRSM78.0NB10			100		2P	⑥-36
				NRSM78.0NB15			150			⑥-36
For Plastics	Thermosetting	24	PL1	TPLM8.0N3	HT	P6	70	6.2	3P	④-120
	Thermoplastic	24 25	PL2	TY8.0NUMEN3	HT	P6	70	6.2	3P	④-122
X series	For general steels	2 3	XSP	(SNXR8.0N)	SP	P3	90	8	2.5P	①-212
			XSL	(SNXR8.0NL)	SL				5P	②-38
	Coating	1 2 3 4 9 19 21	AUXSP	(VSAXR8.0N)	SP	P3	90	8	2.5P	①-214
			AUXSL	(VSAXR8.0NL)	SL				5P	②-40
	For stainless steels	1 2 3 4 9	SUXSP	(SUXR8.0N)	SP	P3	90	8	2.5P	①-218
			SUXSL	(SUXR8.0NL)	SL				5P	②-44
For high speed		1 2	F-SP	VFSHMR8.0N	SP	P3	70	6.2	3P	①-178
			F-SL	VFSHMR8.0NL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY8.0NRFEVES	SP	P3	100	6.2	3P	①-182
			LS-F-SL	LY8.0NRFEVE	SL				5.5P	②-32
Ultra fast tapping(with coolant hole)	For steels	1 2 3 4	HFIHS	HFIHSS8.0N	SP	P4	70	8	2.5P	①-186
			HFISP	HFISPS8.0N						①-190
	Carbide taps for cast irons	12 13 16	HFICT-P	HFICTPR8.0N	HT	P3	70	8	4P	⑤-36
			HFICT-B	HFICTBR8.0N					2.5P	⑤-38
	For non-ferrous materials	18 19 20 21	HFAHS	HFAHSS8.0N	SP	P4	70	8	2.5P	①-194
			HFASP	HFASPS8.0N						①-198
	Carbide taps for non-ferrous materials	16 19 20 21	HFACT-P	HFACTPR8.0N	HT	P3	70	8	4P	⑤-32
			HFACT-B	HFACTBR8.0N					2.5P	⑤-34
For dry tapping (with coolant hole)	For steels	2 3 4	HDISP	HDISPS8.0N	SP	P4	70	8	2.5P	①-202
	For non-ferrous materials	18 19 20 21	HDASP	HDASPS8.0N	SP	P4	70	8	2.5P	①-206
Ultra fast tapping (with coolant hole)	For both steels and non ferrous materials	2 3 4	HDISL	HDISLS8.0N	SL	P4	70	8	5.5P	②-34
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM78.0NP	RO	G7	70	6.2	4P	⑥-49
				HRZM78.0NB					2P	⑥-49
				HRZM88.0NP		G8			4P	⑥-49
				HRZM88.0NB					2P	⑥-49
Thread forming taps for carbon steels of medium hardness		2 3 4 5	MHRZ	1110101064	RO	G8	90	6.2	4P	⑥-4
				1111101064					2P	⑥-4
			MHRZ-J	RY8.0N8OCTP			70		4P	⑥-8
				RY8.0N8OCTB					2P	⑥-8
	Long	2 3 4 5	MHRZ	2110101064	RO	G8	150	6.2	4P	⑥-5
				2111101064					2P	⑥-5
For deep hole use		2 3 4 13	S-SP	SSMQ8.0N	SP	P2	70	6.2	2.5P	①-124
		1 2 3 4	S-PO	PSMR8.0N	PO	P3	70	6.2	5P	③-73
	Oversize	2 3 4 13	S-SP	SSMR8.0N	SP	P3	70	6.2	2.5P	①-124
		1 2 3 4	S-PO	PSMS8.0N	PO	P4	70	6.2	5P	③-73

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Low spiral		2 3	LO-SP 15°	LSHMQ8.0N15	SP	P2	70	6.2	2.5P	①-144
			LO-SP 20°	LSHMQ8.0N20						①-144
			LO-SP 8°	LSHMQ8.0N8						①-144
	Long	2 3	LS-LO-SP	LSHMQ8.0NL10	SP	P2	100	6.2	2.5P	①-151
				LSHMQ8.0NL15			150			①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW8.0N1LEB5	HT	I b	75	7	5P	⑦-3
				TW8.0N1LEBA					1.5P	⑦-3
		15 16 17 18 19 20 21	AL-SP STI	SW8.0N1LEN	SP	I b	75	7	2.5P	⑦-10
			AL-PO STI	PW8.0N1LEB	PO				5P	⑦-18
		18 19 21	N-RS STI	RW8.0N4LENP	RO	G4	75	7	4P	⑦-25
				RW8.0N4LENB					2P	⑦-25
	Oversize	18 19 21	AL-HT STI	TW8.0N3LEB5	HT	I b+30	75	7	5P	⑦-3
				TW8.0N3LEBA					1.5P	⑦-3
		15 16 17 18 19 20 21	AL-SP STI	SW8.0N3LEN	SP	I b+30	75	7	2.5P	⑦-10
	Carbide	19 21	N-CT LA STI	TW8.0N1LWB5	HT	I b	75	7	5P	⑦-26
				TW8.0N1LWBA					1.5P	⑦-26
With coolant hole		1 2 3 4	MC-SP	(MSHQ8.0NL10)	SP	P2	100	6.2	2.5P	①-209
				(MSHQ8.0NL15)			150			①-209
			MC-PO	(MPHR8.0NL10)	PO	P3	100		5P	③-100
				(MPHR8.0NL15)			150			③-100
		1 2 3	MC-HT	(ML108.0N5-Q)	HT	P2	100	6.2	5P	④-137
				(ML158.0N5-Q)			150			④-137
				(ML108.0N1-Q)			100		1.5P	④-137
				(ML158.0N1-Q)			150			④-137
For tapping aluminum cast holes (with oil hole)	Carbide	19	ACHSP	SY8.0NSLXT	SP	P4	90	8	2.5P	⑤-40
Nut taps		1 2	NT	NH28.0N	HT	II b	140	6.2	24P	⑦-27

Taps ／ M8 × 1

Standard		2 3	SP	SPQ8.0M	SP	P2	70	6.2	2.5P	①-40
			SP 1.5P	SY8.0MQNEBA					1.5P	①-58
			PO	POR8.0M	PO	P3			5P	③-14
		1 2 3	HT	TNMQ8.0M5T	HT	P2	70	6.2	5P	④-8
				TNMQ8.0M1T					1.5P	④-8
				TNMQ8.0M5					5P	④-8
				TNMQ8.0M1					1.5P	④-8
	Oversize	2 3	SP	SPR8.0M	SP	P3	70	6.2	2.5P	①-40
				SPS8.0M		P4				①-40
			PO	POS8.0M	PO				5P	③-14
		1 2 3	HT	TNMR8.0M5	HT	P3	70	6.2	5P	④-8
				TNMR8.0M1					1.5P	④-8
				TNMS8.0M5		P4			5P	④-8
				TNMS8.0M1					1.5P	④-8
For left hand threads		2 3	SP LH	SPQ8.0M--L	SP	P2	70	6.2	2.5P	①-79
			PO LH	POR8.0M--L	PO	P3			5P	③-46
		1 2 3	HT LH	TNMQ8.0M5-L	HT	P2	70	6.2	5P	④-67
				TNMQ8.0M1-L					1.5P	④-67
Oxidizing		1 2 3	SP OX	SPQ8.0MX	SP	P2	70	6.2	2.5P	①-65
			PO OX	POR8.0MX	PO	P3			5P	③-35
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101065	SP	P3	90	6.2	2.5P	①-7
		1 2 3 4 9 19 21	AU+SP	VSAPR8.0M	SP	P3	70	6.2	2.5P	①-86
			AU+SL	VSAPR8.0ML	SL				5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101065	PO	P3	90	6.2	5P	③-5

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Coating	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201065	SP	P4	90	6.2	2.5P	①-7
				1101301065		P5				①-7
		1 2 3 4 9 10 13 18 19	VUPO	1102201065	PO	P4	90	6.2	5P	③-5
				1102301065		P5				③-5
	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101065	SP	P3	90	6.2	1.5P	①-14
	Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101065	SP	P3	90	6.2	2.5P	①-20
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101065	SP	P3	150	6.2	2.5P	①-8
		1 2 3 4 9 10 13 18 19	VUPO	2102101065	PO	P3	150	6.2	5P	③-6
Long		2 3	LS-SP	SPQ8.0ML10	SP	P2	100	6.2	2.5P	①-90
				SPQ8.0ML12			120			①-90
				SPQ8.0ML15			150			①-90
			LS-PO	POR8.0ML10	PO	P3	100		5P	③-52
				POR8.0ML12			120			③-52
				POR8.0ML15			150			③-52
		1 2 3	LS-HT	TNMQ8.0M510	HT	P2	100	6.2	5P	④-75
				TNMQ8.0M512			120			④-75
				TNMQ8.0M515			150			④-75
				TNMQ8.0M110			100		1.5P	④-75
				TNMQ8.0M112			120			④-75
				TNMQ8.0M115			150			④-75
Thread forming taps for steels		1 2	N-RZ	NRZM78.0MP	RO	G7	70	6.2	4P	⑥-16
				NRZM78.0MB					2P	⑥-16
For steels		1 2 3 4 5 9 11	HVSP	SY8.0MSEEXJ	SP	P4	90	6.2	2.5P	①-24
For high carbon steels		2 3	HC-SP	SCMQ8.0M	SP	P2	70	6.2	2.5P	①-132
	Oxidizing	2 3 5	HC-PO OX	PCMR8.0MX	PO	P3	70	6.2	5P	③-78
For stainless steels		2 3 4 9	SU-SP	SUMQ8.0M	SP	P2	70	6.2	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMR8.0M	PO	P3	70	6.2	5P	③-61
		1 2 9	SU-HT	TUMR8.0M4	HT	P3	70	6.2	4P	④-90
				TUMR8.0M1					1.5P	④-90
For cast irons		12 13	FC-HT	TY8.0MRAEN5	HT	P3	70	6.2	5P	④-94
				TY8.0MRAENA					1.5P	④-94
	Carbide	12 13 16	N-CT FC	TCNR8.0M3	HT	P3	70	6.2	3P	⑤-11
				TCNR8.0M1					1.5P	⑤-11
For aluminum		18 19 21	LA-HT	TY8.0MRLEN5	HT	P3	70	6.2	5P	④-110
				TY8.0MRLENA					1.5P	④-110
	Carbide	19 21	N-CT LA	TCNR8.0M3A	HT	P3	70	6.2	3P	⑤-4
				TCNR8.0M1A					1.5P	⑤-4
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM78.0MP	RO	G7	70	6.2	4P	⑥-28
				NRSM78.0MB					2P	⑥-28
X series	For general steels	2 3	XSP	(SNXR8.0M)	SP	P3	90	8	2.5P	①-212
			XSL	(SNXR8.0ML)	SL				5P	②-38
	Coating	1 2 3 4 9 19 21	AUXSP	(VSAXR8.0M)	SP	P3	90	8	2.5P	①-214
			AUXSL	(VSAXR8.0ML)	SL				5P	②-40
	For stainless steels	1 2 3 4 9	SUXSP	(SUXR8.0M)	SP	P3	90	8	2.5P	①-218
			SUXSL	(SUXR8.0ML)	SL				5P	②-44
For deep hole use		2 3 4 13	S-SP	SSMQ8.0M	SP	P2	70	6.2	2.5P	①-124
		1 2 3 4	S-PO	PSMR8.0M	PO	P3	70	6.2	5P	③-73
Nut taps		1 2	NT	NH28.0M	HT	II	130	6.2	25P	⑦-27

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

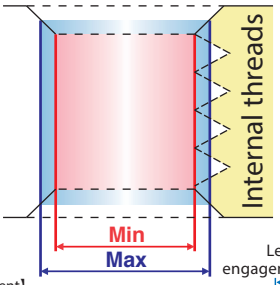
	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ M8 × 0.75										
Standard		2 3	SP	SPQ8.0J	SP	P2	70	6.2	2.5P	①-40
			PO	POR8.0J	PO	P3			5P	③-14
		1 2 3	HT	TNMQ8.0J5	HT	P2	70	6.2	5P	④-8
				TNMQ8.0J1					1.5P	④-8
	Oversize	2 3	SP	SPR8.0J	SP	P3	70	6.2	2.5P	①-40
For left hand threads		1 2 3	HT LH	TNMQ8.0J5-L	HT	P2	70	6.2	5P	④-67
				TNMQ8.0J1-L					1.5P	④-67
Long		2 3	LS-SP	SPQ8.0JL10	SP	P2	100	6.2	2.5P	①-90
Thread forming taps for steels		1 2	N-RZ	NRZM78.0JP	RO	G7	70	6.2	4P	⑥-16
				NRZM78.0JB					2P	⑥-16
For stainless steels		2 3 4 9	SU-SP	SUMQ8.0J	SP	P2	70	6.2	2.5P	①-101
For cast irons	Carbide	12 13 16	N-CT FC	TCNR8.0J3	HT	P3	62	6.2	3P	⑤-11
				TCNR8.0J1					1.5P	⑤-11
For aluminum	Carbide	19 21	N-CT LA	TCNR8.0J3A	HT	P3	62	6.2	3P	⑤-4
				TCNR8.0J1A					1.5P	⑤-4
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM78.0JP	RO	G7	70	6.2	4P	⑥-28
				NRSM78.0JB					2P	⑥-28
Nut taps		1 2	NT	NH28.0J	HT	II	120	6.2	24P	⑦-27
Taps ／ M8 × 0.5										
Standard		2 3	SP	SPQ8.0G	SP	P2	70	6.2	2.5P	①-40
			PO	POQ8.0G	PO				5P	③-14
		1 2 3	HT	TNMQ8.0G5	HT	P2	70	6.2	5P	④-8
				TNMQ8.0G1					1.5P	④-8
For left hand threads		1 2 3	HT LH	TNMQ8.0G5-L	HT	P2	70	6.2	5P	④-67
				TNMQ8.0G1-L					1.5P	④-67
Oxidizing		1 2 3	PO OX	POQ8.0GX	PO	P2	70	6.2	5P	③-35

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M8 × 1.25										
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG8.0NDNEBC	⑩-3
						38	13		TYJ8.0NDNEBC	⑩-3
						50	16		TYM8.0NDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG8.0NDNEBC	⑩-17
						38	13		GYJ8.0NDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	25	9	1.5P	PYG8.0NTNEBA	⑩-35
						38	13		PYJ8.0NTNEBA	⑩-35
						50	16		PYM8.0NTNEBA	⑩-35
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG8.0NQNEBA	⑩-35
						38	13		PYJ8.0NQNEBA	⑩-35
						50	16		PYM8.0NQNEBA	⑩-35
New rolling dies		HSS	1 2 9 15	N-RSD	R6	38	13	2P	NRJU8.0N	⑩-52
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP8.0N	⑩-46
						25	9		HGP8.0N	⑩-46
					P2	20	7		HEQ8.0N	⑩-46
						25	9		HGQ8.0N	⑩-46
Spiral dies		HSS	1 2	SP-D	P1	25	9	1.5P	SGP8.0N	⑩-43
Dies ／ M8 × 1										
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG8.0MDNEBC	⑩-3
						38	13		TYJ8.0MDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG8.0MDNEBC	⑩-17
						38	13		GYJ8.0MDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	25	9	1.5P	PYG8.0MTNEBA	⑩-35
						38	13		PYJ8.0MTNEBA	⑩-35
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG8.0MQNEBA	⑩-35
						38	13		PYJ8.0MQNEBA	⑩-35
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP8.0M	⑩-46
						25	9		HGP8.0M	⑩-46
					P2	20	7		HEQ8.0M	⑩-46
						25	9		HGQ8.0M	⑩-46
Dies ／ M8 × 0.75										
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG8.0JDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG8.0JDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	25	9	1.5P	PYG8.0JSNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG8.0JQNEBA	⑩-36
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP8.0J	⑩-46
						25	9		HGP8.0J	⑩-46
					P2	20	7		HEQ8.0J	⑩-46
						25	9		HGQ8.0J	⑩-46
Dies ／ M8 × 0.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG8.0GDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG8.0GDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S6	25	9	1.5P	PYG8.0GUNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG8.0GQNEBA	⑩-36
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP8.0G	⑩-46
					P2				HEQ8.0G	⑩-46

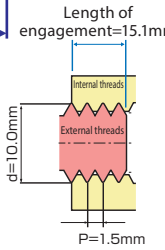
Flowchart : M10 tapping

Boring before tapping — Check 1

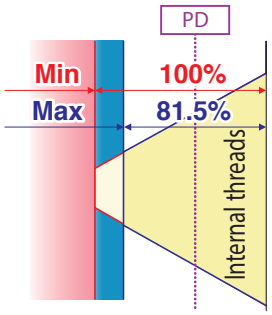


【Length of engagement】
On "middle" engagement class, 7H class can be chosen in case of "L" engagement length.

Symbol	Engagement length classification \ Engagement classification	Fine	Middle	Coarse	Engagement length
S	Short engagement length	4H	5H	–	S≦5(mm)
M	Normal engagement length	5H	6H	7H	5<M≦15(mm)
L	Long engagement length	6H	7H	8H	15<L(mm)



Engagement ratio on cutting taps

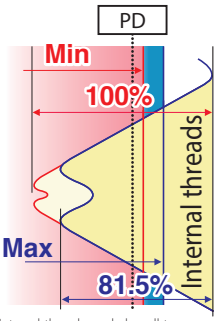


Unit : mm

	Drill size (ref.)	Min	Max
Bored hole size	8.5	8.376	8.676
Engagement ratio	92.4%	100%	81.5%

D1 is minor diameter of JIS 6H(2nd Class) of internal threads

Engagement ratio on roll taps



Internal threads made by roll taps are different from those made by cutting taps on the shape of minor dimameter.

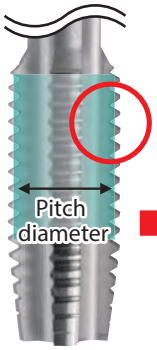
Unit : mm

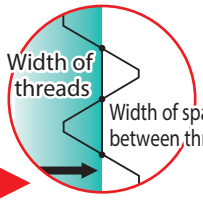
*Hole size for thread forming taps	
Min	Max
9.22	9.34

Forming condition changes depending on workpiece's Material and shape. Above is for customer's reference.

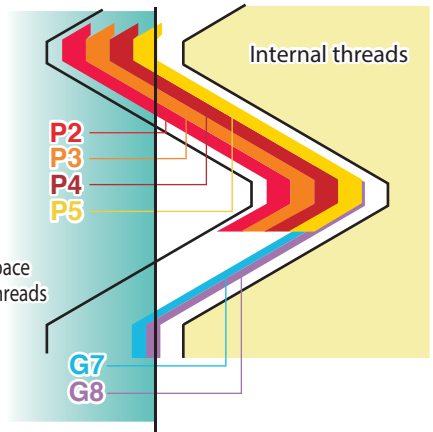
Threading — Check 2

【Pitch diameter】
Diameter of imaginary cylinder or cone which makes equal the width of threads and width of space between the threads





Tolerance area of tap's pitch diameter



【Thread class of cutting taps】

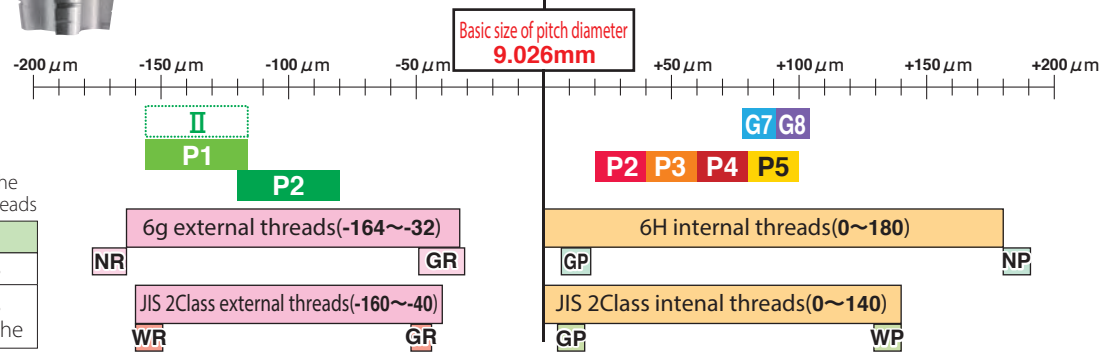
Class	PD tolerance
P2	20μm~40μm
P3	40μm~60μm
P4	60μm~80μm
P5	80μm~100μm

*Above shows the plus tolerance by setting PD basic size as "0".

【Thread class of roll taps】

Class	PD tolerance
G7	76μm~89μm
G8	89μm~102μm

*Above shows the plus tolerance by setting PD basic size as "0".



Tolerance of dies is the target of external threads

Class of dies	
Ⅱ	Solid dies
P1	Solid dies for Auto Lathe
P2	for Auto Lathe

Relative position of PD tolerance area of external threads, internal threads, taps and gages.

Gage check — Check 3

(–) ← Basic size of pitch diameter → (+)
9.026mm

Unit : μm

Ring gage pitch diameter(for external threads inspection)			
NR6g	-182 ~-164	GR6g	-49 ~-31
WRⅡ	-160 ~-152	GRⅡ	-52 ~-44

NR : NOT GO ring gage **GR** : GO ring gage
WR : NOT GO working ring gage

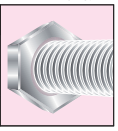
Unit : μm

Plug gage pitch diameter(for internal threads inspection)			
GP6H	7 ~ 17	NP6H	180 ~ 190
GPⅡ	4 ~ 12	WPⅡ	132 ~ 140

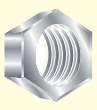
GP : GO plug gage **NP** : NOT GO plug gage
WP : NOT GO working plug gage

Unit : mm

Accuracy of external threads			
	Major diameter	Pitch diameter	Minor diameter
6g	9.732~9.968	8.862~8.994	–
JIS 2class	9.770~9.960	8.866~8.986	~8.119



Unit : mm



Accuracy of internal threads			
	Major diameter	Pitch diameter	Minor diameter
6H	–	9.026~9.206	8.376~8.676
JIS 2class	–	9.026~9.166	8.376~8.676

Think threads with YAMAWA

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Taps / M10 × 1.5

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
General purpose	1	ISP	SI7010OBP	SP	-	75	7	2.5P	①-62
		IPO	PI7010OBP	PO				5P	③-32
	1 2	IHT	HI7010O5BP	HT	-	75	7	5P	④-52
			HI7010O2BP					2P	④-52
Standard	2 3	SP	SPQ010O	SP	P2	75	7	2.5P	①-40
		+SP	SNPQ010O						①-57
		SP 1.5P	SY010OQNEBA					1.5P	①-58
		PO	POR010O	PO	P3			5P	③-14
	1 2 3	HT	TNMR010O5T	HT	P3	75	7	5P	④-9
			TNMR010O1T					1.5P	④-9
			TNMR010O5					5P	④-9
			TNMR010O1					1.5P	④-9
Oversize	2 3	SP	SPR010O	SP	P3	75	7	2.5P	①-40
			SPS010O		P4				①-40
		PO	POS010O	PO				5P	③-14
	1 2 3	HT	TNMS010O5	HT	P4	75	7	5P	④-9
			TNMS010O1					1.5P	④-9
			TNMT010O5		P5			5P	④-9
			TNMT010O1					1.5P	④-9
For left hand threads	2 3	SP LH	SPQ010O--L	SP	P2	75	7	2.5P	①-79
		PO LH	POR010O--L	PO	P3			5P	③-46
	1 2 3	HT LH	TNMR010O5-L	HT	P3	75	7	5P	④-67
			TNMR010O1-L					1.5P	④-67
Oxidizing	1 2 3	SP OX	SPQ010OX	SP	P2	75	7	2.5P	①-65
		PO OX	POR010OX	PO	P3			5P	③-35
Oversize	1 2 3	PO OX	POS010OX	PO	P4	75	7	5P	③-35
Coating	1 2 3 4 9 10 13 18 19	VUSP	1101101078	SP	P3	100	7	2.5P	①-7
	1 2 3 4 9 19 21	AU+SP	VSAPR010O	SP	P3	75	7	2.5P	①-86
		AU+SL	VSAPR010OL	SL				5P	②-14
	1 2 3 4 9 10 13 18 19	VUPO	1102101078	PO	P3	100	7	5P	③-5
	1 2 3 4	PO V	VPOR010O	PO	P3	75	7	5P	③-48
Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201078	SP	P4	100	7	2.5P	①-7
			1101301078		P5				①-7
	1 2 3 4 9 10 13 18 19	VUPO	1102201078	PO	P4	100	7	5P	③-5
			1102301078		P5				③-5
Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101078	SP	P3	100	7	1.5P	①-14
Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101078	SP	P3	100	7	2.5P	①-20
Long	1 2 3 4 9 10 13 18 19	VUSP	2101101078	SP	P3	150	7	2.5P	①-8
	1 2 3 4 9 10 13 18 19	VUPO	2102101078	PO	P3	150	7	5P	③-6
Long	2 3	LS-SP	SPQ010OL10	SP	P2	100	7	2.5P	①-90
			SPQ010OL12			120			①-90
			SPQ010OL15			150			①-90
			SPQ010OL20			200			①-90
		LS-PO	POR010OL10	PO	P3	100		5P	③-52
			POR010OL12			120			③-52
			POR010OL15			150			③-52
			POR010OL20			200			③-52
	1 2 3	LS-HT	TNMQ010O510	HT	P2	100	7	5P	④-75
			TNMQ010O512			120			④-75
			TNMQ010O515			150			④-75
Long	1 2 3	LS-HT	TNMQ010O520	HT	P2	200	7	5P	④-75
			TNMQ010O525			250			④-75
			TNMQ010O110			100		1.5P	④-75
			TNMQ010O112			120			④-75
			TNMQ010O115			150			④-75
			TNMQ010O120			200			④-75
			TNMQ010O125			250			④-75
Oversize	2 3	LS-SP	SPR010OL10	SP	P3	100	7	2.5P	①-90
			SPR010OL15			150			①-90
		LS-PO	POS010OL15	PO	P4			5P	③-52
	1 2 3	LS-HT	TNMR010O510	HT	P3	100	7	5P	④-75
			TNMR010O515			150			④-75
			TNMR010O520			200			④-75
			TNMR010O110			100		1.5P	④-75
			TNMR010O115			150			④-75
			TNMR010O120			200			④-75
			TNMS010O510		P4	100		5P	④-75
			TNMS010O515			150			④-75
			TNMS010O110			100		1.5P	④-75
			TNMS010O115			150			④-75
For left hand threads	2 3	LS-SP LH	SPQ010OL15-L	SP	P2	150	7	2.5P	①-95
	1 2 3	LS-HT LH	TNMQ010O510L	HT	P2	100	7	5P	④-84
			TNMQ010O515L			150			④-84
			TNMQ010O110L			100		1.5P	④-84
			TNMQ010O115L			150			④-84
Oxidizing	1 2	LS-SP OX	SPQ010OL12X	SP	P2	120	7	2.5P	①-94
			SPQ010OL15X			150			①-94
Coating	1 2 3 4	LS-SP V	VSPQ010OL15	SP	P2	150	7	2.5P	①-96
		LS-PO V	VPOR010OL15	PO	P3			5P	③-57
	2 3 4	LS-HT V	TNMQ010O510V	HT	P2	100	7	5P	④-86
			TNMQ010O515V			150			④-86
			TNMQ010O110V			100		1.5P	④-86
			TNMQ010O115V			150			④-86
For soft structural steels	1 2	E-SP	ESHMQ010O	SP	P2	75	7	2.5P	①-130
Thread forming taps for steels	1 2	N-RZ	NRZM7010OP	RO	G7	75	7	4P	⑥-16
			NRZM7010OB					2P	⑥-16
			NRZM8010OP		G8			4P	⑥-16
			NRZM8010OB					2P	⑥-16
Long	1 2	LS-N-RZ	NRZM7010OP10	RO	G7	100	7	4P	⑥-24
			NRZM7010OP15			150			⑥-24
			NRZM7010OB10			100		2P	⑥-24
			NRZM7010OB15			150			⑥-24
For steels	1 2 3 4 5 9 11	HVSP	SY010OSEEXJ	SP	P4	100	7	2.5P	①-24
For Zinc Plating	1 2 3 4 5 9 11	HVSP ZP	1112201078	SP	P4+0.1	100	7	2.5P	①-32
Oversize			1112301078		P4+0.2				①-32
			1112401078		P4+0.3				①-32
For high carbon steels	2 3	HC-SP	SCMQ010O	SP	P2	75	7	2.5P	①-132
	2 3 5	HC-PO	PCMR010O	PO	P3	75	7	5P	③-76
Oxidizing	2 3	HC-SP OX	SCMQ010OX	SP	P2	75	7	2.5P	①-134
For hard-to-machine materials	3 5 6	EH-PO	EPHMS010O	PO	P4	75	7	4.5P	③-82
	6 10	EH-HT	ETHMS010O5	HT	P4	75	7	5P	④-124
			ETHMS010O1					2.5P	④-124

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For hard-to-machine materials	Powdered HSS	3 5 6	PM-SP	SY010ORDPB	SP	P3	75	7	2.75P	①-168
			LS-PM-SP	SY010ORDPBG			150			①-175
			PM-PO	PY010OSDPB	PO	P4	75		5.5P	③-92
			LS-PM-PO	PY010OSDPBG			150			③-98
For titanium alloys		22	ZET-B	ZETBMR010O	SP	P3	75	7	3P	①-154
			ZET-P	ZETPMS010O	SL	P4			5P	②-22
For nickel base alloys		1 2 9 23	ZEN-B	ZENBMR010O	SP	P3	75	7	3P	①-162
			ZEN-P	ZENPMS010O	PO	P4			4.5P	③-86
For medium hardness carbon steels		3 4 5	MHSP	SY010OSOCLJ	SP	P4	100	7	2.5P	①-34
		2 3 4 5 10	MHSL	1109101078	SL	P4	100	7	5P	②-4
			MHSL-J	MHSLS010O5			75			②-6
Carbide taps for hard materials		7	EH-CT	EHCS010O5	HT	P4	75	7	5P	⑤-24
Carbide taps for ultra hard materials		8	UH-CT	UHCS010O5	HT	P4	75	8.5	5P	⑤-28
For stainless steels		2 3 4 9	SU-SP	SUMQ010O	SP	P2	75	7	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMR010O	PO	P3	75	7	5P	③-61
		1 2 9	SU-HT	TUMR010O4	HT	P3	75	7	4P	④-90
				TUMR010O1					1.5P	④-90
	Oversize	2 3 4 9	SU-SP	SUMR010O	SP	P3	75	7	2.5P	①-101
				SUMS010O		P4				①-101
		1 2 3 4 9	SU-PO	PUMS010O	PO	P4	75	7	5P	③-61
				PUMT010O		P5				③-61
	For deep hole use	1 2 3 4 9	SU-S-SP	SSMQ010O-SU	SP	P2	75	7	2.5P	①-119
		1 2 3 9	LS-SU-S-SP	SY010OQGEXES	SP	P2	100	7	2.5P	①-120
				SY010OQGEXGS			150			①-120
				SY010OQGEXKS			200			①-120
			LS-SU-S-PO	PY010ORGEXES	PO	P3	100		5P	③-70
				PY010ORGEXGS			150			③-70
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR010O	SP	P3	75	7	3P	①-116
For cast irons		12 13	FC-HT	TY010OSAEN5	HT	P4	75	7	5P	④-94
				TY010OSAENA					1.5P	④-94
	Carbide	12 13 16	N-CT FC	TCNR010O3	HT	P3	75	7	3P	⑤-11
				TCNR010O1					1.5P	⑤-11
				TCNS010O3		P4			3P	⑤-11
				TCNS010O1					1.5P	⑤-11
	Long shank, carbide	12 13 16	LS-N-CT	TY010ORAWB3E	HT	P3	100	7	3P	⑤-18
				TY010ORAWB3G			150			⑤-18
				TY010ORAWBAE			100		1.5P	⑤-18
				TY010ORAWBAG			150			⑤-18
For aluminum		15 16 17 18 19 20 21	AL-SP	ASHMR010O	SP	P3	75	7	2.5P	①-136
			AL-SP 1.5P	SY010ORLENA					1.5P	①-137
		18 19 21	LA-HT	TY010OSLEN5	HT	P4	75	7	5P	④-111
				TY010OSLENA					1.5P	④-111
	AXE	12 19 21	AXE-HT	TAXEMR010O1	HT	P3	75	7	1.5P	④-114
	Carbide	19 21	N-CT LA	TCNR010O3A	HT	P3	75	7	3P	⑤-4
				TCNR010O1A					1.5P	⑤-4
				TCNS010O3A		P4			3P	⑤-4
				TCNS010O1A					1.5P	⑤-4
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY010ORKWB	SP	P3	75	7	2.5P	⑤-20
	Carbide spiral pointed taps	15 16 17 18 19 20 21	N-CT-PO	PCNS010O	PO	P4	75	7	5P	⑤-21
For aluminum (with coolant hole)	Carbide	18 19 21	MC-AD-CT	(MCADS010O1)	HT	P4	100	7	1.5P	⑤-42

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM7010OP	RO	G7	75	7	4P	⑥-28
				NRSM7010OB					2P	⑥-28
				NRSM8010OP		G8			4P	⑥-28
				NRSM8010OB					2P	⑥-28
	Long	18 19 21	LS-N-RS	NRSM7010OP10	RO	G7	100	7	4P	⑥-37
				NRSM7010OP15			150			⑥-37
				NRSM7010OB10			100		2P	⑥-37
				NRSM7010OB15			150			⑥-37
X series	For general steels	2 3	XSP	(SNXR010O)	SP	P3	100	10	2.5P	①-212
			XSL	(SNXR010OL)	SL				5P	②-38
	Coating	1 2 3 4 9 19 21	AUXSP	(VSAXR010O)	SP	P3	100	10	2.5P	①-214
			AUXSL	(VSAXR010OL)	SL				5P	②-40
	For stainless steels	1 2 3 4 9	SUXSP	(SUXR010O)	SP	P3	100	10	2.5P	①-218
			SUXSL	(SUXR010OL)	SL				5P	②-44
For high speed		1 2	F-SP	VFSHMR010O	SP	P3	75	7	3P	①-178
			F-SL	VFSHMR010OL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY010ORFEVES	SP	P3	100	7	3P	①-182
				SY010ORFEVGS			150			①-182
			LS-F-SL	LY010ORFEVE	SL		100		5.5P	②-32
				LY010ORFEVG			150			②-32
Ultra fast tapping (with coolant hole)	For steels	1 2 3 4	HFIHS	HFIHSS010O	SP	P4	75	10	2.5P	①-186
			HFISP	HFISPS010O						①-190
	Carbide taps for cast irons	12 13 16	HFICT-P	HFICTPR010O	HT	P3	75	10	4P	⑤-36
			HFICT-B	HFICTBR010O					2.5P	⑤-38
	For non-ferrous materials	18 19 20 21	HFAHS	HFAHSS010O	SP	P4	75	10	2.5P	①-194
			HFASP	HFASPS010O						①-198
	Carbide taps for non-ferrous materials	16 19 20 21	HFACT-P	HFACTPR010O	HT	P3	75	10	4P	⑤-32
			HFACT-B	HFACTBR010O					2.5P	⑤-34
For dry tapping (with coolant hole)	For steels	2 3 4	HDISP	HDISPS010O	SP	P4	75	10	2.5P	①-202
	For non-ferrous materials	18 19 20 21	HDASP	HDASPS010O	SP	P4	75	10	2.5P	①-206
Ultra fast tapping (with coolant hole)	For both steels and non ferrous materials	2 3 4	HDISL	HDISLS010O	SL	P4	75	10	5.5P	②-34
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM7010OP	RO	G7	75	7	4P	⑥-49
				HRZM7010OB					2P	⑥-49
				HRZM8010OP		G8			4P	⑥-49
				HRZM8010OB					2P	⑥-49
Thread forming taps for carbon steels of medium hardness		2 3 4 5	MHRZ	1110101078	RO	G8	100	7	4P	⑥-4
				1111101078					2P	⑥-4
			MHRZ-J	RY010O8OCTP			75		4P	⑥-8
				RY010O8OCTB					2P	⑥-8
	Long	2 3 4 5	MHRZ	2110101078	RO	G8	150	7	4P	⑥-5
				2111101078					2P	⑥-5
For deep hole use		2 3 4 13	S-SP	SSMQ010O	SP	P2	75	7	2.5P	①-124
		1 2 3 4	S-PO	PSMR010O	PO	P3	75	7	5P	③-73
	Oversize	2 3 4 13	S-SP	SSMR010O	SP	P3	75	7	2.5P	①-124
		1 2 3 4	S-PO	PSMS010O	PO	P4	75	7	5P	③-73
Low spiral		2 3	LO-SP 15°	LSHMQ010O15	SP	P2	75	7	2.5P	①-144
			LO-SP 20°	LSHMQ010O20						①-144
			LO-SP 8°	LSHMQ010O8						①-144
	Long	2 3	LS-LO-SP	LSHMQ010OL15	SP	P2	150	7	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW010O1LEB5	HT	I b	82	8.5	5P	⑦-3
				TW010O1LEBA					1.5P	⑦-3
		15 16 17 18 19 20 21	AL-SP STI	SW010O1LEN	SP	I b	82	8.5	2.5P	⑦-10

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For helical coil wire screw thread inserts		15 16 17 18 19 20 21	AL-PO STI	PW010O1LEB	PO	I b	82	8.5	5P	⑦-18
		18 19 21	N-RS STI	RW010O5LENP	RO	G5	82	8.5	4P	⑦-25
				RW010O5LENB					2P	⑦-25
	Oversize	18 19 21	AL-HT STI	TW010O3LEB5	HT	I b+30	82	8.5	5P	⑦-3
				TW010O3LEBA					1.5P	⑦-3
		15 16 17 18 19 20 21	AL-SP STI	SW010O3LEN	SP	I b+30	82	8.5	2.5P	⑦-10
	Carbide	19 21	N-CT LA STI	TW010O1LWB5	HT	I b	82	8.5	5P	⑦-26
				TW010O1LWBA					1.5P	⑦-26
With coolant hole		1 2 3 4	MC-SP	(MSHQ010OL10)	SP	P2	100	7	2.5P	①-209
				(MSHQ010OL15)			150			①-209
			MC-PO	(MPHR010OL10)	PO	P3	100		5P	③-100
				(MPHR010OL15)			150			③-100
		1 2 3	MC-HT	(ML10010O5-Q)	HT	P2	100	7	5P	④-137
				(ML15010O5-Q)			150			④-137
				(ML10010O1-Q)			100		1.5P	④-137
				(ML15010O1-Q)			150			④-137
For tapping aluminum cast holes (with oil hole)	Carbide	19	ACHSP	SY010OSLXT	SP	P4	100	10	2.5P	⑤-40
Nut taps		1 2	NT	NH2010O	HT	II b	160	7.8	25P	⑦-27

Taps ／ M10 × 1.25

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Standard		2 3	SP	SPQ010N	SP	P2	75	7	2.5P	①-40
			+SP	SNPQ010N						①-57
			SP 1.5P	SY010NQNEBA					1.5P	①-59
			PO	POR010N	PO	P3			5P	③-14
		1 2 3	HT	TNMR010N5T	HT	P3	75	7	5P	④-9
				TNMR010N1T					1.5P	④-9
				TNMR010N5					5P	④-9
				TNMR010N1					1.5P	④-9
	Oversize	2 3	SP	SPR010N	SP	P3	75	7	2.5P	①-40
				SPS010N		P4				①-40
			PO	POS010N	PO				5P	③-14
		1 2 3	HT	TNMS010N5	HT	P4	75	7	5P	④-9
				TNMS010N1					1.5P	④-9
				TNMT010N5		P5			5P	④-9
				TNMT010N1					1.5P	④-9
For left hand threads		2 3	SP LH	SPQ010N--L	SP	P2	75	7	2.5P	①-79
			PO LH	POR010N--L	PO	P3			5P	③-46
		1 2 3	HT LH	TNMR010N5-L	HT	P3	75	7	5P	④-67
				TNMR010N1-L					1.5P	④-67
Oxidizing		1 2 3	SP OX	SPQ010NX	SP	P2	75	7	2.5P	①-65
			PO OX	POR010NX	PO	P3			5P	③-35
	Oversize	1 2 3	SP OX	SPR010NX	SP	P3	75	7	2.5P	①-65
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101079	SP	P3	100	7	2.5P	①-7
		1 2 3 4 9 19 21	AU+SP	VSAPR010N	SP	P3	75	7	2.5P	①-86
			AU+SL	VSAPR010NL	SL				5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101079	PO	P3	100	7	5P	③-5
		1 2 3 4	PO V	VPOR010N	PO	P3	75	7	5P	③-48
	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201079	SP	P4	100	7	2.5P	①-7
				1101301079		P5				①-7
		1 2 3 4 9 10 13 18 19	VUPO	1102201079	PO	P4	100	7	5P	③-5
				1102301079		P5				③-5

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Coating	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101079	SP	P3	100	7	1.5P	①-14
	Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101079	SP	P3	100	7	2.5P	①-20
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101079	SP	P3	150	7	2.5P	①-8
		1 2 3 4 9 10 13 18 19	VUPO	2102101079	PO	P3	150	7	5P	③-6
Long		2 3	LS-SP	SPQ010NL10	SP	P2	100	7	2.5P	①-90
				SPQ010NL12			120			①-90
				SPQ010NL15			150			①-90
				SPQ010NL20			200			①-90
			LS-PO	POR010NL10	PO	P3	100		5P	③-52
				POR010NL12			120			③-52
				POR010NL15			150			③-52
				POR010NL20			200			③-52
		1 2 3	LS-HT	TNMQ010N510	HT	P2	100	7	5P	④-75
				TNMQ010N512			120			④-75
				TNMQ010N515			150			④-75
				TNMQ010N520			200			④-75
				TNMQ010N110			100		1.5P	④-75
				TNMQ010N112			120			④-75
				TNMQ010N115			150			④-75
				TNMQ010N120			200			④-75
	Oversize	2 3	LS-PO	POS010NL15	PO	P4	150	7	5P	③-52
		1 2 3	LS-HT	TNMR010N510	HT	P3	100	7	5P	④-75
				TNMR010N515			150			④-75
				TNMR010N110			100		1.5P	④-75
				TNMR010N115			150			④-75
				TNMS010N510		P4	100		5P	④-75
				TNMS010N515			150			④-75
				TNMS010N110			100		1.5P	④-75
				TNMS010N115			150			④-75
	For left hand threads	2 3	LS-SP LH	SPQ010NL15-L	SP	P2	150	7	2.5P	①-95
		1 2 3	LS-HT LH	TNMQ010N515L	HT	P2	150	7	5P	④-84
				TNMQ010N115L					1.5P	④-84
	Oxidizing	1 2	LS-SP OX	SPQ010NL10X	SP	P2	100	7	2.5P	①-94
				SPQ010NL12X			120			①-94
	Coating	1 2 3 4	LS-SP V	VSPQ010NL15	SP	P2	150	7	2.5P	①-96
			LS-PO V	VPOR010NL15	PO	P3			5P	③-57
		2 3 4	LS-HT V	TNMQ010N510V	HT	P2	100	7	5P	④-86
				TNMQ010N515V			150			④-86
				TNMQ010N110V			100		1.5P	④-86
				TNMQ010N115V			150			④-86
For soft structural steels		1 2	E-SP	ESHMQ010N	SP	P2	75	7	2.5P	①-130
Thread forming taps for steels		1 2	N-RZ	NRZM7010NP	RO	G7	75	7	4P	⑥-16
				NRZM7010NB					2P	⑥-16
				NRZM8010NP		G8			4P	⑥-16
				NRZM8010NB					2P	⑥-16
	Long	1 2	LS-N-RZ	NRZM7010NP15	RO	G7	150	7	4P	⑥-24
				NRZM7010NB15					2P	⑥-24
For steels		1 2 3 4 5 9 11	HVSP	SY010NSEEXJ	SP	P4	100	7	2.5P	①-24
For high carbon steels		2 3	HC-SP	SCMQ010N	SP	P2	75	7	2.5P	①-132
		2 3 5	HC-PO	PCMR010N	PO	P3	75	7	5P	③-76

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For hard-to-machine materials		3 5 6	EH-PO	EPHMS010N	PO	P4	75	7	4.5P	③-82
		6 10	EH-HT	ETHMS010N5	HT	P4	75	7	5P	④-124
				ETHMS010N1					2.5P	④-124
	Powdered HSS	3 5 6	PM-SP	SY010NRDPB	SP	P3	75	7	2.75P	①-168
			LS-PM-SP	SY010NRDPBG			150			①-175
			PM-PO	PY010NSDPB	PO	P4	75		5.5P	③-92
			LS-PM-PO	PY010NSDPBG			150			③-98
For titanium alloys		22	ZET-B	ZETBMR010N	SP	P3	75	7	3P	①-154
			ZET-P	ZETPMS010N	SL	P4			5P	②-22
For nickel base alloys		1 2 9 23	ZEN-B	ZENBMR010N	SP	P3	75	7	3P	①-162
			ZEN-P	ZENPMS010N	PO	P4			4.5P	③-86
For medium hardness carbon steels		3 4 5	MHSP	SY010NSOCLJ	SP	P4	100	7	2.5P	①-34
		2 3 4 5 10	MHSL	1109101079	SL	P4	100	7	5P	②-4
			MHSL-J	MHSLS010N5			75			②-6
Carbide taps for ultra hard materials		8	UH-CT	UHCS010N5	HT	P4	75	8.5	5P	⑤-28
For stainless steels		2 3 4 9	SU-SP	SUMQ010N	SP	P2	75	7	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMR010N	PO	P3	75	7	5P	③-61
		1 2 9	SU-HT	TUMR010N4	HT	P3	75	7	4P	④-90
				TUMR010N1					1.5P	④-90
	Oversize	2 3 4 9	SU-SP	SUMR010N	SP	P3	75	7	2.5P	①-101
				SUMS010N		P4				①-101
		1 2 3 4 9	SU-PO	PUMS010N	PO	P4	75	7	5P	③-61
	For deep hole use	1 2 3 9	LS-SU-S-SP	SY010NQGEXGS	SP	P2	150	7	2.5P	①-120
			LS-SU-S-PO	PY010NRGEXGS	PO	P3			5P	③-70
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR010N	SP	P3	75	7	3P	①-116
For cast irons		12 13	FC-HT	TY010NRAEN5	HT	P3	75	7	5P	④-94
				TY010NRAENA					1.5P	④-94
	Carbide	12 13 16	N-CT FC	TCNR010N3	HT	P3	75	7	3P	⑤-11
				TCNR010N1					1.5P	⑤-11
				TCNS010N3		P4			3P	⑤-11
				TCNS010N1					1.5P	⑤-11
	Long shank, carbide	12 13 16	LS-N-CT	TY010NRAWB3E	HT	P3	100	7	3P	⑤-18
				TY010NRAWB3G			150			⑤-19
				TY010NRAWBAE			100		1.5P	⑤-19
				TY010NRAWBAG			150			⑤-19
For aluminum		15 16 17 18 19 20 21	AL-SP	ASHMR010N	SP	P3	75	7	2.5P	①-136
			AL-SP 1.5P	SY010NRLENA					1.5P	①-137
		18 19 21	LA-HT	TY010NRLEN5	HT	P3	75	7	5P	④-111
				TY010NRLENA					1.5P	④-111
	AXE	12 19 21	AXE-HT	TAXEMR010N1	HT	P3	75	7	1.5P	④-114
	Carbide	19 21	N-CT LA	TCNR010N3A	HT	P3	75	7	3P	⑤-4
				TCNR010N1A					1.5P	⑤-4
				TCNS010N3A		P4			3P	⑤-4
				TCNS010N1A					1.5P	⑤-4
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY010NRKWB	SP	P3	75	7	2.5P	⑤-20
For aluminum (with coolant hole)	Carbide	18 19 21	MC-AD-CT	(MCADS010N1)	HT	P4	100	7	1.5P	⑤-42
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM7010NP	RO	G7	75	7	4P	⑥-28
				NRSM7010NB					2P	⑥-28
				NRSM8010NP		G8			4P	⑥-28
				NRSM8010NB					2P	⑥-28
	Long	18 19 21	LS-N-RS	NRSM7010NB10	RO	G7	100	7	2P	⑥-37
				NRSM7010NB15			150			⑥-37

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
X series	For general steels	2 3	XSP	(SNXR010N)	SP	P3	100	10	2.5P	①-212
			XSL	(SNXR010NL)	SL				5P	②-38
	Coating	1 2 3 4 9 19 21	AUXSP	(VSAXR010N)	SP	P3	100	10	2.5P	①-214
			AUXSL	(VSAXR010NL)	SL				5P	②-40
	For stainless steels	1 2 3 4 9	SUXSP	(SUXR010N)	SP	P3	100	10	2.5P	①-218
			SUXSL	(SUXR010NL)	SL				5P	②-44
For high speed		1 2	F-SP	VFSHMR010N	SP	P3	75	7	3P	①-178
			F-SL	VFSHMR010NL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY010NRFEVES	SP	P3	100	7	3P	①-182
				SY010NRFEVGS			150			①-182
			LS-F-SL	LY010NRFEVE	SL		100		5.5P	②-32
				LY010NRFEVG			150			②-32
Ultra fast tapping (with coolant hole)	For steels	1 2 3 4	HFIHS	HFIHSS010N	SP	P4	75	10	2.5P	①-186
			HFISP	HFISPS010N						①-190
	Carbide taps for cast irons	12 13 16	HFICT-P	HFICTPR010N	HT	P3	75	10	4P	⑤-36
			HFICT-B	HFICTBR010N					2.5P	⑤-38
	For non-ferrous materials	18 19 20 21	HFAHS	HFAHSS010N	SP	P4	75	10	2.5P	①-194
			HFASP	HFASPS010N						①-198
	Carbide taps for non-ferrous materials	16 19 20 21	HFACT-P	HFACTPR010N	HT	P3	75	10	4P	⑤-32
			HFACT-B	HFACTBR010N					2.5P	⑤-34
For dry tapping (with coolant hole)	For steels	2 3 4	HDISP	HDISPS010N	SP	P4	75	10	2.5P	①-202
	For non-ferrous materials	18 19 20 21	HDASP	HDASPS010N	SP	P4	75	10	2.5P	①-206
Ultra fast tapping (with coolant hole)	For both steels and non ferrous materials	2 3 4	HDISL	HDISLS010N	SL	P4	75	10	5.5P	②-34
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM7010NP	RO	G7	75	7	4P	⑥-49
				HRZM7010NB					2P	⑥-49
				HRZM8010NP		G8			4P	⑥-49
				HRZM8010NB					2P	⑥-49
Thread forming taps for carbon steels of medium hardness		2 3 4 5	MHRZ	1110101079	RO	G8	100	7	4P	⑥-4
				1111101079					2P	⑥-4
			MHRZ-J	RY010N8OCTP			75		4P	⑥-8
				RY010N8OCTB					2P	⑥-8
	Long	2 3 4 5	MHRZ	2110101079	RO	G8	150	7	4P	⑥-5
				2111101079					2P	⑥-5
For deep hole use		2 3 4 13	S-SP	SSMQ010N	SP	P2	75	7	2.5P	①-124
		1 2 3 4	S-PO	PSMR010N	PO	P3	75	7	5P	③-73
	Oversize	2 3 4 13	S-SP	SSMR010N	SP	P3	75	7	2.5P	①-124
		1 2 3 4	S-PO	PSMS010N	PO	P4	75	7	5P	③-73
Low spiral	Long	2 3	LS-LO-SP	LSHMQ010NL15	SP	P2	150	7	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW010N1LEB5	HT	I b	82	8.5	5P	⑦-3
				TW010N1LEBA					1.5P	⑦-3
		15 16 17 18 19 20 21	AL-SP STI	SW010N1LEN	SP	I b	82	8.5	2.5P	⑦-10
		18 19 21	N-RS STI	RW010N5LENP	RO	G5	82	8.5	4P	⑦-25
				RW010N5LENB					2P	⑦-25
With coolant hole		1 2 3 4	MC-SP	(MSHQ010NL10)	SP	P2	100	7	2.5P	①-209
				(MSHQ010NL15)			150			①-209
			MC-PO	(MPHR010NL10)	PO	P3	100		5P	③-100
				(MPHR010NL15)			150			③-100
		1 2 3	MC-HT	(ML10010N5-Q)	HT	P2	100	7	5P	④-137
				(ML15010N5-Q)			150			④-137
				(ML10010N1-Q)			100		1.5P	④-137
				(ML15010N1-Q)			150			④-137
For tapping aluminum cast holes (with oil hole)	Carbide	19	ACHSP	SY010NSLXT	SP	P4	100	10	2.5P	⑤-40

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*Ds*	*ℓc*

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Nut taps	1 2	NT	NH2010N	HT	II	150	7.8	24P	⑦-27
Taps ／ M10 × 1									
Standard	2 3	SP	SPQ010M	SP	P2	75	7	2.5P	①-40
		SP 1.5P	SY010MQNEBA					1.5P	①-59
		PO	POR010M	PO	P3			5P	③-14
	1 2 3	HT	TNMR010M5	HT	P3	75	7	5P	④-9
			TNMR010M1					1.5P	④-9
Oversize	2 3	SP	SPR010M	SP	P3	75	7	2.5P	①-40
			SPS010M		P4				①-40
		PO	POS010M	PO				5P	③-14
	1 2 3	HT	TNMS010M5	HT	P4	75	7	5P	④-9
			TNMS010M1					1.5P	④-9
For left hand threads	2 3	SP LH	SPQ010M--L	SP	P2	75	7	2.5P	①-79
		PO LH	POR010M--L	PO	P3			5P	③-46
	1 2 3	HT LH	TNMR010M5-L	HT	P3	75	7	5P	④-67
			TNMR010M1-L					1.5P	④-67
Oxidizing	1 2 3	SP OX	SPQ010MX	SP	P2	75	7	2.5P	①-65
		PO OX	POR010MX	PO	P3			5P	③-35
Oversize	1 2 3	PO OX	POS010MX	PO	P4	75	7	5P	③-35
Coating	1 2 3 4 9 10 13 18 19	VUSP	1101101080	SP	P3	100	7	2.5P	①-7
	1 2 3 4 9 19 21	AU+SP	VSAPR010M	SP	P3	75	7	2.5P	①-86
		AU+SL	VSAPR010ML	SL				5P	②-14
	1 2 3 4 9 10 13 18 19	VUPO	1102101080	PO	P3	100	7	5P	③-5
Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201080	SP	P4	100	7	2.5P	①-7
			1101301080		P5				①-7
	1 2 3 4 9 10 13 18 19	VUPO	1102201080	PO	P4	100	7	5P	③-5
			1102301080		P5				③-5
Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101080	SP	P3	100	7	1.5P	①-14
Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101080	SP	P3	100	7	2.5P	①-20
Long	1 2 3 4 9 10 13 18 19	VUSP	2101101080	SP	P3	150	7	2.5P	①-8
	1 2 3 4 9 10 13 18 19	VUPO	2102101080	PO	P3	150	7	5P	③-6
Long	2 3	LS-SP	SPQ010ML10	SP	P2	100	7	2.5P	①-90
			SPQ010ML12			120			①-90
			SPQ010ML15			150			①-90
		LS-PO	POR010ML10	PO	P3	100		5P	③-52
			POR010ML12			120			③-52
			POR010ML15			150			③-52
	1 2 3	LS-HT	TNMQ010M510	HT	P2	100	7	5P	④-75
			TNMQ010M512			120			④-75
			TNMQ010M515			150			④-76
			TNMQ010M110			100		1.5P	④-76
			TNMQ010M112			120			④-76
			TNMQ010M115			150			④-76
Thread forming taps for steels	1 2	N-RZ	NRZM7010MP	RO	G7	75	7	4P	⑥-16
			NRZM7010MB					2P	⑥-16
For steels	1 2 3 4 5 9 11	HVSP	SY010MSEEXJ	SP	P4	100	7	2.5P	①-24
For high carbon steels	2 3	HC-SP	SCMQ010M	SP	P2	75	7	2.5P	①-132
For medium hardness carbon steels	3 4 5	MHSP	SY010MSOCLJ	SP	P4	100	7	2.5P	①-34

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
For stainless steels	2 3 4 9	SU-SP	SUMQ010M	SP	P2	75	7	2.5P	①-101
	1 2 3 4 9	SU-PO	PUMR010M	PO	P3	75	7	5P	③-61
	1 2 9	SU-HT	TUMR010M4	HT	P3	75	7	4P	④-90
			TUMR010M1					1.5P	④-90
Oversize	2 3 4 9	SU-SP	SUMS010M	SP	P4	75	7	2.5P	①-101
For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR010M	SP	P3	75	7	3P	①-116
For cast irons	12 13	FC-HT	TY010MRAEN5	HT	P3	75	7	5P	④-94
			TY010MRAENA					1.5P	④-94
Carbide	12 13 16	N-CT FC	TCNR010M3	HT	P3	70	7	3P	⑤-11
			TCNR010M1					1.5P	⑤-12
			TCNS010M3		P4			3P	⑤-12
			TCNS010M1					1.5P	⑤-12
For aluminum	15 16 17 18 19 20 21	AL-SP	ASHMR010M	SP	P3	75	7	2.5P	①-136
		AL-SP 1.5P	SY010MRLENA					1.5P	①-137
	18 19 21	LA-HT	TY010MRLEN5	HT	P3	75	7	5P	④-111
			TY010MRLENA					1.5P	④-111
AXE	12 19 21	AXE-HT	TAXEMR010M1	HT	P3	75	7	1.5P	④-114
Carbide	19 21	N-CT LA	TCNR010M3A	HT	P3	70	7	3P	⑤-4
			TCNR010M1A					1.5P	⑤-4
			TCNS010M3A		P4			3P	⑤-4
			TCNS010M1A					1.5P	⑤-4
For aluminum (with coolant hole) Carbide	18 19 21	MC-AD-CT	(MCADS010M1)	HT	P4	100	7	1.5P	⑤-42
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM7010MP	RO	G7	75	7	4P	⑥-28
			NRSM7010MB					2P	⑥-28
X series For general steels	2 3	XSP	(SNXR010M)	SP	P3	100	10	2.5P	①-212
		XSL	(SNXR010ML)	SL				5P	②-38
Coating	1 2 3 4 9 19 21	AUXSP	(VSAXR010M)	SP	P3	100	10	2.5P	①-214
		AUXSL	(VSAXR010ML)	SL				5P	②-40
For stainless steels	1 2 3 4 9	SUXSP	(SUXR010M)	SP	P3	100	10	2.5P	①-218
		SUXSL	(SUXR010ML)	SL				5P	②-44
For dry tapping (with coolant hole) For steels	2 3 4	HDISP	HDISPS010M	SP	P4	75	10	2.5P	①-202
For deep hole use	2 3 4 13	S-SP	SSMQ010M	SP	P2	75	7	2.5P	①-124
	1 2 3 4	S-PO	PSMR010M	PO	P3	75	7	5P	③-73
For helical coil wire screw thread inserts	18 19 21	AL-HT STI	TW010M1LEB5	HT	I b	82	8.5	5P	⑦-4
			TW010M1LEBA					1.5P	⑦-4
Nut taps	1 2	NT	NH2010M	HT	II	140	7.8	25P	⑦-27
Taps ／ M10 × 0.75									
Standard	2 3	SP	SPQ010J	SP	P2	75	7	2.5P	①-40
		PO	POR010J	PO	P3			5P	③-14
	1 2 3	HT	TNMR010J5	HT	P3	75	7	5P	④-9
			TNMR010J1					1.5P	④-9
Long	2 3	LS-SP	SPQ010JL15	SP	P2	150	7	2.5P	①-90
Taps ／ M10 × 0.5									
Standard	2 3	SP	SPQ010G	SP	P2	75	7	2.5P	①-40
		PO	POQ010G	PO				5P	③-14
	1 2 3	HT	TNMQ010G5	HT	P2	75	7	5P	④-9
			TNMQ010G1					1.5P	④-9

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies ／ M10 × 1.5

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG010ODNEBC	⑩-4
						38	13		TYJ010ODNEBC	⑩-4
						50	16		TYM010ODNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG010ODNEBC	⑩-17
						38	13		GYJ010ODNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	25	9	1.5P	PYG010OSNEBA	⑩-36
						38	13		PYJ010OSNEBA	⑩-36
						50	16		PYM010OSNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG010OQNEBA	⑩-36
						38	13		PYJ010OQNEBA	⑩-36
						50	16		PYM010OQNEBA	⑩-36
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	25	9	2P	HGP010O	⑩-46
					P2				HGQ010O	⑩-46

Dies ／ M10 × 1.25

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG010NDNEBC	⑩-4
						38	13		TYJ010NDNEBC	⑩-4
						50	16		TYM010NDNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG010NDNEBC	⑩-17
						38	13		GYJ010NDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	25	9	1.5P	PYG010NTNEBA	⑩-36
						38	13		PYJ010NTNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG010NQNEBA	⑩-36
						38	13		PYJ010NQNEBA	⑩-36
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	25	9	2P	HGP010N	⑩-46
					P2				HGQ010N	⑩-46

Dies ／ M10 × 1

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG010MDNEBC	⑩-4
						38	13		TYJ010MDNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG010MDNEBC	⑩-17
						38	13		GYJ010MDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	25	9	1.5P	PYG010MTNEBA	⑩-36
						38	13		PYJ010MTNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG010MQNEBA	⑩-36
						38	13		PYJ010MQNEBA	⑩-36
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	25	9	2P	HGP010M	⑩-46
					P2				HGQ010M	⑩-46

Dies ／ M10 × 0.75

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG010JDNEBC	⑩-4
						38	13		TYJ010JDNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG010JDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	25	9	1.5P	PYG010JSNEBA	⑩-36
						38	13		PYJ010JSNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG010JQNEBA	⑩-36
						38	13		PYJ010JQNEBA	⑩-36

Dies ／ M10 × 0.5

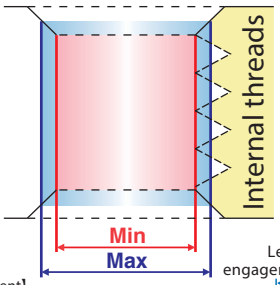
Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG010GDNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG010GDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S6	25	9	1.5P	PYG010GUNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG010GQNEBA	⑩-36

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

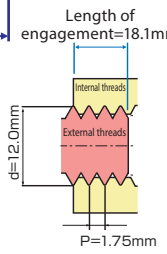
Flowchart : M12 tapping

Boring before tapping — Check 1

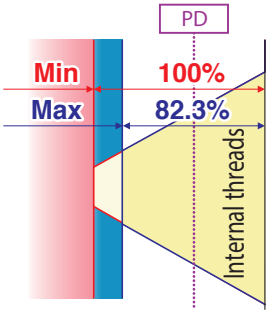


【Length of engagement】
On "middle" engagement class, 7H class can be chosen in case of "L" engagement length.

Symbol	Engagement length classification \ Engagement classification	Fine	Middle	Coarse	Engagement length
S	Short engagement length	4H	5H	–	S≦6(mm)
M	Normal engagement length	5H	6H	7H	6<M≦18(mm)
L	Long engagement length	6H	7H	8H	18<L(mm)



Engagement ratio on cutting taps

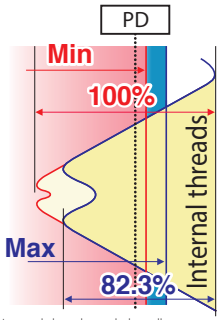


Unit : mm

	Drill size (ref.)	D1 Min	D1 Max
Bored hole size	10.3	10.106	10.441
Engagement ratio	89.7%	100%	82.3%

D1 is minor diameter of JIS 6H(2nd Class) of internal threads

Engagement ratio on roll taps



Internal threads made by roll taps are different from those made by cutting taps on the shape of minor dimameter.

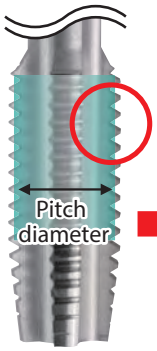
Unit : mm

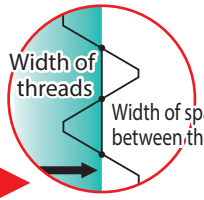
*Hole size for thread forming taps Min	Max
11.09	11.23

Forming condition changes depending on workpiece's Material and shape. Above is for customer's reference.

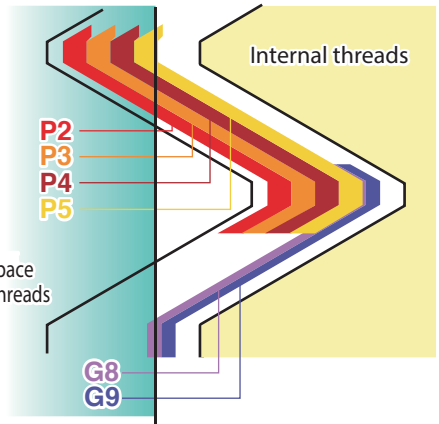
Threading — Check 2

【Pitch diameter】
Diameter of imaginary cylinder or cone which makes equal the width of threads and width of space between the threads





Tolerance area of tap's pitch diameter



【Thread class of cutting taps】

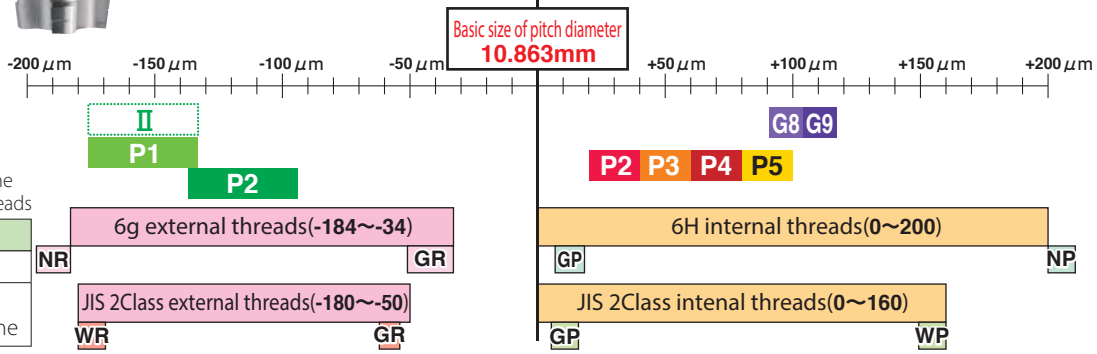
Class	PD tolerance
P2	20μm~40μm
P3	40μm~60μm
P4	60μm~80μm
P5	80μm~100μm

*Above shows the plus tolerance by setting PD basic size as "0".

【Thread class of roll taps】

Class	PD tolerance
G8	89μm~102μm
G9	102μm~114μm

*Above shows the plus tolerance by setting PD basic size as "0".



Tolerance of dies is the target of external threads

Class of dies	
Ⅱ	Solid dies
P1 P2	Solid dies for Auto Lathe

Relative position of PD tolerance area of external threads, internal threads, taps and gages.

Gage check — Check 3

(−) ← Basic size of pitch diameter → (+)
10.863mm

Unit : μm

Ring gage pitch diameter(for external threads inspection)			
NR6g	-202~-184	GR6g	-51~-33
WRⅡ	-180~-172	GRⅡ	-62~-54

NR : NOT GO ring gage **GR** : GO ring gage
WR : NOT GO working ring gage

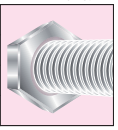
Unit : μm

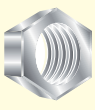
Plug gage pitch diameter(for internal threads inspection)			
GP6H	7~17	NP6H	200~210
GPⅡ	4~12	WPⅡ	152~160

GP : GO plug gage **NP** : NOT GO plug gage
WP : NOT GO working plug gage

Unit : mm

Accuracy of external threads	Major diameter	Pitch diameter	Minor diameter
6g	11.701~11.966	10.679~10.829	–
JIS 2class	11.760~11.950	10.683~10.813	~9.803





Unit : mm

Accuracy of internal threads	Major diameter	Pitch diameter	Minor diameter
6H	–	10.863~11.063	10.106~10.441
JIS 2class	–	10.863~11.023	10.106~10.441

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Taps / M12 × 1.75

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard		2 3	SP	SPQ012P	SP	P2	82	8.5	2.5P	①-40
			+SP	SNPQ012P						①-57
			SP 1.5P	SY012PQNEBA					1.5P	①-59
			PO	POS012P	PO	P4			5P	③-14
		1 2 3	HT	TNMR012P5T	HT	P3	82	8.5	5P	④-9
				TNMR012P1T					1.5P	④-9
				TNMR012P5					5P	④-9
				TNMR012P1					1.5P	④-9
	Oversize	2 3	SP	SPR012P	SP	P3	82	8.5	2.5P	①-41
				SPS012P		P4				①-41
			PO	POT012P	PO	P5			5P	③-14
				POU012P		P6				③-14
		1 2 3	HT	TNMS012P5	HT	P4	82	8.5	5P	④-9
				TNMS012P1					1.5P	④-9
				TNMT012P5		P5			5P	④-9
				TNMT012P1					1.5P	④-9
For left hand threads		2 3	SP LH	SPQ012P--L	SP	P2	82	8.5	2.5P	①-79
			PO LH	POS012P--L	PO	P4			5P	③-46
		1 2 3	HT LH	TNMR012P5-L	HT	P3	82	8.5	5P	④-67
				TNMR012P1-L					1.5P	④-67
Oxidizing		1 2 3	SP OX	SPQ012PX	SP	P2	82	8.5	2.5P	①-65
			PO OX	POS012PX	PO	P4			5P	③-35
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101088	SP	P4	110	8.5	2.5P	①-7
		1 2 3 4 9 19 21	AU+SP	VSAPR012P	SP	P3	82	8.5	2.5P	①-86
			AU+SL	VSAPS012PL	SL	P4			5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101088	PO	P4	110	8.5	5P	③-5
		1 2 3 4	PO V	VPOS012P	PO	P4	82	8.5	5P	③-48
	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201088	SP	P5	110	8.5	2.5P	①-7
				1101301088		P6				①-7
		1 2 3 4 9 10 13 18 19	VUPO	1102201088	PO	P5	110	8.5	5P	③-5
				1102301088		P6				③-5
	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101088	SP	P4	110	8.5	1.5P	①-14
	Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101088	SP	P4	110	8.5	2.5P	①-20
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101088	SP	P4	150	8.5	2.5P	①-8
		1 2 3 4 9 10 13 18 19	VUPO	2102101088	PO	P4	150	8.5	5P	③-6
Long		2 3	LS-SP	SPQ012PL10	SP	P2	100	8.5	2.5P	①-90
				SPQ012PL12			120			①-90
				SPQ012PL15			150			①-90
				SPQ012PL20			200			①-90
			LS-PO	POS012PL10	PO	P4	100		5P	③-52
				POS012PL12			120			③-52
				POS012PL15			150			③-52
				POS012PL20			200			③-52

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Long		1 2 3	LS-HT	TNMQ012P510	HT	P2	100	8.5	5P	④-76
				TNMQ012P512			120			④-76
				TNMQ012P515			150			④-76
				TNMQ012P520			200			④-76
				TNMQ012P525			250			④-76
				TNMQ012P110			100		1.5P	④-76
				TNMQ012P112			120			④-76
				TNMQ012P115			150			④-76
				TNMQ012P120			200			④-76
				TNMQ012P125			250			④-76
	Oversize	2 3	LS-SP	SPR012PL15	SP	P3	150	8.5	2.5P	①-90
			LS-PO	POT012PL15	PO	P5			5P	③-52
		1 2 3	LS-HT	TNMR012P515	HT	P3	150	8.5	5P	④-76
				TNMR012P520			200			④-76
				TNMR012P115			150		1.5P	④-76
				TNMR012P120			200			④-76
				TNMS012P515		P4	150		5P	④-76
				TNMS012P520			200			④-76
				TNMS012P115			150		1.5P	④-76
				TNMS012P120			200			④-76
	For left hand threads	2 3	LS-SP LH	SPQ012PL15-L	SP	P2	150	8.5	2.5P	①-95
		1 2 3	LS-HT LH	TNMQ012P510L	HT	P2	100	8.5	5P	④-84
				TNMQ012P515L			150			④-84
				TNMQ012P110L			100		1.5P	④-84
				TNMQ012P115L			150			④-84
	Oxidizing	1 2	LS-SP OX	SPQ012PL10X	SP	P2	100	8.5	2.5P	①-94
				SPQ012PL15X			150			①-94
	Coating	1 2 3 4	LS-SP V	VSPQ012PL15	SP	P2	150	8.5	2.5P	①-96
			LS-PO V	VPOS012PL15	PO	P4			5P	③-57
		2 3 4	LS-HT V	TNMQ012P510V	HT	P2	100	8.5	5P	④-86
				TNMQ012P515V			150			④-86
				TNMQ012P110V			100		1.5P	④-87
				TNMQ012P115V			150			④-87
For soft structural steels		1 2	E-SP	ESHMQ012P	SP	P2	82	8.5	2.5P	①-130
Thread forming taps for steels		1 2	N-RZ	NRZM8012PP	RO	G8	82	8.5	4P	⑥-16
				NRZM8012PB					2P	⑥-16
				NRZM9012PP		G9			4P	⑥-16
				NRZM9012PB					2P	⑥-16
For steels		1 2 3 4 5 9 11	HVSP	SY012PSEEXJ	SP	P4	110	8.5	2.5P	①-24
For Zinc Plating	Oversize	1 2 3 4 5 9 11	HVSP ZP	1112201088	SP	P4+0.1	110	8.5	2.5P	①-32
				1112301088		P4+02				①-32
				1112401088		P4+03				①-32
For high carbon steels		2 3	HC-SP	SCMQ012P	SP	P2	82	8.5	2.5P	①-132
		2 3 5	HC-PO	PCMS012P	PO	P4	82	8.5	5P	③-76
	Oxidizing	2 3	HC-SP OX	SCMQ012PX	SP	P2	82	8.5	2.5P	①-134
For hard-to-machine materials		3 5 6	EH-PO	EPHMS012P	PO	P4	82	8.5	4.5P	③-82
		6 10	EH-HT	ETHMS012P5	HT	P4	82	8.5	5P	④-124
				ETHMS012P1					2.5P	④-124
	Powdered HSS	3 5 6	PM-SP	SY012PRDPB	SP	P3	82	8.5	2.75P	①-168
			LS-PM-SP	SY012PRDPBG			150			①-175
			PM-PO	PY012PSDPB	PO	P4	82		5.5P	③-92
			LS-PM-PO	PY012PSDPBG			150			③-98

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	*ℓ*c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	*ℓ*c	Product page
For titanium alloys		22	ZET-B	ZETBMR012P	SP	P3	82	8.5	3P	①-154
			ZET-P	ZETPMT012P	SL	P5			5P	②-22
For nickel base alloys		1 2 9 23	ZEN-B	ZENBMR012P	SP	P3	82	8.5	3P	①-162
			ZEN-P	ZENPMT012P	PO	P5			4.5P	③-86
For medium hardness carbon steels		3 4 5	MHSP	SY012PSOCLJ	SP	P4	110	8.5	2.5P	①-34
		2 3 4 5 10	MHSL	1109101088	SL	P5	110	8.5	5P	②-4
			MHSL-J	MHSLT012P5			82			②-6
Carbide taps for hard materials		7	EH-CT	EHCS012P5	HT	P4	82	8.5	5P	⑤-24
Carbide taps for ultra hard materials		8	UH-CT	UHCS012P5	HT	P4	82	10.5	5P	⑤-28
For stainless steels		2 3 4 9	SU-SP	SUMQ012P	SP	P2	82	8.5	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMS012P	PO	P4	82	8.5	5P	③-61
		1 2 9	SU-HT	TUMS012P4	HT	P4	82	8.5	4P	④-90
				TUMS012P1					1.5P	④-90
	Oversize	2 3 4 9	SU-SP	SUMR012P	SP	P3	82	8.5	2.5P	①-101
				SUMS012P		P4				①-101
		1 2 3 4 9	SU-PO	PUMT012P	PO	P5	82	8.5	5P	③-61
	For deep hole use	1 2 3 4 9	SU-S-SP	SSMQ012P-SU	SP	P2	82	8.5	2.5P	①-119
		1 2 3 9	LS-SU-S-SP	SY012PQGEXES	SP	P2	100	8.5	2.5P	①-120
				SY012PQGEXGS			150			①-120
				SY012PQGEXKS			200			①-121
			LS-SU-S-PO	PY012PSGEXES	PO	P4	100		5P	③-70
				PY012PSGEXGS			150			③-70
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR012P	SP	P3	82	8.5	3P	①-116
For cast irons		12 13	FC-HT	TY012PSAEN5	HT	P4	82	8.5	5P	④-94
				TY012PSAENA					1.5P	④-94
	Carbide	12 13 16	N-CT FC	TCNR012P3	HT	P3	82	8.5	3P	⑤-12
				TCNR012P1					1.5P	⑤-12
				TCNS012P3		P4			3P	⑤-12
				TCNS012P1					1.5P	⑤-12
	Long shank, carbide	12 13 16	LS-N-CT	TY012PSAWB3G	HT	P4	150	8.5	3P	⑤-19
				TY012PSAWBAG					1.5P	⑤-19
For aluminum		15 16 17 18 19 20 21	AL-SP	ASHMR012P	SP	P3	82	8.5	2.5P	①-136
			AL-SP 1.5P	SY012PRLENA					1.5P	①-137
		18 19 21	LA-HT	TY012PSLEN5	HT	P4	82	8.5	5P	④-111
				TY012PSLENA					1.5P	④-111
	AXE	12 19 21	AXE-HT	TAXEMR012P1	HT	P3	82	8.5	1.5P	④-114
	Carbide	19 21	N-CT LA	TCNR012P3A	HT	P3	82	8.5	3P	⑤-4
				TCNR012P1A					1.5P	⑤-4
				TCNS012P3A		P4			3P	⑤-4
				TCNS012P1A					1.5P	⑤-4
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY012PSKWB	SP	P4	82	8.5	2.5P	⑤-20
	Carbide spiral pointed taps	15 16 17 18 19 20 21	N-CT-PO	PCNS012P	PO	P4	82	8.5	5P	⑤-21
For aluminum (with coolant hole)	Carbide	18 19 21	MC-AD-CT	(MCADS012P1)	HT	P4	100	8.5	1.5P	⑤-42
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM8012PP	RO	G8	82	8.5	4P	⑥-29
				NRSM8012PB					2P	⑥-29
				NRSM9012PB		G9				⑥-29
				NRSM9012PP					4P	⑥-29

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	*ℓ*c	Product page
X series	For general steels	2 3	XSP	(SNXR012P)	SP	P3	110	12	2.5P	①-212
			XSL	(SNXS012PL)	SL	P4			5P	②-38
	Coating	1 2 3 4 9 19 21	AUXSP	(VSAXR012P)	SP	P3	110	12	2.5P	①-214
			AUXSL	(VSAXS012PL)	SL	P4			5P	②-40
	For stainless steels	1 2 3 4 9	SUXSP	(SUXS012P)	SP	P4	110	12	2.5P	①-218
			SUXSL	(SUXS012PL)	SL				5P	②-44
For high speed		1 2	F-SP	VFSHMS012P	SP	P4	82	8.5	3P	①-178
			F-SL	VFSHMS012PL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY012PSFEVGS	SP	P4	150	8.5	3P	①-182
			LS-F-SL	LY012PSFEVG	SL				5.5P	②-32
Ultra fast tapping(with coolant hole)	For steels	1 2 3 4	HFIHS	HFIHSS012P	SP	P4	82	12	2.5P	①-186
			HFISP	HFISPS012P						①-190
	Carbide taps for cast irons	12 13 16	HFICT-P	HFICTPR012P	HT	P3	82	12	4P	⑤-36
			HFICT-B	HFICTBR012P					2.5P	⑤-38
	For non-ferrous materials	18 19 20 21	HFAHS	HFAHSS012P	SP	P4	82	12	2.5P	①-194
			HFASP	HFASPS012P						①-198
	Carbide taps for non-ferrous materials	16 19 20 21	HFACT-P	HFACTPR012P	HT	P3	82	12	4P	⑤-32
			HFACT-B	HFACTBR012P					2.5P	⑤-34
For dry tapping (with coolant hole)	For steels	2 3 4	HDISP	HDISPS012P	SP	P4	82	12	2.5P	①-202
	For non-ferrous materials	18 19 20 21	HDASP	HDASPS012P	SP	P4	82	12	2.5P	①-206
Ultra fast tapping (with coolant hole)	For both steels and non ferrous materials	2 3 4	HDISL	HDISLS012P	SL	P4	82	12	5.5P	②-34
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM8012PP	RO	G8	82	8.5	4P	⑥-49
				HRZM8012PB					2P	⑥-49
				HRZM9012PP		G9			4P	⑥-49
				HRZM9012PB					2P	⑥-49
Thread forming taps for carbon steels of medium hardness		2 3 4 5	MHRZ	1110101088	RO	G8	110	8.5	4P	⑥-4
				1111101088					2P	⑥-4
			MHRZ-J	RY012P8OCTP			82		4P	⑥-8
				RY012P8OCTB					2P	⑥-8
	Long	2 3 4 5	MHRZ	2110101088	RO	G8	150	8.5	4P	⑥-5
				2111101088					2P	⑥-5
For deep hole use		2 3 4 13	S-SP	SSMQ012P	SP	P2	82	8.5	2.5P	①-124
		1 2 3 4	S-PO	PSMS012P	PO	P4	82	8.5	5P	③-73
	Oversize	2 3 4 13	S-SP	SSMR012P	SP	P3	82	8.5	2.5P	①-124
		1 2 3 4	S-PO	PSMT012P	PO	P5	82	8.5	5P	③-73
Low spiral		2 3	LO-SP 15°	LSHMQ012P15	SP	P2	82	8.5	2.5P	①-144
			LO-SP 20°	LSHMQ012P20						①-144
			LO-SP 8°	LSHMQ012P8						①-144
	Long	2 3	LS-LO-SP	LSHMQ012PL15	SP	P2	150	8.5	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW012P1LEB5	HT	I b	95	12.5	5P	⑦-4
				TW012P1LEBA					1.5P	⑦-4
		15 16 17 18 19 20 21	AL-SP STI	SW012P1LEN	SP	I b	95	12.5	2.5P	⑦-10
			AL-PO STI	PW012P1LEB	PO				5P	⑦-18
		18 19 21	N-RS STI	RW012P6LENP	RO	G6	95	12.5	4P	⑦-25
				RW012P6LENB					2P	⑦-25

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
With coolant hole	1 2 3 4	MC-SP	(MSHQ012PL10)	SP	P2	100	8.5	2.5P	①-209
			(MSHQ012PL15)			150			①-209
			(MSHQ012PL20)			200			①-209
		MC-PO	(MPHS012PL10)	PO	P4	100		5P	③-100
			(MPHS012PL15)			150			③-100
			(MPHS012PL20)			200			③-100
	1 2 3	MC-HT	(ML10012P5-Q)	HT	P2	100	8.5	5P	④-137
			(ML15012P5-Q)			150			④-137
			(ML20012P5-Q)			200			④-137
			(ML10012P1-Q)			100		1.5P	④-138
			(ML15012P1-Q)			150			④-138
			(ML20012P1-Q)			200			④-138
Nut taps	1 2	NT	NH2012P	HT	IIb	170	9	26P	⑦-27

Taps ／ M12 × 1.5

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard	2 3	SP	SPQ012O	SP	P2	82	8.5	2.5P	①-41
		SP 1.5P	SY012OQNEBA					1.5P	①-59
		PO	POR012O	PO	P3			5P	③-14
	1 2 3	HT	TNMR012O5	HT	P3	82	8.5	5P	④-10
			TNMR012O1					1.5P	④-10
Oversize	2 3	SP	SPR012O	SP	P3	82	8.5	2.5P	①-41
			SPS012O		P4				①-41
		PO	POS012O	PO				5P	③-14
			POT012O		P5				③-14
	1 2 3	HT	TNMS012O5	HT	P4	82	8.5	5P	④-10
			TNMS012O1					1.5P	④-10
			TNMT012O5		P5			5P	④-10
			TNMT012O1					1.5P	④-10
For left hand threads	2 3	SP LH	SPQ012O--L	SP	P2	82	8.5	2.5P	①-79
		PO LH	POR012O--L	PO	P3			5P	③-46
	1 2 3	HT LH	TNMR012O5-L	HT	P3	82	8.5	5P	④-67
			TNMR012O1-L					1.5P	④-67
Oxidizing	1 2 3	SP OX	SPQ012OX	SP	P2	82	8.5	2.5P	①-65
		PO OX	POR012OX	PO	P3			5P	③-35
Coating	1 2 3 4 9 10 13 18 19	VUSP	1101101089	SP	P3	110	8.5	2.5P	①-7
	1 2 3 4 9 19 21	AU+SP	VSAPR012O	SP	P3	82	8.5	2.5P	①-86
		AU+SL	VSAPR012OL	SL				5P	②-14
	1 2 3 4 9 10 13 18 19	VUPO	1102101089	PO	P3	110	8.5	5P	③-5
	1 2 3 4	PO V	VPOR012O	PO	P3	82	8.5	5P	③-48
Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201089	SP	P4	110	8.5	2.5P	①-7
			1101301089		P5				①-7
	1 2 3 4 9 10 13 18 19	VUPO	1102201089	PO	P4	110	8.5	5P	③-5
			1102301089		P5				③-5
Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101089	SP	P3	110	8.5	1.5P	①-14
Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101089	SP	P3	110	8.5	2.5P	①-20
Long	1 2 3 4 9 10 13 18 19	VUSP	2101101089	SP	P3	150	8.5	2.5P	①-8
	1 2 3 4 9 10 13 18 19	VUPO	2102101089	PO	P3	150	8.5	5P	③-6

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Long	2 3	LS-SP	SPQ012OL10	SP	P2	100	8.5	2.5P	①-90
			SPQ012OL12			120			①-90
			SPQ012OL15			150			①-90
			SPQ012OL20			200			①-90
		LS-PO	POR012OL10	PO	P3	100		5P	③-52
			POR012OL12			120			③-52
			POR012OL15			150			③-52
			POR012OL20			200			③-52
	1 2 3	LS-HT	TNMQ012O510	HT	P2	100	8.5	5P	④-76
			TNMQ012O512			120			④-76
			TNMQ012O515			150			④-76
			TNMQ012O520			200			④-76
			TNMQ012O110			100		1.5P	④-76
			TNMQ012O112			120			④-76
			TNMQ012O115			150			④-76
			TNMQ012O120			200			④-76
Oversize	2 3	LS-PO	POS012OL15	PO	P4	150	8.5	5P	③-52
	1 2 3	LS-HT	TNMR012O515	HT	P3	150	8.5	5P	④-76
			TNMR012O115					1.5P	④-76
			TNMS012O515		P4			5P	④-76
			TNMS012O520			200			④-76
			TNMS012O115			150		1.5P	④-76
			TNMS012O120			200			④-76
For left hand threads	2 3	LS-SP LH	SPQ012OL15-L	SP	P2	150	8.5	2.5P	①-95
	1 2 3	LS-HT LH	TNMQ012O515L	HT	P2	150	8.5	5P	④-85
			TNMQ012O115L					1.5P	④-85
Coating	1 2 3 4	LS-SP V	VSPQ012OL15	SP	P2	150	8.5	2.5P	①-96
		LS-PO V	VPOR012OL15	PO	P3			5P	③-57
	2 3 4	LS-HT V	TNMQ012O510V	HT	P2	100	8.5	5P	④-87
			TNMQ012O515V			150			④-87
			TNMQ012O110V			100		1.5P	④-87
			TNMQ012O115V			150			④-87
For soft structural steels	1 2	E-SP	ESHMQ012O	SP	P2	82	8.5	2.5P	①-130
Thread forming taps for steels	1 2	N-RZ	NRZM8012OP	RO	G8	82	8.5	4P	⑥-16
			NRZM8012OB					2P	⑥-16
			NRZM9012OP		G9			4P	⑥-16
			NRZM9012OB					2P	⑥-16
For steels	1 2 3 4 5 9 11	HVSP	SY012OSEEXJ	SP	P4	110	8.5	2.5P	①-24
For high carbon steels	2 3	HC-SP	SCMQ012O	SP	P2	82	8.5	2.5P	①-132
	2 3 5	HC-PO	PCMR012O	PO	P3	82	8.5	5P	③-76
For hard-to-machine materials	3 5 6	EH-PO	EPHMS012O	PO	P4	82	8.5	4.5P	③-82
	6 10	EH-HT	ETHMS012O5	HT	P4	82	8.5	5P	④-124
			ETHMS012O1					2.5P	④-124
Powdered HSS	3 5 6	PM-SP	SY012ORDPB	SP	P3	82	8.5	2.75P	①-168
		LS-PM-SP	SY012ORDPBG			150			①-175
		PM-PO	PY012OSDPB	PO	P4	82		5.5P	③-92
		LS-PM-PO	PY012OSDPBG			150			③-98

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
For titanium alloys		22	ZET-B	ZETBMR012O	SP	P3	82	8.5	3P	①-154
			ZET-P	ZETPMS012O	SL	P4			5P	②-22
For nickel base alloys		1 2 9 23	ZEN-B	ZENBMR012O	SP	P3	82	8.5	3P	①-162
			ZEN-P	ZENPMS012O	PO	P4			4.5P	③-86
For medium hardness carbon steels		3 4 5	MHSP	SY012OSOCLJ	SP	P4	110	8.5	2.5P	①-34
		2 3 4 5 10	MHSL	1109101089	SL	P5	110	8.5	5P	②-4
			MHSL-J	MHSLT012O5			82			②-6
Carbide taps for ultra hard materials		8	UH-CT	UHCS012O5	HT	P4	82	10.5	5P	⑤-28
For stainless steels		2 3 4 9	SU-SP	SUMQ012O	SP	P2	82	8.5	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMR012O	PO	P3	82	8.5	5P	③-61
		1 2 9	SU-HT	TUMR012O4	HT	P3	82	8.5	4P	④-90
				TUMR012O1					1.5P	④-90
	Oversize	2 3 4 9	SU-SP	SUMR012O	SP	P3	82	8.5	2.5P	①-101
				SUMS012O		P4				①-101
		1 2 3 4 9	SU-PO	PUMT012O	PO	P5	82	8.5	5P	③-61
	For deep hole use	1 2 3 9	LS-SU-S-SP	SY012OQGEXGS	SP	P2	150	8.5	2.5P	①-121
				SY012OQGEXKS			200			①-121
			LS-SU-S-PO	PY012ORGEXGS	PO	P3	150		5P	③-70
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR012O	SP	P3	82	8.5	3P	①-116
For cast irons		12 13	FC-HT	TY012OSAEN5	HT	P4	82	8.5	5P	④-94
				TY012OSAENA					1.5P	④-94
	Carbide	12 13 16	N-CT FC	TCNR012O3	HT	P3	82	8.5	3P	⑤-12
				TCNR012O1					1.5P	⑤-12
				TCNS012O3		P4			3P	⑤-12
				TCNS012O1					1.5P	⑤-12
	Long shank, carbide	12 13 16	LS-N-CT	TY012OSAWB3G	HT	P4	150	8.5	3P	⑤-19
				TY012OSAWBAG					1.5P	⑤-19
For aluminum		15 16 17 18 19 20 21	AL-SP	ASHMR012O	SP	P3	82	8.5	2.5P	①-136
			AL-SP 1.5P	SY012ORLENA					1.5P	①-137
		18 19 21	LA-HT	TY012OSLEN5	HT	P4	82	8.5	5P	④-111
				TY012OSLENA					1.5P	④-111
	AXE	12 19 21	AXE-HT	TAXEMR012O1	HT	P3	82	8.5	1.5P	④-114
	Carbide	19 21	N-CT LA	TCNR012O3A	HT	P3	82	8.5	3P	⑤-4
				TCNR012O1A					1.5P	⑤-4
				TCNS012O3A		P4			3P	⑤-4
				TCNS012O1A					1.5P	⑤-5
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY012OSKWB	SP	P4	82	8.5	2.5P	⑤-20
For aluminum (with coolant hole)	Carbide	18 19 21	MC-AD-CT	(MCADS012O1)	HT	P4	100	8.5	1.5P	⑤-42
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM8012OP	RO	G8	82	8.5	4P	⑥-29
				NRSM8012OB					2P	⑥-29
				NRSM9012OP		G9			4P	⑥-29
				NRSM9012OB					2P	⑥-29

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
X series	For general steels	2 3	XSP	(SNXR012O)	SP	P3	110	12	2.5P	①-212
			XSL	(SNXR012OL)	SL				5P	②-38
	Coating	1 2 3 4 9 19 21	AUXSP	(VSAXR012O)	SP	P3	110	12	2.5P	①-214
			AUXSL	(VSAXR012OL)	SL				5P	②-40
	For stainless steels	1 2 3 4 9	SUXSP	(SUXR012O)	SP	P3	110	12	2.5P	①-218
			SUXSL	(SUXS012OL)	SL	P4			5P	②-44
For high speed		1 2	F-SP	VFSHMR012O	SP	P3	82	8.5	3P	①-178
			F-SL	VFSHMR012OL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY012ORFEVGS	SP	P3	150	8.5	3P	①-182
			LS-F-SL	LY012ORFEVG	SL				5.5P	②-32
Ultra fast tapping(with coolant hole)	For steels	1 2 3 4	HFIHS	HFIHSS012O	SP	P4	82	12	2.5P	①-186
			HFISP	HFISPS012O						①-190
	Carbide taps for cast irons	12 13 16	HFICT-P	HFICTPR012O	HT	P3	82	12	4P	⑤-36
			HFICT-B	HFICTBR012O					2.5P	⑤-38
	For non-ferrous materials	18 19 20 21	HFAHS	HFAHSS012O	SP	P4	82	12	2.5P	①-194
			HFASP	HFASPS012O						①-198
	Carbide taps for non-ferrous materials	16 19 20 21	HFACT-P	HFACTPR012O	HT	P3	82	12	4P	⑤-32
			HFACT-B	HFACTBR012O					2.5P	⑤-34
For dry tapping (with coolant hole)	For steels	2 3 4	HDISP	HDISPS012O	SP	P4	82	12	2.5P	①-202
	For non-ferrous materials	18 19 20 21	HDASP	HDASPS012O	SP	P4	82	12	2.5P	①-206
Ultra fast tapping (with coolant hole)	For both steels and non ferrous materials	2 3 4	HDISL	HDISLS012O	SL	P4	82	12	5.5P	②-34
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM8012OP	RO	G8	82	8.5	4P	⑥-49
				HRZM8012OB					2P	⑥-49
				HRZM9012OP		G9			4P	⑥-49
				HRZM9012OB					2P	⑥-49
Thread forming taps for carbon steels of medium hardness		2 3 4 5	MHRZ	1110101089	RO	G8	110	8.5	4P	⑥-4
				1111101089					2P	⑥-4
			MHRZ-J	RY012O8OCTP			82		4P	⑥-8
				RY012O8OCTB					2P	⑥-8
	Long	2 3 4 5	MHRZ	2110101089	RO	G8	150	8.5	4P	⑥-5
				2111101089					2P	⑥-5
For deep hole use		2 3 4 13	S-SP	SSMQ012O	SP	P2	82	8.5	2.5P	①-124
		1 2 3 4	S-PO	PSMR012O	PO	P3	82	8.5	5P	③-73
	Oversize	2 3 4 13	S-SP	SSMR012O	SP	P3	82	8.5	2.5P	①-124
		1 2 3 4	S-PO	PSMT012O	PO	P5	82	8.5	5P	③-74
Low spiral	Long	2 3	LS-LO-SP	LSHMQ012OL15	SP	P2	150	8.5	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW012O1LEB5	HT	I b	88	10.5	5P	⑦-4
				TW012O1LEBA					1.5P	⑦-4
		15 16 17 18 19 20 21	AL-SP STI	SW012O1LEN	SP	I b	88	10.5	2.5P	⑦-10
		18 19 21	N-RS STI	RW012O6LENP	RO	G6	88	10.5	4P	⑦-25
				RW012O6LENB					2P	⑦-25
With coolant hole		1 2 3 4	MC-SP	(MSHQ012OL10)	SP	P2	100	8.5	2.5P	①-209
				(MSHQ012OL15)			150			①-209
				(MSHQ012OL20)			200			①-209
			MC-PO	(MPHR012OL10)	PO	P3	100		5P	③-100
				(MPHR012OL15)			150			③-100
				(MPHR012OL20)			200			③-100

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
With coolant hole	1 2 3	MC-HT	(ML10012O5-Q)	HT	P2	100	8.5	5P	④-138
			(ML15012O5-Q)			150			④-138
			(ML20012O5-Q)			200			④-138
			(ML10012O1-Q)			100		1.5P	④-138
			(ML15012O1-Q)			150			④-138
			(ML20012O1-Q)			200			④-138
Nut taps	1 2	NT	NH2012O	HT	II	160	9	25P	⑦-27
Taps ／ M12 × 1.25									
Standard	2 3	SP	SPQ012N	SP	P2	82	8.5	2.5P	①-41
		+SP	SNPQ012N						①-57
		SP 1.5P	SY012NQNEBA					1.5P	①-59
		PO	POS012N	PO	P4			5P	③-14
	1 2 3	HT	TNMS012N5T	HT	P4	82	8.5	5P	④-10
			TNMS012N1T					1.5P	④-10
			TNMS012N5					5P	④-10
			TNMS012N1					1.5P	④-10
Oversize	2 3	SP	SPR012N	SP	P3	82	8.5	2.5P	①-41
			SPS012N		P4				①-41
		PO	POT012N	PO	P5			5P	③-14
	1 2 3	HT	TNMT012N5	HT	P5	82	8.5	5P	④-10
			TNMT012N1					1.5P	④-10
For left hand threads	2 3	SP LH	SPQ012N--L	SP	P2	82	8.5	2.5P	①-79
		PO LH	POS012N--L	PO	P4			5P	③-46
	1 2 3	HT LH	TNMS012N5-L	HT	P4	82	8.5	5P	④-67
			TNMS012N1-L					1.5P	④-67
Oxidizing	1 2 3	SP OX	SPQ012NX	SP	P2	82	8.5	2.5P	①-65
		PO OX	POS012NX	PO	P4			5P	③-35
Coating	1 2 3 4 9 10 13 18 19	VUSP	1101101090	SP	P3	110	8.5	2.5P	①-7
	1 2 3 4 9 19 21	AU+SP	VSAPR012N	SP	P3	82	8.5	2.5P	①-86
		AU+SL	VSAPR012NL	SL				5P	②-14
	1 2 3 4 9 10 13 18 19	VUPO	1102101090	PO	P4	110	8.5	5P	③-5
	1 2 3 4	PO V	VPOS012N	PO	P4	82	8.5	5P	③-48
Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201090	SP	P4	110	8.5	2.5P	①-7
			1101301090		P5				①-7
	1 2 3 4 9 10 13 18 19	VUPO	1102201090	PO	P5	110	8.5	5P	③-5
			1102301090		P6				③-5
Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101090	SP	P3	110	8.5	1.5P	①-14
Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101090	SP	P3	110	8.5	2.5P	①-20
Long	1 2 3 4 9 10 13 18 19	VUSP	2101101090	SP	P3	150	8.5	2.5P	①-8
	1 2 3 4 9 10 13 18 19	VUPO	2102101090	PO	P4	150	8.5	5P	③-6
Long	2 3	LS-SP	SPQ012NL10	SP	P2	100	8.5	2.5P	①-90
			SPQ012NL12			120			①-90
			SPQ012NL15			150			①-90
			SPQ012NL20			200			①-90
		LS-PO	POS012NL10	PO	P4	100		5P	③-52
			POS012NL12			120			③-52
			POS012NL15			150			③-52
			POS012NL20			200			③-52

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Long	1 2 3	LS-HT	TNMQ012N510	HT	P2	100	8.5	5P	④-76
			TNMQ012N512			120			④-76
			TNMQ012N515			150			④-76
			TNMQ012N520			200			④-76
			TNMQ012N110			100		1.5P	④-76
			TNMQ012N112			120			④-76
			TNMQ012N115			150			④-76
			TNMQ012N120			200			④-76
Oversize	2 3	LS-PO	POT012NL15	PO	P5	150	8.5	5P	③-53
	1 2 3	LS-HT	TNMR012N515	HT	P3	150	8.5	5P	④-76
			TNMR012N115					1.5P	④-76
			TNMS012N515		P4			5P	④-76
			TNMS012N520			200			④-76
			TNMS012N115			150		1.5P	④-76
			TNMS012N120			200			④-76
For left hand threads	2 3	LS-SP LH	SPQ012NL15-L	SP	P2	150	8.5	2.5P	①-95
	1 2 3	LS-HT LH	TNMQ012N515L	HT	P2	150	8.5	5P	④-85
			TNMQ012N115L					1.5P	④-85
Oxidizing	1 2	LS-SP OX	SPQ012NL12X	SP	P2	120	8.5	2.5P	①-94
Coating	1 2 3 4	LS-SP V	VSPQ012NL15	SP	P2	150	8.5	2.5P	①-96
		LS-PO V	VPOS012NL15	PO	P4			5P	③-57
	2 3 4	LS-HT V	TNMQ012N510V	HT	P2	100	8.5	5P	④-87
			TNMQ012N515V			150			④-87
			TNMQ012N110V			100		1.5P	④-87
			TNMQ012N115V			150			④-87
For soft structural steels	1 2	E-SP	ESHMQ012N	SP	P2	82	8.5	2.5P	①-130
Thread forming taps for steels	1 2	N-RZ	NRZM8012NP	RO	G8	82	8.5	4P	⑥-16
			NRZM8012NB					2P	⑥-17
			NRZM9012NP		G9			4P	⑥-17
			NRZM9012NB					2P	⑥-17
For steels	1 2 3 4 5 9 11	HVSP	SY012NSEEXJ	SP	P4	110	8.5	2.5P	①-24
For high carbon steels	2 3	HC-SP	SCMQ012N	SP	P2	82	8.5	2.5P	①-132
	2 3 5	HC-PO	PCMS012N	PO	P4	82	8.5	5P	③-76
For hard-to-machine materials	3 5 6	EH-PO	EPHMS012N	PO	P4	82	8.5	4.5P	③-82
	6 10	EH-HT	ETHMS012N5	HT	P4	82	8.5	5P	④-124
			ETHMS012N1					2.5P	④-124
Powdered HSS	3 5 6	PM-SP	SY012NSDPB	SP	P4	82	8.5	2.75P	①-168
		LS-PM-SP	SY012NSDPBG			150			①-175
		PM-PO	PY012NSDPB	PO		82		5.5P	③-92
		LS-PM-PO	PY012NSDPBG			150			③-98
For titanium alloys	22	ZET-B	ZETBMR012N	SP	P3	82	8.5	3P	①-154
		ZET-P	ZETPMT012N	SL	P5			5P	②-22
For nickel base alloys	1 2 9 23	ZEN-B	ZENBMR012N	SP	P3	82	8.5	3P	①-162
		ZEN-P	ZENPMT012N	PO	P5			4.5P	③-86
For medium hardness carbon steels	3 4 5	MHSP	SY012NSOCLJ	SP	P4	110	8.5	2.5P	①-34
	2 3 4 5 10	MHSL	1109101090	SL	P5	110	8.5	7P	②-4
		MHSL-J	MHSLT012N7			82			②-6
Carbide taps for ultra hard materials	8	UH-CT	UHCS012N5	HT	P4	82	10.5	5P	⑤-28

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For stainless steels		2 3 4 9	SU-SP	SUMQ012N	SP	P2	82	8.5	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMS012N	PO	P4	82	8.5	5P	③-61
		1 2 9	SU-HT	TUMS012N4	HT	P4	82	8.5	4P	④-91
				TUMS012N1					1.5P	④-91
	Oversize	2 3 4 9	SU-SP	SUMR012N	SP	P3	82	8.5	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMT012N	PO	P5	82	8.5	5P	③-61
	For deep hole use	1 2 3 9	LS-SU-S-SP	SY012NQGEXGS	SP	P2	150	8.5	2.5P	①-121
				SY012NQGEXKS			200			①-121
			LS-SU-S-PO	PY012NSGEXGS	PO	P4	150		5P	③-70
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR012N	SP	P3	82	8.5	3P	①-116
For cast irons		12 13	FC-HT	TY012NSAEN5	HT	P4	82	8.5	5P	④-94
				TY012NSAENA					1.5P	④-94
	Carbide	12 13 16	N-CT FC	TCNR012N3	HT	P3	80	8.5	3P	⑤-12
				TCNR012N1					1.5P	⑤-12
				TCNS012N3		P4			3P	⑤-12
				TCNS012N1					1.5P	⑤-12
	Long shank, carbide	12 13 16	LS-N-CT	TY012NSAWB3G	HT	P4	150	8.5	3P	⑤-19
				TY012NSAWBAG					1.5P	⑤-19
For aluminum		15 16 17 18 19 20 21	AL-SP	ASHMR012N	SP	P3	82	8.5	2.5P	①-136
			AL-SP 1.5P	SY012NRLENA					1.5P	①-137
		18 19 21	LA-HT	TY012NSLEN5	HT	P4	82	8.5	5P	④-111
				TY012NSLENA					1.5P	④-111
	AXE	12 19 21	AXE-HT	TAXEMR012N1	HT	P3	82	8.5	1.5P	④-114
	Carbide	19 21	N-CT LA	TCNR012N3A	HT	P3	80	8.5	3P	⑤-5
				TCNR012N1A					1.5P	⑤-5
				TCNS012N3A		P4			3P	⑤-5
				TCNS012N1A					1.5P	⑤-5
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY012NSKWB	SP	P4	80	8.5	2.5P	⑤-20
For aluminum (with coolant hole)	Carbide	18 19 21	MC-AD-CT	(MCADS012N1)	HT	P4	100	8.5	1.5P	⑤-42
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM8012NP	RO	G8	82	8.5	4P	⑥-29
				NRSM8012NB					2P	⑥-29
				NRSM9012NP		G9			4P	⑥-29
				NRSM9012NB					2P	⑥-29
X series	For general steels	2 3	XSP	(SNXR012N)	SP	P3	110	12	2.5P	①-212
			XSL	(SNXR012NL)	SL				5P	②-38
	Coating	1 2 3 4 9 19 21	AUXSP	(VSAXR012N)	SP	P3	110	12	2.5P	①-214
			AUXSL	(VSAXR012NL)	SL				5P	②-40
	For stainless steels	1 2 3 4 9	SUXSP	(SUXR012N)	SP	P3	110	12	2.5P	①-218
			SUXSL	(SUXS012NL)	SL	P4			5P	②-44
For high speed		1 2	F-SP	VFSHMS012N	SP	P4	82	8.5	3P	①-178
			F-SL	VFSHMS012NL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY012NSFEVGS	SP	P4	150	8.5	3P	①-182
			LS-F-SL	LY012NSFEVG	SL				5.5P	②-32
Ultra fast tapping(with coolant hole)	For steels	1 2 3 4	HFIHS	HFIHSS012N	SP	P4	82	12	2.5P	①-186
			HFISP	HFISPS012N						①-190
	Carbide taps for cast irons	12 13 16	HFICT-P	HFICTPR012N	HT	P3	82	12	4P	⑤-36
			HFICT-B	HFICTBR012N					2.5P	⑤-38
	For non-ferrous materials	18 19 20 21	HFAHS	HFAHSS012N	SP	P4	82	12	2.5P	①-194
			HFASP	HFASPS012N						①-198
	Carbide taps for non-ferrous materials	16 19 20 21	HFACT-P	HFACTPR012N	HT	P3	82	12	4P	⑤-32
			HFACT-B	HFACTBR012N					2.5P	⑤-34

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For dry tapping (with coolant hole)	For steels	2 3 4	HDISP	HDISPS012N	SP	P4	82	12	2.5P	①-202
	For non-ferrous materials	18 19 20 21	HDASP	HDASPS012N	SP	P4	82	12	2.5P	①-206
Ultra fast tapping (with coolant hole)	For both steels and non ferrous materials	2 3 4	HDISL	HDISLS012N	SL	P4	82	12	5.5P	②-34
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM8012NP	RO	G8	82	8.5	4P	⑥-49
				HRZM8012NB					2P	⑥-49
				HRZM9012NP		G9			4P	⑥-49
				HRZM9012NB					2P	⑥-49
Thread forming taps for carbon steels of medium hardness		2 3 4 5	MHRZ	1110101090	RO	G8	110	8.5	4P	⑥-4
				1111101090					2P	⑥-4
			MHRZ-J	RY012N8OCTP			82		4P	⑥-8
				RY012N8OCTB					2P	⑥-8
	Long	2 3 4 5	MHRZ	2110101090	RO	G8	150	8.5	4P	⑥-5
				2111101090					2P	⑥-5
For deep hole use		2 3 4 13	S-SP	SSMQ012N	SP	P2	82	8.5	2.5P	①-124
		1 2 3 4	S-PO	PSMS012N	PO	P4	82	8.5	5P	③-74
	Oversize	2 3 4 13	S-SP	SSMR012N	SP	P3	82	8.5	2.5P	①-124
		1 2 3 4	S-PO	PSMT012N	PO	P5	82	8.5	5P	③-74
Low spiral	Long	2 3	LS-LO-SP	LSHMQ012NL15	SP	P2	150	8.5	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW012N1LEB5	HT	I b	88	10.5	5P	⑦-4
				TW012N1LEBA					1.5P	⑦-4
		15 16 17 18 19 20 21	AL-SP STI	SW012N1LEN	SP	I b	88	10.5	2.5P	⑦-10
		18 19 21	N-RS STI	RW012N6LENP	RO	G6	88	10.5	4P	⑦-25
				RW012N6LENB					2P	⑦-25
With coolant hole		1 2 3 4	MC-SP	(MSHQ012NL10)	SP	P2	100	8.5	2.5P	①-209
				(MSHQ012NL15)			150			①-209
				(MSHQ012NL20)			200			①-209
			MC-PO	(MPHS012NL10)	PO	P4	100		5P	③-100
				(MPHS012NL15)			150			③-100
				(MPHS012NL20)			200			③-100
		1 2 3	MC-HT	(ML10012N5-Q)	HT	P2	100	8.5	5P	④-138
				(ML15012N5-Q)			150			④-138
				(ML20012N5-Q)			200			④-138
				(ML10012N1-Q)			100		1.5P	④-138
				(ML15012N1-Q)			150			④-138
				(ML20012N1-Q)			200			④-138
Nut taps		1 2	NT	NH2012N	HT	II	160	9	24P	⑦-27

Taps ／ M12 × 1

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Standard		2 3	SP	SPQ012M	SP	P2	82	8.5	2.5P	①-41
			SP 1.5P	SY012MQNEBA					1.5P	①-59
			PO	POR012M	PO	P3			5P	③-14
		1 2 3	HT	TNMR012M5	HT	P3	82	8.5	5P	④-10
				TNMR012M1					1.5P	④-10
	Oversize	2 3	SP	SPR012M	SP	P3	82	8.5	2.5P	①-41
				SPS012M		P4				①-41
			PO	POS012M	PO				5P	③-14
		1 2 3	HT	TNMS012M5	HT	P4	82	8.5	5P	④-10
				TNMS012M1					1.5P	④-10

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For left hand threads	2 3	SP LH	SPQ012M--L	SP	P2	82	8.5	2.5P	①-79
		PO LH	POR012M--L	PO	P3			5P	③-46
	1 2 3	HT LH	TNMR012M5-L	HT	P3	82	8.5	5P	④-67
			TNMR012M1-L					1.5P	④-67
Oxidizing	1 2 3	SP OX	SPQ012MX	SP	P2	82	8.5	2.5P	①-65
Long	2 3	LS-SP	SPQ012ML10	SP	P2	100	8.5	2.5P	①-91
			SPQ012ML12			120			①-91
			SPQ012ML15			150			①-91
		LS-PO	POR012ML10	PO	P3	100		5P	③-53
			POR012ML15			150			③-53
	1 2 3	LS-HT	TNMQ012M510	HT	P2	100	8.5	5P	④-77
			TNMQ012M512			120			④-77
			TNMQ012M515			150			④-77
			TNMQ012M110			100		1.5P	④-77
			TNMQ012M112			120			④-77
			TNMQ012M115			150			④-77
Thread forming taps for steels	1 2	N-RZ	NRZM7012MP	RO	G7	82	8.5	4P	⑥-17
			NRZM7012MB					2P	⑥-17
For high carbon steels	2 3	HC-SP	SCMQ012M	SP	P2	82	8.5	2.5P	①-132
For stainless steels	2 3 4 9	SU-SP	SUMQ012M	SP	P2	82	8.5	2.5P	①-101
	1 2 3 4 9	SU-PO	PUMR012M	PO	P3	82	8.5	5P	③-61
	1 2 9	SU-HT	TUMR012M4	HT	P3	82	8.5	4P	④-91
			TUMR012M1					1.5P	④-91
For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR012M	SP	P3	82	8.5	3P	①-116
For cast irons	12 13	FC-HT	TY012MRAEN5	HT	P3	82	8.5	5P	④-94
			TY012MRAENA					1.5P	④-94
Carbide	12 13 16	N-CT FC	TCNR012M3	HT	P3	70	8.5	3P	⑤-12
			TCNR012M1					1.5P	⑤-12
			TCNS012M3		P4			3P	⑤-12
			TCNS012M1					1.5P	⑤-12
For aluminum	15 16 17 18 19 20 21	AL-SP	ASHMR012M	SP	P3	82	8.5	2.5P	①-136
		AL-SP 1.5P	SY012MRLENA					1.5P	①-137
	18 19 21	LA-HT	TY012MRLEN5	HT	P3	82	8.5	5P	④-111
			TY012MRLENA					1.5P	④-111
Carbide	19 21	N-CT LA	TCNR012M3A	HT	P3	70	8.5	3P	⑤-5
			TCNR012M1A					1.5P	⑤-5
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM7012MP	RO	G7	82	8.5	4P	⑥-29
			NRSM7012MB					2P	⑥-29
For deep hole use	2 3 4 13	S-SP	SSMQ012M	SP	P2	82	8.5	2.5P	①-124
	1 2 3 4	S-PO	PSMR012M	PO	P3	82	8.5	5P	③-74
Nut taps	1 2	NT	NH2012M	HT	II	150	9	25P	⑦-27

Taps ／ M12 × 0.75

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard	2 3	SP	SPQ012J	SP	P2	82	8.5	2.5P	①-41
		PO	POR012J	PO	P3			5P	③-14
	1 2 3	HT	TNMR012J5	HT	P3	82	8.5	5P	④-10
			TNMR012J1					1.5P	④-10

Taps ／ M12 × 0.5

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard	2 3	SP	SPQ012G	SP	P2	82	8.5	2.5P	①-41
		PO	POQ012G	PO				5P	③-14
	1 2 3	HT	TNMQ012G5	HT	P2	82	8.5	5P	④-10
			TNMQ012G1					1.5P	④-10

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

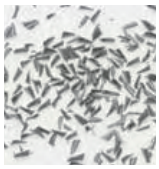
Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M12 × 1.75									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ012PDNEBC	⑩-4
					50	16		TYM012PDNEBC	⑩-4
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ012PDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	38	13	1.5P	PYJ012PSNEBA	⑩-36
					50	16		PYM012PSNEBA	⑩-36
Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ012PQNEBA	⑩-36
					50	16		PYM012PQNEBA	⑩-36
Dies ／ M12 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ012ODNEBC	⑩-4
					50	16		TYM012ODNEBC	⑩-4
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ012ODNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	38	13	1.5P	PYJ012OSNEBA	⑩-36
Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ012OQNEBA	⑩-36
Dies ／ M12 × 1.25									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ012NDNEBC	⑩-4
					50	16		TYM012NDNEBC	⑩-4
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ012NDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S6	38	13	1.5P	PYJ012NUNEBA	⑩-36
Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ012NQNEBA	⑩-36
Dies ／ M12 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ012MDNEBC	⑩-4
					50	16		TYM012MDNEBC	⑩-4
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ012MDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S5	38	13	1.5P	PYJ012MTNEBA	⑩-36
Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ012MQNEBA	⑩-36
Dies ／ M12 × 0.75									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ012JDNEBC	⑩-4
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ012JDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S5	38	13	1.5P	PYJ012JTNEBA	⑩-36
Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ012JQNEBA	⑩-36
Dies ／ M12 × 0.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ012GDNEBC	⑩-4
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ012GDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S6	38	13	1.5P	PYJ012GUNEBA	⑩-36
Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ012GQNEBA	⑩-36

Explanation of catalogue contents

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For cast irons	Carbide	12 13 16	N-CT FC	TCNR2.0E3	HT	P3	40	3	3P	⑤-8
				TCNR2.0E1					1.5P	⑤-8
For aluminum		15 16 17 18 19 20 21	AL+SP	ASHPQ2.0E	SP	P2	42	3	2.5P	①-122
			AL-SP 1.5P	SY2.0EQLENA					1.5P	①-123
		18 19 21	LA-HT	TY2.0EQLEN5	HT	P2	42	3	5P	④-102
				TY2.0EQLENA					1.5P	④-102

Page shown in line-ups depending on products

Classification of materials

Kind	Chip shape after boring (drilling)		No.	Examples of materials
Ferrous		Chip or powder like	⑫⑬	Cast iron, Ductile cast iron
			⑧	Thermal refined steel (50~63HRC)
			⑦	Thermal refined steel (45~55HRC)
			⑥	Thermal refined steel (35~45HRC)
			⑤	Thermal refined steel (25~35HRC)
			③④⑩	High carbon steel, Alloy steel, Tool steel
			②⑪	Medium carbon steel, Cast steel
			⑨	Stainless steel
		Continuous	①	Low carbon steel
Non-ferrous		Continuous	㉒	Titanium alloy
			㉓	Nickel base alloy
			⑭⑮⑰⑱	Copper, Brass, Bronze, Wrought aluminum
			⑯⑲⑳㉑	Brass casting, Aluminum alloy casting, Magnesium alloy, Zinc alloy
		Chip or powder like	㉔㉕	Thermosetting plastic, Thermoplastic resin

Hardness of materials : Please refer to material composition table shown in technical data.

Flute shape of taps and chip ejection

SP= Spiral	PO= Spiral point	SL= LH spiral	HT= Straight	RO= Forming
				
 Continuous chips	 Chip ejection		 Broken chips stored in flutes	No chips thread forming

Think threads with YAMAWA

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M1 × 0.25										
Standard		1 2 3	HT	TNMP1.0B5	HT	P1	36	3	5P	④-5
				TNMP1.0B1					1.5P	④-5
For left hand threads		1 2 3	HT LH	TNMP1.0B5-L	HT	P1	36	3	5P	④-66
				TNMP1.0B1-L					1.5P	④-66
Coating		1 2 9 14 18 19 21	R+V	RVP41.0BP	RO	G4	36	3	4P	⑥-38
				RVP41.0BB					2P	⑥-38
				RVP51.0BP		G5			4P	⑥-38
				RVP51.0BB					2P	⑥-38
Thread forming taps for steels		1 2	N+RZ	NRZP41.0BP	RO	G4	36	3	4P	⑥-14
				NRZP41.0BB					2P	⑥-14
				NRZP51.0BP		G5			4P	⑥-14
				NRZP51.0BB					2P	⑥-14
Thread forming taps for non-ferrous materials		18 19 21	N+RS	NRSP41.0BP	RO	G4	36	3	4P	⑥-26
				NRSP41.0BB					2P	⑥-26
				NRSP51.0BP		G5			4P	⑥-26
				NRSP51.0BB					2P	⑥-26
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL+RZ	OLRZP41.0BP	RO	G4	36	3	4P	⑥-42
High performance thread forming taps		1 2 3 4 5 9 19	HP+RZ	HRZP41.0BB	RO	G4	36	3	2P	⑥-48
Torqueless thread forming taps	Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM41.0B1	RO	G4	36	3	1P	⑥-58
	Seamless	1 2 9	SURZ	SURZ41.0BB	RO	G4	36	3	2P	⑥-60
Taps ／ M1 × 0.2										
Standard		1 2 3	HT	TNMP1.0A5	HT	P1	36	3	5P	④-5
				TNMP1.0A1					1.5P	④-5
Taps ／ M1.1 × 0.25										
Standard		1 2 3	HT	TNMP1.1B5	HT	P1	36	3	5P	④-5
				TNMP1.1B1					1.5P	④-5
Taps ／ M1.1 × 0.2										
Standard		1 2 3	HT	TNMP1.1A5	HT	P1	36	3	5P	④-5
				TNMP1.1A1					1.5P	④-5
Taps ／ M1.2 × 0.25										
Standard		2 3	SP	SPP1.2B	SP	P1	36	3	2.5P	①-39
			SP 1.5P	SY1.2BPNEBA					1.5P	①-58
			PO	POP1.2B	PO				5P	③-13
		1 2 3	HT	TNMP1.2B5	HT	P1	36	3	5P	④-5
				TNMP1.2B1					1.5P	④-5
	Oversize	1 2 3	HT	TNMR1.2B5	HT	P3	36	3	5P	④-5
				TNMR1.2B1					1.5P	④-5
For left hand threads		1 2 3	HT LH	TNMP1.2B5-L	HT	P1	36	3	5P	④-66
				TNMP1.2B1-L					1.5P	④-66
Coating		1 2 9 14 18 19 21	R+V	RVP41.2BP	RO	G4	36	3	4P	⑥-38
				RVP41.2BB					2P	⑥-38
				RVP51.2BP		G5			4P	⑥-38
				RVP51.2BB					2P	⑥-38
Thread forming taps for steels		1 2	N+RZ	NRZP41.2BP	RO	G4	36	3	4P	⑥-14
				NRZP41.2BB					2P	⑥-14
				NRZP51.2BP		G5			4P	⑥-14
				NRZP51.2BB					2P	⑥-14
Thread forming taps for non-ferrous materials		18 19 21	N+RS	NRSP41.2BP	RO	G4	36	3	4P	⑥-26
				NRSP41.2BB					2P	⑥-26
				NRSP51.2BP		G5			4P	⑥-26
				NRSP51.2BB					2P	⑥-26
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL+RZ	OLRZP41.2BP	RO	G4	36	3	4P	⑥-42
High performance thread forming taps		1 2 3 4 5 9 19	HP+RZ	HRZP41.2BB	RO	G4	36	3	2P	⑥-48
Torqueless thread forming taps	Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM41.2B1	RO	G4	36	3	1P	⑥-58
	Seamless	1 2 9	SURZ	SURZ41.2BB	RO	G4	36	3	2P	⑥-60
Taps ／ M1.2 × 0.2										
Standard		1 2 3	HT	TNMP1.2A5	HT	P1	36	3	5P	④-5
				TNMP1.2A1					1.5P	④-5
Taps ／ M1.4 × 0.3										
Standard		2 3	SP	SPP1.4C	SP	P1	36	3	2.5P	①-39
			SP 1.5P	SY1.4CPNEBA					1.5P	①-58
			PO	POP1.4C	PO				5P	③-13
		1 2 3	HT	TNMP1.4C5	HT	P1	36	3	5P	④-5
				TNMP1.4C1					1.5P	④-5
	Oversize	2 3	PO	POQ1.4C	PO	P2	36	3	5P	③-13
				POR1.4C		P3				③-13
		1 2 3	HT	TNMR1.4C5	HT	P3	36	3	5P	④-5
				TNMR1.4C1					1.5P	④-5
For left hand threads		1 2 3	HT LH	TNMP1.4C5-L	HT	P1	36	3	5P	④-66
				TNMP1.4C1-L					1.5P	④-66
Oxidizing		1 2 3	SP OX	SPP1.4CX	SP	P1	36	3	2.5P	①-65
			PO OX	POP1.4CX	PO				5P	③-34
	Oversize	1 2 3	PO OX	POQ1.4CX	PO	P2	36	3	5P	③-34
Coating		1 2 9 14 18 19 21	R+V	RVP41.4CP	RO	G4	36	3	4P	⑥-38
				RVP41.4CB					2P	⑥-38
				RVP51.4CP		G5			4P	⑥-38
				RVP51.4CB					2P	⑥-38
Thread forming taps for steels		1 2	N+RZ	NRZP41.4CP	RO	G4	36	3	4P	⑥-14
				NRZP41.4CB					2P	⑥-14
				NRZP51.4CP		G5			4P	⑥-14
				NRZP51.4CB					2P	⑥-14
For high carbon steels		2 3 5	HC+PO	PCPP1.4C	PO	P1	36	3	5P	③-76
For stainless steels		2 3 4 9	SU-SP	SUMP1.4C	SP	P1	36	3	2.5P	①-101
		1 2 3 4 9	SU+PO	PUPP1.4C	PO	P1	36	3	5P	③-60
For cast irons	Carbide	12 13 16	N-CT FC	TCNR1.4C3	HT	P3	34	3	3P	⑤-10
				TCNR1.4C1					1.5P	⑤-10
For aluminum		18 19 21	LA-HT	TY1.4CQLEN5	HT	P2	36	3	5P	④-110
				TY1.4CQLENA					1.5P	④-110
	Carbide	19 21	N-CT LA	TCNR1.4C3A	HT	P3	34	3	3P	⑤-3
				TCNR1.4C1A					1.5P	⑤-3

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Thread forming taps for non-ferrous materials		18 19 21	N+RS	NRSP41.4CP	RO	G4	36	3	4P	⑥-26
				NRSP41.4CB					2P	⑥-26
				NRSP51.4CP		G5			4P	⑥-26
				NRSP51.4CB					2P	⑥-26
Short chamfer		19 20 21	MG-HT	TMGMQ1.4C1	HT	P2	36	3	1P	④-118
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL+RZ	OLRZP41.4CP	RO	G4	36	3	4P	⑥-42
High performance thread forming taps		1 2 3 4 5 9 19	HP+RZ	HRZP41.4CB	RO	G4	36	3	2P	⑥-48
Torqueless thread forming taps	Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM41.4C1	RO	G4	36	3	1P	⑥-58
	Seamless	1 2 9	SURZ	SURZ41.4CB	RO	G4	36	3	2P	⑥-60
Taps ／ M1.4 × 0.2										
Standard		1 2 3	HT	TNMP1.4A5	HT	P1	36	3	5P	④-5
				TNMP1.4A1					1.5P	④-5
Torqueless thread forming taps	Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM31.4A1	RO	G3	36	3	1P	⑥-58
Taps ／ M1.6 × 0.35										
Standard		2 3	SP	SPP1.6D	SP	P1	36	3	2.5P	①-39
			SP 1.5P	SY1.6DPNEBA					1.5P	①-58
			PO	POQ1.6D	PO	P2			5P	③-13
		1 2 3	HT	TNMQ1.6D5	HT	P2	36	3	5P	④-5
				TNMQ1.6D1					1.5P	④-5
	Oversize	2 3	PO	POR1.6D	PO	P3	36	3	5P	③-13
For left hand threads		1 2 3	HT LH	TNMQ1.6D5-L	HT	P2	36	3	5P	④-66
				TNMQ1.6D1-L					1.5P	④-66
Oxidizing		1 2 3	SP OX	SPP1.6DX	SP	P1	36	3	2.5P	①-65
			PO OX	POQ1.6DX	PO	P2			5P	③-34
Coating		1 2 9 14 18 19 21	R+V	RVP41.6DP	RO	G4	36	3	4P	⑥-38
				RVP41.6DB					2P	⑥-38
				RVP51.6DP		G5			4P	⑥-38
				RVP51.6DB					2P	⑥-38
				RVP61.6DB		G6				⑥-38
Thread forming taps for steels		1 2	N+RZ	NRZP41.6DP	RO	G4	36	3	4P	⑥-14
				NRZP41.6DB					2P	⑥-14
				NRZP51.6DP		G5			4P	⑥-14
				NRZP51.6DB					2P	⑥-14
For high carbon steels		2 3 5	HC+PO	PCPQ1.6D	PO	P2	36	3	5P	③-76
For stainless steels		2 3 4 9	SU-SP	SUMP1.6D	SP	P1	36	3	2.5P	①-101
		1 2 3 4 9	SU+PO	PUPQ1.6D	PO	P2	36	3	5P	③-60
For cast irons	Carbide	12 13 16	N-CT FC	TCNR1.6D3	HT	P3	36	3	3P	⑤-10
				TCNR1.6D1					1.5P	⑤-10
For aluminum		18 19 21	LA-HT	TY1.6DQLEN5	HT	P2	36	3	5P	④-110
				TY1.6DQLENA					1.5P	④-110
	Carbide	19 21	N-CT LA	TCNR1.6D3A	HT	P3	36	3	3P	⑤-3
				TCNR1.6D1A					1.5P	⑤-3
Thread forming taps for non-ferrous materials		18 19 21	N+RS	NRSP41.6DP	RO	G4	36	3	4P	⑥-26
				NRSP41.6DB					2P	⑥-26
				NRSP51.6DP		G5			4P	⑥-26
				NRSP51.6DB					2P	⑥-26
				NRSP61.6DP		G6			4P	⑥-26
				NRSP61.6DB					2P	⑥-26
Short chamfer		19 20 21	MG-HT	TMGMQ1.6D1	HT	P2	36	3	1P	④-118

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL+RZ	OLRZP41.6DP	RO	G4	36	3	4P	⑥-42
				OLRZP61.6DP		G6				⑥-42
High performance thread forming taps		1 2 3 4 5 9 19	HP+RZ	HRZP41.6DB	RO	G4	36	3	2P	⑥-48
Torqueless thread forming taps	Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM41.6D1	RO	G4	36	3	1P	⑥-58
	Seamless	1 2 9	SURZ	SURZ41.6DB	RO	G4	36	3	2P	⑥-60
Taps ／ M1.6 × 0.2										
Standard		1 2 3	HT	TNMP1.6A5	HT	P1	36	3	5P	④-5
				TNMP1.6A1					1.5P	④-5
Torqueless thread forming taps	Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM31.6A1	RO	G3	36	3	1P	⑥-58
	Seamless	1 2 9	SURZ	SURZ31.6AB	RO	G3	36	3	2P	⑥-60
Taps ／ M1.7 × 0.35										
Standard		2 3	SP	SPP1.7D	SP	P1	36	3	2.5P	①-39
			SP 1.5P	SY1.7DPNEBA					1.5P	①-58
			PO	POQ1.7D	PO	P2			5P	③-13
		1 2 3	HT	TNMP1.7D5	HT	P1	36	3	5P	④-5
				TNMP1.7D1					1.5P	④-5
	Oversize	2 3	SP	SPQ1.7D	SP	P2	36	3	2.5P	①-39
				SPR1.7D		P3				①-39
			PO	POR1.7D	PO				5P	③-13
				POS1.7D		P4				③-13
		1 2 3	HT	TNMR1.7D5	HT	P3	36	3	5P	④-5
				TNMR1.7D1					1.5P	④-5
For left hand threads		1 2 3	HT LH	TNMP1.7D5-L	HT	P1	36	3	5P	④-66
				TNMP1.7D1-L					1.5P	④-66
Oxidizing		1 2 3	SP OX	SPP1.7DX	SP	P1	36	3	2.5P	①-65
			PO OX	POQ1.7DX	PO	P2			5P	③-34
Coating		1 2 9 14 18 19 21	R+V	RVP41.7DP	RO	G4	36	3	4P	⑥-39
				RVP41.7DB					2P	⑥-39
				RVP51.7DP		G5			4P	⑥-39
				RVP51.7DB					2P	⑥-39
				RVP61.7DP		G6			4P	⑥-39
				RVP61.7DB					2P	⑥-39
Thread forming taps for steels		1 2	N+RZ	NRZP41.7DP	RO	G4	36	3	4P	⑥-14
				NRZP41.7DB					2P	⑥-14
				NRZP51.7DP		G5			4P	⑥-14
				NRZP51.7DB					2P	⑥-14
				NRZP61.7DP		G6			4P	⑥-14
				NRZP61.7DB					2P	⑥-14
For high carbon steels		2 3 5	HC+PO	PCPQ1.7D	PO	P2	36	3	5P	③-76
For stainless steels		2 3 4 9	SU-SP	SUMP1.7D	SP	P1	36	3	2.5P	①-101
		1 2 3 4 9	SU+PO	PUPQ1.7D	PO	P2	36	3	5P	③-60
	Oversize	2 3 4 9	SU-SP	SUMQ1.7D	SP	P2	36	3	2.5P	①-101
For cast irons	Carbide	12 13 16	N-CT FC	TCNR1.7D3	HT	P3	36	3	3P	⑤-10
				TCNR1.7D1					1.5P	⑤-10
For aluminum	Carbide	19 21	N-CT LA	TCNR1.7D3A	HT	P3	36	3	3P	⑤-3
				TCNR1.7D1A					1.5P	⑤-3

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Thread forming taps for non-ferrous materials		18 19 21	N+RS	NRSP41.7DP	RO	G4	36	3	4P	⑥-26
				NRSP41.7DB					2P	⑥-26
				NRSP51.7DP		G5			4P	⑥-26
				NRSP51.7DB					2P	⑥-26
				NRSP61.7DP		G6			4P	⑥-26
				NRSP61.7DB					2P	⑥-26
Short chamfer		19 20 21	MG-HT	TMGMQ1.7D1	HT	P2	36	3	1P	④-118
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL+RZ	OLRZP41.7DP	RO	G4	36	3	4P	⑥-42
High performance thread forming taps		1 2 3 4 5 9 19	HP+RZ	HRZP41.7DB	RO	G4	36	3	2P	⑥-48
Torqueless thread forming taps	Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM41.7D1	RO	G4	36	3	1P	⑥-58
	Seamless	1 2 9	SURZ	SURZ41.7DB	RO	G4	36	3	2P	⑥-60
Taps ／ M1.7 × 0.2										
Standard		1 2 3	HT	TNMP1.7A5	HT	P1	36	3	5P	④-5
				TNMP1.7A1					1.5P	④-5
Taps ／ M1.8 × 0.35										
Standard		2 3	SP	SPP1.8D	SP	P1	42	3	2.5P	①-39
			SP 1.5P	SY1.8DPNEBA					1.5P	①-58
			PO	POQ1.8D	PO	P2			5P	③-13
		1 2 3	HT	TNMQ1.8D5	HT	P2	42	3	5P	④-5
				TNMQ1.8D1					1.5P	④-5
Thread forming taps for steels		1 2	N+RZ	NRZP41.8DP	RO	G4	42	3	4P	⑥-14
				NRZP41.8DB					2P	⑥-14
				NRZP51.8DP		G5			4P	⑥-14
				NRZP51.8DB					2P	⑥-14
For medium hardness carbon steels	Long	2 3 4 5 6 10	MHSL	2109101017	SL	P2	70	3	5P	②-4
Thread forming taps for non-ferrous materials		18 19 21	N+RS	NRSP41.8DP	RO	G4	42	3	4P	⑥-26
				NRSP41.8DB					2P	⑥-26
				NRSP51.8DP		G5			4P	⑥-26
				NRSP51.8DB					2P	⑥-26
Taps ／ M1.8 × 0.2										
Standard		1 2 3	HT	TNMP1.8A5	HT	P1	42	3	5P	④-5
				TNMP1.8A1					1.5P	④-5
Taps ／ M2.2 × 0.45										
Standard		2 3	SP	SPP2.2F	SP	P1	42	3	2.5P	①-39
			+SP	SNPP2.2F						①-57
			PO	POQ2.2F	PO	P2			5P	③-13
		1 2 3	HT	TNMQ2.2F5	HT	P2	42	3	5P	④-5
				TNMQ2.2F1					1.5P	④-5
	Oversize	2 3	SP	SPR2.2F	SP	P3	42	3	2.5P	①-39
Coating		1 2 3 4 9 10 13 18 19	VUPO	1102101024	PO	P2	45	3	5P	③-4
Thread forming taps for steels		1 2	N+RZ	NRZP52.2FP	RO	G5	42	3	4P	⑥-14
				NRZP52.2FB					2P	⑥-14
For cast irons	Carbide	12 13 16	N-CT FC	TCNR2.2F3	HT	P3	42	3	3P	⑤-10
				TCNR2.2F1					1.5P	⑤-11
For aluminum	Carbide	19 21	N-CT LA	TCNR2.2F3A	HT	P3	42	3	3P	⑤-3
				TCNR2.2F1A					1.5P	⑤-3

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Taps ／ M2.2 × 0.25										
Standard		2 3	PO	POQ2.2B	PO	P2	42	3	5P	③-13
		1 2 3	HT	TNMP2.2B5	HT	P1	42	3	5P	④-5
				TNMP2.2B1					1.5P	④-5
Taps ／ M2.3 × 0.4										
Standard		2 3	SP	SPP2.3E	SP	P1	42	3	2.5P	①-39
			+SP	SNPP2.3E						①-57
			SP 1.5P	SY2.3EPNEBA					1.5P	①-58
			PO	POQ2.3E	PO	P2			5P	③-13
		1 2 3	HT	TNMP2.3E5	HT	P1	42	3	5P	④-5
				TNMP2.3E1					1.5P	④-5
	Oversize	2 3	SP	SPQ2.3E	SP	P2	42	3	2.5P	①-39
				SPR2.3E		P3				①-39
				SPS2.3E		P4				①-39
			PO	POR2.3E	PO	P3			5P	③-13
				POS2.3E		P4				③-13
		1 2 3	HT	TNMR2.3E5	HT	P3	42	3	5P	④-6
				TNMR2.3E1					1.5P	④-6
				TNMS2.3E5		P4			5P	④-6
				TNMS2.3E1					1.5P	④-6
For left hand threads		2 3	SP LH	SPP2.3E–L	SP	P1	42	3	2.5P	①-79
		1 2 3	HT LH	TNMP2.3E5-L	HT	P1	42	3	5P	④-66
				TNMP2.3E1-L					1.5P	④-66
Oxidizing		1 2 3	PO OX	POQ2.3EX	PO	P2	42	3	5P	③-34
Coating		1 2 3 4 9 10 13 18 19	VUPO	1102101026	PO	P2	45	3	5P	③-4
		1 2 9 14 18 19 21	R+V	RVP42.3EP	RO	G4	42	3	4P	⑥-39
				RVP42.3EB					2P	⑥-39
				RVP52.3EP		G5			4P	⑥-39
				RVP52.3EB					2P	⑥-39
Long		2 3	LS-SP	SPFP2.3EL07	SP	P1	70	3	2.5P	①-89
			LS-PO	POFQ2.3EL07	PO	P2			5P	③-51
		1 2 3	LS-HT	TNFP2.3E507	HT	P1	70	3	5P	④-73
				TNFP2.3E107					1.5P	④-73
Thread forming taps for steels		1 2	N+RZ	NRZP42.3EP	RO	G4	42	3	4P	⑥-14
				NRZP42.3EB					2P	⑥-14
				NRZP52.3EP		G5			4P	⑥-14
				NRZP52.3EB					2P	⑥-14
				NRZP62.3EP		G6			4P	⑥-14
				NRZP62.3EB					2P	⑥-14
For stainless steels		2 3 4 9	SU+SP	SUPP2.3E	SP	P1	42	3	2.5P	①-100
		1 2 3 4 9	SU+PO	PUPQ2.3E	PO	P2	42	3	5P	③-60
		1 2 9	SU-HT	TUMQ2.3E4	HT	P2	42	3	4P	④-90
				TUMQ2.3E1					1.5P	④-90
	Oversize	2 3 4 9	SU+SP	SUPQ2.3E	SP	P2	42	3	2.5P	①-100
				SUPR2.3E		P3				①-100
		1 2 3 4 9	SU+PO	PUPR2.3E	PO	P3	42	3	5P	③-60
For cast irons	Carbide	12 13 16	N-CT FC	TCNR2.3E3	HT	P3	42	3	3P	⑤-11
				TCNR2.3E1					1.5P	⑤-11

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For aluminum		15 16 17 18 19 20 21	AL+SP	ASHPQ2.3E	SP	P2	42	3	2.5P	①-136
			AL-SP 1.5P	SY2.3EQLENA					1.5P	①-137
		18 19 21	LA-HT	TY2.3EQLEN5	HT	P2	42	3	5P	④-110
				TY2.3EQLENA					1.5P	④-110
	Carbide	19 21	N-CT LA	TCNR2.3E3A	HT	P3	42	3	3P	⑤-3
				TCNR2.3E1A					1.5P	⑤-3
Thread forming taps for non-ferrous materials		18 19 21	N+RS	NRSP42.3EP	RO	G4	42	3	4P	⑥-26
				NRSP42.3EB					2P	⑥-26
				NRSP52.3EP		G5			4P	⑥-26
				NRSP52.3EB					2P	⑥-26
				NRSP62.3EP		G6			4P	⑥-26
				NRSP62.3EB					2P	⑥-26
For Plastics	Thermosetting	24	PL1	TPLM2.3E3	HT	P4	42	3	3P	④-120
	Thermoplastic	24 25	PL2	TY2.3ESMEN3	HT	P4	42	3	3P	④-122
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL+RZ	OLRZP42.3EP	RO	G4	42	3	4P	⑥-42
				OLRZP52.3EP		G5				⑥-42
High performance thread forming taps		1 2 3 4 5 9 19	HP+RZ	HRZP42.3EB	RO	G4	42	3	2P	⑥-48
				HRZP52.3EB		G5				⑥-48
Torqueless thread forming taps	Seamless	1 2 9	SURZ	SURZ42.3EB	RO	G4	42	3	2P	⑥-60
For deep hole use		2 3 4 13	S-SP	SSMP2.3E	SP	P1	42	3	2.5P	①-123
		1 2 3 4	S-PO	PSMQ2.3E	PO	P2	42	3	5P	③-73
	Oversize	2 3 4 13	S-SP	SSMR2.3E	SP	P3	42	3	2.5P	①-123
Nut taps		1 2	NT	NH22.3E	HT	II b	80	1.7	25P	⑦-27

Taps ／ M2.3 × 0.25

Standard		2 3	SP	SPP2.3B	SP	P1	42	3	2.5P	①-39
		1 2 3	HT	TNMP2.3B5	HT	P1	42	3	5P	④-6
				TNMP2.3B1					1.5P	④-6

Taps ／ M2.5 × 0.45

General purpose		1	R-Y	RY2.5F3	RO	-	44	3	3P	⑥-63
Standard		2 3	SP	SPP2.5F	SP	P1	46	3	2.5P	①-39
			+SP	SNPP2.5F						①-57
			SP 1.5P	SY2.5FPNEBA					1.5P	①-58
			PO	POQ2.5F	PO	P2			5P	③-13
		1 2 3	HT	TNMQ2.5F5	HT	P2	46	3	5P	④-6
				TNMQ2.5F1					1.5P	④-6
	Oversize	2 3	SP	SPQ2.5F	SP	P2	46	3	2.5P	①-39
				SPR2.5F		P3				①-39
				SPS2.5F		P4				①-39
			PO	POR2.5F	PO	P3			5P	③-13
				POS2.5F		P4				③-13
		1 2 3	HT	TNMR2.5F5	HT	P3	46	3	5P	④-6
				TNMR2.5F1					1.5P	④-6
				TNMS2.5F5		P4			5P	④-6
				TNMS2.5F1					1.5P	④-6
For left hand threads		2 3	SP LH	SPP2.5F--L	SP	P1	46	3	2.5P	①-79
		1 2 3	HT LH	TNMQ2.5F5-L	HT	P2	46	3	5P	④-66
				TNMQ2.5F1-L					1.5P	④-66
Oxidizing		1 2 3	SP OX	SPP2.5FX	SP	P1	46	3	2.5P	①-65
			PO OX	POQ2.5FX	PO	P2			5P	③-34

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Coating		1 2 3 4 9 19 21	AU+SP	VSAPQ2.5F	SP	P2	46	3	2.5P	①-86
		1 2 3 4 9 10 13 18 19	VUPO	1102101029	PO	P2	50	3	5P	③-4
		1 2 3 4	PO V	VPOQ2.5F	PO	P2	46	3	5P	③-48
		1 2 9 14 18 19 21	R+V	RVP52.5FP	RO	G5	46	3	4P	⑥-39
				RVP52.5FB					2P	⑥-39
				RVP62.5FP		G6			4P	⑥-39
				RVP62.5FB					2P	⑥-39
Long		2 3	LS-SP	SPFP2.5FL07	SP	P1	70	3	2.5P	①-89
			LS-PO	POFQ2.5FL07	PO	P2			5P	③-51
		1 2 3	LS-HT	TNFP2.5F507	HT	P1	70	3	5P	④-73
				TNFP2.5F107					1.5P	④-73
Thread forming taps for steels		1 2	N+RZ	NRZP52.5FP	RO	G5	46	3	4P	⑥-14
				NRZP52.5FB					2P	⑥-14
				NRZP62.5FP		G6			4P	⑥-14
				NRZP62.5FB					2P	⑥-14
For high carbon steels		2 3 5	HC+PO	PCPQ2.5F	PO	P2	46	3	5P	③-76
For medium hardness carbon steels		2 3 4 5 6 10	MHSL	1109101029	SL	P3	50	3	5P	②-4
	Long	2 3 4 5 6 10	MHSL	2209101029	SL	P3	100	3	5P	②-4
Carbide taps for ultra hard materials		8	UH-CT	UHCR2.5F5	HT	P3	44	4	5P	⑤-28
For stainless steels		2 3 4 9	SU+SP	SUPP2.5F	SP	P1	46	3	2.5P	①-100
		1 2 3 4 9	SU+PO	PUPQ2.5F	PO	P2	46	3	5P	③-60
		1 2 9	SU-HT	TUMQ2.5F4	HT	P2	46	3	4P	④-90
				TUMQ2.5F1					1.5P	④-90
	Oversize	2 3 4 9	SU+SP	SUPQ2.5F	SP	P2	46	3	2.5P	①-100
				SUPR2.5F		P3				①-100
		1 2 3 4 9	SU+PO	PUPR2.5F	PO	P3	46	3	5P	③-60
For cast irons	Carbide	12 13 16	N-CT FC	TCNR2.5F3	HT	P3	44	3	3P	⑤-11
				TCNR2.5F1					1.5P	⑤-11
For aluminum		15 16 17 18 19 20 21	AL+SP	ASHPQ2.5F	SP	P2	46	3	2.5P	①-136
			AL-SP 1.5P	SY2.5FQLENA					1.5P	①-137
		18 19 21	LA-HT	TY2.5FQLEN5	HT	P2	46	3	5P	④-110
				TY2.5FQLENA					1.5P	④-110
	Carbide	19 21	N-CT LA	TCNR2.5F3A	HT	P3	44	3	3P	⑤-3
				TCNR2.5F1A					1.5P	⑤-3
Thread forming taps for non-ferrous materials		18 19 21	N+RS	NRSP52.5FP	RO	G5	46	3	4P	⑥-26
				NRSP52.5FB					2P	⑥-26
				NRSP62.5FP		G6			4P	⑥-26
				NRSP62.5FB					2P	⑥-26
Short chamfer		19 20 21	MG-HT	TMGMQ2.5F1	HT	P2	46	3	1P	④-118
For Plastics	Thermosetting	24	PL1	TPLM2.5F3	HT	P4	46	3	3P	④-120
	Thermoplastic	24 25	PL2	TY2.5FSMEN3	HT	P4	46	3	3P	④-122
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL+RZ	OLRZP52.5FP	RO	G5	46	3	4P	⑥-42
				OLRZP62.5FP		G6				⑥-42
High performance thread forming taps		1 2 3 4 5 9 19	HP+RZ	HRZP52.5FB	RO	G5	46	3	2P	⑥-48
				HRZP62.5FB		G6				⑥-48
Torqueless thread forming taps	Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM52.5F1	RO	G5	46	3	1P	⑥-58
	Seamless	1 2 9	SURZ	SURZ42.5FB	RO	G4	46	3	2P	⑥-60
For deep hole use		2 3 4 13	S-SP	SSMP2.5F	SP	P1	46	3	2.5P	①-123
		1 2 3 4	S-PO	PSMQ2.5F	PO	P2	46	3	5P	③-73
	Oversize	2 3 4 13	S-SP	SSMQ2.5F	SP	P2	46	3	2.5P	①-123
				SSMR2.5F		P3				①-123

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*Ds*	*ℓc*

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
For helical coil wire screw thread inserts	18 19 21	AL-HT STI	TW2.5F1LEB5	HT	I b	52	5	5P	⑦-3
			TW2.5F1LEBA					1.5P	⑦-3
Nut taps	1 2	NT	NH22.5F	HT	II b	85	2	24P	⑦-27
Taps ／ M2.5 × 0.35									
Standard	2 3	SP	SPP2.5D	SP	P1	46	3	2.5P	①-39
		PO	POQ2.5D	PO	P2			5P	③-13
	1 2 3	HT	TNMQ2.5D5	HT	P2	46	3	5P	④-6
			TNMQ2.5D1					1.5P	④-6
Thread forming taps for steels	1 2	N-RZ	NRZM52.5DP	RO	G5	46	3	4P	⑥-16
			NRZM52.5DB					2P	⑥-16
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM42.5DP	RO	G4	46	3	4P	⑥-27
			NRSM42.5DB					2P	⑥-27
			NRSM52.5DP		G5			4P	⑥-27
			NRSM52.5DB					2P	⑥-27
Taps ／ M2.6 × 0.45									
General purpose	1	R-Y	RY2.6F3	RO	-	44	3	3P	⑥-63
Standard	2 3	SP	SPP2.6F	SP	P1	46	3	2.5P	①-39
		+SP	SNPP2.6F						①-57
		SP 1.5P	SY2.6FPNEBA					1.5P	①-58
		PO	POQ2.6F	PO	P2			5P	③-13
	1 2 3	HT	TNMP2.6F5	HT	P1	46	3	5P	④-6
			TNMP2.6F1					1.5P	④-6
Oversize	2 3	SP	SPQ2.6F	SP	P2	46	3	2.5P	①-39
			SPR2.6F		P3				①-39
			SPS2.6F		P4				①-39
		PO	POR2.6F	PO	P3			5P	③-13
			POS2.6F		P4				③-13
	1 2 3	HT	TNMR2.6F5	HT	P3	46	3	5P	④-6
			TNMR2.6F1					1.5P	④-6
			TNMS2.6F5		P4			5P	④-6
			TNMS2.6F1					1.5P	④-6
For left hand threads	2 3	SP LH	SPP2.6F--L	SP	P1	46	3	2.5P	①-79
	1 2 3	HT LH	TNMP2.6F5-L	HT	P1	46	3	5P	④-66
			TNMP2.6F1-L					1.5P	④-66
Oxidizing	1 2 3	SP OX	SPP2.6FX	SP	P1	46	3	2.5P	①-65
		PO OX	POQ2.6FX	PO	P2			5P	③-34
Oversize	1 2 3	PO OX	POR2.6FX	PO	P3	46	3	5P	③-34
Coating	1 2 3 4 9 19 21	AU+SP	VSAPQ2.6F	SP	P2	46	3	2.5P	①-86
	1 2 3 4 9 10 13 18 19	VUPO	1102101032	PO	P2	50	3	5P	③-4
	1 2 3 4	PO V	VPOQ2.6F	PO	P2	46	3	5P	③-48
	1 2 9 14 18 19 21	R+V	RVP52.6FP	RO	G5	46	3	4P	⑥-39
			RVP52.6FB					2P	⑥-39
			RVP62.6FP		G6			4P	⑥-39
			RVP62.6FB					2P	⑥-39
Long	2 3	LS-SP	SPFP2.6FL07	SP	P1	70	3	2.5P	①-89
		LS-PO	POFQ2.6FL07	PO	P2			5P	③-51
	1 2 3	LS-HT	TNFP2.6F507	HT	P1	70	3	5P	④-73
			TNFP2.6F107					1.5P	④-73

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Thread forming taps for steels	1 2	N+RZ	NRZP52.6FP	RO	G5	46	3	4P	⑥-14
			NRZP52.6FB					2P	⑥-14
			NRZP62.6FP		G6			4P	⑥-15
			NRZP62.6FB					2P	⑥-15
For high carbon steels	2 3 5	HC+PO	PCPQ2.6F	PO	P2	46	3	5P	③-76
Carbide taps for ultra hard materials	8	UH-CT	UHCR2.6F5	HT	P3	44	4	5P	⑤-28
For stainless steels	2 3 4 9	SU+SP	SUPP2.6F	SP	P1	46	3	2.5P	①-100
	1 2 3 4 9	SU+PO	PUPQ2.6F	PO	P2	46	3	5P	③-60
	1 2 9	SU-HT	TUMQ2.6F4	HT	P2	46	3	4P	④-90
			TUMQ2.6F1					1.5P	④-90
Oversize	2 3 4 9	SU+SP	SUPQ2.6F	SP	P2	46	3	2.5P	①-100
			SUPR2.6F		P3				①-100
	1 2 3 4 9	SU+PO	PUPR2.6F	PO	P3	46	3	5P	③-60
For cast irons Carbide	12 13 16	N-CT FC	TCNR2.6F3	HT	P3	44	3	3P	⑤-11
			TCNR2.6F1					1.5P	⑤-11
For aluminum	15 16 17 18 19 20 21	AL+SP	ASHPQ2.6F	SP	P2	46	3	2.5P	①-136
		AL-SP 1.5P	SY2.6FQLENA					1.5P	①-137
	18 19 21	LA-HT	TY2.6FQLEN5	HT	P2	46	3	5P	④-110
			TY2.6FQLENA					1.5P	④-110
Carbide	19 21	N-CT LA	TCNR2.6F3A	HT	P3	44	3	3P	⑤-3
			TCNR2.6F1A					1.5P	⑤-3
Thread forming taps for non-ferrous materials	18 19 21	N+RS	NRSP52.6FP	RO	G5	46	3	4P	⑥-26
			NRSP52.6FB					2P	⑥-26
			NRSP62.6FP		G6			4P	⑥-26
			NRSP62.6FB					2P	⑥-26
Short chamfer	19 20 21	MG-HT	TMGMQ2.6F1	HT	P2	46	3	1P	④-118
For Plastics Thermosetting	24	PL1	TPLM2.6F3	HT	P4	46	3	3P	④-120
For Plastics Thermoplastic	24 25	PL2	TY2.6FSMEN3	HT	P4	46	3	3P	④-122
Thread forming taps for dry tapping	1 2 3 4 5 9 19	OL+RZ	OLRZP52.6FP	RO	G5	46	3	4P	⑥-42
			OLRZP62.6FP		G6				⑥-42
High performance thread forming taps	1 2 3 4 5 9 19	HP+RZ	HRZP52.6FB	RO	G5	46	3	2P	⑥-48
			HRZP62.6FB		G6				⑥-48
Torqueless thread forming taps Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM52.6F1	RO	G5	46	3	1P	⑥-58
Torqueless thread forming taps Seamless	1 2 9	SURZ	SURZ52.6FB	RO	G5	46	3	2P	⑥-60
For deep hole use	2 3 4 13	S-SP	SSMP2.6F	SP	P1	46	3	2.5P	①-123
	1 2 3 4	S-PO	PSMQ2.6F	PO	P2	46	3	5P	③-73
Oversize	2 3 4 13	S-SP	SSMR2.6F	SP	P3	46	3	2.5P	①-123
	1 2 3 4	S-PO	PSMR2.6F	PO	P3	46	3	5P	③-73
For helical coil wire screw thread inserts	18 19 21	AL-HT STI	TW2.6F1LEB5	HT	I b	52	5	5P	⑦-3
			TW2.6F1LEBA					1.5P	⑦-3
Nut taps	1 2	NT	NH22.6F	HT	II b	85	2	24P	⑦-27
Taps ／ M2.6 × 0.35									
Standard	2 3	SP	SPP2.6D	SP	P1	46	3	2.5P	①-39
		PO	POQ2.6D	PO	P2			5P	③-13
	1 2 3	HT	TNMQ2.6D5	HT	P2	46	3	5P	④-6
			TNMQ2.6D1					1.5P	④-6
Thread forming taps for steels	1 2	N-RZ	NRZM52.6DP	RO	G5	46	3	4P	⑥-16
			NRZM52.6DB					2P	⑥-16

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol (Note1)	Code	Flute	Class	L	D_s	ℓ_c	Product page
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM52.6DP	RO	G5	46	3	4P	⑥-28
				NRSM52.6DB					2P	⑥-28
				NRSM62.6DP		G6			4P	⑥-28
				NRSM62.6DB					2P	⑥-28
Taps ／ M3.5 × 0.6										
Standard		2 3	SP	SPP3.5H	SP	P1	52	5	2.5P	①-39
			+SP	SNPP3.5H						①-57
			SP 1.5P	SY3.5HPNEBA					1.5P	①-58
			PO	POQ3.5H	PO	P2			5P	③-13
			+PO	PNPQ3.5H						③-30
		1 2 3	HT	TNMQ3.5H5	HT	P2	52	5	5P	④-6
				TNMQ3.5H1					1.5P	④-6
	Oversize	2 3	SP	SPQ3.5H	SP	P2	52	5	2.5P	①-39
				SPR3.5H		P3				①-39
				SPS3.5H		P4				①-39
			PO	POR3.5H	PO	P3			5P	③-13
				POS3.5H		P4				③-13
		1 2 3	HT	TNMR3.5H5	HT	P3	52	5	5P	④-6
				TNMR3.5H1					1.5P	④-6
				TNMS3.5H5		P4			5P	④-6
				TNMS3.5H1					1.5P	④-6
For left hand threads		1 2 3	HT LH	TNMQ3.5H5-L	HT	P2	52	5	5P	④-66
				TNMQ3.5H1-L					1.5P	④-66
Oxidizing		1 2 3	SP OX	SPP3.5HX	SP	P1	52	5	2.5P	①-65
			PO OX	POQ3.5HX	PO	P2			5P	③-34
For soft structural steels		1 2	E-SP	ESHMP3.5H	SP	P1	52	5	2.5P	①-130
Thread forming taps for steels		1 2	N+RZ	NRZP53.5HP	RO	G5	52	5	4P	⑥-15
				NRZP53.5HB					2P	⑥-15
				NRZP63.5HP		G6			4P	⑥-15
				NRZP63.5HB					2P	⑥-15
				NRZP73.5HP		G7			4P	⑥-15
				NRZP73.5HB					2P	⑥-15
For medium hardness carbon steels		2 3 4 5 6 10	MHSL	1109101038	SL	P3	63	5	5P	②-4
	Long	2 3 4 5 6 10	MHSL	2109101038	SL	P3	100	5	5P	②-4
For stainless steels		2 3 4 9	SU+SP	SUPP3.5H	SP	P1	52	5	2.5P	①-100
		1 2 3 4 9	SU-PO	PUMQ3.5H	PO	P2	52	5	5P	③-60
		1 2 9	SU-HT	TUMQ3.5H4	HT	P2	52	5	4P	④-90
				TUMQ3.5H1					1.5P	④-90
	Oversize	2 3 4 9	SU+SP	SUPR3.5H	SP	P3	52	5	2.5P	①-100
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MQ3.5H	SP	P2	52	5	3P	①-116
For cast irons		12 13	FC-HT	TY3.5HRAEN5	HT	P3	52	5	5P	④-94
				TY3.5HRAENA					1.5P	④-94
	Carbide	12 13 16	N-CT FC	TCNR3.5H3	HT	P3	48	4	3P	⑤-11
				TCNR3.5H1					1.5P	⑤-11
For aluminum		15 16 17 18 19 20 21	AL+SP	ASHPQ3.5H	SP	P2	52	5	2.5P	①-136
			AL-SP 1.5P	SY3.5HQLENA					1.5P	①-137
		18 19 21	LA-HT	TY3.5HQLEN5	HT	P2	52	5	5P	④-110
				TY3.5HQLENA					1.5P	④-110
	Carbide	19 21	N-CT LA	TCNR3.5H3A	HT	P3	48	4	3P	⑤-3
				TCNR3.5H1A					1.5P	⑤-3

Tap selection		Main material	Symbol (Note1)	Code	Flute	Class	L	D_s	ℓ_c	Product page
Thread forming taps for non-ferrous materials		18 19 21	N+RS	NRSP53.5HP	RO	G5	52	5	4P	⑥-27
				NRSP53.5HB					2P	⑥-27
				NRSP63.5HP		G6			4P	⑥-27
				NRSP63.5HB					2P	⑥-27
				NRSP73.5HP		G7			4P	⑥-27
For Plastics	Thermosetting	24	PL1	TPLM3.5H3	HT	P5	52	5	3P	④-120
	Thermoplastic	24 25	PL2	TY3.5HTMEN3	HT	P5	52	5	3P	④-122
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL+RZ	OLRZP53.5HP	RO	G5	52	5	4P	⑥-42
				OLRZP63.5HP		G6				⑥-42
High performance thread forming taps		1 2 3 4 5 9 19	HP+RZ	HRZP53.5HP	RO	G5	52	5	4P	⑥-48
				HRZP53.5HB					2P	⑥-48
				HRZP63.5HP		G6			4P	⑥-48
				HRZP63.5HB					2P	⑥-48
For deep hole use		2 3 4 13	S-SP	SSMP3.5H-3	SP	P1	52	5	2.5P	①-123
		1 2 3 4	S-PO	PSMQ3.5H	PO	P2	52	5	5P	③-73
	Oversize	2 3 4 13	S-SP	SSMQ3.5H	SP	P2	52	5	2.5P	①-123
Nut taps		1 2	NT	NH23.5H	HT	II b	95	2.6	25P	⑦-27
Taps ／ M3.5 × 0.35										
Standard		2 3	SP	SPP3.5D	SP	P1	52	5	2.5P	①-39
			PO	POQ3.5D	PO	P2			5P	③-13
		1 2 3	HT	TNMQ3.5D5	HT	P2	52	5	5P	④-6
				TNMQ3.5D1					1.5P	④-6
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM53.5DP	RO	G5	52	5	4P	⑥-28
				NRSM53.5DB					2P	⑥-28
				NRSM63.5DP		G6			4P	⑥-28
				NRSM63.5DB					2P	⑥-28
Taps ／ M4.5 × 0.75										
Standard		2 3	SP	SPQ4.5J	SP	P2	60	5.5	2.5P	①-39
			PO	POQ4.5J	PO				5P	③-13
		1 2 3	HT	TNMQ4.5J53	HT	P2	60	5.5	5P	④-7
				TNMQ4.5J13					1.5P	④-7
For medium hardness carbon steels		2 3 4 5 6 10	MHSL	1109101045	SL	P3	70	5.5	5P	②-4
	Long	2 3 4 5 6 10	MHSL	2109101045	SL	P3	100	5.5	5P	②-4
Nut taps		1 2	NT	NH24.5J	HT	II b	105	3.3	25P	⑦-27
Taps ／ M4.5 × 0.5										
Standard		2 3	SP	SPP4.5G	SP	P1	60	5.5	2.5P	①-39
			PO	POQ4.5G	PO	P2			5P	③-13
		1 2 3	HT	TNMQ4.5G5	HT	P2	60	5.5	5P	④-7
				TNMQ4.5G1					1.5P	④-7
Oxidizing		1 2 3	SP OX	SPP4.5GX	SP	P1	60	5.5	2.5P	①-65
Taps ／ M5.5 × 0.9										
Standard		2 3	SP	SPQ5.5L	SP	P2	62	6	2.5P	①-40
			PO	POQ5.5L	PO				5P	③-14
		1 2 3	HT	TNMQ5.5L5	HT	P2	62	6	5P	④-7
				TNMQ5.5L1					1.5P	④-7
Nut taps		1 2	NT	NH25.5L	HT	II b	115	4.1	24P	⑦-27

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ M5.5 × 0.75									
Standard	1 2 3	HT	TNMQ5.5J5	HT	P2	62	6	5P	④-7
			TNMQ5.5J1					1.5P	④-7
Taps ／ M5.5 × 0.5									
Standard	2 3	SP	SPP5.5G	SP	P1	62	6	2.5P	①-40
		PO	POQ5.5G	PO	P2			5P	③-14
	1 2 3	HT	TNMQ5.5G5	HT	P2	62	6	5P	④-7
			TNMQ5.5G1					1.5P	④-7
Taps ／ M6.5 × 0.5									
Standard	1 2 3	HT	TNMQ6.5G5	HT	P2	70	6.2	5P	④-8
			TNMQ6.5G1					1.5P	④-8
Taps ／ M7 × 1									
Standard	2 3	SP	SPQ7.0M	SP	P2	70	6.2	2.5P	①-40
		PO	POQ7.0M	PO				5P	③-14
	1 2 3	HT	TNMQ7.0M5T	HT	P2	70	6.2	5P	④-8
			TNMQ7.0M1T					1.5P	④-8
			TNMQ7.0M5					5P	④-8
			TNMQ7.0M1					1.5P	④-8
Oversize	2 3	SP	SPR7.0M	SP	P3	70	6.2	2.5P	①-40
			SPS7.0M		P4				①-40
		PO	POR7.0M	PO	P3			5P	③-14
	1 2 3	HT	TNMR7.0M5	HT	P3	70	6.2	5P	④-8
			TNMR7.0M1					1.5P	④-8
			TNMS7.0M5		P4			5P	④-8
			TNMS7.0M1					1.5P	④-8
For left hand threads	2 3	SP LH	SPQ7.0M--L	SP	P2	70	6.2	2.5P	①-79
	1 2 3	HT LH	TNMQ7.0M5-L	HT	P2	70	6.2	5P	④-66
			TNMQ7.0M1-L					1.5P	④-66
Oxidizing	1 2 3	SP OX	SPQ7.0MX	SP	P2	70	6.2	2.5P	①-65
		PO OX	POQ7.0MX	PO				5P	③-35
Thread forming taps for steels	1 2	N-RZ	NRZM77.0MP	RO	G7	70	6.2	4P	⑥-16
			NRZM77.0MB					2P	⑥-16
For stainless steels	1 2 3 4 9	SU-PO	PUMQ7.0M	PO	P2	70	6.2	5P	③-61
For cast irons Carbide	12 13 16	N-CT FC	TCNR7.0M3	HT	P3	65	6.2	3P	⑤-11
			TCNR7.0M1					1.5P	⑤-11
For aluminum Carbide	19 21	N-CT LA	TCNR7.0M3A	HT	P3	65	6.2	3P	⑤-4
			TCNR7.0M1A					1.5P	⑤-4
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM67.0MP	RO	G6	70	6.2	4P	⑥-28
			NRSM67.0MB					2P	⑥-28
			NRSM77.0MP		G7			4P	⑥-28
			NRSM77.0MB					2P	⑥-28
Nut taps	1 2	NT	NH27.0M	HT	II b	130	5.5	26P	⑦-27

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ M7 × 0.75									
Standard	2 3	SP	SPQ7.0J	SP	P2	70	6.2	2.5P	①-40
		PO	POQ7.0J	PO				5P	③-14
	1 2 3	HT	TNMQ7.0J5	HT	P2	70	6.2	5P	④-8
			TNMQ7.0J1					1.5P	④-8
Oversize	2 3	PO	POR7.0J	PO	P3	70	6.2	5P	③-14
For left hand threads	1 2 3	HT LH	TNMQ7.0J5-L	HT	P2	70	6.2	5P	④-67
			TNMQ7.0J1-L					1.5P	④-67
Thread forming taps for steels	1 2	N-RZ	NRZM77.0JP	RO	G7	70	6.2	4P	⑥-16
			NRZM77.0JB					2P	⑥-16
For cast irons Carbide	12 13 16	N-CT FC	TCNR7.0J3	HT	P3	62	6.2	3P	⑤-11
			TCNR7.0J1					1.5P	⑤-11
For aluminum Carbide	19 21	N-CT LA	TCNR7.0J3A	HT	P3	62	6.2	3P	⑤-4
			TCNR7.0J1A					1.5P	⑤-4
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM77.0JP	RO	G7	70	6.2	4P	⑥-28
			NRSM77.0JB					2P	⑥-28
Taps ／ M7 × 0.5									
Standard	2 3	SP	SPQ7.0G	SP	P2	70	6.2	2.5P	①-40
		PO	POQ7.0G	PO				5P	③-14
	1 2 3	HT	TNMQ7.0G5	HT	P2	70	6.2	5P	④-8
			TNMQ7.0G1					1.5P	④-8
Taps ／ M7.5 × 0.5									
Standard	1 2 3	HT	TNMQ7.5G5	HT	P2	70	6.2	5P	④-8
			TNMQ7.5G1					1.5P	④-8
Taps ／ M8.5 × 1									
Standard	1 2 3	HT	TNMQ8.5M5	HT	P2	75	7	5P	④-8
			TNMQ8.5M1					1.5P	④-8
Taps ／ M8.5 × 0.75									
Standard	1 2 3	HT	TNMQ8.5J5	HT	P2	75	7	5P	④-8
			TNMQ8.5J1					1.5P	④-8
Taps ／ M8.5 × 0.5									
Standard	1 2 3	HT	TNMQ8.5G5	HT	P2	75	7	5P	④-8
			TNMQ8.5G1					1.5P	④-8

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / M1 × 0.25										
Solid dies		HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYD1.0BDNEBC	⑩-2
						20	7		TYE1.0BDNEBC	⑩-2
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE1.0BDNEBC	⑩-16
Rolling dies		HSS	1 2 9 15	RS-D	R2	10	3.5	-	RBQ1.0B	⑩-47
					R3				RBR1.0B	⑩-47
					R4				RBS1.0B	⑩-47
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP1.0B	⑩-44
						16	5		HDP1.0B	⑩-44
					P2	10	3		HBQ1.0B	⑩-44
						16	5		HDQ1.0B	⑩-44
Dies / M1 × 0.2										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE1.0ADNEBC	⑩-2
Dies / M1.1 × 0.25										
Rolling dies		HSS	1 2 9 15	RS-D	R1	10	3.5	-	RBP1.1B	⑩-47
					R2				RBQ1.1B	⑩-47
					R3				RBR1.1B	⑩-47
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP1.1B	⑩-44
						16	5		HDP1.1B	⑩-44
					P2	10	3		HBQ1.1B	⑩-44
						16	5		HDQ1.1B	⑩-44
Dies / M1.2 × 0.25										
Solid dies		HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYD1.2BDNEBC	⑩-2
						20	7		TYE1.2BDNEBC	⑩-2
Rolling dies		HSS	1 2 9 15	RS-D	R2	10	3.5	-	RBQ1.2B	⑩-47
					R3				RBR1.2B	⑩-47
					R4				RBS1.2B	⑩-47
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP1.2B	⑩-44
						16	5		HDP1.2B	⑩-44
					P2	10	3		HBQ1.2B	⑩-44
						16	5		HDQ1.2B	⑩-44
Dies / M1.2 × 0.2										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE1.2ADNEBC	⑩-2
Dies / M1.4 × 0.3										
Solid dies		HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYD1.4CDNEBC	⑩-2
						20	7		TYE1.4CDNEBC	⑩-2
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE1.4CDNEBC	⑩-16
Rolling dies		HSS	1 2 9 15	RS-D	R2	10	3.5	-	RBQ1.4C	⑩-47
						16	5		RDQ1.4C	⑩-47
					R3	10	3.5		RBR1.4C	⑩-47
						16	5		RDR1.4C	⑩-47
					R4	10	3.5		RBS1.4C	⑩-47
						16	5		RDS1.4C	⑩-47
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP1.4C	⑩-44
						16	5		HDP1.4C	⑩-44
					P2	10	3		HBQ1.4C	⑩-44
						16	5		HDQ1.4C	⑩-44
Dies / M1.4 × 0.2										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE1.4ADNEBC	⑩-2
Dies / M1.6 × 0.35										
Solid dies		HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYD1.6DDNEBC	⑩-2
						20	7		TYE1.6DDNEBC	⑩-2
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE1.6DDNEBC	⑩-16
Rolling dies		HSS	1 2 9 15	RS-D	R2	12x10	4.5	-	RQQ1.6D	⑩-47
						16	5		RDQ1.6D	⑩-47
					R3	12x10	4.5		RQR1.6D	⑩-47
						16	5		RDR1.6D	⑩-47
					R4	12x10	4.5		RQS1.6D	⑩-47
						16	5		RDS1.6D	⑩-48
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP1.6D	⑩-44
						16	5		HDP1.6D	⑩-44
					P2	10	3		HBQ1.6D	⑩-44
						16	5		HDQ1.6D	⑩-44
Dies / M1.6 × 0.2										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE1.6ADNEBC	⑩-2
Dies / M1.7 × 0.35										
Solid dies		HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYD1.7DDNEBC	⑩-2
						20	7		TYE1.7DDNEBC	⑩-2
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE1.7DDNEBC	⑩-16
Rolling dies		HSS	1 2 9 15	RS-D	R2	12x10	4.5	-	RQQ1.7D	⑩-48
						16	5		RDQ1.7D	⑩-48
					R3	12x10	4.5		RQR1.7D	⑩-48
						16	5		RDR1.7D	⑩-48
					R4	12x10	4.5		RQS1.7D	⑩-48
						16	5		RDS1.7D	⑩-48
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP1.7D	⑩-44
						16	5		HDP1.7D	⑩-44
					P2	10	3		HBQ1.7D	⑩-44
						16	5		HDQ1.7D	⑩-44
Dies / M1.7 × 0.2										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE1.7ADNEBC	⑩-2
Dies / M1.8 × 0.35										
Solid dies		HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYD1.8DDNEBC	⑩-2
						20	7		TYE1.8DDNEBC	⑩-2
Rolling dies		HSS	1 2 9 15	RS-D	R2	16	5	-	RDQ1.8D	⑩-48
					R3				RDR1.8D	⑩-48
					R4				RDS1.8D	⑩-48

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP1.8D	⑩-44
						16	5		HDP1.8D	⑩-44
					P2	10	3		HBQ1.8D	⑩-44
						16	5		HDQ1.8D	⑩-44
Dies ／ M1.8 × 0.2										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE1.8ADNEBC	⑩-2
Dies ／ M2.2 × 0.45										
Solid dies		HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYD2.2FDNEBC	⑩-2
						20	7		TYE2.2FDNEBC	⑩-2
Point solid dies		HSS	1 2 15 16 18 19	DPO	S6	20	7	1.5P	PYE2.2FUNEBA	⑩-34
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE2.2FQNEBA	⑩-34
Rolling dies		HSS	1 2 9 15	RS-D	R2	16	5	-	RDQ2.2F	⑩-48
					R3				RDR2.2F	⑩-48
					R4				RDS2.2F	⑩-48
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP2.2F	⑩-45
						16	5		HDP2.2F	⑩-45
					P2	10	3		HBQ2.2F	⑩-45
						16	5		HDQ2.2F	⑩-45
Dies ／ M2.2 × 0.25										
Solid dies		HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYD2.2BDNEBC	⑩-2
Dies ／ M2.3 × 0.4										
Solid dies		HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYD2.3EDNEBC	⑩-2
						20	7		TYE2.3EDNEBC	⑩-2
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE2.3EDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	20	7	1.5P	PYE2.3ETNEBA	⑩-34
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE2.3EQNEBA	⑩-34
Rolling dies		HSS	1 2 9 15	RS-D	R2	16	5	-	RDQ2.3E	⑩-48
					R3				RDR2.3E	⑩-48
					R4				RDS2.3E	⑩-48
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP2.3E	⑩-45
						16	5		HDP2.3E	⑩-45
					P2	10	3		HBQ2.3E	⑩-45
						16	5		HDQ2.3E	⑩-45
Dies ／ M2.3 × 0.25										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE2.3BDNEBC	⑩-2
Rolling dies		HSS	1 2 9 15	RS-D	R2	16	5	-	RDQ2.3B	⑩-48
					R3				RDR2.3B	⑩-48
					R4				RDS2.3B	⑩-48
Dies ／ M2.5 × 0.45										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE2.5FDNEBC	⑩-2
						25	9		TYG2.5FDNEBC	⑩-2
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE2.5FDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S6	20	7	1.5P	PYE2.5FUNEBA	⑩-34
						25	9		PYG2.5FUNEBA	⑩-34
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE2.5FQNEBA	⑩-34
						25	9		PYG2.5FQNEBA	⑩-34
Rolling dies		HSS	1 2 9 15	RS-D	R2	16	5	-	RDQ2.5F	⑩-48
						20	7		REQ2.5F	⑩-48
					R4	16	5		RDS2.5F	⑩-48
						20	7		RES2.5F	⑩-48
					R5	16	5		RDT2.5F	⑩-48
						20	7		RET2.5F	⑩-48
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP2.5F	⑩-45
						16	5		HDP2.5F	⑩-45
						20	7		HEP2.5F	⑩-45
					P2	10	3		HBQ2.5F	⑩-45
						16	5		HDQ2.5F	⑩-45
						20	7		HEQ2.5F	⑩-45
Dies ／ M2.5 × 0.35										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE2.5DDNEBC	⑩-2
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	20	7	1.5P	PYE2.5DTNEBA	⑩-34
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE2.5DQNEBA	⑩-34
Rolling dies		HSS	1 2 9 15	RS-D	R2	16	5	-	RDQ2.5D	⑩-49
					R3				RDR2.5D	⑩-49
					R4				RDS2.5D	⑩-49
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP2.5D	⑩-45
						16	5		HDP2.5D	⑩-45
					P2	10	3		HBQ2.5D	⑩-45
						16	5		HDQ2.5D	⑩-45
Dies ／ M2.6 × 0.45										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE2.6FDNEBC	⑩-2
						25	9		TYG2.6FDNEBC	⑩-2
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE2.6FDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S6	20	7	1.5P	PYE2.6FUNEBA	⑩-34
						25	9		PYG2.6FUNEBA	⑩-34
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE2.6FQNEBA	⑩-34
						25	9		PYG2.6FQNEBA	⑩-34
Rolling dies		HSS	1 2 9 15	RS-D	R2	16	5	-	RDQ2.6F	⑩-49
						20	7		REQ2.6F	⑩-49
					R4	16	5		RDS2.6F	⑩-49
						20	7		RES2.6F	⑩-49
					R5	16	5		RDT2.6F	⑩-49
						20	7		RET2.6F	⑩-49
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP2.6F	⑩-45
						16	5		HDP2.6F	⑩-45
						20	7		HEP2.6F	⑩-45
					P2	10	3		HBQ2.6F	⑩-45
						16	5		HDQ2.6F	⑩-45
						20	7		HEQ2.6F	⑩-45

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / M2.6 × 0.35										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE2.6DDNEBC	⑩-2
Rolling dies		HSS	1 2 9 15	RS-D	R2	16	5	-	RDQ2.6D	⑩-49
					R4				RDS2.6D	⑩-49
					R5				RDT2.6D	⑩-49
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	10	3	2P	HBP2.6D	⑩-45
						16	5		HDP2.6D	⑩-45
					P2	10	3		HBQ2.6D	⑩-45
						16	5		HDQ2.6D	⑩-45
Dies / M3.5 × 0.6										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE3.5HDNEBC	⑩-3
						25	9		TYG3.5HDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE3.5HDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	20	7	1.5P	PYE3.5HSNEBA	⑩-34
						25	9		PYG3.5HSNEBA	⑩-34
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE3.5HQNEBA	⑩-34
						25	9		PYG3.5HQNEBA	⑩-34
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	16	5	2P	HDP3.5H	⑩-45
						20	7		HEP3.5H	⑩-45
					P2	16	5		HDQ3.5H	⑩-45
						20	7		HEQ3.5H	⑩-46
Dies / M3.5 × 0.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE3.5GDNEBC	⑩-3
Dies / M3.5 × 0.35										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE3.5DDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYE3.5DDNEBC	⑩-16
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	20	7	1.5P	PYE3.5DTNEBA	⑩-34
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE3.5DQNEBA	⑩-34
Rolling dies		HSS	1 2 9 15	RS-D	R2	20	7	-	REQ3.5D	⑩-49
					R4				RES3.5D	⑩-49
					R5				RET3.5D	⑩-49
Dies / M4.5 × 0.75										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE4.5JDNEBC	⑩-3
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	20	7	1.5P	PYE4.5JSNEBA	⑩-35
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE4.5JQNEBA	⑩-35
Dies / M4.5 × 0.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE4.5GDNEBC	⑩-3
Point solid dies		HSS	1 2 15 16 18 19	DPO	S6	20	7	1.5P	PYE4.5GUNEBA	⑩-35
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE4.5GQNEBA	⑩-35
Dies / M5.5 × 0.9										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE5.5LDNEBC	⑩-3

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / M5.5 × 0.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYE5.5GDNEBC	⑩-3
Point solid dies		HSS	1 2 15 16 18 19	DPO	S6	20	7	1.5P	PYE5.5GUNEBA	⑩-35
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	20	7	1.5P	PYE5.5GQNEBA	⑩-35
Dies / M7 × 1										
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG7.0MDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG7.0MDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	25	9	1.5P	PYG7.0MTNEBA	⑩-35
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG7.0MQNEBA	⑩-35
Dies / M7 × 0.75										
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG7.0JDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG7.0JDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	25	9	1.5P	PYG7.0JSNEBA	⑩-35
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG7.0JQNEBA	⑩-35
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP7.0J	⑩-46
					P2				HEQ7.0J	⑩-46
Dies / M7 × 0.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG7.0GDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG7.0GDNEBC	⑩-17
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP7.0G	⑩-46
					P2				HEQ7.0G	⑩-46

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ M9 × 1.25									
Standard	2 3	SP	SPQ9.0N	SP	P2	75	7	2.5P	①-40
		PO	POR9.0N	PO	P3			5P	③-14
	1 2 3	HT	TNMR9.0N5	HT	P3	75	7	5P	④-8
			TNMR9.0N1					1.5P	④-8
For left hand threads	1 2 3	HT LH	TNMR9.0N5-L	HT	P3	75	7	5P	④-67
			TNMR9.0N1-L					1.5P	④-67
Nut taps	1 2	NT	NH29.0N	HT	II b	150	7.2	27P	⑦-27
Taps ／ M9 × 1									
Standard	2 3	SP	SPQ9.0M	SP	P2	75	7	2.5P	①-40
		PO	POR9.0M	PO	P3			5P	③-14
	1 2 3	HT	TNMQ9.0M5	HT	P2	75	7	5P	④-8
			TNMQ9.0M1					1.5P	④-8
For left hand threads	1 2 3	HT LH	TNMQ9.0M5-L	HT	P2	75	7	5P	④-67
			TNMQ9.0M1-L					1.5P	④-67
Nut taps	1 2	NT	NH29.0M	HT	II	140	7.2	25P	⑦-27
Taps ／ M9 × 0.75									
Standard	2 3	SP	SPQ9.0J	SP	P2	75	7	2.5P	①-40
		PO	POR9.0J	PO	P3			5P	③-14
	1 2 3	HT	TNMQ9.0J5	HT	P2	75	7	5P	④-8
			TNMQ9.0J1					1.5P	④-8
For left hand threads	1 2 3	HT LH	TNMQ9.0J5-L	HT	P2	75	7	5P	④-67
			TNMQ9.0J1-L					1.5P	④-67
Taps ／ M9 × 0.5									
Standard	2 3	SP	SPQ9.0G	SP	P2	75	7	2.5P	①-40
		PO	POQ9.0G	PO				5P	③-14
	1 2 3	HT	TNMQ9.0G5	HT	P2	75	7	5P	④-8
			TNMQ9.0G1					1.5P	④-8
Taps ／ M9.5 × 1									
Standard	1 2 3	HT	TNMQ9.5M5	HT	P2	75	7	5P	④-9
			TNMQ9.5M1					1.5P	④-9
Taps ／ M9.5 × 0.75									
Standard	1 2 3	HT	TNMQ9.5J5	HT	P2	75	7	5P	④-9
			TNMQ9.5J1					1.5P	④-9
Taps ／ M9.5 × 0.5									
Standard	1 2 3	HT	TNMQ9.5G5	HT	P2	75	7	5P	④-9
			TNMQ9.5G1					1.5P	④-9
Taps ／ M11 × 1.5									
Standard	2 3	SP	SPQ011O	SP	P2	82	8.5	2.5P	①-40
		PO	POS011O	PO	P4			5P	③-14
	1 2 3	HT	TNMS011O5	HT	P4	82	8.5	5P	④-9
			TNMS011O1					1.5P	④-9
For left hand threads	1 2 3	HT LH	TNMS011O5-L	HT	P4	82	8.5	5P	④-67
			TNMS011O1-L					1.5P	④-67

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ M11 × 1.25									
Standard	2 3	SP	SPQ011N	SP	P2	82	8.5	2.5P	①-40
		PO	POR011N	PO	P3			5P	③-14
	1 2 3	HT	TNMR011N5	HT	P3	82	8.5	5P	④-9
			TNMR011N1					1.5P	④-9
For left hand threads	1 2 3	HT LH	TNMR011N5-L	HT	P3	82	8.5	5P	④-67
			TNMR011N1-L					1.5P	④-67
Taps ／ M11 × 1									
Standard	2 3	SP	SPQ011M	SP	P2	82	8.5	2.5P	①-40
		PO	POR011M	PO	P3			5P	③-14
	1 2 3	HT	TNMR011M5	HT	P3	82	8.5	5P	④-9
			TNMR011M1					1.5P	④-9
For left hand threads	1 2 3	HT LH	TNMR011M5-L	HT	P3	82	8.5	5P	④-67
			TNMR011M1-L					1.5P	④-67
Taps ／ M11 × 0.75									
Standard	2 3	SP	SPQ011J	SP	P2	82	8.5	2.5P	①-40
		PO	POR011J	PO	P3			5P	③-14
	1 2 3	HT	TNMR011J5	HT	P3	82	8.5	5P	④-9
			TNMR011J1					1.5P	④-9
Taps ／ M11 × 0.5									
Standard	2 3	PO	POQ011G	PO	P2	82	8.5	5P	③-14
	1 2 3	HT	TNMQ011G5	HT	P2	82	8.5	5P	④-9
			TNMQ011G1					1.5P	④-9
Taps ／ M13 × 1.75									
Standard	2 3	SP	SPQ013P	SP	P2	88	10.5	2.5P	①-41
		PO	POS013P	PO	P4			5P	③-14
	1 2 3	HT	TNMR013P5	HT	P3	88	10.5	5P	④-10
			TNMR013P1					1.5P	④-10
Taps ／ M13 × 1.5									
Standard	2 3	SP	SPQ013O	SP	P2	88	10.5	2.5P	①-41
		PO	POR013O	PO	P3			5P	③-14
	1 2 3	HT	TNMR013O5	HT	P3	88	10.5	5P	④-10
			TNMR013O1					1.5P	④-10
For left hand threads	1 2 3	HT LH	TNMR013O5-L	HT	P3	88	10.5	5P	④-67
			TNMR013O1-L					1.5P	④-67
Taps ／ M13 × 1.25									
Standard	2 3	SP	SPQ013N	SP	P2	88	10.5	2.5P	①-41
	1 2 3	HT	TNMS013N5	HT	P4	88	10.5	5P	④-10
			TNMS013N1					1.5P	④-10
For left hand threads	1 2 3	HT LH	TNMS013N5-L	HT	P4	88	10.5	5P	④-67
			TNMS013N1-L					1.5P	④-67

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M13 × 1										
Standard		2 3	SP	SPQ013M	SP	P2	88	10.5	2.5P	①-41
			PO	POR013M	PO	P3			5P	③-15
		1 2 3	HT	TNMR013M5	HT	P3	88	10.5	5P	④-10
				TNMR013M1					1.5P	④-10
For left hand threads		1 2 3	HT LH	TNMR013M5-L	HT	P3	88	10.5	5P	④-67
				TNMR013M1-L					1.5P	④-67
Taps ／ M13 × 0.75										
Standard		2 3	PO	POR013J	PO	P3	88	10.5	5P	③-15
		1 2 3	HT	TNMR013J5	HT	P3	88	10.5	5P	④-10
				TNMR013J1					1.5P	④-10
Taps ／ M13 × 0.5										
Standard		2 3	PO	POQ013G	PO	P2	88	10.5	5P	③-15
		1 2 3	HT	TNMQ013G5	HT	P2	88	10.5	5P	④-10
				TNMQ013G1					1.5P	④-10
Taps ／ M14 × 2										
Standard		2 3	SP	SPQ014Q	SP	P2	88	10.5	2.5P	①-41
			SP 1.5P	SY014QQNEBA					1.5P	①-59
			PO	POS014Q	PO	P4			5P	③-15
		1 2 3	HT	TNMR014Q5	HT	P3	88	10.5	5P	④-10
				TNMR014Q1					1.5P	④-10
	Oversize	2 3	SP	SPR014Q	SP	P3	88	10.5	2.5P	①-41
				SPS014Q		P4				①-41
			PO	POT014Q	PO	P5			5P	③-15
		1 2 3	HT	TNMS014Q5	HT	P4	88	10.5	5P	④-10
				TNMS014Q1					1.5P	④-10
				TNMT014Q5		P5			5P	④-10
				TNMT014Q1					1.5P	④-10
For left hand threads		2 3	SP LH	SPQ014Q--L	SP	P2	88	10.5	2.5P	①-79
			PO LH	POS014Q--L	PO	P4			5P	③-46
		1 2 3	HT LH	TNMR014Q5-L	HT	P3	88	10.5	5P	④-67
				TNMR014Q1-L					1.5P	④-67
Oxidizing		1 2 3	SP OX	SPQ014QX	SP	P2	88	10.5	2.5P	①-65
			PO OX	POS014QX	PO	P4			5P	③-35
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101100	SP	P4	110	10.5	2.5P	①-7
		1 2 3 4 9 19 21	AU+SP	VSAPR014Q	SP	P3	88	10.5	2.5P	①-86
			AU+SL	VSAPS014QL	SL	P4			5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101100	PO	P4	110	10.5	5P	③-5
		1 2 3 4	PO V	VPOS014Q	PO	P4	88	10.5	5P	③-48
	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201100	SP	P5	110	10.5	2.5P	①-7
				1101301100		P6				①-7
		1 2 3 4 9 10 13 18 19	VUPO	1102201100	PO	P5	110	10.5	5P	③-5
				1102301100		P6				③-5
	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101100	SP	P4	110	10.5	1.5P	①-14
	Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101100	SP	P4	110	10.5	2.5P	①-20
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101100	SP	P4	150	10.5	2.5P	①-8
		1 2 3 4 9 10 13 18 19	VUPO	2102101100	PO	P4	150	10.5	5P	③-6
Long		2 3	LS-SP	SPQ014QL12	SP	P2	120	10.5	2.5P	①-91
				SPQ014QL15			150			①-91
				SPQ014QL20			200			①-91
			LS-PO	POS014QL12	PO	P4	120		5P	③-53
				POS014QL15			150			③-53
				POS014QL20			200			③-53
		1 2 3	LS-HT	TNMQ014Q512	HT	P2	120	10.5	5P	④-77
				TNMQ014Q515			150			④-77
				TNMQ014Q520			200			④-77
				TNMQ014Q525			250			④-77
				TNMQ014Q112			120		1.5P	④-77
				TNMQ014Q115			150			④-77
				TNMQ014Q120			200			④-77
				TNMQ014Q125			250			④-77
	Oversize	2 3	LS-PO	POT014QL15	PO	P5	150	10.5	5P	③-53
		1 2 3	LS-HT	TNMR014Q515	HT	P3	150	10.5	5P	④-77
				TNMR014Q520			200			④-77
				TNMR014Q115			150		1.5P	④-77
				TNMR014Q120			200			④-77
	For left hand threads	2 3	LS-SP LH	SPQ014QL15-L	SP	P2	150	10.5	2.5P	①-95
		1 2 3	LS-HT LH	TNMQ014Q515L	HT	P2	150	10.5	5P	④-85
				TNMQ014Q115L					1.5P	④-85
For soft structural steels		1 2	E-SP	ESHMQ014Q	SP	P2	88	10.5	2.5P	①-130
Thread forming taps for steels		1 2	N-RZ	NRZM9014QP	RO	G9	88	10.5	4P	⑥-17
				NRZM9014QB					2P	⑥-17
				NRZM0014QP		G10			4P	⑥-17
				NRZM0014QB					2P	⑥-17
For steels		1 2 3 4 5 9 11	HVSP	SY014QSEEXJ	SP	P4	110	10.5	2.5P	①-24
For Zinc Plating	Oversize	1 2 3 4 5 9 11	HVSP ZP	1112201100	SP	P4+0.1	110	10.5	2.5P	①-32
				1112301100		P4+0.2				①-32
				1112401100		P4+0.3				①-32
For high carbon steels		2 3	HC-SP	SCMQ014Q	SP	P2	88	10.5	2.5P	①-132
		2 3 5	HC-PO	PCMS014Q	PO	P4	88	10.5	5P	③-76
For hard-to-machine materials		3 5 6	EH-PO	EPHMT014Q	PO	P5	88	10.5	4.5P	③-82
		6 10	EH-HT	ETHMT014Q5	HT	P5	88	10.5	5P	④-124
				ETHMT014Q1					2.5P	④-124
	Powdered HSS	3 5 6	PM-SP	SY014QSDPB	SP	P4	88	10.5	2.75P	①-168
			LS-PM-SP	SY014QSDPBG			150			①-175
			PM-PO	PY014QTDPB	PO	P5	88		5.5P	③-92
			LS-PM-PO	PY014QTDPBG			150			③-98
For titanium alloys		22	ZET-B	ZETBMR014Q	SP	P3	88	10.5	3P	①-154
			ZET-P	ZETPMT014Q	SL	P5			5P	②-22
For nickel base alloys		1 2 9 23	ZEN-B	ZENBMR014Q	SP	P3	88	10.5	3P	①-162
			ZEN-P	ZENPMT014Q	PO	P5			4.5P	③-86
For medium hardness carbon steels		3 4 5	MHSP	SY014QTOCLJ	SP	P5	110	10.5	2.5P	①-34
Carbide taps for ultra hard materials		8	UH-CT	UHCS014Q5	HT	P4	88	12.5	5P	⑤-28
For stainless steels		2 3 4 9	SU-SP	SUMQ014Q	SP	P2	88	10.5	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMS014Q	PO	P4	88	10.5	5P	③-61
		1 2 9	SU-HT	TUMS014Q4	HT	P4	88	10.5	4P	④-91
				TUMS014Q1					1.5P	④-91

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For stainless steels	Oversize	2 3 4 9	SU-SP	SUMR014Q	SP	P3	88	10.5	2.5P	①-101
				SUMS014Q		P4				①-101
		1 2 3 4 9	SU-PO	PUMT014Q	PO	P5	88	10.5	5P	③-61
	For deep hole use	1 2 3 4 9	SU-S-SP	SSMQ014Q-SU	SP	P2	88	10.5	2.5P	①-119
		1 2 3 9	LS-SU-S-SP	SY014QQGEXGS	SP	P2	150	10.5	2.5P	①-121
			LS-SU-S-PO	PY014QSGEXGS	PO	P4			5P	③-70
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR014Q	SP	P3	88	10.5	3P	①-116
For cast irons		12 13	FC-HT	TY014QSAEN5	HT	P4	88	10.5	5P	④-94
				TY014QSAENA					1.5P	④-94
	Carbide	12 13 16	N-CT FC	TCNR014Q3	HT	P3	88	10.5	3P	⑤-12
				TCNR014Q1					1.5P	⑤-12
				TCNS014Q3		P4			3P	⑤-12
				TCNS014Q1					1.5P	⑤-12
	Long shank, carbide	12 13 16	LS-N-CT	TY014QSAWB3G	HT	P4	150	10.5	3P	⑤-19
				TY014QSAWBAG					1.5P	⑤-19
For aluminum		15 16 17 18 19 20 21	AL-SP	ASHMR014Q	SP	P3	88	10.5	2.5P	①-136
			AL-SP 1.5P	SY014QRLENA					1.5P	①-137
		18 19 21	LA-HT	TY014QSLEN5	HT	P4	88	10.5	5P	④-111
				TY014QSLENA					1.5P	④-111
	Carbide	19 21	N-CT LA	TCNR014Q3A	HT	P3	88	10.5	3P	⑤-5
				TCNR014Q1A					1.5P	⑤-5
				TCNS014Q3A		P4			3P	⑤-5
				TCNS014Q1A					1.5P	⑤-5
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY014QSKWB	SP	P4	88	10.5	2.5P	⑤-20
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM9014QP	RO	G9	88	10.5	4P	⑥-29
				NRSM9014QB					2P	⑥-29
				NRSM0014QP		G10			4P	⑥-29
				NRSM0014QB					2P	⑥-29
For high speed		1 2	F-SP	VFSHMS014Q	SP	P4	88	10.5	3P	①-178
			F-SL	VFSHMS014QL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY014QSFEVGS	SP	P4	150	10.5	3P	①-182
			LS-F-SL	LY014QSFEVG	SL				5.5P	②-32
For deep hole use		2 3 4 13	S-SP	SSMQ014Q	SP	P2	88	10.5	2.5P	①-124
		1 2 3 4	S-PO	PSMS014Q	PO	P4	88	10.5	5P	③-74
	Oversize	2 3 4 13	S-SP	SSMS014Q	SP	P4	88	10.5	2.5P	①-124
		1 2 3 4	S-PO	PSMT014Q	PO	P5	88	10.5	5P	③-74
Low spiral	Long	2 3	LS-LO-SP	LSHMQ014QL15	SP	P2	150	10.5	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW014Q1LEB5	HT	I b	100	14	5P	⑦-4
				TW014Q1LEBA					1.5P	⑦-4
		15 16 17 18 19 20 21	AL-SP STI	SW014Q1LEN	SP	I b	100	14	2.5P	⑦-11
With coolant hole		1 2 3 4	MC-SP	(MSHQ014QL15)	SP	P2	150	10.5	2.5P	①-209
				(MSHQ014QL20)			200			①-209
			MC-PO	(MPHS014QL15)	PO	P4	150		5P	③-100
				(MPHS014QL20)			200			③-100
		1 2 3	MC-HT	(ML15014Q5-Q)	HT	P2	150	10.5	5P	④-138
				(ML20014Q5-Q)			200			④-138
				(ML15014Q1-Q)			150		1.5P	④-138
				(ML20014Q1-Q)			200			④-138
Nut taps		1 2	NT	NH2014Q	HT	II b	190	11	25P	⑦-27

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ M14 × 1.75										
Standard		1 2 3	HT	TNMR014P5	HT	P3	88	10.5	5P	④-10
				TNMR014P1					1.5P	④-10
Taps ／ M14 × 1.5										
Standard		2 3	SP	SPQ014O	SP	P2	88	10.5	2.5P	①-41
			SP 1.5P	SY014OQNEBA					1.5P	①-59
			PO	POR014O	PO	P3			5P	③-15
		1 2 3	HT	TNMR014O5	HT	P3	88	10.5	5P	④-10
				TNMR014O1					1.5P	④-10
	Oversize	2 3	SP	SPR014O	SP	P3	88	10.5	2.5P	①-41
				SPS014O		P4				①-41
			PO	POS014O	PO				5P	③-15
				POT014O		P5				③-15
		1 2 3	HT	TNMS014O5	HT	P4	88	10.5	5P	④-10
				TNMS014O1					1.5P	④-10
				TNMT014O5		P5			5P	④-10
				TNMT014O1					1.5P	④-10
For left hand threads		2 3	SP LH	SPQ014O--L	SP	P2	88	10.5	2.5P	①-79
			PO LH	POR014O--L	PO	P3			5P	③-46
		1 2 3	HT LH	TNMR014O5-L	HT	P3	88	10.5	5P	④-67
				TNMR014O1-L					1.5P	④-67
Oxidizing		1 2 3	SP OX	SPQ014OX	SP	P2	88	10.5	2.5P	①-65
			PO OX	POR014OX	PO	P3			5P	③-35
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101102	SP	P3	110	10.5	2.5P	①-7
		1 2 3 4 9 19 21	AU+SP	VSAPR014O	SP	P3	88	10.5	2.5P	①-86
			AU+SL	VSAPR014OL	SL				5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101102	PO	P3	110	10.5	5P	③-5
	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201102	SP	P4	110	10.5	2.5P	①-7
				1101301102		P5				①-7
		1 2 3 4 9 10 13 18 19	VUPO	1102201102	PO	P4	110	10.5	5P	③-5
				1102301102		P5				③-5
	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101102	SP	P3	110	10.5	1.5P	①-14
	Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101102	SP	P3	110	10.5	2.5P	①-20
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101102	SP	P3	150	10.5	2.5P	①-8
		1 2 3 4 9 10 13 18 19	VUPO	2102101102	PO	P3	150	10.5	5P	③-6
Long		2 3	LS-SP	SPQ014OL12	SP	P2	120	10.5	2.5P	①-91
				SPQ014OL15			150			①-91
				SPQ014OL20			200			①-91
			LS-PO	POR014OL12	PO	P3	120		5P	③-53
				POR014OL15			150			③-53
				POR014OL20			200			③-53
		1 2 3	LS-HT	TNMQ014O512	HT	P2	120	10.5	5P	④-77
				TNMQ014O515			150			④-77
				TNMQ014O520			200			④-77
				TNMQ014O112			120		1.5P	④-77
				TNMQ014O115			150			④-77
				TNMQ014O120			200			④-77

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Long	Oversize	2 3	LS-PO	POS014OL15	PO	P4	150	10.5	5P	③-53
		1 2 3	LS-HT	TNMR014O515	HT	P3	150	10.5	5P	④-77
				TNMR014O115					1.5P	④-77
	For left hand threads	2 3	LS-SP LH	SPQ014OL15-L	SP	P2	150	10.5	2.5P	①-95
		1 2 3	LS-HT LH	TNMQ014O515L	HT	P2	150	10.5	5P	④-85
				TNMQ014O115L					1.5P	④-85
For soft structural steels		1 2	E-SP	ESHMQ014O	SP	P2	88	10.5	2.5P	①-130
Thread forming taps for steels		1 2	N-RZ	NRZM9014OP	RO	G9	88	10.5	4P	⑥-17
				NRZM9014OB					2P	⑥-17
For steels		1 2 3 4 5 9 11	HVSP	SY014OSEEXJ	SP	P4	110	10.5	2.5P	①-24
For high carbon steels		2 3	HC-SP	SCMQ014O	SP	P2	88	10.5	2.5P	①-132
		2 3 5	HC-PO	PCMR014O	PO	P3	88	10.5	5P	③-76
For hard-to-machine materials		3 5 6	EH-PO	EPHMS014O	PO	P4	88	10.5	4.5P	③-82
		6 10	EH-HT	ETHMS014O5	HT	P4	88	10.5	5P	④-124
				ETHMS014O1					2.5P	④-124
	Powdered HSS	3 5 6	PM-SP	SY014ORDPB	SP	P3	88	10.5	2.75P	①-168
			LS-PM-SP	SY014ORDPBG			150			①-175
			PM-PO	PY014OSDPB	PO	P4	88		5.5P	③-92
			LS-PM-PO	PY014OSDPBG			150			③-98
For titanium alloys		22	ZET-B	ZETBMR014O	SP	P3	88	10.5	3P	①-154
			ZET-P	ZETPMS014O	SL	P4			5P	②-22
For nickel base alloys		1 2 9 23	ZEN-B	ZENBMR014O	SP	P3	88	10.5	3P	①-162
			ZEN-P	ZENPMS014O	PO	P4			4.5P	③-86
For medium hardness carbon steels		3 4 5	MHSP	SY014OSOCLJ	SP	P4	110	10.5	2.5P	①-34
		2 3 4 5 10	MHSL	1109101102	SL	P5	110	10.5	7P	②-4
			MHSL-J	MHSLT014O7			88			②-6
Carbide taps for ultra hard materials		8	UH-CT	UHCS014O5	HT	P4	88	12.5	5P	⑤-28
For stainless steels		2 3 4 9	SU-SP	SUMQ014O	SP	P2	88	10.5	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMR014O	PO	P3	88	10.5	5P	③-61
		1 2 9	SU-HT	TUMR014O4	HT	P3	88	10.5	4P	④-91
				TUMR014O1					1.5P	④-91
	Oversize	2 3 4 9	SU-SP	SUMS014O	SP	P4	88	10.5	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMT014O	PO	P5	88	10.5	5P	③-61
	For deep hole use	1 2 3 9	LS-SU-S-SP	SY014OQGEXGS	SP	P2	150	10.5	2.5P	①-121
			LS-SU-S-PO	PY014ORGEXGS	PO	P3			5P	③-70
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR014O	SP	P3	88	10.5	3P	①-116
For cast irons		12 13	FC-HT	TY014OSAEN5	HT	P4	88	10.5	5P	④-94
				TY014OSAENA					1.5P	④-94
	Carbide	12 13 16	N-CT FC	TCNR014O3	HT	P3	88	10.5	3P	⑤-12
				TCNR014O1					1.5P	⑤-12
				TCNS014O3		P4			3P	⑤-12
				TCNS014O1					1.5P	⑤-12
	Long shank, carbide	12 13 16	LS-N-CT	TY014OSAWB3G	HT	P4	150	10.5	3P	⑤-19
				TY014OSAWBAG					1.5P	⑤-19
For aluminum		15 16 17 18 19 20 21	AL-SP	ASHMR014O	SP	P3	88	10.5	2.5P	①-136
			AL-SP 1.5P	SY014ORLENA					1.5P	①-137
		18 19 21	LA-HT	TY014OSLEN5	HT	P4	88	10.5	5P	④-111
				TY014OSLENA					1.5P	④-111
	Carbide	19 21	N-CT LA	TCNR014O3A	HT	P3	88	10.5	3P	⑤-5
				TCNR014O1A					1.5P	⑤-5
				TCNS014O3A		P4			3P	⑤-5

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For aluminum	Carbide	19 21	N-CT LA	TCNS014O1A	HT	P4	88	10.5	1.5P	⑤-5
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY014OSKWB	SP	P4	88	10.5	2.5P	⑤-20
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM9014OP	RO	G9	88	10.5	4P	⑥-29
				NRSM9014OB					2P	⑥-29
For high speed		1 2	F-SP	VFSHMR014O	SP	P3	88	10.5	3P	①-178
			F-SL	VFSHMR014OL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY014ORFEVGS	SP	P3	150	10.5	3P	①-182
			LS-F-SL	LY014ORFEVG	SL				5.5P	②-32
Ultra fast tapping(with coolant hole)	For steels	1 2 3 4	HFIHS	HFIHSS014O	SP	P4	88	12	2.5P	①-186
			HFISP	HFISPS014O						①-190
	For non-ferrous materials	18 19 20 21	HFAHS	HFAHSS014O	SP	P4	88	12	2.5P	①-194
			HFASP	HFASPS014O						①-198
For dry tapping (with coolant hole)	For steels	2 3 4	HDISP	HDISPS014O	SP	P4	88	12	2.5P	①-202
	For non-ferrous materials	18 19 20 21	HDASP	HDASPS014O	SP	P4	88	12	2.5P	①-206
Ultra fast tapping(with coolant hole)	For both steels and non ferrous materials	2 3 4	HDISL	HDISLS014O	SL	P4	88	12	5.5P	②-34
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM9014OP	RO	G9	88	10.5	4P	⑥-49
				HRZM9014OB					2P	⑥-49
Thread forming taps for carbon steels of medium hardness		2 3 4 5	MHRZ	1110101102	RO	G9	110	10.5	4P	⑥-4
				1111101102					2P	⑥-4
			MHRZ-J	RY014O9OCTP			88		4P	⑥-8
				RY014O9OCTB					2P	⑥-8
	Long	2 3 4 5	MHRZ	2110101102	RO	G9	150	10.5	4P	⑥-5
				2111101102					2P	⑥-5
For deep hole use		2 3 4 13	S-SP	SSMQ014O	SP	P2	88	10.5	2.5P	①-124
		1 2 3 4	S-PO	PSMR014O	PO	P3	88	10.5	5P	③-74
	Oversize	2 3 4 13	S-SP	SSMS014O	SP	P4	88	10.5	2.5P	①-124
		1 2 3 4	S-PO	PSMT014O	PO	P5	88	10.5	5P	③-74
Low spiral	Long	2 3	LS-LO-SP	LSHMQ014OL15	SP	P2	150	10.5	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW014O1LEB5	HT	I b	95	12.5	5P	⑦-4
				TW014O1LEBA					1.5P	⑦-4
		15 16 17 18 19 20 21	AL-SP STI	SW014O1LEN	SP	I b	95	12.5	2.5P	⑦-11
With coolant hole		1 2 3 4	MC-SP	(MSHQ014OL15)	SP	P2	150	10.5	2.5P	①-209
				(MSHQ014OL20)			200			①-209
			MC-PO	(MPHR014OL15)	PO	P3	150		5P	③-100
				(MPHR014OL20)			200			③-100
		1 2 3	MC-HT	(ML15014O5-Q)	HT	P2	150	10.5	5P	④-138
				(ML20014O5-Q)			200			④-138
				(ML15014O1-Q)			150		1.5P	④-138
				(ML20014O1-Q)			200			④-138
Nut taps		1 2	NT	NH2014O	HT	II	170	11	25P	⑦-27

Taps ／ M14 × 1.25

Standard		2 3	SP	SPQ014N	SP	P2	88	10.5	2.5P	①-41
			PO	POR014N	PO	P3			5P	③-15
		1 2 3	HT	TNMS014N5	HT	P4	88	10.5	5P	④-10
				TNMS014N1					1.5P	④-10
For left hand threads		1 2 3	HT LH	TNMS014N5-L	HT	P4	88	10.5	5P	④-67
				TNMS014N1-L					1.5P	④-67
Oxidizing		1 2 3	SP OX	SPQ014NX	SP	P2	88	10.5	2.5P	①-65
			PO OX	POR014NX	PO	P3			5P	③-35
For high carbon steels		2 3	HC-SP	SCMQ014N	SP	P2	88	10.5	2.5P	①-132

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For stainless steels		1 2 9	SU-HT	TUMR014N4	HT	P3	88	10.5	4P	④-91
				TUMR014N1					1.5P	④-91
For cast irons	Carbide	12 13 16	N-CT FC	TCNR014N3	HT	P3	88	10.5	3P	⑤-12
				TCNR014N1					1.5P	⑤-12
				TCNS014N3		P4			3P	⑤-12
				TCNS014N1					1.5P	⑤-12
For aluminum	Carbide	19 21	N-CT LA	TCNR014N3A	HT	P3	88	10.5	3P	⑤-5
				TCNR014N1A					1.5P	⑤-5
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW014N1LEB5	HT	I b	95	12.5	5P	⑦-4
				TW014N1LEBA					1.5P	⑦-4
Nut taps		1 2	NT	NH2014N	HT	II	170	11	24P	⑦-27
Taps ／ M14 × 1										
Standard		2 3	SP	SPQ014M	SP	P2	88	10.5	2.5P	①-41
			PO	POR014M	PO	P3			5P	③-15
		1 2 3	HT	TNMR014M5	HT	P3	88	10.5	5P	④-11
				TNMR014M1					1.5P	④-11
	Oversize	2 3	PO	POS014M	PO	P4	88	10.5	5P	③-15
		1 2 3	HT	TNMS014M5	HT	P4	88	10.5	5P	④-11
				TNMS014M1					1.5P	④-11
For left hand threads		2 3	SP LH	SPQ014M--L	SP	P2	88	10.5	2.5P	①-79
		1 2 3	HT LH	TNMR014M5-L	HT	P3	88	10.5	5P	④-68
				TNMR014M1-L					1.5P	④-68
Oxidizing		1 2 3	SP OX	SPQ014MX	SP	P2	88	10.5	2.5P	①-65
			PO OX	POR014MX	PO	P3			5P	③-35
Long		1 2 3	LS-HT	TNMQ014M515	HT	P2	150	10.5	5P	④-77
				TNMQ014M115					1.5P	④-77
Thread forming taps for steels		1 2	N-RZ	NRZM8014MP	RO	G8	88	10.5	4P	⑥-17
				NRZM8014MB					2P	⑥-17
For high carbon steels		2 3	HC-SP	SCMQ014M	SP	P2	88	10.5	2.5P	①-132
For stainless steels		2 3 4 9	SU-SP	SUMQ014M	SP	P2	88	10.5	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMR014M	PO	P3	88	10.5	5P	③-61
		1 2 9	SU-HT	TUMR014M4	HT	P3	88	10.5	4P	④-91
				TUMR014M1					1.5P	④-91
For cast irons	Carbide	12 13 16	N-CT FC	TCNR014M3	HT	P3	70	10.5	3P	⑤-12
				TCNR014M1					1.5P	⑤-12
				TCNS014M3		P4			3P	⑤-12
				TCNS014M1					1.5P	⑤-12
For aluminum	Carbide	19 21	N-CT LA	TCNR014M3A	HT	P3	70	10.5	3P	⑤-5
				TCNR014M1A					1.5P	⑤-5
				TCNS014M3A		P4			3P	⑤-5
				TCNS014M1A					1.5P	⑤-5
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM8014MP	RO	G8	88	10.5	4P	⑥-29
				NRSM8014MB					2P	⑥-29
For deep hole use		2 3 4 13	S-SP	SSMQ014M	SP	P2	88	10.5	2.5P	①-124
Nut taps		1 2	NT	NH2014M	HT	II	160	11	25P	⑦-27
Taps ／ M14 × 0.75										
Standard		2 3	PO	POR014J	PO	P3	88	10.5	5P	③-15
		1 2 3	HT	TNMR014J5	HT	P3	88	10.5	5P	④-11
				TNMR014J1					1.5P	④-11

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ M14 × 0.5									
Standard	2 3	PO	POQ014G	PO	P2	88	10.5	5P	③-15
	1 2 3	HT	TNMQ014G5	HT	P2	88	10.5	5P	④-11
			TNMQ014G1					1.5P	④-11
Taps ／ M15 × 2									
Standard	2 3	SP	SPQ015Q	SP	P2	95	12.5	2.5P	①-41
		PO	POS015Q	PO	P4			5P	③-15
	1 2 3	HT	TNMR015Q5	HT	P3	95	12.5	5P	④-11
			TNMR015Q1					1.5P	④-11
Taps ／ M15 × 1.5									
Standard	2 3	SP	SPQ015O	SP	P2	95	12.5	2.5P	①-41
		PO	POR015O	PO	P3			5P	③-15
	1 2 3	HT	TNMR015O5	HT	P3	95	12.5	5P	④-11
			TNMR015O1					1.5P	④-11
For left hand threads	1 2 3	HT LH	TNMR015O5-L	HT	P3	95	12.5	5P	④-68
			TNMR015O1-L					1.5P	④-68
For stainless steels	1 2 3 4 9	SU-PO	PUMR015O	PO	P3	95	12.5	5P	③-61
Taps ／ M15 × 1.25									
Standard	1 2 3	HT	TNMS015N5	HT	P4	95	12.5	5P	④-11
			TNMS015N1					1.5P	④-11
For left hand threads	1 2 3	HT LH	TNMS015N5-L	HT	P4	95	12.5	5P	④-68
			TNMS015N1-L					1.5P	④-68
Taps ／ M15 × 1									
Standard	2 3	SP	SPQ015M	SP	P2	95	12.5	2.5P	①-41
		PO	POR015M	PO	P3			5P	③-15
	1 2 3	HT	TNMR015M5	HT	P3	95	12.5	5P	④-11
			TNMR015M1					1.5P	④-11
For left hand threads	1 2 3	HT LH	TNMR015M5-L	HT	P3	95	12.5	5P	④-68
			TNMR015M1-L					1.5P	④-68
For stainless steels	1 2 3 4 9	SU-PO	PUMR015M	PO	P3	95	12.5	5P	③-61
Taps ／ M15 × 0.75									
Standard	1 2 3	HT	TNMR015J5	HT	P3	95	12.5	5P	④-11
			TNMR015J1					1.5P	④-11
Taps ／ M15 × 0.5									
Standard	1 2 3	HT	TNMQ015G5	HT	P2	95	12.5	5P	④-11
			TNMQ015G1					1.5P	④-11
Taps ／ M16 × 2									
Standard	2 3	SP	SPQ016Q	SP	P2	95	12.5	2.5P	①-41
		SP 1.5P	SY016QQNEBA					1.5P	①-59
		PO	POS016Q	PO	P4			5P	③-15
	1 2 3	HT	TNMR016Q5	HT	P3	95	12.5	5P	④-11
			TNMR016Q1					1.5P	④-11

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard	Oversize	2 3	SP	SPR016Q	SP	P3	95	12.5	2.5P	①-41
				SPS016Q		P4				①-41
				SPT016Q		P5				①-41
			PO	POT016Q	PO				5P	③-15
				POU016Q		P6				③-15
		1 2 3	HT	TNMS016Q5	HT	P4	95	12.5	5P	④-11
				TNMS016Q1					1.5P	④-11
				TNMT016Q5		P5			5P	④-11
				TNMT016Q1					1.5P	④-11
For left hand threads		2 3	SP LH	SPQ016Q--L	SP	P2	95	12.5	2.5P	①-79
			PO LH	POS016Q--L	PO	P4			5P	③-46
		1 2 3	HT LH	TNMR016Q5-L	HT	P3	95	12.5	5P	④-68
				TNMR016Q1-L					1.5P	④-68
Oxidizing		1 2 3	SP OX	SPQ016QX	SP	P2	95	12.5	2.5P	①-65
			PO OX	POS016QX	PO	P4			5P	③-35
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101114	SP	P4	110	12.5	2.5P	①-7
		1 2 3 4 9 19 21	AU+SP	VSAPR016Q	SP	P3	95	12.5	2.5P	①-86
			AU+SL	VSAPS016QL	SL	P4			5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101114	PO	P4	110	12.5	5P	③-5
	Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201114	SP	P5	110	12.5	2.5P	①-7
				1101301114		P6				①-7
		1 2 3 4 9 10 13 18 19	VUPO	1102201114	PO	P5	110	12.5	5P	③-5
				1102301114		P6				③-5
	Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101114	SP	P4	110	12.5	1.5P	①-14
	Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101114	SP	P4	110	12.5	2.5P	①-20
	Long	1 2 3 4 9 10 13 18 19	VUSP	2101101114	SP	P4	150	12.5	2.5P	①-8
		1 2 3 4 9 10 13 18 19	VUPO	2102101114	PO	P4	150	12.5	5P	③-6
Long		2 3	LS-SP	SPQ016QL15	SP	P2	150	12.5	2.5P	①-91
				SPQ016QL20			200			①-91
				SPQ016QL25			250			①-91
			LS-PO	POS016QL15	PO	P4	150		5P	③-53
				POS016QL20			200			③-53
				POS016QL25			250			③-53
		1 2 3	LS-HT	TNMQ016Q515	HT	P2	150	12.5	5P	④-77
				TNMQ016Q520			200			④-77
				TNMQ016Q525			250			④-77
				TNMQ016Q115			150		1.5P	④-77
				TNMQ016Q120			200			④-77
				TNMQ016Q125			250			④-77
	Oversize	2 3	LS-PO	POT016QL15	PO	P5	150	12.5	5P	③-53
		1 2 3	LS-HT	TNMR016Q515	HT	P3	150	12.5	5P	④-77
				TNMR016Q520			200			④-77
				TNMR016Q115			150		1.5P	④-77
				TNMR016Q120			200			④-77
	For left hand threads	2 3	LS-SP LH	SPQ016QL15-L	SP	P2	150	12.5	2.5P	①-95
		1 2 3	LS-HT LH	TNMQ016Q515L	HT	P2	150	12.5	5P	④-85
				TNMQ016Q520L			200			④-85
				TNMQ016Q115L			150		1.5P	④-85
				TNMQ016Q120L			200			④-85
	Oxidizing	1 2	LS-SP OX	SPQ016QL15X	SP	P2	150	12.5	2.5P	①-94
For soft structural steels		1 2	E-SP	ESHMQ016Q	SP	P2	95	12.5	2.5P	①-130

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Thread forming taps for steels		1 2	N-RZ	NRZM9016QP	RO	G9	95	12.5	4P	⑥-17
				NRZM9016QB					2P	⑥-17
				NRZM0016QP		G10			4P	⑥-17
				NRZM0016QB					2P	⑥-17
For steels		1 2 3 4 5 9 11	HVSP	SY016QSEEXJ	SP	P4	110	12.5	2.5P	①-24
For Zinc Plating	Oversize	1 2 3 4 5 9 11	HVSP ZP	1112201114	SP	P4+0.1	110	12.5	2.5P	①-32
				1112301114		P4+02				①-32
				1112401114		P4+03				①-32
For high carbon steels		2 3	HC-SP	SCMQ016Q	SP	P2	95	12.5	2.5P	①-132
		2 3 5	HC-PO	PCMS016Q	PO	P4	95	12.5	5P	③-77
	Oxidizing	2 3	HC-SP OX	SCMQ016QX	SP	P2	95	12.5	2.5P	①-134
For hard-to-machine materials		3 5 6	EH-PO	EPHMT016Q	PO	P5	95	12.5	4.5P	③-82
		6 10	EH-HT	ETHMT016Q5	HT	P5	95	12.5	5P	④-124
				ETHMT016Q1					2.5P	④-124
	Powdered HSS	3 5 6	PM-SP	SY016QSDPB	SP	P4	95	12.5	2.75P	①-168
			LS-PM-SP	SY016QSDPBG			150			①-175
			PM-PO	PY016QTDPB	PO	P5	95		5.5P	③-92
			LS-PM-PO	PY016QTDPBG			150			③-98
For titanium alloys		22	ZET-B	ZETBMR016Q	SP	P3	95	12.5	3P	①-154
			ZET-P	ZETPMT016Q	SL	P5			5P	②-22
For nickel base alloys		1 2 9 23	ZEN-B	ZENBMR016Q	SP	P3	95	12.5	3P	①-162
			ZEN-P	ZENPMT016Q	PO	P5			4.5P	③-86
For medium hardness carbon steels		3 4 5	MHSP	SY016QTOCLJ	SP	P5	110	12.5	2.5P	①-34
Carbide taps for ultra hard materials		8	UH-CT	UHCS016Q5	HT	P4	95	14	5P	⑤-28
For stainless steels		2 3 4 9	SU-SP	SUMQ016Q	SP	P2	95	12.5	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMS016Q	PO	P4	95	12.5	5P	③-61
		1 2 9	SU-HT	TUMS016Q4	HT	P4	95	12.5	4P	④-91
				TUMS016Q1					1.5P	④-91
	Oversize	2 3 4 9	SU-SP	SUMR016Q	SP	P3	95	12.5	2.5P	①-101
				SUMS016Q		P4				①-101
		1 2 3 4 9	SU-PO	PUMT016Q	PO	P5	95	12.5	5P	③-61
				PUMU016Q		P6				③-61
	For deep hole use	1 2 3 4 9	SU-S-SP	SSMQ016Q-SU	SP	P2	95	12.5	2.5P	①-119
		1 2 3 9	LS-SU-S-SP	SY016QQGEXGS	SP	P2	150	12.5	2.5P	①-121
				SY016QQGEXKS			200			①-121
			LS-SU-S-PO	PY016QSGEXGS	PO	P4	150		5P	③-71
				PY016QSGEXKS			200			③-71
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR016Q	SP	P3	95	12.5	3P	①-116
For cast irons		12 13	FC-HT	TY016QSAEN5	HT	P4	95	12.5	5P	④-94
				TY016QSAENA					1.5P	④-95
	Carbide	12 13 16	N-CT FC	TCNS016Q3	HT	P4	95	12.5	3P	⑤-12
				TCNS016Q1					1.5P	⑤-12
	Long shank, carbide	12 13 16	LS-N-CT	TY016QSAWB3G	HT	P4	150	12.5	3P	⑤-19
				TY016QSAWBAG					1.5P	⑤-19
For aluminum		15 16 17 18 19 20 21	AL-SP	ASHMR016Q	SP	P3	95	12.5	2.5P	①-136
			AL-SP 1.5P	SY016QRLENA					1.5P	①-137
		18 19 21	LA-HT	TY016QSLEN5	HT	P4	95	12.5	5P	④-111
				TY016QSLENA					1.5P	④-111
	Carbide	19 21	N-CT LA	TCNS016Q3A	HT	P4	95	12.5	3P	⑤-5
				TCNS016Q1A					1.5P	⑤-5
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY016QSKWB	SP	P4	95	12.5	2.5P	⑤-20

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM9016QP	RO	G9	95	12.5	4P	⑥-29
			NRSM9016QB					2P	⑥-29
			NRSM0016QP		G10			4P	⑥-29
			NRSM0016QB					2P	⑥-29
For high speed	1 2	F-SP	VFSHMS016Q	SP	P4	95	12.5	3P	①-178
		F-SL	VFSHMS016QL	SL				5.5P	②-28
Long	1 2	LS-F-SP	SY016QSFEVGS	SP	P4	150	12.5	3P	①-182
		LS-F-SL	LY016QSFEVG	SL				5.5P	②-32
For deep hole use	2 3 4 13	S-SP	SSMQ016Q	SP	P2	95	12.5	2.5P	①-124
	1 2 3 4	S-PO	PSMS016Q	PO	P4	95	12.5	5P	③-74
Oversize	2 3 4 13	S-SP	SSMR016Q	SP	P3	95	12.5	2.5P	①-124
			SSMS016Q		P4				①-124
	1 2 3 4	S-PO	PSMT016Q	PO	P5	95	12.5	5P	③-74
Low spiral Long	2 3	LS-LO-SP	LSHMQ016QL15	SP	P2	150	12.5	2.5P	①-151
			LSHMQ016QL20			200			①-151
For helical coil wire screw thread inserts	18 19 21	AL-HT STI	TW016Q1LEB5	HT	I b	105	15	5P	⑦-4
			TW016Q1LEBA					1.5P	⑦-4
	15 16 17 18 19 20 21	AL-SP STI	SW016Q1LEN	SP	I b	105	15	2.5P	⑦-11
With coolant hole	1 2 3 4	MC-SP	(MSHQ016QL15)	SP	P2	150	12.5	2.5P	①-209
			(MSHQ016QL20)			200			①-209
		MC-PO	(MPHS016QL15)	PO	P4	150		5P	③-100
			(MPHS016QL20)			200			③-100
	1 2 3	MC-HT	(ML15016Q5-Q)	HT	P2	150	12.5	5P	④-138
			(ML20016Q5-Q)			200			④-138
			(ML15016Q1-Q)			150		1.5P	④-138
			(ML20016Q1-Q)			200			④-138
Nut taps	1 2	NT	NH2016Q	HT	II b	200	13	26P	⑦-28

Taps ／ M16 × 1.5

Standard	2 3	SP	SPQ016O	SP	P2	95	12.5	2.5P	①-41
		SP 1.5P	SY016OQNEBA					1.5P	①-59
		PO	POR016O	PO	P3			5P	③-15
	1 2 3	HT	TNMR016O5	HT	P3	95	12.5	5P	④-11
			TNMR016O1					1.5P	④-11
Oversize	2 3	SP	SPR016O	SP	P3	95	12.5	2.5P	①-41
			SPS016O		P4				①-41
		PO	POS016O	PO				5P	③-15
			POT016O		P5				③-15
	1 2 3	HT	TNMS016O5	HT	P4	95	12.5	5P	④-11
			TNMS016O1					1.5P	④-11
			TNMT016O5		P5			5P	④-11
			TNMT016O1					1.5P	④-11
For left hand threads	2 3	SP LH	SPQ016O--L	SP	P2	95	12.5	2.5P	①-79
		PO LH	POR016O--L	PO	P3			5P	③-46
	1 2 3	HT LH	TNMR016O5-L	HT	P3	95	12.5	5P	④-68
			TNMR016O1-L					1.5P	④-68
Oxidizing	1 2 3	SP OX	SPQ016OX	SP	P2	95	12.5	2.5P	①-65
		PO OX	POR016OX	PO	P3			5P	③-35

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Coating	1 2 3 4 9 10 13 18 19	VUSP	1101101116	SP	P3	110	12.5	2.5P	①-7
	1 2 3 4 9 19 21	AU+SP	VSAPR016O	SP	P3	95	12.5	2.5P	①-86
		AU+SL	VSAPR016OL	SL				5P	②-14
	1 2 3 4 9 10 13 18 19	VUPO	1102101116	PO	P3	110	12.5	5P	③-5
Oversize	1 2 3 4 9 10 13 18 19	VUSP	1101201116	SP	P4	110	12.5	2.5P	①-7
			1101301116		P5				①-7
	1 2 3 4 9 10 13 18 19	VUPO	1102201116	PO	P4	110	12.5	5P	③-6
			1102301116		P5				③-6
Short chamfer	1 2 3 4 9 10 13 18 19	VUSP 1.5P	1103101116	SP	P3	110	12.5	1.5P	①-14
Cool hole	1 2 3 4 9 10 13 18 19	VUSP CH	1201101116	SP	P3	110	12.5	2.5P	①-20
Long	1 2 3 4 9 10 13 18 19	VUSP	2101101116	SP	P3	150	12.5	2.5P	①-8
	1 2 3 4 9 10 13 18 19	VUPO	2102101116	PO	P3	150	12.5	5P	③-6
Long	2 3	LS-SP	SPQ016OL15	SP	P2	150	12.5	2.5P	①-91
			SPQ016OL20			200			①-91
		LS-PO	POR016OL15	PO	P3	150		5P	③-53
			POR016OL20			200			③-53
	1 2 3	LS-HT	TNMQ016O512	HT	P2	120	12.5	5P	④-77
			TNMQ016O515			150			④-77
			TNMQ016O520			200			④-77
			TNMQ016O112			120		1.5P	④-77
			TNMQ016O115			150			④-77
			TNMQ016O120			200			④-77
Oversize	1 2 3	LS-HT	TNMR016O515	HT	P3	150	12.5	5P	④-77
			TNMR016O115					1.5P	④-77
For left hand threads	2 3	LS-SP LH	SPQ016OL15-L	SP	P2	150	12.5	2.5P	①-95
	1 2 3	LS-HT LH	TNMQ016O515L	HT	P2	150	12.5	5P	④-85
			TNMQ016O115L					1.5P	④-85
For soft structural steels	1 2	E-SP	ESHMQ016O	SP	P2	95	12.5	2.5P	①-130
Thread forming taps for steels	1 2	N-RZ	NRZM9016OP	RO	G9	95	12.5	4P	⑥-17
			NRZM9016OB					2P	⑥-17
For steels	1 2 3 4 5 9 11	HVSP	SY016OSEEXJ	SP	P4	110	12.5	2.5P	①-24
For high carbon steels	2 3	HC-SP	SCMQ016O	SP	P2	95	12.5	2.5P	①-133
	2 3 5	HC-PO	PCMR016O	PO	P3	95	12.5	5P	③-77
For hard-to-machine materials	3 5 6	EH-PO	EPHMS016O	PO	P4	95	12.5	4.5P	③-82
	6 10	EH-HT	ETHMS016O5	HT	P4	95	12.5	5P	④-124
			ETHMS016O1					2.5P	④-124
Powdered HSS	3 5 6	PM-SP	SY016ORDPB	SP	P3	95	12.5	2.75P	①-168
		LS-PM-SP	SY016ORDPBG			150			①-175
		PM-PO	PY016OSDPB	PO	P4	95		5.5P	③-92
		LS-PM-PO	PY016OSDPBG			150			③-98
For titanium alloys	22	ZET-B	ZETBMR016O	SP	P3	95	12.5	3P	①-154
		ZET-P	ZETPMS016O	SL	P4			5P	②-22
For nickel base alloys	1 2 9 23	ZEN-B	ZENBMR016O	SP	P3	95	12.5	3P	①-162
		ZEN-P	ZENPMS016O	PO	P4			4.5P	③-86
For medium hardness carbon steels	3 4 5	MHSP	SY016OSOCLJ	SP	P4	110	12.5	2.5P	①-34
	2 3 4 5 10	MHSL	1109101116	SL	P5	110	12.5	7P	②-4
		MHSL-J	MHSLT016O7			95			②-6
Carbide taps for ultra hard materials	8	UH-CT	UHCS016O5	HT	P4	95	14	5P	⑤-28
For stainless steels	2 3 4 9	SU-SP	SUMQ016O	SP	P2	95	12.5	2.5P	①-101
	1 2 3 4 9	SU-PO	PUMR016O	PO	P3	95	12.5	5P	③-61
	1 2 9	SU-HT	TUMR016O4	HT	P3	95	12.5	4P	④-91
			TUMR016O1					1.5P	④-91

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For stainless steels	Oversize	2 3 4 9	SU-SP	SUMS016O	SP	P4	95	12.5	2.5P	①-101
		1 2 3 4 9	SU-PO	PUMT016O	PO	P5	95	12.5	5P	③-61
	For deep hole use	1 2 3 9	LS-SU-S-SP	SY016OQGEXGS	SP	P2	150	12.5	2.5P	①-121
				SY016OQGEXKS			200			①-121
			LS-SU-S-PO	PY016ORGEXGS	PO	P3	150		5P	③-71
				PY016ORGEXKS			200			③-71
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR016O	SP	P3	95	12.5	3P	①-116
For cast irons		12 13	FC-HT	TY016OSAEN5	HT	P4	95	12.5	5P	④-95
				TY016OSAENA					1.5P	④-95
	Carbide	12 13 16	N-CT FC	TCNR016O3	HT	P3	95	12.5	3P	⑤-12
				TCNR016O1					1.5P	⑤-12
				TCNS016O3		P4			3P	⑤-12
				TCNS016O1					1.5P	⑤-12
	Long shank, carbide	12 13 16	LS-N-CT	TY016OSAWB3G	HT	P4	150	12.5	3P	⑤-19
				TY016OSAWBAG					1.5P	⑤-19
For aluminum		15 16 17 18 19 20 21	AL-SP	ASHMR016O	SP	P3	95	12.5	2.5P	①-136
			AL-SP 1.5P	SY016ORLENA					1.5P	①-137
		18 19 21	LA-HT	TY016OSLEN5	HT	P4	95	12.5	5P	④-111
				TY016OSLENA					1.5P	④-111
	Carbide	19 21	N-CT LA	TCNR016O3A	HT	P3	95	12.5	3P	⑤-5
				TCNR016O1A					1.5P	⑤-5
				TCNS016O3A		P4			3P	⑤-5
				TCNS016O1A					1.5P	⑤-5
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY016OSKWB	SP	P4	95	12.5	2.5P	⑤-20
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM9016OP	RO	G9	95	12.5	4P	⑥-29
				NRSM9016OB					2P	⑥-29
For high speed		1 2	F-SP	VFSHMR016O	SP	P3	95	12.5	3P	①-178
			F-SL	VFSHMR016OL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY016ORFEVGS	SP	P3	150	12.5	3P	①-182
			LS-F-SL	LY016ORFEVG	SL				5.5P	②-32
Ultra fast tapping(with coolant hole)	For steels	1 2 3 4	HFIHS	HFIHSS016O	SP	P4	95	16	2.5P	①-186
			HFISP	HFISPS016O						①-190
	For non-ferrous materials	18 19 20 21	HFAHS	HFAHSS016O	SP	P4	95	16	2.5P	①-194
			HFASP	HFASPS016O						①-198
For dry tapping (with coolant hole)	For steels	2 3 4	HDISP	HDISPS016O	SP	P4	95	16	2.5P	①-202
	For non-ferrous materials	18 19 20 21	HDASP	HDASPS016O	SP	P4	95	16	2.5P	①-206
Ultra fast tapping (with coolant hole)	For both steels and non ferrous materials	2 3 4	HDISL	HDISLS016O	SL	P4	95	16	5.5P	②-34
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM9016OP	RO	G9	95	12.5	4P	⑥-49
				HRZM9016OB					2P	⑥-49
Thread forming taps for carbon steels of medium hardness		2 3 4 5	MHRZ	1110101116	RO	G9	110	12.5	4P	⑥-4
				1111101116					2P	⑥-4
			MHRZ-J	RY016O9OCTP			95		4P	⑥-8
				RY016O9OCTB					2P	⑥-8
	Long	2 3 4 5	MHRZ	2110101116	RO	G9	150	12.5	4P	⑥-5
				2111101116					2P	⑥-5
For deep hole use		2 3 4 13	S-SP	SSMQ016O	SP	P2	95	12.5	2.5P	①-124
		1 2 3 4	S-PO	PSMR016O	PO	P3	95	12.5	5P	③-74
	Oversize	2 3 4 13	S-SP	SSMS016O	SP	P4	95	12.5	2.5P	①-124
		1 2 3 4	S-PO	PSMT016O	PO	P5	95	12.5	5P	③-74
Low spiral	Long	2 3	LS-LO-SP	LSHMQ016OL15	SP	P2	150	12.5	2.5P	①-151
				LSHMQ016OL20			200			①-151

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW016O1LEB5	HT	I b	100	14	5P	⑦-4
				TW016O1LEBA					1.5P	⑦-4
		15 16 17 18 19 20 21	AL-SP STI	SW016O1LEN	SP	I b	100	14	2.5P	⑦-11
With coolant hole		1 2 3 4	MC-SP	(MSHQ016OL15)	SP	P2	150	12.5	2.5P	①-209
				(MSHQ016OL20)			200			①-209
			MC-PO	(MPHR016OL15)	PO	P3	150		5P	③-100
				(MPHR016OL20)			200			③-101
		1 2 3	MC-HT	(ML15016O5-Q)	HT	P2	150	12.5	5P	④-138
				(ML20016O5-Q)			200			④-138
				(ML15016O1-Q)			150		1.5P	④-138
				(ML20016O1-Q)			200			④-138
Nut taps		1 2	NT	NH2016O	HT	II	180	13	25P	⑦-28

Taps ／ M16 × 1.25

Standard		2 3	SP	SPQ016N	SP	P2	95	12.5	2.5P	①-41
			PO	POR016N	PO	P3			5P	③-15
		1 2 3	HT	TNMS016N5	HT	P4	95	12.5	5P	④-11
				TNMS016N1					1.5P	④-11
For left hand threads		1 2 3	HT LH	TNMS016N5-L	HT	P4	95	12.5	5P	④-68
				TNMS016N1-L					1.5P	④-68
Oxidizing		1 2 3	SP OX	SPQ016NX	SP	P2	95	12.5	2.5P	①-65

Taps ／ M16 × 1

Standard		2 3	SP	SPQ016M	SP	P2	95	12.5	2.5P	①-41
			PO	POR016M	PO	P3			5P	③-15
		1 2 3	HT	TNMR016M5	HT	P3	95	12.5	5P	④-11
				TNMR016M1					1.5P	④-11
	Oversize	1 2 3	HT	TNMS016M5	HT	P4	95	12.5	5P	④-11
				TNMS016M1					1.5P	④-11
For left hand threads		1 2 3	HT LH	TNMR016M5-L	HT	P3	95	12.5	5P	④-68
				TNMR016M1-L					1.5P	④-68
Oxidizing		1 2 3	SP OX	SPQ016MX	SP	P2	95	12.5	2.5P	①-65
Long		1 2 3	LS-HT	TNMQ016M515	HT	P2	150	12.5	5P	④-77
				TNMQ016M115					1.5P	④-77
Thread forming taps for steels		1 2	N-RZ	NRZM8016MP	RO	G8	95	12.5	4P	⑥-17
				NRZM8016MB					2P	⑥-17
For high carbon steels		2 3	HC-SP	SCMQ016M	SP	P2	95	12.5	2.5P	①-133
For stainless steels		1 2 3 4 9	SU-PO	PUMR016M	PO	P3	95	12.5	5P	③-61
		1 2 9	SU-HT	TUMR016M4	HT	P3	95	12.5	4P	④-91
				TUMR016M1					1.5P	④-91
For cast irons	Carbide	12 13 16	N-CT FC	TCNS016M3	HT	P4	75	12.5	3P	⑤-12
				TCNS016M1					1.5P	⑤-12
For aluminum	Carbide	19 21	N-CT LA	TCNR016M3A	HT	P3	75	12.5	3P	⑤-5
				TCNR016M1A					1.5P	⑤-5
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM8016MP	RO	G8	95	12.5	4P	⑥-29
				NRSM8016MB					2P	⑥-29
For deep hole use		2 3 4 13	S-SP	SSMQ016M	SP	P2	95	12.5	2.5P	①-124
Nut taps		1 2	NT	NH2016M	HT	II	170	13	25P	⑦-28

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Taps ／ M16 × 0.75									
Standard	1 2 3	HT	TNMR016J5	HT	P3	95	12.5	5P	④-11
			TNMR016J1					1.5P	④-11
Taps ／ M16 × 0.5									
Standard	1 2 3	HT	TNMQ016G5	HT	P2	95	12.5	5P	④-11
			TNMQ016G1					1.5P	④-11
Taps ／ M17 × 2									
Standard	1 2 3	HT	TNMR017Q5	HT	P3	100	14	5P	④-11
			TNMR017Q1					1.5P	④-11
For left hand threads	1 2 3	HT LH	TNMR017Q5-L	HT	P3	100	14	5P	④-68
			TNMR017Q1-L					1.5P	④-68
Taps ／ M17 × 1.5									
Standard	2 3	SP	SPQ017O	SP	P2	100	14	2.5P	①-41
		PO	POS017O	PO	P4			5P	③-15
	1 2 3	HT	TNMS017O5	HT	P4	100	14	5P	④-11
			TNMS017O1					1.5P	④-11
For left hand threads	1 2 3	HT LH	TNMS017O5-L	HT	P4	100	14	5P	④-68
			TNMS017O1-L					1.5P	④-68
Taps ／ M17 × 1.25									
Standard	1 2 3	HT	TNMS017N5	HT	P4	100	14	5P	④-11
			TNMS017N1					1.5P	④-11
Taps ／ M17 × 1									
Standard	2 3	SP	SPQ017M	SP	P2	100	14	2.5P	①-41
		PO	POS017M	PO	P4			5P	③-15
	1 2 3	HT	TNMR017M5	HT	P3	100	14	5P	④-11
			TNMR017M1					1.5P	④-11
For left hand threads	1 2 3	HT LH	TNMR017M5-L	HT	P3	100	14	5P	④-68
			TNMR017M1-L					1.5P	④-68
Taps ／ M17 × 0.75									
Standard	1 2 3	HT	TNMR017J5	HT	P3	100	14	5P	④-12
			TNMR017J1					1.5P	④-12
Taps ／ M17 × 0.5									
Standard	1 2 3	HT	TNMQ017G5	HT	P2	100	14	5P	④-12
			TNMQ017G1					1.5P	④-12
Taps ／ M18 × 2.5									
Standard	2 3	SP	SPR018R	SP	P3	100	14	2.5P	①-41
		PO	POS018R	PO	P4			5P	③-15
	1 2 3	HT	TNMS018R5	HT	P4	100	14	5P	④-12
			TNMS018R1					1.5P	④-12
Oversize	2 3	SP	SPS018R	SP	P4	100	14	2.5P	①-41
		PO	POT018R	PO	P5			5P	③-15
	1 2 3	HT	TNMT018R5	HT	P5	100	14	5P	④-12
			TNMT018R1					1.5P	④-12

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
For left hand threads	2 3	SP LH	SPR018R-L	SP	P3	100	14	2.5P	①-80
		PO LH	POS018R-L	PO	P4			5P	③-47
	1 2 3	HT LH	TNMS018R5-L	HT	P4	100	14	5P	④-68
			TNMS018R1-L					1.5P	④-68
Oxidizing	1 2 3	SP OX	SPR018RX	SP	P3	100	14	2.5P	①-65
		PO OX	POS018RX	PO	P4			5P	③-35
Coating	1 2 3 4 9 10 13 18 19	VUSP	1101101128	SP	P5	125	14	2.5P	①-7
	1 2 3 4 9 19 21	AU+SP	VSAPS018R	SP	P4	100	14	2.5P	①-86
		AU+SL	VSAPS018RL	SL				5P	②-14
	1 2 3 4 9 10 13 18 19	VUPO	1102101128	PO	P5	125	14	5P	③-6
	1 2 3 4	PO V	VPOS018R	PO	P4	100	14	5P	③-48
Long	2 3	LS-SP	SPR018RL15	SP	P3	150	14	2.5P	①-91
			SPR018RL20			200			①-91
			SPR018RL25			250			①-91
		LS-PO	POS018RL15	PO	P4	150		5P	③-53
			POS018RL20			200			③-53
	1 2 3	LS-HT	TNMR018R515	HT	P3	150	14	5P	④-77
			TNMR018R520			200			④-77
			TNMR018R525			250			④-78
			TNMR018R115			150		1.5P	④-78
			TNMR018R120			200			④-78
			TNMR018R125			250			④-78
Oversize	2 3	LS-PO	POT018RL15	PO	P5	150	14	5P	③-53
	1 2 3	LS-HT	TNMS018R515	HT	P4	150	14	5P	④-78
			TNMS018R520			200			④-78
			TNMS018R115			150		1.5P	④-78
			TNMS018R120			200			④-78
For left hand threads	1 2 3	LS-HT LH	TNMR018R515L	HT	P3	150	14	5P	④-85
			TNMR018R115L					1.5P	④-85
For soft structural steels	1 2	E-SP	ESHMR018R	SP	P3	100	14	2.5P	①-130
For steels	1 2 3 4 5 9 11	HVSP	SY018RTEEXJ	SP	P5	125	14	2.5P	①-24
For Zinc Plating	1 2 3 4 5 9 11	HVSP ZP	1112201128	SP	P5+0.1	125	14	2.5P	①-32
Oversize			1112301128		P5+0.2				①-32
			1112401128		P5+0.3				①-32
For high carbon steels	2 3	HC-SP	SCMR018R	SP	P3	100	14	2.5P	①-133
	2 3 5	HC-PO	PCMS018R	PO	P4	100	14	5P	③-77
For hard-to-machine materials	3 5 6	EH-PO	EPHMT018R	PO	P5	100	14	4.5P	③-82
	6 10	EH-HT	ETHMT018R5	HT	P5	100	14	5P	④-124
			ETHMT018R1					2.5P	④-124
Powdered HSS	3 5 6	PM-SP	SY018RSDPB	SP	P4	100	14	2.75P	①-168
		LS-PM-SP	SY018RSDPBG			150			①-175
		PM-PO	PY018RTDPB	PO	P5	100		5.5P	③-92
		LS-PM-PO	PY018RTDPBG			150			③-98
For titanium alloys	22	ZET-B	ZETBMS018R	SP	P4	100	14	3P	①-154
		ZET-P	ZETPMT018R	SL	P5			5P	②-22
For nickel base alloys	1 2 9 23	ZEN-B	ZENBMS018R	SP	P4	100	14	3P	①-162
		ZEN-P	ZENPMT018R	PO	P5			4.5P	③-86
Carbide taps for ultra hard materials	8	UH-CT	UHCS018R5	HT	P4	100	15	5P	⑤-28
For stainless steels	2 3 4 9	SU-SP	SUMR018R	SP	P3	100	14	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMS018R	PO	P4	100	14	5P	③-61
	1 2 9	SU-HT	TUMS018R4	HT	P4	100	14	4P	④-91
			TUMS018R1					1.5P	④-91

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For stainless steels	Oversize	2 3 4 9	SU-SP	SUMS018R	SP	P4	100	14	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMT018R	PO	P5	100	14	5P	③-61
				PUMU018R		P6				③-61
	For deep hole use	1 2 3 4 9	SU-S-SP	SSMR018R-SU	SP	P3	100	14	2.5P	①-119
		1 2 3 9	LS-SU-S-SP	SY018RRGEXGS	SP	P3	150	14	2.5P	①-121
				SY018RRGEXKS			200			①-121
			LS-SU-S-PO	PY018RSGEXKS	PO	P4			5P	③-71
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MS018R	SP	P4	100	14	3P	①-116
For cast irons		12 13	FC-HT	TY018RTAEN5	HT	P5	100	14	5P	④-95
				TY018RTAENA					1.5P	④-95
	Carbide	12 13 16	N-CT FC	TCNS018R3	HT	P4	100	14	3P	⑤-12
				TCNS018R1					1.5P	⑤-12
	Long shank, carbide	12 13 16	LS-N-CT	TY018RSAWB3G	HT	P4	150	14	3P	⑤-19
				TY018RSAWBAG					1.5P	⑤-19
For aluminum		18 19 21	LA-HT	TY018RTLEN5	HT	P5	100	14	5P	④-111
				TY018RTLENA					1.5P	④-111
	Carbide	19 21	N-CT LA	TCNS018R3A	HT	P4	100	14	3P	⑤-5
				TCNS018R1A					1.5P	⑤-5
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY018RSKWB	SP	P4	100	14	2.5P	⑤-20
For high speed		1 2	F-SP	VFSHMS018R	SP	P4	100	14	3P	①-178
			F-SL	VFSHMS018RL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY018RSFEVGS	SP	P4	150	14	3P	①-182
			LS-F-SL	LY018RSFEVG	SL				5.5P	②-32
For deep hole use		2 3 4 13	S-SP	SSMR018R	SP	P3	100	14	2.5P	①-124
		1 2 3 4	S-PO	PSMS018R	PO	P4	100	14	5P	③-74
	Oversize	2 3 4 13	S-SP	SSMS018R	SP	P4	100	14	2.5P	①-124
		1 2 3 4	S-PO	PSMT018R	PO	P5	100	14	5P	③-74
Low spiral	Long	2 3	LS-LO-SP	LSHMR018RL20	SP	P3	200	14	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW018R1LEB5	HT	I b	115	17	5P	⑦-4
				TW018R1LEBA					1.5P	⑦-4
		15 16 17 18 19 20 21	AL-SP STI	SW018R1LEN	SP	I b	115	17	2.5P	⑦-11
With coolant hole		1 2 3 4	MC-SP	(MSHR018RL15)	SP	P3	150	14	2.5P	①-210
				(MSHR018RL20)			200			①-210
			MC-PO	(MPHS018RL15)	PO	P4	150		5P	③-101
				(MPHS018RL20)			200			③-101
		1 2 3	MC-HT	(ML15018R5-R)	HT	P3	150	14	5P	④-138
				(ML20018R5-R)			200			④-138
				(ML15018R1-R)			150		1.5P	④-138
				(ML20018R1-R)			200			④-138
Nut taps		1 2	NT	NH2018R	HT	II b	220	14	24P	⑦-28

Taps ／ M18 × 2

Standard		2 3	SP	SPR018Q	SP	P3	100	14	2.5P	①-41
			PO	POS018Q	PO	P4			5P	③-15
		1 2 3	HT	TNMS018Q5	HT	P4	100	14	5P	④-12
				TNMS018Q1					1.5P	④-12
For left hand threads		1 2 3	HT LH	TNMS018Q5-L	HT	P4	100	14	5P	④-68
				TNMS018Q1-L					1.5P	④-68
Oxidizing		1 2 3	PO OX	POS018QX	PO	P4	100	14	5P	③-35
Long		2 3	LS-SP	SPR018QL20	SP	P3	200	14	2.5P	①-91
			LS-PO	POS018QL20	PO	P4			5P	③-53
		1 2 3	LS-HT	TNMR018Q520	HT	P3	200	14	5P	④-78
				TNMR018Q120					1.5P	④-78
For high carbon steels		2 3	HC-SP	SCMR018Q	SP	P3	100	14	2.5P	①-133
For deep hole use		2 3 4 13	S-SP	SSMR018Q	SP	P3	100	14	2.5P	①-124
Nut taps		1 2	NT	NH2018Q	HT	II	210	14	25P	⑦-28

Taps ／ M18 × 1.5

Standard		2 3	SP	SPQ018O	SP	P2	100	14	2.5P	①-41
			PO	POS018O	PO	P4			5P	③-15
		1 2 3	HT	TNMR018O5	HT	P3	100	14	5P	④-12
				TNMR018O1					1.5P	④-12
	Oversize	2 3	SP	SPR018O	SP	P3	100	14	2.5P	①-41
				SPS018O		P4				①-41
			PO	POT018O	PO	P5			5P	③-15
		1 2 3	HT	TNMS018O5	HT	P4	100	14	5P	④-12
				TNMS018O1					1.5P	④-12
				TNMT018O5		P5			5P	④-12
				TNMT018O1					1.5P	④-12
For left hand threads		2 3	SP LH	SPQ018O--L	SP	P2	100	14	2.5P	①-80
			PO LH	POS018O--L	PO	P4			5P	③-47
		1 2 3	HT LH	TNMR018O5-L	HT	P3	100	14	5P	④-68
				TNMR018O1-L					1.5P	④-68
Oxidizing		1 2 3	SP OX	SPQ018OX	SP	P2	100	14	2.5P	①-65
			PO OX	POS018OX	PO	P4			5P	③-35
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101130	SP	P4	125	14	2.5P	①-7
		1 2 3 4 9 19 21	AU+SP	VSAPS018O	SP	P4	100	14	2.5P	①-86
			AU+SL	VSAPS018OL	SL				5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101130	PO	P4	125	14	5P	③-6
Long		2 3	LS-SP	SPQ018OL15	SP	P2	150	14	2.5P	①-91
				SPQ018OL20			200			①-91
			LS-PO	POS018OL15	PO	P4	150		5P	③-53
				POS018OL20			200			③-53
		1 2 3	LS-HT	TNMQ018O515	HT	P2	150	14	5P	④-78
				TNMQ018O520			200			④-78
				TNMQ018O115			150		1.5P	④-78
				TNMQ018O120			200			④-78
	Oversize	1 2 3	LS-HT	TNMR018O515	HT	P3	150	14	5P	④-78
				TNMR018O115					1.5P	④-78
	For left hand threads	1 2 3	LS-HT LH	TNMQ018O515L	HT	P2	150	14	5P	④-85
				TNMQ018O115L					1.5P	④-85
For soft structural steels		1 2	E-SP	ESHMQ018O	SP	P2	100	14	2.5P	①-130
Thread forming taps for steels		1 2	N-RZ	NRZM0018OP	RO	G10	100	14	4P	⑥-17
For steels		1 2 3 4 5 9 11	HVSP	SY018OTEEXJ	SP	P5	125	14	2.5P	①-24
For high carbon steels		2 3	HC-SP	SCMQ018O	SP	P2	100	14	2.5P	①-133
		2 3 5	HC-PO	PCMS018O	PO	P4	100	14	5P	③-77

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For hard-to-machine materials	3 5 6	EH-PO	EPHMS018O	PO	P4	100	14	4.5P	③-82
	6 10	EH-HT	ETHMS018O5	HT	P4	100	14	5P	④-124
			ETHMS018O1					2.5P	④-124
Powdered HSS	3 5 6	PM-SP	SY018OSDPB	SP	P4	100	14	2.75P	①-168
		LS-PM-SP	SY018OSDPBG			150			①-176
		PM-PO	PY018OSDPB	PO		100		5.5P	③-92
		LS-PM-PO	PY018OSDPBG			150			③-99
For titanium alloys	22	ZET-B	ZETBMR018O	SP	P3	100	14	3P	①-154
		ZET-P	ZETPMT018O	SL	P5			5P	②-22
For nickel base alloys	1 2 9 23	ZEN-B	ZENBMR018O	SP	P3	100	14	3P	①-162
		ZEN-P	ZENPMT018O	PO	P5			4.5P	③-86
Carbide taps for ultra hard materials	8	UH-CT	UHCS018O5	HT	P4	100	15	5P	⑤-28
For stainless steels	2 3 4 9	SU-SP	SUMQ018O	SP	P2	100	14	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMS018O	PO	P4	100	14	5P	③-61
	1 2 9	SU-HT	TUMS018O4	HT	P4	100	14	4P	④-91
			TUMS018O1					1.5P	④-91
Oversize	2 3 4 9	SU-SP	SUMS018O	SP	P4	100	14	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMT018O	PO	P5	100	14	5P	③-61
For deep hole use	1 2 3 9	LS-SU-S-SP	SY018OQGEXGS	SP	P2	150	14	2.5P	①-121
			SY018OQGEXKS			200			①-121
		LS-SU-S-PO	PY018OSGEXKS	PO	P4			5P	③-71
For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MR018O	SP	P3	100	14	3P	①-116
For cast irons	12 13	FC-HT	TY018OSAEN5	HT	P4	100	14	5P	④-95
			TY018OSAENA					1.5P	④-95
Carbide	12 13 16	N-CT FC	TCNS018O3	HT	P4	95	14	3P	⑤-12
			TCNS018O1					1.5P	⑤-12
Long shank, carbide	12 13 16	LS-N-CT	TY018OSAWB3G	HT	P4	150	14	3P	⑤-19
			TY018OSAWBAG					1.5P	⑤-19
For aluminum	18 19 21	LA-HT	TY018OSLEN5	HT	P4	100	14	5P	④-111
			TY018OSLENA					1.5P	④-111
Carbide	19 21	N-CT LA	TCNS018O3A	HT	P4	95	14	3P	⑤-5
			TCNS018O1A					1.5P	⑤-5
Carbide spiral fluted taps	18 19 21	N-CT-SP	SY018OSKWB	SP	P4	95	14	2.5P	⑤-20
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM9018OP	RO	G9	100	14	4P	⑥-29
			NRSM9018OB					2P	⑥-29
For high speed	1 2	F-SP	VFSHMS018O	SP	P4	100	14	3P	①-178
		F-SL	VFSHMS018OL	SL				5.5P	②-28
Long	1 2	LS-F-SP	SY018OSFEVGS	SP	P4	150	14	3P	①-183
		LS-F-SL	LY018OSFEVG	SL				5.5P	②-32
Ultra fast tapping(with coolant hole) For steels	1 2 3 4	HFIHS	HFIHSS018O	SP	P4	100	16	2.5P	①-186
		HFISP	HFISPS018O						①-190
For non-ferrous materials	18 19 20 21	HFAHS	HFAHSS018O	SP	P4	100	16	2.5P	①-194
		HFASP	HFASPS018O						①-198
For dry tapping (with coolant hole) For steels	2 3 4	HDISP	HDISPS018O	SP	P4	100	16	2.5P	①-202
For non-ferrous materials	18 19 20 21	HDASP	HDASPS018O	SP	P4	100	16	2.5P	①-206
Ultra fast tapping (with coolant hole) For both steels and non ferrous materials	2 3 4	HDISL	HDISLS018O	SL	P4	100	16	5.5P	②-34
High performance thread forming taps	1 2 3 4 5 9 19	HP-RZ	HRZM9018OP	RO	G9	100	14	4P	⑥-49
			HRZM9018OB					2P	⑥-49
Thread forming taps for carbon steels of medium hardness	2 3 4 5	MHRZ	1110101130	RO	G10	125	14	4P	⑥-4
			1111101130					2P	⑥-4
		MHRZ-J	RY018OOOCTP			100		4P	⑥-8
			RY018OOOCTB					2P	⑥-8

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For deep hole use	2 3 4 13	S-SP	SSMQ018O	SP	P2	100	14	2.5P	①-124
	1 2 3 4	S-PO	PSMS018O	PO	P4	100	14	5P	③-74
Oversize	2 3 4 13	S-SP	SSMS018O	SP	P4	100	14	2.5P	①-124
	1 2 3 4	S-PO	PSMT018O	PO	P5	100	14	5P	③-74
Low spiral Long	2 3	LS-LO-SP	LSHMQ018OL20	SP	P2	200	14	2.5P	①-151
For helical coil wire screw thread inserts	18 19 21	AL-HT STI	TW018O1LEB5	HT	I b	105	15	5P	⑦-4
			TW018O1LEBA					1.5P	⑦-4
	15 16 17 18 19 20 21	AL-SP STI	SW018O1LEN	SP	I b	105	15	2.5P	⑦-11
With coolant hole	1 2 3 4	MC-SP	(MSHQ018OL15)	SP	P2	150	14	2.5P	①-210
			(MSHQ018OL20)			200			①-210
		MC-PO	(MPHS018OL15)	PO	P4	150		5P	③-101
			(MPHS018OL20)			200			③-101
	1 2 3	MC-HT	(ML15018O5-Q)	HT	P2	150	14	5P	④-138
			(ML20018O5-Q)			200			④-138
			(ML15018O1-Q)			150		1.5P	④-138
			(ML20018O1-Q)			200			④-138
Nut taps	1 2	NT	NH2018O	HT	II	190	14	25P	⑦-28

Taps ／ M18 × 1.25

Standard	2 3	SP	SPQ018N	SP	P2	100	14	2.5P	①-41
		PO	POR018N	PO	P3			5P	③-15
	1 2 3	HT	TNMS018N5	HT	P4	100	14	5P	④-12
			TNMS018N1					1.5P	④-12

Taps ／ M18 × 1

Standard	2 3	SP	SPQ018M	SP	P2	100	14	2.5P	①-41
		PO	POR018M	PO	P3			5P	③-15
	1 2 3	HT	TNMR018M5	HT	P3	100	14	5P	④-12
			TNMR018M1					1.5P	④-12
For left hand threads	1 2 3	HT LH	TNMR018M5-L	HT	P3	100	14	5P	④-68
			TNMR018M1-L					1.5P	④-68
For high carbon steels	2 3	HC-SP	SCMQ018M	SP	P2	100	14	2.5P	①-133
For deep hole use	2 3 4 13	S-SP	SSMQ018M	SP	P2	100	14	2.5P	①-124
Nut taps	1 2	NT	NH2018M	HT	II	180	14	25P	⑦-28

Taps ／ M18 × 0.75

Standard	1 2 3	HT	TNMR018J5	HT	P3	100	14	5P	④-12
			TNMR018J1					1.5P	④-12

Taps ／ M18 × 0.5

Standard	1 2 3	HT	TNMQ018G5	HT	P2	100	14	5P	④-12
			TNMQ018G1					1.5P	④-12

Taps ／ M19 × 2.5

Standard	1 2 3	HT	TNMS019R5	HT	P4	105	15	5P	④-12
			TNMS019R1					1.5P	④-12

Taps ／ M19 × 2

Standard	1 2 3	HT	TNMS019Q5	HT	P4	105	15	5P	④-12
			TNMS019Q1					1.5P	④-12
For left hand threads	1 2 3	HT LH	TNMS019Q5-L	HT	P4	105	15	5P	④-68
			TNMS019Q1-L					1.5P	④-68

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M19 × 1.5										
Standard		2 3	SP	SPR019O	SP	P3	105	15	2.5P	①-41
			PO	POS019O	PO	P4			5P	③-15
		1 2 3	HT	TNMR019O5	HT	P3	105	15	5P	④-12
				TNMR019O1					1.5P	④-12
For left hand threads		1 2 3	HT LH	TNMR019O5-L	HT	P3	105	15	5P	④-68
				TNMR019O1-L					1.5P	④-68
Taps ／ M19 × 1										
Standard		2 3	SP	SPQ019M	SP	P2	105	15	2.5P	①-41
			PO	POR019M	PO	P3			5P	③-15
		1 2 3	HT	TNMR019M5	HT	P3	105	15	5P	④-12
				TNMR019M1					1.5P	④-12
For left hand threads		1 2 3	HT LH	TNMR019M5-L	HT	P3	105	15	5P	④-68
				TNMR019M1-L					1.5P	④-68
Taps ／ M19 × 0.75										
Standard		1 2 3	HT	TNMR019J5	HT	P3	105	15	5P	④-12
				TNMR019J1					1.5P	④-12
Taps ／ M19 × 0.5										
Standard		1 2 3	HT	TNMQ019G5	HT	P2	105	15	5P	④-12
				TNMQ019G1					1.5P	④-12
Taps ／ M20 × 2.5										
Standard		2 3	SP	SPR020R	SP	P3	105	15	2.5P	①-41
			PO	POS020R	PO	P4			5P	③-15
		1 2 3	HT	TNMS020R5	HT	P4	105	15	5P	④-12
				TNMS020R1					1.5P	④-12
	Oversize	2 3	SP	SPS020R	SP	P4	105	15	2.5P	①-42
			PO	POT020R	PO	P5			5P	③-15
				POU020R		P6				③-15
		1 2 3	HT	TNMT020R5	HT	P5	105	15	5P	④-12
				TNMT020R1					1.5P	④-12
For left hand threads		2 3	SP LH	SPR020R--L	SP	P3	105	15	2.5P	①-80
			PO LH	POS020R--L	PO	P4			5P	③-47
		1 2 3	HT LH	TNMS020R5-L	HT	P4	105	15	5P	④-68
				TNMS020R1-L					1.5P	④-68
Oxidizing		1 2 3	SP OX	SPR020RX	SP	P3	105	15	2.5P	①-65
			PO OX	POS020RX	PO	P4			5P	③-35
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101141	SP	P5	140	15	2.5P	①-7
		1 2 3 4 9 19 21	AU+SP	VSAPS020R	SP	P4	105	15	2.5P	①-86
			AU+SL	VSAPS020RL	SL				5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101141	PO	P5	140	15	5P	③-6
		1 2 3 4	PO V	VPOS020R	PO	P4	105	15	5P	③-48
Long		2 3	LS-SP	SPR020RL15	SP	P3	150	15	2.5P	①-91
				SPR020RL20			200			①-91
				SPR020RL25			250			①-91
			LS-PO	POS020RL15	PO	P4	150		5P	③-53
				POS020RL20			200			③-53
				POS020RL25			250			③-53
Long		1 2 3	LS-HT	TNMR020R515	HT	P3	150	15	5P	④-78
				TNMR020R520			200			④-78
				TNMR020R525			250			④-78
				TNMR020R115			150		1.5P	④-78
				TNMR020R120			200			④-78
				TNMR020R125			250			④-78
	Oversize	2 3	LS-PO	POT020RL15	PO	P5	150	15	5P	③-53
		1 2 3	LS-HT	TNMS020R515	HT	P4	150	15	5P	④-78
				TNMS020R520			200			④-78
				TNMS020R115			150		1.5P	④-78
				TNMS020R120			200			④-78
	For left hand threads	1 2 3	LS-HT LH	TNMR020R515L	HT	P3	150	15	5P	④-85
				TNMR020R520L			200			④-85
				TNMR020R115L			150		1.5P	④-85
				TNMR020R120L			200			④-85
For soft structural steels		1 2	E-SP	ESHMR020R	SP	P3	105	15	2.5P	①-130
For steels		1 2 3 4 5 9 11	HVSP	SY020RTEEXJ	SP	P5	140	15	2.5P	①-24
For Zinc Plating	Oversize	1 2 3 4 5 9 11	HVSP ZP	1112201141	SP	P5+0.1	140	15	2.5P	①-32
				1112301141		P5+02				①-32
				1112401141		P5+03				①-32
For high carbon steels		2 3	HC-SP	SCMR020R	SP	P3	105	15	2.5P	①-133
		2 3 5	HC-PO	PCMS020R	PO	P4	105	15	5P	③-77
For hard-to-machine materials		3 5 6	EH-PO	EPHMT020R	PO	P5	105	15	4.5P	③-82
		6 10	EH-HT	ETHMT020R5	HT	P5	105	15	5P	④-124
				ETHMT020R1					2.5P	④-124
	Powdered HSS	3 5 6	PM-SP	SY020RSDPB	SP	P4	105	15	2.75P	①-169
			LS-PM-SP	SY020RSDPBG			150			①-176
			PM-PO	PY020RTDPB	PO	P5	105		5.5P	③-92
			LS-PM-PO	PY020RTDPBG			150			③-99
For titanium alloys		22	ZET-B	ZETBMS020R	SP	P4	105	15	3P	①-154
			ZET-P	ZETPMT020R	SL	P5			5P	②-22
For nickel base alloys		1 2 9 23	ZEN-B	ZENBMS020R	SP	P4	105	15	3P	①-162
			ZEN-P	ZENPMT020R	PO	P5			4.5P	③-86
Carbide taps for ultra hard materials		8	UH-CT	UHCS020R5	HT	P4	105	17	5P	⑤-28
For stainless steels		2 3 4 9	SU-SP	SUMR020R	SP	P3	105	15	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMS020R	PO	P4	105	15	5P	③-61
		1 2 9	SU-HT	TUMS020R4	HT	P4	105	15	4P	④-91
				TUMS020R1					1.5P	④-91
	Oversize	2 3 4 9	SU-SP	SUMS020R	SP	P4	105	15	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMT020R	PO	P5	105	15	5P	③-61
				PUMU020R		P6				③-61
	For deep hole use	1 2 3 4 9	SU-S-SP	SSMR020R-SU	SP	P3	105	15	2.5P	①-119
		1 2 3 9	LS-SU-S-SP	SY020RRGEXGS	SP	P3	150	15	2.5P	①-121
				SY020RRGEXKS			200			①-121
			LS-SU-S-PO	PY020RSGEXGS	PO	P4	150		5P	③-71
				PY020RSGEXKS			200			③-71
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MS020R	SP	P4	105	15	3P	①-116
For cast irons		12 13	FC-HT	TY020RTAEN5	HT	P5	105	15	5P	④-95
				TY020RTAENA					1.5P	④-95
	Carbide	12 13 16	N-CT FC	TCNS020R3	HT	P4	105	15	3P	⑤-12
				TCNS020R1					1.5P	⑤-12

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*Ds*	*ℓc*

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
For cast irons	Long shank, carbide	12 13 16	LS-N-CT	TY020RSAWB3G	HT	P4	150	15	3P	⑤-19
				TY020RSAWBAG					1.5P	⑤-19
For aluminum		18 19 21	LA-HT	TY020RTLEN5	HT	P5	105	15	5P	④-111
				TY020RTLENA					1.5P	④-111
	Carbide	19 21	N-CT LA	TCNS020R3A	HT	P4	105	15	3P	⑤-5
				TCNS020R1A					1.5P	⑤-5
	Carbide spiral fluted taps	18 19 21	N-CT-SP	SY020RSKWB	SP	P4	105	15	2.5P	⑤-20
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM1020RP	RO	G11	105	15	4P	⑥-29
				NRSM1020RB					2P	⑥-29
For high speed		1 2	F-SP	VFSHMS020R	SP	P4	105	15	3P	①-178
			F-SL	VFSHMS020RL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY020RSFEVGS	SP	P4	150	15	3P	①-183
			LS-F-SL	LY020RSFEVG	SL				5.5P	②-32
For deep hole use		2 3 4 13	S-SP	SSMR020R	SP	P3	105	15	2.5P	①-124
		1 2 3 4	S-PO	PSMS020R	PO	P4	105	15	5P	③-74
	Oversize	2 3 4 13	S-SP	SSMS020R	SP	P4	105	15	2.5P	①-124
		1 2 3 4	S-PO	PSMT020R	PO	P5	105	15	5P	③-74
Low spiral	Long	2 3	LS-LO-SP	LSHMR020RL20	SP	P3	200	15	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW020R1LEB5	HT	I b	120	19	5P	⑦-4
				TW020R1LEBA					1.5P	⑦-4
		15 16 17 18 19 20 21	AL-SP STI	SW020R1LEN	SP	I b	120	19	2.5P	⑦-11
With coolant hole		1 2 3 4	MC-SP	(MSHR020RL15)	SP	P3	150	15	2.5P	①-210
				(MSHR020RL20)			200			①-210
			MC-PO	(MPHS020RL15)	PO	P4	150		5P	③-101
				(MPHS020RL20)			200			③-101
		1 2 3	MC-HT	(ML15020R5-R)	HT	P3	150	15	5P	④-138
				(ML20020R5-R)			200			④-138
				(ML15020R1-R)			150		1.5P	④-138
				(ML20020R1-R)			200			④-138
Nut taps		1 2	NT	NH2020R	HT	II b	230	16	26P	⑦-28

Taps ／ M20 × 2

Standard		2 3	SP	SPR020Q	SP	P3	105	15	2.5P	①-42
			PO	POS020Q	PO	P4			5P	③-15
		1 2 3	HT	TNMS020Q5	HT	P4	105	15	5P	④-12
				TNMS020Q1					1.5P	④-12
For left hand threads		1 2 3	HT LH	TNMS020Q5-L	HT	P4	105	15	5P	④-68
				TNMS020Q1-L					1.5P	④-68
Long		2 3	LS-SP	SPR020QL20	SP	P3	200	15	2.5P	①-91
			LS-PO	POS020QL20	PO	P4			5P	③-53
		1 2 3	LS-HT	TNMR020Q520	HT	P3	200	15	5P	④-78
				TNMR020Q120					1.5P	④-78
For high carbon steels		2 3	HC-SP	SCMR020Q	SP	P3	105	15	2.5P	①-133
For deep hole use		2 3 4 13	S-SP	SSMR020Q	SP	P3	105	15	2.5P	①-124
Nut taps		1 2	NT	NH2020Q	HT	II	220	16	25P	⑦-28

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page

Taps ／ M20 × 1.5

Standard		2 3	SP	SPR020O	SP	P3	105	15	2.5P	①-42
			PO	POS020O	PO	P4			5P	③-15
		1 2 3	HT	TNMR020O5	HT	P3	105	15	5P	④-12
				TNMR020O1					1.5P	④-12
	Oversize	2 3	SP	SPS020O	SP	P4	105	15	2.5P	①-42
				SPT020O		P5				①-42
			PO	POT020O	PO				5P	③-15
		1 2 3	HT	TNMS020O5	HT	P4	105	15	5P	④-12
				TNMS020O1					1.5P	④-12
				TNMT020O5		P5			5P	④-12
				TNMT020O1					1.5P	④-12
For left hand threads		2 3	SP LH	SPR020O--L	SP	P3	105	15	2.5P	①-80
			PO LH	POS020O--L	PO	P4			5P	③-47
		1 2 3	HT LH	TNMR020O5-L	HT	P3	105	15	5P	④-68
				TNMR020O1-L					1.5P	④-68
Oxidizing		1 2 3	SP OX	SPR020OX	SP	P3	105	15	2.5P	①-65
			PO OX	POS020OX	PO	P4			5P	③-35
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101144	SP	P4	140	15	2.5P	①-7
		1 2 3 4 9 19 21	AU+SP	VSAPS020O	SP	P4	105	15	2.5P	①-86
			AU+SL	VSAPS020OL	SL				5P	②-14
		1 2 3 4 9 10 13 18 19	VUPO	1102101144	PO	P4	140	15	5P	③-6
Long		2 3	LS-SP	SPR020OL15	SP	P3	150	15	2.5P	①-91
				SPR020OL20			200			①-91
			LS-PO	POS020OL15	PO	P4	150		5P	③-53
				POS020OL20			200			③-53
		1 2 3	LS-HT	TNMR020O515	HT	P3	150	15	5P	④-78
				TNMR020O520			200			④-78
				TNMR020O115			150		1.5P	④-78
				TNMR020O120			200			④-78
	Oversize	1 2 3	LS-HT	TNMS020O515	HT	P4	150	15	5P	④-78
				TNMS020O115					1.5P	④-78
	For left hand threads	1 2 3	LS-HT LH	TNMR020O515L	HT	P3	150	15	5P	④-85
				TNMR020O520L			200			④-85
				TNMR020O115L			150		1.5P	④-85
				TNMR020O120L			200			④-85
For soft structural steels		1 2	E-SP	ESHMR020O	SP	P3	105	15	2.5P	①-130
Thread forming taps for steels		1 2	N-RZ	NRZM9020OP	RO	G9	105	15	4P	⑥-17
				NRZM9020OB					2P	⑥-17
				NRZM0020OP		G10			4P	⑥-17
				NRZM0020OB					2P	⑥-17
For steels		1 2 3 4 5 9 11	HVSP	SY020OTEEXJ	SP	P5	140	15	2.5P	①-24
For high carbon steels		2 3	HC-SP	SCMR020O	SP	P3	105	15	2.5P	①-133
		2 3 5	HC-PO	PCMS020O	PO	P4	105	15	5P	③-77
For hard-to-machine materials		3 5 6	EH-PO	EPHMS020O	PO	P4	105	15	4.5P	③-82
		6 10	EH-HT	ETHMS020O5	HT	P4	105	15	5P	④-125
				ETHMS020O1					2.5P	④-125
	Powdered HSS	3 5 6	PM-SP	SY020OSDPB	SP	P4	105	15	2.75P	①-169
			LS-PM-SP	SY020OSDPBG			150			①-176
			PM-PO	PY020OSDPB	PO		105		5.5P	③-92
			LS-PM-PO	PY020OSDPBG			150			③-99

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For titanium alloys	22	ZET-B	ZETBMS020O	SP	P4	105	15	3P	①-154
		ZET-P	ZETPMT020O	SL	P5			5P	②-22
For nickel base alloys	1 2 9 23	ZEN-B	ZENBMS020O	SP	P4	105	15	3P	①-162
		ZEN-P	ZENPMT020O	PO	P5			4.5P	③-86
Carbide taps for ultra hard materials	8	UH-CT	UHCS020O5	HT	P4	105	17	5P	⑤-28
For stainless steels	2 3 4 9	SU-SP	SUMR020O	SP	P3	105	15	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMS020O	PO	P4	105	15	5P	③-61
	1 2 9	SU-HT	TUMS020O4	HT	P4	105	15	4P	④-91
			TUMS020O1					1.5P	④-91
Oversize	2 3 4 9	SU-SP	SUMS020O	SP	P4	105	15	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMT020O	PO	P5	105	15	5P	③-61
For deep hole use	1 2 3 9	LS-SU-S-SP	SY020ORGEXGS	SP	P3	150	15	2.5P	①-121
			SY020ORGEXKS			200			①-121
		LS-SU-S-PO	PY020OSGEXGS	PO	P4	150		5P	③-71
			PY020OSGEXKS			200			③-71
For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MS020O	SP	P4	105	15	3P	①-116
For cast irons	12 13	FC-HT	TY020OSAEN5	HT	P4	105	15	5P	④-95
			TY020OSAENA					1.5P	④-95
Carbide	12 13 16	N-CT FC	TCNS020O3	HT	P4	95	15	3P	⑤-12
			TCNS020O1					1.5P	⑤-13
Long shank, carbide	12 13 16	LS-N-CT	TY020OSAWB3G	HT	P4	150	15	3P	⑤-19
			TY020OSAWBAG					1.5P	⑤-19
For aluminum	18 19 21	LA-HT	TY020OSLEN5	HT	P4	105	15	5P	④-111
			TY020OSLENA					1.5P	④-111
Carbide	19 21	N-CT LA	TCNS020O3A	HT	P4	95	15	3P	⑤-5
			TCNS020O1A					1.5P	⑤-5
Carbide spiral fluted taps	18 19 21	N-CT-SP	SY020OSKWB	SP	P4	95	15	2.5P	⑤-20
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM9020OP	RO	G9	105	15	4P	⑥-29
			NRSM9020OB					2P	⑥-29
			NRSM0020OP		G10			4P	⑥-29
			NRSM0020OB					2P	⑥-29
For high speed	1 2	F-SP	VFSHMS020O	SP	P4	105	15	3P	①-178
		F-SL	VFSHMS020OL	SL				5.5P	②-28
Long	1 2	LS-F-SP	SY020OSFEVGS	SP	P4	150	15	3P	①-183
		LS-F-SL	LY020OSFEVG	SL				5.5P	②-32
Ultra fast tapping(with coolant hole) For steels	1 2 3 4	HFIHS	HFIHST020O	SP	P5	105	16	2.5P	①-186
		HFISP	HFISPT020O						①-190
For non-ferrous materials	18 19 20 21	HFAHS	HFAHST020O	SP	P5	105	16	2.5P	①-194
		HFASP	HFASPT020O						①-198
For dry tapping (with coolant hole) For steels	2 3 4	HDISP	HDISPT020O	SP	P5	105	16	2.5P	①-202
For non-ferrous materials	18 19 20 21	HDASP	HDASPT020O	SP	P5	105	16	2.5P	①-206
Ultra fast tapping (with coolant hole) For both steels and non ferrous materials	2 3 4	HDISL	HDISLT020O	SL	P5	105	16	5.5P	②-34
High performance thread forming taps	1 2 3 4 5 9 19	HP-RZ	HRZM9020OP	RO	G9	105	15	4P	⑥-49
			HRZM9020OB					2P	⑥-49
Thread forming taps for carbon steels of medium hardness	2 3 4 5	MHRZ	1110101144	RO	G10	140	15	4P	⑥-4
			1111101144					2P	⑥-4
		MHRZ-J	RY020OOOCTP			105		4P	⑥-8
			RY020OOOCTB					2P	⑥-8
For deep hole use	2 3 4 13	S-SP	SSMR020O	SP	P3	105	15	2.5P	①-124
	1 2 3 4	S-PO	PSMS020O	PO	P4	105	15	5P	③-74
Oversize	2 3 4 13	S-SP	SSMS020O	SP	P4	105	15	2.5P	①-124
	1 2 3 4	S-PO	PSMT020O	PO	P5	105	15	5P	③-74

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Low spiral Long	2 3	LS-LO-SP	LSHMR020OL20	SP	P3	200	15	2.5P	①-151
For helical coil wire screw thread inserts	18 19 21	AL-HT STI	TW020O1LEB5	HT	I b	115	17	5P	⑦-4
			TW020O1LEBA					1.5P	⑦-4
	15 16 17 18 19 20 21	AL-SP STI	SW020O1LEN	SP	I b	115	17	2.5P	⑦-11
With coolant hole	1 2 3 4	MC-SP	(MSHR020OL15)	SP	P3	150	15	2.5P	①-210
			(MSHR020OL20)			200			①-210
		MC-PO	(MPHS020OL15)	PO	P4	150		5P	③-101
			(MPHS020OL20)			200			③-101
	1 2 3	MC-HT	(ML15020O5-R)	HT	P3	150	15	5P	④-138
			(ML20020O5-R)			200			④-138
			(ML15020O1-R)			150		1.5P	④-138
			(ML20020O1-R)			200			④-138
Nut taps	1 2	NT	NH2020O	HT	II	200	16	25P	⑦-28
Taps ／ M20 × 1.25									
Standard	2 3	SP	SPQ020N	SP	P2	105	15	2.5P	①-42
	1 2 3	HT	TNMS020N5	HT	P4	105	15	5P	④-12
			TNMS020N1					1.5P	④-12
Taps ／ M20 × 1									
Standard	2 3	SP	SPQ020M	SP	P2	105	15	2.5P	①-42
		PO	POR020M	PO	P3			5P	③-15
	1 2 3	HT	TNMR020M5	HT	P3	105	15	5P	④-13
			TNMR020M1					1.5P	④-13
For left hand threads	2 3	PO LH	POR020M--L	PO	P3	105	15	5P	③-47
	1 2 3	HT LH	TNMR020M5-L	HT	P3	105	15	5P	④-68
			TNMR020M1-L					1.5P	④-68
Oxidizing	1 2 3	SP OX	SPQ020MX	SP	P2	105	15	2.5P	①-65
For high carbon steels	2 3	HC-SP	SCMQ020M	SP	P2	105	15	2.5P	①-133
For deep hole use	2 3 4 13	S-SP	SSMQ020M	SP	P2	105	15	2.5P	①-124
Nut taps	1 2	NT	NH2020M	HT	II	190	16	25P	⑦-28
Taps ／ M20 × 0.75									
Standard	1 2 3	HT	TNMR020J5	HT	P3	105	15	5P	④-13
			TNMR020J1					1.5P	④-13
Taps ／ M20 × 0.5									
Standard	1 2 3	HT	TNMQ020G5	HT	P2	105	15	5P	④-13
			TNMQ020G1					1.5P	④-13
Taps ／ M21 × 2									
Standard	1 2 3	HT	TNMS021Q5	HT	P4	115	17	5P	④-13
			TNMS021Q1					1.5P	④-13
For left hand threads	1 2 3	HT LH	TNMS021Q5-L	HT	P4	115	17	5P	④-68
			TNMS021Q1-L					1.5P	④-68
Taps ／ M21 × 1.5									
Standard	1 2 3	HT	TNMR021O5	HT	P3	115	17	5P	④-13
			TNMR021O1					1.5P	④-13
For left hand threads	1 2 3	HT LH	TNMR021O5-L	HT	P3	115	17	5P	④-68
			TNMR021O1-L					1.5P	④-68

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Taps ／ M21 × 1

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Standard		1 2 3	HT	TNMR021M5	HT	P3	115	17	5P	④-13
				TNMR021M1					1.5P	④-13
For left hand threads		1 2 3	HT LH	TNMR021M5-L	HT	P3	115	17	5P	④-68
				TNMR021M1-L					1.5P	④-68

Taps ／ M22 × 2.5

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Standard		2 3	SP	SPR022R	SP	P3	115	17	2.5P	①-42
			PO	POS022R	PO	P4			5P	③-15
		1 2 3	HT	TNMS022R5	HT	P4	115	17	5P	④-13
				TNMS022R1					1.5P	④-13
	Oversize	2 3	SP	SPS022R	SP	P4	115	17	2.5P	①-42
			PO	POT022R	PO	P5			5P	③-15
		1 2 3	HT	TNMT022R5	HT	P5	115	17	5P	④-13
				TNMT022R1					1.5P	④-13
For left hand threads		2 3	SP LH	SPR022R--L	SP	P3	115	17	2.5P	①-80
			PO LH	POS022R--L	PO	P4			5P	③-47
		1 2 3	HT LH	TNMS022R5-L	HT	P4	115	17	5P	④-69
				TNMS022R1-L					1.5P	④-69
Oxidizing		1 2 3	SP OX	SPR022RX	SP	P3	115	17	2.5P	①-65
			PO OX	POS022RX	PO	P4			5P	③-35
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101156	SP	P5	140	17	2.5P	①-7
		1 2 3 4 9 10 13 18 19	VUPO	1102101156	PO	P5	140	17	5P	③-6
Long		2 3	LS-SP	SPR022RL15	SP	P3	150	17	2.5P	①-91
				SPR022RL20			200			①-91
				SPR022RL25			250			①-91
			LS-PO	POS022RL15	PO	P4	150		5P	③-53
				POS022RL20			200			③-53
				POS022RL25			250			③-53
		1 2 3	LS-HT	TNMR022R515	HT	P3	150	17	5P	④-78
				TNMR022R520			200			④-78
				TNMR022R525			250			④-78
				TNMR022R115			150		1.5P	④-78
				TNMR022R120			200			④-78
				TNMR022R125			250			④-78
	Oversize	1 2 3	LS-HT	TNMS022R515	HT	P4	150	17	5P	④-78
				TNMS022R520			200			④-78
				TNMS022R115			150		1.5P	④-78
				TNMS022R120			200			④-78
	For left hand threads	1 2 3	LS-HT LH	TNMR022R515L	HT	P3	150	17	5P	④-85
				TNMR022R520L			200			④-85
				TNMR022R115L			150		1.5P	④-85
				TNMR022R120L			200			④-85
For soft structural steels		1 2	E-SP	ESHMR022R	SP	P3	115	17	2.5P	①-130
For steels		1 2 3 4 5 9 11	HVSP	SY022RTEEXJ	SP	P5	140	17	2.5P	①-24
For Zinc Plating	Oversize	1 2 3 4 5 9 11	HVSP ZP	1112201156	SP	P5+0.1	140	17	2.5P	①-32
				1112301156		P5+0.2				①-32
				1112401156		P5+0.3				①-32
For high carbon steels		2 3	HC-SP	SCMR022R	SP	P3	115	17	2.5P	①-133
		2 3 5	HC-PO	PCMS022R	PO	P4	115	17	5P	③-77

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
For hard-to-machine materials		3 5 6	EH-PO	EPHMT022R	PO	P5	115	17	4.5P	③-82
		6 10	EH-HT	ETHMT022R5	HT	P5	115	17	5P	④-125
				ETHMT022R1					2.5P	④-125
	Powdered HSS	3 5 6	PM-SP	SY022RSDPB	SP	P4	115	17	2.75P	①-169
			LS-PM-SP	SY022RSDPBK			200			①-176
			PM-PO	PY022RTDPB	PO	P5	115		5.5P	③-92
			LS-PM-PO	PY022RTDPBK			200			③-99
For stainless steels		2 3 4 9	SU-SP	SUMR022R	SP	P3	115	17	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMS022R	PO	P4	115	17	5P	③-62
		1 2 9	SU-HT	TUMS022R4	HT	P4	115	17	4P	④-91
				TUMS022R1					1.5P	④-91
	Oversize	2 3 4 9	SU-SP	SUMS022R	SP	P4	115	17	2.5P	①-102
				SUMT022R		P5				①-102
		1 2 3 4 9	SU-PO	PUMT022R	PO	P5	115	17	5P	③-62
				PUMU022R		P6				③-62
	For deep hole use	1 2 3 4 9	SU-S-SP	SSMR022R-SU	SP	P3	115	17	2.5P	①-119
		1 2 3 9	LS-SU-S-SP	SY022RRGEXGS	SP	P3	150	17	2.5P	①-121
				SY022RRGEXKS			200			①-121
			LS-SU-S-PO	PY022RSGEXKS	PO	P4			5P	③-71
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MS022R	SP	P4	115	17	3P	①-116
For cast irons		12 13	FC-HT	TY022RTAEN5	HT	P5	115	17	5P	④-95
				TY022RTAENA					1.5P	④-95
	Carbide	12 13 16	N-CT FC	TCNS022R3	HT	P4	115	17	3P	⑤-13
				TCNS022R1					1.5P	⑤-13
	Long shank, carbide	12 13 16	LS-N-CT	TY022RSAWB3G	HT	P4	150	17	3P	⑤-19
				TY022RSAWBAG					1.5P	⑤-19
For aluminum		18 19 21	LA-HT	TY022RTLENA	HT	P5	115	17	1.5P	④-111
For high speed		1 2	F-SP	VFSHMS022R	SP	P4	115	17	3P	①-178
			F-SL	VFSHMS022RL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY022RSFEVGS	SP	P4	150	17	3P	①-183
			LS-F-SL	LY022RSFEVG	SL				5.5P	②-32
For deep hole use		2 3 4 13	S-SP	SSMR022R	SP	P3	115	17	2.5P	①-124
		1 2 3 4	S-PO	PSMS022R	PO	P4	115	17	5P	③-74
Low spiral	Long	2 3	LS-LO-SP	LSHMR022RL20	SP	P3	200	17	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW022R1LEB5	HT	I b	125	19	5P	⑦-4
				TW022R1LEBA					1.5P	⑦-4
		15 16 17 18 19 20 21	AL-SP STI	SW022R1LEN	SP	I b	125	19	2.5P	⑦-11
With coolant hole		1 2 3 4	MC-SP	(MSHR022RL15)	SP	P3	150	17	2.5P	①-210
				(MSHR022RL20)			200			①-210
			MC-PO	(MPHS022RL15)	PO	P4	150		5P	③-101
				(MPHS022RL20)			200			③-101
		1 2 3	MC-HT	(ML15022R5-R)	HT	P3	150	17	5P	④-138
				(ML20022R5-R)			200			④-138
				(ML15022R1-R)			150		1.5P	④-138
				(ML20022R1-R)			200			④-139
Nut taps		1 2	NT	NH2022R	HT	II b	250	18	27P	⑦-28

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Taps ／ M22 × 2

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard		2 3	SP	SPR022Q	SP	P3	115	17	2.5P	①-42
			PO	POS022Q	PO	P4			5P	③-15
		1 2 3	HT	TNMS022Q5	HT	P4	115	17	5P	④-13
				TNMS022Q1					1.5P	④-13
For left hand threads		1 2 3	HT LH	TNMS022Q5-L	HT	P4	115	17	5P	④-69
				TNMS022Q1-L					1.5P	④-69
Long		2 3	LS-SP	SPR022QL20	SP	P3	200	17	2.5P	①-91
			LS-PO	POS022QL20	PO	P4			5P	③-53
		1 2 3	LS-HT	TNMR022Q520	HT	P3	200	17	5P	④-78
				TNMR022Q120					1.5P	④-78
For high carbon steels		2 3	HC-SP	SCMR022Q	SP	P3	115	17	2.5P	①-133
For deep hole use		2 3 4 13	S-SP	SSMR022Q	SP	P3	115	17	2.5P	①-124

Taps ／ M22 × 1.5

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard		2 3	SP	SPR022O	SP	P3	115	17	2.5P	①-42
			PO	POS022O	PO	P4			5P	③-15
		1 2 3	HT	TNMR022O5	HT	P3	115	17	5P	④-13
				TNMR022O1					1.5P	④-13
	Oversize	2 3	SP	SPS022O	SP	P4	115	17	2.5P	①-42
				SPT022O		P5				①-42
			PO	POT022O	PO				5P	③-15
		1 2 3	HT	TNMS022O5	HT	P4	115	17	5P	④-13
				TNMS022O1					1.5P	④-13
				TNMT022O5		P5			5P	④-13
				TNMT022O1					1.5P	④-13
For left hand threads		2 3	SP LH	SPR022O--L	SP	P3	115	17	2.5P	①-80
			PO LH	POS022O--L	PO	P4			5P	③-47
		1 2 3	HT LH	TNMR022O5-L	HT	P3	115	17	5P	④-69
				TNMR022O1-L					1.5P	④-69
Oxidizing		1 2 3	SP OX	SPR022OX	SP	P3	115	17	2.5P	①-65
			PO OX	POS022OX	PO	P4			5P	③-35
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101158	SP	P4	140	17	2.5P	①-7
		1 2 3 4 9 10 13 18 19	VUPO	1102101158	PO	P4	140	17	5P	③-6
Long		2 3	LS-SP	SPR022OL15	SP	P3	150	17	2.5P	①-91
				SPR022OL20			200			①-91
			LS-PO	POS022OL15	PO	P4	150		5P	③-53
				POS022OL20			200			③-53
		1 2 3	LS-HT	TNMR022O515	HT	P3	150	17	5P	④-78
				TNMR022O520			200			④-78
				TNMR022O115			150		1.5P	④-78
				TNMR022O120			200			④-78
	For left hand threads	1 2 3	LS-HT LH	TNMR022O520L	HT	P3	200	17	5P	④-85
				TNMR022O120L					1.5P	④-85
For soft structural steels		1 2	E-SP	ESHMR022O	SP	P3	115	17	2.5P	①-130
For steels		1 2 3 4 5 9 11	HVSP	SY022OTEEXJ	SP	P5	140	17	2.5P	①-24
For high carbon steels		2 3	HC-SP	SCMR022O	SP	P3	115	17	2.5P	①-133
For hard-to-machine materials		3 5 6	EH-PO	EPHMS022O	PO	P4	115	17	4.5P	③-82
		6 10	EH-HT	ETHMS022O5	HT	P4	115	17	5P	④-125
				ETHMS022O1					2.5P	④-125

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For hard-to-machine materials	Powdered HSS	3 5 6	PM-SP	SY022OSDPB	SP	P4	115	17	2.75P	①-169
			LS-PM-SP	SY022OSDPBK			200			①-176
			PM-PO	PY022OSDPB	PO		115		5.5P	③-92
			LS-PM-PO	PY022OSDPBK			200			③-99
For stainless steels		2 3 4 9	SU-SP	SUMR022O	SP	P3	115	17	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMS022O	PO	P4	115	17	5P	③-62
		1 2 9	SU-HT	TUMS022O4	HT	P4	115	17	4P	④-91
				TUMS022O1					1.5P	④-91
	Oversize	2 3 4 9	SU-SP	SUMS022O	SP	P4	115	17	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMT022O	PO	P5	115	17	5P	③-62
	For deep hole use	1 2 3 9	LS-SU-S-SP	SY022ORGEXGS	SP	P3	150	17	2.5P	①-121
				SY022ORGEXKS			200			①-121
			LS-SU-S-PO	PY022OSGEXKS	PO	P4			5P	③-71
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MS022O	SP	P4	115	17	3P	①-116
For cast irons		12 13	FC-HT	TY022OSAEN5	HT	P4	115	17	5P	④-95
				TY022OSAENA					1.5P	④-95
	Carbide	12 13 16	N-CT FC	TCNS022O3	HT	P4	95	17	3P	⑤-13
				TCNS022O1					1.5P	⑤-13
	Long shank, carbide	12 13 16	LS-N-CT	TY022OSAWB3G	HT	P4	150	17	3P	⑤-19
				TY022OSAWBAG					1.5P	⑤-19
For aluminum		18 19 21	LA-HT	TY022OSLENA	HT	P4	115	17	1.5P	④-111
For high speed		1 2	F-SP	VFSHMS022O	SP	P4	115	17	3P	①-178
			F-SL	VFSHMS022OL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY022OSFEVGS	SP	P4	150	17	3P	①-183
			LS-F-SL	LY022OSFEVG	SL				5.5P	②-32
For deep hole use		2 3 4 13	S-SP	SSMR022O	SP	P3	115	17	2.5P	①-124
		1 2 3 4	S-PO	PSMS022O	PO	P4	115	17	5P	③-74
	Oversize	2 3 4 13	S-SP	SSMS022O	SP	P4	115	17	2.5P	①-124
Low spiral	Long	2 3	LS-LO-SP	LSHMR022OL20	SP	P3	200	17	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW022O1LEB5	HT	I b	120	19	5P	⑦-4
				TW022O1LEBA					1.5P	⑦-4
With coolant hole		1 2 3 4	MC-SP	(MSHR022OL15)	SP	P3	150	17	2.5P	①-210
				(MSHR022OL20)			200			①-210
			MC-PO	(MPHS022OL15)	PO	P4	150		5P	③-101
				(MPHS022OL20)			200			③-101
		1 2 3	MC-HT	(ML15022O5-R)	HT	P3	150	17	5P	④-139
				(ML20022O5-R)			200			④-139
				(ML15022O1-R)			150		1.5P	④-139
				(ML20022O1-R)			200			④-139
Nut taps		1 2	NT	NH2022O	HT	II	210	18	25P	⑦-28

Taps ／ M22 × 1.25

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard		1 2 3	HT	TNMS022N5	HT	P4	115	17	5P	④-13
				TNMS022N1					1.5P	④-13

Taps ／ M22 × 1

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard		2 3	SP	SPQ022M	SP	P2	115	17	2.5P	①-42
			PO	POR022M	PO	P3			5P	③-15
		1 2 3	HT	TNMR022M5	HT	P3	115	17	5P	④-13
				TNMR022M1					1.5P	④-13
For left hand threads		1 2 3	HT LH	TNMR022M5-L	HT	P3	115	17	5P	④-69
				TNMR022M1-L					1.5P	④-69

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*Ds*	*ℓc*

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Taps ／ M22 × 0.75									
Standard	1 2 3	HT	TNMR022J5	HT	P3	115	17	5P	④-13
			TNMR022J1					1.5P	④-13
Taps ／ M22 × 0.5									
Standard	1 2 3	HT	TNMQ022G5	HT	P2	115	17	5P	④-13
			TNMQ022G1					1.5P	④-13
Taps ／ M23 × 2									
Standard	1 2 3	HT	TNMS023Q5	HT	P4	120	19	5P	④-13
			TNMS023Q1					1.5P	④-13
Taps ／ M23 × 1.5									
Standard	2 3	SP	SPR023O	SP	P3	120	19	2.5P	①-42
	1 2 3	HT	TNMR023O5	HT	P3	120	19	5P	④-13
			TNMR023O1					1.5P	④-13
For left hand threads	1 2 3	HT LH	TNMR023O5-L	HT	P3	120	19	5P	④-69
			TNMR023O1-L					1.5P	④-69
Taps ／ M23 × 1									
Standard	1 2 3	HT	TNMR023M5	HT	P3	120	19	5P	④-13
			TNMR023M1					1.5P	④-13
For left hand threads	1 2 3	HT LH	TNMR023M5-L	HT	P3	120	19	5P	④-69
			TNMR023M1-L					1.5P	④-69
Taps ／ M24 × 3									
Standard	2 3	SP	SPR024S	SP	P3	120	19	2.5P	①-42
		PO	POS024S	PO	P4			5P	③-15
	1 2 3	HT	TNMS024S5	HT	P4	120	19	5P	④-13
			TNMS024S1					1.5P	④-13
Oversize	2 3	SP	SPS024S	SP	P4	120	19	2.5P	①-42
		PO	POT024S	PO	P5			5P	③-15
			POU024S		P6				③-16
	1 2 3	HT	TNMT024S5	HT	P5	120	19	5P	④-13
			TNMT024S1					1.5P	④-13
For left hand threads	2 3	SP LH	SPR024S--L	SP	P3	120	19	2.5P	①-80
		PO LH	POS024S--L	PO	P4			5P	③-47
	1 2 3	HT LH	TNMS024S5-L	HT	P4	120	19	5P	④-69
			TNMS024S1-L					1.5P	④-69
Oxidizing	1 2 3	SP OX	SPR024SX	SP	P3	120	19	2.5P	①-65
		PO OX	POS024SX	PO	P4			5P	③-35
Coating	1 2 3 4 9 10 13 18 19	VUSP	1101101167	SP	P5	160	19	2.5P	①-7
	1 2 3 4 9 10 13 18 19	VUPO	1102101167	PO	P5	160	19	5P	③-6
Long	2 3	LS-SP	SPR024SL15	SP	P3	150	19	2.5P	①-91
			SPR024SL20			200			①-91
			SPR024SL25			250			①-91
		LS-PO	POS024SL15	PO	P4	150		5P	③-53
			POS024SL20			200			③-53
			POS024SL25			250			③-53

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Long	1 2 3	LS-HT	TNMR024S515	HT	P3	150	19	5P	④-79
			TNMR024S520			200			④-79
			TNMR024S525			250			④-79
			TNMR024S115			150		1.5P	④-79
			TNMR024S120			200			④-79
			TNMR024S125			250			④-79
Oversize	1 2 3	LS-HT	TNMS024S515	HT	P4	150	19	5P	④-79
			TNMS024S520			200			④-79
			TNMS024S115			150		1.5P	④-79
			TNMS024S120			200			④-79
For left hand threads	1 2 3	LS-HT LH	TNMR024S515L	HT	P3	150	19	5P	④-85
			TNMR024S520L			200			④-85
			TNMR024S115L			150		1.5P	④-85
			TNMR024S120L			200			④-85
For soft structural steels	1 2	E-SP	ESHMR024S	SP	P3	120	19	2.5P	①-130
For steels	1 2 3 4 5 9 11	HVSP	SY024STEEXJ	SP	P5	160	19	2.5P	①-24
For Zinc Plating Oversize	1 2 3 4 5 9 11	HVSP ZP	1112201167	SP	P5+0.1	160	19	2.5P	①-32
			1112301167		P5+0.2				①-32
			1112401167		P5+0.3				①-32
For high carbon steels	2 3	HC-SP	SCMR024S	SP	P3	120	19	2.5P	①-133
	2 3 5	HC-PO	PCMS024S	PO	P4	120	19	5P	③-77
For hard-to-machine materials	3 5 6	EH-PO	EPHMT024S	PO	P5	120	19	4.5P	③-82
	6 10	EH-HT	ETHMT024S5	HT	P5	120	19	5P	④-125
			ETHMT024S1					2.5P	④-125
Powdered HSS	3 5 6	PM-SP	SY024SSDPB	SP	P4	120	19	2.75P	①-169
		LS-PM-SP	SY024SSDPBK			200			①-176
		PM-PO	PY024STDPB	PO	P5	120		5.5P	③-92
		LS-PM-PO	PY024STDPBK			200			③-99
For stainless steels	2 3 4 9	SU-SP	SUMR024S	SP	P3	120	19	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMS024S	PO	P4	120	19	5P	③-62
	1 2 9	SU-HT	TUMS024S4	HT	P4	120	19	4P	④-91
			TUMS024S1					1.5P	④-91
Oversize	2 3 4 9	SU-SP	SUMS024S	SP	P4	120	19	2.5P	①-102
			SUMT024S		P5				①-102
	1 2 3 4 9	SU-PO	PUMT024S	PO	P5	120	19	5P	③-62
			PUMU024S		P6				③-62
For deep hole use	1 2 3 4 9	SU-S-SP	SSMR024S-SU	SP	P3	120	19	2.5P	①-119
	1 2 3 9	LS-SU-S-SP	SY024SRGEXGS	SP	P3	150	19	2.5P	①-121
			SY024SRGEXKS			200			①-121
		LS-SU-S-PO	PY024SSGEXKS	PO	P4			5P	③-71
For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MS024S	SP	P4	120	19	3P	①-116
For cast irons	12 13	FC-HT	TY024STAEN5	HT	P5	120	19	5P	④-95
			TY024STAENA					1.5P	④-95
Carbide	12 13 16	N-CT FC	TCNS024S3	HT	P4	120	19	3P	⑤-13
			TCNS024S1					1.5P	⑤-13
Long shank, carbide	12 13 16	LS-N-CT	TY024SSAWB3G	HT	P4	150	19	3P	⑤-19
			TY024SSAWBAG					1.5P	⑤-19
For aluminum	18 19 21	LA-HT	TY024STLENA	HT	P5	120	19	1.5P	④-111

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For high speed		1 2	F-SP	VFSHMS024S	SP	P4	120	19	3P	①-178
			F-SL	VFSHMS024SL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY024SSFEVGS	SP	P4	150	19	3P	①-183
			LS-F-SL	LY024SSFEVG	SL				5.5P	②-32
For deep hole use		2 3 4 13	S-SP	SSMR024S	SP	P3	120	19	2.5P	①-124
		1 2 3 4	S-PO	PSMS024S	PO	P4	120	19	5P	③-74
	Oversize	2 3 4 13	S-SP	SSMS024S	SP	P4	120	19	2.5P	①-124
Low spiral	Long	2 3	LS-LO-SP	LSHMR024SL20	SP	P3	200	19	2.5P	①-151
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW024S1LEB5	HT	I b	135	23	5P	⑦-4
				TW024S1LEBA					1.5P	⑦-4
		15 16 17 18 19 20 21	AL-SP STI	SW024S1LEN	SP	I b	135	23	2.5P	⑦-11
With coolant hole		1 2 3 4	MC-SP	(MSHR024SL15)	SP	P3	150	19	2.5P	①-210
				(MSHR024SL20)			200			①-210
			MC-PO	(MPHS024SL15)	PO	P4	150		5P	③-101
				(MPHS024SL20)			200			③-101
		1 2 3	MC-HT	(ML15024S5-R)	HT	P3	150	19	5P	④-139
				(ML20024S5-R)			200			④-139
				(ML15024S1-R)			150		1.5P	④-139
				(ML20024S1-R)			200			④-139
Nut taps		1 2	NT	NH2024S	HT	II b	260	19	25P	⑦-28
Taps ／ M24 × 2										
Standard		2 3	SP	SPR024Q	SP	P3	120	19	2.5P	①-42
			PO	POS024Q	PO	P4			5P	③-16
		1 2 3	HT	TNMS024Q5	HT	P4	120	19	5P	④-13
				TNMS024Q1					1.5P	④-13
For left hand threads		2 3	SP LH	SPR024Q--L	SP	P3	120	19	2.5P	①-80
		1 2 3	HT LH	TNMS024Q5-L	HT	P4	120	19	5P	④-69
				TNMS024Q1-L					1.5P	④-69
Long		2 3	LS-SP	SPR024QL20	SP	P3	200	19	2.5P	①-91
			LS-PO	POS024QL20	PO	P4			5P	③-53
		1 2 3	LS-HT	TNMR024Q520	HT	P3	200	19	5P	④-79
				TNMR024Q120					1.5P	④-79
For high carbon steels		2 3	HC-SP	SCMR024Q	SP	P3	120	19	2.5P	①-133
For stainless steels		2 3 4 9	SU-SP	SUMR024Q	SP	P3	120	19	2.5P	①-102
For deep hole use		2 3 4 13	S-SP	SSMR024Q	SP	P3	120	19	2.5P	①-124
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TW024Q1LEB5	HT	I b	130	20	5P	⑦-4
Nut taps		1 2	NT	NH2024Q	HT	II	240	19	25P	⑦-28
Taps ／ M24 × 1.5										
Standard		2 3	SP	SPR024O	SP	P3	120	19	2.5P	①-42
			PO	POS024O	PO	P4			5P	③-16
		1 2 3	HT	TNMR024O5	HT	P3	120	19	5P	④-13
				TNMR024O1					1.5P	④-13
	Oversize	2 3	SP	SPS024O	SP	P4	120	19	2.5P	①-42
			PO	POT024O	PO	P5			5P	③-16
		1 2 3	HT	TNMS024O5	HT	P4	120	19	5P	④-13
				TNMS024O1					1.5P	④-13
				TNMT024O5		P5			5P	④-13
				TNMT024O1					1.5P	④-13

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For left hand threads		2 3	SP LH	SPR024O--L	SP	P3	120	19	2.5P	①-80
			PO LH	POS024O--L	PO	P4			5P	③-47
		1 2 3	HT LH	TNMR024O5-L	HT	P3	120	19	5P	④-69
				TNMR024O1-L					1.5P	④-69
Oxidizing		1 2 3	SP OX	SPR024OX	SP	P3	120	19	2.5P	①-66
Coating		1 2 3 4 9 10 13 18 19	VUSP	1101101170	SP	P4	160	19	2.5P	①-7
		1 2 3 4 9 10 13 18 19	VUPO	1102101170	PO	P4	160	19	5P	③-6
Long		2 3	LS-SP	SPR024OL15	SP	P3	150	19	2.5P	①-91
				SPR024OL20			200			①-91
			LS-PO	POS024OL15	PO	P4	150		5P	③-53
				POS024OL20			200			③-53
		1 2 3	LS-HT	TNMR024O515	HT	P3	150	19	5P	④-79
				TNMR024O520			200			④-79
				TNMR024O115			150		1.5P	④-79
				TNMR024O120			200			④-79
	For left hand threads	1 2 3	LS-HT LH	TNMR024O520L	HT	P3	200	19	5P	④-85
For soft structural steels		1 2	E-SP	ESHMR024O	SP	P3	120	19	2.5P	①-130
For steels		1 2 3 4 5 9 11	HVSP	SY024OTEEXJ	SP	P5	160	19	2.5P	①-24
For high carbon steels		2 3	HC-SP	SCMR024O	SP	P3	120	19	2.5P	①-133
For hard-to-machine materials		3 5 6	EH-PO	EPHMS024O	PO	P4	120	19	4.5P	③-82
		6 10	EH-HT	ETHMS024O5	HT	P4	120	19	5P	④-125
				ETHMS024O1					2.5P	④-125
	Powdered HSS	3 5 6	PM-SP	SY024OSDPB	SP	P4	120	19	2.75P	①-169
			LS-PM-SP	SY024OSDPBK			200			①-176
			PM-PO	PY024OSDPB	PO		120		5.5P	③-92
			LS-PM-PO	PY024OSDPBK			200			③-99
For stainless steels		2 3 4 9	SU-SP	SUMR024O	SP	P3	120	19	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMS024O	PO	P4	120	19	5P	③-62
		1 2 9	SU-HT	TUMS024O4	HT	P4	120	19	4P	④-91
				TUMS024O1					1.5P	④-91
	Oversize	2 3 4 9	SU-SP	SUMS024O	SP	P4	120	19	2.5P	①-102
	For deep hole use	1 2 3 9	LS-SU-S-SP	SY024ORGEXGS	SP	P3	150	19	2.5P	①-121
				SY024ORGEXKS			200			①-121
			LS-SU-S-PO	PY024OSGEXKS	PO	P4			5P	③-71
	For hard-to-machine materials	1 2 3 4 9	SU2-SP	SU2MS024O	SP	P4	120	19	3P	①-116
For cast irons		12 13	FC-HT	TY024OSAEN5	HT	P4	120	19	5P	④-95
				TY024OSAENA					1.5P	④-95
	Carbide	12 13 16	N-CT FC	TCNS024O3	HT	P4	95	19	3P	⑤-13
				TCNS024O1					1.5P	⑤-13
	Long shank, carbide	12 13 16	LS-N-CT	TY024OSAWB3G	HT	P4	150	19	3P	⑤-19
				TY024OSAWBAG					1.5P	⑤-19
For aluminum		18 19 21	LA-HT	TY024OSLENA	HT	P4	120	19	1.5P	④-111
For high speed		1 2	F-SP	VFSHMS024O	SP	P4	120	19	3P	①-178
			F-SL	VFSHMS024OL	SL				5.5P	②-28
	Long	1 2	LS-F-SP	SY024OSFEVGS	SP	P4	150	19	3P	①-183
			LS-F-SL	LY024OSFEVG	SL				5.5P	②-32
For deep hole use		2 3 4 13	S-SP	SSMR024O	SP	P3	120	19	2.5P	①-124
		1 2 3 4	S-PO	PSMS024O	PO	P4	120	19	5P	③-74
	Oversize	2 3 4 13	S-SP	SSMS024O	SP	P4	120	19	2.5P	①-125
Low spiral	Long	2 3	LS-LO-SP	LSHMR024OL20	SP	P3	200	19	2.5P	①-151

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For helical coil wire screw thread inserts	18 19 21	AL-HT STI	TW024O1LEB5	HT	I b	130	20	5P	⑦-4
			TW024O1LEBA					1.5P	⑦-5
With coolant hole	1 2 3 4	MC-SP	(MSHR024OL15)	SP	P3	150	19	2.5P	①-210
			(MSHR024OL20)			200			①-210
		MC-PO	(MPHS024OL15)	PO	P4	150		5P	③-101
			(MPHS024OL20)			200			③-101
	1 2 3	MC-HT	(ML15024O5-R)	HT	P3	150	19	5P	④-139
			(ML20024O5-R)			200			④-139
			(ML15024O1-R)			150		1.5P	④-139
			(ML20024O1-R)			200			④-139
Nut taps	1 2	NT	NH2024O	HT	II	220	19	25P	⑦-28
Taps ／ M24 × 1.25									
Standard	1 2 3	HT	TNMS024N5	HT	P4	120	19	5P	④-14
			TNMS024N1					1.5P	④-14
Taps ／ M24 × 1									
Standard	2 3	SP	SPQ024M	SP	P2	120	19	2.5P	①-42
		PO	POR024M	PO	P3			5P	③-16
	1 2 3	HT	TNMR024M5	HT	P3	120	19	5P	④-14
			TNMR024M1					1.5P	④-14
For left hand threads	1 2 3	HT LH	TNMR024M5-L	HT	P3	120	19	5P	④-69
			TNMR024M1-L					1.5P	④-69
Taps ／ M24 × 0.75									
Standard	1 2 3	HT	TNMR024J5	HT	P3	120	19	5P	④-14
			TNMR024J1					1.5P	④-14
Taps ／ M24 × 0.5									
Standard	1 2 3	HT	TNMQ024G5	HT	P2	120	19	5P	④-14
			TNMQ024G1					1.5P	④-14

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / M9 × 1.25										
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG9.0NDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG9.0NDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	25	9	1.5P	PYG9.0NTNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG9.0NQNEBA	⑩-36
Dies / M9 × 1										
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG9.0MDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG9.0MDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	25	9	1.5P	PYG9.0MTNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG9.0MQNEBA	⑩-36
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP9.0M	⑩-46
					P2				HEQ9.0M	⑩-46
Dies / M9 × 0.75										
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG9.0JDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG9.0JDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	25	9	1.5P	PYG9.0JSNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	25	9	1.5P	PYG9.0JQNEBA	⑩-36
Auto dies for automatic lathe	For stainless steels	HSS	1 2 9	HS-D	P1	20	7	2P	HEP9.0J	⑩-46
					P2				HEQ9.0J	⑩-46
Dies / M9 × 0.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYG9.0GDNEBC	⑩-3
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYG9.0GDNEBC	⑩-17
Dies / M11 × 1.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ011ODNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ011ODNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	38	13	1.5P	PYJ011OSNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ011OQNEBA	⑩-36
Dies / M11 × 1.25										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ011NDNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ011NDNEBC	⑩-17
Dies / M11 × 1										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ011MDNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ011MDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	38	13	1.5P	PYJ011MTNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ011MQNEBA	⑩-36
Dies / M11 × 0.75										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ011JDNEBC	⑩-4
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	38	13	1.5P	PYJ011JSNEBA	⑩-36
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ011JQNEBA	⑩-36
Dies / M11 × 0.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ011GDNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ011GDNEBC	⑩-17

Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / M13 × 1.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ013ODNEBC	⑩-4
Dies / M13 × 1.25										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ013NDNEBC	⑩-4
Dies / M13 × 1										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ013MDNEBC	⑩-4
Dies / M13 × 0.75										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ013JDNEBC	⑩-4
Dies / M13 × 0.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ013GDNEBC	⑩-4
Dies / M14 × 2										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ014QDNEBC	⑩-4
						50	16		TYM014QDNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ014QDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	38	13	1.5P	PYJ014QSNEBA	⑩-37
						50	16		PYM014QSNEBA	⑩-37
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ014QQNEBA	⑩-37
						50	16		PYM014QQNEBA	⑩-37
Dies / M14 × 1.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ014ODNEBC	⑩-4
						50	16		TYM014ODNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ014ODNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	38	13	1.5P	PYJ014OSNEBA	⑩-37
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ014OQNEBA	⑩-37
Dies / M14 × 1.25										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ014NDNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ014NDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S6	38	13	1.5P	PYJ014NUNEBA	⑩-37
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ014NQNEBA	⑩-37
Dies / M14 × 1										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ014MDNEBC	⑩-4
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ014MDNEBC	⑩-17
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	38	13	1.5P	PYJ014MTNEBA	⑩-37
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ014MQNEBA	⑩-37
Dies / M14 × 0.75										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ014JDNEBC	⑩-4
Dies / M14 × 0.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ014GDNEBC	⑩-4

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M15 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ015QDNEBC	⑩-4
Dies ／ M15 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ015ODNEBC	⑩-4
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ015ODNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	38	13	1.5P	PYJ015OSNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ015OQNEBA	⑩-37
Dies ／ M15 × 1.25									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ015NDNEBC	⑩-4
Dies ／ M15 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ015MDNEBC	⑩-4
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ015MDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S5	38	13	1.5P	PYJ015MTNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ015MQNEBA	⑩-37
Dies ／ M15 × 0.75									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ015JDNEBC	⑩-4
Dies ／ M15 × 0.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ015GDNEBC	⑩-4
Dies ／ M16 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ016QDNEBC	⑩-4
					50	16		TYM016QDNEBC	⑩-4
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ016QDNEBC	⑩-17
					50	16		GYM016QDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	38	13	1.5P	PYJ016QSNEBA	⑩-37
					50	16		PYM016QSNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ016QQNEBA	⑩-37
					50	16		PYM016QQNEBA	⑩-37
Dies ／ M16 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ016ODNEBC	⑩-4
					50	16		TYM016ODNEBC	⑩-4
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ016ODNEBC	⑩-17
					50	16		GYM016ODNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	38	13	1.5P	PYJ016OSNEBA	⑩-37
					50	16		PYM016OSNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ016OQNEBA	⑩-37
					50	16		PYM016OQNEBA	⑩-37

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M16 × 1.25									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ016NDNEBC	⑩-5
Dies ／ M16 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ016MDNEBC	⑩-5
					50	16		TYM016MDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJ016MDNEBC	⑩-17
					50	16		GYM016MDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S5	38	13	1.5P	PYJ016MTNEBA	⑩-37
					50	16		PYM016MTNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	38	13	1.5P	PYJ016MQNEBA	⑩-37
					50	16		PYM016MQNEBA	⑩-37
Dies ／ M16 × 0.75									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ016JDNEBC	⑩-5
Dies ／ M16 × 0.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJ016GDNEBC	⑩-5
Dies ／ M17 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM017QDNEBC	⑩-5
Dies ／ M17 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM017ODNEBC	⑩-5
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	50	16	1.5P	PYM017OSNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM017OQNEBA	⑩-37
Dies ／ M17 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM017MDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM017MDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S5	50	16	1.5P	PYM017MTNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM017MQNEBA	⑩-37
Dies ／ M17 × 0.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM017GDNEBC	⑩-5
Dies ／ M18 × 2.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM018RDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM018RDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S5	50	16	1.5P	PYM018RTNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM018RQNEBA	⑩-37
Dies ／ M18 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM018QDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM018QDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	50	16	1.5P	PYM018QSNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM018QQNEBA	⑩-37

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / M18 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM018ODNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM018ODNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	50	16	1.5P	PYM018OSNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM018OQNEBA	⑩-37
Dies / M18 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM018MDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM018MDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S5	50	16	1.5P	PYM018MTNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM018MQNEBA	⑩-37
Dies / M18 × 0.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM018GDNEBC	⑩-5
Dies / M19 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM019ODNEBC	⑩-5
Dies / M19 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM019MDNEBC	⑩-5
Dies / M20 × 2.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM020RDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM020RDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S5	50	16	1.5P	PYM020RTNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM020RQNEBA	⑩-37
Dies / M20 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM020QDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM020QDNEBC	⑩-17
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	50	16	1.5P	PYM020QSNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM020QQNEBA	⑩-37
Dies / M20 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM020ODNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM020ODNEBC	⑩-18
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	50	16	1.5P	PYM020OSNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM020OQNEBA	⑩-37
Dies / M20 × 1.25									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM020NDNEBC	⑩-5
Dies / M20 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM020MDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM020MDNEBC	⑩-18
Point solid dies	HSS	1 2 15 16 18 19	DPO	S5	50	16	1.5P	PYM020MTNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM020MQNEBA	⑩-37
Dies / M20 × 0.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM020GDNEBC	⑩-5

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / M21 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM021ODNEBC	⑩-5
Dies / M21 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM021MDNEBC	⑩-5
Dies / M22 × 2.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM022RDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM022RDNEBC	⑩-18
Point solid dies	HSS	1 2 15 16 18 19	DPO	S5	50	16	1.5P	PYM022RTNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM022RQNEBA	⑩-37
Dies / M22 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM022QDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM022QDNEBC	⑩-18
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	50	16	1.5P	PYM022QSNEBA	⑩-37
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM022QQNEBA	⑩-37
Dies / M22 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM022ODNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM022ODNEBC	⑩-18
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	50	16	1.5P	PYM022OSNEBA	⑩-38
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM022OQNEBA	⑩-38
Dies / M22 × 1.25									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM022NDNEBC	⑩-5
Point solid dies	HSS	1 2 15 16 18 19	DPO	S4	50	16	1.5P	PYM022NSNEBA	⑩-38
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM022NQNEBA	⑩-38
Dies / M22 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM022MDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM022MDNEBC	⑩-18
Point solid dies	HSS	1 2 15 16 18 19	DPO	S5	50	16	1.5P	PYM022MTNEBA	⑩-38
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM022MQNEBA	⑩-38
Dies / M22 × 0.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM022GDNEBC	⑩-5
Dies / M23 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM023ODNEBC	⑩-5
Dies / M23 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM023MDNEBC	⑩-5
Dies / M24 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM024SDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM024SDNEBC	⑩-18
Point solid dies	HSS	1 2 15 16 18 19	DPO	S5	50	16	1.5P	PYM024STNEBA	⑩-38
Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM024SQNEBA	⑩-38

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P: B:













Dies selection		Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M24 × 2										
Solid dies		HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM024QDNEBC	⑩-5
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM024QDNEBC	⑩-18
Point solid dies		HSS	1 2 15 16 18 19	DPO	S5	50	16	1.5P	PYM024QTNEBA	⑩-38
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM024QQNEBA	⑩-38
Dies ／ M24 × 1.5										
Solid dies		HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM024ODNEBC	⑩-5
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM024ODNEBC	⑩-18
Point solid dies		HSS	1 2 15 16 18 19	DPO	S4	50	16	1.5P	PYM024OSNEBA	⑩-38
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM024OQNEBA	⑩-38
Dies ／ M24 × 1.25										
Solid dies		HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM024NDNEBC	⑩-5
Dies ／ M24 × 1										
Solid dies		HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM024MDNEBC	⑩-5
	For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM024MDNEBC	⑩-18
Point solid dies		HSS	1 2 15 16 18 19	DPO	S6	50	16	1.5P	PYM024MUNEBA	⑩-38
	Oversize	HSS	1 2 15 16 18 19	DPO	S2	50	16	1.5P	PYM024MQNEBA	⑩-38

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M25 × 3									
Standard	1 2 3	HT	TNMS025S5	HT	P4	125	19	5P	④-14
			TNMS025S1					1.5P	④-14
For left hand threads	1 2 3	HT LH	TNMS025S5-L	HT	P4	125	19	5P	④-69
			TNMS025S1-L					1.5P	④-69
Taps ／ M25 × 2									
Standard	2 3	SP	SPR025Q	SP	P3	125	19	2.5P	①-42
		PO	POS025Q	PO	P4			5P	③-16
	1 2 3	HT	TNMS025Q5	HT	P4	125	19	5P	④-14
			TNMS025Q1					1.5P	④-14
For left hand threads	1 2 3	HT LH	TNMS025Q5-L	HT	P4	125	19	5P	④-69
			TNMS025Q1-L					1.5P	④-69
Nut taps	1 2	NT	NH2025Q	HT	II	240	20	25P	⑦-28
Taps ／ M25 × 1.5									
Standard	2 3	SP	SPR025O	SP	P3	125	19	2.5P	①-42
		PO	POS025O	PO	P4			5P	③-16
	1 2 3	HT	TNMR025O5	HT	P3	125	19	5P	④-14
			TNMR025O1					1.5P	④-14
For left hand threads	1 2 3	HT LH	TNMR025O5-L	HT	P3	125	19	5P	④-69
			TNMR025O1-L					1.5P	④-69
Oxidizing	1 2 3	PO OX	POS025OX	PO	P4	125	19	5P	③-35
For high carbon steels	2 3	HC-SP	SCMR025O	SP	P3	125	19	2.5P	①-133
Nut taps	1 2	NT	NH2025O	HT	II	220	20	25P	⑦-28
Taps ／ M25 × 1									
Standard	2 3	SP	SPQ025M	SP	P2	125	19	2.5P	①-42
		PO	POR025M	PO	P3			5P	③-16
	1 2 3	HT	TNMR025M5	HT	P3	125	19	5P	④-14
			TNMR025M1					1.5P	④-14
For left hand threads	1 2 3	HT LH	TNMR025M5-L	HT	P3	125	19	5P	④-69
			TNMR025M1-L					1.5P	④-69
Taps ／ M26 × 3									
Standard	2 3	SP	SPR026S	SP	P3	130	20	2.5P	①-42
		PO	POS026S	PO	P4			5P	③-16
	1 2 3	HT	TNMS026S5	HT	P4	130	20	5P	④-14
			TNMS026S1					1.5P	④-14
Oxidizing	1 2 3	PO OX	POS026SX	PO	P4	130	20	5P	③-35
Taps ／ M26 × 2									
Standard	2 3	SP	SPR026Q	SP	P3	130	20	2.5P	①-42
		PO	POS026Q	PO	P4			5P	③-16
	1 2 3	HT	TNMS026Q5	HT	P4	130	20	5P	④-14
			TNMS026Q1					1.5P	④-14
For left hand threads	1 2 3	HT LH	TNMS026Q5-L	HT	P4	130	20	5P	④-69
			TNMS026Q1-L					1.5P	④-69

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M26 × 1.5									
Standard	2 3	SP	SPR026O	SP	P3	130	20	2.5P	①-42
		PO	POS026O	PO	P4			5P	③-16
	1 2 3	HT	TNMR026O5	HT	P3	130	20	5P	④-14
			TNMR026O1					1.5P	④-14
For left hand threads	1 2 3	HT LH	TNMR026O5-L	HT	P3	130	20	5P	④-69
			TNMR026O1-L					1.5P	④-69
For high carbon steels	2 3	HC-SP	SCMR026O	SP	P3	130	20	2.5P	①-133
Nut taps	1 2	NT	NH2026O	HT	II	230	20	25P	⑦-28
Taps ／ M26 × 1									
Standard	2 3	SP	SPQ026M	SP	P2	130	20	2.5P	①-42
		PO	POR026M	PO	P3			5P	③-16
	1 2 3	HT	TNMR026M5	HT	P3	130	20	5P	④-14
			TNMR026M1					1.5P	④-14
For left hand threads	1 2 3	HT LH	TNMR026M5-L	HT	P3	130	20	5P	④-69
			TNMR026M1-L					1.5P	④-69
Taps ／ M27 × 3									
Standard	2 3	SP	SPR027S	SP	P3	130	20	2.5P	①-42
		PO	POS027S	PO	P4			5P	③-16
	1 2 3	HT	TNMS027S5	HT	P4	130	20	5P	④-14
			TNMS027S1					1.5P	④-14
For left hand threads	2 3	SP LH	SPR027S--L	SP	P3	130	20	2.5P	①-80
		PO LH	POS027S--L	PO	P4			5P	③-47
	1 2 3	HT LH	TNMS027S5-L	HT	P4	130	20	5P	④-69
			TNMS027S1-L					1.5P	④-69
Oxidizing	1 2 3	SP OX	SPR027SX	SP	P3	130	20	2.5P	①-66
		PO OX	POS027SX	PO	P4			5P	③-35
Long	2 3	LS-SP	SPR027SL20	SP	P3	200	20	2.5P	①-91
			SPR027SL25			250			①-91
		LS-PO	POS027SL20	PO	P4	200		5P	③-53
			POS027SL25			250			③-53
	1 2 3	LS-HT	TNMR027S520	HT	P3	200	20	5P	④-79
			TNMR027S525			250			④-79
			TNMR027S120			200		1.5P	④-79
			TNMR027S125			250			④-79
For left hand threads	1 2 3	LS-HT LH	TNMR027S520L	HT	P3	200	20	5P	④-85
			TNMR027S120L					1.5P	④-85
For steels	1 2 3 4 5 9 11	HVSP	SY027STEEXJ	SP	P5	160	20	2.5P	①-24
For high carbon steels	2 3	HC-SP	SCMR027S	SP	P3	130	20	2.5P	①-133
For hard-to-machine materials	6 10	EH-HT	ETHMT027S5	HT	P5	130	20	5P	④-125
			ETHMT027S1					2.5P	④-125
Powdered HSS	3 5 6	PM-SP	SY027SSDPB	SP	P4	130	20	2.75P	①-169
		LS-PM-SP	SY027SSDPBK			200			①-176
		PM-PO	PY027STDPB	PO	P5	130		5.5P	③-92
		LS-PM-PO	PY027STDPBK			200			③-99
For titanium alloys	22	ZET-B	ZETBMS027S	SP	P4	130	20	3P	①-154

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
For stainless steels		2 3 4 9	SU-SP	SUMR027S	SP	P3	130	20	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMS027S	PO	P4	130	20	5P	③-62
		1 2 9	SU-HT	TUMS027S4	HT	P4	130	20	4P	④-91
				TUMS027S1					1.5P	④-91
	For deep hole use	1 2 3 4 9	SU-S-SP	SSMR027S-SU	SP	P3	130	20	2.5P	①-119
For high speed	Long	1 2	LS-F-SP	SY027SSFEVKS	SP	P4	200	20	3P	①-183
			LS-F-SL	LY027SSFEVK	SL				5.5P	②-32
For deep hole use		2 3 4 13	S-SP	SSMR027S	SP	P3	130	20	2.5P	①-125
		1 2 3 4	S-PO	PSMS027S	PO	P4	130	20	5P	③-74
With coolant hole		1 2 3 4	MC-SP	(MSHR027SL20)	SP	P3	200	20	2.5P	①-210
				(MSHR027SL25)			250			①-210
			MC-PO	(MPHS027SL20)	PO	P4	200		5P	③-101
				(MPHS027SL25)			250			③-101
		1 2 3	MC-HT	(ML20027S5-R)	HT	P3	200	20	5P	④-139
				(ML25027S5-R)			250			④-139
				(ML20027S1-R)			200		1.5P	④-139
				(ML25027S1-R)			250			④-139
Nut taps		1 2	NT	NH2027S	HT	II b	280	22	27P	⑦-28
Taps ／ M27 × 2										
Standard		2 3	SP	SPR027Q	SP	P3	130	20	2.5P	①-42
			PO	POS027Q	PO	P4			5P	③-16
		1 2 3	HT	TNMT027Q5	HT	P5	130	20	5P	④-14
				TNMT027Q1					1.5P	④-14
For left hand threads		1 2 3	HT LH	TNMT027Q5-L	HT	P5	130	20	5P	④-69
				TNMT027Q1-L					1.5P	④-69
Oxidizing		1 2 3	SP OX	SPR027QX	SP	P3	130	20	2.5P	①-66
Long		2 3	LS-SP	SPR027QL20	SP	P3	200	20	2.5P	①-91
				SPR027QL25			250			①-91
			LS-PO	POS027QL25	PO	P4			5P	③-53
		1 2 3	LS-HT	TNMR027Q520	HT	P3	200	20	5P	④-79
				TNMR027Q525			250			④-79
				TNMR027Q120			200		1.5P	④-79
				TNMR027Q125			250			④-79
For deep hole use		2 3 4 13	S-SP	SSMR027Q	SP	P3	130	20	2.5P	①-125
Nut taps		1 2	NT	NH2027Q	HT	II	250	22	25P	⑦-28
Taps ／ M27 × 1.5										
Standard		2 3	SP	SPR027O	SP	P3	130	20	2.5P	①-42
			PO	POS027O	PO	P4			5P	③-16
		1 2 3	HT	TNMR027O5	HT	P3	130	20	5P	④-14
				TNMR027O1					1.5P	④-14
For left hand threads		2 3	SP LH	SPR027O--L	SP	P3	130	20	2.5P	①-80
			PO LH	POS027O--L	PO	P4			5P	③-47
		1 2 3	HT LH	TNMR027O5-L	HT	P3	130	20	5P	④-69
				TNMR027O1-L					1.5P	④-69
Long		2 3	LS-SP	SPR027OL20	SP	P3	200	20	2.5P	①-91
				SPR027OL25			250			①-91
			LS-PO	POS027OL20	PO	P4	200		5P	③-53
				POS027OL25			250			③-53

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Long		1 2 3	LS-HT	TNMR027O520	HT	P3	200	20	5P	④-79
				TNMR027O525			250			④-79
				TNMR027O120			200		1.5P	④-79
				TNMR027O125			250			④-79
	For left hand threads	1 2 3	LS-HT LH	TNMR027O520L	HT	P3	200	20	5P	④-85
				TNMR027O120L					1.5P	④-85
For steels		1 2 3 4 5 9 11	HVSP	SY027OTEEXJ	SP	P5	160	20	2.5P	①-24
For high carbon steels		2 3	HC-SP	SCMR027O	SP	P3	130	20	2.5P	①-133
For hard-to-machine materials	Powdered HSS	3 5 6	PM-SP	SY027OSDPB	SP	P4	130	20	2.75P	①-169
			LS-PM-SP	SY027OSDPBK			200			①-176
			PM-PO	PY027OSDPB	PO		130		5.5P	③-92
			LS-PM-PO	PY027OSDPBK			200			③-99
For stainless steels		2 3 4 9	SU-SP	SUMR027O	SP	P3	130	20	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMS027O	PO	P4	130	20	5P	③-62
		1 2 9	SU-HT	TUMS027O4	HT	P4	130	20	4P	④-91
				TUMS027O1					1.5P	④-91
For deep hole use		2 3 4 13	S-SP	SSMR027O	SP	P3	130	20	2.5P	①-125
		1 2 3 4	S-PO	PSMS027O	PO	P4	130	20	5P	③-74
With coolant hole		1 2 3 4	MC-SP	(MSHR027OL20)	SP	P3	200	20	2.5P	①-210
				(MSHR027OL25)			250			①-210
			MC-PO	(MPHS027OL20)	PO	P4	200		5P	③-101
				(MPHS027OL25)			250			③-101
		1 2 3	MC-HT	(ML20027O5-R)	HT	P3	200	20	5P	④-139
				(ML25027O5-R)			250			④-139
				(ML20027O1-R)			200		1.5P	④-139
				(ML25027O1-R)			250			④-139
Nut taps		1 2	NT	NH2027O	HT	II	230	22	25P	⑦-28
Taps ／ M27 × 1										
Standard		2 3	SP	SPQ027M	SP	P2	130	20	2.5P	①-42
			PO	POR027M	PO	P3			5P	③-16
		1 2 3	HT	TNMR027M5	HT	P3	130	20	5P	④-14
				TNMR027M1					1.5P	④-14
For left hand threads		1 2 3	HT LH	TNMR027M5-L	HT	P3	130	20	5P	④-69
				TNMR027M1-L					1.5P	④-69
Taps ／ M28 × 3										
Standard		1 2 3	HT	TNMS028S5	HT	P4	135	23	5P	④-14
				TNMS028S1					1.5P	④-14
Taps ／ M28 × 2										
Standard		2 3	SP	SPR028Q	SP	P3	135	23	2.5P	①-42
			PO	POS028Q	PO	P4			5P	③-16
		1 2 3	HT	TNMS028Q5	HT	P4	135	23	5P	④-14
				TNMS028Q1					1.5P	④-14
For left hand threads		1 2 3	HT LH	TNMS028Q5-L	HT	P4	135	23	5P	④-69
				TNMS028Q1-L					1.5P	④-69

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M28 × 1.5									
Standard	2 3	SP	SPR028O	SP	P3	135	23	2.5P	①-42
		PO	POS028O	PO	P4			5P	③-16
	1 2 3	HT	TNMR028O5	HT	P3	135	23	5P	④-14
			TNMR028O1					1.5P	④-14
For left hand threads	1 2 3	HT LH	TNMR028O5-L	HT	P3	135	23	5P	④-69
			TNMR028O1-L					1.5P	④-69
Oxidizing	1 2 3	SP OX	SPR028OX	SP	P3	135	23	2.5P	①-66
For high carbon steels	2 3	HC-SP	SCMR028O	SP	P3	135	23	2.5P	①-133
Nut taps	1 2	NT	NH2028O	HT	II	240	22	25P	⑦-28
Taps ／ M28 × 1									
Standard	2 3	SP	SPQ028M	SP	P2	135	23	2.5P	①-42
		PO	POR028M	PO	P3			5P	③-16
	1 2 3	HT	TNMR028M5	HT	P3	135	23	5P	④-14
			TNMR028M1					1.5P	④-14
For left hand threads	1 2 3	HT LH	TNMR028M5-L	HT	P3	135	23	5P	④-69
			TNMR028M1-L					1.5P	④-69
Taps ／ M29 × 1.5									
Standard	1 2 3	HT	TNMR029O5	HT	P3	135	23	5P	④-14
			TNMR029O1					1.5P	④-14
Taps ／ M30 × 3.5									
Standard	2 3	SP	SPS030T	SP	P4	135	23	2.5P	①-42
		PO	POT030T	PO	P5			5P	③-16
	1 2 3	HT	TNMS030T5	HT	P4	135	23	5P	④-14
			TNMS030T1					1.5P	④-14
For left hand threads	2 3	SP LH	SPS030T--L	SP	P4	135	23	2.5P	①-80
		PO LH	POT030T--L	PO	P5			5P	③-47
	1 2 3	HT LH	TNMS030T5-L	HT	P4	135	23	5P	④-69
			TNMS030T1-L					1.5P	④-69
Oxidizing	1 2 3	SP OX	SPS030TX	SP	P4	135	23	2.5P	①-66
		PO OX	POT030TX	PO	P5			5P	③-35
Long	2 3	LS-SP	SPS030TL20	SP	P4	200	23	2.5P	①-91
			SPS030TL25			250			①-91
			SPS030TL30			300			①-91
		LS-PO	POT030TL20	PO	P5	200		5P	③-53
			POT030TL25			250			③-53
			POT030TL30			300			③-53
	1 2 3	LS-HT	TNMS030T520	HT	P4	200	23	5P	④-79
			TNMS030T525			250			④-79
			TNMS030T530			300			④-79
			TNMS030T120			200		1.5P	④-79
			TNMS030T125			250			④-79
			TNMS030T130			300			④-79
For left hand threads	1 2 3	LS-HT LH	TNMS030T520L	HT	P4	200	23	5P	④-85
			TNMS030T525L			250			④-85
			TNMS030T120L			200		1.5P	④-85
			TNMS030T125L			250			④-85
For steels	1 2 3 4 5 9 11	HVSP	SY030TUEEXJ	SP	P6	180	23	2.5P	①-24

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For high carbon steels	2 3	HC-SP	SCMS030T	SP	P4	135	23	2.5P	①-133
For hard-to-machine materials	6 10	EH-HT	ETHMT030T5	HT	P5	135	23	5P	④-125
			ETHMT030T1					2.5P	④-125
Powdered HSS	3 5 6	PM-SP	SY030TSDPB	SP	P4	135	23	2.75P	①-169
		LS-PM-SP	SY030TSDPBK			200			①-176
		PM-PO	PY030TTDPB	PO	P5	135		5.5P	③-92
		LS-PM-PO	PY030TTDPBK			200			③-99
For titanium alloys	22	ZET-B	ZETBMT030T	SP	P5	135	23	3P	①-154
For stainless steels	2 3 4 9	SU-SP	SUMS030T	SP	P4	135	23	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMT030T	PO	P5	135	23	5P	③-62
	1 2 9	SU-HT	TUMT030T4	HT	P5	135	23	4P	④-91
			TUMT030T1					1.5P	④-91
For deep hole use	1 2 3 4 9	SU-S-SP	SSMS030T-SU	SP	P4	135	23	2.5P	①-119
For cast irons Carbide	12 13 16	N-CT FC	TCNT030T3	HT	P5	135	23	3P	⑤-13
			TCNT030T1					1.5P	⑤-13
For high speed Long	1 2	LS-F-SP	SY030TTFEVKS	SP	P5	200	23	3P	①-183
		LS-F-SL	LY030TTFEVK	SL				5.5P	②-32
For deep hole use	2 3 4 13	S-SP	SSMS030T	SP	P4	135	23	2.5P	①-125
	1 2 3 4	S-PO	PSMT030T	PO	P5	135	23	5P	③-74
With coolant hole	1 2 3 4	MC-SP	(MSHS030TL20)	SP	P4	200	23	2.5P	①-210
			(MSHS030TL25)			250			①-210
		MC-PO	(MPHT030TL20)	PO	P5	200		5P	③-101
			(MPHT030TL25)			250			③-101
	1 2 3	MC-HT	(ML20030T5-S)	HT	P4	200	23	5P	④-139
			(ML25030T5-S)			250			④-139
			(ML20030T1-S)			200		1.5P	④-139
			(ML25030T1-S)			250			④-139
Nut taps	1 2	NT	NH2030T	HT	II b	300	24	26P	⑦-28
Taps ／ M30 × 3									
Standard	2 3	SP	SPR030S	SP	P3	135	23	2.5P	①-42
		PO	POS030S	PO	P4			5P	③-16
	1 2 3	HT	TNMT030S5	HT	P5	135	23	5P	④-14
			TNMT030S1					1.5P	④-14
For left hand threads	1 2 3	HT LH	TNMT030S5-L	HT	P5	135	23	5P	④-70
			TNMT030S1-L					1.5P	④-70
Oxidizing	1 2 3	SP OX	SPR030SX	SP	P3	135	23	2.5P	①-66
		PO OX	POS030SX	PO	P4			5P	③-35
Long	2 3	LS-SP	SPR030SL25	SP	P3	250	23	2.5P	①-91
		LS-PO	POS030SL25	PO	P4			5P	③-54
	1 2 3	LS-HT	TNMR030S520	HT	P3	200	23	5P	④-79
			TNMR030S525			250			④-79
			TNMR030S120			200		1.5P	④-79
			TNMR030S125			250			④-79
For left hand threads	1 2 3	LS-HT LH	TNMR030S520L	HT	P3	200	23	5P	④-85
For steels	1 2 3 4 5 9 11	HVSP	SY030SUEEXJ	SP	P6	180	23	2.5P	①-24
For deep hole use	2 3 4 13	S-SP	SSMR030S	SP	P3	135	23	2.5P	①-125

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Taps ／ M30 × 2									
Standard	2 3	SP	SPR030Q	SP	P3	135	23	2.5P	①-42
		PO	POS030Q	PO	P4			5P	③-16
	1 2 3	HT	TNMS030Q5	HT	P4	135	23	5P	④-14
			TNMS030Q1					1.5P	④-14
For left hand threads	2 3	SP LH	SPR030Q--L	SP	P3	135	23	2.5P	①-80
	1 2 3	HT LH	TNMS030Q5-L	HT	P4	135	23	5P	④-70
			TNMS030Q1-L					1.5P	④-70
Oxidizing	1 2 3	SP OX	SPR030QX	SP	P3	135	23	2.5P	①-66
Long	2 3	LS-SP	SPR030QL20	SP	P3	200	23	2.5P	①-91
			SPR030QL25			250			①-91
		LS-PO	POS030QL25	PO	P4			5P	③-54
	1 2 3	LS-HT	TNMR030Q520	HT	P3	200	23	5P	④-79
			TNMR030Q525			250			④-79
			TNMR030Q120			200		1.5P	④-79
			TNMR030Q125			250			④-79
For left hand threads	1 2 3	LS-HT LH	TNMR030Q520L	HT	P3	200	23	5P	④-85
For deep hole use	2 3 4 13	S-SP	SSMR030Q	SP	P3	135	23	2.5P	①-125
Nut taps	1 2	NT	NH2030Q	HT	II	260	24	25P	⑦-28
Taps ／ M30 × 1.5									
Standard	2 3	SP	SPR030O	SP	P3	135	23	2.5P	①-42
		PO	POS030O	PO	P4			5P	③-16
	1 2 3	HT	TNMR030O5	HT	P3	135	23	5P	④-14
			TNMR030O1					1.5P	④-14
For left hand threads	2 3	SP LH	SPR030O--L	SP	P3	135	23	2.5P	①-80
		PO LH	POS030O--L	PO	P4			5P	③-47
	1 2 3	HT LH	TNMR030O5-L	HT	P3	135	23	5P	④-70
			TNMR030O1-L					1.5P	④-70
Oxidizing	1 2 3	SP OX	SPR030OX	SP	P3	135	23	2.5P	①-66
Long	2 3	LS-SP	SPR030OL20	SP	P3	200	23	2.5P	①-92
			SPR030OL25			250			①-92
			SPR030OL30			300			①-92
		LS-PO	POS030OL20	PO	P4	200		5P	③-54
			POS030OL25			250			③-54
	1 2 3	LS-HT	TNMR030O520	HT	P3	200	23	5P	④-79
			TNMR030O525			250			④-79
			TNMR030O120			200		1.5P	④-79
			TNMR030O125			250			④-79
For left hand threads	1 2 3	LS-HT LH	TNMR030O520L	HT	P3	200	23	5P	④-85
			TNMR030O120L					1.5P	④-85
For steels	1 2 3 4 5 9 11	HVSP	SY030OUEEXJ	SP	P6	180	23	2.5P	①-24
For high carbon steels	2 3	HC-SP	SCMR030O	SP	P3	135	23	2.5P	①-133
For hard-to-machine materials — Powdered HSS	3 5 6	PM-SP	SY030OSDPB	SP	P4	135	23	2.75P	①-169
		LS-PM-SP	SY030OSDPBK			200			①-176
		PM-PO	PY030OSDPB	PO		135		5.5P	③-92
		LS-PM-PO	PY030OSDPBK			200			③-99
For stainless steels	2 3 4 9	SU-SP	SUMR030O	SP	P3	135	23	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMS030O	PO	P4	135	23	5P	③-62
	1 2 9	SU-HT	TUMS030O4	HT	P4	135	23	4P	④-91
			TUMS030O1					1.5P	④-91

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
For deep hole use	2 3 4 13	S-SP	SSMR030O	SP	P3	135	23	2.5P	①-125
	1 2 3 4	S-PO	PSMS030O	PO	P4	135	23	5P	③-74
With coolant hole	1 2 3 4	MC-SP	(MSHR030OL20)	SP	P3	200	23	2.5P	①-210
			(MSHR030OL25)			250			①-210
		MC-PO	(MPHS030OL20)	PO	P4	200		5P	③-101
			(MPHS030OL25)			250			③-101
	1 2 3	MC-HT	(ML20030O5-R)	HT	P3	200	23	5P	④-139
			(ML25030O5-R)			250			④-139
			(ML20030O1-R)			200		1.5P	④-139
			(ML25030O1-R)			250			④-139
Nut taps	1 2	NT	NH2030O	HT	II	240	24	25P	⑦-28
Taps ／ M30 × 1									
Standard	2 3	SP	SPQ030M	SP	P2	135	23	2.5P	①-42
		PO	POR030M	PO	P3			5P	③-16
	1 2 3	HT	TNMR030M5	HT	P3	135	23	5P	④-15
			TNMR030M1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMR030M5-L	HT	P3	135	23	5P	④-70
			TNMR030M1-L					1.5P	④-70
Taps ／ M32 × 3.5									
Standard	1 2 3	HT	TNMS032T5	HT	P4	145	24	5P	④-15
			TNMS032T1					1.5P	④-15
Taps ／ M32 × 3									
Standard	2 3	SP	SPMR032S	SP	P3	145	24	2.5P	①-42
		PO	POMS032S	PO	P4			5P	③-16
	1 2 3	HT	TNMT032S5	HT	P5	145	24	5P	④-15
			TNMT032S1					1.5P	④-15
Taps ／ M32 × 2									
Standard	2 3	SP	SPMR032Q	SP	P3	145	24	2.5P	①-42
		PO	POMS032Q	PO	P4			5P	③-16
	1 2 3	HT	TNMS032Q5	HT	P4	145	24	5P	④-15
			TNMS032Q1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMS032Q5-L	HT	P4	145	24	5P	④-70
			TNMS032Q1-L					1.5P	④-70
Oxidizing	1 2 3	SP OX	SPMR032QX	SP	P3	145	24	2.5P	①-66
		PO OX	POMS032QX	PO	P4			5P	③-35
For deep hole use	2 3 4 13	S-SP	SSMR032Q	SP	P3	145	24	2.5P	①-125
Taps ／ M32 × 1.5									
Standard	2 3	SP	SPMR032O	SP	P3	145	24	2.5P	①-42
		PO	POMS032O	PO	P4			5P	③-16
	1 2 3	HT	TNMS032O5	HT	P4	145	24	5P	④-15
			TNMS032O1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMS032O5-L	HT	P4	145	24	5P	④-70
			TNMS032O1-L					1.5P	④-70
Oxidizing	1 2 3	PO OX	POMS032OX	PO	P4	145	24	5P	③-35
For deep hole use	2 3 4 13	S-SP	SSMR032O	SP	P3	145	24	2.5P	①-125

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M32 × 1									
Standard	2 3	SP	SPMQ032M	SP	P2	145	24	2.5P	①-42
	1 2 3	HT	TNMR032M5	HT	P3	145	24	5P	④-15
			TNMR032M1					1.5P	④-15
Taps ／ M33 × 3.5									
Standard	2 3	SP	SPMS033T	SP	P4	145	25	2.5P	①-42
		PO	POMT033T	PO	P5			5P	③-16
	1 2 3	HT	TNMS033T5	HT	P4	145	25	5P	④-15
			TNMS033T1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMS033T5-L	HT	P4	145	25	5P	④-70
			TNMS033T1-L					1.5P	④-70
Oxidizing	1 2 3	SP OX	SPMS033TX	SP	P4	145	25	2.5P	①-66
		PO OX	POMT033TX	PO	P5			5P	③-35
Long	2 3	LS-SP	SPS033TL25	SP	P4	250	25	2.5P	①-92
	1 2 3	LS-HT	L25033T5-S	HT	P4	250	25	5P	④-79
			L25033T1-S					1.5P	④-79
For steels	1 2 3 4 5 9 11	HVSP	SY033TUEEXJ	SP	P6	180	25	2.5P	①-25
For stainless steels	2 3 4 9	SU-SP	SUMS033T	SP	P4	145	25	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMT033T	PO	P5	145	25	5P	③-62
For deep hole use	1 2 3 4 9	SU-S-SP	SSMS033T-SU	SP	P4	145	25	2.5P	①-119
For deep hole use	2 3 4 13	S-SP	SSMS033T	SP	P4	145	25	2.5P	①-125
	1 2 3 4	S-PO	PSMT033T	PO	P5	145	25	5P	③-74
Nut taps	1 2	NT	NH2033T	HT	II b	310	25	26P	⑦-28
Taps ／ M33 × 3									
Standard	2 3	SP	SPMR033S	SP	P3	145	25	2.5P	①-42
		PO	POMS033S	PO	P4			5P	③-16
	1 2 3	HT	TNMT033S5	HT	P5	145	25	5P	④-15
			TNMT033S1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMT033S5-L	HT	P5	145	25	5P	④-70
			TNMT033S1-L					1.5P	④-70
Oxidizing	1 2 3	PO OX	POMS033SX	PO	P4	145	25	5P	③-35
Long	1 2 3	LS-HT	L25033S5-R	HT	P3	250	25	5P	④-79
			L25033S1-R					1.5P	④-79
For steels	1 2 3 4 5 9 11	HVSP	SY033SUEEXJ	SP	P6	180	25	2.5P	①-25
For deep hole use	2 3 4 13	S-SP	SSMR033S	SP	P3	145	25	2.5P	①-125
Taps ／ M33 × 2									
Standard	2 3	SP	SPMR033Q	SP	P3	145	25	2.5P	①-42
		PO	POMS033Q	PO	P4			5P	③-16
	1 2 3	HT	TNMS033Q5	HT	P4	145	25	5P	④-15
			TNMS033Q1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMS033Q5-L	HT	P4	145	25	5P	④-70
			TNMS033Q1-L					1.5P	④-70
Long	1 2 3	LS-HT	L25033Q5-R	HT	P3	250	25	5P	④-80
			L25033Q1-R					1.5P	④-80
For deep hole use	2 3 4 13	S-SP	SSMR033Q	SP	P3	145	25	2.5P	①-125

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M33 × 1.5									
Standard	2 3	SP	SPMR033O	SP	P3	145	25	2.5P	①-42
		PO	POMS033O	PO	P4			5P	③-16
	1 2 3	HT	TNMS033O5	HT	P4	145	25	5P	④-15
			TNMS033O1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMS033O5-L	HT	P4	145	25	5P	④-70
			TNMS033O1-L					1.5P	④-70
Long	1 2 3	LS-HT	L25033O5-R	HT	P3	250	25	5P	④-80
			L25033O1-R					1.5P	④-80
For deep hole use	2 3 4 13	S-SP	SSMR033O	SP	P3	145	25	2.5P	①-125
Taps ／ M33 × 1									
Standard	2 3	SP	SPMQ033M	SP	P2	145	25	2.5P	①-42
	1 2 3	HT	TNMR033M5	HT	P3	145	25	5P	④-15
			TNMR033M1					1.5P	④-15
Taps ／ M34 × 3									
Standard	2 3	SP	SPMR034S	SP	P3	155	28	2.5P	①-42
	1 2 3	HT	TNMT034S5	HT	P5	155	28	5P	④-15
			TNMT034S1					1.5P	④-15
Taps ／ M34 × 2									
Standard	2 3	SP	SPMR034Q	SP	P3	155	28	2.5P	①-43
		PO	POMS034Q	PO	P4			5P	③-16
	1 2 3	HT	TNMS034Q5	HT	P4	155	28	5P	④-15
			TNMS034Q1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMS034Q5-L	HT	P4	155	28	5P	④-70
			TNMS034Q1-L					1.5P	④-70
Taps ／ M34 × 1.5									
Standard	2 3	SP	SPMR034O	SP	P3	155	28	2.5P	①-43
		PO	POMS034O	PO	P4			5P	③-16
	1 2 3	HT	TNMS034O5	HT	P4	155	28	5P	④-15
			TNMS034O1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMS034O5-L	HT	P4	155	28	5P	④-70
			TNMS034O1-L					1.5P	④-70
Taps ／ M34 × 1									
Standard	2 3	SP	SPMQ034M	SP	P2	155	28	2.5P	①-43
	1 2 3	HT	TNMR034M5	HT	P3	155	28	5P	④-15
			TNMR034M1					1.5P	④-15
Taps ／ M35 × 3									
Standard	2 3	SP	SPMR035S	SP	P3	155	28	2.5P	①-43
	1 2 3	HT	TNMT035S5	HT	P5	155	28	5P	④-15
			TNMT035S1					1.5P	④-15

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ M35 × 2									
Standard	2 3	SP	SPMR035Q	SP	P3	155	28	2.5P	①-43
		PO	POMS035Q	PO	P4			5P	③-16
	1 2 3	HT	TNMT035Q5	HT	P5	155	28	5P	④-15
			TNMT035Q1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMT035Q5-L	HT	P5	155	28	5P	④-70
			TNMT035Q1-L					1.5P	④-70
For deep hole use	2 3 4 13	S-SP	SSMR035Q	SP	P3	155	28	2.5P	①-125
Taps ／ M35 × 1.5									
Standard	2 3	SP	SPMR035O	SP	P3	155	28	2.5P	①-43
		PO	POMS035O	PO	P4			5P	③-16
	1 2 3	HT	TNMS035O5	HT	P4	155	28	5P	④-15
			TNMS035O1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMS035O5-L	HT	P4	155	28	5P	④-70
			TNMS035O1-L					1.5P	④-70
For deep hole use	2 3 4 13	S-SP	SSMR035O	SP	P3	155	28	2.5P	①-125
Taps ／ M35 × 1									
Standard	2 3	SP	SPMQ035M	SP	P2	155	28	2.5P	①-43
	1 2 3	HT	TNMR035M5	HT	P3	155	28	5P	④-15
			TNMR035M1					1.5P	④-15
Taps ／ M36 × 4									
Standard	2 3	SP	SPMS036U	SP	P4	155	28	2.5P	①-43
		PO	POMT036U	PO	P5			5P	③-16
	1 2 3	HT	TNMT036U5	HT	P5	155	28	5P	④-15
			TNMT036U1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMT036U5-L	HT	P5	155	28	5P	④-70
			TNMT036U1-L					1.5P	④-70
Oxidizing	1 2 3	SP OX	SPMS036UX	SP	P4	155	28	2.5P	①-66
		PO OX	POMT036UX	PO	P5			5P	③-35
Long	2 3	LS-SP	SPS036UL25	SP	P4	250	28	2.5P	①-92
			SPS036UL30			300			①-92
	1 2 3	LS-HT	L25036U5-S	HT	P4	250	28	5P	④-80
			L30036U5-S			300			④-80
			L25036U1-S			250		1.5P	④-80
			L30036U1-S			300			④-80
For steels	1 2 3 4 5 9 11	HVSP	SY036UUEEXJ	SP	P6	200	28	2.5P	①-25
For stainless steels	2 3 4 9	SU-SP	SUMS036U	SP	P4	155	28	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMT036U	PO	P5	155	28	5P	③-62
For deep hole use	1 2 3 4 9	SU-S-SP	SSMS036U-SU	SP	P4	155	28	2.5P	①-119
For deep hole use	2 3 4 13	S-SP	SSMS036U	SP	P4	155	28	2.5P	①-125
	1 2 3 4	S-PO	PSMT036U	PO	P5	155	28	5P	③-74
Nut taps	1 2	NT	NH2036U	HT	II b	330	28	26P	⑦-28

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ M36 × 3									
Standard	2 3	SP	SPMR036S	SP	P3	155	28	2.5P	①-43
		PO	POMS036S	PO	P4			5P	③-16
	1 2 3	HT	TNMT036S5	HT	P5	155	28	5P	④-15
			TNMT036S1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMT036S5-L	HT	P5	155	28	5P	④-70
			TNMT036S1-L					1.5P	④-70
Oxidizing	1 2 3	PO OX	POMS036SX	PO	P4	155	28	5P	③-35
Long	1 2 3	LS-HT	L25036S5-R	HT	P3	250	28	5P	④-80
			L25036S1-R					1.5P	④-80
For steels	1 2 3 4 5 9 11	HVSP	SY036SUEEXJ	SP	P6	200	28	2.5P	①-25
For deep hole use	2 3 4 13	S-SP	SSMR036S	SP	P3	155	28	2.5P	①-125
Taps ／ M36 × 2									
Standard	2 3	SP	SPMR036Q	SP	P3	155	28	2.5P	①-43
		PO	POMS036Q	PO	P4			5P	③-16
	1 2 3	HT	TNMS036Q5	HT	P4	155	28	5P	④-15
			TNMS036Q1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMS036Q5-L	HT	P4	155	28	5P	④-70
			TNMS036Q1-L					1.5P	④-70
Long	1 2 3	LS-HT	L25036Q5-R	HT	P3	250	28	5P	④-80
			L25036Q1-R					1.5P	④-80
For deep hole use	2 3 4 13	S-SP	SSMR036Q	SP	P3	155	28	2.5P	①-125
Taps ／ M36 × 1.5									
Standard	2 3	SP	SPMR036O	SP	P3	155	28	2.5P	①-43
		PO	POMS036O	PO	P4			5P	③-16
	1 2 3	HT	TNMS036O5	HT	P4	155	28	5P	④-15
			TNMS036O1					1.5P	④-15
For left hand threads	1 2 3	HT LH	TNMS036O5-L	HT	P4	155	28	5P	④-70
			TNMS036O1-L					1.5P	④-70
Long	1 2 3	LS-HT	L25036O5-R	HT	P3	250	28	5P	④-80
			L25036O1-R					1.5P	④-80
For deep hole use	2 3 4 13	S-SP	SSMR036O	SP	P3	155	28	2.5P	①-125
Taps ／ M36 × 1									
Standard	2 3	SP	SPMQ036M	SP	P2	155	28	2.5P	①-43
	1 2 3	HT	TNMR036M5	HT	P3	155	28	5P	④-15
			TNMR036M1					1.5P	④-15
Taps ／ M37 × 1.5									
Standard	1 2 3	HT	TNMS037O5	HT	P4	165	30	5P	④-15
			TNMS037O1					1.5P	④-15
Taps ／ M38 × 3									
Standard	2 3	SP	SPMR038S	SP	P3	165	30	2.5P	①-43
	1 2 3	HT	TNMT038S5	HT	P5	165	30	5P	④-16
			TNMT038S1					1.5P	④-16

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M38 × 2									
Standard	2 3	SP	SPMR038Q	SP	P3	165	30	2.5P	①-43
		PO	POMS038Q	PO	P4			5P	③-16
	1 2 3	HT	TNMS038Q5	HT	P4	165	30	5P	④-16
			TNMS038Q1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMS038Q5-L	HT	P4	165	30	5P	④-70
			TNMS038Q1-L					1.5P	④-70
Taps ／ M38 × 1.5									
Standard	2 3	SP	SPMR038O	SP	P3	165	30	2.5P	①-43
		PO	POMS038O	PO	P4			5P	③-16
	1 2 3	HT	TNMS038O5	HT	P4	165	30	5P	④-16
			TNMS038O1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMS038O5-L	HT	P4	165	30	5P	④-70
			TNMS038O1-L					1.5P	④-70
Taps ／ M38 × 1									
Standard	1 2 3	HT	TNMR038M5	HT	P3	165	30	5P	④-16
			TNMR038M1					1.5P	④-16
Taps ／ M39 × 4									
Standard	2 3	SP	SPMS039U	SP	P4	165	30	2.5P	①-43
		PO	POMT039U	PO	P5			5P	③-16
	1 2 3	HT	TNMT039U5	HT	P5	165	30	5P	④-16
			TNMT039U1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMT039U5-L	HT	P5	165	30	5P	④-70
			TNMT039U1-L					1.5P	④-70
Long	1 2 3	LS-HT	L30039U5-S	HT	P4	300	30	5P	④-80
			L30039U1-S					1.5P	④-80
For steels	1 2 3 4 5 9 11	HVSP	SY039UUEEXJ	SP	P6	200	30	2.5P	①-25
For stainless steels	2 3 4 9	SU-SP	SUMS039U	SP	P4	165	30	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMT039U	PO	P5	165	30	5P	③-62
For deep hole use	2 3 4 13	S-SP	SSMS039U	SP	P4	165	30	2.5P	①-125
	1 2 3 4	S-PO	PSMT039U	PO	P5	165	30	5P	③-74
Nut taps	1 2	NT	NH2039U	HT	II b	340	30	26P	⑦-28
Taps ／ M39 × 3									
Standard	2 3	SP	SPMR039S	SP	P3	165	30	2.5P	①-43
		PO	POMS039S	PO	P4			5P	③-16
	1 2 3	HT	TNMT039S5	HT	P5	165	30	5P	④-16
			TNMT039S1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMT039S5-L	HT	P5	165	30	5P	④-70
			TNMT039S1-L					1.5P	④-70
Long	1 2 3	LS-HT	L25039S5-R	HT	P3	250	30	5P	④-80
			L25039S1-R					1.5P	④-80
For steels	1 2 3 4 5 9 11	HVSP	SY039SUEEXJ	SP	P6	200	30	2.5P	①-25

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M39 × 2									
Standard	2 3	SP	SPMR039Q	SP	P3	165	30	2.5P	①-43
		PO	POMS039Q	PO	P4			5P	③-16
	1 2 3	HT	TNMT039Q5	HT	P5	165	30	5P	④-16
			TNMT039Q1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMT039Q5-L	HT	P5	165	30	5P	④-70
			TNMT039Q1-L					1.5P	④-70
Long	1 2 3	LS-HT	L25039Q5-R	HT	P3	250	30	5P	④-80
			L25039Q1-R					1.5P	④-80
Taps ／ M39 × 1.5									
Standard	2 3	SP	SPMR039O	SP	P3	165	30	2.5P	①-43
		PO	POMS039O	PO	P4			5P	③-16
	1 2 3	HT	TNMS039O5	HT	P4	165	30	5P	④-16
			TNMS039O1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMS039O5-L	HT	P4	165	30	5P	④-70
			TNMS039O1-L					1.5P	④-70
Long	1 2 3	LS-HT	L25039O5-R	HT	P3	250	30	5P	④-80
			L25039O1-R					1.5P	④-80
Taps ／ M39 × 1									
Standard	1 2 3	HT	TNMR039M5	HT	P3	165	30	5P	④-16
			TNMR039M1					1.5P	④-16
Taps ／ M40 × 4									
Standard	1 2 3	HT	TNMT040U5	HT	P5	175	32	5P	④-16
			TNMT040U1					1.5P	④-16
Taps ／ M40 × 3									
Standard	2 3	SP	SPMR040S	SP	P3	175	32	2.5P	①-43
		PO	POMS040S	PO	P4			5P	③-16
	1 2 3	HT	TNMT040S5	HT	P5	175	32	5P	④-16
			TNMT040S1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMT040S5-L	HT	P5	175	32	5P	④-70
			TNMT040S1-L					1.5P	④-70
Long	1 2 3	LS-HT	L25040S5-R	HT	P3	250	30	5P	④-80
			L30040S5-R			300			④-80
			L25040S1-R			250		1.5P	④-80
			L30040S1-R			300			④-80
Taps ／ M40 × 2									
Standard	2 3	SP	SPMR040Q	SP	P3	175	32	2.5P	①-43
		PO	POMS040Q	PO	P4			5P	③-16
	1 2 3	HT	TNMS040Q5	HT	P4	175	32	5P	④-16
			TNMS040Q1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMS040Q5-L	HT	P4	175	32	5P	④-70
			TNMS040Q1-L					1.5P	④-70
Long	1 2 3	LS-HT	L25040Q5-R	HT	P3	250	30	5P	④-80
			L30040Q5-R			300			④-80
			L25040Q1-R			250		1.5P	④-80
			L30040Q1-R			300			④-80

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ M40 × 1.5									
Standard	2 3	SP	SPMR040O	SP	P3	175	32	2.5P	①-43
		PO	POMS040O	PO	P4			5P	③-16
	1 2 3	HT	TNMS040O5	HT	P4	175	32	5P	④-16
			TNMS040O1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMS040O5-L	HT	P4	175	32	5P	④-71
			TNMS040O1-L					1.5P	④-71
Long	1 2 3	LS-HT	L25040O5-R	HT	P3	250	30	5P	④-80
			L30040O5-R			300			④-80
			L25040O1-R			250		1.5P	④-80
			L30040O1-R			300			④-80
Taps ／ M40 × 1									
Standard	1 2 3	HT	TNMR040M5	HT	P3	175	32	5P	④-16
			TNMR040M1					1.5P	④-16
Taps ／ M42 × 4.5									
Standard	2 3	SP	SPMS042V	SP	P4	175	32	2.5P	①-43
		PO	POMT042V	PO	P5			5P	③-16
	1 2 3	HT	TNMT042V5	HT	P5	175	32	5P	④-16
			TNMT042V1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMT042V5-L	HT	P5	175	32	5P	④-71
			TNMT042V1-L					1.5P	④-71
Oxidizing	1 2 3	PO OX	POMT042VX	PO	P5	175	32	5P	③-35
Long	1 2 3	LS-HT	L25042V5-S	HT	P4	250	32	5P	④-80
			L30042V5-S			300			④-80
			L25042V1-S			250		1.5P	④-80
			L30042V1-S			300			④-80
For steels	1 2 3 4 5 9 11	HVSP	SY042VUEEXJ	SP	P6	200	32	2.5P	①-25
For stainless steels	2 3 4 9	SU-SP	SUMS042V	SP	P4	175	32	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMT042V	PO	P5	175	32	5P	③-62
For deep hole use	1 2 3 4 9	SU-S-SP	SSMS042V-SU	SP	P4	175	32	2.5P	①-119
For deep hole use	2 3 4 13	S-SP	SSMS042V	SP	P4	175	32	2.5P	①-125
	1 2 3 4	S-PO	PSMT042V	PO	P5	175	32	5P	③-74
Nut taps	1 2	NT	NH2042V	HT	II b	360	32	25P	⑦-28
Taps ／ M42 × 4									
Standard	1 2 3	HT	TNMU042U5	HT	P6	175	32	5P	④-16
			TNMU042U1					1.5P	④-16

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ M42 × 3									
Standard	2 3	SP	SPMR042S	SP	P3	175	32	2.5P	①-43
		PO	POMS042S	PO	P4			5P	③-16
	1 2 3	HT	TNMT042S5	HT	P5	175	32	5P	④-16
			TNMT042S1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMT042S5-L	HT	P5	175	32	5P	④-71
			TNMT042S1-L					1.5P	④-71
Long	1 2 3	LS-HT	L25042S5-R	HT	P3	250	32	5P	④-80
			L30042S5-R			300			④-80
			L25042S1-R			250		1.5P	④-80
			L30042S1-R			300			④-80
For steels	1 2 3 4 5 9 11	HVSP	SY042SUEEXJ	SP	P6	200	32	2.5P	①-25
Taps ／ M42 × 2									
Standard	2 3	SP	SPMR042Q	SP	P3	175	32	2.5P	①-43
		PO	POMS042Q	PO	P4			5P	③-17
	1 2 3	HT	TNMS042Q5	HT	P4	175	32	5P	④-16
			TNMS042Q1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMS042Q5-L	HT	P4	175	32	5P	④-71
			TNMS042Q1-L					1.5P	④-71
Long	1 2 3	LS-HT	L25042Q5-R	HT	P3	250	32	5P	④-80
			L30042Q5-R			300			④-80
			L25042Q1-R			250		1.5P	④-80
			L30042Q1-R			300			④-80
Taps ／ M42 × 1.5									
Standard	2 3	SP	SPMR042O	SP	P3	175	32	2.5P	①-43
		PO	POMS042O	PO	P4			5P	③-17
	1 2 3	HT	TNMS042O5	HT	P4	175	32	5P	④-16
			TNMS042O1					1.5P	④-16
For left hand threads	1 2 3	HT LH	TNMS042O5-L	HT	P4	175	32	5P	④-71
			TNMS042O1-L					1.5P	④-71
Long	1 2 3	LS-HT	L25042O5-R	HT	P3	250	32	5P	④-80
			L30042O5-R			300			④-80
			L25042O1-R			250		1.5P	④-80
			L30042O1-R			300			④-80
For stainless steels	2 3 4 9	SU-SP	SUMR042O	SP	P3	175	32	2.5P	①-102
Taps ／ M42 × 1									
Standard	1 2 3	HT	TNMR042M5	HT	P3	175	32	5P	④-16
			TNMR042M1					1.5P	④-16
Taps ／ M44 × 4									
Standard	1 2 3	HT	TNMU044U5	HT	P6	180	35	5P	④-16
			TNMU044U1					1.5P	④-16
Taps ／ M44 × 3									
Standard	1 2 3	HT	TNMT044S5	HT	P5	180	35	5P	④-16
			TNMT044S1					1.5P	④-16

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M44 × 2									
Standard	1 2 3	HT	TNMS044Q5	HT	P4	180	35	5P	④-16
			TNMS044Q1					1.5P	④-16
Taps ／ M44 × 1.5									
Standard	1 2 3	HT	TNMS044O5	HT	P4	180	35	5P	④-16
			TNMS044O1					1.5P	④-16
Taps ／ M44 × 1									
Standard	1 2 3	HT	TNMR044M5	HT	P3	180	35	5P	④-16
			TNMR044M1					1.5P	④-16
Taps ／ M45 × 4.5									
Standard	2 3	SP	SPMS045V	SP	P4	180	35	2.5P	①-43
		PO	POMT045V	PO	P5			5P	③-17
	1 2 3	HT	TNMT045V5	HT	P5	180	35	5P	④-17
			TNMT045V1					1.5P	④-17
For left hand threads	1 2 3	HT LH	TNMT045V5-L	HT	P5	180	35	5P	④-71
			TNMT045V1-L					1.5P	④-71
Long	1 2 3	LS-HT	L30045V5-S	HT	P4	300	35	5P	④-81
			L30045V1-S					1.5P	④-81
For stainless steels	2 3 4 9	SU-SP	SUMS045V	SP	P4	180	35	2.5P	①-102
For deep hole use	2 3 4 13	S-SP	SSMS045V	SP	P4	180	35	2.5P	①-125
Taps ／ M45 × 4									
Standard	1 2 3	HT	TNMU045U5	HT	P6	180	35	5P	④-17
			TNMU045U1					1.5P	④-17
Taps ／ M45 × 3									
Standard	2 3	SP	SPMR045S	SP	P3	180	35	2.5P	①-43
		PO	POMS045S	PO	P4			5P	③-17
	1 2 3	HT	TNMT045S5	HT	P5	180	35	5P	④-17
			TNMT045S1					1.5P	④-17
For left hand threads	1 2 3	HT LH	TNMT045S5-L	HT	P5	180	35	5P	④-71
			TNMT045S1-L					1.5P	④-71
Long	1 2 3	LS-HT	L30045S5-R	HT	P3	300	35	5P	④-81
			L30045S1-R					1.5P	④-81
Taps ／ M45 × 2									
Standard	2 3	SP	SPMR045Q	SP	P3	180	35	2.5P	①-43
		PO	POMS045Q	PO	P4			5P	③-17
	1 2 3	HT	TNMS045Q5	HT	P4	180	35	5P	④-17
			TNMS045Q1					1.5P	④-17
For left hand threads	1 2 3	HT LH	TNMS045Q5-L	HT	P4	180	35	5P	④-71
			TNMS045Q1-L					1.5P	④-71
Long	1 2 3	LS-HT	L30045Q5-R	HT	P3	300	35	5P	④-81
			L30045Q1-R					1.5P	④-81

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M45 × 1.5									
Standard	2 3	SP	SPMR045O	SP	P3	180	35	2.5P	①-43
		PO	POMS045O	PO	P4			5P	③-17
	1 2 3	HT	TNMS045O5	HT	P4	180	35	5P	④-17
			TNMS045O1					1.5P	④-17
For left hand threads	1 2 3	HT LH	TNMS045O5-L	HT	P4	180	35	5P	④-71
			TNMS045O1-L					1.5P	④-71
Long	1 2 3	LS-HT	L30045O5-R	HT	P3	300	35	5P	④-81
			L30045O1-R					1.5P	④-81
Taps ／ M45 × 1									
Standard	1 2 3	HT	TNMR045M5	HT	P3	180	35	5P	④-17
			TNMR045M1					1.5P	④-17
Taps ／ M46 × 4									
Standard	1 2 3	HT	TNMU046U5	HT	P6	185	38	5P	④-17
			TNMU046U1					1.5P	④-17
Taps ／ M46 × 3									
Standard	1 2 3	HT	TNMU046S5	HT	P6	185	38	5P	④-17
			TNMU046S1					1.5P	④-17
Taps ／ M46 × 2									
Standard	1 2 3	HT	TNMS046Q5	HT	P4	185	38	5P	④-17
			TNMS046Q1					1.5P	④-17
Taps ／ M46 × 1.5									
Standard	1 2 3	HT	TNMS046O5	HT	P4	185	38	5P	④-17
			TNMS046O1					1.5P	④-17
Taps ／ M48 × 5									
Standard	2 3	SP	SPMS048W	SP	P4	185	38	2.5P	①-43
		PO	POMT048W	PO	P5			5P	③-17
	1 2 3	HT	TNMT048W5	HT	P5	185	38	5P	④-17
			TNMT048W1					1.5P	④-17
For left hand threads	1 2 3	HT LH	TNMT048W5-L	HT	P5	185	38	5P	④-71
			TNMT048W1-L					1.5P	④-71
Long	1 2 3	LS-HT	L30048W5-S	HT	P4	300	38	5P	④-81
			L30048W1-S					1.5P	④-81
For steels	1 2 3 4 5 9 11	HVSP	SY048WUEEXJ	SP	P6	250	38	2.5P	①-25
For stainless steels	2 3 4 9	SU-SP	SUMS048W	SP	P4	185	38	2.5P	①-102
For deep hole use	2 3 4 13	S-SP	SSMS048W	SP	P4	185	38	2.5P	①-125
Taps ／ M48 × 4									
Standard	2 3	SP	SPMS048U	SP	P4	185	38	2.5P	①-43
	1 2 3	HT	TNMU048U5	HT	P6	185	38	5P	④-17
			TNMU048U1					1.5P	④-17

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ M48 × 3									
Standard	2 3	SP	SPMR048S	SP	P3	185	38	2.5P	①-43
		PO	POMS048S	PO	P4			5P	③-17
	1 2 3	HT	TNMU048S5	HT	P6	185	38	5P	④-17
			TNMU048S1					1.5P	④-17
For left hand threads	1 2 3	HT LH	TNMU048S5-L	HT	P6	185	38	5P	④-71
			TNMU048S1-L					1.5P	④-71
Long	1 2 3	LS-HT	L30048S5-R	HT	P3	300	38	5P	④-81
			L30048S1-R					1.5P	④-81
For steels	1 2 3 4 5 9 11	HVSP	SY048SUEEXJ	SP	P6	250	38	2.5P	①-25
Taps ／ M48 × 2									
Standard	2 3	SP	SPMR048Q	SP	P3	185	38	2.5P	①-43
		PO	POMS048Q	PO	P4			5P	③-17
	1 2 3	HT	TNMS048Q5	HT	P4	185	38	5P	④-17
			TNMS048Q1					1.5P	④-17
For left hand threads	1 2 3	HT LH	TNMS048Q5-L	HT	P4	185	38	5P	④-71
			TNMS048Q1-L					1.5P	④-71
Long	1 2 3	LS-HT	L30048Q5-R	HT	P3	300	38	5P	④-81
			L30048Q1-R					1.5P	④-81
Taps ／ M48 × 1.5									
Standard	2 3	SP	SPMR048O	SP	P3	185	38	2.5P	①-43
		PO	POMS048O	PO	P4			5P	③-17
	1 2 3	HT	TNMS048O5	HT	P4	185	38	5P	④-17
			TNMS048O1					1.5P	④-17
For left hand threads	1 2 3	HT LH	TNMS048O5-L	HT	P4	185	38	5P	④-71
			TNMS048O1-L					1.5P	④-71
Long	1 2 3	LS-HT	L30048O5-R	HT	P3	300	38	5P	④-81
			L30048O1-R					1.5P	④-81
Taps ／ M48 × 1									
Standard	1 2 3	HT	TNMR048M5	HT	P3	185	38	5P	④-17
			TNMR048M1					1.5P	④-17

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / M25 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM025SDNEBC	⑩-5
Dies / M25 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM025QDNEBC	⑩-5
Dies / M25 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM025ODNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYM025ODNEBC	⑩-18
Dies / M25 × 1.25									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM025NDNEBC	⑩-5
Dies / M25 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYM025MDNEBC	⑩-5
Dies / M26 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR026QDNEBC	⑩-5
Dies / M26 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR026ODNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	63	20	2.5P	GYR026ODNEBC	⑩-18
Dies / M26 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR026MDNEBC	⑩-5
Dies / M27 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR027SDNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	63	20	2.5P	GYR027SDNEBC	⑩-18
Dies / M27 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR027QDNEBC	⑩-5
Dies / M27 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR027ODNEBC	⑩-5
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	63	20	2.5P	GYR027ODNEBC	⑩-18
Dies / M27 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR027MDNEBC	⑩-5
Dies / M28 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR028QDNEBC	⑩-6
Dies / M28 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR028ODNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	63	20	2.5P	GYR028ODNEBC	⑩-18
Dies / M28 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR028MDNEBC	⑩-6

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / M30 × 3.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR030TDNEBC	⑩-6
					75	25		TYU030TDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	63	20	2.5P	GYR030TDNEBC	⑩-18
					75	25		GYU030TDNEBC	⑩-18
Dies / M30 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR030SDNEBC	⑩-6
					75	25		TYU030SDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	63	20	2.5P	GYR030SDNEBC	⑩-18
					75	25		GYU030SDNEBC	⑩-18
Dies / M30 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR030QDNEBC	⑩-6
					75	25		TYU030QDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	63	20	2.5P	GYR030QDNEBC	⑩-18
					75	25		GYU030QDNEBC	⑩-18
Dies / M30 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR030ODNEBC	⑩-6
					75	25		TYU030ODNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	63	20	2.5P	GYR030ODNEBC	⑩-18
					75	25		GYU030ODNEBC	⑩-18
Dies / M30 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR030MDNEBC	⑩-6
					75	25		TYU030MDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU030MDNEBC	⑩-18
Dies / M30 × 0.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU030GDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU030GDNEBC	⑩-18
Dies / M32 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR032SDNEBC	⑩-6
					75	25		TYU032SDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU032SDNEBC	⑩-18
Dies / M32 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR032QDNEBC	⑩-6
					75	25		TYU032QDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU032QDNEBC	⑩-18
Dies / M32 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR032ODNEBC	⑩-6
					75	25		TYU032ODNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU032ODNEBC	⑩-18

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M32 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR032MDNEBC	⑩-6
					75	25		TYU032MDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU032MDNEBC	⑩-18
Dies ／ M32 × 0.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU032GDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU032GDNEBC	⑩-18
Dies ／ M33 × 3.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR033TDNEBC	⑩-6
					75	25		TYU033TDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU033TDNEBC	⑩-18
Dies ／ M33 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR033SDNEBC	⑩-6
					75	25		TYU033SDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU033SDNEBC	⑩-18
Dies ／ M33 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR033QDNEBC	⑩-6
					75	25		TYU033QDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU033QDNEBC	⑩-18
Dies ／ M33 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR033ODNEBC	⑩-6
					75	25		TYU033ODNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU033ODNEBC	⑩-18
Dies ／ M33 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYR033MDNEBC	⑩-6
					75	25		TYU033MDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU033MDNEBC	⑩-18
Dies ／ M34 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU034SDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU034SDNEBC	⑩-18
Dies ／ M34 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU034QDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU034QDNEBC	⑩-18
Dies ／ M34 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU034ODNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU034ODNEBC	⑩-18
Dies ／ M34 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU034MDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU034MDNEBC	⑩-18

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M35 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU035SDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU035SDNEBC	⑩-18
Dies ／ M35 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU035QDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU035QDNEBC	⑩-18
Dies ／ M35 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU035ODNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU035ODNEBC	⑩-18
Dies ／ M35 × 1.25									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU035NDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU035NDNEBC	⑩-18
Dies ／ M35 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU035MDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU035MDNEBC	⑩-18
Dies ／ M36 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU036UDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU036UDNEBC	⑩-18
Dies ／ M36 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU036SDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU036SDNEBC	⑩-18
Dies ／ M36 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU036QDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU036QDNEBC	⑩-18
Dies ／ M36 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU036ODNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU036ODNEBC	⑩-18
Dies ／ M36 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU036MDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU036MDNEBC	⑩-18
Dies ／ M36 × 0.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU036GDNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU036GDNEBC	⑩-18
Dies ／ M37 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU037ODNEBC	⑩-6
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU037ODNEBC	⑩-19

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / M37 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU037MDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU037MDNEBC	⑩-19
Dies / M38 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU038UDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU038UDNEBC	⑩-19
Dies / M38 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU038SDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU038SDNEBC	⑩-19
Dies / M38 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU038QDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU038QDNEBC	⑩-19
Dies / M38 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU038ODNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU038ODNEBC	⑩-19
Dies / M38 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU038MDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU038MDNEBC	⑩-19
Dies / M39 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU039UDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU039UDNEBC	⑩-19
Dies / M39 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU039SDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU039SDNEBC	⑩-19
Dies / M39 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU039QDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU039QDNEBC	⑩-19
Dies / M39 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU039ODNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU039ODNEBC	⑩-19
Dies / M39 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU039MDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU039MDNEBC	⑩-19
Dies / M40 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU040UDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU040UDNEBC	⑩-19
Dies / M40 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU040SDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU040SDNEBC	⑩-19
Dies / M40 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU040QDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU040QDNEBC	⑩-19
Dies / M40 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU040ODNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU040ODNEBC	⑩-19
Dies / M40 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU040MDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU040MDNEBC	⑩-19
Dies / M42 × 4.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU042VDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU042VDNEBC	⑩-19
Dies / M42 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU042UDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU042UDNEBC	⑩-19
Dies / M42 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU042SDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU042SDNEBC	⑩-19
Dies / M42 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU042QDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU042QDNEBC	⑩-19
Dies / M42 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU042ODNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU042ODNEBC	⑩-19
Dies / M42 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU042MDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU042MDNEBC	⑩-19
Dies / M44 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU044QDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU044QDNEBC	⑩-19
Dies / M44 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU044ODNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU044ODNEBC	⑩-19
Dies / M45 × 4.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU045VDNEBC	⑩-7
					100	30		TYW045VDNEBC	⑩-7
					105			TYY045VDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU045VDNEBC	⑩-19
					100	30		GYW045VDNEBC	⑩-19
					105			GYY045VDNEBC	⑩-19

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M45 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU045UDNEBC	⑩-7
					100	30		TYW045UDNEBC	⑩-7
					105			TYY045UDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU045UDNEBC	⑩-19
					100	30		GYW045UDNEBC	⑩-19
					105			GYY045UDNEBC	⑩-19
Dies ／ M45 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU045SDNEBC	⑩-7
					100	30		TYW045SDNEBC	⑩-7
					105			TYY045SDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU045SDNEBC	⑩-19
					100	30		GYW045SDNEBC	⑩-19
					105			GYY045SDNEBC	⑩-19
Dies ／ M45 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU045QDNEBC	⑩-7
					100	30		TYW045QDNEBC	⑩-7
					105			TYY045QDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU045QDNEBC	⑩-19
					100	30		GYW045QDNEBC	⑩-19
					105			GYY045QDNEBC	⑩-19
Dies ／ M45 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU045ODNEBC	⑩-7
					100	30		TYW045ODNEBC	⑩-7
					105			TYY045ODNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU045ODNEBC	⑩-19
					100	30		GYW045ODNEBC	⑩-19
					105			GYY045ODNEBC	⑩-19
Dies ／ M45 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU045MDNEBC	⑩-7
					100	30		TYW045MDNEBC	⑩-7
					105			TYY045MDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU045MDNEBC	⑩-19
					100	30		GYW045MDNEBC	⑩-19
					105			GYY045MDNEBC	⑩-19
Dies ／ M46 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU046UDNEBC	⑩-7
					100	30		TYW046UDNEBC	⑩-7
					105			TYY046UDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU046UDNEBC	⑩-19
					100	30		GYW046UDNEBC	⑩-19
					105			GYY046UDNEBC	⑩-19

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M46 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU046SDNEBC	⑩-7
					100	30		TYW046SDNEBC	⑩-7
					105			TYY046SDNEBC	⑩-7
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU046SDNEBC	⑩-19
					100	30		GYW046SDNEBC	⑩-19
					105			GYY046SDNEBC	⑩-19
Dies ／ M46 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU046QDNEBC	⑩-7
					100	30		TYW046QDNEBC	⑩-8
					105			TYY046QDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU046QDNEBC	⑩-19
					100	30		GYW046QDNEBC	⑩-20
					105			GYY046QDNEBC	⑩-20
Dies ／ M46 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU046ODNEBC	⑩-8
					100	30		TYW046ODNEBC	⑩-8
					105			TYY046ODNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU046ODNEBC	⑩-20
					100	30		GYW046ODNEBC	⑩-20
					105			GYY046ODNEBC	⑩-20
Dies ／ M48 × 5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU048WDNEBC	⑩-8
					100	36		TYW048WDNEBC	⑩-8
					105			TYY048WDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU048WDNEBC	⑩-20
					100	36		GYW048WDNEBC	⑩-20
					105			GYY048WDNEBC	⑩-20
Dies ／ M48 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU048UDNEBC	⑩-8
					100	30		TYW048UDNEBC	⑩-8
					105			TYY048UDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU048UDNEBC	⑩-20
					100	30		GYW048UDNEBC	⑩-20
					105			GYY048UDNEBC	⑩-20
Dies ／ M48 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU048SDNEBC	⑩-8
					100	30		TYW048SDNEBC	⑩-8
					105			TYY048SDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU048SDNEBC	⑩-20
					100	30		GYW048SDNEBC	⑩-20
					105			GYY048SDNEBC	⑩-20

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M48 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU048QDNEBC	⑩-8
					100	30		TYW048QDNEBC	⑩-8
					105			TYY048QDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU048QDNEBC	⑩-20
					100	30		GYW048QDNEBC	⑩-20
					105			GYY048QDNEBC	⑩-20
Dies ／ M48 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU048ODNEBC	⑩-8
					100	30		TYW048ODNEBC	⑩-8
					105			TYY048ODNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU048ODNEBC	⑩-20
					100	30		GYW048ODNEBC	⑩-20
					105			GYY048ODNEBC	⑩-20
Dies ／ M48 × 1.25									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU048NDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU048NDNEBC	⑩-20
Dies ／ M48 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU048MDNEBC	⑩-8
					100	30		TYW048MDNEBC	⑩-8
					105			TYY048MDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU048MDNEBC	⑩-20
					100	30		GYW048MDNEBC	⑩-20
					105			GYY048MDNEBC	⑩-20

Think threads with YAMAWA

Codes shown in (　) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Taps ／ M50 × 5									
Standard	1 2 3	HT	TH2050W5	HT	II	195	40	5P	④-17
			TH2050W1					1.5P	④-17
Taps ／ M50 × 4									
Standard	1 2 3	HT	TH2050U5	HT	II	180	40	5P	④-17
			TH2050U1					1.5P	④-17
Taps ／ M50 × 3									
Standard	1 2 3	HT	TH2050S5	HT	II	180	40	5P	④-17
			TH2050S1					1.5P	④-17
For left hand threads	1 2 3	HT LH	TH2050S5-L	HT	II	180	40	5P	④-71
			TH2050S1-L					1.5P	④-71
Taps ／ M50 × 2									
Standard	1 2 3	HT	TH2050Q5	HT	II	130	40	5P	④-17
			TH2050Q1					1.5P	④-17
For left hand threads	1 2 3	HT LH	TH2050Q5-L	HT	II	130	40	5P	④-71
			TH2050Q1-L					1.5P	④-71
Taps ／ M50 × 1.5									
Standard	2 3	PO	POS050O	PO	P4	145	40	5P	③-17
	1 2 3	HT	TH2050O5	HT	II	130	40	5P	④-17
			TH2050O1					1.5P	④-17
For left hand threads	1 2 3	HT LH	TH2050O5-L	HT	II	130	40	5P	④-71
			TH2050O1-L					1.5P	④-71
Taps ／ M50 × 1									
Standard	1 2 3	HT	TH2050M5	HT	II	130	40	5P	④-17
			TH2050M1					1.5P	④-17
Taps ／ M52 × 5									
Standard	2 3	SP	SPS052W	SP	P4	195	42	2.5P	①-43
	1 2 3	HT	TH2052W5	HT	II	195	42	5P	④-17
			TH2052W1					1.5P	④-17
Taps ／ M52 × 4									
Standard	1 2 3	HT	TH2052U5	HT	II	180	42	5P	④-17
			TH2052U1					1.5P	④-17
Taps ／ M52 × 3									
Standard	1 2 3	HT	TH2052S5	HT	II	180	42	5P	④-17
			TH2052S1					1.5P	④-17
Taps ／ M52 × 2									
Standard	1 2 3	HT	TH2052Q5	HT	II	130	42	5P	④-18
			TH2052Q1					1.5P	④-18
Taps ／ M52 × 1.5									
Standard	1 2 3	HT	TH2052O5	HT	II	130	42	5P	④-18
			TH2052O1					1.5P	④-18

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Taps ／ M55 × 4									
Standard	1 2 3	HT	TH2055U5	HT	II	180	44	5P	④-18
			TH2055U1					1.5P	④-18
Taps ／ M55 × 3									
Standard	1 2 3	HT	TH2055S5	HT	II	180	44	5P	④-18
			TH2055S1					1.5P	④-18
Taps ／ M55 × 2									
Standard	1 2 3	HT	TH2055Q5	HT	II	135	44	5P	④-18
			TH2055Q1					1.5P	④-18
Taps ／ M55 × 1.5									
Standard	1 2 3	HT	TH2055O5	HT	II	135	44	5P	④-18
			TH2055O1					1.5P	④-18
Taps ／ M56 × 5.5									
Standard	2 3	SP	SPS056X	SP	P4	205	44	2.5P	①-43
	1 2 3	HT	TH2056X5	HT	II	205	44	5P	④-18
			TH2056X1					1.5P	④-18
Taps ／ M56 × 4									
Standard	1 2 3	HT	TH2056U5	HT	II	180	44	5P	④-18
			TH2056U1					1.5P	④-18
Taps ／ M56 × 3									
Standard	1 2 3	HT	TH2056S5	HT	II	180	44	5P	④-18
			TH2056S1					1.5P	④-18
Taps ／ M56 × 2									
Standard	1 2 3	HT	TH2056Q5	HT	II	135	44	5P	④-18
			TH2056Q1					1.5P	④-18
Taps ／ M56 × 1.5									
Standard	1 2 3	HT	TH2056O5	HT	II	135	44	5P	④-18
			TH2056O1					1.5P	④-18
Taps ／ M58 × 4									
Standard	1 2 3	HT	TH2058U5	HT	II	180	46	5P	④-18
			TH2058U1					1.5P	④-18
Taps ／ M58 × 3									
Standard	1 2 3	HT	TH2058S5	HT	II	180	46	5P	④-18
			TH2058S1					1.5P	④-18
Taps ／ M58 × 2									
Standard	1 2 3	HT	TH2058Q5	HT	II	135	46	5P	④-18
			TH2058Q1					1.5P	④-18

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M58 × 1.5									
Standard	1 2 3	HT	TH2058O5	HT	II	135	46	5P	④-18
			TH2058O1					1.5P	④-18
Taps ／ M60 × 5.5									
Standard	2 3	SP	SPS060X	SP	P4	215	46	2.5P	①-43
	1 2 3	HT	TH2060X5	HT	II	215	46	5P	④-18
			TH2060X1					1.5P	④-18
Taps ／ M60 × 4									
Standard	1 2 3	HT	TH2060U5	HT	II	185	46	5P	④-18
			TH2060U1					1.5P	④-18
Taps ／ M60 × 3									
Standard	1 2 3	HT	TH2060S5	HT	II	185	46	5P	④-18
			TH2060S1					1.5P	④-18
Taps ／ M60 × 2									
Standard	1 2 3	HT	TH2060Q5	HT	II	140	46	5P	④-18
			TH2060Q1					1.5P	④-18
Taps ／ M60 × 1.5									
Standard	1 2 3	HT	TH2060O5	HT	II	140	46	5P	④-18
			TH2060O1					1.5P	④-18
Taps ／ M62 × 4									
Standard	1 2 3	HT	TH2062U5	HT	II	185	48	5P	④-18
			TH2062U1					1.5P	④-18
Taps ／ M62 × 3									
Standard	1 2 3	HT	TH2062S5	HT	II	185	48	5P	④-18
			TH2062S1					1.5P	④-18
Taps ／ M62 × 2									
Standard	1 2 3	HT	TH2062Q5	HT	II	140	48	5P	④-18
			TH2062Q1					1.5P	④-18
Taps ／ M62 × 1.5									
Standard	1 2 3	HT	TH2062O5	HT	II	140	48	5P	④-18
			TH2062O1					1.5P	④-18
Taps ／ M64 × 6									
Standard	2 3	SP	SPS064Y	SP	P4	225	48	2.5P	①-43
	1 2 3	HT	TH2064Y5	HT	II	225	48	5P	④-18
			TH2064Y1					1.5P	④-18
Taps ／ M64 × 4									
Standard	1 2 3	HT	TH2064U5	HT	II	185	48	5P	④-19
			TH2064U1					1.5P	④-19

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M64 × 3									
Standard	1 2 3	HT	TH2064S5	HT	II	185	48	5P	④-19
			TH2064S1					1.5P	④-19
Taps ／ M64 × 2									
Standard	1 2 3	HT	TH2064Q5	HT	II	140	48	5P	④-19
			TH2064Q1					1.5P	④-19
Taps ／ M64 × 1.5									
Standard	1 2 3	HT	TH2064O5	HT	II	140	48	5P	④-19
			TH2064O1					1.5P	④-19
Taps ／ M65 × 6									
Standard	1 2 3	HT	TH2065Y5	HT	II	225	50	5P	④-19
			TH2065Y1					1.5P	④-19
Taps ／ M65 × 4									
Standard	1 2 3	HT	TH2065U5	HT	II	185	50	5P	④-19
			TH2065U1					1.5P	④-19
Taps ／ M65 × 3									
Standard	1 2 3	HT	TH2065S5	HT	II	185	50	5P	④-19
			TH2065S1					1.5P	④-19
Taps ／ M65 × 2									
Standard	1 2 3	HT	TH2065Q5	HT	II	140	50	5P	④-19
			TH2065Q1					1.5P	④-19
Taps ／ M65 × 1.5									
Standard	1 2 3	HT	TH2065O5	HT	II	140	50	5P	④-19
			TH2065O1					1.5P	④-19
Taps ／ M68 × 6									
Standard	1 2 3	HT	TH2068Y5	HT	II	235	52	5P	④-19
			TH2068Y1					1.5P	④-19
Taps ／ M68 × 4									
Standard	1 2 3	HT	TH2068U5	HT	II	190	52	5P	④-19
			TH2068U1					1.5P	④-19
Taps ／ M68 × 3									
Standard	1 2 3	HT	TH2068S5	HT	II	190	52	5P	④-19
			TH2068S1					1.5P	④-19
Taps ／ M68 × 2									
Standard	1 2 3	HT	TH2068Q5	HT	II	140	52	5P	④-19
			TH2068Q1					1.5P	④-19
Taps ／ M68 × 1.5									
Standard	1 2 3	HT	TH2068O5	HT	II	140	52	5P	④-19
			TH2068O1					1.5P	④-19

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Taps ／ M70 × 6									
Standard	1 2 3	HT	TH2070Y5	HT	II	240	55	5P	④-19
			TH2070Y1					1.5P	④-19
Taps ／ M70 × 4									
Standard	1 2 3	HT	TH2070U5	HT	II	190	55	5P	④-19
			TH2070U1					1.5P	④-19
Taps ／ M70 × 3									
Standard	1 2 3	HT	TH2070S5	HT	II	190	55	5P	④-19
			TH2070S1					1.5P	④-19
Taps ／ M70 × 2									
Standard	1 2 3	HT	TH2070Q5	HT	II	140	55	5P	④-19
			TH2070Q1					1.5P	④-19
Taps ／ M70 × 1.5									
Standard	1 2 3	HT	TH2070O5	HT	II	140	55	5P	④-19
			TH2070O1					1.5P	④-19
Taps ／ M72 × 6									
Standard	1 2 3	HT	TH2072Y5	HT	II	240	55	5P	④-19
			TH2072Y1					1.5P	④-19
Taps ／ M72 × 4									
Standard	1 2 3	HT	TH2072U5	HT	II	190	55	5P	④-19
			TH2072U1					1.5P	④-19
Taps ／ M72 × 3									
Standard	1 2 3	HT	TH2072S5	HT	II	190	55	5P	④-19
			TH2072S1					1.5P	④-19
Taps ／ M72 × 2									
Standard	1 2 3	HT	TH2072Q5	HT	II	140	55	5P	④-19
			TH2072Q1					1.5P	④-19
Taps ／ M72 × 1.5									
Standard	1 2 3	HT	TH2072O5	HT	II	140	55	5P	④-19
			TH2072O1					1.5P	④-19
Taps ／ M75 × 6									
Standard	1 2 3	HT	TH2075Y5	HT	II	240	58	5P	④-19
			TH2075Y1					1.5P	④-19
Taps ／ M75 × 4									
Standard	1 2 3	HT	TH2075U5	HT	II	190	58	5P	④-20
			TH2075U1					1.5P	④-20
Taps ／ M75 × 3									
Standard	1 2 3	HT	TH2075S5	HT	II	190	58	5P	④-20
			TH2075S1					1.5P	④-20

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Taps ／ M75 × 2									
Standard	1 2 3	HT	TH2075Q5	HT	II	145	58	5P	④-20
			TH2075Q1					1.5P	④-20
Taps ／ M75 × 1.5									
Standard	1 2 3	HT	TH2075O5	HT	II	145	58	5P	④-20
			TH2075O1					1.5P	④-20
Taps ／ M76 × 6									
Standard	1 2 3	HT	TH2076Y5	HT	II	240	58	5P	④-20
			TH2076Y1					1.5P	④-20
Taps ／ M76 × 4									
Standard	1 2 3	HT	TH2076U5	HT	II	190	58	5P	④-20
			TH2076U1					1.5P	④-20
Taps ／ M76 × 3									
Standard	1 2 3	HT	TH2076S5	HT	II	190	58	5P	④-20
			TH2076S1					1.5P	④-20
Taps ／ M76 × 2									
Standard	1 2 3	HT	TH2076Q5	HT	II	145	58	5P	④-20
			TH2076Q1					1.5P	④-20
Taps ／ M76 × 1.5									
Standard	1 2 3	HT	TH2076O5	HT	II	145	58	5P	④-20
			TH2076O1					1.5P	④-20
Taps ／ M78 × 3									
Standard	1 2 3	HT	TH2078S5	HT	II	190	58	5P	④-20
			TH2078S1					1.5P	④-20
Taps ／ M78 × 2									
Standard	1 2 3	HT	TH2078Q5	HT	II	150	58	5P	④-20
			TH2078Q1					1.5P	④-20
Taps ／ M80 × 6									
Standard	1 2 3	HT	TH2080Y5	HT	II	245	58	5P	④-20
			TH2080Y1					1.5P	④-20
Taps ／ M80 × 4									
Standard	1 2 3	HT	TH2080U5	HT	II	190	58	5P	④-20
			TH2080U1					1.5P	④-20
Taps ／ M80 × 3									
Standard	1 2 3	HT	TH2080S5	HT	II	190	58	5P	④-20
			TH2080S1					1.5P	④-20
Taps ／ M80 × 2									
Standard	1 2 3	HT	TH2080Q5	HT	II	145	58	5P	④-20
			TH2080Q1					1.5P	④-20

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M80 × 1.5									
Standard	1 2 3	HT	TH2080O5	HT	II	145	58	5P	④-20
			TH2080O1					1.5P	④-20
Taps ／ M82 × 2									
Standard	1 2 3	HT	TH2082Q5	HT	II	145	58	5P	④-20
			TH2082Q1					1.5P	④-20
Taps ／ M85 × 6									
Standard	1 2 3	HT	TH2085Y5	HT	II	245	60	5P	④-20
			TH2085Y1					1.5P	④-20
Taps ／ M85 × 4									
Standard	1 2 3	HT	TH2085U5	HT	II	190	60	5P	④-20
			TH2085U1					1.5P	④-20
Taps ／ M85 × 3									
Standard	1 2 3	HT	TH2085S5	HT	II	190	60	5P	④-20
			TH2085S1					1.5P	④-20
Taps ／ M85 × 2									
Standard	1 2 3	HT	TH2085Q5	HT	II	150	60	5P	④-20
			TH2085Q1					1.5P	④-20
Taps ／ M90 × 6									
Standard	1 2 3	HT	TH2090Y5	HT	II	250	60	5P	④-20
			TH2090Y1					1.5P	④-20
Taps ／ M90 × 4									
Standard	1 2 3	HT	TH2090U5	HT	II	195	60	5P	④-20
			TH2090U1					1.5P	④-20
Taps ／ M90 × 3									
Standard	1 2 3	HT	TH2090S5	HT	II	195	60	5P	④-20
			TH2090S1					1.5P	④-20
Taps ／ M90 × 2									
Standard	1 2 3	HT	TH2090Q5	HT	II	155	60	5P	④-20
			TH2090Q1					1.5P	④-20
Taps ／ M95 × 6									
Standard	1 2 3	HT	TH2095Y5	HT	II	250	65	5P	④-21
			TH2095Y1					1.5P	④-21
Taps ／ M95 × 4									
Standard	1 2 3	HT	TH2095U5	HT	II	200	65	5P	④-21
			TH2095U1					1.5P	④-21
Taps ／ M95 × 3									
Standard	1 2 3	HT	TH2095S5	HT	II	200	65	5P	④-21
			TH2095S1					1.5P	④-21

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ M95 × 2									
Standard	1 2 3	HT	TH2095Q5	HT	II	155	65	5P	④-21
			TH2095Q1					1.5P	④-21
Taps ／ M100 × 6									
Standard	1 2 3	HT	TH2100Y5	HT	II	250	65	5P	④-21
			TH2100Y1					1.5P	④-21
Taps ／ M100 × 4									
Standard	1 2 3	HT	TH2100U5	HT	II	200	65	5P	④-21
			TH2100U1					1.5P	④-21
Taps ／ M100 × 3									
Standard	1 2 3	HT	TH2100S5	HT	II	200	65	5P	④-21
			TH2100S1					1.5P	④-21
Taps ／ M100 × 2									
Standard	1 2 3	HT	TH2100Q5	HT	II	155	65	5P	④-21
			TH2100Q1					1.5P	④-21

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M50 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU050UDNEBC	⑩-8
					100	30		TYW050UDNEBC	⑩-8
					105			TYY050UDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU050UDNEBC	⑩-20
					100	30		GYW050UDNEBC	⑩-20
					105			GYY050UDNEBC	⑩-20
Dies ／ M50 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU050SDNEBC	⑩-8
					100	30		TYW050SDNEBC	⑩-8
					105			TYY050SDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU050SDNEBC	⑩-20
					100	30		GYW050SDNEBC	⑩-20
					105			GYY050SDNEBC	⑩-20
Dies ／ M50 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU050QDNEBC	⑩-8
					100	30		TYW050QDNEBC	⑩-8
					105			TYY050QDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU050QDNEBC	⑩-20
					100	30		GYW050QDNEBC	⑩-20
					105			GYY050QDNEBC	⑩-20
Dies ／ M50 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU050ODNEBC	⑩-8
					100	30		TYW050ODNEBC	⑩-8
					105			TYY050ODNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU050ODNEBC	⑩-20
					100	30		GYW050ODNEBC	⑩-20
					105			GYY050ODNEBC	⑩-20
Dies ／ M50 × 1									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYU050MDNEBC	⑩-8
					100	30		TYW050MDNEBC	⑩-8
					105			TYY050MDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	75	25	2.5P	GYU050MDNEBC	⑩-20
					100	30		GYW050MDNEBC	⑩-20
					105			GYY050MDNEBC	⑩-20
Dies ／ M52 × 5									
Solid dies	HSS	1 2 15 16 18 19	D	II	100	36	2.5P	TYW052WDNEBC	⑩-8
					105			TYY052WDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	36	2.5P	GYW052WDNEBC	⑩-20
					105			GYY052WDNEBC	⑩-20
Dies ／ M52 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW052UDNEBC	⑩-8
					105			TYY052UDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW052UDNEBC	⑩-20
					105			GYY052UDNEBC	⑩-20

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M52 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW052SDNEBC	⑩-8
					105			TYY052SDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW052SDNEBC	⑩-20
					105			GYY052SDNEBC	⑩-20
Dies ／ M52 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW052QDNEBC	⑩-8
					105			TYY052QDNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW052QDNEBC	⑩-20
					105			GYY052QDNEBC	⑩-20
Dies ／ M52 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW052ODNEBC	⑩-8
					105			TYY052ODNEBC	⑩-8
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW052ODNEBC	⑩-20
					105			GYY052ODNEBC	⑩-20
Dies ／ M55 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW055UDNEBC	⑩-9
					105			TYY055UDNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW055UDNEBC	⑩-20
					105			GYY055UDNEBC	⑩-21
Dies ／ M55 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW055SDNEBC	⑩-9
					105			TYY055SDNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW055SDNEBC	⑩-21
					105			GYY055SDNEBC	⑩-21
Dies ／ M55 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW055QDNEBC	⑩-9
					105			TYY055QDNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW055QDNEBC	⑩-21
					105			GYY055QDNEBC	⑩-21
Dies ／ M55 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW055ODNEBC	⑩-9
					105			TYY055ODNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW055ODNEBC	⑩-21
					105			GYY055ODNEBC	⑩-21
Dies ／ M56 × 5.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	100	36	2.5P	TYW056XDNEBC	⑩-9
					105			TYY056XDNEBC	⑩-9
					120			TYC056XDNEBC	⑩-9
					125			TYF056XDNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	36	2.5P	GYW056XDNEBC	⑩-21
					105			GYY056XDNEBC	⑩-21
					120			GYC056XDNEBC	⑩-21
					125			GYF056XDNEBC	⑩-21

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies ／ M56 × 4

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW056UDNEBC	⑩-9
					105			TYY056UDNEBC	⑩-9
					120			TYC056UDNEBC	⑩-9
					125			TYF056UDNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW056UDNEBC	⑩-21
					105			GYY056UDNEBC	⑩-21
					120			GYC056UDNEBC	⑩-21
					125			GYF056UDNEBC	⑩-21

Dies ／ M56 × 3

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW056SDNEBC	⑩-9
					105			TYY056SDNEBC	⑩-9
					120			TYC056SDNEBC	⑩-9
					125			TYF056SDNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW056SDNEBC	⑩-21
					105			GYY056SDNEBC	⑩-21
					120			GYC056SDNEBC	⑩-21
					125			GYF056SDNEBC	⑩-21

Dies ／ M56 × 2

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW056QDNEBC	⑩-9
					105			TYY056QDNEBC	⑩-9
					120			TYC056QDNEBC	⑩-9
					125			TYF056QDNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW056QDNEBC	⑩-21
					105			GYY056QDNEBC	⑩-21
					120			GYC056QDNEBC	⑩-21
					125			GYF056QDNEBC	⑩-21

Dies ／ M56 × 1.5

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW056ODNEBC	⑩-9
					105			TYY056ODNEBC	⑩-9
					120			TYC056ODNEBC	⑩-9
					125			TYF056ODNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW056ODNEBC	⑩-21
					105			GYY056ODNEBC	⑩-21
					120			GYC056ODNEBC	⑩-21
					125			GYF056ODNEBC	⑩-21

Dies ／ M58 × 4

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW058UDNEBC	⑩-9
					105			TYY058UDNEBC	⑩-9
					120			TYC058UDNEBC	⑩-9
					125			TYF058UDNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW058UDNEBC	⑩-21
					105			GYY058UDNEBC	⑩-21
					120			GYC058UDNEBC	⑩-21
					125			GYF058UDNEBC	⑩-21

Dies ／ M58 × 3

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW058SDNEBC	⑩-9
					105			TYY058SDNEBC	⑩-9
					120			TYC058SDNEBC	⑩-9
					125			TYF058SDNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW058SDNEBC	⑩-21
					105			GYY058SDNEBC	⑩-21
					120			GYC058SDNEBC	⑩-21
					125			GYF058SDNEBC	⑩-21

Dies ／ M58 × 2

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW058QDNEBC	⑩-9
					105			TYY058QDNEBC	⑩-9
					120			TYC058QDNEBC	⑩-9
					125			TYF058QDNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW058QDNEBC	⑩-21
					105			GYY058QDNEBC	⑩-21
					120			GYC058QDNEBC	⑩-21
					125			GYF058QDNEBC	⑩-21

Dies ／ M58 × 1.5

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW058ODNEBC	⑩-9
					105			TYY058ODNEBC	⑩-9
					120			TYC058ODNEBC	⑩-9
					125			TYF058ODNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW058ODNEBC	⑩-21
					105			GYY058ODNEBC	⑩-21
					120			GYC058ODNEBC	⑩-21
					125			GYF058ODNEBC	⑩-21

Dies ／ M60 × 5.5

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	36	2.5P	TYW060XDNEBC	⑩-9
					105			TYY060XDNEBC	⑩-9
					120			TYC060XDNEBC	⑩-9
					125			TYF060XDNEBC	⑩-9
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	36	2.5P	GYW060XDNEBC	⑩-21
					105			GYY060XDNEBC	⑩-21
					120			GYC060XDNEBC	⑩-21
					125			GYF060XDNEBC	⑩-21

Dies ／ M60 × 4

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW060UDNEBC	⑩-9
					105			TYY060UDNEBC	⑩-10
					120			TYC060UDNEBC	⑩-10
					125			TYF060UDNEBC	⑩-10
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW060UDNEBC	⑩-21
					105			GYY060UDNEBC	⑩-21
					120			GYC060UDNEBC	⑩-21
					125			GYF060UDNEBC	⑩-22

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Dies ／ M60 × 3

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW060SDNEBC	⑩-10
					105			TYY060SDNEBC	⑩-10
					120			TYC060SDNEBC	⑩-10
					125			TYF060SDNEBC	⑩-10
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW060SDNEBC	⑩-22
					105			GYY060SDNEBC	⑩-22
					120			GYC060SDNEBC	⑩-22
					125			GYF060SDNEBC	⑩-22

Dies ／ M60 × 2

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW060QDNEBC	⑩-10
					105			TYY060QDNEBC	⑩-10
					120			TYC060QDNEBC	⑩-10
					125			TYF060QDNEBC	⑩-10
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW060QDNEBC	⑩-22
					105			GYY060QDNEBC	⑩-22
					120			GYC060QDNEBC	⑩-22
					125			GYF060QDNEBC	⑩-22

Dies ／ M60 × 1.5

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW060ODNEBC	⑩-10
					105			TYY060ODNEBC	⑩-10
					120			TYC060ODNEBC	⑩-10
					125			TYF060ODNEBC	⑩-10
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW060ODNEBC	⑩-22
					105			GYY060ODNEBC	⑩-22
					120			GYC060ODNEBC	⑩-22
					125			GYF060ODNEBC	⑩-22

Dies ／ M62 × 4

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW062UDNEBC	⑩-10
					105			TYY062UDNEBC	⑩-10
					120			TYC062UDNEBC	⑩-10
					125			TYF062UDNEBC	⑩-10
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW062UDNEBC	⑩-22
					105			GYY062UDNEBC	⑩-22
					120			GYC062UDNEBC	⑩-22
					125			GYF062UDNEBC	⑩-22

Dies ／ M62 × 3

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW062SDNEBC	⑩-10
					105			TYY062SDNEBC	⑩-10
					120			TYC062SDNEBC	⑩-10
					125			TYF062SDNEBC	⑩-10
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW062SDNEBC	⑩-22
					105			GYY062SDNEBC	⑩-22
					120			GYC062SDNEBC	⑩-22
					125			GYF062SDNEBC	⑩-22

Dies ／ M62 × 2

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW062QDNEBC	⑩-10
					105			TYY062QDNEBC	⑩-10
					120			TYC062QDNEBC	⑩-10
					125			TYF062QDNEBC	⑩-10
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW062QDNEBC	⑩-22
					105			GYY062QDNEBC	⑩-22
					120			GYC062QDNEBC	⑩-22
					125			GYF062QDNEBC	⑩-22

Dies ／ M62 × 1.5

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW062ODNEBC	⑩-10
					105			TYY062ODNEBC	⑩-10
					120			TYC062ODNEBC	⑩-10
					125			TYF062ODNEBC	⑩-10
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW062ODNEBC	⑩-22
					105			GYY062ODNEBC	⑩-22
					120			GYC062ODNEBC	⑩-22
					125			GYF062ODNEBC	⑩-22

Dies ／ M64 × 6

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	36	2.5P	TYW064YDNEBC	⑩-10
					105			TYY064YDNEBC	⑩-10
					120			TYC064YDNEBC	⑩-10
					125			TYF064YDNEBC	⑩-10
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	36	2.5P	GYW064YDNEBC	⑩-22
					105			GYY064YDNEBC	⑩-22
					120			GYC064YDNEBC	⑩-22
					125			GYF064YDNEBC	⑩-22

Dies ／ M64 × 4

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW064UDNEBC	⑩-10
					105			TYY064UDNEBC	⑩-10
					120			TYC064UDNEBC	⑩-10
					125			TYF064UDNEBC	⑩-10
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW064UDNEBC	⑩-22
					105			GYY064UDNEBC	⑩-22
					120			GYC064UDNEBC	⑩-22
					125			GYF064UDNEBC	⑩-22

Dies ／ M64 × 3

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW064SDNEBC	⑩-10
					105			TYY064SDNEBC	⑩-10
					120			TYC064SDNEBC	⑩-10
					125			TYF064SDNEBC	⑩-10
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW064SDNEBC	⑩-22
					105			GYY064SDNEBC	⑩-22
					120			GYC064SDNEBC	⑩-22
					125			GYF064SDNEBC	⑩-22

Icons of main materials

1 Low carbon steel 2 Medium carbon steel 3 High carbon steel 4 Alloy steel 5 Thermal refined steel (25~35HRC) 6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC) 8 Thermal refined steel (50~63HRC) 9 Stainless steel 10 Tool steel 11 Cast steel 12 Cast iron
13 Ductile cast iron 14 Copper 15 Brass 16 Brass casting 17 Bronze 18 Wrought aluminum 19 Aluminum alloy casting
20 Magnesium alloy 21 Zinc alloy 22 Titanium alloy 23 Nickel base alloy 24 Thermosetting plastic 25 Thermoplastic resin

Dies / M64 × 2

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW064QDNEBC	⑩-10
					105			TYY064QDNEBC	⑩-10
					120			TYC064QDNEBC	⑩-10
					125			TYF064QDNEBC	⑩-10
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW064QDNEBC	⑩-22
					105			GYY064QDNEBC	⑩-22
					120			GYC064QDNEBC	⑩-22
					125			GYF064QDNEBC	⑩-22

Dies / M64 × 1.5

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	100	30	2.5P	TYW064ODNEBC	⑩-10
					105			TYY064ODNEBC	⑩-10
					120			TYC064ODNEBC	⑩-11
					125			TYF064ODNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	100	30	2.5P	GYW064ODNEBC	⑩-22
					105			GYY064ODNEBC	⑩-22
					120			GYC064ODNEBC	⑩-22
					125			GYF064ODNEBC	⑩-22

Dies / M65 × 6

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	105	36	2.5P	TYY065YDNEBC	⑩-11
					120			TYC065YDNEBC	⑩-11
					125			TYF065YDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	105	36	2.5P	GYY065YDNEBC	⑩-22
					120			GYC065YDNEBC	⑩-23
					125			GYF065YDNEBC	⑩-23

Dies / M65 × 4

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	105	30	2.5P	TYY065UDNEBC	⑩-11
					120			TYC065UDNEBC	⑩-11
					125			TYF065UDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	105	30	2.5P	GYY065UDNEBC	⑩-23
					120			GYC065UDNEBC	⑩-23
					125			GYF065UDNEBC	⑩-23

Dies / M65 × 3

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	105	30	2.5P	TYY065SDNEBC	⑩-11
					120			TYC065SDNEBC	⑩-11
					125			TYF065SDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	105	30	2.5P	GYY065SDNEBC	⑩-23
					120			GYC065SDNEBC	⑩-23
					125			GYF065SDNEBC	⑩-23

Dies / M65 × 2

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	105	30	2.5P	TYY065QDNEBC	⑩-11
					120			TYC065QDNEBC	⑩-11
					125			TYF065QDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	105	30	2.5P	GYY065QDNEBC	⑩-23
					120			GYC065QDNEBC	⑩-23
					125			GYF065QDNEBC	⑩-23

Dies / M65 × 1.5

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	105	30	2.5P	TYY065ODNEBC	⑩-11
					120			TYC065ODNEBC	⑩-11
					125			TYF065ODNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	105	30	2.5P	GYY065ODNEBC	⑩-23
					120			GYC065ODNEBC	⑩-23
					125			GYF065ODNEBC	⑩-23

Dies / M68 × 6

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	105	36	2.5P	TYY068YDNEBC	⑩-11
					120			TYC068YDNEBC	⑩-11
					125			TYF068YDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	105	36	2.5P	GYY068YDNEBC	⑩-23
					120			GYC068YDNEBC	⑩-23
					125			GYF068YDNEBC	⑩-23

Dies / M68 × 4

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	105	30	2.5P	TYY068UDNEBC	⑩-11
					120			TYC068UDNEBC	⑩-11
					125			TYF068UDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	105	30	2.5P	GYY068UDNEBC	⑩-23
					120			GYC068UDNEBC	⑩-23
					125			GYF068UDNEBC	⑩-23

Dies / M68 × 3

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	105	30	2.5P	TYY068SDNEBC	⑩-11
					120			TYC068SDNEBC	⑩-11
					125			TYF068SDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	105	30	2.5P	GYY068SDNEBC	⑩-23
					120			GYC068SDNEBC	⑩-23
					125			GYF068SDNEBC	⑩-23

Dies / M68 × 2

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	105	30	2.5P	TYY068QDNEBC	⑩-11
					120			TYC068QDNEBC	⑩-11
					125			TYF068QDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	105	30	2.5P	GYY068QDNEBC	⑩-23
					120			GYC068QDNEBC	⑩-23
					125			GYF068QDNEBC	⑩-23

Dies / M68 × 1.5

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Solid dies	HSS	1 2 15 16 18 19	D	II	105	30	2.5P	TYY068ODNEBC	⑩-11
					120			TYC068ODNEBC	⑩-11
					125			TYF068ODNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	105	30	2.5P	GYY068ODNEBC	⑩-23
					120			GYC068ODNEBC	⑩-23
					125			GYF068ODNEBC	⑩-23

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ M70 × 6									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	36	2.5P	TYC070YDNEBC	⑩-11
					125			TYF070YDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	36	2.5P	GYC070YDNEBC	⑩-23
					125			GYF070YDNEBC	⑩-23
Dies ／ M70 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC070UDNEBC	⑩-11
					125			TYF070UDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC070UDNEBC	⑩-23
					125			GYF070UDNEBC	⑩-23
Dies ／ M70 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC070SDNEBC	⑩-11
					125			TYF070SDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC070SDNEBC	⑩-23
					125			GYF070SDNEBC	⑩-23
Dies ／ M70 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC070QDNEBC	⑩-11
					125			TYF070QDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC070QDNEBC	⑩-23
					125			GYF070QDNEBC	⑩-23
Dies ／ M70 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC070ODNEBC	⑩-11
					125			TYF070ODNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC070ODNEBC	⑩-23
					125			GYF070ODNEBC	⑩-23
Dies ／ M72 × 6									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	36	2.5P	TYC072YDNEBC	⑩-11
					125			TYF072YDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	36	2.5P	GYC072YDNEBC	⑩-23
					125			GYF072YDNEBC	⑩-23
Dies ／ M72 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC072UDNEBC	⑩-11
					125			TYF072UDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC072UDNEBC	⑩-23
					125			GYF072UDNEBC	⑩-23
Dies ／ M72 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC072SDNEBC	⑩-11
					125			TYF072SDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC072SDNEBC	⑩-23
					125			GYF072SDNEBC	⑩-23
Dies ／ M72 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC072QDNEBC	⑩-11
					125			TYF072QDNEBC	⑩-11
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC072QDNEBC	⑩-23
					125			GYF072QDNEBC	⑩-23
Dies ／ M72 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC072ODNEBC	⑩-12
					125			TYF072ODNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC072ODNEBC	⑩-23
					125			GYF072ODNEBC	⑩-23
Dies ／ M75 × 6									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	36	2.5P	TYC075YDNEBC	⑩-12
					125			TYF075YDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	36	2.5P	GYC075YDNEBC	⑩-23
					125			GYF075YDNEBC	⑩-24
Dies ／ M75 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC075UDNEBC	⑩-12
					125			TYF075UDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC075UDNEBC	⑩-24
					125			GYF075UDNEBC	⑩-24
Dies ／ M75 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC075SDNEBC	⑩-12
					125			TYF075SDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC075SDNEBC	⑩-24
					125			GYF075SDNEBC	⑩-24
Dies ／ M75 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC075QDNEBC	⑩-12
					125			TYF075QDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC075QDNEBC	⑩-24
					125			GYF075QDNEBC	⑩-24
Dies ／ M75 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC075ODNEBC	⑩-12
					125			TYF075ODNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC075ODNEBC	⑩-24
					125			GYF075ODNEBC	⑩-24
Dies ／ M76 × 6									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	36	2.5P	TYC076YDNEBC	⑩-12
					125			TYF076YDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	36	2.5P	GYC076YDNEBC	⑩-24
					125			GYF076YDNEBC	⑩-24

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / M76 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC076UDNEBC	⑩-12
					125			TYF076UDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC076UDNEBC	⑩-24
					125			GYF076UDNEBC	⑩-24
Dies / M76 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC076SDNEBC	⑩-12
					125			TYF076SDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC076SDNEBC	⑩-24
					125			GYF076SDNEBC	⑩-24
Dies / M76 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC076QDNEBC	⑩-12
					125			TYF076QDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC076QDNEBC	⑩-24
					125			GYF076QDNEBC	⑩-24
Dies / M76 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC076ODNEBC	⑩-12
					125			TYF076ODNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC076ODNEBC	⑩-24
					125			GYF076ODNEBC	⑩-24
Dies / M78 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC078QDNEBC	⑩-12
					125			TYF078QDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC078QDNEBC	⑩-24
					125			GYF078QDNEBC	⑩-24
Dies / M80 × 6									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	36	2.5P	TYC080YDNEBC	⑩-12
					125			TYF080YDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	36	2.5P	GYC080YDNEBC	⑩-24
					125			GYF080YDNEBC	⑩-24
Dies / M80 × 4									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC080UDNEBC	⑩-12
					125			TYF080UDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC080UDNEBC	⑩-24
					125			GYF080UDNEBC	⑩-24
Dies / M80 × 3									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC080SDNEBC	⑩-12
					125			TYF080SDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC080SDNEBC	⑩-24
					125			GYF080SDNEBC	⑩-24

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / M80 × 2									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC080QDNEBC	⑩-12
					125			TYF080QDNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC080QDNEBC	⑩-24
					125			GYF080QDNEBC	⑩-24
Dies / M80 × 1.5									
Solid dies	HSS	1 2 15 16 18 19	D	II	120	30	2.5P	TYC080ODNEBC	⑩-12
					125			TYF080ODNEBC	⑩-12
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	120	30	2.5P	GYC080ODNEBC	⑩-24
					125			GYF080ODNEBC	⑩-24

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*Ds*	*ℓc*

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Taps ／ No.0-80UNF

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Standard	2 3	PO	POPUN0B	PO	P1	36	3	5P	③-17
	1 2 3	HT	TNMPUN0B5	HT	P1	36	3	5P	④-21
			TNMPUN0B1					1.5P	④-21
Oxidizing	1 2 3	PO OX	POPUN0BX	PO	P1	36	3	5P	③-35
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM5UN0BP	RO	G5	36	3	4P	⑥-29
			NRSM5UN0BB					2P	⑥-29

Taps ／ No.1-64UNC

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Standard	2 3	SP	SPPUN1D	SP	P1	42	3	2.5P	①-43
		PO	POPUN1D	PO				5P	③-17
	1 2 3	HT	TNMPUN1D5	HT	P1	42	3	5P	④-21
			TNMPUN1D1					1.5P	④-21

Taps ／ No.1-72UNF

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Standard	2 3	PO	POPUN1C	PO	P1	42	3	5P	③-17
	1 2 3	HT	TNMPUN1C5	HT	P1	42	3	5P	④-21
			TNMPUN1C1					1.5P	④-21
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM5UN1CP	RO	G5	42	3	4P	⑥-29
			NRSM5UN1CB					2P	⑥-29

Taps ／ No.2-56UNC

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Standard	2 3	SP	SPPUN2E	SP	P1	42	3	2.5P	①-43
		PO	POPUN2E	PO				5P	③-17
	1 2 3	HT	TNMPUN2E5	HT	P1	42	3	5P	④-21
			TNMPUN2E1					1.5P	④-21
Oxidizing	1 2 3	SP OX	SPPUN2EX	SP	P1	42	3	2.5P	①-66
		PO OX	POPUN2EX	PO				5P	③-35
For stainless steels	2 3 4 9	SU-SP	SUMPUN2E	SP	P1	42	3	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMPUN2E	PO	P1	42	3	5P	③-62
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM4UN2EP	RO	G4	42	3	4P	⑥-29
			NRSM4UN2EB					2P	⑥-29
			NRSM5UN2EP		G5			4P	⑥-29
			NRSM5UN2EB					2P	⑥-29
			NRSM6UN2EP		G6			4P	⑥-29
			NRSM6UN2EB					2P	⑥-29
			NRSM7UN2EP		G7			4P	⑥-29
			NRSM7UN2EB					2P	⑥-30
Thread forming taps for dry tapping	1 2 3 4 5 9 19	OL-RZ	OLRZM4UN2EP	RO	G4	42	3	4P	⑥-43
			OLRZM5UN2EP		G5				⑥-43
High performance thread forming taps	1 2 3 4 5 9 19	HP-RZ	HRZM4UN2EB	RO	G4	42	3	2P	⑥-50
			HRZM5UN2EB		G5				⑥-50
Torqueless thread forming taps — Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM4UN2E1	RO	G4	42	3	1P	⑥-58
Torqueless thread forming taps — Seamless	1 2 9	SURZ	SURZ4UN2EB	RO	G4	42	3	2P	⑥-60

Taps ／ No.2-64UNF

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Standard	2 3	SP	SPPUN2D	SP	P1	42	3	2.5P	①-43
		PO	POPUN2D	PO				5P	③-17
	1 2 3	HT	TNMPUN2D5	HT	P1	42	3	5P	④-21
			TNMPUN2D1					1.5P	④-21
Thread forming taps for dry tapping	1 2 3 4 5 9 19	OL-RZ	OLRZM4UN2DP	RO	G4	42	3	4P	⑥-43
High performance thread forming taps	1 2 3 4 5 9 19	HP-RZ	HRZM4UN2DB	RO	G4	42	3	2P	⑥-50

Taps ／ No.3-48UNC

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Standard	2 3	SP	SPPUN3F	SP	P1	46	3	2.5P	①-43
		PO	POPUN3F	PO				5P	③-17
	1 2 3	HT	TNMPUN3F5	HT	P1	46	3	5P	④-21
			TNMPUN3F1					1.5P	④-21
For stainless steels	2 3 4 9	SU-SP	SUMPUN3F	SP	P1	46	3	2.5P	①-102
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM4UN3FP	RO	G4	46	3	4P	⑥-30
			NRSM4UN3FB					2P	⑥-30
			NRSM5UN3FP		G5			4P	⑥-30
			NRSM5UN3FB					2P	⑥-30
Thread forming taps for dry tapping	1 2 3 4 5 9 19	OL-RZ	OLRZM4UN3FP	RO	G4	46	3	4P	⑥-43
High performance thread forming taps	1 2 3 4 5 9 19	HP-RZ	HRZM4UN3FB	RO	G4	46	3	2P	⑥-50

Taps ／ No.3-56UNF

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Standard	2 3	SP	SPPUN3E	SP	P1	46	3	2.5P	①-43
		PO	POPUN3E	PO				5P	③-17
	1 2 3	HT	TNMPUN3E5	HT	P1	46	3	5P	④-21
			TNMPUN3E1					1.5P	④-21
Thread forming taps for dry tapping	1 2 3 4 5 9 19	OL-RZ	OLRZM4UN3EP	RO	G4	46	3	4P	⑥-43
High performance thread forming taps	1 2 3 4 5 9 19	HP-RZ	HRZM4UN3EB	RO	G4	46	3	2P	⑥-50

Taps ／ No.4-40UNC

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Standard		2 3	SP	SPPUN4H	SP	P1	46	4	2.5P	①-43
			PO	POQUN4H	PO	P2			5P	③-17
		1 2 3	HT	TNMQUN4H5	HT	P2	46	4	5P	④-21
				TNMQUN4H1					1.5P	④-21
	Oversize	1 2 3	HT	TNMRUN4H5	HT	P3	46	4	5P	④-21
				TNMRUN4H1					1.5P	④-21
Oxidizing		1 2 3	SP OX	SPPUN4HX	SP	P1	46	4	2.5P	①-66
			PO OX	POQUN4HX	PO	P2			5P	③-35
Thread forming taps for steels		1 2	N-RZ	NRZM5UN4HB	RO	G5	46	4	2P	⑥-17
For stainless steels		2 3 4 9	SU-SP	SUMPUN4H	SP	P1	46	4	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMQUN4H	PO	P2	46	4	5P	③-62
For cast irons	Carbide	12 13 16	N-CT FC	TCNRUN4H3	HT	P3	44	3	3P	⑤-13
				TCNRUN4H1					1.5P	⑤-13
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM5UN4HP	RO	G5	46	4	4P	⑥-30
				NRSM5UN4HB					2P	⑥-30
				NRSM6UN4HP		G6			4P	⑥-30
				NRSM6UN4HB					2P	⑥-30
				NRSM7UN4HP		G7			4P	⑥-30
				NRSM7UN4HB					2P	⑥-30
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM5UN4HP	RO	G5	46	4	4P	⑥-43
				OLRZM6UN4HP		G6				⑥-43

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM5UN4HB	RO	G5	46	4	2P	⑥-50
				HRZM6UN4HB		G6				⑥-50
Torqueless thread forming taps	Short chamfer	1 2 3 9 19 21	SC-TL-RZ	SRZM5UN4H1	RO	G5	46	4	1P	⑥-58
	Seamless	1 2 9	SURZ	SURZ5UN4HB	RO	G5	46	4	2P	⑥-60
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWUN4H1LEB5	HT	I b	52	5	5P	⑦-5
				TWUN4H1LEBA					1.5P	⑦-5

Taps ／ No.4-48UNF

Standard		2 3	SP	SPPUN4F	SP	P1	46	4	2.5P	①-43
			PO	POPUN4F	PO				5P	③-17
		1 2 3	HT	TNMPUN4F5	HT	P1	46	4	5P	④-21
				TNMPUN4F1					1.5P	④-21
	Oversize	1 2 3	HT	TNMRUN4F5	HT	P3	46	4	5P	④-21
				TNMRUN4F1					1.5P	④-21
For stainless steels		2 3 4 9	SU-SP	SUMPUN4F	SP	P1	46	4	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMPUN4F	PO	P1	46	4	5P	③-62
For cast irons	Carbide	12 13 16	N-CT FC	TCNRUN4F3	HT	P3	44	3	3P	⑤-13
				TCNRUN4F1					1.5P	⑤-13
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM5UN4FP	RO	G5	46	4	4P	⑥-30
				NRSM5UN4FB					2P	⑥-30
				NRSM6UN4FP		G6			4P	⑥-30
				NRSM6UN4FB					2P	⑥-30
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM5UN4FP	RO	G5	46	4	4P	⑥-43
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM5UN4FB	RO	G5	46	4	2P	⑥-50
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWUN4F1LEB5	HT	I b	52	5	5P	⑦-5
				TWUN4F1LEBA					1.5P	⑦-5

Taps ／ No.5-40UNC

Standard		2 3	SP	SPPUN5H	SP	P1	52	5	2.5P	①-43
			PO	POQUN5H	PO	P2			5P	③-17
		1 2 3	HT	TNMQUN5H5	HT	P2	52	5	5P	④-21
				TNMQUN5H1					1.5P	④-21
	Oversize	1 2 3	HT	TNMRUN5H5	HT	P3	52	5	5P	④-21
				TNMRUN5H1					1.5P	④-21
For left hand threads		1 2 3	HT LH	TNMQUN5H5-L	HT	P2	52	5	5P	④-71
				TNMQUN5H1-L					1.5P	④-71
Oxidizing		1 2 3	SP OX	SPPUN5HX	SP	P1	52	5	2.5P	①-66
			PO OX	POQUN5HX	PO	P2			5P	③-35
For stainless steels		2 3 4 9	SU-SP	SUMPUN5H	SP	P1	52	5	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMQUN5H	PO	P2	52	5	5P	③-62
For cast irons	Carbide	12 13 16	N-CT FC	TCNRUN5H3	HT	P3	46	4	3P	⑤-13
				TCNRUN5H1					1.5P	⑤-13
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM5UN5HP	RO	G5	52	5	4P	⑥-30
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM5UN5HP	RO	G5	52	5	4P	⑥-43
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM5UN5HP	RO	G5	52	5	4P	⑥-50
				HRZM5UN5HB					2P	⑥-50
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWUN5H1LEB5	HT	I b	52	5	5P	⑦-5
				TWUN5H1LEBA					1.5P	⑦-5

Taps ／ No.5-44UNF

Standard		2 3	SP	SPPUN5G	SP	P1	52	5	2.5P	①-43
			PO	POPUN5G	PO				5P	③-17
		1 2 3	HT	TNMPUN5G5	HT	P1	52	5	5P	④-21
				TNMPUN5G1					1.5P	④-21
	Oversize	1 2 3	HT	TNMRUN5G5	HT	P3	52	5	5P	④-21
				TNMRUN5G1					1.5P	④-21
For stainless steels		2 3 4 9	SU-SP	SUMPUN5G	SP	P1	52	5	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMPUN5G	PO	P1	52	5	5P	③-62
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM6UN5GB	RO	G6	52	5	2P	⑥-30
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM5UN5GP	RO	G5	52	5	4P	⑥-43
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM5UN5GP	RO	G5	52	5	4P	⑥-50
				HRZM5UN5GB					2P	⑥-50

Taps ／ No.6-32UNC

Standard		2 3	SP	SPQUN6J	SP	P2	52	5	2.5P	①-43
			PO	POQUN6J	PO				5P	③-17
		1 2 3	HT	TNMQUN6J5	HT	P2	52	5	5P	④-21
				TNMQUN6J1					1.5P	④-21
	Oversize	1 2 3	HT	TNMRUN6J5	HT	P3	52	5	5P	④-21
				TNMRUN6J1					1.5P	④-22
Oxidizing		1 2 3	SP OX	SPQUN6JX	SP	P2	52	5	2.5P	①-66
			PO OX	POQUN6JX	PO				5P	③-35
Thread forming taps for steels		1 2	N-RZ	NRZM6UN6JB	RO	G6	52	5	2P	⑥-17
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYUN6JQDPB	PO	P2	52	5	5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMQUN6J	SP	P2	52	5	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMQUN6J	PO	P2	52	5	5P	③-62
For cast irons	Carbide	12 13 16	N-CT FC	TCNRUN6J3	HT	P3	48	4	3P	⑤-13
				TCNRUN6J1					1.5P	⑤-13
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM5UN6JP	RO	G5	52	5	4P	⑥-30
				NRSM5UN6JB					2P	⑥-30
				NRSM6UN6JP		G6			4P	⑥-30
				NRSM6UN6JB					2P	⑥-30
				NRSM7UN6JP		G7			4P	⑥-30
				NRSM7UN6JB					2P	⑥-30
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM5UN6JP	RO	G5	52	5	4P	⑥-43
				OLRZM6UN6JP		G6				⑥-43
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM5UN6JP	RO	G5	52	5	4P	⑥-50
				HRZM5UN6JB					2P	⑥-50
				HRZM6UN6JP		G6			4P	⑥-50
				HRZM6UN6JB					2P	⑥-50
Torqueless thread forming taps	Seamless	1 2 9	SURZ	SURZ5UN6JB	RO	G5	52	5	2P	⑥-60
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWUN6J1LEB5	HT	I b	60	5.5	5P	⑦-5
				TWUN6J1LEBA					1.5P	⑦-5

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Taps ／ No.6-40UNF

Tap selection		Main material	Symbol (Note1)	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Standard		2 3	SP	SPPUN6H	SP	P1	52	5	2.5P	①-44
			PO	POQUN6H	PO	P2			5P	③-17
		1 2 3	HT	TNMQUN6H5	HT	P2	52	5	5P	④-22
				TNMQUN6H1					1.5P	④-22
	Oversize	1 2 3	HT	TNMRUN6H5	HT	P3	52	5	5P	④-22
				TNMRUN6H1					1.5P	④-22
Oxidizing		1 2 3	PO OX	POQUN6HX	PO	P2	52	5	5P	③-35
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYUN6HQDPB	PO	P2	52	5	5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMPUN6H	SP	P1	52	5	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMQUN6H	PO	P2	52	5	5P	③-62
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM5UN6HP	RO	G5	52	5	4P	⑥-30
				NRSM5UN6HB					2P	⑥-30
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM5UN6HP	RO	G5	52	5	4P	⑥-43
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM5UN6HP	RO	G5	52	5	4P	⑥-50
				HRZM5UN6HB					2P	⑥-50
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWUN6H1LEB5	HT	I b	60	5.5	5P	⑦-5
				TWUN6H1LEBA					1.5P	⑦-5

Taps ／ No.8-32UNC

Tap selection		Main material	Symbol (Note1)	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Standard		2 3	SP	SPQUN8J	SP	P2	60	5.5	2.5P	①-44
			PO	POQUN8J	PO				5P	③-17
		1 2 3	HT	TNMQUN8J5	HT	P2	60	5.5	5P	④-22
				TNMQUN8J1					1.5P	④-22
	Oversize	1 2 3	HT	TNMRUN8J5	HT	P3	60	5.5	5P	④-22
				TNMRUN8J1					1.5P	④-22
				TNMSUN8J5		P4			5P	④-22
				TNMSUN8J1					1.5P	④-22
Oxidizing		1 2 3	SP OX	SPQUN8JX	SP	P2	60	5.5	2.5P	①-66
			PO OX	POQUN8JX	PO				5P	③-35
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYUN8JQDPB	PO	P2	60	5.5	5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMQUN8J	SP	P2	60	5.5	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMQUN8J	PO	P2	60	5.5	5P	③-62
For cast irons	Carbide	12 13 16	N-CT FC	TCNRUN8J3	HT	P3	52	5	3P	⑤-13
				TCNRUN8J1					1.5P	⑤-13
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM6UN8JP	RO	G6	60	5.5	4P	⑥-30
				NRSM6UN8JB					2P	⑥-30
				NRSM7UN8JP		G7			4P	⑥-30
				NRSM7UN8JB					2P	⑥-30
				NRSM8UN8JP		G8			4P	⑥-30
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM6UN8JP	RO	G6	60	5.5	4P	⑥-43
				OLRZM7UN8JP		G7				⑥-43
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM6UN8JP	RO	G6	60	5.5	4P	⑥-50
				HRZM6UN8JB					2P	⑥-50
				HRZM7UN8JP		G7			4P	⑥-50
				HRZM7UN8JB					2P	⑥-50
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWUN8J1LEB5	HT	I b	62	6	5P	⑦-5
				TWUN8J1LEBA					1.5P	⑦-5

Taps ／ No.8-36UNF

Tap selection		Main material	Symbol (Note1)	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Standard		2 3	SP	SPQUN8I	SP	P2	60	5.5	2.5P	①-44
			PO	POQUN8I	PO				5P	③-17
		1 2 3	HT	TNMQUN8I5	HT	P2	60	5.5	5P	④-22
				TNMQUN8I1					1.5P	④-22
	Oversize	1 2 3	HT	TNMRUN8I5	HT	P3	60	5.5	5P	④-22
				TNMRUN8I1					1.5P	④-22
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYUN8IQDPB	PO	P2	60	5.5	5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMQUN8I	SP	P2	60	5.5	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMQUN8I	PO	P2	60	5.5	5P	③-62
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM5UN8IP	RO	G5	60	5.5	4P	⑥-30
				NRSM5UN8IB					2P	⑥-30
				NRSM6UN8IB		G6				⑥-30
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM6UN8IP	RO	G6	60	5.5	4P	⑥-43
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM6UN8IP	RO	G6	60	5.5	4P	⑥-50
				HRZM6UN8IB					2P	⑥-50
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWUN8I1LEB5	HT	I b	62	6	5P	⑦-5
				TWUN8I1LEBA					1.5P	⑦-5

Taps ／ No.10-24UNC

Tap selection		Main material	Symbol (Note1)	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Standard		2 3	SP	SPQUNAM	SP	P2	60	5.5	2.5P	①-44
			PO	POQUNAM	PO				5P	③-17
		1 2 3	HT	TNMQUNAM5	HT	P2	60	5.5	5P	④-22
				TNMQUNAM1					1.5P	④-22
	Oversize	1 2 3	HT	TNMRUNAM5	HT	P3	60	5.5	5P	④-22
				TNMRUNAM1					1.5P	④-22
For left hand threads		1 2 3	HT LH	TNMQUNAM5-L	HT	P2	60	5.5	5P	④-71
				TNMQUNAM1-L					1.5P	④-71
Oxidizing		1 2 3	SP OX	SPQUNAMX	SP	P2	60	5.5	2.5P	①-66
			PO OX	POQUNAMX	PO				5P	③-36
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYUNAMQDPB	PO	P2	60	5.5	5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMQUNAM	SP	P2	60	5.5	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMQUNAM	PO	P2	60	5.5	5P	③-62
For cast irons	Carbide	12 13 16	N-CT FC	TCNRUNAM3	HT	P3	60	5.5	3P	⑤-13
				TCNRUNAM1					1.5P	⑤-13
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM6UNAMP	RO	G6	60	5.5	4P	⑥-30
				NRSM6UNAMB					2P	⑥-30
				NRSM7UNAMP		G7			4P	⑥-30
				NRSM7UNAMB					2P	⑥-30
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM6UNAMP	RO	G6	60	5.5	4P	⑥-43
				OLRZM7UNAMP		G7				⑥-43
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM6UNAMP	RO	G6	60	5.5	4P	⑥-50
				HRZM6UNAMB					2P	⑥-50
				HRZM7UNAMP		G7			4P	⑥-50
				HRZM7UNAMB					2P	⑥-50
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWUNAM1LEB5	HT	I b	62	6	5P	⑦-5
				TWUNAM1LEBA					1.5P	⑦-5

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Taps ／ No.10-32UNF

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard		2 3	SP	SPQUNAJ	SP	P2	60	5.5	2.5P	①-44
			PO	POQUNAJ	PO				5P	③-17
		1 2 3	HT	TNMQUNAJ5	HT	P2	60	5.5	5P	④-22
				TNMQUNAJ1					1.5P	④-22
	Oversize	1 2 3	HT	TNMRUNAJ5	HT	P3	60	5.5	5P	④-22
				TNMRUNAJ1					1.5P	④-22
Oxidizing		1 2 3	SP OX	SPQUNAJX	SP	P2	60	5.5	2.5P	①-66
			PO OX	POQUNAJX	PO				5P	③-36
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYUNAJQDPB	PO	P2	60	5.5	5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMQUNAJ	SP	P2	60	5.5	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMQUNAJ	PO	P2	60	5.5	5P	③-62
For cast irons	Carbide	12 13 16	N-CT FC	TCNRUNAJ3	HT	P3	60	5.5	3P	⑤-13
				TCNRUNAJ1					1.5P	⑤-13
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM6UNAJP	RO	G6	60	5.5	4P	⑥-30
				NRSM6UNAJB					2P	⑥-30
				NRSM7UNAJP		G7			4P	⑥-30
				NRSM7UNAJB					2P	⑥-30
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM6UNAJP	RO	G6	60	5.5	4P	⑥-43
				OLRZM7UNAJP		G7				⑥-43
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM6UNAJP	RO	G6	60	5.5	4P	⑥-50
				HRZM6UNAJB					2P	⑥-50
				HRZM7UNAJP		G7			4P	⑥-50
				HRZM7UNAJB					2P	⑥-50
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWUNAJ1LEB5	HT	I b	62	6	5P	⑦-5
				TWUNAJ1LEBA					1.5P	⑦-5

Taps ／ No.12-24UNC

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard		2 3	SP	SPQUNCM	SP	P2	62	6	2.5P	①-44
			PO	POQUNCM	PO				5P	③-17
		1 2 3	HT	TNMQUNCM5	HT	P2	62	6	5P	④-22
				TNMQUNCM1					1.5P	④-22
	Oversize	1 2 3	HT	TNMRUNCM5	HT	P3	62	6	5P	④-22
Oxidizing		1 2 3	PO OX	POQUNCMX	PO	P2	62	6	5P	③-36
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYUNCMQDPB	PO	P2	62	6	5.5P	③-93
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM6UNCMP	RO	G6	62	6	4P	⑥-43
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM6UNCMP	RO	G6	62	6	4P	⑥-50
				HRZM6UNCMB					2P	⑥-50
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWUNCM1LEB5	HT	I b	70	6.2	5P	⑦-5
				TWUNCM1LEBA					1.5P	⑦-5

Taps ／ No.12-28UNF

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard		2 3	SP	SPQUNCK	SP	P2	62	6	2.5P	①-44
			PO	POQUNCK	PO				5P	③-17
		1 2 3	HT	TNMQUNCK5	HT	P2	62	6	5P	④-22
				TNMQUNCK1					1.5P	④-22
	Oversize	1 2 3	HT	TNMRUNCK5	HT	P3	62	6	5P	④-22
				TNMRUNCK1					1.5P	④-22
For left hand threads		1 2 3	HT LH	TNMQUNCK5-L	HT	P2	62	6	5P	④-71
				TNMQUNCK1-L					1.5P	④-71
Oxidizing		1 2 3	PO OX	POQUNCKX	PO	P2	62	6	5P	③-36
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYUNCKQDPB	PO	P2	62	6	5.5P	③-93
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM6UNCKP	RO	G6	62	6	4P	⑥-43
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM6UNCKP	RO	G6	62	6	4P	⑥-50
				HRZM6UNCKB					2P	⑥-50

Taps ／ No.12-32UNEF

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard		1 2 3	HT	TNMQUNCJ5	HT	P2	62	6	5P	④-22
				TNMQUNCJ1					1.5P	④-22

Taps ／ 1/4-20UNC

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Standard		2 3	SP	SPQU04N	SP	P2	62	6	2.5P	①-44
			PO	POQU04N	PO				5P	③-17
		1 2 3	HT	TNMQU04N5	HT	P2	62	6	5P	④-22
				TNMQU04N1					1.5P	④-22
	Oversize	1 2 3	HT	TNMRU04N5	HT	P3	62	6	5P	④-22
				TNMRU04N1					1.5P	④-22
				TNMSU04N5		P4			5P	④-22
				TNMSU04N1					1.5P	④-22
For left hand threads		2 3	SP LH	SPQU04N--L	SP	P2	62	6	2.5P	①-80
			PO LH	POQU04N--L	PO				5P	③-47
Oxidizing		1 2 3	SP OX	SPQU04NX	SP	P2	62	6	2.5P	①-66
			PO OX	POQU04NX	PO				5P	③-36
Long		2 3	LS-SP	SPFQU04NL10	SP	P2	100	6	2.5P	①-92
				SPFQU04NL15			150			①-92
			LS-PO	POFQU04NL10	PO		100		5P	③-54
				POFQU04NL15			150			③-54
		1 2 3	LS-HT	TNFQU04N515	HT	P2	150	6	5P	④-81
				TNFQU04N520			200			④-81
				TNFQU04N115			150		1.5P	④-81
				TNFQU04N120			200			④-81
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYU04NRDPB	PO	P3	62	6	5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMQU04N	SP	P2	62	6	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMQU04N	PO	P2	62	6	5P	③-62
		1 2 9	SU-HT	TUMQU04N4	HT	P2	62	6	4P	④-91
				TUMQU04N1					1.5P	④-91
For cast irons	Carbide	12 13 16	N-CT FC	TCNRU04N3	HT	P3	62	6	3P	⑤-13
				TCNRU04N1					1.5P	⑤-13
Thread forming taps for non-ferrous materials		18 19 21	N-RS	NRSM6U04NP	RO	G6	62	6	4P	⑥-30
				NRSM6U04NB					2P	⑥-30
				NRSM7U04NP		G7			4P	⑥-30
				NRSM7U04NB					2P	⑥-30
				NRSM8U04NP		G8			4P	⑥-30
				NRSM8U04NB					2P	⑥-30
Thread forming taps for dry tapping		1 2 3 4 5 9 19	OL-RZ	OLRZM7U04NP	RO	G7	62	6	4P	⑥-43
High performance thread forming taps		1 2 3 4 5 9 19	HP-RZ	HRZM7U04NP	RO	G7	62	6	4P	⑥-50
				HRZM7U04NB					2P	⑥-50
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWU04N1LEB5	HT	I b	70	6.2	5P	⑦-5
				TWU04N1LEBA					1.5P	⑦-5
Tripod		15 16 19 20 21	HT TRI	TYU04N0KEB3	HT	-	62	6	3P	⑦-30
				TYU04N0KEBA					1.5P	⑦-30
			SP TRI	SYU04N0KEB	SP				2.5P	⑦-31

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Taps ／ 1/4-28UNF

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Standard	2 3	SP	SPQU04K	SP	P2	62	6	2.5P	①-44
		PO	POQU04K	PO				5P	③-17
	1 2 3	HT	TNMQU04K5	HT	P2	62	6	5P	④-22
			TNMQU04K1					1.5P	④-22
Oversize	1 2 3	HT	TNMSU04K5	HT	P4	62	6	5P	④-22
			TNMSU04K1					1.5P	④-22
For left hand threads	2 3	SP LH	SPQU04K--L	SP	P2	62	6	2.5P	①-80
		PO LH	POQU04K--L	PO				5P	③-47
	1 2 3	HT LH	TNMQU04K5-L	HT	P2	62	6	5P	④-71
			TNMQU04K1-L					1.5P	④-71
Oxidizing	1 2 3	SP OX	SPQU04KX	SP	P2	62	6	2.5P	①-66
		PO OX	POQU04KX	PO				5P	③-36
Long	2 3	LS-SP	SPFQU04KL10	SP	P2	100	6	2.5P	①-92
			SPFQU04KL15			150			①-92
		LS-PO	POFQU04KL10	PO		100		5P	③-54
			POFQU04KL15			150			③-54
	1 2 3	LS-HT	TNFQU04K515	HT	P2	150	6	5P	④-81
			TNFQU04K520			200			④-81
			TNFQU04K115			150		1.5P	④-81
			TNFQU04K120			200			④-81
For hard-to-machine materials / Powdered HSS	3 5 6	PM-PO	PYU04KRDPB	PO	P3	62	6	5.5P	③-93
For stainless steels	2 3 4 9	SU-SP	SUMQU04K	SP	P2	62	6	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMQU04K	PO	P2	62	6	5P	③-62
	1 2 9	SU-HT	TUMQU04K4	HT	P2	62	6	4P	④-91
			TUMQU04K1					1.5P	④-91
For cast irons / Carbide	12 13 16	N-CT FC	TCNRU04K3	HT	P3	62	6	3P	⑤-13
			TCNRU04K1					1.5P	⑤-13
Thread forming taps for non-ferrous materials	18 19 21	N-RS	NRSM6U04KP	RO	G6	62	6	4P	⑥-30
			NRSM6U04KB					2P	⑥-30
			NRSM7U04KB		G7				⑥-30
Thread forming taps for dry tapping	1 2 3 4 5 9 19	OL-RZ	OLRZM7U04KP	RO	G7	62	6	4P	⑥-43
High performance thread forming taps	1 2 3 4 5 9 19	HP-RZ	HRZM7U04KP	RO	G7	62	6	4P	⑥-50
			HRZM7U04KB					2P	⑥-50
For helical coil wire screw thread inserts	18 19 21	AL-HT STI	TWU04K1LEB5	HT	I b	70	6.2	5P	⑦-5
			TWU04K1LEBA					1.5P	⑦-5

Taps ／ 1/4-32UNEF

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Standard	2 3	SP	SPQU04J	SP	P2	62	6	2.5P	①-44
		PO	POQU04J	PO				5P	③-17
	1 2 3	HT	TNMQU04J5	HT	P2	62	6	5P	④-22
			TNMQU04J1					1.5P	④-22

Taps ／ 5/16-18UNC

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Standard	2 3	SP	SPQU05O	SP	P2	70	6.2	2.5P	①-44
		PO	PORU05O	PO	P3			5P	③-17
	1 2 3	HT	TNMRU05O5	HT	P3	70	6.2	5P	④-22
			TNMRU05O1					1.5P	④-22
Oversize	1 2 3	HT	TNMSU05O5	HT	P4	70	6.2	5P	④-22
			TNMSU05O1					1.5P	④-22
For left hand threads	2 3	SP LH	SPQU05O--L	SP	P2	70	6.2	2.5P	①-80
		PO LH	PORU05O--L	PO	P3			5P	③-47
Oxidizing	1 2 3	SP OX	SPQU05OX	SP	P2	70	6.2	2.5P	①-66
		PO OX	PORU05OX	PO	P3			5P	③-36
Long	2 3	LS-SP	SPQU05OL10	SP	P2	100	6.2	2.5P	①-92
			SPQU05OL15			150			①-92
		LS-PO	PORU05OL10	PO	P3	100		5P	③-54
			PORU05OL15			150			③-54
	1 2 3	LS-HT	TNMQU05O515	HT	P2	150	6.2	5P	④-81
			TNMQU05O520			200			④-81
			TNMQU05O115			150		1.5P	④-81
			TNMQU05O120			200			④-81
Thread forming taps for steels	1 2	N-RZ	NRZM7U05OP	RO	G7	70	6.2	4P	⑥-17
			NRZM7U05OB					2P	⑥-17
For hard-to-machine materials / Powdered HSS	3 5 6	PM-PO	PYU05ORDPB	PO	P3	70	6.2	5.5P	③-93
For stainless steels	2 3 4 9	SU-SP	SUMQU05O	SP	P2	70	6.2	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMRU05O	PO	P3	70	6.2	5P	③-62
	1 2 9	SU-HT	TUMRU05O4	HT	P3	70	6.2	4P	④-91
			TUMRU05O1					1.5P	④-91
For cast irons / Carbide	12 13 16	N-CT FC	TCNRU05O3	HT	P3	70	6.1	3P	⑤-13
			TCNRU05O1					1.5P	⑤-13
For helical coil wire screw thread inserts	18 19 21	AL-HT STI	TWU05O1LEB5	HT	I b	75	7	5P	⑦-5
			TWU05O1LEBA					1.5P	⑦-5

Taps ／ 5/16-24UNF

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Standard	2 3	SP	SPQU05M	SP	P2	70	6.2	2.5P	①-44
		PO	POQU05M	PO				5P	③-17
	1 2 3	HT	TNMQU05M5	HT	P2	70	6.2	5P	④-22
			TNMQU05M1					1.5P	④-22
Oversize	1 2 3	HT	TNMSU05M5	HT	P4	70	6.2	5P	④-23
			TNMSU05M1					1.5P	④-23
For left hand threads	2 3	SP LH	SPQU05M--L	SP	P2	70	6.2	2.5P	①-80
		PO LH	POQU05M--L	PO				5P	③-47
	1 2 3	HT LH	TNMQU05M5-L	HT	P2	70	6.2	5P	④-71
			TNMQU05M1-L					1.5P	④-71
Oxidizing	1 2 3	SP OX	SPQU05MX	SP	P2	70	6.2	2.5P	①-66
		PO OX	POQU05MX	PO				5P	③-36
Long	2 3	LS-SP	SPQU05ML10	SP	P2	100	6.2	2.5P	①-92
			SPQU05ML15			150			①-92
		LS-PO	POQU05ML10	PO		100		5P	③-54
			POQU05ML15			150			③-54
	1 2 3	LS-HT	TNMQU05M515	HT	P2	150	6.2	5P	④-81
			TNMQU05M520			200			④-81
			TNMQU05M115			150		1.5P	④-81
			TNMQU05M120			200			④-81
For hard-to-machine materials / Powdered HSS	3 5 6	PM-PO	PYU05MRDPB	PO	P3	70	6.2	5.5P	③-93
For stainless steels	2 3 4 9	SU-SP	SUMQU05M	SP	P2	70	6.2	2.5P	①-102
	1 2 3 4 9	SU-PO	PUMQU05M	PO	P2	70	6.2	5P	③-62
	1 2 9	SU-HT	TUMQU05M4	HT	P2	70	6.2	4P	④-91
			TUMQU05M1					1.5P	④-92

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
For cast irons	Carbide	12 13 16	N-CT FC	TCNRU05M3	HT	P3	70	6.1	3P	⑤-13
				TCNRU05M1					1.5P	⑤-13
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWU05M1LEB5	HT	I b	75	7	5P	⑦-5
				TWU05M1LEBA					1.5P	⑦-5
Taps ／ 5/16-32UNEF										
Standard		2 3	SP	SPQU05J	SP	P2	70	6.2	2.5P	①-44
			PO	POQU05J	PO				5P	③-17
		1 2 3	HT	TNMQU05J5	HT	P2	70	6.2	5P	④-23
				TNMQU05J1					1.5P	④-23
Taps ／ 3/8-16UNC										
Standard		2 3	SP	SPQU06P	SP	P2	75	7	2.5P	①-44
			PO	PORU06P	PO	P3			5P	③-17
		1 2 3	HT	TNMRU06P5	HT	P3	75	7	5P	④-23
				TNMRU06P1					1.5P	④-23
	Oversize	1 2 3	HT	TNMSU06P5	HT	P4	75	7	5P	④-23
				TNMSU06P1					1.5P	④-23
For left hand threads		2 3	SP LH	SPQU06P--L	SP	P2	75	7	2.5P	①-80
			PO LH	PORU06P--L	PO	P3			5P	③-47
Oxidizing		1 2 3	SP OX	SPQU06PX	SP	P2	75	7	2.5P	①-66
			PO OX	PORU06PX	PO	P3			5P	③-36
Long		2 3	LS-SP	SPQU06PL10	SP	P2	100	7	2.5P	①-92
				SPQU06PL15			150			①-92
				SPQU06PL20			200			①-92
			LS-PO	PORU06PL10	PO	P3	100		5P	③-54
				PORU06PL15			150			③-54
		1 2 3	LS-HT	TNMQU06P515	HT	P2	150	7	5P	④-81
				TNMQU06P520			200			④-81
				TNMQU06P115			150		1.5P	④-81
				TNMQU06P120			200			④-81
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYU06PSDPB	PO	P4	75	7	5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMQU06P	SP	P2	75	7	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMRU06P	PO	P3	75	7	5P	③-62
		1 2 9	SU-HT	TUMRU06P4	HT	P3	75	7	4P	④-92
				TUMRU06P1					1.5P	④-92
For cast irons	Carbide	12 13 16	N-CT FC	TCNRU06P3	HT	P3	75	7	3P	⑤-13
				TCNRU06P1					1.5P	⑤-13
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWU06P1LEB5	HT	I b	82	8.5	5P	⑦-5
				TWU06P1LEBA					1.5P	⑦-5
Taps ／ 3/8-24UNF										
Standard		2 3	SP	SPQU06M	SP	P2	75	7	2.5P	①-44
			PO	POQU06M	PO				5P	③-17
		1 2 3	HT	TNMRU06M5	HT	P3	75	7	5P	④-23
				TNMRU06M1					1.5P	④-23
	Oversize	1 2 3	HT	TNMSU06M5	HT	P4	75	7	5P	④-23
				TNMSU06M1					1.5P	④-23
For left hand threads		2 3	SP LH	SPQU06M--L	SP	P2	75	7	2.5P	①-80
			PO LH	POQU06M--L	PO				5P	③-47
Oxidizing		1 2 3	SP OX	SPQU06MX	SP	P2	75	7	2.5P	①-66
			PO OX	POQU06MX	PO				5P	③-36

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Long		2 3	LS-SP	SPQU06ML10	SP	P2	100	7	2.5P	①-92
				SPQU06ML15			150			①-92
				SPQU06ML20			200			①-92
			LS-PO	POQU06ML10	PO		100		5P	③-54
				POQU06ML15			150			③-54
		1 2 3	LS-HT	TNMQU06M515	HT	P2	150	7	5P	④-81
				TNMQU06M520			200			④-81
				TNMQU06M115			150		1.5P	④-81
				TNMQU06M120			200			④-81
Thread forming taps for steels		1 2	N-RZ	NRZM7U06MP	RO	G7	75	7	4P	⑥-17
				NRZM7U06MB					2P	⑥-17
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYU06MRDPB	PO	P3	75	7	5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMQU06M	SP	P2	75	7	2.5P	①-102
		1 2 3 4 9	SU-PO	PUMQU06M	PO	P2	75	7	5P	③-62
		1 2 9	SU-HT	TUMQU06M4	HT	P2	75	7	4P	④-92
				TUMQU06M1					1.5P	④-92
For cast irons	Carbide	12 13 16	N-CT FC	TCNRU06M3	HT	P3	75	7	3P	⑤-13
				TCNRU06M1					1.5P	⑤-13
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWU06M1LEB5	HT	I b	82	8.5	5P	⑦-5
				TWU06M1LEBA					1.5P	⑦-5
Taps ／ 3/8-32UNEF										
Standard		2 3	SP	SPQU06J	SP	P2	75	7	2.5P	①-44
			PO	POQU06J	PO				5P	③-17
		1 2 3	HT	TNMQU06J5	HT	P2	75	7	5P	④-23
				TNMQU06J1					1.5P	④-23
Taps ／ 7/16-14UNC										
Standard		2 3	SP	SPRU07Q	SP	P3	82	8.5	2.5P	①-44
			PO	PORU07Q	PO				5P	③-17
		1 2 3	HT	TNMRU07Q5	HT	P3	82	8.5	5P	④-23
				TNMRU07Q1					1.5P	④-23
	Oversize	1 2 3	HT	TNMSU07Q5	HT	P4	82	8.5	5P	④-23
				TNMSU07Q1					1.5P	④-23
For left hand threads		2 3	SP LH	SPRU07Q--L	SP	P3	82	8.5	2.5P	①-80
			PO LH	PORU07Q--L	PO				5P	③-47
Oxidizing		1 2 3	SP OX	SPRU07QX	SP	P3	82	8.5	2.5P	①-66
			PO OX	PORU07QX	PO				5P	③-36
Long		2 3	LS-SP	SPRU07QL15	SP	P3	150	8.5	2.5P	①-92
			LS-PO	PORU07QL15	PO				5P	③-54
		1 2 3	LS-HT	TNMRU07Q515	HT	P3	150	8.5	5P	④-81
				TNMRU07Q520			200			④-81
				TNMRU07Q115			150		1.5P	④-81
Thread forming taps for steels		1 2	N-RZ	NRZM8U07QP	RO	G8	82	8.5	4P	⑥-17
				NRZM8U07QB					2P	⑥-17
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYU07QSDPB	PO	P4	82	8.5	5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMRU07Q	SP	P3	82	8.5	2.5P	①-103
		1 2 3 4 9	SU-PO	PUMRU07Q	PO	P3	82	8.5	5P	③-62
		1 2 9	SU-HT	TUMRU07Q4	HT	P3	82	8.5	4P	④-92
				TUMRU07Q1					1.5P	④-92

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*Ds*	*ℓc*

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
For cast irons	Carbide	12 13 16	N-CT FC	TCNRU07Q3	HT	P3	80	8	3P	⑤-13
				TCNRU07Q1					1.5P	⑤-13
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWU07Q1LEB5	HT	I b	88	10.5	5P	⑦-5
				TWU07Q1LEBA					1.5P	⑦-5
Taps ／ 7/16-20UNF										
Standard		2 3	SP	SPQU07N	SP	P2	82	8.5	2.5P	①-44
			PO	PORU07N	PO	P3			5P	③-17
		1 2 3	HT	TNMRU07N5	HT	P3	82	8.5	5P	④-23
				TNMRU07N1					1.5P	④-23
	Oversize	1 2 3	HT	TNMSU07N5	HT	P4	82	8.5	5P	④-23
				TNMSU07N1					1.5P	④-23
For left hand threads		2 3	SP LH	SPQU07N--L	SP	P2	82	8.5	2.5P	①-80
			PO LH	PORU07N--L	PO	P3			5P	③-47
		1 2 3	HT LH	TNMRU07N5-L	HT	P3	82	8.5	5P	④-71
				TNMRU07N1-L					1.5P	④-71
Oxidizing		1 2 3	SP OX	SPQU07NX	SP	P2	82	8.5	2.5P	①-66
			PO OX	PORU07NX	PO	P3			5P	③-36
Long		2 3	LS-SP	SPQU07NL15	SP	P2	150	8.5	2.5P	①-92
			LS-PO	PORU07NL15	PO	P3			5P	③-54
		1 2 3	LS-HT	TNMQU07N515	HT	P2	150	8.5	5P	④-81
				TNMQU07N520			200			④-81
				TNMQU07N115			150		1.5P	④-81
				TNMQU07N120			200			④-81
Thread forming taps for steels		1 2	N-RZ	NRZM8U07NP	RO	G8	82	8.5	4P	⑥-17
				NRZM8U07NB					2P	⑥-17
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYU07NRDPB	PO	P3	82	8.5	5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMQU07N	SP	P2	82	8.5	2.5P	①-103
		1 2 3 4 9	SU-PO	PUMRU07N	PO	P3	82	8.5	5P	③-62
		1 2 9	SU-HT	TUMRU07N4	HT	P3	82	8.5	4P	④-92
				TUMRU07N1					1.5P	④-92
For cast irons	Carbide	12 13 16	N-CT FC	TCNRU07N3	HT	P3	80	8	3P	⑤-13
				TCNRU07N1					1.5P	⑤-13
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWU07N1LEB5	HT	I b	88	10.5	5P	⑦-5
				TWU07N1LEBA					1.5P	⑦-5
Taps ／ 7/16-24UNS										
Standard		1 2 3	HT	TNMRU07M5	HT	P3	82	8.5	5P	④-23
				TNMRU07M1					1.5P	④-23
Taps ／ 7/16-28UNEF										
Standard		2 3	SP	SPQU07K	SP	P2	82	8.5	2.5P	①-44
			PO	POQU07K	PO				5P	③-17
		1 2 3	HT	TNMQU07K5	HT	P2	82	8.5	5P	④-23
				TNMQU07K1					1.5P	④-23

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Taps ／ 1/2-13UNC										
Standard		2 3	SP	SPRU08R	SP	P3	88	10.5	2.5P	①-44
			PO	PORU08R	PO				5P	③-17
		1 2 3	HT	TNMRU08R5	HT	P3	88	10.5	5P	④-23
				TNMRU08R1					1.5P	④-23
	Oversize	1 2 3	HT	TNMSU08R5	HT	P4	88	10.5	5P	④-23
				TNMSU08R1					1.5P	④-23
For left hand threads		2 3	SP LH	SPRU08R--L	SP	P3	88	10.5	2.5P	①-80
			PO LH	PORU08R--L	PO				5P	③-47
Oxidizing		1 2 3	SP OX	SPRU08RX	SP	P3	88	10.5	2.5P	①-66
			PO OX	PORU08RX	PO				5P	③-36
Long		2 3	LS-SP	SPRU08RL15	SP	P3	150	10.5	2.5P	①-92
				SPRU08RL20			200			①-92
			LS-PO	PORU08RL15	PO		150		5P	③-54
				PORU08RL20			200			③-54
		1 2 3	LS-HT	TNMRU08R515	HT	P3	150	10.5	5P	④-81
				TNMRU08R520			200			④-81
				TNMRU08R115			150		1.5P	④-82
				TNMRU08R120			200			④-82
Thread forming taps for steels		1 2	N-RZ	NRZM8U08RP	RO	G8	88	10.5	4P	⑥-17
				NRZM8U08RB					2P	⑥-17
For hard-to-machine materials	Powdered HSS	3 5 6	PM-SP	SYU08RSDPB	SP	P4	88	10.5	2.75P	①-169
			PM-PO	PYU08RSDPB	PO				5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMRU08R	SP	P3	88	10.5	2.5P	①-103
		1 2 3 4 9	SU-PO	PUMRU08R	PO	P3	88	10.5	5P	③-62
		1 2 9	SU-HT	TUMRU08R4	HT	P3	88	10.5	4P	④-92
				TUMRU08R1					1.5P	④-92
For cast irons	Carbide	12 13 16	N-CT FC	TCNRU08R3	HT	P3	85	9	3P	⑤-13
				TCNRU08R1					1.5P	⑤-13
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWU08R1LEB5	HT	I b	95	12.5	5P	⑦-5
				TWU08R1LEBA					1.5P	⑦-5
Taps ／ 1/2-20UNF										
Standard		2 3	SP	SPQU08N	SP	P2	88	10.5	2.5P	①-44
			PO	PORU08N	PO	P3			5P	③-17
		1 2 3	HT	TNMRU08N5	HT	P3	88	10.5	5P	④-23
				TNMRU08N1					1.5P	④-23
	Oversize	1 2 3	HT	TNMSU08N5	HT	P4	88	10.5	5P	④-23
				TNMSU08N1					1.5P	④-23
For left hand threads		2 3	SP LH	SPQU08N--L	SP	P2	88	10.5	2.5P	①-80
			PO LH	PORU08N--L	PO	P3			5P	③-47
Oxidizing		1 2 3	SP OX	SPQU08NX	SP	P2	88	10.5	2.5P	①-66
			PO OX	PORU08NX	PO	P3			5P	③-36
Long		2 3	LS-SP	SPQU08NL15	SP	P2	150	10.5	2.5P	①-92
				SPQU08NL20			200			①-92
			LS-PO	PORU08NL15	PO	P3	150		5P	③-54
				PORU08NL20			200			③-54
		1 2 3	LS-HT	TNMQU08N515	HT	P2	150	10.5	5P	④-82
				TNMQU08N520			200			④-82
				TNMQU08N115			150		1.5P	④-82
				TNMQU08N120			200			④-82

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Thread forming taps for steels		1 2	N-RZ	NRZM8U08NP	RO	G8	88	10.5	4P	⑥-17
				NRZM8U08NB					2P	⑥-17
For hard-to-machine materials	Powdered HSS	3 5 6	PM-SP	SYU08NRDPB	SP	P3	88	10.5	2.75P	①-169
			PM-PO	PYU08NSDPB	PO	P4			5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMQU08N	SP	P2	88	10.5	2.5P	①-103
		1 2 3 4 9	SU-PO	PUMRU08N	PO	P3	88	10.5	5P	③-62
		1 2 9	SU-HT	TUMRU08N4	HT	P3	88	10.5	4P	④-92
				TUMRU08N1					1.5P	④-92
For cast irons	Carbide	12 13 16	N-CT FC	TCNRU08N3	HT	P3	85	9	3P	⑤-13
				TCNRU08N1					1.5P	⑤-13
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWU08N1LEB5	HT	I b	95	12.5	5P	⑦-5
				TWU08N1LEBA					1.5P	⑦-5
Taps ／ 1/2-24UNS										
Standard		1 2 3	HT	TNMRU08M5	HT	P3	88	10.5	5P	④-23
				TNMRU08M1					1.5P	④-23
Taps ／ 1/2-28UNEF										
Standard		2 3	SP	SPQU08K	SP	P2	88	10.5	2.5P	①-44
			PO	POQU08K	PO				5P	③-17
		1 2 3	HT	TNMQU08K5	HT	P2	88	10.5	5P	④-23
				TNMQU08K1					1.5P	④-23
Taps ／ 1/2-32UN										
Standard		1 2 3	HT	TNMQU08J5	HT	P2	88	10.5	5P	④-23
				TNMQU08J1					1.5P	④-23
Taps ／ 9/16-12UNC										
Standard		2 3	SP	SPRU09S	SP	P3	95	12.5	2.5P	①-44
			PO	PORU09S	PO				5P	③-17
		1 2 3	HT	TNMRU09S5	HT	P3	95	12.5	5P	④-23
				TNMRU09S1					1.5P	④-23
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYU09SSDPB	PO	P4	95	12.5	5.5P	③-93
Taps ／ 9/16-18UNF										
Standard		2 3	SP	SPQU09O	SP	P2	95	12.5	2.5P	①-44
			PO	PORU09O	PO	P3			5P	③-17
		1 2 3	HT	TNMRU09O5	HT	P3	95	12.5	5P	④-23
				TNMRU09O1					1.5P	④-23
	Oversize	1 2 3	HT	TNMSU09O5	HT	P4	95	12.5	5P	④-23
				TNMSU09O1					1.5P	④-23
For left hand threads		1 2 3	HT LH	TNMRU09O5-L	HT	P3	95	12.5	5P	④-71
				TNMRU09O1-L					1.5P	④-71
Oxidizing		1 2 3	SP OX	SPQU09OX	SP	P2	95	12.5	2.5P	①-66
			PO OX	PORU09OX	PO	P3			5P	③-36
Long		1 2 3	LS-HT	TNMQU09O515	HT	P2	150	12.5	5P	④-82
				TNMQU09O115					1.5P	④-82
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYU09OSDPB	PO	P4	95	12.5	5.5P	③-93
For stainless steels		1 2 3 4 9	SU-PO	PUMRU09O	PO	P3	95	12.5	5P	③-62

Tap selection		Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ 9/16-20UN										
Standard		1 2 3	HT	TNMRU09N5	HT	P3	95	12.5	5P	④-23
				TNMRU09N1					1.5P	④-23
Taps ／ 9/16-24UNEF										
Standard		2 3	SP	SPQU09M	SP	P2	95	12.5	2.5P	①-44
		1 2 3	HT	TNMRU09M5	HT	P3	95	12.5	5P	④-23
				TNMRU09M1					1.5P	④-23
Taps ／ 5/8-11UNC										
Standard		2 3	SP	SPRU10U	SP	P3	95	12.5	2.5P	①-44
			PO	PORU10U	PO				5P	③-18
		1 2 3	HT	TNMSU10U5	HT	P4	95	12.5	5P	④-24
				TNMSU10U1					1.5P	④-24
For left hand threads		1 2 3	HT LH	TNMSU10U5-L	HT	P4	95	12.5	5P	④-71
				TNMSU10U1-L					1.5P	④-71
Oxidizing		1 2 3	SP OX	SPRU10UX	SP	P3	95	12.5	2.5P	①-66
			PO OX	PORU10UX	PO				5P	③-36
Long		2 3	LS-SP	SPRU10UL15	SP	P3	150	12.5	2.5P	①-92
				SPRU10UL20			200			①-92
			LS-PO	PORU10UL15	PO		150		5P	③-54
				PORU10UL20			200			③-54
		1 2 3	LS-HT	TNMRU10U515	HT	P3	150	12.5	5P	④-82
				TNMRU10U520			200			④-82
				TNMRU10U115			150		1.5P	④-82
				TNMRU10U120			200			④-82
For hard-to-machine materials	Powdered HSS	3 5 6	PM-SP	SYU10USDPB	SP	P4	95	12.5	2.75P	①-169
			PM-PO	PYU10UTDPB	PO	P5			5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMRU10U	SP	P3	95	12.5	2.5P	①-103
		1 2 3 4 9	SU-PO	PUMRU10U	PO	P3	95	12.5	5P	③-62
		1 2 9	SU-HT	TUMRU10U4	HT	P3	95	12.5	4P	④-92
				TUMRU10U1					1.5P	④-92
For cast irons	Carbide	12 13 16	N-CT FC	TCNSU10U3	HT	P4	95	12	3P	⑤-13
				TCNSU10U1					1.5P	⑤-13
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWU10U1LEB5	HT	I b	105	15	5P	⑦-5
				TWU10U1LEBA					1.5P	⑦-5
Taps ／ 5/8-18UNF										
Standard		2 3	SP	SPQU10O	SP	P2	95	12.5	2.5P	①-44
			PO	PORU10O	PO	P3			5P	③-18
		1 2 3	HT	TNMRU10O5	HT	P3	95	12.5	5P	④-24
				TNMRU10O1					1.5P	④-24
	Oversize	1 2 3	HT	TNMSU10O5	HT	P4	95	12.5	5P	④-24
				TNMSU10O1					1.5P	④-24
For left hand threads		1 2 3	HT LH	TNMRU10O5-L	HT	P3	95	12.5	5P	④-71
				TNMRU10O1-L					1.5P	④-71
Oxidizing		1 2 3	SP OX	SPQU10OX	SP	P2	95	12.5	2.5P	①-66
			PO OX	PORU10OX	PO	P3			5P	③-36

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*Ds*	*ℓc*

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Long		2 3	LS-SP	SPQU10OL15	SP	P2	150	12.5	2.5P	①-92
				SPQU10OL20			200			①-92
			LS-PO	PORU10OL15	PO	P3	150		5P	③-54
				PORU10OL20			200			③-54
		1 2 3	LS-HT	TNMQU10O515	HT	P2	150	12.5	5P	④-82
				TNMQU10O115					1.5P	④-82
For hard-to-machine materials	Powdered HSS	3 5 6	PM-SP	SYU10ORDPB	SP	P3	95	12.5	2.75P	①-169
			PM-PO	PYU10OSDPB	PO	P4			5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMQU10O	SP	P2	95	12.5	2.5P	①-103
		1 2 9	SU-HT	TUMRU10O4	HT	P3	95	12.5	4P	④-92
				TUMRU10O1					1.5P	④-92
For cast irons	Carbide	12 13 16	N-CT FC	TCNSU10O3	HT	P4	95	12	3P	⑤-13
				TCNSU10O1					1.5P	⑤-14
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWU10O1LEB5	HT	I b	100	14	5P	⑦-5
				TWU10O1LEBA					1.5P	⑦-5

Taps ／ 5/8-20UN

Standard		1 2 3	HT	TNMRU10N5	HT	P3	95	12.5	5P	④-24
				TNMRU10N1					1.5P	④-24

Taps ／ 5/8-24UNEF

Standard		2 3	SP	SPQU10M	SP	P2	95	12.5	2.5P	①-44
			PO	PORU10M	PO	P3			5P	③-18
		1 2 3	HT	TNMRU10M5	HT	P3	95	12.5	5P	④-24
				TNMRU10M1					1.5P	④-24

Taps ／ 3/4-10UNC

Standard		2 3	SP	SPRU12V	SP	P3	105	15	2.5P	①-44
			PO	POSU12V	PO	P4			5P	③-18
		1 2 3	HT	TNMSU12V5	HT	P4	105	15	5P	④-24
				TNMSU12V1					1.5P	④-24
Oxidizing		1 2 3	SP OX	SPRU12VX	SP	P3	105	15	2.5P	①-66
			PO OX	POSU12VX	PO	P4			5P	③-36
Long		2 3	LS-SP	SPRU12VL15	SP	P3	150	15	2.5P	①-92
				SPRU12VL20			200			①-92
			LS-PO	POSU12VL15	PO	P4	150		5P	③-54
				POSU12VL20			200			③-54
		1 2 3	LS-HT	TNMRU12V515	HT	P3	150	15	5P	④-82
				TNMRU12V520			200			④-82
				TNMRU12V115			150		1.5P	④-82
				TNMRU12V120			200			④-82
For hard-to-machine materials	Powdered HSS	3 5 6	PM-SP	SYU12VSDPB	SP	P4	105	15	2.75P	①-169
			PM-PO	PYU12VTDPB	PO	P5			5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMRU12V	SP	P3	105	15	2.5P	①-103
		1 2 9	SU-HT	TUMSU12V4	HT	P4	105	15	4P	④-92
				TUMSU12V1					1.5P	④-92
For cast irons	Carbide	12 13 16	N-CT FC	TCNSU12V3	HT	P4	105	14	3P	⑤-14
				TCNSU12V1					1.5P	⑤-14
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWU12V1LEB5	HT	I b	115	17	5P	⑦-5
				TWU12V1LEBA					1.5P	⑦-5

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	*Ds*	*ℓc*	Product page
Standard		2 3	SP	SPRU12P	SP	P3	105	15	2.5P	①-44
			PO	PORU12P	PO				5P	③-18
		1 2 3	HT	TNMRU12P5	HT	P3	105	15	5P	④-24
				TNMRU12P1					1.5P	④-24
	Oversize	1 2 3	HT	TNMSU12P5	HT	P4	105	15	5P	④-24
				TNMSU12P1					1.5P	④-24
For left hand threads		1 2 3	HT LH	TNMRU12P5-L	HT	P3	105	15	5P	④-72
Oxidizing		1 2 3	SP OX	SPRU12PX	SP	P3	105	15	2.5P	①-66
			PO OX	PORU12PX	PO				5P	③-36
Long		2 3	LS-SP	SPRU12PL15	SP	P3	150	15	2.5P	①-92
				SPRU12PL20			200			①-92
			LS-PO	PORU12PL15	PO		150		5P	③-54
				PORU12PL20			200			③-54
		1 2 3	LS-HT	TNMRU12P515	HT	P3	150	15	5P	④-82
				TNMRU12P520			200			④-82
				TNMRU12P115			150		1.5P	④-82
				TNMRU12P120			200			④-82
For hard-to-machine materials	Powdered HSS	3 5 6	PM-SP	SYU12PSDPB	SP	P4	105	15	2.75P	①-169
			PM-PO	PYU12PSDPB	PO				5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMRU12P	SP	P3	105	15	2.5P	①-103
		1 2 9	SU-HT	TUMRU12P4	HT	P3	105	15	4P	④-92
				TUMRU12P1					1.5P	④-92
For cast irons	Carbide	12 13 16	N-CT FC	TCNSU12P3	HT	P4	95	14	3P	⑤-14
				TCNSU12P1					1.5P	⑤-14
For helical coil wire screw thread inserts		18 19 21	AL-HT STI	TWU12P1LEB5	HT	I b	115	17	5P	⑦-5
				TWU12P1LEBA					1.5P	⑦-5

Taps ／ 3/4-16UNF

Taps ／ 3/4-20UNEF

Standard		2 3	SP	SPQU12N	SP	P2	105	15	2.5P	①-44
			PO	PORU12N	PO	P3			5P	③-18
		1 2 3	HT	TNMRU12N5	HT	P3	105	15	5P	④-24
				TNMRU12N1					1.5P	④-24

Taps ／ 7/8-9UNC

Standard		2 3	SP	SPRU14W	SP	P3	115	17	2.5P	①-44
			PO	POSU14W	PO	P4			5P	③-18
		1 2 3	HT	TNMSU14W5	HT	P4	115	17	5P	④-24
				TNMSU14W1					1.5P	④-24
For left hand threads		1 2 3	HT LH	TNMSU14W5-L	HT	P4	115	17	5P	④-72
				TNMSU14W1-L					1.5P	④-72
Oxidizing		1 2 3	SP OX	SPRU14WX	SP	P3	115	17	2.5P	①-66
			PO OX	POSU14WX	PO	P4			5P	③-36
Long		2 3	LS-SP	SPRU14WL15	SP	P3	150	17	2.5P	①-92
				SPRU14WL20			200			①-92
			LS-PO	POSU14WL20	PO	P4			5P	③-54
		1 2 3	LS-HT	TNMRU14W520	HT	P3	200	17	5P	④-82
				TNMRU14W120					1.5P	④-82
For hard-to-machine materials	Powdered HSS	3 5 6	PM-PO	PYU14WTDPB	PO	P5	115	17	5.5P	③-93
For stainless steels		2 3 4 9	SU-SP	SUMRU14W	SP	P3	115	17	2.5P	①-103

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ 7/8-14UNF									
Standard	2 3	SP	SPRU14Q	SP	P3	115	17	2.5P	①-44
		PO	PORU14Q	PO				5P	③-18
	1 2 3	HT	TNMSU14Q5	HT	P4	115	17	5P	④-24
			TNMSU14Q1					1.5P	④-24
Oxidizing	1 2 3	SP OX	SPRU14QX	SP	P3	115	17	2.5P	①-66
		PO OX	PORU14QX	PO				5P	③-36
Long	2 3	LS-SP	SPRU14QL20	SP	P3	200	17	2.5P	①-92
		LS-PO	PORU14QL20	PO				5P	③-54
	1 2 3	LS-HT	TNMRU14Q115	HT	P3	150	17	1.5P	④-82
			TNMRU14Q120			200			④-82
For hard-to-machine materials Powdered HSS	3 5 6	PM-PO	PYU14QSDPB	PO	P4	115	17	5.5P	③-93
For stainless steels	2 3 4 9	SU-SP	SUMRU14Q	SP	P3	115	17	2.5P	①-103
Taps ／ 7/8-20UNEF									
Standard	2 3	SP	SPQU14N	SP	P2	115	17	2.5P	①-44
	1 2 3	HT	TNMRU14N5	HT	P3	115	17	5P	④-24
			TNMRU14N1					1.5P	④-24
Taps ／ 1 -8UNC									
Standard	2 3	SP	SPRU16X	SP	P3	125	19	2.5P	①-44
		PO	POSU16X	PO	P4			5P	③-18
	1 2 3	HT	TNMSU16X5	HT	P4	125	19	5P	④-24
			TNMSU16X1					1.5P	④-24
For left hand threads	1 2 3	HT LH	TNMSU16X5-L	HT	P4	125	19	5P	④-72
			TNMSU16X1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPRU16XX	SP	P3	125	19	2.5P	①-66
		PO OX	POSU16XX	PO	P4			5P	③-36
Long	2 3	LS-SP	SPRU16XL15	SP	P3	150	19	2.5P	①-92
			SPRU16XL20			200			①-92
		LS-PO	POSU16XL15	PO	P4	150		5P	③-54
			POSU16XL20			200			③-54
	1 2 3	LS-HT	TNMRU16X515	HT	P3	150	19	5P	④-82
			TNMRU16X520			200			④-82
			TNMRU16X525			250			④-82
			TNMRU16X115			150		1.5P	④-82
			TNMRU16X120			200			④-82
			TNMRU16X125			250			④-82
For steels	1 2 3 4 5 9 11	HVSP	SYU16XTEEXJ	SP	P5	160	19	2.5P	①-25
For hard-to-machine materials Powdered HSS	3 5 6	PM-SP	SYU16XTDPB	SP	P5	125	19	2.75P	①-169
		PM-PO	PYU16XUDPB	PO	P6			5.5P	③-93
For stainless steels	2 3 4 9	SU-SP	SUMRU16X	SP	P3	125	19	2.5P	①-103

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ 1 -12UNF									
Standard	2 3	SP	SPRU16S	SP	P3	125	19	2.5P	①-44
		PO	POSU16S	PO	P4			5P	③-18
	1 2 3	HT	TNMSU16S5	HT	P4	125	19	5P	④-24
			TNMSU16S1					1.5P	④-24
For left hand threads	1 2 3	HT LH	TNMSU16S5-L	HT	P4	125	19	5P	④-72
			TNMSU16S1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPRU16SX	SP	P3	125	19	2.5P	①-66
Long	2 3	LS-SP	SPRU16SL20	SP	P3	200	19	2.5P	①-92
		LS-PO	POSU16SL20	PO	P4			5P	③-54
	1 2 3	LS-HT	TNMRU16S515	HT	P3	150	19	5P	④-82
			TNMRU16S115					1.5P	④-82
For steels	1 2 3 4 5 9 11	HVSP	SYU16SSEEXJ	SP	P4	160	19	2.5P	①-25
For hard-to-machine materials Powdered HSS	3 5 6	PM-SP	SYU16SSDPB	SP	P4	125	19	2.75P	①-169
		PM-PO	PYU16STDPB	PO	P5			5.5P	③-93
For stainless steels	2 3 4 9	SU-SP	SUMRU16S	SP	P3	125	19	2.5P	①-103
Taps ／ 1 -14UNS									
Standard	2 3	SP	SPRU16Q	SP	P3	125	19	2.5P	①-44
		PO	POSU16Q	PO	P4			5P	③-18
	1 2 3	HT	TNMSU16Q5	HT	P4	125	19	5P	④-24
			TNMSU16Q1					1.5P	④-24
Taps ／ 1 -20UNEF									
Standard	2 3	SP	SPQU16N	SP	P2	125	19	2.5P	①-44
	1 2 3	HT	TNMRU16N5	HT	P3	125	19	5P	④-24
			TNMRU16N1					1.5P	④-24
Taps ／ 1 1/16-12UN									
Standard	1 2 3	HT	TNMSU17S5	HT	P4	130	20	5P	④-24
			TNMSU17S1					1.5P	④-24
Taps ／ 1 1/16-14UNS									
Standard	1 2 3	HT	TNMSU17Q5	HT	P4	130	20	5P	④-24
			TNMSU17Q1					1.5P	④-24
Taps ／ 1 1/8-7UNC									
Standard	2 3	SP	SPSU18Y	SP	P4	135	23	2.5P	①-44
		PO	POSU18Y	PO				5P	③-18
	1 2 3	HT	TNMTU18Y5	HT	P5	135	23	5P	④-24
			TNMTU18Y1					1.5P	④-24
For steels	1 2 3 4 5 9 11	HVSP	SYU18YUEEXJ	SP	P6	180	23	2.5P	①-25
Taps ／ 1 1/8-8UN									
Standard	2 3	SP	SPRU18X	SP	P3	135	23	2.5P	①-44
	1 2 3	HT	TNMTU18X5	HT	P5	135	23	5P	④-24
			TNMTU18X1					1.5P	④-24
For steels	1 2 3 4 5 9 11	HVSP	SYU18XTEEXJ	SP	P5	180	23	2.5P	①-25

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Taps ／ 1 1/8-12UNF									
Standard	2 3	SP	SPRU18S	SP	P3	135	23	2.5P	①-44
		PO	POSU18S	PO	P4			5P	③-18
	1 2 3	HT	TNMSU18S5	HT	P4	135	23	5P	④-24
			TNMSU18S1					1.5P	④-24
For steels	1 2 3 4 5 9 11	HVSP	SYU18SSEEXJ	SP	P4	180	23	2.5P	①-25
Taps ／ 1 1/8-14UNS									
Standard	2 3	SP	SPRU18Q	SP	P3	135	23	2.5P	①-44
Taps ／ 1 3/16-12UN									
Standard	1 2 3	HT	TNMSU19S5	HT	P4	145	24	5P	④-24
			TNMSU19S1					1.5P	④-24
Taps ／ 1 1/4-7UNC									
Standard	2 3	SP	SPMSU20Y	SP	P4	145	24	2.5P	①-44
		PO	POMSU20Y	PO				5P	③-18
	1 2 3	HT	TNMTU20Y5	HT	P5	145	24	5P	④-24
			TNMTU20Y1					1.5P	④-24
For steels	1 2 3 4 5 9 11	HVSP	SYU20YUEEXJ	SP	P6	180	24	2.5P	①-25
Taps ／ 1 1/4-8UN									
Standard	2 3	SP	SPMRU20X	SP	P3	145	24	2.5P	①-44
	1 2 3	HT	TNMTU20X5	HT	P5	145	24	5P	④-24
			TNMTU20X1					1.5P	④-24
For steels	1 2 3 4 5 9 11	HVSP	SYU20XTEEXJ	SP	P5	180	24	2.5P	①-25
Taps ／ 1 1/4-12UNF									
Standard	2 3	SP	SPMRU20S	SP	P3	145	24	2.5P	①-44
		PO	POMSU20S	PO	P4			5P	③-18
	1 2 3	HT	TNMSU20S5	HT	P4	145	24	5P	④-24
			TNMSU20S1					1.5P	④-24
For steels	1 2 3 4 5 9 11	HVSP	SYU20SSEEXJ	SP	P4	180	24	2.5P	①-25
Taps ／ 1 5/16-12UN									
Standard	1 2 3	HT	TNMSU21S5	HT	P4	155	28	5P	④-25
			TNMSU21S1					1.5P	④-25
Taps ／ 1 3/8-6UNC									
Standard	2 3	SP	SPMSU22Z	SP	P4	155	28	2.5P	①-44
		PO	POMTU22Z	PO	P5			5P	③-18
	1 2 3	HT	TNMTU22Z5	HT	P5	155	28	5P	④-25
			TNMTU22Z1					1.5P	④-25
For steels	1 2 3 4 5 9 11	HVSP	SYU22ZUEEXJ	SP	P6	200	28	2.5P	①-25
Taps ／ 1 3/8-8UN									
Standard	2 3	SP	SPMRU22X	SP	P3	155	28	2.5P	①-44
	1 2 3	HT	TNMTU22X5	HT	P5	155	28	5P	④-25
			TNMTU22X1					1.5P	④-25
For steels	1 2 3 4 5 9 11	HVSP	SYU22XTEEXJ	SP	P5	200	28	2.5P	①-25

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Taps ／ 1 3/8-12UNF									
Standard	2 3	SP	SPMRU22S	SP	P3	155	28	2.5P	①-44
		PO	POMSU22S	PO	P4			5P	③-18
	1 2 3	HT	TNMSU22S5	HT	P4	155	28	5P	④-25
			TNMSU22S1					1.5P	④-25
Oxidizing	1 2 3	PO OX	POMSU22SX	PO	P4	155	28	5P	③-36
For steels	1 2 3 4 5 9 11	HVSP	SYU22SSEEXJ	SP	P4	200	28	2.5P	①-25
Taps ／ 1 1/2-6UNC									
Standard	2 3	SP	SPMSU24Z	SP	P4	165	30	2.5P	①-44
		PO	POMTU24Z	PO	P5			5P	③-18
	1 2 3	HT	TNMTU24Z5	HT	P5	165	30	5P	④-25
			TNMTU24Z1					1.5P	④-25
Oxidizing	1 2 3	SP OX	SPMSU24ZX	SP	P4	165	30	2.5P	①-66
For steels	1 2 3 4 5 9 11	HVSP	SYU24ZUEEXJ	SP	P6	200	30	2.5P	①-25
Taps ／ 1 1/2-8UN									
Standard	2 3	SP	SPMRU24X	SP	P3	165	30	2.5P	①-44
	1 2 3	HT	TNMTU24X5	HT	P5	165	30	5P	④-25
			TNMTU24X1					1.5P	④-25
For steels	1 2 3 4 5 9 11	HVSP	SYU24XTEEXJ	SP	P5	200	30	2.5P	①-25
Taps ／ 1 1/2-12UNF									
Standard	2 3	SP	SPMRU24S	SP	P3	165	30	2.5P	①-45
		PO	POMSU24S	PO	P4			5P	③-18
	1 2 3	HT	TNMSU24S5	HT	P4	165	30	5P	④-25
			TNMSU24S1					1.5P	④-25
Oxidizing	1 2 3	SP OX	SPMRU24SX	SP	P3	165	30	2.5P	①-66
		PO OX	POMSU24SX	PO	P4			5P	③-36
For steels	1 2 3 4 5 9 11	HVSP	SYU24SSEEXJ	SP	P4	200	30	2.5P	①-25
Taps ／ 1 5/8-5UNS									
Standard	1 2 3	HT	TNMTU2605	HT	P5	175	32	5P	④-25
			TNMTU2601					1.5P	④-25
Taps ／ 1 5/8-8UN									
Standard	1 2 3	HT	TNMTU26X5	HT	P5	175	32	5P	④-25
			TNMTU26X1					1.5P	④-25
Taps ／ 1 5/8-12UN									
Standard	1 2 3	HT	TNMSU26S5	HT	P4	175	32	5P	④-25
			TNMSU26S1					1.5P	④-25
Taps ／ 1 3/4-5UNC									
Standard	2 3	SP	SPMSU280	SP	P4	180	35	2.5P	①-45
	1 2 3	HT	TNMUU2805	HT	P6	180	35	5P	④-25
			TNMUU2801					1.5P	④-25
For steels	1 2 3 4 5 9 11	HVSP	SYU280UEEXJ	SP	P6	220	35	2.5P	①-25

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps / 1 3/4-8UN									
Standard	1 2 3	HT	TNMTU28X5	HT	P5	180	35	5P	④-25
			TNMTU28X1					1.5P	④-25
For steels	1 2 3 4 5 9 11	HVSP	SYU28XTEEXJ	SP	P5	220	35	2.5P	①-25
Taps / 1 3/4-12UN									
Standard	2 3	SP	SPMRU28S	SP	P3	180	35	2.5P	①-45
	1 2 3	HT	TNMSU28S5	HT	P4	180	35	5P	④-25
			TNMSU28S1					1.5P	④-25
For steels	1 2 3 4 5 9 11	HVSP	SYU28SSEEXJ	SP	P4	220	35	2.5P	①-25
Taps / 1 7/8-8UN									
Standard	1 2 3	HT	TNMTU30X5	HT	P5	185	38	5P	④-25
			TNMTU30X1					1.5P	④-25
Taps / 1 7/8-12UN									
Standard	1 2 3	HT	TNMSU30S5	HT	P4	185	38	5P	④-25
			TNMSU30S1					1.5P	④-25
Taps / 2 -4 1/2UNC									
Standard	2 3	SP	SPTU329	SP	P5	195	40	2.5P	①-45
	1 2 3	HT	TH2U329S	HT	II	195	40	5P	④-25
			TH2U3291					1.5P	④-25
For steels	1 2 3 4 5 9 11	HVSP	SYU329VEEXJ	SP	P7	250	40	2.5P	①-25
Taps / 2 -8UN									
Standard	1 2 3	HT	TH2U32X5	HT	II	180	40	5P	④-25
			TH2U32X1					1.5P	④-25
For steels	1 2 3 4 5 9 11	HVSP	SYU32XUEEXJ	SP	P6	250	40	2.5P	①-25
Taps / 2 -12UN									
Standard	2 3	SP	SPRU32S	SP	P3	145	40	2.5P	①-45
	1 2 3	HT	TH2U32S5	HT	II	130	40	5P	④-25
			TH2U32S1					1.5P	④-25
Taps / 2 1/4-8UN									
Standard	1 2 3	HT	TH2U36X5	HT	II	180	44	5P	④-25
			TH2U36X1					1.5P	④-25
Taps / 2 1/2-8UN									
Standard	1 2 3	HT	TH2U40X5	HT	II	185	48	5P	④-25
			TH2U40X1					1.5P	④-25
Taps / 2 3/4-8UN									
Standard	1 2 3	HT	TH2U44X5	HT	II	190	55	5P	④-25
			TH2U44X1					1.5P	④-25

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps / 3 -8UN									
Standard	1 2 3	HT	TH2U48X5	HT	II	190	58	5P	④-25
			TH2U48X1					1.5P	④-25

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ No.0-80UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYDUN0BDNEBC	⑩-12
					20	7		TYEUN0BDNEBC	⑩-12
Dies ／ No.1-64UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN1DDNEBC	⑩-12
Dies ／ No.1-72UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN1CDNEBC	⑩-12
Dies ／ No.2-56UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	16	5	2.5P	TYDUN2EDNEBC	⑩-12
					20	7		TYEUN2EDNEBC	⑩-12
Dies ／ No.2-64UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN2DDNEBC	⑩-12
Dies ／ No.3-48UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN3FDNEBC	⑩-12
Dies ／ No.3-56UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN3EDNEBC	⑩-12
Dies ／ No.4-40UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN4HDNEBC	⑩-12
Dies ／ No.4-48UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN4FDNEBC	⑩-12
Dies ／ No.5-40UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN5HDNEBC	⑩-13
Dies ／ No.5-44UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN5GDNEBC	⑩-13
Dies ／ No.6-32UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN6JDNEBC	⑩-13
Dies ／ No.6-40UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN6HDNEBC	⑩-13
Dies ／ No.8-32UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN8JDNEBC	⑩-13
Dies ／ No.8-36UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUN8IDNEBC	⑩-13
Dies ／ No.10-24UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUNAMDNEBC	⑩-13

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ No.10-32UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUNAJDNEBC	⑩-13
Dies ／ No.12-24UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUNCMDNEBC	⑩-13
Dies ／ No.12-28UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEUNCKDNEBC	⑩-13
Dies ／ 1/4-20UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEU04NDNEBC	⑩-13
					25	9		TYGU04NDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYGU04NDNEBC	⑩-24
Dies ／ 1/4-28UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEU04KDNEBC	⑩-13
					25	9		TYGU04KDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYGU04KDNEBC	⑩-24
Dies ／ 1/4-32UNEF									
Solid dies	HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYGU04JDNEBC	⑩-13
Dies ／ 5/16-18UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYGU05ODNEBC	⑩-13
					38	13		TYJU05ODNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYGU05ODNEBC	⑩-24
Dies ／ 5/16-24UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYGU05MDNEBC	⑩-13
					38	13		TYJU05MDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYGU05MDNEBC	⑩-24
Dies ／ 5/16-32UNEF									
Solid dies	HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYGU05JDNEBC	⑩-13
Dies ／ 3/8-16UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYGU06PDNEBC	⑩-13
					38	13		TYJU06PDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYGU06PDNEBC	⑩-24
Dies ／ 3/8-24UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYGU06MDNEBC	⑩-13
					38	13		TYJU06MDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYGU06MDNEBC	⑩-24
					38	13		GYJU06MDNEBC	⑩-24
Dies ／ 3/8-32UNEF									
Solid dies	HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYGU06JDNEBC	⑩-13
Dies ／ 7/16-14UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU07QDNEBC	⑩-13

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / 7/16-20UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU07NDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJU07NDNEBC	⑩-24
Dies / 7/16-24UNS									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU07MDNEBC	⑩-13
Dies / 7/16-28UNEF									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU07KDNEBC	⑩-13
Dies / 1/2-13UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU08RDNEBC	⑩-13
					50	16		TYMU08RDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJU08RDNEBC	⑩-24
Dies / 1/2-20UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU08NDNEBC	⑩-13
					50	16		TYMU08NDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJU08NDNEBC	⑩-24
Dies / 1/2-28UNEF									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU08KDNEBC	⑩-13
Dies / 9/16-12UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU09SDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJU09SDNEBC	⑩-24
Dies / 9/16-18UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU09ODNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJU09ODNEBC	⑩-24
Dies / 9/16-20UN									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU09NDNEBC	⑩-13
Dies / 9/16-24UNEF									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU09MDNEBC	⑩-13
Dies / 5/8-11UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU10UDNEBC	⑩-13
					50	16		TYMU10UDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYMU10UDNEBC	⑩-24
Dies / 5/8-18UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU10ODNEBC	⑩-13
					50	16		TYMU10ODNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYMU10ODNEBC	⑩-24
Dies / 5/8-24UNEF									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJU10MDNEBC	⑩-13

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / 3/4-10UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYMU12VDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYMU12VDNEBC	⑩-24
Dies / 3/4-16UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYMU12PDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYMU12PDNEBC	⑩-24
Dies / 3/4-20UNEF									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYMU12NDNEBC	⑩-13
Dies / 7/8-9UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYMU14WDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYMU14WDNEBC	⑩-25
Dies / 7/8-14UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYMU14QDNEBC	⑩-13
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYMU14QDNEBC	⑩-25
Dies / 1 -8UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYMU16XDNEBC	⑩-13
Dies / 1 -12UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYMU16SDNEBC	⑩-13
Dies / 1 -14UNS									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYMU16QDNEBC	⑩-14
Dies / 1 -20UNEF									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYMU16NDNEBC	⑩-14
Dies / 1 1/8-7UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYRU18YDNEBC	⑩-14
Dies / 1 1/8-8UN									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYRU18XDNEBC	⑩-14
Dies / 1 1/8-12UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYRU18SDNEBC	⑩-14
Dies / 1 1/4-7UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYRU20YDNEBC	⑩-14
Dies / 1 1/4-8UN									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYRU20XDNEBC	⑩-14
Dies / 1 1/4-12UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYRU20SDNEBC	⑩-14
Dies / 1 3/8-6UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYUU22ZDNEBC	⑩-14

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P: B:













Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ 1 3/8-12UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYUU22SDNEBC	⑩-14
Dies ／ 1 1/2-6UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYUU24ZDNEBC	⑩-14
Dies ／ 1 1/2-8UN									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYUU24XDNEBC	⑩-14
Dies ／ 1 1/2-12UNF									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYUU24SDNEBC	⑩-14
Dies ／ 1 5/8-12UN									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYUU26SDNEBC	⑩-14
Dies ／ 1 3/4-5UNC									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYUU28ODNEBC	⑩-14
Dies ／ 1 3/4-12UN									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYUU28SDNEBC	⑩-14
Dies ／ 2 -12UN									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYUU32SDNEBC	⑩-14

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ 1/16W60									
Standard	1 2 3	HT	TNMQW01-5	HT	P2	36	3	5P	④-25
			TNMQW01-1					1.5P	④-25
Taps ／ 3/32W48									
Standard	1 2 3	HT	TNMQW1HF5	HT	P2	46	3	5P	④-25
			TNMQW1HF1					1.5P	④-25
Taps ／ 1/8W40									
Standard	2 3	SP	SPPW02H	SP	P1	52	5	2.5P	①-45
		PO	POQW02H	PO	P2			5P	③-18
	1 2 3	HT	TNMQW02H5	HT	P2	52	5	5P	④-26
			TNMQW02H1					1.5P	④-26
For left hand threads	1 2 3	HT LH	TNMQW02H5-L	HT	P2	52	5	5P	④-72
			TNMQW02H1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPPW02HX	SP	P1	52	5	2.5P	①-66
		PO OX	POQW02HX	PO	P2			5P	③-36
Nut taps	1 2	NT	NH2W02H	HT	II b	95	2.2	28P	⑦-28
Taps ／ 5/32W32									
Standard	2 3	SP	SPQW2HJ	SP	P2	52	5	2.5P	①-45
		PO	POQW2HJ	PO				5P	③-18
	1 2 3	HT	TNMQW2HJ5	HT	P2	52	5	5P	④-26
			TNMQW2HJ1					1.5P	④-26
Oxidizing	1 2 3	SP OX	SPQW2HJX	SP	P2	52	5	2.5P	①-66
		PO OX	POQW2HJX	PO				5P	③-36
Taps ／ 3/16W24									
Standard	2 3	SP	SPQW03M	SP	P2	60	5.5	2.5P	①-45
		PO	POQW03M	PO				5P	③-18
	1 2 3	HT	TNMRW03M5	HT	P3	60	5.5	5P	④-26
			TNMRW03M1					1.5P	④-26
For left hand threads	1 2 3	HT LH	TNMRW03M5-L	HT	P3	60	5.5	5P	④-72
			TNMRW03M1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPQW03MX	SP	P2	60	5.5	2.5P	①-66
		PO OX	POQW03MX	PO				5P	③-36
For stainless steels	2 3 4 9	SU-SP	SUMQW03M	SP	P2	60	5.5	2.5P	①-103
	1 2 3 4 9	SU-PO	PUMQW03M	PO	P2	60	5.5	5P	③-62
Nut taps	1 2	NT	NH2W03M	HT	II b	110	3.2	25P	⑦-28
Taps ／ 7/32W24									
Standard	2 3	SP	SPQW3HM	SP	P2	62	6	2.5P	①-45
		PO	POQW3HM	PO				5P	③-18
	1 2 3	HT	TNMRW3HM5	HT	P3	62	6	5P	④-26
			TNMRW3HM1					1.5P	④-26

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ 1/4W20									
Standard	2 3	SP	SPQW04N	SP	P2	62	6	2.5P	①-45
		PO	PORW04N	PO	P3			5P	③-18
	1 2 3	HT	TNMRW04N5	HT	P3	62	6	5P	④-26
			TNMRW04N1					1.5P	④-26
For left hand threads	2 3	SP LH	SPQW04N--L	SP	P2	62	6	2.5P	①-80
		PO LH	PORW04N--L	PO	P3			5P	③-47
	1 2 3	HT LH	TNMRW04N5-L	HT	P3	62	6	5P	④-72
			TNMRW04N1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPQW04NX	SP	P2	62	6	2.5P	①-66
		PO OX	PORW04NX	PO	P3			5P	③-36
Long	2 3	LS-SP	SPFQW04NL10	SP	P2	100	6	2.5P	①-92
			SPFQW04NL15			150			①-92
		LS-PO	POFRW04NL10	PO	P3	100		5P	③-54
			POFRW04NL15			150			③-54
	1 2 3	LS-HT	TNFQW04N515	HT	P2	150	6	5P	④-82
			TNFQW04N115					1.5P	④-82
For high carbon steels	2 3	HC-SP	SCMQW04N	SP	P2	62	6	2.5P	①-133
For stainless steels	2 3 4 9	SU-SP	SUMQW04N	SP	P2	62	6	2.5P	①-103
	1 2 3 4 9	SU-PO	PUMRW04N	PO	P3	62	6	5P	③-62
	1 2 9	SU-HT	TUMRW04N4	HT	P3	62	6	4P	④-92
			TUMRW04N1					1.5P	④-92
Nut taps	1 2	NT	NH2W04N	HT	II b	125	4.5	24P	⑦-29
Taps ／ 5/16W18									
Standard	2 3	SP	SPQW05O	SP	P2	70	6.2	2.5P	①-45
		PO	PORW05O	PO	P3			5P	③-18
	1 2 3	HT	TNMRW05O5T	HT	P3	70	6.2	5P	④-26
			TNMRW05O1T					1.5P	④-26
			TNMRW05O5					5P	④-26
			TNMRW05O1					1.5P	④-26
For left hand threads	2 3	SP LH	SPQW05O--L	SP	P2	70	6.2	2.5P	①-80
		PO LH	PORW05O--L	PO	P3			5P	③-47
	1 2 3	HT LH	TNMRW05O5-L	HT	P3	70	6.2	5P	④-72
			TNMRW05O1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPQW05OX	SP	P2	70	6.2	2.5P	①-66
		PO OX	PORW05OX	PO	P3			5P	③-36
Long	2 3	LS-SP	SPQW05OL10	SP	P2	100	6.2	2.5P	①-92
			SPQW05OL15			150			①-92
		LS-PO	PORW05OL10	PO	P3	100		5P	③-54
			PORW05OL15			150			③-54
	1 2 3	LS-HT	TNMQW05O515	HT	P2	150	6.2	5P	④-82
			TNMQW05O520			200			④-82
			TNMQW05O115			150		1.5P	④-82
			TNMQW05O120			200			④-82
For high carbon steels	2 3	HC-SP	SCMQW05O	SP	P2	70	6.2	2.5P	①-133
For stainless steels	2 3 4 9	SU-SP	SUMQW05O	SP	P2	70	6.2	2.5P	①-103
	1 2 3 4 9	SU-PO	PUMRW05O	PO	P3	70	6.2	5P	③-62
	1 2 9	SU-HT	TUMRW05O4	HT	P3	70	6.2	4P	④-92
			TUMRW05O1					1.5P	④-92
Nut taps	1 2	NT	NH2W05O	HT	II b	140	5.9	27P	⑦-29

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Taps ／ 3/8W16

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Standard	2 3	SP	SPQW06P	SP	P2	75	7	2.5P	①-45
		PO	PORW06P	PO	P3			5P	③-18
	1 2 3	HT	TNMRW06P5	HT	P3	75	7	5P	④-26
			TNMRW06P1					1.5P	④-26
For left hand threads	2 3	SP LH	SPQW06P--L	SP	P2	75	7	2.5P	①-80
		PO LH	PORW06P--L	PO	P3			5P	③-47
	1 2 3	HT LH	TNMRW06P5-L	HT	P3	75	7	5P	④-72
			TNMRW06P1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPQW06PX	SP	P2	75	7	2.5P	①-66
		PO OX	PORW06PX	PO	P3			5P	③-36
Long	2 3	LS-SP	SPQW06PL10	SP	P2	100	7	2.5P	①-92
			SPQW06PL15			150			①-92
			SPQW06PL20			200			①-92
		LS-PO	PORW06PL10	PO	P3	100		5P	③-54
			PORW06PL15			150			③-54
	1 2 3	LS-HT	TNMQW06P515	HT	P2	150	7	5P	④-82
			TNMQW06P520			200			④-82
			TNMQW06P115			150		1.5P	④-82
			TNMQW06P120			200			④-82
For high carbon steels	2 3	HC-SP	SCMQW06P	SP	P2	75	7	2.5P	①-133
For stainless steels	2 3 4 9	SU-SP	SUMQW06P	SP	P2	75	7	2.5P	①-103
	1 2 3 4 9	SU-PO	PUMRW06P	PO	P3	75	7	5P	③-62
	1 2 9	SU-HT	TUMRW06P4	HT	P3	75	7	4P	④-92
			TUMRW06P1					1.5P	④-92
Nut taps	1 2	NT	NH2W06P	HT	Ⅱb	155	7.3	26P	⑦-29

Taps ／ 7/16W14

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Standard	2 3	SP	SPRW07Q	SP	P3	82	8.5	2.5P	①-45
		PO	PORW07Q	PO				5P	③-18
	1 2 3	HT	TNMSW07Q5	HT	P4	82	8.5	5P	④-26
			TNMSW07Q1					1.5P	④-26
For left hand threads	2 3	SP LH	SPRW07Q--L	SP	P3	82	8.5	2.5P	①-80
	1 2 3	HT LH	TNMSW07Q5-L	HT	P4	82	8.5	5P	④-72
			TNMSW07Q1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPRW07QX	SP	P3	82	8.5	2.5P	①-66
		PO OX	PORW07QX	PO				5P	③-36
Long	2 3	LS-SP	SPRW07QL15	SP	P3	150	8.5	2.5P	①-92
		LS-PO	PORW07QL15	PO				5P	③-54
	1 2 3	LS-HT	TNMRW07Q515	HT	P3	150	8.5	5P	④-82
			TNMRW07Q115					1.5P	④-82
For stainless steels	2 3 4 9	SU-SP	SUMRW07Q	SP	P3	82	8.5	2.5P	①-103
	1 2 3 4 9	SU-PO	PUMRW07Q	PO	P3	82	8.5	5P	③-62
	1 2 9	SU-HT	TUMRW07Q4	HT	P3	82	8.5	4P	④-92
			TUMRW07Q1					1.5P	④-92
Nut taps	1 2	NT	NH2W07Q	HT	Ⅱb	165	8.5	25P	⑦-29

Taps ／ 1/2W12

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Standard	2 3	SP	SPRW08S	SP	P3	88	10.5	2.5P	①-45
		PO	PORW08S	PO				5P	③-18
	1 2 3	HT	TNMSW08S5	HT	P4	88	10.5	5P	④-26
			TNMSW08S1					1.5P	④-26
For left hand threads	2 3	SP LH	SPRW08S--L	SP	P3	88	10.5	2.5P	①-80
		PO LH	PORW08S--L	PO				5P	③-47
	1 2 3	HT LH	TNMSW08S5-L	HT	P4	88	10.5	5P	④-72
			TNMSW08S1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPRW08SX	SP	P3	88	10.5	2.5P	①-66
		PO OX	PORW08SX	PO				5P	③-36
Long	2 3	LS-SP	SPRW08SL15	SP	P3	150	10.5	2.5P	①-93
			SPRW08SL20			200			①-93
		LS-PO	PORW08SL15	PO		150		5P	③-54
			PORW08SL20			200			③-54
	1 2 3	LS-HT	TNMRW08S515	HT	P3	150	10.5	5P	④-82
			TNMRW08S520			200			④-82
			TNMRW08S115			150		1.5P	④-82
			TNMRW08S120			200			④-83
For high carbon steels	2 3	HC-SP	SCMRW08S	SP	P3	88	10.5	2.5P	①-133
For stainless steels	2 3 4 9	SU-SP	SUMRW08S	SP	P3	88	10.5	2.5P	①-103
	1 2 3 4 9	SU-PO	PUMRW08S	PO	P3	88	10.5	5P	③-62
	1 2 9	SU-HT	TUMRW08S4	HT	P3	88	10.5	4P	④-92
			TUMRW08S1					1.5P	④-92
Nut taps	1 2	NT	NH2W08S	HT	Ⅱb	180	9.5	23P	⑦-29

Taps ／ 9/16W12

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Standard	2 3	SP	SPRW09S	SP	P3	95	12.5	2.5P	①-45
		PO	PORW09S	PO				5P	③-18
	1 2 3	HT	TNMSW09S5	HT	P4	95	12.5	5P	④-26
			TNMSW09S1					1.5P	④-26
For left hand threads	1 2 3	HT LH	TNMSW09S5-L	HT	P4	95	12.5	5P	④-72
			TNMSW09S1-L					1.5P	④-72
For stainless steels	2 3 4 9	SU-SP	SUMRW09S	SP	P3	95	12.5	2.5P	①-103
Nut taps	1 2	NT	NH2W09S	HT	Ⅱb	190	11	25P	⑦-29

Taps ／ 5/8W11

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Standard	2 3	SP	SPRW10U	SP	P3	95	12.5	2.5P	①-45
		PO	PORW10U	PO				5P	③-18
	1 2 3	HT	TNMSW10U5	HT	P4	95	12.5	5P	④-26
			TNMSW10U1					1.5P	④-26
For left hand threads	2 3	SP LH	SPRW10U--L	SP	P3	95	12.5	2.5P	①-80
		PO LH	PORW10U--L	PO				5P	③-47
	1 2 3	HT LH	TNMSW10U5-L	HT	P4	95	12.5	5P	④-72
			TNMSW10U1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPRW10UX	SP	P3	95	12.5	2.5P	①-67
		PO OX	PORW10UX	PO				5P	③-36

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Long	2 3	LS-SP	SPRW10UL15	SP	P3	150	12.5	2.5P	①-93
			SPRW10UL20			200			①-93
		LS-PO	PORW10UL15	PO		150		5P	③-54
			PORW10UL20			200			③-54
	1 2 3	LS-HT	TNMRW10U515	HT	P3	150	12.5	5P	④-83
			TNMRW10U520			200			④-83
			TNMRW10U115			150		1.5P	④-83
			TNMRW10U120			200			④-83
For high carbon steels	2 3	HC-SP	SCMRW10U	SP	P3	95	12.5	2.5P	①-133
For stainless steels	2 3 4 9	SU-SP	SUMRW10U	SP	P3	95	12.5	2.5P	①-103
	1 2 3 4 9	SU-PO	PUMRW10U	PO	P3	95	12.5	5P	③-62
	1 2 9	SU-HT	TUMRW10U4	HT	P3	95	12.5	4P	④-92
			TUMRW10U1					1.5P	④-92
Nut taps	1 2	NT	NH2W10U	HT	II b	200	12.5	24P	⑦-29
Taps / 3/4W10									
Standard	2 3	SP	SPRW12V	SP	P3	105	15	2.5P	①-45
		PO	POSW12V	PO	P4			5P	③-18
	1 2 3	HT	TNMSW12V5	HT	P4	105	15	5P	④-26
			TNMSW12V1					1.5P	④-26
For left hand threads	2 3	SP LH	SPRW12V--L	SP	P3	105	15	2.5P	①-80
		PO LH	POSW12V--L	PO	P4			5P	③-47
	1 2 3	HT LH	TNMSW12V5-L	HT	P4	105	15	5P	④-72
			TNMSW12V1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPRW12VX	SP	P3	105	15	2.5P	①-67
		PO OX	POSW12VX	PO	P4			5P	③-36
Long	2 3	LS-SP	SPRW12VL15	SP	P3	150	15	2.5P	①-93
			SPRW12VL20			200			①-93
		LS-PO	POSW12VL15	PO	P4	150		5P	③-54
			POSW12VL20			200			③-54
	1 2 3	LS-HT	TNMRW12V515	HT	P3	150	15	5P	④-83
			TNMRW12V520			200			④-83
			TNMRW12V115			150		1.5P	④-83
			TNMRW12V120			200			④-83
For high carbon steels	2 3	HC-SP	SCMRW12V	SP	P3	105	15	2.5P	①-133
For stainless steels	2 3 4 9	SU-SP	SUMRW12V	SP	P3	105	15	2.5P	①-103
	1 2 3 4 9	SU-PO	PUMSW12V	PO	P4	105	15	5P	③-62
	1 2 9	SU-HT	TUMSW12V4	HT	P4	105	15	4P	④-92
			TUMSW12V1					1.5P	④-92
Nut taps	1 2	NT	NH2W12V	HT	II b	230	15	25P	⑦-29
Taps / 7/8W9									
Standard	2 3	SP	SPRW14W	SP	P3	115	17	2.5P	①-45
		PO	POSW14W	PO	P4			5P	③-18
	1 2 3	HT	TNMTW14W5	HT	P5	115	17	5P	④-26
			TNMTW14W1					1.5P	④-26
For left hand threads	1 2 3	HT LH	TNMTW14W5-L	HT	P5	115	17	5P	④-72
			TNMTW14W1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPRW14WX	SP	P3	115	17	2.5P	①-67
		PO OX	POSW14WX	PO	P4			5P	③-36

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Long	2 3	LS-SP	SPRW14WL15	SP	P3	150	17	2.5P	①-93
			SPRW14WL20			200			①-93
		LS-PO	POSW14WL15	PO	P4	150		5P	③-55
			POSW14WL20			200			③-55
	1 2 3	LS-HT	TNMRW14W520	HT	P3	200	17	5P	④-83
			TNMRW14W120					1.5P	④-83
For high carbon steels	2 3	HC-SP	SCMRW14W	SP	P3	115	17	2.5P	①-133
For stainless steels	2 3 4 9	SU-SP	SUMRW14W	SP	P3	115	17	2.5P	①-103
Nut taps	1 2	NT	NH2W14W	HT	II b	250	18	25P	⑦-29
Taps / 1 W8									
Standard	2 3	SP	SPRW16X	SP	P3	125	19	2.5P	①-45
		PO	POSW16X	PO	P4			5P	③-18
	1 2 3	HT	TNMTW16X5	HT	P5	125	19	5P	④-26
			TNMTW16X1					1.5P	④-26
For left hand threads	1 2 3	HT LH	TNMTW16X5-L	HT	P5	125	19	5P	④-72
			TNMTW16X1-L					1.5P	④-72
Oxidizing	1 2 3	SP OX	SPRW16XX	SP	P3	125	19	2.5P	①-67
		PO OX	POSW16XX	PO	P4			5P	③-36
Long	2 3	LS-SP	SPRW16XL15	SP	P3	150	19	2.5P	①-93
			SPRW16XL20			200			①-93
		LS-PO	POSW16XL15	PO	P4	150		5P	③-55
			POSW16XL20			200			③-55
	1 2 3	LS-HT	TNMRW16X515	HT	P3	150	19	5P	④-83
			TNMRW16X520			200			④-83
			TNMRW16X525			250			④-83
			TNMRW16X115			150		1.5P	④-83
			TNMRW16X120			200			④-83
			TNMRW16X125			250			④-83
For high carbon steels	2 3	HC-SP	SCMRW16X	SP	P3	125	19	2.5P	①-133
For stainless steels	2 3 4 9	SU-SP	SUMRW16X	SP	P3	125	19	2.5P	①-103
	1 2 3 4 9	SU-PO	PUMSW16X	PO	P4	125	19	5P	③-62
Nut taps	1 2	NT	NH2W16X	HT	II b	270	20.5	25P	⑦-29
Taps / 1 1/8W7									
Standard	2 3	SP	SPSW18Y	SP	P4	135	23	2.5P	①-45
		PO	POSW18Y	PO				5P	③-18
	1 2 3	HT	TNMTW18Y5	HT	P5	135	23	5P	④-26
			TNMTW18Y1					1.5P	④-26
For left hand threads	1 2 3	HT LH	TNMTW18Y5-L	HT	P5	135	23	5P	④-72
			TNMTW18Y1-L					1.5P	④-72
Nut taps	1 2	NT	NH2W18Y	HT	II b	290	23	25P	⑦-29
Taps / 1 1/4W7									
Standard	2 3	SP	SPMSW20Y	SP	P4	145	24	2.5P	①-45
		PO	POMSW20Y	PO				5P	③-18
	1 2 3	HT	TNMTW20Y5	HT	P5	145	24	5P	④-26
			TNMTW20Y1					1.5P	④-26
Oxidizing	1 2 3	SP OX	SPMSW20YX	SP	P4	145	24	2.5P	①-67
		PO OX	POMSW20YX	PO				5P	③-36
Nut taps	1 2	NT	NH2W20Y	HT	II b	300	26	26P	⑦-29

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	ℓc

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Taps ／ 1 3/8W6									
Standard	2 3	SP	SPMSW22Z	SP	P4	155	28	2.5P	①-45
		PO	POMTW22Z	PO	P5			5P	③-18
	1 2 3	HT	TNMUW22Z5	HT	P6	155	28	5P	④-26
			TNMUW22Z1					1.5P	④-26
Nut taps	1 2	NT	NH2W22Z	HT	II b	320	28	24P	⑦-29
Taps ／ 1 1/2W6									
Standard	2 3	SP	SPMSW24Z	SP	P4	165	30	2.5P	①-45
		PO	POMTW24Z	PO	P5			5P	③-18
	1 2 3	HT	TNMUW24Z5	HT	P6	165	30	5P	④-26
			TNMUW24Z1					1.5P	④-26
Oxidizing	1 2 3	SP OX	SPMSW24ZX	SP	P4	165	30	2.5P	①-67
Nut taps	1 2	NT	NH2W24Z	HT	II b	330	31	25P	⑦-29
Taps ／ 1 5/8W5									
Standard	2 3	SP	SPMSW260	SP	P4	175	32	2.5P	①-45
	1 2 3	HT	TNMUW2605	HT	P6	175	32	5P	④-26
			TNMUW2601					1.5P	④-26
Taps ／ 1 3/4W5									
Standard	2 3	SP	SPMSW280	SP	P4	180	35	2.5P	①-45
	1 2 3	HT	TNMUW2805	HT	P6	180	35	5P	④-26
			TNMUW2801					1.5P	④-26
Taps ／ 1 7/8W4 1/2									
Standard	2 3	SP	SPMSW309	SP	P4	185	38	2.5P	①-45
	1 2 3	HT	TNMUW3095	HT	P6	185	38	5P	④-26
			TNMUW3091					1.5P	④-26
Taps ／ 2 W4 1/2									
Standard	2 3	SP	SPSW329	SP	P4	195	40	2.5P	①-45
		PO	POTW329	PO	P5			5P	③-18
	1 2 3	HT	TH2W3295	HT	II	195	40	5P	④-26
			TH2W3291					1.5P	④-26
Taps ／ 2 1/4W4									
Standard	1 2 3	HT	TH2W3685	HT	II	210	44	5P	④-26
			TH2W3681					1.5P	④-26
Taps ／ 2 1/2W4									
Standard	1 2 3	HT	TH2W4085	HT	II	225	48	5P	④-26
			TH2W4081					1.5P	④-26
Taps ／ 2 3/4W3 1/2									
Standard	1 2 3	HT	TH2W4475	HT	II	240	55	5P	④-27
			TH2W4471					1.5P	④-27

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	ℓc	Product page
Taps ／ 3 W3 1/2									
Standard	1 2 3	HT	TH2W4875	HT	II	250	58	5P	④-27
			TH2W4871					1.5P	④-27
Taps ／ 3 1/4W3 1/4									
Standard	1 2 3	HT	TH2W52-5	HT	II	265	58	5P	④-27
			TH2W52-1					1.5P	④-27
Taps ／ 3 1/2W3 1/4									
Standard	1 2 3	HT	TH2W56-5	HT	II	275	60	5P	④-27
			TH2W56-1					1.5P	④-27
Taps ／ 3 3/4W3									
Standard	1 2 3	HT	TH2W6065	HT	II	285	65	5P	④-27
			TH2W6061					1.5P	④-27
Taps ／ 4 W3									
Standard	1 2 3	HT	TH2W6465	HT	II	295	65	5P	④-27
			TH2W6461					1.5P	④-27

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / 1/16W60									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEW01-DNEBC	⑩-14
Dies / 3/32W48									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEW1HFDNEBC	⑩-14
Dies / 1/8W40									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEW02HDNEBC	⑩-14
Dies / 5/32W32									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEW2HJDNEBC	⑩-14
Dies / 3/16W24									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEW03MDNEBC	⑩-14
					25	9		TYGW03MDNEBC	⑩-14
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	20	7	2.5P	GYEW03MDNEBC	⑩-25
Dies / 7/32W24									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEW3HMDNEBC	⑩-14
Dies / 1/4W20									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYEW04NDNEBC	⑩-14
					25	9		TYGW04NDNEBC	⑩-14
					38	13		TYJW04NDNEBC	⑩-14
Dies / 5/16W18									
Solid dies	HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYGW05ODNEBC	⑩-14
					38	13		TYJW05ODNEBC	⑩-14
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYGW05ODNEBC	⑩-25
Dies / 3/8W16									
Solid dies	HSS	1 2 15 16 18 19	D	II	25	9	2.5P	TYGW06PDNEBC	⑩-14
					38	13		TYJW06PDNEBC	⑩-14
					50	16		TYMW06PDNEBC	⑩-14
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	25	9	2.5P	GYGW06PDNEBC	⑩-25
					38	13		GYJW06PDNEBC	⑩-25
Dies / 7/16W14									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJW07QDNEBC	⑩-14
					50	16		TYMW07QDNEBC	⑩-14
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJW07QDNEBC	⑩-25
Dies / 1/2W12									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJW08SDNEBC	⑩-14
					50	16		TYMW08SDNEBC	⑩-14
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJW08SDNEBC	⑩-25
Dies / 9/16W12									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJW09SDNEBC	⑩-14

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies / 5/8W11									
Solid dies	HSS	1 2 15 16 18 19	D	II	38	13	2.5P	TYJW10UDNEBC	⑩-14
					50	16		TYMW10UDNEBC	⑩-14
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	38	13	2.5P	GYJW10UDNEBC	⑩-25
Dies / 3/4W10									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYMW12VDNEBC	⑩-14
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYMW12VDNEBC	⑩-25
Dies / 7/8W9									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYMW14WDNEBC	⑩-14
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYMW14WDNEBC	⑩-25
Dies / 1 W8									
Solid dies	HSS	1 2 15 16 18 19	D	II	50	16	2.5P	TYMW16XDNEBC	⑩-14
For left hand threads	HSS	1 2 15 16 18 19	D LH	II	50	16	2.5P	GYMW16XDNEBC	⑩-25
Dies / 1 1/8W7									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYRW18YDNEBC	⑩-14
Dies / 1 1/4W7									
Solid dies	HSS	1 2 15 16 18 19	D	II	63	20	2.5P	TYRW20YDNEBC	⑩-14
Dies / 1 3/8W6									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYUW22ZDNEBC	⑩-14
Dies / 1 1/2W6									
Solid dies	HSS	1 2 15 16 18 19	D	II	75	25	2.5P	TYUW24ZDNEBC	⑩-14

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	*ℓ*c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	*ℓ*c	Product page
Taps ／ 1/16SM80									
Standard	1 2 3	HT	TNMPS04B5	HT	P1	36	3	5P	④-27
			TNMPS04B1					1.5P	④-27
Taps ／ 5/64SM64									
Standard	1 2 3	HT	TNMPS05D5	HT	P1	42	3	5P	④-27
			TNMPS05D1					1.5P	④-27
Taps ／ 3/32SM56									
Standard	2 3	SP	SPPS06E	SP	P1	46	3	2.5P	①-45
		PO	POPS06E	PO				5P	③-18
	1 2 3	HT	TNMPS06E5	HT	P1	46	3	5P	④-27
			TNMPS06E1					1.5P	④-27
Taps ／ 3/32SM100									
Standard	1 2 3	HT	TNMPS06A5	HT	P1	46	3	5P	④-27
			TNMPS06A1					1.5P	④-27
Taps ／ 1/8SM40									
Standard	2 3	SP	SPPS08H	SP	P1	52	5	2.5P	①-45
		PO	POQS08H	PO	P2			5P	③-18
	1 2 3	HT	TNMQS08H5	HT	P2	52	5	5P	④-27
			TNMQS08H1					1.5P	④-27
Taps ／ 1/8SM44									
Standard	2 3	SP	SPPS08G	SP	P1	52	5	2.5P	①-45
		PO	POQS08G	PO	P2			5P	③-18
	1 2 3	HT	TNMQS08G5	HT	P2	52	5	5P	④-27
			TNMQS08G1					1.5P	④-27
Taps ／ 9/64SM40									
Standard	2 3	SP	SPPS09H	SP	P1	52	5	2.5P	①-45
		PO	POQS09H	PO	P2			5P	③-18
	1 2 3	HT	TNMQS09H5	HT	P2	52	5	5P	④-27
			TNMQS09H1					1.5P	④-27
Taps ／ 11/64SM32									
Standard	1 2 3	HT	TNMQS11J5	HT	P2	60	5.5	5P	④-27
			TNMQS11J1					1.5P	④-27
Taps ／ 11/64SM40									
Standard	2 3	SP	SPPS11H	SP	P1	60	5.5	2.5P	①-45
		PO	POQS11H	PO	P2			5P	③-18
	1 2 3	HT	TNMQS11H5	HT	P2	60	5.5	5P	④-27
			TNMQS11H1					1.5P	④-27

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	*ℓ*c	Product page
Taps ／ 3/16SM24									
Standard	1 2 3	HT	TNMQS12M5	HT	P2	60	5.5	5P	④-27
			TNMQS12M1					1.5P	④-27
Taps ／ 3/16SM28									
Standard	2 3	SP	SPQS12K	SP	P2	60	5.5	2.5P	①-45
		PO	POQS12K	PO				5P	③-18
	1 2 3	HT	TNMQS12K5	HT	P2	60	5.5	5P	④-27
			TNMQS12K1					1.5P	④-27
Taps ／ 3/16SM32									
Standard	2 3	SP	SPQS12J	SP	P2	60	5.5	2.5P	①-45
		PO	POQS12J	PO				5P	③-18
	1 2 3	HT	TNMQS12J5	HT	P2	60	5.5	5P	④-27
			TNMQS12J1					1.5P	④-27
Taps ／ 3/16SM40									
Standard	1 2 3	HT	TNMQS12H5	HT	P2	60	5.5	5P	④-27
			TNMQS12H1					1.5P	④-27
Taps ／ 7/32SM32									
Standard	2 3	SP	SPQS14J	SP	P2	62	6	2.5P	①-45
		PO	POQS14J	PO				5P	③-18
Taps ／ 15/64SM28									
Standard	2 3	SP	SPQS15K	SP	P2	62	6	2.5P	①-45
		PO	POQS15K	PO				5P	③-19
	1 2 3	HT	TNMQS15K5	HT	P2	62	6	5P	④-27
			TNMQS15K1					1.5P	④-27
Taps ／ 1/4SM24									
Standard	2 3	SP	SPQS16M	SP	P2	62	6	2.5P	①-45
		PO	POQS16M	PO				5P	③-19
	1 2 3	HT	TNMQS16M5	HT	P2	62	6	5P	④-27
			TNMQS16M1					1.5P	④-27
Taps ／ 1/4SM28									
Standard	1 2 3	HT	TNMQS16K5	HT	P2	62	6	5P	④-27
			TNMQS16K1					1.5P	④-27
Taps ／ 1/4SM40									
Standard	2 3	SP	SPPS16H	SP	P1	62	6	2.5P	①-45
		PO	POQS16H	PO	P2			5P	③-19
	1 2 3	HT	TNMQS16H5	HT	P2	62	6	5P	④-27
			TNMQS16H1					1.5P	④-27

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ 9/32SM28									
Standard	1 2 3	HT	TNMQS18K5	HT	P2	70	6.2	5P	④-27
			TNMQS18K1					1.5P	④-27
Taps ／ 5/16SM24									
Standard	1 2 3	HT	TNMQS20M5	HT	P2	70	6.2	5P	④-28
			TNMQS20M1					1.5P	④-28
Taps ／ 11/32SM28									
Standard	1 2 3	HT	TNMQS22K5	HT	P2	75	7	5P	④-28
			TNMQS22K1					1.5P	④-28

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ 3/32SM56									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYES06EDNEBC	⑩-15
Dies ／ 1/8SM40									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYES08HDNEBC	⑩-15
Dies ／ 1/8SM44									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYES08GDNEBC	⑩-15
Dies ／ 9/64SM40									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYES09HDNEBC	⑩-15
Dies ／ 11/64SM40									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYES11HDNEBC	⑩-15
Dies ／ 3/16SM28									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYES12KDNEBC	⑩-15
Dies ／ 3/16SM32									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYES12JDNEBC	⑩-15
Dies ／ 7/32SM32									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYES14JDNEBC	⑩-15
Dies ／ 15/64SM28									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYES15KDNEBC	⑩-15
Dies ／ 1/4SM24									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYES16MDNEBC	⑩-15
Dies ／ 1/4SM40									
Solid dies	HSS	1 2 15 16 18 19	D	II	20	7	2.5P	TYES16HDNEBC	⑩-15

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	*D*s	*ℓ*c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Taps ／ 1/16-28

Tap selection			Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	*ℓ*c	Product page
Rc	Standard(ISO standard)	Standard	2 3 4	Rc	TH2RC01K	HT	II	59	8	2.5P	⑧-13
	Coating		1 2 3 4 9 19 21	AUSP Rc	SJRC010FET	SP		90	8	2.5P	⑧-8
PT	Standard	For PT threads	2 3 4	PT	TH2T01K-8	HT	II	55	8	2.5P	⑧-14
			1 2 3	SP-PT	SH2T01K-8	SP	II	55	8	2.5P	⑧-21
		For PT threads short (lg) type	2 3 4	PT-X	THX2T01K-8	HT	II	75	8	2.5P	⑧-16
				S-PT	TSPT01K-8			55			⑧-17
			1 2 3	SP-PT-X	SHX2T01K-8	SP	II	75	8	2.5P	⑧-23
	Long shank	For PT threads	2 3 4	LS-PT	L10T01K-8	HT	II	100	8	2.5P	⑧-19
	Interrupted	For PT threads	1 9 11	INT-PT	TINT01K-8	SL	II	55	8	3P	⑧-26
		For PT threads short (lg) type	1 9 11	INT-S-PT	TIST01K-8	SL	II	55	8	3P	⑧-27
	For cast irons	For PT threads	12 13	FC-PT	FCPT01K-8	HT	II	55	8	2.5P	⑧-36
		For PT threads short (lg) type	12 13	FC-S-PT	FCSPT01K-8	HT	II	55	8	2.5P	⑧-37
Rp	Standard(ISO standard)		1 2 3	Rp	TH2RP01K	HT	II	59	8	3.5P	⑧-40
PS	Standard		1 2 3	PS	TH2P01K-8	HT	II	55	8	3.5P	⑧-41
G	Standard(ISO standard)		1 2 3	G	TH2G01K	HT	II	59	8	3.5P	⑧-49
PF	Standard		1 2 3	PF	TH2F01K-8	HT	II	55	8	3.5P	⑧-71

Taps ／ 1/8-28

Tap selection			Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	*ℓ*c	Product page
Rc	Standard(ISO standard)	Standard	2 3 4	Rc	TH2RC02K	HT	II	59	8	2.5P	⑧-13
	Coating		1 2 3 4 9 19 21	AUSP Rc	SJRC020FET	SP		90	8	2.5P	⑧-8
		Long	1 2 3 4 9 19 21	AUSP Rc	SJRC020FETG	SP		150	8	2.5P	⑧-8
					SJRC020FETK			200			⑧-8
PT	Standard	For PT threads	2 3 4	PT	TH2T02K	HT	II	55	8	2.5P	⑧-14
			1 2 3	SP-PT	SH2T02K	SP	II	55	8	2.5P	⑧-21
		For PT threads short (lg) type	2 3 4	PT-X	THX2T02K	HT	II	75	8	2.5P	⑧-16
				S-PT	TSPT02K			55			⑧-17
			1 2 3	SP-S-PT	SSPT02K	SP	II	55	8	2.5P	⑧-22
				SP-PT-X	SHX2T02K			75			⑧-23
	For left hand threads	For PT threads	2 3 4	PT LH	TH2T02K--L	HT	II	55	8	2.5P	⑧-15
		For PT threads short (lg) type	2 3 4	S-PT LH	TSPT02K--L	HT	II	55	8	2.5P	⑧-18
	Long shank	For PT threads	2 3 4	LS-PT	L10T02K	HT	II	100	8	2.5P	⑧-19
					L15T02K			150			⑧-19
					L20T02K			200			⑧-19
			1 2 3	LS-SP-PT	SH2T02KL10	SP	II	100	8	2.5P	⑧-24
					SH2T02KL12			120			⑧-24
					SH2T02KL15			150			⑧-24
		For PT threads short (lg) type	2 3 4	LS-S-PT	TSPT02KL10	HT	II	100	8	2.5P	⑧-20
					TSPT02KL15			150			⑧-20
					TSPT02KL20			200			⑧-20
			1 2 3	LS-SP-S-PT	SSPT02KL10	SP	II	100	8	2.5P	⑧-25
					SSPT02KL12			120			⑧-25
					SSPT02KL15			150			⑧-25
	Interrupted	For PT threads	1 9 11	INT-PT	TINT02K	SL	II	55	8	3P	⑧-26
		For PT threads short (lg) type	1 9 11	INT-S-PT	TIST02K	SL	II	55	8	3P	⑧-27
		Long shank For PT threads	1 9 11	LS-INT-PT	TINT02KL10	SL	II	100	8	3P	⑧-28
					TINT02KL12			120			⑧-28
					TINT02KL15			150			⑧-28
		Long shank For PT threads short (lg) type	1 9 11	LS-INT-S-PT	TIST02KL10	SL	II	100	8	3P	⑧-29
					TIST02KL12			120			⑧-29
					TIST02KL15			150			⑧-29

Tap selection			Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	*ℓ*c	Product page
PT	For low carbon steels	For PT threads	1 11	LC-PT	LCPT02K	HT	II	55	8	2.5P	⑧-30
		For PT threads short (lg) type	1 11	LC-S-PT	LCSPT02K	HT	II	55	8	2.5P	⑧-31
	For stainless steels	For PT threads	1 2 9	SU-PT	TU2T02K	HT	II	55	8	2.5P	⑧-32
			1 2 3 4 9	SU-SP-PT	SYPT022GEX	SP	II	55	8	2P	⑧-34
		For PT threads short (lg) type	1 2 9	SU-S-PT	TUST02K	HT	II	55	8	2.5P	⑧-33
			1 2 3 4 9	SU-SP-S-PT	SYPT022GEXS	SP	II	55	8	2P	⑧-35
	For cast irons	For PT threads	12 13	FC-PT	FCPT02K	HT	II	55	8	2.5P	⑧-36
		For PT threads short (lg) type	12 13	FC-S-PT	FCSPT02K	HT	II	55	8	2.5P	⑧-37
	Carbide	For PT threads	12 13 16	CT-PT	TCPT02K	HT	II	55	8	2.5P	⑧-38
		For PT threads short (lg) type	12 13 16	CT-S-PT	TCST02K	HT	II	55	8	2.5P	⑧-39
Rp	Standard(ISO standard)		1 2 3	Rp	TH2RP02K	HT	II	59	8	3.5P	⑧-40
	Coating		1 2 3 4 9 19 21	AUSP Rp	SJRP020FET	SP		90	8	2.5P	⑧-10
PS	Standard		1 2 3	PS	TH2P02K	HT	II	55	8	3.5P	⑧-41
					TH2P02K1					1.5P	⑧-41
				SP-PS	SH2P02K	SP				2.5P	⑧-45
	For left hand threads		1 2 3	PS LH	TH2P02K--L	HT	II	55	8	3.5P	⑧-43
	Long shank		1 2 3	LS-PS	L10P02K	HT	II	100	8	3.5P	⑧-44
					L15P02K			150			⑧-44
					L20P02K			200			⑧-44
				LS-SP-PS	SH2P02KL10	SP		100		2.5P	⑧-46
					SH2P02KL12			120			⑧-46
					SH2P02KL15			150			⑧-46
	For cast irons		12 13	FC-PS	FCPS02K	HT	II	55	8	3.5P	⑧-47
	Carbide		12 13 16	CT-PS	TCPS02K	HT	II	55	8	3.5P	⑧-48
G	Standard(ISO standard)		1 2 3	G	TH2G02K	HT	II	59	8	3.5P	⑧-49
	Coating		1 2 3 4 9 19 21	AUSP G	SJG0020FET	SP	P3	90	8	2.5P	⑧-12
PF	Standard		1 2 3	PF	TH2F02K	HT	II	55	8	3.5P	⑧-71
					TH2F02K1					1.5P	⑧-71
				SP-PF	SH2F02K	SP				2.5P	⑧-75
	For left hand threads		1 2 3	PF LH	TH2F02K--L	HT	II	55	8	3.5P	⑧-73
	Long shank		1 2 3	LS-PF	L10F02K	HT	II	100	8	3.5P	⑧-74
					L15F02K			150			⑧-74
					L20F02K			200			⑧-74
				LS-SP-PF	SH2F02KL10	SP		100		2.5P	⑧-76
					SH2F02KL12			120			⑧-76
					SH2F02KL15			150			⑧-76
	For stainless steels		1 2 9	SU-PF	TU2F02K	HT	II	55	8	3.5P	⑧-77
			1 2 3 4 9	SU-SP-PF	SYPF022GEX	SP	II	59	8	2.5P	⑧-78
	For cast irons		12 13	FC-PF	FCPF02K	HT	II	55	8	3.5P	⑧-79
	Carbide		12 13 16	CT-PF	TCPF02K	HT	II	55	8	3.5P	⑧-80

Taps ／ 1/4-19

Tap selection			Main material	Symbol Note1	Code	Flute	Class	*L*	*D*s	*ℓ*c	Product page
Rc	Standard(ISO standard)	Standard	2 3 4	Rc	TH2RC04-	HT	II	67	11	2.5P	⑧-13
	Coating		1 2 3 4 9 19 21	AUSP Rc	SJRC040FET	SP		100	11	2.5P	⑧-8
		Long	1 2 3 4 9 19 21	AUSP Rc	SJRC040FETG	SP		150	11	2.5P	⑧-8
					SJRC040FETK			200			⑧-8
PT	Standard	For PT threads	2 3 4	PT	TH2T04-	HT	II	62	11	2.5P	⑧-14
			1 2 3	SP-PT	SH2T04-	SP	II	62	11	2.5P	⑧-21
		For PT threads short (lg) type	2 3 4	PT-X	THX2T04-	HT	II	85	11	2.5P	⑧-16
				S-PT	TSPT04-			62			⑧-17
			1 2 3	SP-S-PT	SSPT04-	SP	II	62	11	2.5P	⑧-22
				SP-PT-X	SHX2T04-			85			⑧-23

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
PT	For left hand threads	For PT threads	2 3 4	PT LH	TH2T04---L	HT	II	62	11	2.5P	⑧-15
		For PT threads short (lg) type	2 3 4	S-PT LH	TSPT04---L	HT	II	62	11	2.5P	⑧-18
	Long shank	For PT threads	2 3 4	LS-PT	L10T04-	HT	II	100	11	2.5P	⑧-19
					L15T04-			150			⑧-19
					L20T04-			200			⑧-19
			1 2 3	LS-SP-PT	SH2T04-L10	SP	II	100	11	2.5P	⑧-24
					SH2T04-L12			120			⑧-24
					SH2T04-L15			150			⑧-24
		For PT threads short (lg) type	2 3 4	LS-S-PT	TSPT04-L10	HT	II	100	11	2.5P	⑧-20
					TSPT04-L15			150			⑧-20
					TSPT04-L20			200			⑧-20
			1 2 3	LS-SP-S-PT	SSPT04-L10	SP	II	100	11	2.5P	⑧-25
					SSPT04-L12			120			⑧-25
					SSPT04-L15			150			⑧-25
	Interrupted	For PT threads	1 9 11	INT-PT	TINT04-	SL	II	62	11	3P	⑧-26
		For PT threads short (lg) type	1 9 11	INT-S-PT	TIST04-	SL	II	62	11	3P	⑧-27
		Long shank For PT threads	1 9 11	LS-INT-PT	TINT04-L10	SL	II	100	11	3P	⑧-28
					TINT04-L12			120			⑧-28
					TINT04-L15			150			⑧-28
		Long shank For PT threads short (lg) type	1 9 11	LS-INT-S-PT	TIST04-L10	SL	II	100	11	3P	⑧-29
					TIST04-L12			120			⑧-29
					TIST04-L15			150			⑧-29
	For low carbon steels	For PT threads	1 11	LC-PT	LCPT04-	HT	II	62	11	2.5P	⑧-30
		For PT threads short (lg) type	1 11	LC-S-PT	LCSPT04-	HT	II	62	11	2.5P	⑧-31
	For stainless steels	For PT threads	1 2 9	SU-PT	TU2T04-	HT	II	62	11	2.5P	⑧-32
			1 2 3 4 9	SU-SP-PT	SYPT042GEX	SP	II	62	11	2P	⑧-34
		For PT threads short (lg) type	1 2 9	SU-S-PT	TUST04-	HT	II	62	11	2.5P	⑧-33
			1 2 3 4 9	SU-SP-S-PT	SYPT042GEXS	SP	II	62	11	2P	⑧-35
	For cast irons	For PT threads	12 13	FC-PT	FCPT04-	HT	II	62	11	2.5P	⑧-36
		For PT threads short (lg) type	12 13	FC-S-PT	FCSPT04-	HT	II	62	11	2.5P	⑧-37
	Carbide	For PT threads	12 13 16	CT-PT	TCPT04-	HT	II	62	11	2.5P	⑧-38
		For PT threads short (lg) type	12 13 16	CT-S-PT	TCST04-	HT	II	62	11	2.5P	⑧-39
Rp	Standard(ISO standard)		1 2 3	Rp	TH2RP04-	HT	II	67	11	3.5P	⑧-40
	Coating		1 2 3 4 9 19 21	AUSP Rp	SJRP040FET	SP		100	11	2.5P	⑧-10
PS	Standard		1 2 3	PS	TH2P04-	HT	II	62	11	3.5P	⑧-41
					TH2P04-1					1.5P	⑧-41
				SP-PS	SH2P04-	SP				2.5P	⑧-45
	For left hand threads		1 2 3	PS LH	TH2P04---L	HT	II	62	11	3.5P	⑧-43
	Long shank		1 2 3	LS-PS	L10P04-	HT	II	100	11	3.5P	⑧-44
					L15P04-			150			⑧-44
					L20P04-			200			⑧-44
				LS-SP-PS	SH2P04-L10	SP		100		2.5P	⑧-46
					SH2P04-L15			150			⑧-46
	For cast irons		12 13	FC-PS	FCPS04-	HT	II	62	11	3.5P	⑧-47
	Carbide		12 13 16	CT-PS	TCPS04-	HT	II	62	11	3.5P	⑧-48
G	Standard(ISO standard)		1 2 3	G	TH2G04-	HT	II	67	11	3.5P	⑧-49
	Coating		1 2 3 4 9 19 21	AUSP G	SJG0040FET	SP	P3.5	100	11	2.5P	⑧-12
PF	Standard		1 2 3	PF	TH2F04-	HT	II	62	11	3.5P	⑧-71
					TH2F04-1					1.5P	⑧-71
				SP-PF	SH2F04-	SP				2.5P	⑧-75
	For left hand threads		1 2 3	PF LH	TH2F04---L	HT	II	62	11	3.5P	⑧-73

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
PF	Long shank		1 2 3	LS-PF	L10F04-	HT	II	100	11	3.5P	⑧-74
					L15F04-			150			⑧-74
					L20F04-			200			⑧-74
				LS-SP-PF	SH2F04-L10	SP		100		2.5P	⑧-76
					SH2F04-L12			120			⑧-76
					SH2F04-L15			150			⑧-76
	For stainless steels		1 2 9	SU-PF	TU2F04-	HT	II	62	11	3.5P	⑧-77
			1 2 3 4 9	SU-SP-PF	SYPF042GEX	SP	II	67	11	2.5P	⑧-78
	For cast irons		12 13	FC-PF	FCPF04-	HT	II	62	11	3.5P	⑧-79
	Carbide		12 13 16	CT-PF	TCPF04-	HT	II	62	11	3.5P	⑧-80

Taps ／ 3/8-19

Rc	Standard(ISO standard)	Standard	2 3 4	Rc	TH2RC06-	HT	II	75	14	2.5P	⑧-13
	Coating		1 2 3 4 9 19 21	AUSP Rc	SJRC060FET	SP		100	14	2.5P	⑧-8
		Long	1 2 3 4 9 19 21	AUSP Rc	SJRC060FETG	SP		150	14	2.5P	⑧-8
					SJRC060FETK			200			⑧-8
PT	Standard	For PT threads	2 3 4	PT	TH2T06-	HT	II	65	14	2.5P	⑧-14
			1 2 3	SP-PT	SH2T06-	SP	II	65	14	2.5P	⑧-21
		For PT threads short (lg) type	2 3 4	PT-X	THX2T06-	HT	II	95	14	2.5P	⑧-16
				S-PT	TSPT06-			65			⑧-17
			1 2 3	SP-S-PT	SSPT06-	SP	II	65	14	2.5P	⑧-22
				SP-PT-X	SHX2T06-			95			⑧-23
	For left hand threads	For PT threads	2 3 4	PT LH	TH2T06---L	HT	II	65	14	2.5P	⑧-15
		For PT threads short (lg) type	2 3 4	S-PT LH	TSPT06---L	HT	II	65	14	2.5P	⑧-18
	Long shank	For PT threads	2 3 4	LS-PT	L10T06-	HT	II	100	14	2.5P	⑧-19
					L12T06-			120			⑧-19
					L15T06-			150			⑧-19
					L20T06-			200			⑧-19
			1 2 3	LS-SP-PT	SH2T06-L12	SP	II	120	14	2.5P	⑧-24
					SH2T06-L15			150			⑧-24
		For PT threads short (lg) type	2 3 4	LS-S-PT	TSPT06-L10	HT	II	100	14	2.5P	⑧-20
					TSPT06-L12			120			⑧-20
					TSPT06-L15			150			⑧-20
					TSPT06-L20			200			⑧-20
			1 2 3	LS-SP-S-PT	SSPT06-L12	SP	II	120	14	2.5P	⑧-25
					SSPT06-L15			150			⑧-25
	Interrupted	For PT threads	1 9 11	INT-PT	TINT06-	SL	II	65	14	3P	⑧-26
		For PT threads short (lg) type	1 9 11	INT-S-PT	TIST06-	SL	II	65	14	3P	⑧-27
		Long shank For PT threads	1 9 11	LS-INT-PT	TINT06-L10	SL	II	100	14	3P	⑧-28
					TINT06-L12			120			⑧-28
					TINT06-L15			150			⑧-28
		Long shank For PT threads short (lg) type	1 9 11	LS-INT-S-PT	TIST06-L10	SL	II	100	14	3P	⑧-29
					TIST06-L12			120			⑧-29
					TIST06-L15			150			⑧-29
	For low carbon steels	For PT threads	1 11	LC-PT	LCPT06-	HT	II	65	14	2.5P	⑧-30
		For PT threads short (lg) type	1 11	LC-S-PT	LCSPT06-	HT	II	65	14	2.5P	⑧-31
	For stainless steels	For PT threads	1 2 9	SU-PT	TU2T06-	HT	II	65	14	2.5P	⑧-32
			1 2 3 4 9	SU-SP-PT	SYPT062GEX	SP	II	65	14	2P	⑧-34
		For PT threads short (lg) type	1 2 9	SU-S-PT	TUST06-	HT	II	65	14	2.5P	⑧-33
			1 2 3 4 9	SU-SP-S-PT	SYPT062GEXS	SP	II	65	14	2P	⑧-35
	For cast irons	For PT threads	12 13	FC-PT	FCPT06-	HT	II	65	14	2.5P	⑧-36
		For PT threads short (lg) type	12 13	FC-S-PT	FCSPT06-	HT	II	65	14	2.5P	⑧-37

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection			Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
PT	Carbide	For PT threads	12 13 16	CT-PT	TCPT06-	HT	II	65	14	2.5P	⑧-38
		For PT threads short (lg) type	12 13 16	CT-S-PT	TCST06-	HT	II	65	14	2.5P	⑧-39
Rp	Standard(ISO standard)		1 2 3	Rp	TH2RP06-	HT	II	75	14	3.5P	⑧-40
	Coating		1 2 3 4 9 19 21	AUSP Rp	SJRP060FET	SP		100	14	2.5P	⑧-10
PS	Standard		1 2 3	PS	TH2P06-	HT	II	65	14	3.5P	⑧-41
					TH2P06-1					1.5P	⑧-41
				SP-PS	SH2P06-	SP				2.5P	⑧-45
	For left hand threads		1 2 3	PS LH	TH2P06---L	HT	II	65	14	3.5P	⑧-43
	Long shank		1 2 3	LS-PS	L10P06-	HT	II	100	14	3.5P	⑧-44
					L15P06-			150			⑧-44
					L20P06-			200			⑧-44
				LS-SP-PS	SH2P06-L12	SP		120		2.5P	⑧-46
					SH2P06-L15			150			⑧-46
	For cast irons		12 13	FC-PS	FCPS06-	HT	II	65	14	3.5P	⑧-47
	Carbide		12 13 16	CT-PS	TCPS06-	HT	II	65	14	3.5P	⑧-48
G	Standard(ISO standard)		1 2 3	G	TH2G06-	HT	II	75	14	3.5P	⑧-49
	Coating		1 2 3 4 9 19 21	AUSP G	SJG0060FET	SP	P3.5	100	14	2.5P	⑧-12
PF	Standard		1 2 3	PF	TH2F06-	HT	II	65	14	3.5P	⑧-71
					TH2F06-1					1.5P	⑧-71
				SP-PF	SH2F06-	SP				2.5P	⑧-75
	For left hand threads		1 2 3	PF LH	TH2F06---L	HT	II	65	14	3.5P	⑧-73
	Long shank		1 2 3	LS-PF	L10F06-	HT	II	100	14	3.5P	⑧-74
					L15F06-			150			⑧-74
					L20F06-			200			⑧-74
				LS-SP-PF	SH2F06-L12	SP		120		2.5P	⑧-76
					SH2F06-L15			150			⑧-76
	For stainless steels		1 2 9	SU-PF	TU2F06-	HT	II	65	14	3.5P	⑧-77
			1 2 3 4 9	SU-SP-PF	SYPF062GEX	SP	II	75	14	2.5P	⑧-78
	For cast irons		12 13	FC-PF	FCPF06-	HT	II	65	14	3.5P	⑧-79
	Carbide		12 13 16	CT-PF	TCPF06-	HT	II	65	14	3.5P	⑧-80

Taps ／ 1/2-14

Rc	Standard(ISO standard)	Standard	2 3 4	Rc	TH2RC08Q	HT	II	87	18	2.5P	⑧-13
	Coating		1 2 3 4 9 19 21	AUSP Rc	SJRC080FET	SP		125	18	2.5P	⑧-8
		Long	1 2 3 4 9 19 21	AUSP Rc	SJRC080FETK	SP		200	18	2.5P	⑧-8
PT	Standard	For PT threads	2 3 4	PT	TH2T08Q	HT	II	80	18	2.5P	⑧-14
			1 2 3	SP-PT	SH2T08Q	SP	II	80	18	2.5P	⑧-21
		For PT threads short (lg) type	2 3 4	PT-X	THX2T08Q	HT	II	105	18	2.5P	⑧-16
				S-PT	TSPT08Q			80			⑧-17
			1 2 3	SP-S-PT	SSPT08Q	SP	II	80	18	2.5P	⑧-22
				SP-PT-X	SHX2T08Q			105			⑧-23
	For left hand threads	For PT threads	2 3 4	PT LH	TH2T08Q---L	HT	II	80	18	2.5P	⑧-15
		For PT threads short (lg) type	2 3 4	S-PT LH	TSPT08Q--L	HT	II	80	18	2.5P	⑧-18
	Long shank	For PT threads	2 3 4	LS-PT	L15T08Q	HT	II	150	18	2.5P	⑧-19
					L20T08Q			200			⑧-19
			1 2 3	LS-SP-PT	SH2T08QL15	SP	II	150	18	2.5P	⑧-24
		For PT threads short (lg) type	2 3 4	LS-S-PT	TSPT08QL15	HT	II	150	18	2.5P	⑧-20
					TSPT08QL20			200			⑧-20
			1 2 3	LS-SP-S-PT	SSPT08QL15	SP	II	150	18	2.5P	⑧-25

Tap selection			Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
PT	Interrupted	For PT threads	1 9 11	INT-PT	TINT08Q	SL	II	80	18	3P	⑧-26
		For PT threads short (lg) type	1 9 11	INT-S-PT	TIST08Q	SL	II	80	18	3P	⑧-27
		Long shank For PT threads	1 9 11	LS-INT-PT	TINT08QL15	SL	II	150	18	3P	⑧-28
		Long shank For PT threads short (lg) type	1 9 11	LS-INT-S-PT	TIST08QL15	SL	II	150	18	3P	⑧-29
	For low carbon steels	For PT threads	1 11	LC-PT	LCPT08Q	HT	II	80	18	2.5P	⑧-30
		For PT threads short (lg) type	1 11	LC-S-PT	LCSPT08Q	HT	II	80	18	2.5P	⑧-31
	For stainless steels	For PT threads	1 2 9	SU-PT	TU2T08Q	HT	II	80	18	2.5P	⑧-32
			1 2 3 4 9	SU-SP-PT	SYPT082GEX	SP	II	80	18	2P	⑧-34
		For PT threads short (lg) type	1 2 9	SU-S-PT	TUST08Q	HT	II	80	18	2.5P	⑧-33
			1 2 3 4 9	SU-SP-S-PT	SYPT082GEXS	SP	II	80	18	2P	⑧-35
	For cast irons	For PT threads	12 13	FC-PT	FCPT08Q	HT	II	80	18	2.5P	⑧-36
		For PT threads short (lg) type	12 13	FC-S-PT	FCSPT08Q	HT	II	80	18	2.5P	⑧-37
	Carbide	For PT threads	12 13 16	CT-PT	TCPT08Q	HT	II	80	18	2.5P	⑧-38
		For PT threads short (lg) type	12 13 16	CT-S-PT	TCST08Q	HT	II	80	18	2.5P	⑧-39
Rp	Standard(ISO standard)		1 2 3	Rp	TH2RP08Q	HT	II	87	18	3.5P	⑧-40
	Coating		1 2 3 4 9 19 21	AUSP Rp	SJRP080FET	SP		125	18	2.5P	⑧-10
PS	Standard		1 2 3	PS	TH2P08Q	HT	II	80	18	3.5P	⑧-41
					TH2P08Q1					1.5P	⑧-41
				SP-PS	SH2P08Q	SP				2.5P	⑧-45
	For left hand threads		1 2 3	PS LH	TH2P08Q--L	HT	II	80	18	3.5P	⑧-43
	Long shank		1 2 3	LS-PS	L15P08Q	HT	II	150	18	3.5P	⑧-44
					L20P08Q			200			⑧-44
				LS-SP-PS	SH2P08QL15	SP		150		2.5P	⑧-46
	For cast irons		12 13	FC-PS	FCPS08Q	HT	II	80	18	3.5P	⑧-47
	Carbide		12 13 16	CT-PS	TCPS08Q	HT	II	80	18	3.5P	⑧-48
G	Standard(ISO standard)		1 2 3	G	TH2G08Q	HT	II	87	18	3.5P	⑧-49
	Coating		1 2 3 4 9 19 21	AUSP G	SJG0080FET	SP	P4	125	18	2.5P	⑧-12
PF	Standard		1 2 3	PF	TH2F08Q	HT	II	80	18	3.5P	⑧-71
					TH2F08Q1					1.5P	⑧-71
				SP-PF	SH2F08Q	SP				2.5P	⑧-75
	For left hand threads		1 2 3	PF LH	TH2F08Q--L	HT	II	80	18	3.5P	⑧-73
	Long shank		1 2 3	LS-PF	L15F08Q	HT	II	150	18	3.5P	⑧-74
					L20F08Q			200			⑧-74
				LS-SP-PF	SH2F08QL15	SP		150		2.5P	⑧-76
	For stainless steels		1 2 9	SU-PF	TU2F08Q	HT	II	80	18	3.5P	⑧-77
			1 2 3 4 9	SU-SP-PF	SYPF082GEX	SP	II	87	18	2.5P	⑧-78
	For cast irons		12 13	FC-PF	FCPF08Q	HT	II	80	18	3.5P	⑧-79
	Carbide		12 13 16	CT-PF	TCPF08Q	HT	II	80	18	3.5P	⑧-80

Taps ／ 5/8-14

PT	Standard	For PT threads	2 3 4	PT	TH2T10Q	HT	II	82	19	2.5P	⑧-14
PS	Standard		1 2 3	PS	TH2P10Q	HT	II	82	19	3.5P	⑧-41
PF	Standard		1 2 3	PF	TH2F10Q	HT	II	82	19	3.5P	⑧-71

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Taps / 3/4-14

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Rc	Standard(ISO standard)	Standard	2 3 4	Rc	TH2RC12Q	HT	II	96	23	2.5P	⑧-13
	Coating		1 2 3 4 9 19 21	AUSP Rc	SJRC120FET	SP		140	23	2.5P	⑧-8
		Long	1 2 3 4 9 19 21	AUSP Rc	SJRC120FETK	SP		200	23	2.5P	⑧-8
PT	Standard	For PT threads	2 3 4	PT	TH2T12Q	HT	II	85	23	2.5P	⑧-14
			1 2 3	SP-PT	SH2T12Q	SP	II	85	23	2.5P	⑧-21
		For PT threads short (lg) type	2 3 4	S-PT	TSPT12Q	HT	II	85	23	2.5P	⑧-17
			1 2 3	SP-S-PT	SSPT12Q	SP	II	85	23	2.5P	⑧-22
	For left hand threads	For PT threads	2 3 4	PT LH	TH2T12Q--L	HT	II	85	23	2.5P	⑧-15
		For PT threads short (lg) type	2 3 4	S-PT LH	TSPT12Q--L	HT	II	85	23	2.5P	⑧-18
	Long shank	For PT threads	2 3 4	LS-PT	L15T12Q	HT	II	150	23	2.5P	⑧-19
					L20T12Q			200			⑧-19
			1 2 3	LS-SP-PT	SH2T12QL15	SP	II	150	23	2.5P	⑧-24
		For PT threads short (lg) type	2 3 4	LS-S-PT	TSPT12QL15	HT	II	150	23	2.5P	⑧-20
					TSPT12QL20			200			⑧-20
			1 2 3	LS-SP-S-PT	SSPT12QL15	SP	II	150	23	2.5P	⑧-25
	Interrupted	For PT threads	1 9 11	INT-PT	TINT12Q	SL	II	85	23	3P	⑧-26
		For PT threads short (lg) type	1 9 11	INT-S-PT	TIST12Q	SL	II	85	23	3P	⑧-27
		Long shank For PT threads	1 9 11	LS-INT-PT	TINT12QL15	SL	II	150	23	3P	⑧-28
		Long shank For PT threads short (lg) type	1 9 11	LS-INT-S-PT	TIST12QL15	SL	II	150	23	3P	⑧-29
	For low carbon steels	For PT threads	1 11	LC-PT	LCPT12Q	HT	II	85	23	2.5P	⑧-30
		For PT threads short (lg) type	1 11	LC-S-PT	LCSPT12Q	HT	II	85	23	2.5P	⑧-31
	For stainless steels	For PT threads	1 2 9	SU-PT	TU2T12Q	HT	II	85	23	2.5P	⑧-32
			1 2 3 4 9	SU-SP-PT	SYPT122GEX	SP	II	85	23	2P	⑧-34
		For PT threads short (lg) type	1 2 9	SU-S-PT	TUST12Q	HT	II	85	23	2.5P	⑧-33
			1 2 3 4 9	SU-SP-S-PT	SYPT122GEXS	SP	II	85	23	2P	⑧-35
	For cast irons	For PT threads	12 13	FC-PT	FCPT12Q	HT	II	85	23	2.5P	⑧-36
		For PT threads short (lg) type	12 13	FC-S-PT	FCSPT12Q	HT	II	85	23	2.5P	⑧-37
	Carbide	For PT threads	12 13 16	CT-PT	TCPT12Q	HT	II	85	23	2.5P	⑧-38
Rp	Standard(ISO standard)		1 2 3	Rp	TH2RP12Q	HT	II	96	23	3.5P	⑧-40
	Coating		1 2 3 4 9 19 21	AUSP Rp	SJRP120FET	SP		140	23	2.5P	⑧-10
PS	Standard		1 2 3	PS	TH2P12Q	HT	II	85	23	3.5P	⑧-41
					TH2P12Q1					1.5P	⑧-41
				SP-PS	SH2P12Q	SP				2.5P	⑧-45
	For left hand threads		1 2 3	PS LH	TH2P12Q--L	HT	II	85	23	3.5P	⑧-43
	Long shank		1 2 3	LS-PS	L15P12Q	HT	II	150	23	3.5P	⑧-44
					L20P12Q			200			⑧-44
				LS-SP-PS	SH2P12QL15	SP		150		2.5P	⑧-46
	For cast irons		12 13	FC-PS	FCPS12Q	HT	II	85	23	3.5P	⑧-47
	Carbide		12 13 16	CT-PS	TCPS12Q	HT	II	85	23	3.5P	⑧-48
G	Standard(ISO standard)		1 2 3	G	TH2G12Q	HT	II	96	23	3.5P	⑧-49
	Coating		1 2 3 4 9 19 21	AUSP G	SJG0120FET	SP	P4	140	23	2.5P	⑧-12
PF	Standard		1 2 3	PF	TH2F12Q	HT	II	85	23	3.5P	⑧-71
					TH2F12Q1					1.5P	⑧-71
				SP-PF	SH2F12Q	SP				2.5P	⑧-75
	For left hand threads		1 2 3	PF LH	TH2F12Q--L	HT	II	85	23	3.5P	⑧-73
	Long shank		1 2 3	LS-PF	L15F12Q	HT	II	150	23	3.5P	⑧-74
					L20F12Q			200			⑧-74
				LS-SP-PF	SH2F12QL15	SP		150		2.5P	⑧-76
PF	For stainless steels		1 2 9	SU-PF	TU2F12Q	HT	II	85	23	3.5P	⑧-77
			1 2 3 4 9	SU-SP-PF	SYPF122GEX	SP	II	96	23	2.5P	⑧-78
	For cast irons		12 13	FC-PF	FCPF12Q	HT	II	85	23	3.5P	⑧-79
	Carbide		12 13 16	CT-PF	TCPF12Q	HT	II	85	23	3.5P	⑧-80

Taps / 7/8-14

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
PT	Standard	For PT threads	2 3 4	PT	TH2T14Q	HT	II	90	24	2.5P	⑧-14
PS	Standard		1 2 3	PS	TH2P14Q	HT	II	90	24	3.5P	⑧-41
PF	Standard		1 2 3	PF	TH2F14Q	HT	II	90	24	3.5P	⑧-71

Taps / 1-11

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Rc	Standard(ISO standard)	Standard	2 3 4	Rc	TH2RC16U	HT	II	109	26	2.5P	⑧-13
	Coating		1 2 3 4 9 19 21	AUSP Rc	SJRC160FET	SP		160	26	2.5P	⑧-8
		Long	1 2 3 4 9 19 21	AUSP Rc	SJRC160FETK	SP		200	26	2.5P	⑧-8
PT	Standard	For PT threads	2 3 4	PT	TH2T16U	HT	II	95	26	2.5P	⑧-14
			1 2 3	SP-PT	SH2T16U	SP	II	95	26	2.5P	⑧-21
		For PT threads short (lg) type	2 3 4	S-PT	TSPT16U	HT	II	95	26	2.5P	⑧-17
			1 2 3	SP-S-PT	SSPT16U	SP	II	95	26	2.5P	⑧-22
	For left hand threads	For PT threads	2 3 4	PT LH	TH2T16U--L	HT	II	95	26	2.5P	⑧-15
		For PT threads short (lg) type	2 3 4	S-PT LH	TSPT16U--L	HT	II	95	26	2.5P	⑧-18
	Long shank	For PT threads	2 3 4	LS-PT	L15T16U	HT	II	150	26	2.5P	⑧-19
					L20T16U			200			⑧-19
			1 2 3	LS-SP-PT	SH2T16UL15	SP	II	150	26	2.5P	⑧-24
					SH2T16UL20			200			⑧-24
		For PT threads short (lg) type	2 3 4	LS-S-PT	TSPT16UL15	HT	II	150	26	2.5P	⑧-20
					TSPT16UL20			200			⑧-20
			1 2 3	LS-SP-S-PT	SSPT16UL15	SP	II	150	26	2.5P	⑧-25
					SSPT16UL20			200			⑧-25
	Interrupted	For PT threads	1 9 11	INT-PT	TINT16U	SL	II	95	26	3P	⑧-26
		For PT threads short (lg) type	1 9 11	INT-S-PT	TIST16U	SL	II	95	26	3P	⑧-27
		Long shank For PT threads	1 9 11	LS-INT-PT	TINT16UL15	SL	II	150	26	3P	⑧-28
					TINT16UL20			200			⑧-28
		Long shank For PT threads short (lg) type	1 9 11	LS-INT-S-PT	TIST16UL15	SL	II	150	26	3P	⑧-29
					TIST16UL20			200			⑧-29
	For low carbon steels	For PT threads	1 11	LC-PT	LCPT16U	HT	II	95	26	2.5P	⑧-30
		For PT threads short (lg) type	1 11	LC-S-PT	LCSPT16U	HT	II	95	26	2.5P	⑧-31
	For stainless steels	For PT threads	1 2 9	SU-PT	TU2T16U	HT	II	95	26	2.5P	⑧-32
			1 2 3 4 9	SU-SP-PT	SYPT162GEX	SP	II	95	26	2P	⑧-34
		For PT threads short (lg) type	1 2 9	SU-S-PT	TUST16U	HT	II	95	26	2.5P	⑧-33
			1 2 3 4 9	SU-SP-S-PT	SYPT162GEXS	SP	II	95	26	2P	⑧-35
	For cast irons	For PT threads	12 13	FC-PT	FCPT16U	HT	II	95	26	2.5P	⑧-36
		For PT threads short (lg) type	12 13	FC-S-PT	FCSPT16U	HT	II	95	26	2.5P	⑧-37
	Carbide	For PT threads	12 13 16	CT-PT	TCPT16U	HT	II	95	26	2.5P	⑧-38
Rp	Standard(ISO standard)		1 2 3	Rp	TH2RP16U	HT	II	109	26	3.5P	⑧-40
	Coating		1 2 3 4 9 19 21	AUSP Rp	SJRP160FET	SP		160	26	2.5P	⑧-10
PS	Standard		1 2 3	PS	TH2P16U	HT	II	95	26	3.5P	⑧-41
					TH2P16U1					1.5P	⑧-41
				SP-PS	SH2P16U	SP				2.5P	⑧-45
	For left hand threads		1 2 3	PS LH	TH2P16U--L	HT	II	95	26	3.5P	⑧-43

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection			Main material	Symbol (Note1)	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
PS	Long shank		1 2 3	LS-PS	L15P16U	HT	II	150	26	3.5P	⑧-44
					L20P16U			200			⑧-44
				LS-SP-PS	SH2P16UL15	SP		150		2.5P	⑧-46
					SH2P16UL20			200			⑧-46
	For cast irons		12 13	FC-PS	FCPS16U	HT	II	95	26	3.5P	⑧-47
	Carbide		12 13 16	CT-PS	TCPS16U	HT	II	95	26	3.5P	⑧-48
G	Standard(ISO standard)		1 2 3	G	TH2G16U	HT	II	109	26	3.5P	⑧-49
	Coating		1 2 3 4 9 19 21	AUSP G	SJG0160FET	SP	P5	160	26	2.5P	⑧-12
PF	Standard		1 2 3	PF	TH2F16U	HT	II	95	26	3.5P	⑧-71
					TH2F16U1					1.5P	⑧-71
				SP-PF	SH2F16U	SP				2.5P	⑧-75
	For left hand threads		1 2 3	PF LH	TH2F16U--L	HT	II	95	26	3.5P	⑧-73
	Long shank		1 2 3	LS-PF	L15F16U	HT	II	150	26	3.5P	⑧-74
					L20F16U			200			⑧-74
				LS-SP-PF	SH2F16UL15	SP		150		2.5P	⑧-76
					SH2F16UL20			200			⑧-76
	For stainless steels		1 2 9	SU-PF	TU2F16U	HT	II	95	26	3.5P	⑧-77
			1 2 3 4 9	SU-SP-PF	SYPF162GEX	SP	II	109	26	2.5P	⑧-78
	For cast irons		12 13	FC-PF	FCPF16U	HT	II	95	26	3.5P	⑧-79
	Carbide		12 13 16	CT-PF	TCPF16U	HT	II	95	26	3.5P	⑧-80
Taps ／ 1 1/8-11											
PT	Standard	For PT threads	2 3 4	PT	TH2T18U	HT	II	100	28	2.5P	⑧-14
PS	Standard		1 2 3	PS	TH2P18U	HT	II	100	28	3.5P	⑧-41
PF	Standard		1 2 3	PF	TH2F18U	HT	II	100	28	3.5P	⑧-71
Taps ／ 1 1/4-11											
Rc	Standard(ISO standard)	Standard	2 3 4	Rc	TH2RC20U	HT	II	119	32	2.5P	⑧-13
PT	Standard	For PT threads	2 3 4	PT	TH2T20U	HT	II	105	32	2.5P	⑧-14
			1 2 3	SP-PT	SH2T20U	SP	II	105	32	2.5P	⑧-21
		For PT threads short (lg) type	2 3 4	S-PT	TSPT20U	HT	II	105	32	2.5P	⑧-17
			1 2 3	SP-S-PT	SSPT20U	SP	II	105	32	2.5P	⑧-22
	For left hand threads	For PT threads	2 3 4	PT LH	TH2T20U--L	HT	II	105	32	2.5P	⑧-15
		For PT threads short (lg) type	2 3 4	S-PT LH	TSPT20U--L	HT	II	105	32	2.5P	⑧-18
	Long shank	For PT threads	2 3 4	LS-PT	L20T20U	HT	II	200	32	2.5P	⑧-19
	Interrupted	For PT threads	1 9 11	INT-PT	TINT20U	SL	II	105	32	3P	⑧-26
		For PT threads short (lg) type	1 9 11	INT-S-PT	TIST20U	SL	II	105	32	3P	⑧-27
	For low carbon steels	For PT threads	1 11	LC-PT	LCPT20U	HT	II	105	32	2.5P	⑧-30
	For stainless steels	For PT threads	1 2 9	SU-PT	TU2T20U	HT	II	105	32	2.5P	⑧-32
			1 2 3 4 9	SU-SP-PT	SYPT202GEX	SP	II	105	32	2P	⑧-34
		For PT threads short (lg) type	1 2 9	SU-S-PT	TUST20U	HT	II	105	32	2.5P	⑧-33
			1 2 3 4 9	SU-SP-S-PT	SYPT202GEXS	SP	II	105	32	2P	⑧-35
	For cast irons	For PT threads	12 13	FC-PT	FCPT20U	HT	II	105	32	2.5P	⑧-36
		For PT threads short (lg) type	12 13	FC-S-PT	FCSPT20U	HT	II	105	32	2.5P	⑧-37
Rp	Standard(ISO standard)		1 2 3	Rp	TH2RP20U	HT	II	119	32	3.5P	⑧-40
PS	Standard		1 2 3	PS	TH2P20U	HT	II	105	32	3.5P	⑧-41
					TH2P20U1					1.5P	⑧-41
				SP-PS	SH2P20U	SP				2.5P	⑧-45
	For left hand threads		1 2 3	PS LH	TH2P20U--L	HT	II	105	32	3.5P	⑧-43
	Long shank		1 2 3	LS-PS	L20P20U	HT	II	200	32	3.5P	⑧-44
	For cast irons		12 13	FC-PS	FCPS20U	HT	II	105	32	3.5P	⑧-47

Tap selection			Main material	Symbol (Note1)	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
G	Standard(ISO standard)		1 2 3	G	TH2G20U	HT	II	119	32	3.5P	⑧-49
PF	Standard		1 2 3	PF	TH2F20U	HT	II	105	32	3.5P	⑧-71
					TH2F20U1					1.5P	⑧-71
				SP-PF	SH2F20U	SP				2.5P	⑧-75
	For left hand threads		1 2 3	PF LH	TH2F20U--L	HT	II	105	32	3.5P	⑧-73
	Long shank		1 2 3	LS-PF	L20F20U	HT	II	200	32	3.5P	⑧-74
	For cast irons		12 13	FC-PF	FCPF20U	HT	II	105	32	3.5P	⑧-79
Taps ／ 1 1/2-11											
Rc	Standard(ISO standard)	Standard	2 3 4	Rc	TH2RC24U	HT	II	125	38	2.5P	⑧-13
PT	Standard	For PT threads	2 3 4	PT	TH2T24U	HT	II	110	38	2.5P	⑧-14
			1 2 3	SP-PT	SH2T24U	SP	II	110	38	2.5P	⑧-21
		For PT threads short (lg) type	2 3 4	S-PT	TSPT24U	HT	II	110	38	2.5P	⑧-17
			1 2 3	SP-S-PT	SSPT24U	SP	II	110	38	2.5P	⑧-22
	For left hand threads	For PT threads	2 3 4	PT LH	TH2T24U--L	HT	II	110	38	2.5P	⑧-15
		For PT threads short (lg) type	2 3 4	S-PT LH	TSPT24U--L	HT	II	110	38	2.5P	⑧-18
	Long shank	For PT threads	2 3 4	LS-PT	L20T24U	HT	II	200	38	2.5P	⑧-19
	Interrupted	For PT threads	1 9 11	INT-PT	TINT24U	SL	II	110	38	3P	⑧-26
		For PT threads short (lg) type	1 9 11	INT-S-PT	TIST24U	SL	II	110	38	3P	⑧-27
	For low carbon steels	For PT threads	1 11	LC-PT	LCPT24U	HT	II	110	38	2.5P	⑧-30
	For stainless steels	For PT threads	1 2 9	SU-PT	TU2T24U	HT	II	110	38	2.5P	⑧-32
			1 2 3 4 9	SU-SP-PT	SYPT242GEX	SP	II	110	38	2P	⑧-34
		For PT threads short (lg) type	1 2 9	SU-S-PT	TUST24U	HT	II	110	38	2.5P	⑧-33
			1 2 3 4 9	SU-SP-S-PT	SYPT242GEXS	SP	II	110	38	2P	⑧-35
	For cast irons	For PT threads	12 13	FC-PT	FCPT24U	HT	II	110	38	2.5P	⑧-36
		For PT threads short (lg) type	12 13	FC-S-PT	FCSPT24U	HT	II	110	38	2.5P	⑧-37
Rp	Standard(ISO standard)		1 2 3	Rp	TH2RP24U	HT	II	125	38	3.5P	⑧-40
PS	Standard		1 2 3	PS	TH2P24U	HT	II	110	38	3.5P	⑧-41
					TH2P24U1					1.5P	⑧-41
				SP-PS	SH2P24U	SP				2.5P	⑧-45
	For left hand threads		1 2 3	PS LH	TH2P24U--L	HT	II	110	38	3.5P	⑧-43
	Long shank		1 2 3	LS-PS	L20P24U	HT	II	200	38	3.5P	⑧-44
	For cast irons		12 13	FC-PS	FCPS24U	HT	II	110	38	3.5P	⑧-47
G	Standard(ISO standard)		1 2 3	G	TH2G24U	HT	II	125	38	3.5P	⑧-49
PF	Standard		1 2 3	PF	TH2F24U	HT	II	110	38	3.5P	⑧-71
					TH2F24U1					1.5P	⑧-71
				SP-PF	SH2F24U	SP				2.5P	⑧-75
	For left hand threads		1 2 3	PF LH	TH2F24U--L	HT	II	110	38	3.5P	⑧-73
	Long shank		1 2 3	LS-PF	L20F24U	HT	II	200	38	3.5P	⑧-74
	For cast irons		12 13	FC-PF	FCPF24U	HT	II	110	38	3.5P	⑧-79
Taps ／ 1 3/4-11											
PT	Standard	For PT threads	2 3 4	PT	TH2T28U	HT	II	115	42	2.5P	⑧-14
		For PT threads short (lg) type	2 3 4	S-PT	TSPT28U	HT	II	115	42	2.5P	⑧-17
PS	Standard		1 2 3	PS	TH2P28U	HT	II	115	42	3.5P	⑧-41
PF	Standard		1 2 3	PF	TH2F28U	HT	II	115	42	3.5P	⑧-71
					TH2F28U1					1.5P	⑧-71

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps / 2-11											
Rc	Standard(ISO standard)	Standard	2 3 4	Rc	TH2RC32U	HT	II	140	46	2.5P	⑧-13
PT	Standard	For PT threads	2 3 4	PT	TH2T32U	HT	II	120	46	2.5P	⑧-14
			1 2 3	SP-PT	SH2T32U	SP	II	120	46	2.5P	⑧-21
		For PT threads short (lg) type	2 3 4	S-PT	TSPT32U	HT	II	120	46	2.5P	⑧-17
			1 2 3	SP-S-PT	SSPT32U	SP	II	120	46	2.5P	⑧-22
	For left hand threads	For PT threads	2 3 4	PT LH	TH2T32U--L	HT	II	120	46	2.5P	⑧-15
		For PT threads short (lg) type	2 3 4	S-PT LH	TSPT32U--L	HT	II	120	46	2.5P	⑧-18
	Long shank	For PT threads	2 3 4	LS-PT	L20T32U	HT	II	200	46	2.5P	⑧-19
	Interrupted	For PT threads	1 9 11	INT-PT	TINT32U	SL	II	120	46	3P	⑧-26
		For PT threads short (lg) type	1 9 11	INT-S-PT	TIST32U	SL	II	120	46	3P	⑧-27
	For low carbon steels	For PT threads	1 11	LC-PT	LCPT32U	HT	II	120	46	2.5P	⑧-30
	For stainless steels	For PT threads	1 2 3 4 9	SU-SP-PT	SYPT322GEX	SP	II	120	46	2P	⑧-34
		For PT threads short (lg) type	1 2 3 4 9	SU-SP-S-PT	SYPT322GEXS	SP	II	120	46	2P	⑧-35
	For cast irons	For PT threads	12 13	FC-PT	FCPT32U	HT	II	120	46	2.5P	⑧-36
		For PT threads short (lg) type	12 13	FC-S-PT	FCSPT32U	HT	II	120	46	2.5P	⑧-37
Rp	Standard(ISO standard)		1 2 3	Rp	TH2RP32U	HT	II	140	46	3.5P	⑧-40
PS	Standard		1 2 3	PS	TH2P32U	HT	II	120	46	3.5P	⑧-41
				SP-PS	SH2P32U	SP				2.5P	⑧-45
	For left hand threads		1 2 3	PS LH	TH2P32U--L	HT	II	120	46	3.5P	⑧-43
G	Standard(ISO standard)		1 2 3	G	TH2G32U	HT	II	140	46	3.5P	⑧-49
PF	Standard		1 2 3	PF	TH2F32U	HT	II	120	46	3.5P	⑧-71
					TH2F32U1					1.5P	⑧-71
				SP-PF	SH2F32U	SP				2.5P	⑧-75
	For left hand threads		1 2 3	PF LH	TH2F32U--L	HT	II	120	46	3.5P	⑧-73
	Long shank		1 2 3	LS-PF	L20F32U	HT	II	200	46	3.5P	⑧-74
	For cast irons		12 13	FC-PF	FCPF32U	HT	II	120	46	3.5P	⑧-79
Taps / 2 1/4-11											
PT	Standard	For PT threads	2 3 4	PT	TH2T36U	HT	II	145	50	2.5P	⑧-14
PS	Standard		1 2 3	PS	TH2P36U	HT	II	145	50	3.5P	⑧-41
Taps / 2 1/2-11											
PT	Standard	For PT threads	2 3 4	PT	TH2T40U	HT	II	145	55	2.5P	⑧-14
		For PT threads short (lg) type	2 3 4	S-PT	TSPT40U	HT	II	145	55	2.5P	⑧-17
PS	Standard		1 2 3	PS	TH2P40U	HT	II	145	55	3.5P	⑧-41
PF	Standard		1 2 3	PF	TH2F40U	HT	II	145	55	3.5P	⑧-71
Taps / 3-11											
PT	Standard	For PT threads	2 3 4	PT	TH2T48U	HT	II	155	65	2.5P	⑧-14
		For PT threads short (lg) type	2 3 4	S-PT	TSPT48U	HT	II	155	65	2.5P	⑧-17
PS	Standard		1 2 3	PS	TH2P48U	HT	II	155	65	3.5P	⑧-42
PF	Standard		1 2 3	PF	TH2F48U	HT	II	155	65	3.5P	⑧-72
					TH2F48U1					1.5P	⑧-72
Taps / 3 1/2-11											
PT	Standard	For PT threads	2 3 4	PT	TH2T56U	HT	II	165	70	2.5P	⑧-14
PS	Standard		1 2 3	PS	TH2P56U	HT	II	165	70	3.5P	⑧-42
PF	Standard		1 2 3	PF	TH2F56U	HT	II	165	70	3.5P	⑧-72

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps / 4-11											
PT	Standard	For PT threads	2 3 4	PT	TH2T64U	HT	II	170	75	2.5P	⑧-14
PS	Standard		1 2 3	PS	TH2P64U	HT	II	170	75	3.5P	⑧-42
PF	Standard		1 2 3	PF	TH2F64U	HT	II	170	75	3.5P	⑧-72

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Dies selection			Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ PT1/16-28											
PT	For PT threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT		38	13	2.5P	TYJPT010NEBC	⑩-26
Dies ／ PF1/16-28											
PF	For PF threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF		25	9	2.5P	TYGPF010NEBC	⑩-28
Dies ／ PT1/8-28											
PT	For PT threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT		38	13	2.5P	TYJPT020NEBC	⑩-26
	For PT left hand threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT LH		38	13	2.5P	GYJPT020NEBC	⑩-27
Dies ／ PF1/8-28											
PF	For PF threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF		25	9	2.5P	TYGPF020NEBC	⑩-28
							38	13		TYJPF020NEBC	⑩-28
	For PF left hand threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF LH		38	13	2.5P	GYJPF020NEBC	⑩-29
Dies ／ PT1/4-19											
PT	For PT threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT		38	18	2.5P	TYJPT040NEBC	⑩-26
	For PT left hand threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT LH		38	18	2.5P	GYJPT040NEBC	⑩-27
Dies ／ PF1/4-19											
PF	For PF threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF		38	13	2.5P	TYJPF040NEBC	⑩-28
	For PF left hand threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF LH		38	13	2.5P	GYJPF040NEBC	⑩-29
Dies ／ PT3/8-19											
PT	For PT threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT		50	22	2.5P	TYMPT060NEBC	⑩-26
	For PT left hand threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT LH		50	22	2.5P	GYMPT060NEBC	⑩-27
Dies ／ PF3/8-19											
PF	For PF threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF		38	13	2.5P	TYJPF060NEBC	⑩-28
							50	16		TYMPF060NEBC	⑩-28
	For PF left hand threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF LH		50	16	2.5P	GYMPF060NEBC	⑩-29
Dies ／ PT1/2-14											
PT	For PT threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT		50	22	2.5P	TYMPT080NEBC	⑩-26
	For PT left hand threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT LH		50	22	2.5P	GYMPT080NEBC	⑩-27
Dies ／ PF1/2-14											
PF	For PF threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF		50	16	2.5P	TYMPF080NEBC	⑩-28
	For PF left hand threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF LH		50	16	2.5P	GYMPF080NEBC	⑩-29
Dies ／ PT5/8-14											
PT	For PT threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT		63	24	2.5P	TYRPT100NEBC	⑩-26
Dies ／ PF5/8-14											
PF	For PF threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF		50	16	2.5P	TYMPF100NEBC	⑩-28
Dies ／ PT3/4-14											
PT	For PT threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT		63	24	2.5P	TYRPT120NEBC	⑩-26
	For PT left hand threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT LH		63	24	2.5P	GYRPT120NEBC	⑩-27

Dies selection			Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ PF3/4-14											
PF	For PF threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF		50	16	2.5P	TYMPF120NEBC	⑩-28
							63	20		TYRPF120NEBC	⑩-28
	For PF left hand threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF LH		63	20	2.5P	GYRPF120NEBC	⑩-29
Dies ／ PT7/8-14											
PT	For PT threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT		75	30	2.5P	TYUPT140NEBC	⑩-26
Dies ／ PT1-11											
PT	For PT threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT		75	30	2.5P	TYUPT160NEBC	⑩-26
	For PT left hand threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT LH		75	30	2.5P	GYUPT160NEBC	⑩-27
Dies ／ PF1-11											
PF	For PF threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF		75	25	2.5P	TYUPF160NEBC	⑩-28
	For PF left hand threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF LH		75	25	2.5P	GYUPF160NEBC	⑩-29
Dies ／ PT1 1/4-11											
PT	For PT threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT		75	30	2.5P	TYUPT200NEBC	⑩-26
Dies ／ PF1 1/4-11											
PF	For PF threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF		75	25	2.5P	TYUPF200NEBC	⑩-28
Dies ／ PT1 1/2-11											
PT	For PT threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT		75	30	2.5P	TYUPT240NEBC	⑩-26
Dies ／ PF1 1/2-11											
PF	For PF threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF		75	25	2.5P	TYUPF240NEBC	⑩-28
Dies ／ PT2-11											
PT	For PT threads	Solid dies	HSS	1 2 12 15 16 18 19	D PT		105	36	2.5P	TYYPT320NEBC	⑩-26
Dies ／ PF2-11											
PF	For PF threads	Solid dies	HSS	1 2 12 15 16 18 19	D PF		105	30	2.5P	TYYPF320NEBC	⑩-28

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Taps ／ 1/16-27

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
NPT	Standard	For NPT threads	2 3 4	NPT	TNPT01L	HT	ANSI G	54	8	3P	⑧-81
			1 2 3	SP-NPT	SNPT01L	SP	ANSI G	54	8	2.5P	⑧-87
		For NPT threads short (lg) type	2 3 4	S-NPT	TSNPT01L	HT	ANSI G	54	8	3P	⑧-85
	Long shank	For NPT threads	2 3 4	LS-NPT	TNPT01LL10	HT	ANSI G	100	8	3P	⑧-86
					TNPT01LL15			150			⑧-86
	Interrupted	For NPT threads	1 9 11	INT-NPT	TINPT01L	SL	ANSI G	54	8	3P	⑧-90
		For NPT threads short (lg) type	1 9 11	INT-S-NPT	TISNT01L	SL	ANSI G	54	8	3P	⑧-92
NPTF	Standard		2 3 4	NPTF	TNTF01L	HT	ANSI G	54	8	3P	⑧-93
	Long shank		2 3 4	LS-NPTF	TNTF01LL10	HT	ANSI G	100	8	3P	⑧-97
					TNTF01LL15			150			⑧-97
NPS	Standard		1 2 3	NPS	TNPS01L	HT	ANSI G	54	8	5P	⑧-98
NPSF	Standard		1 2 3	NPSF	TNSF01L	HT	ANSI G	54	8	5P	⑧-100

Taps ／ 1/8-27

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
NPT	Standard	For NPT threads	2 3 4	NPT	TNPT02L	HT	ANSI G	55	8	3P	⑧-81
			1 2 3	SP-NPT	SNPT02L	SP	ANSI G	55	8	2.5P	⑧-87
		For NPT threads short (lg) type	2 3 4	S-NPT	TSNPT02L	HT	ANSI G	55	8	3P	⑧-85
	Long shank	For NPT threads	2 3 4	LS-NPT	TNPT02LL10	HT	ANSI G	100	8	3P	⑧-86
					TNPT02LL15			150			⑧-86
		For NPT threads short (lg) type	1 2 3	LS-SP-S-NPT	SSNPT02LL10	SP	ANSI G	100	8	2.5P	⑧-89
	Interrupted	For NPT threads	1 9 11	INT-NPT	TINPT02L	SL	ANSI G	55	8	3P	⑧-90
		For NPT threads short (lg) type	1 9 11	INT-S-NPT	TISNT02L	SL	ANSI G	55	8	3P	⑧-92
NPTF	Standard		2 3 4	NPTF	TNTF02L	HT	ANSI G	55	8	3P	⑧-93
	Long shank		2 3 4	LS-NPTF	TNTF02LL10	HT	ANSI G	100	8	3P	⑧-97
					TNTF02LL15			150			⑧-97
NPS	Standard		1 2 3	NPS	TNPS02L	HT	ANSI G	55	8	5P	⑧-98
NPSF	Standard		1 2 3	NPSF	TNSF02L	HT	ANSI G	55	8	5P	⑧-100

Taps ／ 1/4-18

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
NPT	Standard	For NPT threads	2 3 4	NPT	TNPT04O	HT	ANSI G	62	11	3P	⑧-81
			1 2 3	SP-NPT	SNPT04O	SP	ANSI G	62	11	2.5P	⑧-87
		For NPT threads short (lg) type	2 3 4	S-NPT	TSNPT04O	HT	ANSI G	62	11	3P	⑧-85
	Long shank	For NPT threads	2 3 4	LS-NPT	TNPT04OL10	HT	ANSI G	100	11	3P	⑧-86
					TNPT04OL15			150			⑧-86
		For NPT threads short (lg) type	1 2 3	LS-SP-S-NPT	SSNPT04OL15	SP	ANSI G	150	11	2.5P	⑧-89
	Interrupted	For NPT threads	1 9 11	INT-NPT	TINPT04O	SL	ANSI G	62	11	3P	⑧-90
		For NPT threads short (lg) type	1 9 11	INT-S-NPT	TISNT04O	SL	ANSI G	62	11	3P	⑧-92
NPTF	Standard		2 3 4	NPTF	TNTF04O	HT	ANSI G	62	11	3P	⑧-93
	Long shank		2 3 4	LS-NPTF	TNTF04OL10	HT	ANSI G	100	11	3P	⑧-97
					TNTF04OL15			150			⑧-97
NPS	Standard		1 2 3	NPS	TNPS04O	HT	ANSI G	62	11	5P	⑧-98
NPSF	Standard		1 2 3	NPSF	TNSF04O	HT	ANSI G	62	11	5P	⑧-100

Taps ／ 3/8-18

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
NPT	Standard	For NPT threads	2 3 4	NPT	TNPT06O	HT	ANSI G	65	14	3P	⑧-81
			1 2 3	SP-NPT	SNPT06O	SP	ANSI G	65	14	2.5P	⑧-87
		For NPT threads short (lg) type	2 3 4	S-NPT	TSNPT06O	HT	ANSI G	65	14	3P	⑧-85
	Long shank	For NPT threads	2 3 4	LS-NPT	TNPT06OL10	HT	ANSI G	100	14	3P	⑧-86
					TNPT06OL15			150			⑧-86
		For NPT threads short (lg) type	1 2 3	LS-SP-S-NPT	SSNPT06OL15	SP	ANSI G	150	14	2.5P	⑧-89
	Interrupted	For NPT threads	1 9 11	INT-NPT	TINPT06O	SL	ANSI G	65	14	3P	⑧-90
		For NPT threads short (lg) type	1 9 11	INT-S-NPT	TISNT06O	SL	ANSI G	65	14	3P	⑧-92
NPTF	Standard		2 3 4	NPTF	TNTF06O	HT	ANSI G	65	14	3P	⑧-93
	Long shank		2 3 4	LS-NPTF	TNTF06OL10	HT	ANSI G	100	14	3P	⑧-97
					TNTF06OL15			150			⑧-97
NPS	Standard		1 2 3	NPS	TNPS06O	HT	ANSI G	65	14	5P	⑧-98
NPSF	Standard		1 2 3	NPSF	TNSF06O	HT	ANSI G	65	14	5P	⑧-100

Taps ／ 1/2-14

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
NPT	Standard	For NPT threads	2 3 4	NPT	TNPT08Q	HT	ANSI G	80	18	3P	⑧-81
			1 2 3	SP-NPT	SNPT08Q	SP	ANSI G	80	18	2.5P	⑧-87
		For NPT threads short (lg) type	2 3 4	S-NPT	TSNPT08Q	HT	ANSI G	80	18	3P	⑧-85
	Long shank	For NPT threads	2 3 4	LS-NPT	TNPT08QL15	HT	ANSI G	150	18	3P	⑧-86
		For NPT threads short (lg) type	1 2 3	LS-SP-S-NPT	SSNPT08QL15	SP	ANSI G	150	18	2.5P	⑧-89
	Interrupted	For NPT threads	1 9 11	INT-NPT	TINPT08Q	SL	ANSI G	80	18	3P	⑧-90
		For NPT threads short (lg) type	1 9 11	INT-S-NPT	TISNT08Q	SL	ANSI G	80	18	3P	⑧-92
NPTF	Standard		2 3 4	NPTF	TNTF08Q	HT	ANSI G	80	18	3P	⑧-93
	Long shank		2 3 4	LS-NPTF	TNTF08QL15	HT	ANSI G	150	18	3P	⑧-97
NPS	Standard		1 2 3	NPS	TNPS08Q	HT	ANSI G	80	18	5P	⑧-98
NPSF	Standard		1 2 3	NPSF	TNSF08Q	HT	ANSI G	80	18	5P	⑧-100

Taps ／ 3/4-14

Tap selection			Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
NPT	Standard	For NPT threads	2 3 4	NPT	TNPT12Q	HT	ANSI G	85	23	3P	⑧-81
			1 2 3	SP-NPT	SNPT12Q	SP	ANSI G	85	23	2.5P	⑧-87
		For NPT threads short (lg) type	2 3 4	S-NPT	TSNPT12Q	HT	ANSI G	85	23	3P	⑧-85
	Long shank	For NPT threads	2 3 4	LS-NPT	TNPT12QL15	HT	ANSI G	150	23	3P	⑧-86
		For NPT threads short (lg) type	1 2 3	LS-SP-S-NPT	SSNPT12QL15	SP	ANSI G	150	23	2.5P	⑧-89
	Interrupted	For NPT threads	1 9 11	INT-NPT	TINPT12Q	SL	ANSI G	85	23	3P	⑧-90
		For NPT threads short (lg) type	1 9 11	INT-S-NPT	TISNT12Q	SL	ANSI G	85	23	3P	⑧-92
NPTF	Standard		2 3 4	NPTF	TNTF12Q	HT	ANSI G	85	23	3P	⑧-93
	Long shank		2 3 4	LS-NPTF	TNTF12QL15	HT	ANSI G	150	23	3P	⑧-97
NPS	Standard		1 2 3	NPS	TNPS12Q	HT	ANSI G	85	23	5P	⑧-98
NPSF	Standard		1 2 3	NPSF	TNSF12Q	HT	ANSI G	85	23	5P	⑧-100

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection			Main material	Symbol (Note1)	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ 1-11 1/2											
NPT	Standard	For NPT threads	2 3 4	NPT	TNPT16T	HT	ANSIG	95	26	3P	⑧-81
			1 2 3	SP-NPT	SNPT16T	SP	ANSIG	95	26	2.5P	⑧-87
		For NPT threads short (lg) type	2 3 4	S-NPT	TSNPT16T	HT	ANSIG	95	26	3P	⑧-85
	Long shank	For NPT threads	2 3 4	LS-NPT	TNPT16TL15	HT	ANSIG	150	26	3P	⑧-86
	Interrupted	For NPT threads	1 9 11	INT-NPT	TINPT16T	SL	ANSIG	95	26	3P	⑧-90
		For NPT threads short (lg) type	1 9 11	INT-S-NPT	TISNT16T	SL	ANSIG	95	26	3P	⑧-92
NPTF	Standard		2 3 4	NPTF	TNTF16T	HT	ANSIG	95	26	3P	⑧-93
	Long shank		2 3 4	LS-NPTF	TNTF16TL15	HT	ANSIG	150	26	3P	⑧-97
NPS	Standard		1 2 3	NPS	TNPS16T	HT	ANSIG	95	26	5P	⑧-98
NPSF	Standard		1 2 3	NPSF	TNSF16T	HT	ANSIG	95	26	5P	⑧-100
Taps ／ 1 1/4-11 1/2											
NPT	Standard	For NPT threads	2 3 4	NPT	TNPT20T	HT	ANSIG	105	32	3P	⑧-81
		For NPT threads short (lg) type	2 3 4	S-NPT	TSNPT20T	HT	ANSIG	105	32	3P	⑧-85
	Interrupted	For NPT threads	1 9 11	INT-NPT	TINPT20T	SL	ANSIG	105	32	3P	⑧-90
		For NPT threads short (lg) type	1 9 11	INT-S-NPT	TISNT20T	SL	ANSIG	105	32	3P	⑧-92
NPTF	Standard		2 3 4	NPTF	TNTF20T	HT	ANSIG	105	32	3P	⑧-93
NPS	Standard		1 2 3	NPS	TNPS20T	HT	ANSIG	105	32	5P	⑧-98
NPSF	Standard		1 2 3	NPSF	TNSF20T	HT	ANSIG	105	32	5P	⑧-100
Taps ／ 1 1/2-11 1/2											
NPT	Standard	For NPT threads	2 3 4	NPT	TNPT24T	HT	ANSIG	110	38	3P	⑧-81
		For NPT threads short (lg) type	2 3 4	S-NPT	TSNPT24T	HT	ANSIG	110	38	3P	⑧-85
	Interrupted	For NPT threads	1 9 11	INT-NPT	TINPT24T	SL	ANSIG	110	38	3P	⑧-90
		For NPT threads short (lg) type	1 9 11	INT-S-NPT	TISNT24T	SL	ANSIG	110	38	3P	⑧-92
NPTF	Standard		2 3 4	NPTF	TNTF24T	HT	ANSIG	110	38	3P	⑧-93
NPS	Standard		1 2 3	NPS	TNPS24T	HT	ANSIG	110	38	5P	⑧-98
NPSF	Standard		1 2 3	NPSF	TNSF24T	HT	ANSIG	110	38	5P	⑧-100
Taps ／ 2-11 1/2											
NPT	Standard	For NPT threads	2 3 4	NPT	TNPT32T	HT	ANSIG	120	46	3P	⑧-81
		For NPT threads short (lg) type	2 3 4	S-NPT	TSNPT32T	HT	ANSIG	120	46	3P	⑧-85
	Interrupted	For NPT threads	1 9 11	INT-NPT	TINPT32T	SL	ANSIG	120	46	3P	⑧-90
		For NPT threads short (lg) type	1 9 11	INT-S-NPT	TISNT32T	SL	ANSIG	120	46	3P	⑧-92
NPTF	Standard		2 3 4	NPTF	TNTF32T	HT	ANSIG	120	46	3P	⑧-93
NPS	Standard		1 2 3	NPS	TNPS32T	HT	ANSIG	120	46	5P	⑧-98
NPSF	Standard		1 2 3	NPSF	TNSF32T	HT	ANSIG	120	46	5P	⑧-100
Taps ／ 2 1/2-8											
NPT	Standard	For NPT threads	2 3 4	NPT	TNPT40X	HT	ANSIG	145	55	3P	⑧-81
Taps ／ 3-8											
NPT	Standard	For NPT threads	2 3 4	NPT	TNPT48X	HT	ANSIG	155	65	3P	⑧-81

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ 1/16-27 NPT									
NPT For NPT threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPT	-	38	13	2.5P	TYJNT010NEBC	⑩-30
Dies ／ 1/16-27 NPTF									
NPTF For NPTF threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPTF	-	38	13	2.5P	TYJNF010NEBC	⑩-31
Dies ／ 1/16-27 NPSM									
NPSM For NPSM threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPSM	-	38	13	2.5P	TYJSM010NEBC	⑩-32
Dies ／ 1/8-27 NPT									
NPT For NPT threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPT	-	38	13	2.5P	TYJNT020NEBC	⑩-30
Dies ／ 1/8-27 NPTF									
NPTF For NPTF threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPTF	-	38	13	2.5P	TYJNF020NEBC	⑩-31
Dies ／ 1/8-27 NPSM									
NPSM For NPSM threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPSM	-	38	13	2.5P	TYJSM020NEBC	⑩-32
Dies ／ 1/4-18 NPT									
NPT For NPT threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPT	-	38	18	2.5P	TYJNT040NEBC	⑩-30
Dies ／ 1/4-18 NPTF									
NPTF For NPTF threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPTF	-	38	18	2.5P	TYJNF040NEBC	⑩-31
Dies ／ 1/4-18 NPSM									
NPSM For NPSM threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPSM	-	38	13	2.5P	TYJSM040NEBC	⑩-32
Dies ／ 3/8-18 NPT									
NPT For NPT threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPT	-	50	22	2.5P	TYMNT060NEBC	⑩-30
Dies ／ 3/8-18 NPTF									
NPTF For NPTF threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPTF	-	50	22	2.5P	TYMNF060NEBC	⑩-31
Dies ／ 3/8-18 NPSM									
NPSM For NPSM threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPSM	-	50	16	2.5P	TYMSM060NEBC	⑩-32
Dies ／ 1/2-14 NPT									
NPT For NPT threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPT	-	50	22	2.5P	TYMNT080NEBC	⑩-30
Dies ／ 1/2-14 NPTF									
NPTF For NPTF threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPTF	-	50	22	2.5P	TYMNF080NEBC	⑩-31
Dies ／ 1/2-14 NPSM									
NPSM For NPSM threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPSM	-	50	16	2.5P	TYMSM080NEBC	⑩-32
Dies ／ 3/4-14 NPT									
NPT For NPT threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPT	-	63	24	2.5P	TYRNT120NEBC	⑩-30
Dies ／ 3/4-14 NPTF									
NPTF For NPTF threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPTF	-	63	24	2.5P	TYRNF120NEBC	⑩-31

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ 3/4-14 NPSM									
NPSM For NPSM threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPSM	-	63	20	2.5P	TYRSM120NEBC	⑩-32
Dies ／ 1-11 1/2 NPT									
NPT For NPT threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPT	-	75	30	2.5P	TYUNT160NEBC	⑩-30
Dies ／ 1-11 1/2 NPTF									
NPTF For NPTF threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPTF	-	75	30	2.5P	TYUNF160NEBC	⑩-31
Dies ／ 1-11 1/2 NPSM									
NPSM For NPSM threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPSM	-	75	25	2.5P	TYUSM160NEBC	⑩-32
Dies ／ 1 1/4-11 1/2 NPT									
NPT For NPT threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPT	-	75	30	2.5P	TYUNT200NEBC	⑩-30
Dies ／ 1 1/4-11 1/2 NPTF									
NPTF For NPTF threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPTF	-	75	30	2.5P	TYUNF200NEBC	⑩-31
Dies ／ 1 1/4-11 1/2 NPSM									
NPSM For NPSM threads	Solid dies	HSS 1 2 12 15 16 18 19	D NPSM	-	75	25	2.5P	TYUSM200NEBC	⑩-32

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection		Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ S0.4 × 0.1										
Cutting		1 15	MS+TR	GMHRP0.4-3	HT	-	36	3	2.75P	④-136
Taps ／ S0.5 × 0.125										
Cutting		1 15	MS+TR	GMHRP0.5-3	HT	-	36	3	2.75P	④-136
Taps ／ S0.6 × 0.15										
Cutting		1 15	MS+TR	GMHRP0.6-3	HT	-	36	3	2.75P	④-136
Thread forming taps for non-ferrous materials	High performance	1 9 15 18 19 21	MS+RS	MSP20.6-B	RO	GS2	36	3	2P	⑥-62
		1 2 3 9 18 22	HPsRZ	HPS20.6-B	RO	GS2	36	3	2P	⑥-62
Taps ／ S0.7 × 0.175										
Cutting		1 15	MS+TR	GMHRP0.7-3	HT	-	36	3	2.75P	④-136
Thread forming taps for non-ferrous materials	High performance	1 9 15 18 19 21	MS+RS	MSP30.7-B	RO	GS3	36	3	2P	⑥-62
		1 2 3 9 18 22	HPsRZ	HPS30.7-B	RO	GS3	36	3	2P	⑥-62
Taps ／ S0.8 × 0.2										
Cutting		1 15	MS+TR	GMHRP0.8-3	HT	-	36	3	2.75P	④-136
Thread forming taps for non-ferrous materials	High performance	1 9 15 18 19 21	MS+RS	MSP30.8-B	RO	GS3	36	3	2P	⑥-62
		1 2 3 9 18 22	HPsRZ	HPS30.8-B	RO	GS3	36	3	2P	⑥-62
Taps ／ S0.9 × 0.225										
Cutting		1 15	MS+TR	GMHRP0.9-3	HT	-	36	3	2.75P	④-136
Thread forming taps for non-ferrous materials	High performance	1 9 15 18 19 21	MS+RS	MSP40.9-B	RO	GS4	36	3	2P	⑥-62
		1 2 3 9 18 22	HPsRZ	HPS40.9-B	RO	GS4	36	3	2P	⑥-62
Taps ／ 5V1										
Standard		15	HT TV	TY05V1RLEBA	HT	-	62	6	1.5P	⑦-33
Taps ／ 8V1										
Standard		15	HT TV	TY08V1SLEBA	HT	-	70	6.2	1.5P	⑦-33
Taps ／ 8V2										
Standard		15	HT TV	TY08V2QLEBA	HT	-	70	6.2	1.5P	⑦-33
Taps ／ 9V1										
Standard		15	HT TV	TY09V1QLEBA	HT	-	75	7	1.5P	⑦-33
Taps ／ 10V1										
Standard		15	HT TV	TY10V1QLEBA	HT	-	75	7	1.5P	⑦-33
Taps ／ 10V2										
Standard		15	HT TV	TY10V2RLEBA	HT	-	82	8.5	1.5P	⑦-33
Taps ／ 11V1										
Standard		15	HT TV	TY11V1RLEBA	HT	-	82	8.5	1.5P	⑦-33
Taps ／ 12V1										
Standard		15	HT TV	TY12V1RLEBA	HT	-	88	10.5	1.5P	⑦-33

Tap selection	Main material	Symbol Note1	Code	Flute	Class	*L*	D_s	ℓ_c	Product page
Taps ／ 13V1									
Standard	15	HT TV	TY13V1RLEBA	HT	-	88	10.5	1.5P	⑦-33
Taps ／ 13V2									
Standard	15	HT TV	TY13V2QLEBA	HT	-	88	10.5	1.5P	⑦-34
Taps ／ 15V1									
Standard	15	HT TV	TY15V1QLEBA	HT	-	95	12.5	1.5P	⑦-34
Taps ／ 16V1									
Standard	15	HT TV	TY16V1RLEBA	HT	-	95	12.5	1.5P	⑦-34
Taps ／ 17V1									
Standard	15	HT TV	TY17V1QLEBA	HT	-	100	14	1.5P	⑦-34
Taps ／ 17V2									
Standard	15	HT TV	TY17V2RLEBA	HT	-	100	14	1.5P	⑦-34
Taps ／ 17V3									
Standard	15	HT TV	TY17V3RLEBA	HT	-	100	14	1.5P	⑦-34
Taps ／ 19V1									
Standard	15	HT TV	TY19V1RLEBA	HT	-	105	15	1.5P	⑦-34
Taps ／ 20V1									
Standard	15	HT TV	TY20V1QLEBA	HT	-	115	17	1.5P	⑦-34
Taps ／ CTV5-36									
Standard	15	HT CTV	TYCV5IRLEBA	HT	-	62	6	1.5P	⑦-35
Taps ／ CTV5-24									
Standard	15	HT CTV	TYCV5MSLEBA	HT	-	62	6	1.5P	⑦-35
Taps ／ CTV8-32									
Standard	15	HT CTV	TYCV8JRLEBA	HT	-	70	6.2	1.5P	⑦-35
Taps ／ CTV8-30									
Standard	15	HT CTV	TYCV83RLEBA	HT	-	70	6.2	1.5P	⑦-35
Taps ／ 5V2									
Standard	15	HT CTV	TY05V2QLEBA	HT	-	62	6	1.5P	⑦-35
Taps ／ 6V1									
Standard	15	HT CTV	TY06V1QLEBA	HT	-	62	6	1.5P	⑦-35
Taps ／ CTC19-16									
Standard	1 2 3	HT CTC	TYCC190HEB5	HT	-	105	15	5P	⑦-36
Taps ／ CTC25-16									
Standard	1 2 3	HT CTC	TYCC250HEB5	HT	-	125	19	5P	⑦-36

Icons of main materials

1 Low carbon steel　2 Medium carbon steel　3 High carbon steel　4 Alloy steel　5 Thermal refined steel (25~35HRC)　6 Thermal refined steel (35~45HRC)
7 Thermal refined steel (45~55HRC)　8 Thermal refined steel (50~63HRC)　9 Stainless steel　10 Tool steel　11 Cast steel　12 Cast iron
13 Ductile cast iron　14 Copper　15 Brass　16 Brass casting　17 Bronze　18 Wrought aluminum　19 Aluminum alloy casting
20 Magnesium alloy　21 Zinc alloy　22 Titanium alloy　23 Nickel base alloy　24 Thermosetting plastic　25 Thermoplastic resin

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ CTC31-16									
Standard	1 2 3	HT CTC	TYCC310HEB5	HT	-	145	24	5P	⑦-36
Taps ／ CTC39-16									
Standard	1 2 3	HT CTC	TYCC390HEB5	HT	-	165	30	5P	⑦-36
Taps ／ CTG16-14									
Standard	1 2 3	HT CTG	TYCG160HEB5	HT	-	115	17	5P	⑦-37
Taps ／ CTG22-14									
Standard	1 2 3	HT CTG	TYCG220HEB5	HT	-	130	20	5P	⑦-37
Taps ／ CTG28-11									
Standard	1 2 3	HT CTG	TYCG280HEB5	HT	-	155	28	5P	⑦-37
Taps ／ CTG36-11									
Standard	1 2 3	HT CTG	TYCG360HEB5	HT	-	180	35	5P	⑦-37
Taps ／ CTG42-11									
Standard	1 2 3	HT CTG	TYCG420HEB5	HT	-	185	38	5P	⑦-37
Taps ／ BC5/16-26									
Standard	1 2	HT BC	TYBC01RHEB5	HT	-	70	6.2	5P	⑦-39
			TYBC01RHEBA					1.5P	⑦-39
Taps ／ BC3/8-26									
Standard	1 2	HT BC	TYBC02RHEB5	HT	-	75	7	5P	⑦-39
			TYBC02RHEBA					1.5P	⑦-39
Taps ／ BC7/16-26									
Standard	1 2	HT BC	TYBC03RHEB5	HT	-	82	8.5	5P	⑦-39
			TYBC03RHEBA					1.5P	⑦-39
Taps ／ BC1/2-20									
Standard	1 2	HT BC	TYBC04RHEB5	HT	-	88	10.5	5P	⑦-39
			TYBC04RHEBA					1.5P	⑦-39
Taps ／ BC9/16-20									
Standard	1 2	HT BC	TYBC05RHEB5	HT	-	95	12.5	5P	⑦-39
			TYBC05RHEBA					1.5P	⑦-39
Taps ／ BC5/8-20									
Standard	1 2	HT BC	TYBC06RHEB5	HT	-	95	12.5	5P	⑦-39
			TYBC06RHEBA					1.5P	⑦-39
Taps ／ BC11/16-24									
Standard	1 2	HT BC	TYBC07RHEB5	HT	-	100	14	5P	⑦-39
			TYBC07RHEBA					1.5P	⑦-39

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ BC3/4-30									
Standard	1 2	HT BC	TYBC08RHEB5	HT	-	105	15	5P	⑦-39
			TYBC08RHEBA					1.5P	⑦-39
Taps ／ BC31/32-30									
Standard	1 2	HT BC	TYBC09RHEB5	HT	-	125	19	5P	⑦-39
			TYBC09RHEBA					1.5P	⑦-40
Taps ／ BC1-24									
Standard	1 2	HT BC	TYBC10RHEB5	HT	-	125	19	5P	⑦-40
			TYBC10RHEBA					1.5P	⑦-40
Taps ／ BC1.29-24									
Standard	1 2	HT BC	TYBC11RHEB5	HT	-	145	25	5P	⑦-40
			TYBC11RHEBA					1.5P	⑦-40
Taps ／ BC1.37-24									
Standard	1 2	HT BC	TYBC12RHEB5	HT	-	155	28	5P	⑦-40
			TYBC12RHEBA					1.5P	⑦-40
Taps ／ BC1 7/16-24									
Standard	1 2	HT BC	TYBC13RHEB5	HT	-	165	30	5P	⑦-40
			TYBC13RHEBA					1.5P	⑦-40
Taps ／ BC1.45-24									
Standard	1 2	HT BC	TYBC14RHEB5	HT	-	165	30	5P	⑦-40
			TYBC14RHEBA					1.5P	⑦-40
Taps ／ BC1 9/16-24									
Standard	1 2	HT BC	TYBC15RHEB5	HT	-	175	32	5P	⑦-40
			TYBC15RHEBA					1.5P	⑦-40
Taps ／ 3.4 × 0.5 × 28°									
Release for camera	15 16	RLS-HT	TY3.4G0LEB	HT	-	52	4	-	⑦-32
Taps ／ 20.32W36									
For microscope objective lenses	15	HT MST	TYRMS10LEB5	HT	-	87	18	5P	⑦-41
			TYRMS10LEBA					1.5P	⑦-41
Taps ／ Tr 10 × 2									
For trapezoidal threads	1 2	SL Tr	LYT10Q0HEB	SL	-	160	7.8	26P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT10Q0HEB	SL	-	160	7.8	26P	⑦-43
Taps ／ Tr 12 × 3									
For trapezoidal threads	1 2	SL Tr	LYT12S0HEB	SL	-	190	9	23P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT12S0HEB	SL	-	190	9	23P	⑦-43
Taps ／ Tr 12 × 2									
For trapezoidal threads	1 2	SL Tr	LYT12Q0HEB	SL	-	170	9	30P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT12Q0HEB	SL	-	170	9	30P	⑦-43

Think threads with YAMAWA

Codes shown in ( ) are available while supplies last.

Note 1: Product symbols shown in red mean the tap suitable for synchronized feed tapping.

Symbol of size

Overall length	Shank dia.	Chamfer length
L	D_s	ℓ_c

Symbol of flute design

	Spiral	Straight	Spiral point	Left hand spiral	Roll
Symbol of flute design	SP	HT	PO	SL	RO
Drill hole shape					P:  B: 

Tap selection	Main material	Symbol Note1	Code	Flute	Class	L	D_s	ℓ_c	Product page
Taps ／ Tr 14 × 3									
For trapezoidal threads	1 2	SL Tr	LYT14S0HEB	SL	-	190	11	23P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT14S0HEB	SL	-	190	11	23P	⑦-43
Taps ／ Tr 16 × 4									
For trapezoidal threads	1 2	SL Tr	LYT16U0HEB	SL	-	220	12	22.5P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT16U0HEB	SL	-	220	12	22.5P	⑦-43
Taps ／ Tr 16 × 3									
For trapezoidal threads	1 2	SL Tr	LYT16S0HEB	SL	-	200	13	25P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT16S0HEB	SL	-	200	13	25P	⑦-43
Taps ／ Tr 18 × 4									
For trapezoidal threads	1 2	SL Tr	LYT18U0HEB	SL	-	220	14	22.5P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT18U0HEB	SL	-	220	14	22.5P	⑦-43
Taps ／ Tr 20 × 4									
For trapezoidal threads	1 2	SL Tr	LYT20U0HEB	SL	-	230	16	24.5P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT20U0HEB	SL	-	230	16	24.5P	⑦-43
Taps ／ Tr 22 × 5									
For trapezoidal threads	1 2	SL Tr	LYT22W0HEB	SL	-	250	18	22P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT22W0HEB	SL	-	250	18	22P	⑦-43
Taps ／ Tr 24 × 5									
For trapezoidal threads	1 2	SL Tr	LYT24W0HEB	SL	-	260	19	24P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT24W0HEB	SL	-	260	19	24P	⑦-43
Taps ／ Tr 25 × 5									
For trapezoidal threads	1 2	SL Tr	LYT25W0HEB	SL	-	270	20	25P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT25W0HEB	SL	-	270	20	25P	⑦-43
Taps ／ Tr 26 × 5									
For trapezoidal threads	1 2	SL Tr	LYT26W0HEB	SL	-	280	21	27P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT26W0HEB	SL	-	280	21	27P	⑦-43
Taps ／ Tr 28 × 5									
For trapezoidal threads	1 2	SL Tr	LYT28W0HEB	SL	-	290	22	28P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT28W0HEB	SL	-	290	22	28P	⑦-43
Taps ／ Tr 30 × 6									
For trapezoidal threads	1 2	SL Tr	LYT30Y0HEB	SL	-	300	24	25P	⑦-42
For left hand threads	1 2	SL LH Tr	ZYT30Y0HEB	SL	-	300	24	25P	⑦-43

Dies selection	Material	Main material	Symbol Note1	Class	Outside diameter	Thickness	Front face	Code	Product page
Dies ／ S0.5 × 0.125									
Rolling dies	For Miniature threads	HSS	1 2 9 15	MS-RS-D	R2	6	2	-	RA20.5-	⑩-47
Dies ／ S0.6 × 0.15									
Rolling dies	For Miniature threads	HSS	1 2 9 15	MS-RS-D	R2	6	2	-	RA20.6-	⑩-47
Dies ／ S0.7 × 0.175									
Rolling dies	For Miniature threads	HSS	1 2 9 15	MS-RS-D	R3	6	2	-	RA20.7-	⑩-47
Dies ／ S0.8 × 0.2									
Rolling dies	For Miniature threads	HSS	1 2 9 15	MS-RS-D	R3	8	3	-	RO20.8-	⑩-47
Dies ／ S0.9 × 0.225									
Rolling dies	For Miniature threads	HSS	1 2 9 15	MS-RS-D	R3	8	3	-	RO20.9-	⑩-47

MEMO

PRAD system PRoduct According to Demand

PRAD system Solution tool

What is PRAD system ?

Efficient use of limited resources

P **R** → **PRoduct** — Product

A → **According** — According

D → **Demand** — Demand

The PRAD system is YAMAWA's quick delivery production system for special taps by which we manufacture from our standard blanks.
In addition, we can manufacture the products with optimal specifications to meet your specific application based on YAMAWA's products as well as your own products.

Circumstances surrounding tool materials



Depletion of resources

Main tool materials for YAMAWA taps use a lot of rare metals as the substrate. Today market price of rare metals has risen due to collapse of the balance between supply and demand. In the world, rare metals omnipresent. Political situation can make it more difficult for us to obtain these rare metals. So, it is quite important to assure stable supply and recycling technique.



PRAD system is globally- friendly and stands on customer's eye.

PRAD system PRoduct According to Demand

Solution tool

PRAD system

Version of special tap manufacturing

Manufacturing system of special taps beginnig from the use of standard blanks.

Manufacturing of special taps usually starts from cutting-off process of materials to finished product through tens of manufacturing processes.
By using our standard blanks, we can complete special taps by only grinding the threaded parts of the tap (flutes, thread and chamfer), which enables us to respond to short time delivery and small lots.

? What is standard blank ?



- "The standard blank" is a generic term for semi-finished products used for manufacturing our standard taps.
- 5 kinds of thread standard (unified, whitworth, SM-sewing machine screw, STI metric, STI unified)
- We have a wide range of JIS, DIN, and ANSI standard blanks available so we can meet the needs of various industry thread standards.

Standard blank sytem



For 5 kinds of thread standard, let's use Metric thread blanks.

Unified (U) | Whitworth (W) | Sewing machine screw (SM)

STI metric | STI unified

Metric thread blanks

Standardization can realize commonization of tap collets.

1 Main standard blanks

①Sizes from M1 to M6.



②Sizes from M7 to M18.



③Sizes from M19 to M48.



④For Taper Pipe Threads



⑤For Parallel Pipe Threads



⑥For Long Shank



2 Examples of special tap shapes made from standard blanks

Standard blanks can be modified into various tap geometries.

standard blank



Example of how 1 blank can be used to make many different taps

Special spiral fluted tap



Special spiral pointed tap



Special roll tap



Special spiral fluted tap (TIN)



Special spiral pointed tap (OX)



Special HT tap



QR code for the standard blank dimension table

Think threads with YAMAWA

PRAD system PRoduct According to Demand

Solution tool **PRAD system**

Version of special tap manufacturing

Case No.1

I need a M5 × 0.5 spiral fluted tap for stainless steel!

Tapping Condition

Workpiece Materials	SUS303
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Non-water soluble cutting oil
Bore Hole Size	ϕ4.56
Bored Hole Length	10mm (blind hole)
Tapping Length	6mm
Tapping Speed	7m/min

Standard blank



Step 1 is grinding the flute.

- Next is grinding the cutting edge design suitable for tapping stainless steels
- With all grinding completed the tap is oxide treated



The spiral fluted tap for stainless steel is now completed!

Case No.2

I need a M20 × 2 tap that is resistant to chipping!

Tapping Condition

Workpiece Materials	SCM440
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Non-water soluble cutting oil
Bore Hole Size	ϕ18
Bored Hole Length	40mm (blind hole)
Tapping Length	30mm
Tapping Speed	4m/min

Standard blank



Step 1 is grinding the flute.

- Modified flute shape for improved chip evacuation
- A special design of grinding relief to the back of the threads up to the pitch diameter
- With all grinding completed the tap is oxide treated



A completed spiral fluted tap for forged parts in the heavy metalworking industry!

PRAD system PRoduct According to Demand

Solution tool **PRAD system**

Version of special tap manufacturing

Case No.3

I need a M8 × 1.25 tap with a OAL of 150mm for high speed tapping in through holes!

Tapping Condition

Workpiece Materials	S45C
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Water soluble cutting fluid
Bore Hole Size	ϕ6.75
Bored Hole Length	15mm (through hole)
Tapping Length	15mm
Tapping Speed	18m/min

Standard blank



Step 1 is grinding the flute.

- Cutting edge designed for high speed tapping
- Add a coating



A long shank spiral fluted tap for through hole high speed tapping is completed with coating added!

Case No.4

I need an oversize (G7) M3 × 0.5 Roll tap for tapping stainless steels!

Tapping Condition

Workpiece Materials	SUS304
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Non-water soluble cutting oil
Bore Hole Size	ϕ2.87
Bored Hole Length	7mm (blind hole)
Tapping Length	5mm
Tapping Speed	11m/min

Standard blank



Step 1 is grinding the flute.

- Special lobe design to reduce tapping torque
- Add a coating



High Performance (Oversize) Roll Tap completed!

Think threads with YAMAWA

PRAD system PRoduct According to Demand

Solution tool **PRAD system**

Version of special tap manufacturing

Case No.5

I need a M20 × 2.5 oversize tap for Helical Wire Screw Thread Inserts (STI)!

Tapping Condition

Workpiece Materials	ADC12
Machine	NC lathe
Feed	Synchronous feed
Cutting Fluid	Non-water soluble cutting oil
Bore Hole Size	ϕ17.6
Bored Hole Length	22mm (through hole)
Tapping Length	22mm
Tapping Speed	7.5m/min

Standard blank



Step 1 is grinding the flute.

- Cutting edge designed for tapping aluminum
- Specification is for Helical Wire Screw Thread Inserts



Hand tap for (oversize) Helical Wire Screw Thread Inserts completed!

Case No.6

I want a spiral fluted M5 × 0.8 tap with a 100mm OAL and a 1.5P chamfer!

Tapping Condition

Workpiece Materials	S45C
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Water soluble cutting fluid
Bore Hole Size	ϕ4.2
Bored Hole Length	8.5mm (blind hole)
Tapping Length	7mm
Tapping Speed	5m/min

Standard blank



Step 1 is grinding the flute.

- Chamfer length is specified to be 1.5P



A completed long shank spiral fluted tap with 1.5P chamfer!

PRAD system PRoduct According to Demand **PRAD** Solution tool **system**

Version of special tap manufacturing

Case No.7

I need a 1/2W12 tap for aluminum!

Tapping Condition

Workpiece Materials	AC4C-T6
Machine	Auto Lathe
Feed	Synchronous feed
Cutting Fluid	Water soluble cutting fluid
Bore Hole Size	ϕ10.7
Bored Hole Length	30mm (blind hole)
Tapping Length	18mm
Tapping Speed	8m/min

Standard blank



Step 1 is grinding the flute.

- Cutting edge designed for tapping die castings
- Nitriding treatment applied

A completed hand tap for die castings!



Case No.8

I need a M11 × 1 tap for through holes that can prevent welding and improve tool life!

Tapping Condition

Workpiece Materials	SCM440
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Water soluble cutting fluid
Bore Hole Size	ϕ10
Bored Hole Length	17mm (through hole)
Tapping Length	17mm
Tapping Speed	20m/min

Standard blank



Step 1 is grinding the flute.

- Cutting edge designed to improve chip ejection and reduce cutting resistance
- Add a coating

A completed spiral pointed tap with special PVD coating!



Think threads with YAMAWA

PRAD system PRoduct According to Demand

Solution tool

PRAD system

Version of special tap manufacturing

Case No.9

I need a M8 × 1 tap for tapping through holes in hardened materials!

Tapping Condition

Workpiece Materials	S55C tempered steel(30HRC)
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Water soluble cutting fluid
Bore Hole Size	ϕ7.1
Bored Hole Length	15mm (through hole)
Tapping Length	15mm
Tapping Speed	12.5m/min

Standard blank



Step 1 is grinding the flute.

- Original flute design
- Add a coating



A completed left hand spiral fluted tap for through holes to tap medium-hard carbon steels!

Case No.10

I need an oversize thread inspection tool for a M20 × 2.5 (GB) GO gage.

Intended use

Workpiece Materials	SCM440
Effective thread length	20mm (through hole)
Classes of Internal Threads	Class II+30 (μm)
Reason for oversize	Since the internal threads can shrink during the hardening process, we produce oversize taps for this application. This simple inspection tool is for checking II+30 oversize internal thread.

Standard blank



Step 1 is grinding the flute.

- Specifications for a simple thread inspection tool



A completed simple inspection tool for a M20 × 2.5 (GB) GO gage!

PRAD system PRoduct According to Demand

Solution tool

PRAD system

Version of recycling

Through PRAD system, taps at your hand or taps at YAMAWA ▶ **Modified to completely satisfy your requirements**

Consulting (check of customer's demand)

We start with the customer's true requirements. So we look at any potential problems that may occur such as the machining environment and the machining conditions.

Problem analysis and design delivery

Follow-up-consulting (Analysis of result of use) (design proposal corresponding to the cutting condition)

We analyze the problems in detail and design products based on that outcome. Here, we propose products that meet the customer's needs.

Manufacturing of recycling product

* These orders are typically accepted in small lot quantities. (Please tell us if you need a large quantity.)



YAMAWA standard tap or tap at your hand





oxide coating



TiN coating



coolant hole to be added



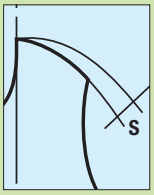
guide to be added



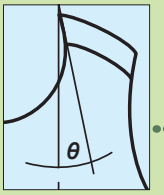
threads to be ground off



heal cut



relief adjustment on chamfer



rake angle adjustment

applicable to more than 1000 kinds of adjustments by combining various modifications.

Delivery

The estimated delivery time is 3 weeks or more, depending on the modification. (Please confirm the delivery time on quotation.)

Follow-up-consulting (Analysis of result of use)

We analyze the machining results after delivery of each special tap to improve future tool performance. This enables us to continually improve the quality and offer our customer the best options possible for any application.

Think threads with YAMAWA

PRAD system PRoduct According to Demand

Solution tool **PRAD system** Version of recycling

Case No.1

I want a M8 × 1 Left Handed, Spiral Fluted Tap for tapping stainless steels!

Tapping Condition

Workpiece Materials	SUS303
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Non-water soluble cutting oil
Bore Hole Size	ϕ7.1
Bored Hole Length	15mm
Tapping Length	10mm
Tapping Speed	5m/min

Standard blank



- Cutting edge designed for tapping stainless steels
- Oxidizing treatment applied

Spiral Fluted Tap for Left Hand threads, designed for tapping stainless steel is completed!



Case No.2

I need a M14 × 1 Spiral Fluted Tap with a 1.5P chamfer!

Tapping Condition

Workpiece Materials	S45C
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Water soluble cutting fluid
Bore Hole Size	ϕ13.1
Bored Hole Length	22mm
Tapping Length	20mm
Tapping Speed	5.3m/min

Standard blank



- Chamfer length: 1.5P

Spiral fluted M14 × 1 tap with a 1.5P chamfer is completed!



PRAD system PRoduct According to Demand

Solution tool **PRAD system** Version of recycling

Case No.3

I want a M24 × 3 tap for a blind hole that can both prevent chipping and improve durability!

Tapping Condition

Workpiece Materials	SS400
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Water soluble cutting fluid
Bore Hole Size	ϕ21.1
Bored Hole Length	40mm
Tapping Length	30mm
Tapping Speed	11m/min

Standard blank



- Specifications with the relief ground threads after the full thread
- Add a coating

A completed spiral fluted tap with PVD coating!



Case No.4

I want a M8 × 1.25 spiral fluted tap with center-through coolant hole!

Tapping Condition

Workpiece Materials	S45C
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Water soluble cutting fluid
Bore Hole Size	ϕ6.85
Bored Hole Length	20mm
Tapping Length	15mm
Tapping Speed	13.8m/min

Standard blank



- Center through coolant hole specification
- Add a coating

A completed spiral fluted tap with center through coolant hole and PVD coating!



PRAD system PRoduct According to Demand

Solution tool **PRAD system** Version of recycling

Case No.5

I want a M5 × 0.8 tap for tapping stainless steel that can both prevent welding and improve durability!

Tapping Condition

Workpiece Materials	SUS304
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Non-water soluble cutting oil
Bore Hole Size	ϕ4.25
Bored Hole Length	15mm
Tapping Length	8mm
Tapping Speed	7.8m/min

Standard blank



- Applying oxidizing over nitriding treatment



A spiral fluted tap designed for tapping stainless steel is completed!

Case No.6

I want a ϕ5 × 60° × 11 center drill that resists breaking!

Tapping Condition

Workpiece Materials	SS400
Machine	NC
Holder	Drill chuck
Tapping Speed	15m/min
Feed Amount	0.08mm/rev
Drilling Direction	Beside
Drilling Depth	5.8mm
Large-end diameter ofdrilled hole	ϕ8.8

Standard blank



- Shortening the drill length helps with the breakage problem



A modified center drill with a shortened pilot drill to prevent breakage is completed!

PRAD system PRoduct According to Demand

Solution tool **PRAD system** Version of recycling

Case No.7

I need a M4 × 0.7 tap with a flat center!

Tapping Condition

Workpiece Materials	SCM440
Machine	Drill machines
Feed	Non-synchronous system by approximation
Cutting Fluid	Tapping spray
Bore Hole Size	ϕ3.35
Bored Hole Length	9.5mm
Tapping Length	8mm
Tapping Speed	2.5m/min

Standard blank



- Remove the external center



A spiral fluted tap with flat center is now completed!

Case No.8

I want a M12 × 1 tap for tapping low carbon steels!

Tapping Condition

Workpiece Materials	SS400
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Non-water soluble cutting oil
Bore Hole Size	ϕ11.1
Bored Hole Length	15mm
Tapping Length	12mm
Tapping Speed	7.5m/min

Standard blank



- Cutting edge designed for low carbon steels
- With all grinding completed the tap is oxide treated



A spiral fluted tap that is designed for low carbon steels is now completed!

PRAD system PRoduct According to Demand

Solution tool **PRAD system** Version of recycling

Case No.9

I want a M8 × 1 tap with a 1.5P chamfer for tapping aluminum!

Tapping Condition

Workpiece Materials	ADC12
Machine	MC
Feed	Synchronous feed
Cutting Fluid	Water soluble cutting fluid
Bore Hole Size	ϕ7.1
Bored Hole Length	12mm
Tapping Length	10mm
Tapping Speed	17.5m/min

Standard blank



A spiral fluted tap with a 1.5P chamfer specifically designed for tapping aluminum is completed!

- Cutting edge designed specifically for tapping aluminum
- Chamfer length: 1.5P
- Nitriding treatment applied

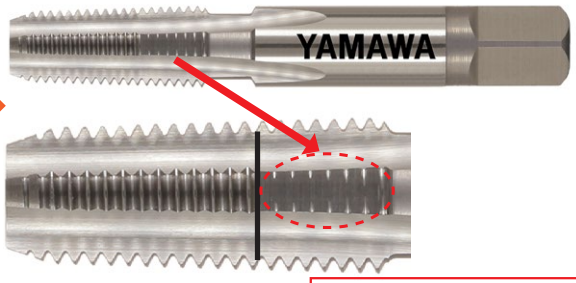


Case No.10

I want to simplify the insertion position of a PT1/16-28 tap!

Standard blank





Gauge plane position

Simply grind off the threads behind the basic diameter position.

The basic diameter position can be seen at a glance!

YAMAWA Modified PT/Modified S-PT
(available on request)



Nominal size range

PT•S-PT 1/8-28
〜
PT•S-PT 2'-11

A modified PT tap with built in stopping point is completed!

Solution tool
PRAD system

Specification corresponding with standard blanks(for Japanese market)

HSS HSS-Co HSS-P

Material Symbols　HSS : ○　HSS-Co : ●　HSS-P : ◎

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M1×0.25					
M1×0.2					
M1.2×0.25					
M1.2×0.2					
M1.4×0.3					
M1.4×0.2					
M1.6×0.35	№0-80UNF	W1/16-60	SM1/16-80		
M1.6×0.2					
M1.7×0.35					
M1.7×0.2					
M1.8×0.35					
M1.8×0.2					
M2×0.4	№1-64UNC №1-72UNF		SM5/64-64		
M2×0.25					
M2×0.4					
M2×0.25					
M2.2×0.45	№2-56UNC №2-64UNF				
M2.2×0.25					
M2.2×0.45					
M2.2×0.25					
M2.3×0.4					
M2.3×0.25					
M2.3×0.4					
M2.3×0.25					
M2.5×0.45		W3/32-48	SM3/32-56		
M2.5×0.35					
			SM3/32-100		
M2.5×0.45					
M2.5×0.35					
M2.6×0.45	№3-48UNC №3-56UNF				
M2.6×0.35					
M2.6×0.45					
M2.6×0.35					
M3×0.5				STI_M2.2×0.45	STI_№2-56UNC
	№4-40UNC №4-48UNF				
M3×0.35					
M3×0.6					
M3×0.5					
M3×0.35					

- Corresponding pitches meet with the pitches of other kinds.
- Concerning Hand of threads, both right and left are applicable in the same blank.
- Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
- Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.
- ▭ is a blank for Z-PRO.

Main size designation and specification	Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Length of standard type: L	ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
36 ○◎	4.5 3.6	-	(24)	3	2.5	5	4.5	~P4	~G5	a
36 ○◎	4.5 3.6	-	(24)	3	2.5	5	4.5	~P4	~G5	a
36 ○◎	5.4 3.6	-	(24)	3	2.5	5	5.4	~P4	~G5	a
36 ○◎	6.3 3.6	-	(24)	3	2.5	5	6.3	~P4	~G5	b
36 ○◎	6.3 3.6	-	(24)	3	2.5	5	6.3	~P4	~G5	b
42 ○	6.3 3.6	-	(27)	3	2.5	5	6.3	~P4	~G5	b
42 ○◎	7.2 4.5	12	(27)	3	2.5	5	7.2	~P4	~G5	c c-1
45 ○◎	8 6	15	(27)	3	2.5	5	8	~P4	~G5	d d-1
42 ○◎	8.1 4.5	12	(27)	3	2.5	5	8.1	~P4	~G5	c c-1
45 ○◎	9 7	15	(27)	3	2.5	5	9	~P4	~G5	d d-1
42 ○◎	7.2 7	12	(27)	3	2.5	5	7.2	~P4	~G5	c c-1
45 ○◎	9 7	15	(27)	3	2.5	5	9	~P4	~G5	d d-1
46 ○◎	8.1 6.3 3.4	14	(29)	3	2.5	5	8.1	~P4	~G5	c c-1
50 ○◎	8 6.3	15	(32)	3	2.5	5	8	~P4	~G5	d d-1
46 ○◎	8.1 6.3	14	(29)	3	2.5	5	8.1	~P4	~G5	c c-1
50 ○◎	8 6.3	15	(32)	3	2.5	5	8	~P4	~G5	d d-1
46 ○●◎	9 6.5 9	14	26 25 26	4	3.2	6	9	~P7	~G8	c c-1 c
56 ○◎	9 6.5	18	32	4	3.2	6	9	~P7	~G8	d d-1

Solution tool
PRAD system

Specification corresponding with standard blanks(for Japanese market)

HSS HSS-Co HSS-P

Material Symbols　HSS : ○　HSS-Co : ●　HSS-P : ◎

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M3.5×0.6			SM1/8-40 SM1/8-44		
	No.5-40UNC No.5-44UNF	W1/8-40			
	No.6-32UNC No.6-40UNF				
				STI_M2.5×0.45 STI_M2.6×0.45	
M3.5×0.35					
M3.5×0.6					
M3.5×0.35					
M4×0.7 M4×0.75		W5/32-32	SM9/64-40		STI_No.4-40UNC STI_No.5-40UNC
M4×0.5					
				STI_M3×0.5	
M4×0.7					
M4×0.5					
M4.5×0.75			SM11/64-40		STI_No.6-40UNF
	No.8-32UNC No.8-36UNF				
M4.5×0.5				STI_M3.5×0.6	
M4.5×0.75					
M4.5×0.5					
M5×0.8 M5×0.75 M5×0.9		W3/16-24	SM3/16-24 SM3/16-28 SM3/16-32 SM3/16-40	STI_M4×0.7	STI_No.6-32UNC
	No.10-24UNC No.10-32UNF				
M5×0.5					
M5×0.8					
M5×0.5					
M5.5×0.5					
M5.5×0.5					
M6×1 M6×0.75		W7/32-24	SM15/64-28 SM7/32-32	STI_M4.5×0.75 STI_M5×0.8	STI_No.8-32UNC STI_No.10-24UNC STI_No.10-32UNF
	No.12-24UNC No.12-28UNF No.12-32UNEF				
					STI_No.8-36UNF
M6×0.5					
M6×1 M6×0.75					
M6×0.5					

- Corresponding pitches meet with the pitches of other kinds.
- Concerning Hand of threads, both right and left are applicable in the same blank.
- Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
- Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.
- ▭ is a blank for Z-PRO.

Main size designation and specification	Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Length of standard type: L	ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
52 ○●◎	11	16	29	5	4	7	11	~P6	~G7	c
			28							
		17	27							
52 ○●◎	6.8	16	29	5	4	7	11	~P6	~G7	c-1
	6.5									
63 ○◎	13	20	36	5	4	7	13	~P6	~G7	d
	6.5									d-1
52 ○●◎	11	17	29	5	4	7	11	~P6	~G7	c
	9									c-1
	7.5									
63 ○◎	13	21	36	5	4	7	13	~P6	~G7	d
	9									d-1
60 ○●◎	13	21	33	5.5	4.5	7	13	~P6	~G7	c
		22	31							
	9	21	33							c-1
70 ○◎	14	24	40	5.5	4.5	7	14	~P6	~G7	d
	9									d-1
60 ○●◎	13	22	33	5.5	4.5	7	13	~P6	~G7	c
			32							
	9		33							c-1
70 ○◎	14	25	40	5.5	4.5	7	14	~P6	~G7	d
	9									d-1
62 ○●◎	9	26	33	6	4.5	7	9	~P6	~G7	c
80 ○◎	9	30	45	6	4.5	7	15	~P6	~G7	d
62 ○●◎	15	26	33	6	4.5	7	15	~P4	~G7	c
			32							
	9.5		33							c-1
	9									
80 ○◎	15	30	45	6	4.5	7	15	~P4	~G7	d
	9									d-1

Solution tool
PRAD system

HSS HSS-Co HSS-P

Specification corresponding with standard blanks(for Japanese market)

Material Symbols　HSS : ○　HSS-Co : ●　HSS-P : ◎

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
-	1/4-20UNC 1/4-28UNF	W1/4-20	SM1/4-24 SM1/4-28		
			SM1/4-40		
M7×1					STI_№12-24UNC STI_№12-28UNF
M7×0.75				STI_M6×0.75	
M7×0.5					
M7×1 M7×0.75					
M8×1.25	5/16-18UNC 5/16-20UN	W5/16-18			STI_1/4-20UNC
M8×1	5/16-24UNF 5/16-28UN			STI_M6×1	STI_1/4-28UNF
M8×0.75	5/16-32UNEF				
M8×0.5					
M8×1.25 M8×1 M8×0.75					
M9×1.25 M9×1					
M9×0.75					
M9×0.5					
M9×1.25 M9×1 M9×0.75					
M10×1.5 M10×1.25 M10×1	3/8-16UNC 3/8-20UN 3/8-24UNF 3/8-28UN	W3/8-16		STI_M8×1.25 STI_M8×1	STI_5/16-18UNC STI_5/16-24UNF
M10×0.75	3/8-32UNEF				
M10×0.5					
M10×1.5 M10×1.25 M10×1					
M11×1.5 M11×1.25 M11×1				STI_M9×1.25 STI_M9×1	STI_3/8-24UNF
M11×0.75					
M11×0.5					
M11×1.5 M11×1.25 M11×1					
M12×1.75 M12×1.5 M12×1.25 M12×1	7/16-14UNC 7/16-16UN 7/16-20UNF 7/16-28UNEF	W7/16-14		STI_M10×1.5 STI_M10×1.25 STI_M10×1	STI_3/8-16UNC
M12×0.75	7/16-32UN				
M12×0.5					

・Corresponding pitches meet with the pitches of other kinds.
・Concerning Hand of threads, both right and left are applicable in the same blank.
・Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
・Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.
・□ is a blank for Z-PRO.

Main size designation and specification	Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Length of standard type: L	ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
62 ○	15	26	33	6	4.5	7	15	~P5	~G6	c
	8.6									c-1
70 ○●◎	19	-	36	6.2	5	8	19	~P4	~G7	e
	10									e-1
90 ○◎	15	-	46	6.2	5	8	15	~P4	~G7	f
70 ○●◎	19	-	36	6.2	5	8	19	~P4	~G7	e
	10									e-1
90 ○◎	19	-	46	6.2	5	8	19	~P4	~G7	f
75 ○●◎	23	-	38	7	5.5	8	23	~P5	~G7	e
	13									
	11									e-1
100 ○◎	23	-	51	7	5.5	8	23	~P5	~G7	f
	13									
75 ○●◎	23	-	38	7	5.5	8	23	~P5	~G7	e
	13									
	11									e-1
100 ○◎	23	-	51	7	5.5	8	23	~P5	~G7	f
82 ○●◎	26	-	42	8.5	6.5	9	26	~P5	~G9	e
	14									
	12									e-1
110 ○◎	23	-	56	8.5	6.5	9	26	~P5	~G9	f
82 ○●◎	26	-	42	8.5	6.5	9	26	~P5	~G9	e
	14									
	12									e-1

Solution tool
PRAD system

Specification corresponding with standard blanks(for Japanese market)

HSS HSS-Co HSS-P

Material Symbols　HSS : ○　HSS-Co : ●　HSS-P : ◎

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M12×1.75 M12×1.5 M12×1.25 M12×1					
M13×1.75 M13×1.5 M13×1.25 M13×1	1/2-13UNC 1/2-16UN 1/2-20UNF 1/2-28UNEF	W1/2-12		STI_M11×1.5 STI_M11×1.25	STI_7/16-20UNF
M13×0.75	1/2-32UN				
M13×0.5					
M13×1.75 M13×1.5 M13×1.25 M13×1					
M14×2 M14×1.5 M14×1.25 M14×1				STI_M12×1.5 STI_M12×1.25 STI_M12×1	STI_7/16-14UNC
M14×0.75					
M14×0.5					
M14×2 M14×1.5 M14×1.25 M14×1					
M15×2 M15×1.5 M15×1.25 M15×1	9/16-12UNC 9/16-16UN 9/16-18UNF 9/16-20UN 9/16-24UNEF 9/16-28UN	W9/16-12		 STI_M12×1.75 STI_M13×1.5 	 STI_1/2-20UNF
M15×0.75	9/16-32UN				
M15×0.5					
M15×2 M15×1.5 M15×1.25 M15×1					
M16×2 M16×1.5 M16×1.25 M16×1	5/8-11UNC 5/8-12UN 5/8-16UN 5/8-18UNF 5/8-20UN 5/8-24UNEF 5/8-28UN	W5/8-11		 STI_M13×1.75 STI_M14×1.5 STI_M14×1.25	STI_1/2-13UNC
M16×0.75	5/8-32UN				
M16×0.5					

・Corresponding pitches meet with the pitches of other kinds.
・Concerning Hand of threads, both right and left are applicable in the same blank.
・Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
・Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.
・□ is a blank for Z-PRO.

Think threads with YAMAWA

Main size designation and specification	Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Length of standard type: L	ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
110 ○◎	26	-	56	8.5	6.5	9	26	~P5	~G9	f
88 ○◎	26	-	45	10.5	8	11	26	~P5	~G9	e
	14									e-1
	12									
110 ○◎	26	-	56	10.5	8	11	26	~P5	~G9	f
88 ○◎	26	-	45	10.5	8	11	26	~P5	~G9	e
	15									e-1
	12									
110 ○◎	26	-	56	10.5	8	11	26	~P5	~G9	f
95 ○◎	26	-	48	12.5	10	13	26	~P5	~G9	e
	15									e-1
	13									
110 ○◎	26	-	56	12.5	10	13	26	~P5	~G9	f
95 ○◎	26	-	48	12.5	10	13	26	~P5	~G9	e
	15									e-1
	13									

Solution tool
PRAD system

Specification corresponding with standard blanks(for Japanese market)

HSS HSS-Co HSS-P

Material Symbols　HSS : ○　HSS-Co : ●　HSS-P : ◎

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M16×2 M16×1.5 M16×1.25 M16×1 M16×0.75					
M17×1.5				STI_M14×2	STI_9/16-18UNF
M17×1					
M17×0.5					
M17×1.5					
M18×2.5 M18×2 M18×1.5 M18×1.25				STI_M16×1.5	STI_9/16-12UNC STI_5/8-18UNF
M18×1				STI_M16×1	
M18×0.75					
M18×0.5					
M18×2.5 M18×2 M18×1.5 M18×1.25					
M19×2.5 M19×2 M19×1.5	3/4-10UNC 3/4-12UN 3/4-16UNF 3/4-20UNEF	W3/4-10		STI_M16×2	STI_5/8-11UNC
M19×1	3/4-28UN 3/4-32UN				
M19×2.5 M19×2 M19×1.5					
M20×2.5 M20×2 M20×1.5				STI_M18×1.5	
M20×1.25 M20×1					
M20×2.5 M20×2 M20×1.5					
M21×1.5					
M21×1					
M21×1.5					

- Corresponding pitches meet with the pitches of other kinds.
- Concerning Hand of threads, both right and left are applicable in the same blank.
- Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
- Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.
- ▭ is a blank for Z-PRO.

Main size designation and specification	Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Length of standard type: L	ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
110 ○◎	26	-	56	12.5	10	13	26	~P5	~G9	f
	15									
100 ○	33	-	51	14	11	14	33	~P5	~G8	e
	18									e-1
	13									
125 ○◎	33	-	64	14	11	14	33	~P5	~G8	f
100 ○	33	-	51	14	11	14	33	~P5	~G8	e
	18									e-1
	16									
	13									
125 ○◎	33	-	64	14	11	14	33	~P5	~G8	f
105 ○	33	-	50	15	12	15	33	~P5	~G12	g
	18									g-1
140 ○◎	33	-	71	15	12	15	33	~P5	~G12	h
105 ○	33	-	50	15	12	15	33	~P5	~G12	g
	18									g-1
140 ○◎	33	-	71	15	12	15	33	~P5	~G12	h
115 ○	33	-	55	17	13	16	33	~P5	~G12	g
	19									g-1
140 ○◎	33	-	71	17	13	16	33	~P5	~G12	h

Solution tool
PRAD system

Specification corresponding with standard blanks(for Japanese market)

HSS HSS-Co HSS-P

Material Symbols　HSS : ○　HSS-Co : ●　HSS-P : ◎

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M22×2.5 M22×2 M22×1.5	7/8-9UNC 7/8-12UN 7/8-14UNF 7/8-16UN 7/8-20UNEF	W7/8-9		STI_M18×2.5 STI_M20×1.5	STI_3/4-10UNC STI_3/4-16UNF
M22×1	7/8-28UN 7/8-32UN				
M22×0.5					
M22×2.5 M22×2 M22×1.5					
M23×2 M23×1.5				STI_M20×2	
M23×1					
M23×2 M23×1.5					
M24×3 M24×2 M24×1.5				STI_M20×2.5 STI_M22×1.5	
M24×1.25 M24×1					
M24×0.5					
M24×3 M24×2 M24×1.5					
M25×3 M25×2 M25×1.5	1-8UNC 1-12UNF 1-16UN 1-20UNEF	W1-8		 STI_M22×2.5 	 STI_7/8-14UNF
M25×1	1-28UN 1-32UN				
M25×0.5					
M25×3 M25×2 M25×1.5					
M26×3 M26×2 M26×1.5				 STI_M24×1.5	STI_7/8-9UNC
M26×1					
M26×0.5					
M26×3 M26×2 M26×1.5					
M27×3 M27×2 M27×1.5				STI_M24×2	
M27×1					

・Corresponding pitches meet with the pitches of other kinds.
・Concerning Hand of threads, both right and left are applicable in the same blank.
・Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
・Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.
・□ is a blank for Z-PRO.

Think threads with YAMAWA

Main size designation and specification	Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Length of standard type: L	ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
115 ○	33	-	55	17	13	16	33	~P5	~G12	g
	19									g-1
	14									
140 ○◎	33	-	71	17	13	16	33	~P5	~G12	h
120 ○	39	-	55	19	15	18	39	~P5	~G12	g
	19									g-1
160 ○◎	37	-	82	19	15	18	37	~P5	~G12	h
120 ○	39	-	55	19	15	18	39	~P5	~G12	g
	19									g-1
	15									
160 ○◎	37	-	82	19	15	18	37	~P5	~G12	h
125 ○	39	-	58	19	15	18	39	~P5	~G12	g
	20									g-1
	15									
160 ○	37	-	82	19	15	18	37	~P5	~G12	h
130 ○	39	-	60	20	15	18	39	~P5	~G12	g
	20									g-1
	15									
160 ○	37	-	82	20	15	18	37	~P5	~G12	h
130 ○	39	-	60	20	15	18	39	~P5	~G12	g
	20									g-1

Solution tool
PRAD system

Specification corresponding with standard blanks(for Japanese market)

HSS HSS-Co HSS-P

Material Symbols　HSS : ○　HSS-Co : ●　HSS-P : ◎

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M27×3 M27×2 M27×1.5					
M28×3 M28×2 M28×1.5					STI_1-12UNF
M28×1					
M28×0.5					
M28×3 M28×2 M28×1.5					
M30×3.5 M30×3 M30×2 M30×1.5	1 1/8-7UNC 1 1/8-8UN 1 1/8-12UNF 1 1/8-16UN	W1 1/8-7		STI_M24×3 STI_M27×2 STI_M28×1.5	STI_1-8UNC
M30×1	1 1/8-20UN 1 1/8-28UN				
M30×0.5					
M30×3.5 M30×3 M30×2 M30×1.5					
M32×3 M32×2 M32×1.5	1 1/4-7UNC 1 1/4-8UN 1 1/4-12UNF 1 1/4-18UNEF	W1 1/4-7		STI_M27×3	STI_1 1/8-12UNEF
M32×1 M32×0.5	1 1/4-20UN 1 1/4-28UN				
M32×3 M32×2 M32×1.5					
M33×3.5 M33×3 M33×2 M33×1.5	-	-		STI_M30×2	
M33×1					
M33×3.5 M33×3 M33×2 M33×1.5					
M34×3 M34×2	-	-		STI_M30×3	STI_1 1/8-7UNC
M34×1.5 M34×1					
M34×3 M34×2					

・Corresponding pitches meet with the pitches of other kinds.
・Concerning Hand of threads, both right and left are applicable in the same blank.
・Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
・Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.
・ is a blank for Z-PRO.

Think threads with YAMAWA

Main size designation and specification	Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Length of standard type: L	ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
160 ○	37	-	82	20	15	18	37	~P5	~G12	h
135 ○	46	-	62	23	17	20	46	~P5	~G13	g
	20									g-1
	15									
180 ○	44	-	92	23	17	20	44	~P5	~G12	h
135 ○	46	-	62	23	17	20	46	~P5	~G13	g
	21									g-1
	16									
180 ○	44	-	92	23	17	20	44	~P5	~G12	h
145 ○	46	-	67	24	19	22	46	~P5	~G13	g
	21									g-1
	16									
180 ○	44	-	92	24	19	22	44	~P5	~G13	h
145 ○	46	-	67	25	19	22	46	~P5	~G13	g
	21									g-1
180 ○	46	-	92	25	19	22	46	~P5	~G13	h
155 ○	52	-	71	28	21	24	52	~P6	~G14	g
	26									g-1
200 ○	52	-	102	28	21	24	52	~P6	~G14	h

Solution tool
PRAD system

Specification corresponding with standard blanks(for Japanese market)

HSS HSS-Co HSS-P

Material Symbols　HSS : ○　HSS-Co : ●　HSS-P : ◎

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M35×3 M35×2	1 3/8-6UNC 1 3/8-8UN 1 3/8-12UNF	W1 3/8-6		STI_M30×3.5	STI_1 1/4-12UNF
M35×1.5 M35×1	1 3/8-16UN 1 3/8-18UNEF 1 3/8-20UN				
-	1 3/8-28UN				
M35×3 M35×2					
M36×4 M36×3 M36×2	-	-		STI_M33×2	
M36×1.5 M36×1 M36×0.5					
M36×4 M36×3 M36×2					
M37×1.5	-	-			
M38×3 M38×2	-	-		STI_M33×3.5	STI_1 1/4-7UNC
M38×1.5 M38×1 M38×0.5					STI_1 3/8-12UNF
M38×3 M38×2					
M39×4 M39×3 M39×2	1 1/2-6UNC 1 1/2-8UN 1 1/2-12UNF	W1 1/2-6		STI_M36×2	
M39×1.5 M39×1	1 1/2-16UN 1 1/2-18UNEF 1 1/2-20UN 1 1/2-28UN				
M39×4 M39×3 M39×2					
M40×4 M40×3 M40×2	-	-		STI_M36×3	
M40×1.5 M40×1					
M40×4 M40×3 M40×2					

・Corresponding pitches meet with the pitches of other kinds.
・Concerning Hand of threads, both right and left are applicable in the same blank.
・Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
・Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.
・ is a blank for Z-PRO.

Main size designation and specification	Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Length of standard type: L	ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
155 ○	52	-	71	28	21	24	52	~P6	~G14	g
	26									g-1
	17									
200 ○	52	-	102	28	21	24	52	~P6	~G14	h
155 ○	52	-	71	28	21	24	52	~P6	~G14	g
	26									g-1
	17									
200 ○	52	-	102	28	21	24	52	~P6	~G14	h
165 ○	26	-	76	30	23	26	52	~P6	~G14	g-1
165 ○	52	-	76	30	23	26	52	~P6	~G14	g
	26									g-1
	17									
200 ○	52	-	102	30	23	26	52	~P6	~G14	h
165 ○	52	-	76	30	23	26	52	~P6	~G14	g
	26									g-1
	17									
200 ○	52	-	102	30	23	26	52	~P6	~G14	h
175 ○	59	-	81	32	26	30	59	~P6	~G15	g
	27									g-1
200 ○	59	-	102	32	26	30	59	~P6	~G15	h

Solution tool
PRAD system

Specification corresponding with standard blanks(for Japanese market)

HSS HSS-Co HSS-P

Material Symbols　HSS : ○　HSS-Co : ●　HSS-P : ◎

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M42×4.5 M42×4 M42×3 M42×2 M42×1.5 M42×1	-	W1 5/8-5		STI_M36×4 STI_M39×2	STI_1 3/8-6UNC STI_1 1/2-12UNF
M42×4.5 M42×4 M42×3 M42×2					
M44×2 M44×1.5					
M44×2					
M45×4.5 M45×4 M45×3 M45×2 M45×1.5 M45×1	1 3/4-5UNC 1 3/4-6UN 1 3/4-8UN 1 3/4-12UN 1 3/4-16UN 1 3/4-20UN	W1 3/4-5		STI_M39×4 STI_M39×3	STI_1 1/2-6UNC
M45×4.5 M45×4 M45×3 M45×2					
M46×4 M46×3 M46×2 M46×1.5	-	-			
M46×4 M46×3 M46×2	-	-			
M48×5 M48×4 M48×3 M48×2 M48×1.5 M48×1	-	-			
M48×5 M48×4 M48×3 M48×2					

・Corresponding pitches meet with the pitches of other kinds.
・Concerning Hand of threads, both right and left are applicable in the same blank.
・Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
・Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.
・□ is a blank for Z-PRO.

Think threads with YAMAWA

Main size designation and specification	Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Length of standard type: L	ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
175 ○	59	-	81	32	26	30	59	~P6	~G15	g
	27									g-1
200 ○	59	-	102	32	26	30	59	~P6	~G15	h
180 ○	59	-	81	35	26	30	59	~P6	~G15	g
	27									g-1
220 ○	59	-	112	35	26	30	59	~P6	~G15	h
180 ○	59	-	83	35	26	30	59	~P6	~G15	g
	27									g-1
220 ○	59	-	112	35	26	30	59	~P6	~G15	h
185 ○	65	-	85	38	29	32	65	~P6	~G15	g
	28									g-1
250 ○	65	-	128	38	29	32	65	~P6	~G15	h
185 ○	65	-	85	38	29	32	65	~P6	~G15	g
	28									g-1
250 ○	65	-	128	38	29	32	65	~P6	~G15	h

Solution tool
PRAD system

Standard blank dimension table (for Japan)

HSS HSS-P

Material Symbols HSS : ○ HSS-P : ◎

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M2×0.4	№1-64UNC №1-72UNF		SM5/64-64		
M2×0.25					
M2.2×0.45	№2-56UNC №2-64UNF				
M2.2×0.25					
M2.3×0.4					
M2.3×0.25					
M2.5×0.45		W3/32-48	SM3/32-56		
M2.5×0.35					
M2.6×0.45	№3-48UNC №3-56UNF				
M2.6×0.35					
M3×0.5	№4-40UNC №4-48UNF			STI_M2.2×0.45	STI_№2-56UNC
M3×0.35					
M3×0.6					
M3×0.5					
M3×0.35					
M3.5×0.6	№5-40UNF №5-44UNF	W1/8-40	SM1/8-40 SM1/8-44	STI_M2.5×0.45 STI_M2.6×0.45	
M3.5×0.35					
M4×0.7 M4×0.75		W5/32-32	SM9/64-40		STI_№4-40UNC STI_№5-40UNC
M4×0.5					
				STI_M3×0.5	
M4×0.7					
M4×0.5					
M4.5×0.75	№8-32UNC №8-36UNF		SM11/64-40		STI_№6-40UNF
M4.5×0.5				STI_M3.5×0.6	
M5×0.8 M5×0.75 M5×0.9	№10-24UNC №10-32UNF	W3/16-24	SM3/16-24 SM3/16-28 SM3/16-32 SM3/16-40	STI_M4×0.7	STI_№6-32UNC
M5×0.5					
M5×0.8					
M5×0.5					

- Corresponding pitches meet with the pitches of other kinds.
- Concerning Hand of threads, both right and left are applicable in the same blank.
- Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
- Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.
- ▭ is a blank for Z-PRO.

Think threads with YAMAWA

Overall length of long type and corresponding materials					Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Overall length of long type : L					ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
70 ○	-	-	-	-	7.2	15	52	3	2.5	5	7.2	～P4	～G5	i
					4.5									i-1
70 ○	-	-	-	-	8.1	15	52	3	2.5	5	8.1	～P4	～G5	i
					4.5									i-1
70 ○	-	-	-	-	7.2	15	52	3	2.5	5	7.2	～P4	～G5	i
					4.5									i-1
70 ○	-	-	-	-	8.1	15	52	3	2.5	5	8.1	～P4	～G5	i
					6.3									i-1
70 ○	-	-	-	-	8.1	15	52	3	2.5	5	8.1	～P4	～G5	i
					6.3									i-1
70 ○	100 ○	120 ○	150 ○	-	9	18	46 (L70) 40 (L100以上)	4	3.2	6	9	～P7	～G8	i
					6.5									i-1
					9									
-	100 ◎	-	-	-	9	18	32	4	3.2	6	9	～P7	～G8	i
					5						5			n
					6.5						9			i-1
					5						5			n
70 ○	100 ○	120 ○	150 ○	-	11	21	43 (L70) 40 (L100以上)	5	4	7	11	～P6	～G7	i
					6.8									i-1
					6.5									
70 ○	100 ○	120 ○	150 ○	-	11	21	43 (L70) 40 (L100以上)	5	4	7	11	～P6	～G7	i
					9									i-1
					7.5									
-	100 ◎	-	-	-	11	21	36	5	4	7	11	～P6	～G7	i
					7						7			n
					9						11			i-1
					5						7			n
70 ○	100 ○	120 ○	150 ○	-	13	25	40	5.5	4.5	7	13	～P6	～G7	i
					9									i-1
70 ○	-	-	-	-	14	25	40	5.5	4.5	7	14	～P6	～G7	i
-	100 ○	120 ○	150 ○	-	13						13			
					9									i-1
-	100 ◎	-	-	-	13	25	40	5.5	4.5	7	13	～P6	～G7	i
					9						9			n
					6						13			i-1
											9			n

Solution tool
PRAD system

Standard blank dimension table (for Japan)

HSS HSS-P

Material Symbols HSS : ○ HSS-P : ◎

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M5.5×0.5					
M6×1 M6×0.75	No.12-24UNC No.12-28UNF No.12-32UNEF	W7/32-24	SM15/64-28 SM7/32-32	STI_M4.5×0.75 STI_M5×0.8	STI_No.8-32UNC STI_No.10-24UNC STI_No.10-32UNF
					STI_No.8-36UNF
M6×0.5					
M6×1					
M6×0.75					
M6×0.5					
M7×1 M7×0.75				 STI_M6×0.75	STI_No.12-24UNC STI_No.12-28UNF
M8×1.25 M8×1 M8×0.75	5/16-18UNC 5/16-20UN 5/16-24UNF 5/16-28UN 5/16-32UNEF	W5/16-18		 STI_M6×1	STI_1/4-20UNC STI_1/4-28UNF
M8×1.25 M8×1					
M9×1.25 M9×1					
M10×1.5 M10×1.25 M10×1	3/8-16UNC 3/8-20UN 3/8-24UNF 3/8-28UN	W3/8-16		 STI_M8×1.25 STI_M8×1	STI_5/16-18UNC STI_5/16-24UNF
M10×1.5 M10×1.25 M10×1					
M11×1.5 M11×1.25 M11×1				 STI_M9×1.25 STI_M9×1	 STI_3/8-24UNF
M12×1.75 M12×1.5 M12×1.25 M12×1	7/16-14UNC 7/16-16UN 7/16-20UNF 7/16-28UNEF	W7/16-14		 STI_M10×1.5 STI_M10×1.25 STI_M10×1	 STI_3/8-16UNC
M12×1.75 M12×1.5 M12×1.25					

・Corresponding pitches meet with the pitches of other kinds.
・Concerning Hand of threads, both right and left are applicable in the same blank.
・Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
・Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.
・ is a blank for Z-PRO.

Think threads with YAMAWA

Overall length of long type and corresponding materials					Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Overall length of long type : L					ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
-	100 ○	120 ○	150 ○	200 ○	9	30	40	6	4.5	7	9	~ P6	~ G7	i-1
-	100 ○	120 ○	150 ○	200 ○	15	30	40	6	4.5	7	15	~ P4	~ G7	i
					9.5									i-1
					9									
-	100 ◎	-	-	-	15	30	45	6	4.5	7	15	~ P4	~ G7	i
					11						11			n
					15						15			i
					8						11			n
					9						15			i-1
					8						11			n
-	100 ○	120 ○	150 ○	-	19	-	36	6.2	5	8	19	~ P4	~ G7	j
-	100 ○	120 ○	150 ○	-	19	-	36	6.2	5	8	19	~ P4	~ G7	j
-	-	-	150 ◎	-	19	-	46	6.2	5	8	19	~ P4	~ G7	j
					12						12			o
-	100 ○	120 ○	150 ○	-	23	-	38	7	5.5	8	23	~ P5	~ G7	j
-	100 ○	120 ○	150 ○	-	23	-	38	7	5.5	8	23	~ P5	~ G7	j
-	-	-	150 ◎	-	23	-	51	7	5.5	8	23	~ P5	~ G7	j
					13						13			o
-	100 ○	120 ○	150 ○	-	26	-	42	8.5	6.5	9	26	~ P5	~ G9	j
-	100 ○	120 ○	150 ○	-	26	-	42	8.5	6.5	9	26	~ P5	~ G9	j
-	-	-	150 ◎	-	26	-	56	8.5	6.5	9	26	~ P5	~ G9	j
					15						15			o

Solution tool
PRAD system

Standard blank dimension table (for Japan)

HSS HSS-P

Material Symbols HSS : ○ HSS-P : ◎

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M13×1.75 M13×1.5 M13×1.25 M13×1	1/2-13UNC 1/2-16UN 1/2-20UNF 1/2-28UNEF	W1/2-12		 STI_M11×1.5 STI_M11×1.25	 STI_7/16-20UNF
M14×2 M14×1.5 M14×1.25 M14×1				 STI_M12×1.5 STI_M12×1.25 STI_M12×1	 STI_7/16-14UNC
M14×2					
M14×1.5					
M15×2 M15×1.5 M15×1.25 M15×1	9/16-12UNC 9/16-16UN 9/16-18UNF 9/16-20UN 9/16-24UNEF 9/16-28UN	W9/16-12		 STI_M12×1.75 STI_M13×1.5	 STI_1/2-20UNF
M16×2 M16×1.5 M16×1.25 M16×1	5/8-11UNC 5/8-12UN 5/8-16UN 5/8-18UNF 5/8-20UN 5/8-24UNEF 5/8-28UN	W5/8-11		 STI_M13×1.75 STI_M14×1.5 STI_M14×1.25	STI_1/2-13UNC
M16×2					
M16×1.5					
 M17×1.5				STI_M14×2	 STI_9/16-18UNF
M18×2.5 M18×2 M18×1.5 M18×1.25				 STI_M16×1.5	 STI_9/16-12UNC STI_5/8-18UNF

・Corresponding pitches meet with the pitches of other kinds.
・Concerning Hand of threads, both right and left are applicable in the same blank.
・Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
・Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.
・ is a blank for Z-PRO.

Think threads with YAMAWA

Overall length of long type and corresponding materials					Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Overall length of long type : L					ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
-	-	120 ○	150 ○	-	26	-	45	10.5	8	11	26	~ P5	~ G9	j
-	-	120 ○	150 ○	-	26	-	45	10.5	8	11	26	~ P5	~ G9	j
-	-	-	150 ◎	-	26	-	56	10.5	8	11	26	~ P5	~ G9	j
					18						18			o
					26						26			j
					14						18			o
-	-	-	150 ○	-	26	-	48	12.5	10	13	26	~ P5	~ G9	j
-	-	-	150 ○	-	26	-	48	12.5	10	13	26	~ P5	~ G9	j
-	-	-	150 ◎	-	26	-	56	12.5	10	13	26	~ P5	~ G9	j
					18						18			o
					26						26			j
					14						18			o
-	-	-	150 ○	-	33	-	51	14	11	14	33	~ P5	~ G8	j
-	-	-	150 ○	-	33	-	51	14	11	14	33	~ P5	~ G8	j

Solution tool
PRAD system

HF

Specification corresponding with standard blanks(for Japanese market)

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M2×0.4	№1-64UNC №1-72UNF		SM5/64-64		
M2×0.25					
M2.2×0.45	№2-56UNC №2-64UNF				
M2.2×0.25					
M2.3×0.4					
M2.3×0.25					
M2.5×0.45		W3/32-48	SM3/32-56		
M2.5×0.35			SM3/32-100		
M2.6×0.45	№3-48UNC №3-56UNF				
M2.6×0.35					
M3×0.5	№4-40UNC №4-48UNF			STI_M2×0.4 STI_M2.2×0.45	STI_№2-56UNC
M3×0.35					
M3.5×0.6	№5-40UNC №5-44UNF №6-32UNC №6-40UNF	W1/8-40	SM1/8-40 SM1/8-44	STI_M2.5×0.45 STI_M2.6×0.45	
M3.5×0.35					
M4×0.7		W5/32-32	SM9/64-40	STI_M3×0.5	STI_№4-40UNC STI_№5-40UNC
M4×0.5					
M4.5×0.75	№8-32UNC №8-36UNF		SM11/64-40	STI_M3.5×0.6	STI_№6-40UNF
M4.5×0.5					
M5×0.8 M5×0.75	№10-24UNC №10-32UNF	W3/16-24	SM3/16-24 SM3/16-28 SM3/16-32	STI_M4×0.7	STI_ №. 6-32UNC
M5×0.5					
M6×1	№12-24UNC №12-28UNF	W7/32-24	SM15/64-28	STI_M4.5×0.75 STI_M5×0.8	STI_№8-32UNC STI_№8-36UNF STI_№10-32UNF
M6×0.75			SM7/32-32		
M6×0.5					

- Corresponding pitches meet with the pitches of other kinds.
- Concerning Hand of threads, both right and left are applicable in the same blank.
- Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
- Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.

Think threads with YAMAWA

Length of standard type	Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Length of standard type: L	ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
40	8 5.5	9.1	(25)	3	2.5	5	8	~P5	~G6	k
44	9.5 5.5	11.7	(28)	3	2.5	5	9.5	~P5	~G6	k
	8 5.5	10.1	(30)				8			
	9.5 8	10.8					9.5			
	9.5 8	10.9					9.5			
46	11 8	12.5	(27)	4	3.2	6	11	~P5	~G6	k
52	11 8	15.0	(30)	5	4	7	11	~P5	~G7	k
	13 11						13			
60	13 11	18.1	(37)	5.5	4.5	7	13	~P5	~G7	k
	16 11						16			
62	19 13 11	-	(43)	6	4.5	7	19	~P6	~G8	ℓ

Solution tool
PRAD system

HF

Specification corresponding with standard blanks(for Japanese market)

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M8×1.25	5/16-18UNC	W5/16-18	SM9/32-20 SM5/16-18	STI_M6×1	STI_№10-24UNC STI_№12-24UNC STI_№12-28UNF STI_1/4-20UNC STI_1/4-28UNF
M8×1	1/4-20UNC 1/4-28UNF 5/16-24UNF	W1/4-20			
M8×0.75					
M10×1.5	3/8-16UNC	W3/8-16	SM11/32-28	STI_M8×1.25	STI_5/16-18UNC STI_5/16-24UNF
M10×1.25					
M10×1	3/8-24UNF				
M12×1.75		W7/16-14	SM7/16-16	STI_M10×1.5	STI_3/8-16UNC STI_3/8-24UNF
M12×1.5	7/16-14UNC			STI_M10×1.25	
M12×1.25				STI_M10×1	
M12×1	7/16-20UNF				
M12×0.75					

- Corresponding pitches meet with the pitches of other kinds.
- Concerning Hand of threads, both right and left are applicable in the same blank.
- Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
- Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.

Think threads with YAMAWA

Length of standard type	Overall length of standard type and long type, and corresponding Materials						Max. thread length	Applicable class		TYPE
Length of standard type: L	ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k		Cutting	Forming	
70	22 19 13	-	(46)	6.2	5	8	22	~P6	~G8	m
75	24 22 19	-	(48)	7	5.5	8	24	~P6	~G8	m
82	30 24 22 19 13	-	(49)	8.5	6.5	9	30	~P7	~G10	m

Solution tool
PRAD system

HF

Specification corresponding with standard blanks (DIN)

Main size designation and specification					
① metric	② unified	③ whitworth	④ sewing screw	⑤ STI (metric)	⑥ STI (unified)
M6×1	№12-24UNC №12-28UNF	W7/32-24	SM15/64-28	STI_M4.5×0.75 STI_M5×0.8	STI_№8-32UNC STI_№8-36UNF STI_№10-32UNF
M8×1.25 M8×1	1/4-20UNC 1/4-28UNF 5/16-18UNC 5/16-24UNF	W1/4-20 W5/16-18	SM1/4-20 SM1/4-28 SM9/32-20 SM5/16-18	STI_M6×1	STI_№10-24UNC STI_№12-24UNC STI_№12-28UNF STI_1/4-20UNC STI_1/4-28UNF
M10×1.5 M10×1.25	3/8-16UNC 3/8-24UNF	W3/8-16	SM11/32-28	STI_M8×1.25	STI_5/16-18UNC STI_5/16-24UNF
M12×1.5 M12×1.25	7/16-14UNC 7/16-20UNF	W7/16-14	SM7/16-16	STI_M10×1.5 STI_M10×1.25 STI_M10×1	STI_3/8-16UNC STI_3/8-24UNF

・Corresponding pitches meet with the pitches of other kinds.
・Concerning Hand of threads, both right and left are applicable in the same blank.
・Concerning the kind of taps, SP, PO, HT, ROLL are applicable in the same blank.
・Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.

Overall length of standard type and long type, and corresponding Materials							Max. thread length	Applicable class			TYPE
ℓ	ℓ_n	ℓ_s (reference)	D_s	K	ℓ_k	Length of standard type: L		Cutting		Forming	
								(P class)	(ISO class)		
12	27.4	(48)	6	-	-	80	12	P6	ISO3	G9	n
15	30	(54)	8	-	-	90	15	P6	ISO3	G8	n
18	35.9	(57)	10	-	-	100	18	P6	ISO3	G8	n
21	39.9	(63)	12	-	-	110	21	P7	ISO3	G10	n

Solution tool
PRAD system

Specification of corresponding standard blanks (for European market)

unit mm

YAMAWA standard	Applicable dimension						TYPE	Material				Applicable class		Corresponding products
Size	L	ℓ	ℓ_n	D	K	ℓ_k		HSS	HSS-E	HSS-Co	HSS-P	Cutting	Forming	
M3	56	6.5	18	3.5	2.7	6	c		●			ISO3	G7	SP,PO,HT,ROLL
M4	63	9	21	4.5	3.4	6	c		●			ISO3	G7	SP,PO,HT,ROLL
M5	70	10.5	25	6	4.9	8	c		●			ISO3	G7	SP,PO,HT,ROLL
M6	80	15	30	6	4.9	8	o		●			ISO2X	-	SP,PO,HT
M8	90	19	35	8	6.2	9	o		●			ISO3	G7	SP,PO,HT,ROLL
M10	100	23	39	10	8	11	o		●			ISO3	G7	SP,PO,HT,ROLL
M12	110	26	45	12	9	12	o		●			ISO3	G9	SP,PO,HT,ROLL

unit mm

YAMAWA standard	Applicable dimension						TYPE	Material				Applicable class		Corresponding products
Size	L	ℓ	ℓ_n	D	K	ℓ_k		HSS	HSS-E	HSS-Co	HSS-P	Cutting	Forming	
M1.4	40	7	-	2.5	2.1	5	DIN371		●			ISO3	G5	SP,PO,HT,ROLL
M1.6	40	8	-	2.5	2.1	5			●			ISO3	G5	SP,PO,HT,ROLL
M2	45	8	-	2.8	2.1	5			●	●	●	ISO3	G5	SP,PO,HT,ROLL
M2.5	50	9	-	2.8	2.1	5			●		●	ISO3	G6	SP,PO,HT,ROLL
M3	56	11	18	3.5	2.7	6			●	●	●	ISO3	G7	SP,PO,HT,ROLL
M4	63	13	21	4.5	3.4	6			●	●	●	ISO3	G7	SP,PO,HT,ROLL
M5	70	16	25	6	4.9	8			●	●	●	ISO3	G7	SP,PO,HT,ROLL
M6	80	19	30	6	4.9	8			●	●	●	ISO2X	-	SP,PO,HT
M7	80	19	30	7	5.5	8			●			ISO3	G11	SP,PO,HT,ROLL
M8	90	22	35	8	6.2	9			●	●	●	ISO3	G7	SP,PO,HT,ROLL
M10	100	24	39	10	8	11			●	●	●	ISO3	G7	SP,PO,HT,ROLL

unit mm

YAMAWA standard	Applicable dimension						TYPE	Material				Applicable class		Corresponding products
Size	L	ℓ	ℓ_n	D	K	ℓ_k		HSS	HSS-E	HSS-Co	HSS-P	Cutting	Forming	
M3	56	11	-	2.2	-	-	DIN376		●			ISO3	G7	SP,PO,HT,ROLL
M4	63	13	-	2.8	2.1	5			●			ISO3	G7	SP,PO,HT,ROLL
M5	70	16	-	3.5	2.7	6			●			ISO3	G7	SP,PO,HT,ROLL
M6	80	19	-	4.5	3.4	6			●			ISO2X	-	SP,PO,HT
M8	90	22	-	6	4.9	8			●			ISO3	G7	SP,PO,HT,ROLL
M10	100	24	-	7	5.5	8			●			ISO3	G7	SP,PO,HT,ROLL
M12	110	29	-	9	7	10			●		●	ISO3	G9	SP,PO,HT,ROLL
M14	110	30	-	11	9	12			●		●	ISO3	G9	SP,PO,HT,ROLL
M16	110	32	-	12	9	12			●		●	ISO3	G9	SP,PO,HT,ROLL
M20	140	34	-	16	12	15			●		●	ISO3	G13	SP,PO,HT,ROLL

unit mm

YAMAWA standard	Applicable dimension						TYPE	Material				Applicable class		Corresponding products
Size	L	ℓ	ℓ_n	D	K	ℓ_k		HSS	HSS-E	HSS-Co	HSS-P	Cutting	Forming	
M8×1	90	22	-	6	4.9	8	DIN374		●			ISO3	G7	SP,PO,HT,ROLL
M10×1	90	20	-	7	5.5	8			●			ISO3	G8	SP,PO,HT,ROLL
M12×1.5	100	22	-	9	7	10			●			ISO3	G10	SP,PO,HT,ROLL
M14×1.5	100	22	-	11	9	12			●			ISO3	G10	SP,PO,HT,ROLL
M16×1.5	100	22	-	12	9	12						ISO3	G10	SP,PO,HT,ROLL

unit mm

YAMAWA standard	Applicable dimension						TYPE	Material				Applicable class		Corresponding products
Size	L	ℓ	ℓ_n	D	K	ℓ_k		HSS	HSS-E	HSS-Co	HSS-P	Cutting	Forming	
G1/8	90	20	-	7	5.5	8	DIN5156		●			-	-	SP,PO,HT
G1/4	100	22	-	11	9	12			●			-	-	SP,PO,HT
G3/8	100	22	-	12	9	12			●			-	-	SP,PO,HT
G1/2	125	25	-	16	12	15			●			-	-	SP,PO,HT

・Concerning applicable thread limits, maximum applicable thread limits for metric coase threads are listed.

Think threads with YAMAWA

Specification of corresponding standard blanks (for American market)

unit mm

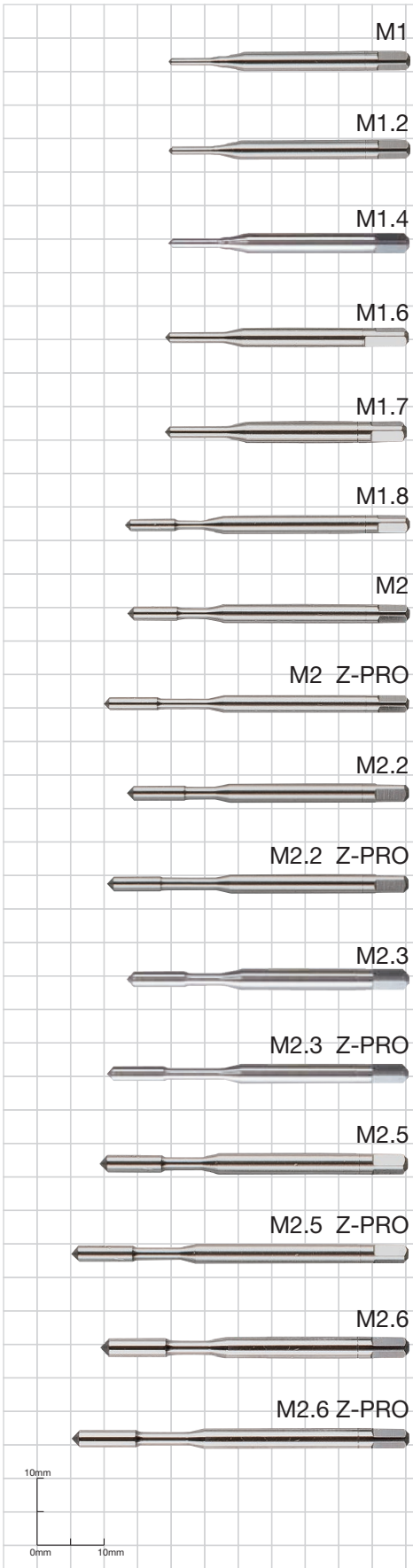
YAMAWA standard	Applicable dimension							TYPE	Material				Applicable class			Corresponding products
Size	L	ℓ	ℓ_n	ℓ_s (reference)	D	K	ℓ_k		HSS	HSS-E	HSS-Co	HSS-P	Cutting	Forming		
No.4	47.6	8.5	14.3	28	3.58	2.79	4.7	c		●		●	GH8	G5		SP,PO,HT,ROLL
No.5	49.2	9.5	15.9	29	3.58	2.79	4.7	c		●			GH8	G8		SP,PO,HT,ROLL
No.6	50.8	10.5	17.5	29	3.58	2.79	4.7	c		●		●	GH6	G3		SP,PO,HT,ROLL
No.8	54	11.5	19.1	31	4.26	3.32	6.3	c		●		●	GH6	G3		SP,PO,HT,ROLL
No.10	60.3	13.5	22.2	33	4.92	3.86	6.3	c		●		●	GH6	G4		SP,PO,HT,ROLL
No.12	60.3	14.5	23.8	31	5.58	4.19	7.1	c		●			GH6	-		SP,PO,HT
U1/4	63.5	15	25.4	32	6.47	4.85	7.9	c		●		●	GH6	G4:20UNC	G6:28UNF	SP,PO,HT,ROLL
U5/16	69.1	17	28.6	32	8.07	6.04	9.5	c		●		●	GH9	G8		SP,PO,HT,ROLL
U3/8	74.6	19	31.8	33	9.67	7.26	11.1	c		●		●	GH6	-	G7:24UNF	SP,PO,HT,ROLL
U7/16	80.2	22	-	-	8.2	6.14	10.3	e		●			GH6	-	G6:20UNF	SP,PO,HT,ROLL
U1/2	85.7	25	-	-	9.32	6.98	11.1	e		●			GH9	-	G7:20UNF	SP,PO,HT,ROLL
M3	49.2	9.5	15.9	29	3.58	2.79	4.7	c		●			D10			SP,PO,HT,ROLL
M4	54	11.5	19.1	30	4.26	3.32	6.3	c		●			D11			SP,PO,HT,ROLL
M5	60.3	13.5	22.2	34	4.92	3.86	6.3	c		●			D7			SP,PO,HT,ROLL
M6	63.5	15	25.4	32	6.47	4.85	7.9	c		●		●	D8			SP,PO,HT,ROLL
M8	69.1	17	28.6	34	8.07	6.04	9.5	c		●			D8	-		SP,PO,HT
M10	74.6	19	31.8	36	9.67	7.26	11.1	e		●			D9	-		SP,PO,HT
M12	85.7	25	-	-	9.32	6.98	11.1	e		●			D9	-		SP,PO,HT

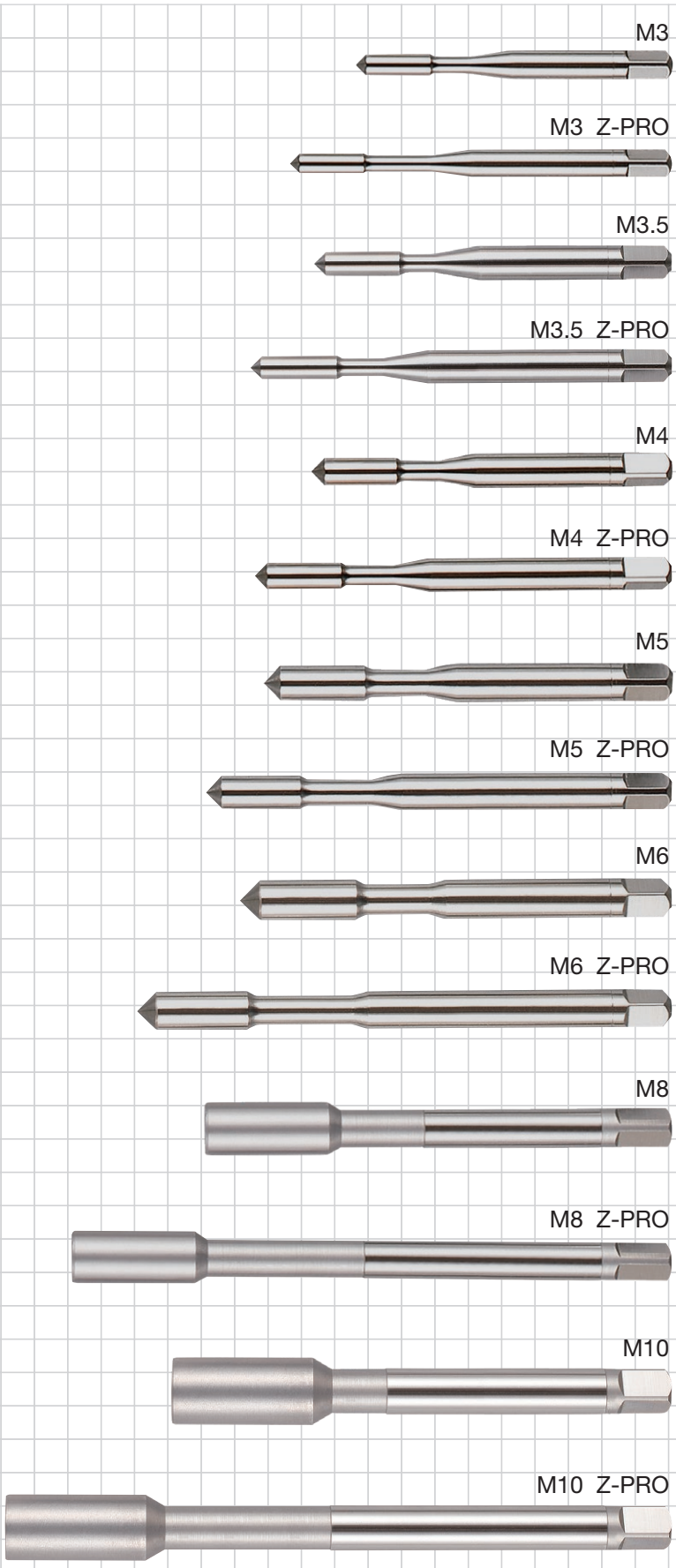
Specification of corresponding standard blanks (for American market) Overall length : DIN, Shank dia. : ANSI

unit mm

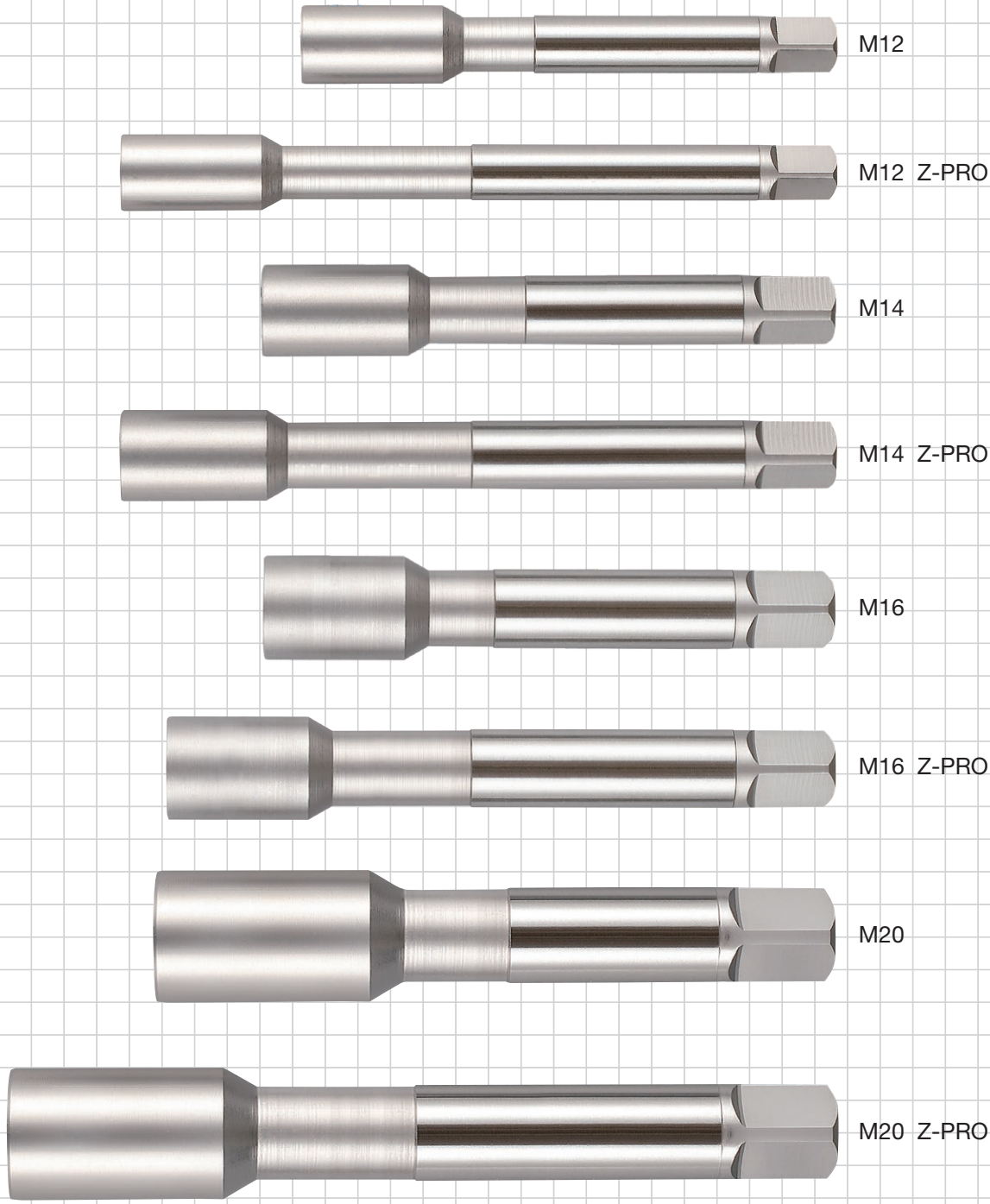
YAMAWA standard	Applicable dimension							TYPE	Material				Applicable class		Corresponding products
Size	L	ℓ	ℓ_n	ℓ_s (reference)	D	K	ℓ_k		HSS	HSS-E	HSS-Co	HSS-P	Cutting	Forming	
No.0	45	6	8.2	29	3.58	2.79	4.7	b		●			GH9	G8	SP,PO,HT,ROLL
No.2	45	8	10.7	29	3.58	2.79	4.7	b		●			GH8	G6	SP,PO,HT,ROLL
No.4	56	9	18	32	3.58	2.79	4.7	c		●		●	GH8	G5	SP,PO,HT,ROLL
No.5	56	11	18	34	3.58	2.79	4.7	c		●			GH8	G8	SP,PO,HT,ROLL
No.6	56	11	19	34	3.58	2.79	4.7	c		●		●	GH6	G3	SP,PO,HT,ROLL
No.8	63	13	21	39	4.26	3.32	6.3	c		●		●	GH9	G7	SP,PO,HT,ROLL
No.10	70	14	24	42	4.92	3.86	6.3	c		●		●	GH7	G7	SP,PO,HT,ROLL
No.12	80	15	25	49	5.58	4.19	7.1	c		●			GH6	-	SP,PO,HT
U1/4	80	15	30	43	6.47	4.85	7.9	c		●		●	GH6	G4	SP,PO,HT,ROLL
U5/16	90	19	35	46	8.07	6.04	9.5	c		●		●	GH9	G8	SP,PO,HT,ROLL
U3/8	100	23	39	51	9.67	7.26	11.1	c		●		●	GH6	24UNF:G7	SP,PO,HT,ROLL
U7/16	100	23	49	51	8.2	6.14	10.3	c		●			GH6	20UNF:G6	SP,PO,HT,ROLL
U1/2	110	26	54	56	9.32	6.98	11.1	c		●			GH9	20UNF:G7	SP,PO,HT,ROLL
M3	56	11	18	34	3.58	2.79	4.7	c		●			D12	D12	SP,PO,HT,ROLL
M4	63	13	21	39	4.26	3.32	6.3	c		●			D12	D12	SP,PO,HT,ROLL
M5	80	15	25	49	5.58	4.19	7.1	c		●			D12	D12	SP,PO,HT,ROLL
M6	80	15	30	43	6.47	4.85	7.9	c		●		●	D11	D11	SP,PO,HT,ROLL
M8	90	19	35	46	8.07	6.04	9.5	c		●			D7	-	SP,PO,HT
M10	100	23	49	51	8.2	6.14	10.3	e		●			D12	D12	SP,PO,HT,ROLL
M12	110	26	54	56	9.32	6.98	11.1	e		●			D11	D11	SP,PO,HT,ROLL

YAMAWA Standard blank Line UP



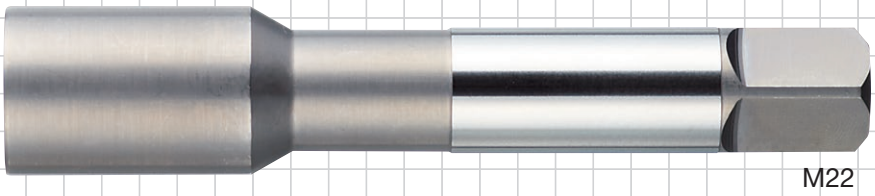


YAMAWA Standard blank Line UP

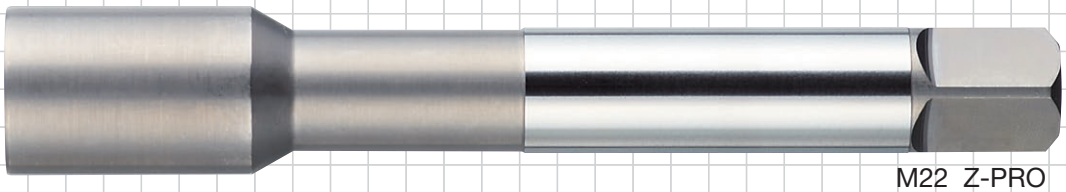


10mm
0mm
10mm

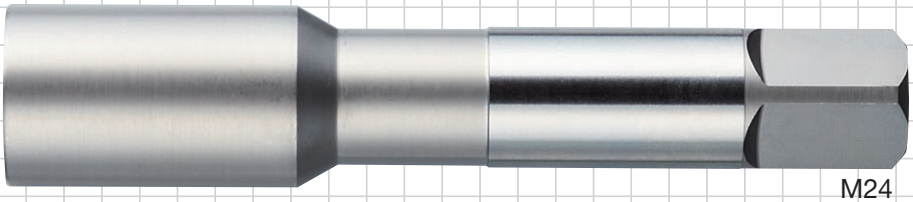
YAMAWA Standard blank Line UP



M22



M22 Z-PRO



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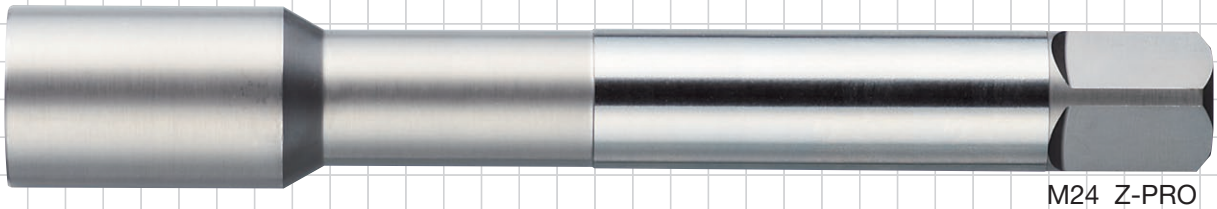
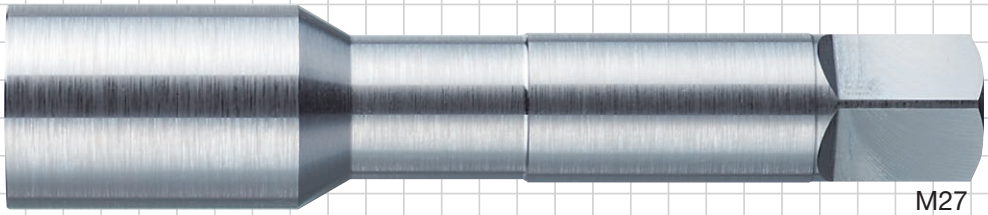


M24 Z-PRO



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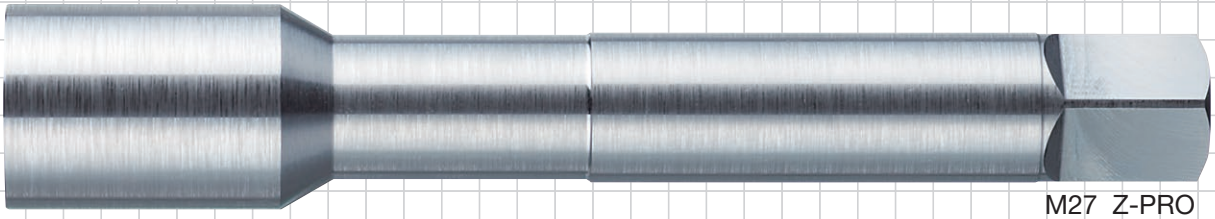
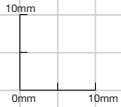
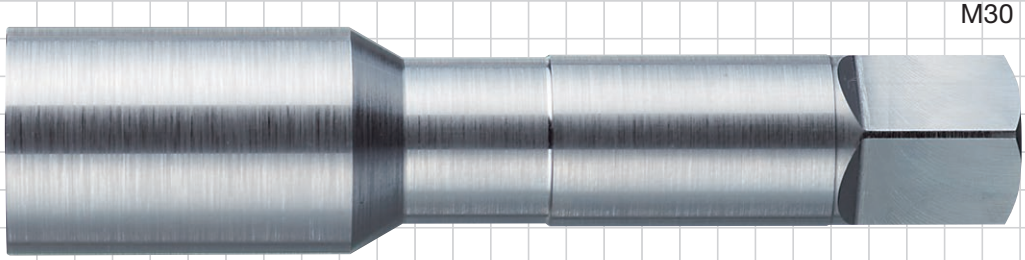


M27 Z-PRO

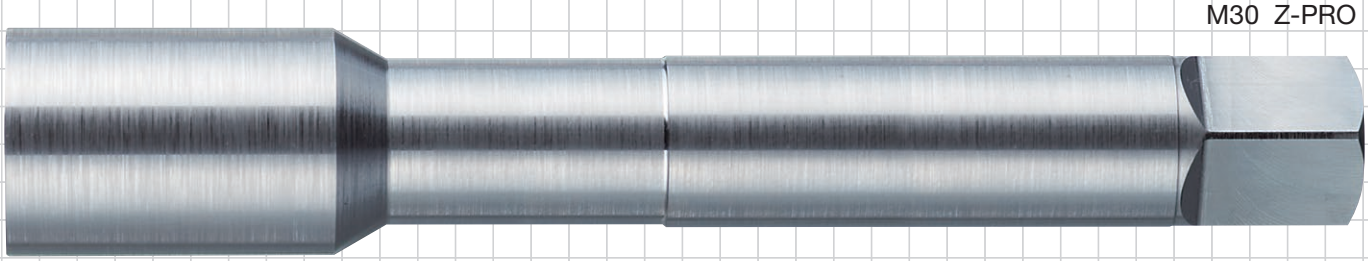


YAMAWA Standard blank Line UP

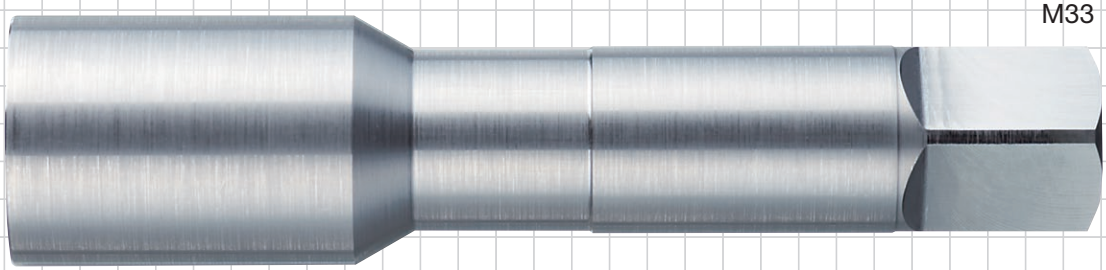
M30



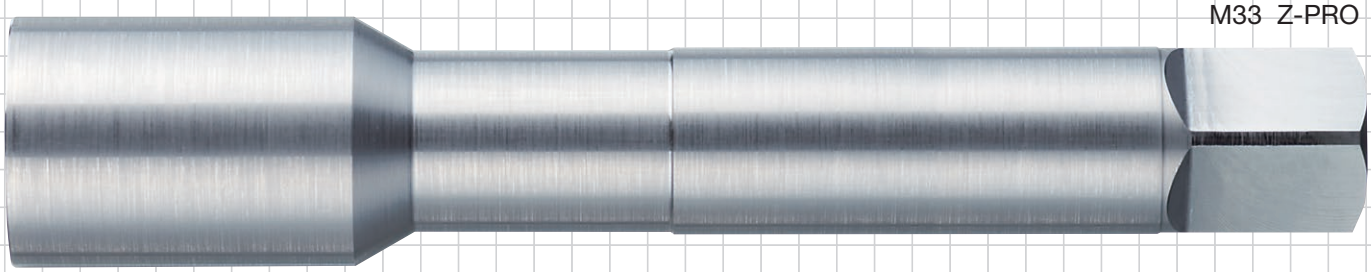
M30 Z-PRO

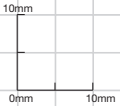


M33



M33 Z-PRO





YAMAWA Standard Long shank blank Line UP

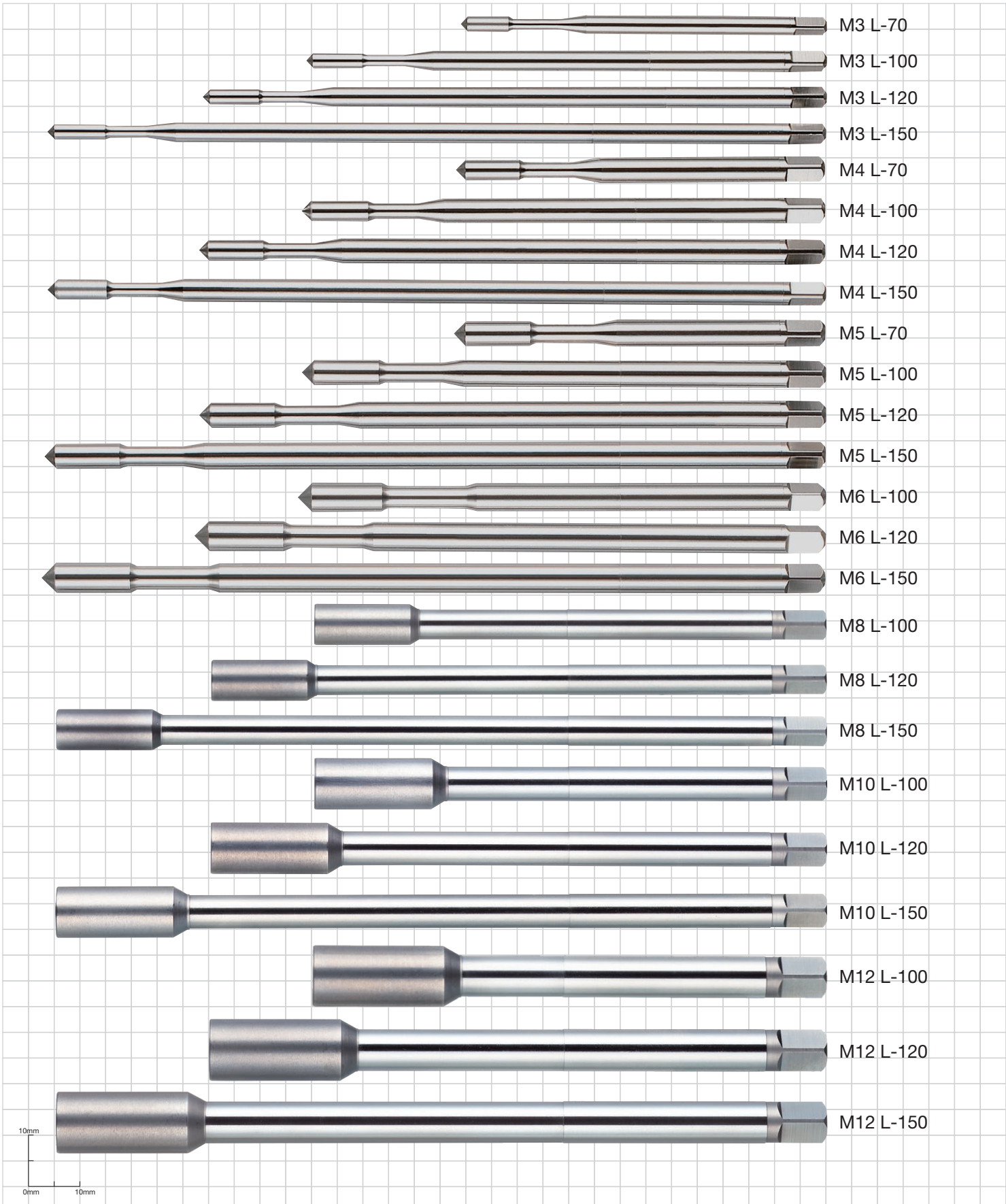
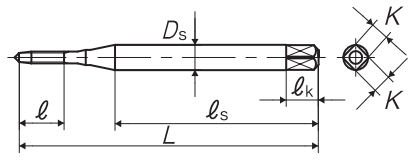
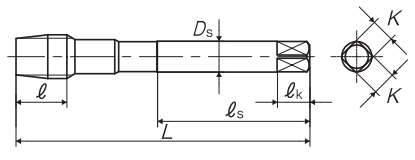


Table for tap dimensions and type

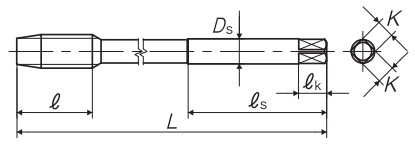
TYPE a



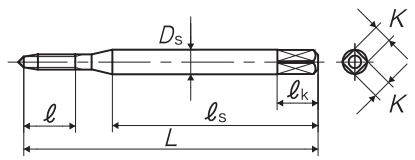
TYPE e-1



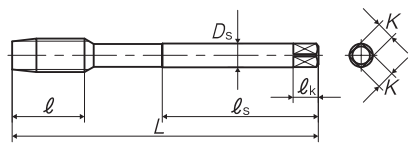
TYPE j



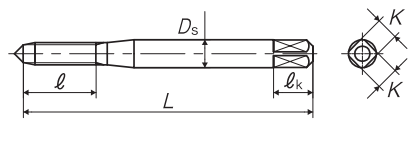
TYPE b



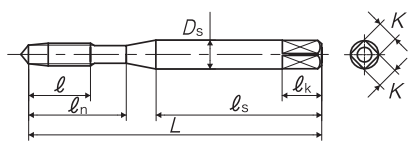
TYPE f



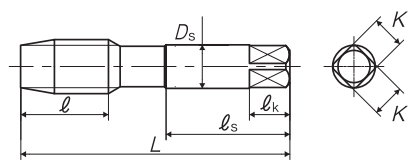
TYPE k



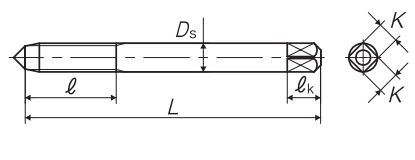
TYPE c



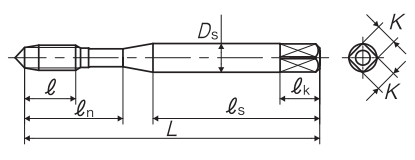
TYPE g



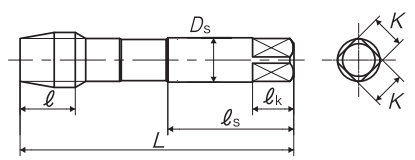
TYPE ℓ



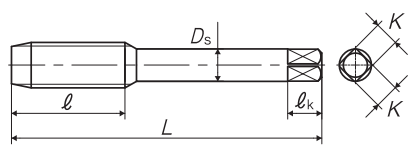
TYPE c-1



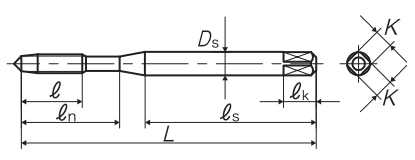
TYPE g-1



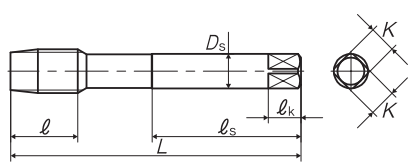
TYPE m



TYPE d



TYPE h



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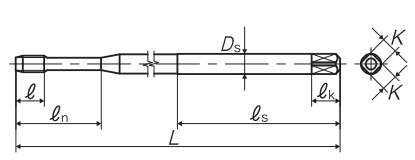

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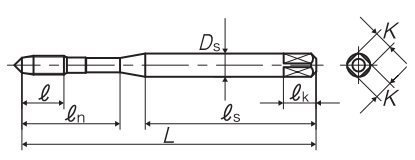
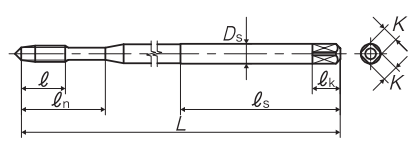
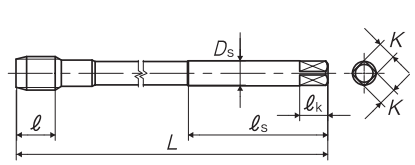


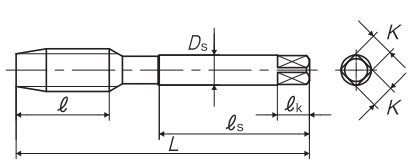
TYPE i



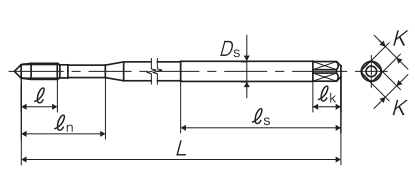
TYPE o



TYPE e



TYPE i-1



PRAD system Inquiry sheet

Please fill in the blanks and send it to us by e-mail

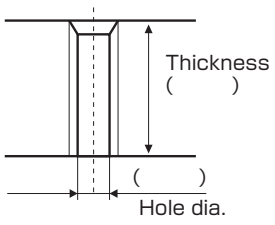
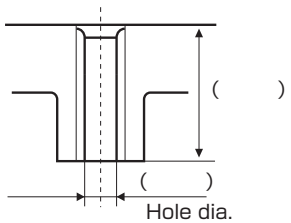
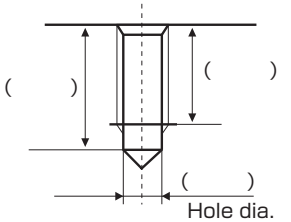
※Referring to Yamawa Web https://www.yamawa.com/en/, please send your tapping information as a PDF to our Web window "Customer Consultation"
Please fill the information table as much as possible. Our staff will contact you by return.

■ Company name		
■ Department · Name	(Department)	(Name)
■ TEL	(TEL)	
■ e-mail address		

Customer's request

■ Thread type	M : Metric U : Unified W : Whitworth Special( )		
■ Size and pitch		■ Hand of thread	· Right hand · Left hand
■ Tap type	· ( ) -SP · ( ) -PO · ( ) -HT · ROLL( ) · Other item( )		
■ Overall length	· YMW standard · L-70 · L-100 · L-120 · L-150 · L-( )other length		
■ Tap Material	· HSS(HSS-E) · HSS-Co · HSS-P		
■ Tolerance	· P( )Class · G( )Class · 2Class · Request Class( )		
■ Thread length	· YMW standard · ℓ-( )Request length	■ Shank dia.	· YMW standard · Request dia : Ds-( )
■ Chamfer length	· YMW standard · Taper · Plug · Bottoming · P · B · ( )Request chamfer		
■ Surface treatment	· OX(Oxide) · NI(Nitride) · NX(Nitride-Oxide) · TiN · TiCN · CrN · Bright finished		

Condition of Workpiece Material

■ Tapping part	· ( ) · Unclear	■ Hardness	· ( )HRB · ( )HRC · Unclear
■ Work Material	· FC( ) · SS( ) · SPC( ) · SUS( ) · ADC( ) · AC( ) · BSBM( ) · BC( ) · S( )C · SCM( ) · Plastics( ) · Other( ) · Unclear		
■ Parts shape	  		■ Direction · Vertical · Horizontal · inclined · Unclear
■ How to make hole	· Drill · Press · Reamer · Molding · ( )Other · Unclear		
■ Gauge	· GP-( ) · NP(WP)-( ) · No check · Unclear		

Machine, tapping condition

■ Tapping machine	· Drill press · Automatic lathe · Special machine · Tapping machine · Machining Center · Else( ) · Unclear
■ Holder	· Drill chuck type · Tapping holder(with spring) type · Complete fixed holder type · Else( ) · Unclear
■ Feed	· Manual feed · Gear feed system · Master lead screw feed system · Non-synchronous system by approximation · Fully synchronous feed system · Else( ) · Unclear
■ Tapping speed	( )m/min SFM or Revolution Speed ($^{-1}$)min · Unclear
■ Tapping fluid	· Non-water soluble(oil) · Water soluble cutting fluid · Paste · Else( ) · Unclear

<Comment>

Think threads with YAMAWA

For improvement, spec may change without advance notice.

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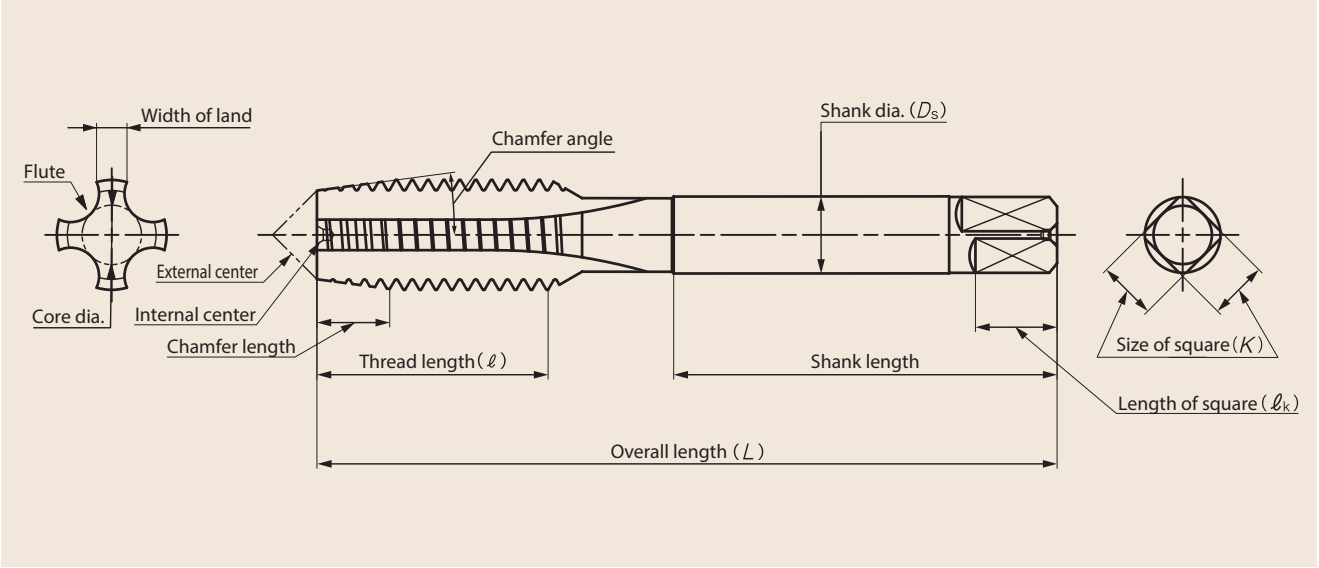
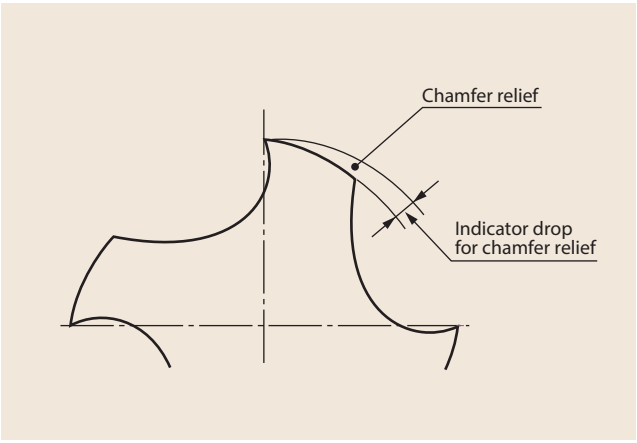
・For improvement, spec may change without advance notice.

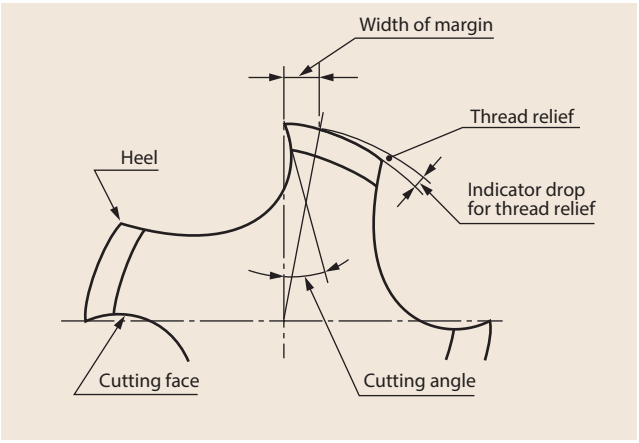
1. Terminology of Taps



■Chamfer relief

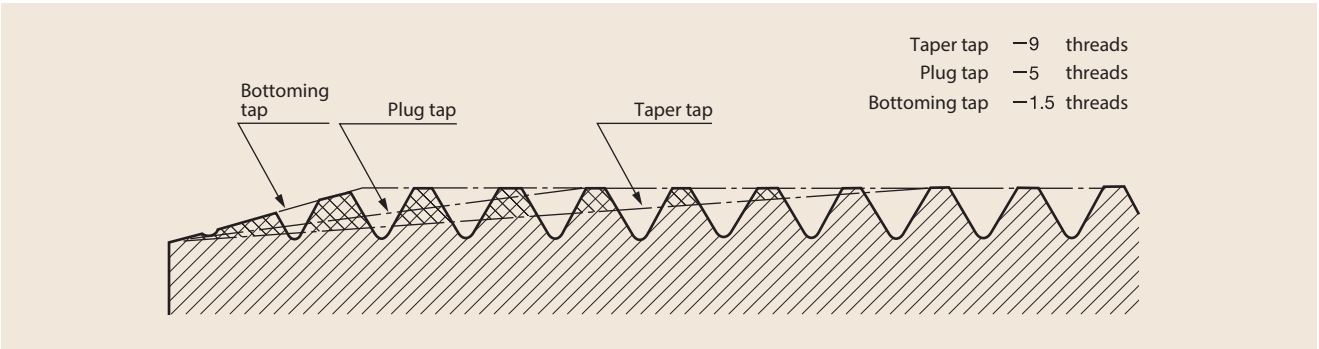


■Thread relief and cutting angle



Edge angle, including chamfer relief, thread relief, cutting angle and others, as well as heat treatment, have important functions affecting workpiece shape, tool life, surface finish of internal screw thread, and so on.

■Chamfer of hand tap

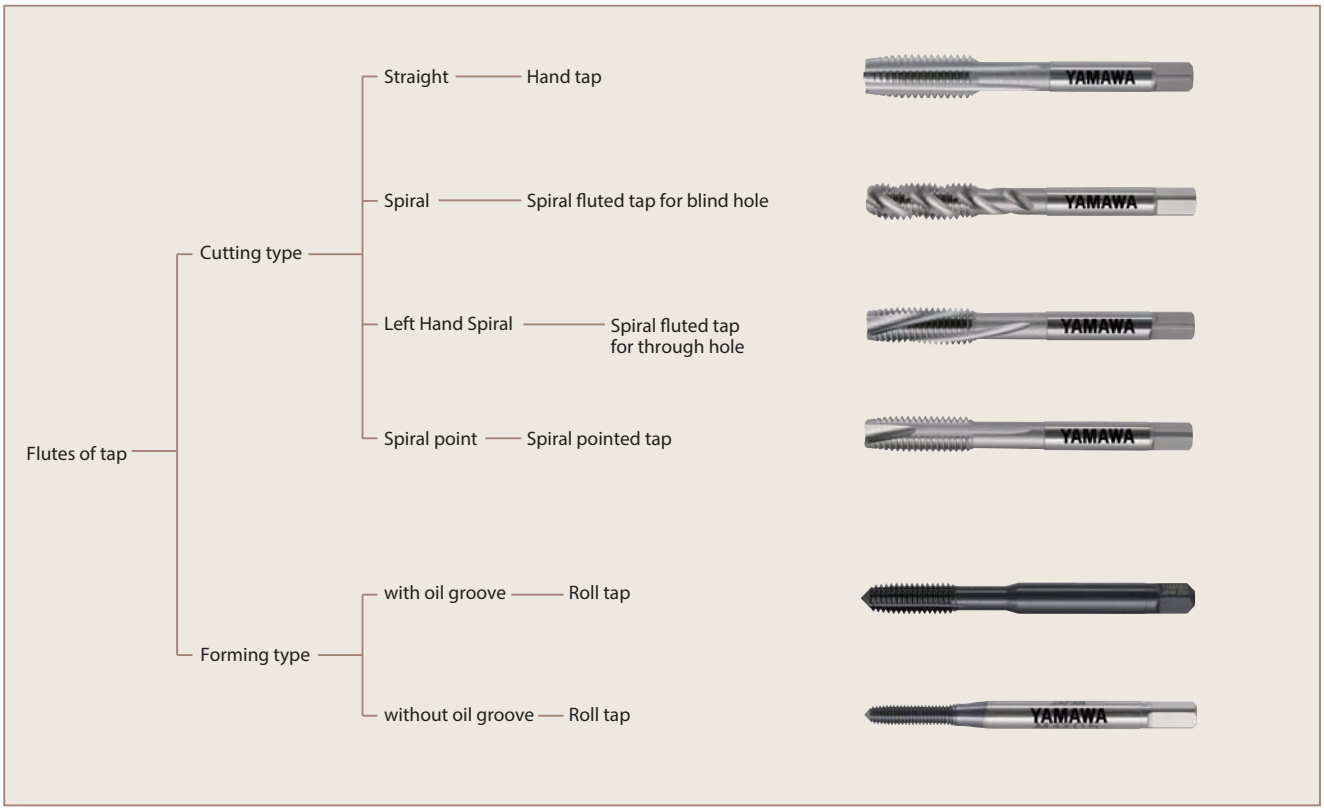


In general, tap chamfer is the most important part of taps to create internal thread. The function of full thread part of taps is to make a guidance.

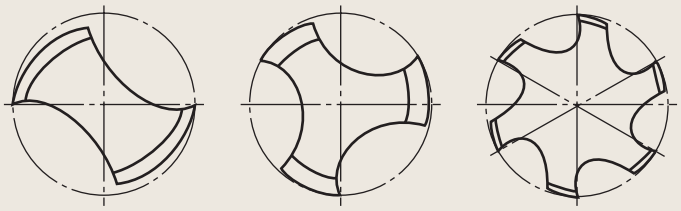
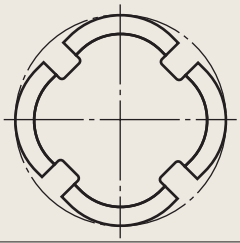
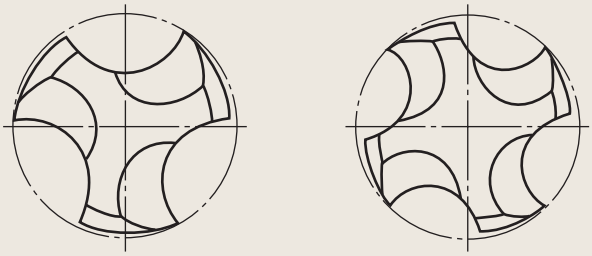
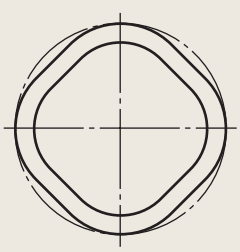
2. Flutes

■Major functions of flutes are :

1) Chips' pocket, 2) lubricant supply route, 3) rake angle formation, 4) to determine cutting amount in relation to the number of chamfer threads. And all are very important. Taps' flutes are classified into following groups by tapping methods, fluting method, tapping direction, and hand of screw thread.



■Type of Flute

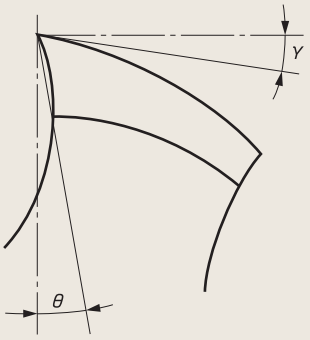
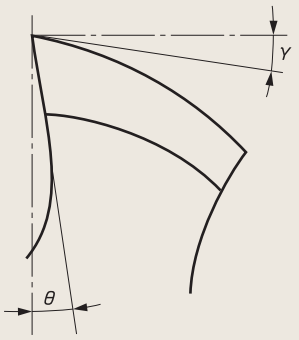
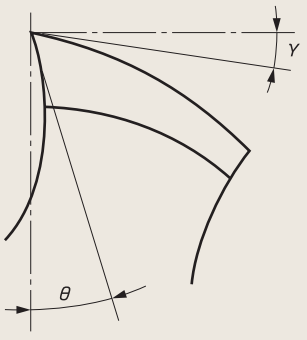
Flute \ Type of Taps	Cutting type	Forming type
Straight Flute / Spiral Flute		
With oil groove		
Spiral Point Flute		
Without oil groove		

In general, the number of flutes for cutting type taps are usually increased as O.D. becomes larger. However, it is also influenced by tap's strength and rigidity, the accommodation of chip, the amount of cutting, and lubricant supply system.

3. Edge angle and Cutting allowance of taps

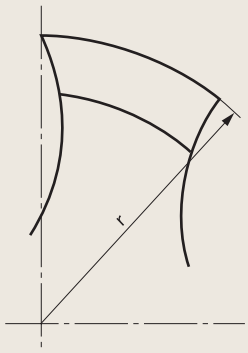
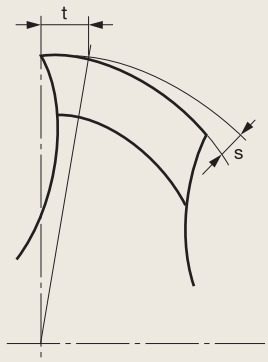
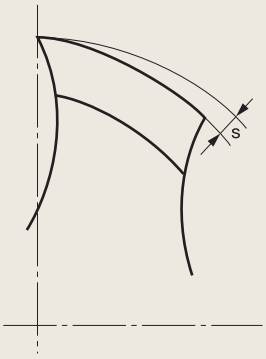
■Cutting angle and Chamfer relief angle

θ : Cutting angle γ : Chamfer relief angle

Chordal Hook Angle	Rake Angle	Tangential Hook Angle
		
Cutting angle of hook face. The angle between the center line passing the cutting edge and the straight line linking the cutting edge with the thread root.	Cutting angle of rake face. The angle between the center line passing the cutting edge and the straight line linking the cutting edge with thread root.	Cutting angle of hook face. The angle between the center line passing the cutting edge and the straight line tangent to the rake face on the cutting edge.

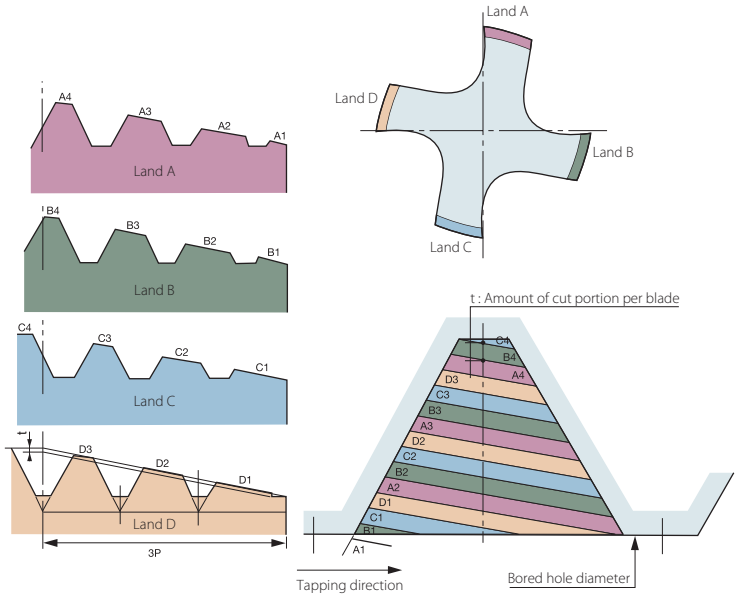
■Thread relief

S : Indicator drop for thread relief

Concentric-unrelieved	Con-eccentric thread relief	Eccentric thread relief
		
No relief exists at land. Start (A) and heel (B) of thread land have same concentricity.	Radial relief in the thread form starts at the back of a concentric margin.	Radial relief in the thread form starts at the cutting edge and continues to the heel.

■The amount of cut portion

Please refer to the pictures shown.
In such taps as have 4 flutes and 3 thread chamfer, the cutting operation progresses in order from the edge of A1, B1, C1, D1…A2, B2…A4. Tap end is usually smaller than the size of bored hole, and A1 may not make any cutting operation.



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4. Recommended Tapping Speeds

■Tapping Speeds

Following usage conditions affect tapping speeds : kind of taps, workpieces, number of chamfered threads, materials, hole condition and fluid. It is necessary to select the suitable tapping speed by paying attention to these conditions.
When work material has excellent workability, when there is a little depth of tapping, or when tapping fluid can be sufficient, select rather higher tapping speed. When workability of work material is unknown, to be safe, try nearly the lowest tapping speed at first, and then increase the speed gradually.

* Following speed is basically for the cutting condition under the use of insoluble cutting oil. Under the use of water soluble cutting oil, please choose 30% slower speed.

Unit : m/min

Workpiece Materials		Tapping Speed				
		Spiral Fluted	Spiral Pointed	Roll Taps	Straight Fluted	Cemented Carbide
Low Carbon Steels	SS400 S10C～S25C	8～15	10～20	8～15	6～10	—
Medium Carbon Steels	S25C～S45C	6～12	8～14	7～12	5～9	—
High Carbon Steels	S45C～S58C	5～10	8～12	5～10	5～8	—
Alloy Steels	SCM・SNCM	5～10	7～10	5～10	5～8	—
Thermal refined steels	20～45HRC	3～5	4～7	—	3～6	—
Stainless Steels	SUS	3～8	4～9	6～15	3～7	—
Tool Steels	SKD	5～8	6～10	—	5～9	—
Cast Steels	SC	6～10	8～13	—	6～10	—
Cast Irons	FC	—	—	—	12～17	15～25
Ductile Cast Irons	FCD	5～10	5～10	—	5～8	12～20
Coppers	Cu	8～12	8～13	25～35	7～11	15～33
Brass・Brass Casting	Bs・BsC	11～22	13～25	25～35	10～20	23～33
Phosphor Bronze・Phosphor Bronze Casting	PB・PBC	8～15	10～18	25～35	8～15	18～33
Wrought Aluminum	Al	15～25	20～25	25～35	15～20	23～40
Aluminum Alloy Castings	AC・ADC	11～22	12～24	15～25	10～20	15～25
Magnesium Alloy Castings	MC	7～15	10～20	—	7～15	12～20
Zinc Alloy Diecastings	ZDC	7～15	10～20	15～25	7～15	12～20
Thermosetting Plastic	Bakelite (Phenol-PF)	11～17	12～18	—	10～15	15～25
Thermoplastic resin	PVC, Nylon	11～17	12～18	—	10～15	15～25
Titanium Alloys	Ti-6Al-4V etc	6～9	6～9	—	—	—
Nickel Base Alloys	Hastelloy, Inconel, Waspaloy	3～6	3～6	—	—	—

■Formula

Tapping Speed (Vc)

$$Vc = \frac{\pi \cdot Dc \cdot n}{1000} \ (m/min)$$

n : Revolution Speed of tap (min^{-1})
π : 3.14
Dc : Nominal dia. of tap (mm)

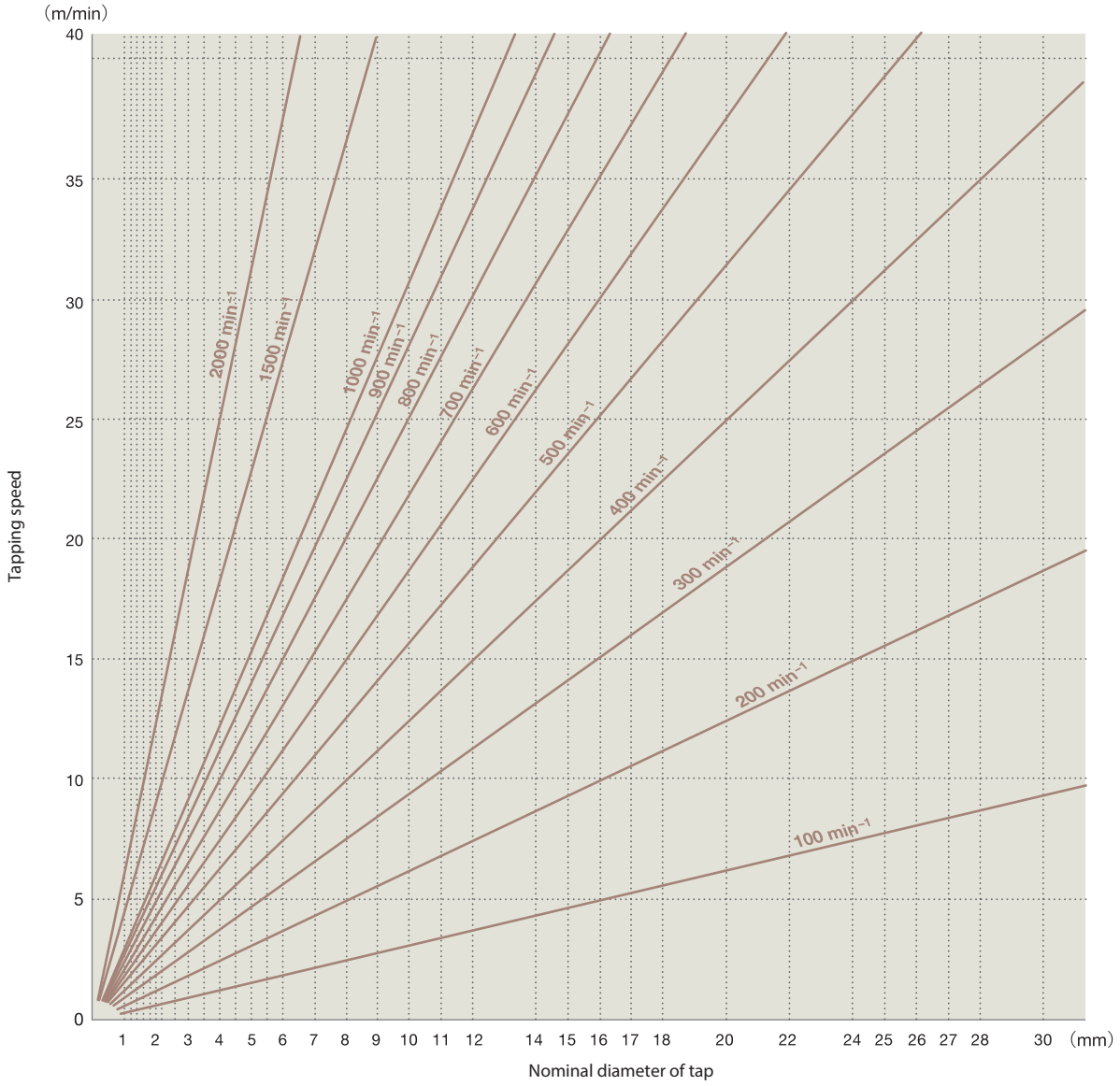
Revolution Speed of tap (n)

$$n = \frac{1000 \cdot Vc}{\pi \cdot Dc} \ (min^{-1})$$

Vc : Tapping Speed (m/min)
Dc : Nominal dia. of tap (mm)
π : 3.14

5. Tapping speed and Revolution Speed

■Conversion table



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6. Tapping Torque

■Tapping Torque of Cutting type Taps

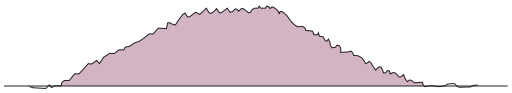
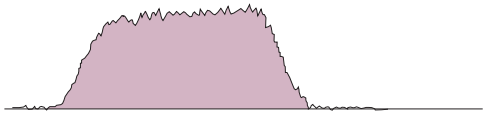
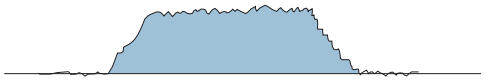
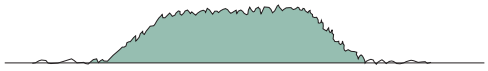
The torque starts increasing as the threads of chamfer enter the workpiece material. It becomes highest when all threads of chamfer cut into workpiece material, and is in plateau until the chamfer cuts through the workpiece. After that, the torque will decrease until the end of tapping.

■Cutting Torque Line

Cutting torque lines in the test of different kinds of taps, hand tap, spiral fluted tap, spiral pointed tap are shown below.

Tapping Condition

Tap : HSS P2 M8×1.25	Bored hole size : 6.8mm
Cutting speed : 6.1m/min	Cutting oil : Water insoluble oil
Workpiece material : S50C	Machine : Drilling machine
Tapping type : 10mm Through hole	Measurement equipment : Piezoelectric torque tester

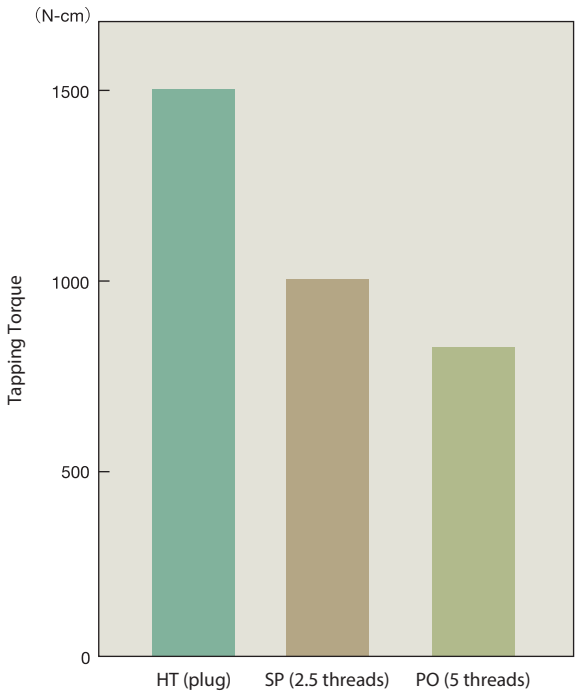
Type of tap		Torque lines	Description
Hand tap (P2)	Taper tap (9 threads)		Gentle slope is observed because of less cutting by each cutting chamfer, but longer tapping time is taken than in the other hand taps.
	Plug tap (5 threads)		Plateau is observed since whole chamfer threads enter the workpiece material. Tapping time is much shorter than that of the taper tap.
	Bottoming tap (1.5 threads)		Plateau is also observed since whole short chamfer threads enter the workpiece material. Tapping process time is shorter than that of the plug tap.
Spiral fluted tap (P2, 2.5 threads)			Spiral fluted tap pulls out the chips, good choice for blind hole tapping. The cutting torque of spiral fluted taps is smaller than that of the hand taps.
Spiral pointed tap (P2, 5 threads)			Spiral pointed tap pushes out the chips forward. It is good choice for through hole use. Cutting torque is smallest in all taps.

The cutting torque will change depending on the kind of taps, cutting chamfer, number of flutes, workpiece materials and their hardness, lubrication types, and chips.

6. Tapping Torque

■Comparison of Cutting Torque by Different Type of Taps

Cutting torque of hand tap (HT), and spiral fluted tap (SP), and spiral pointed tap (PO) differs, shown in the chart below.



Tapping Condition

Tap : HSS P2 M10×1.5
Cutting speed : 10m/min
Workpiece material : S50C
Hole condition : 20mm through hole
Bored hole size : ϕ8.5, drill
Lubrication : Water insoluble oil
Machine : Radial drilling machine
Measurement equipment : Piezoelectric torque tester

If the cutting torque of hand tap is assumed as 100, the cutting torque of other taps is as follows :

Hand Tap : 100
Spiral fluted Tap : 70~75
Spiral Pointed Tap : 60~65

■Tapping Torque of Forming type Taps

■Calculation for Tapping Torque of Roll Taps

○It is hard to calculate tapping torque for roll taps because they contain more complicated factor than the cutting taps.
According to our experience, tapping torque of roll taps is twice or three times larger than that of the cutting taps in general.
○Major factors increasing or decreasing tapping torque of roll taps are :
(1) Mechanical characteristic of workpiece (Tensile strength, hardness, spring back feature, work hardening index) : As the tensile strength gets larger, the threading torque becomes larger.
(2) Size and length of bored hole: Bored hole size is usually defined to obtain 75% thread height of basic thread profile. Roll taps may be shuttered due to the excessive tapping torque when the bored hole size is made smaller to obtain higher thread height. Tapping torque gets larger as the efficient length of internal screw becomes longer because there is an increase in friction coefficient caused by spring back of workpiece material.
(3) Tapping process (tapping speed, lubricant, and rigidity of main spindle).
(4) Surface treatment of taps (oxidizing, nitriding, TiN, and TiCN coatings).

○Tapping Torque Equation for Forming Taps

Based on the tensile strength of workpiece material, we prepare following equation to obtain tapping torque of standard forming taps.
Condition : Effective length of internal screw is 1.5D. Thread height is 75%.

Tapping Torque Equation for Forming Taps

$$T = Kf \times Dc \times P^2/1000$$

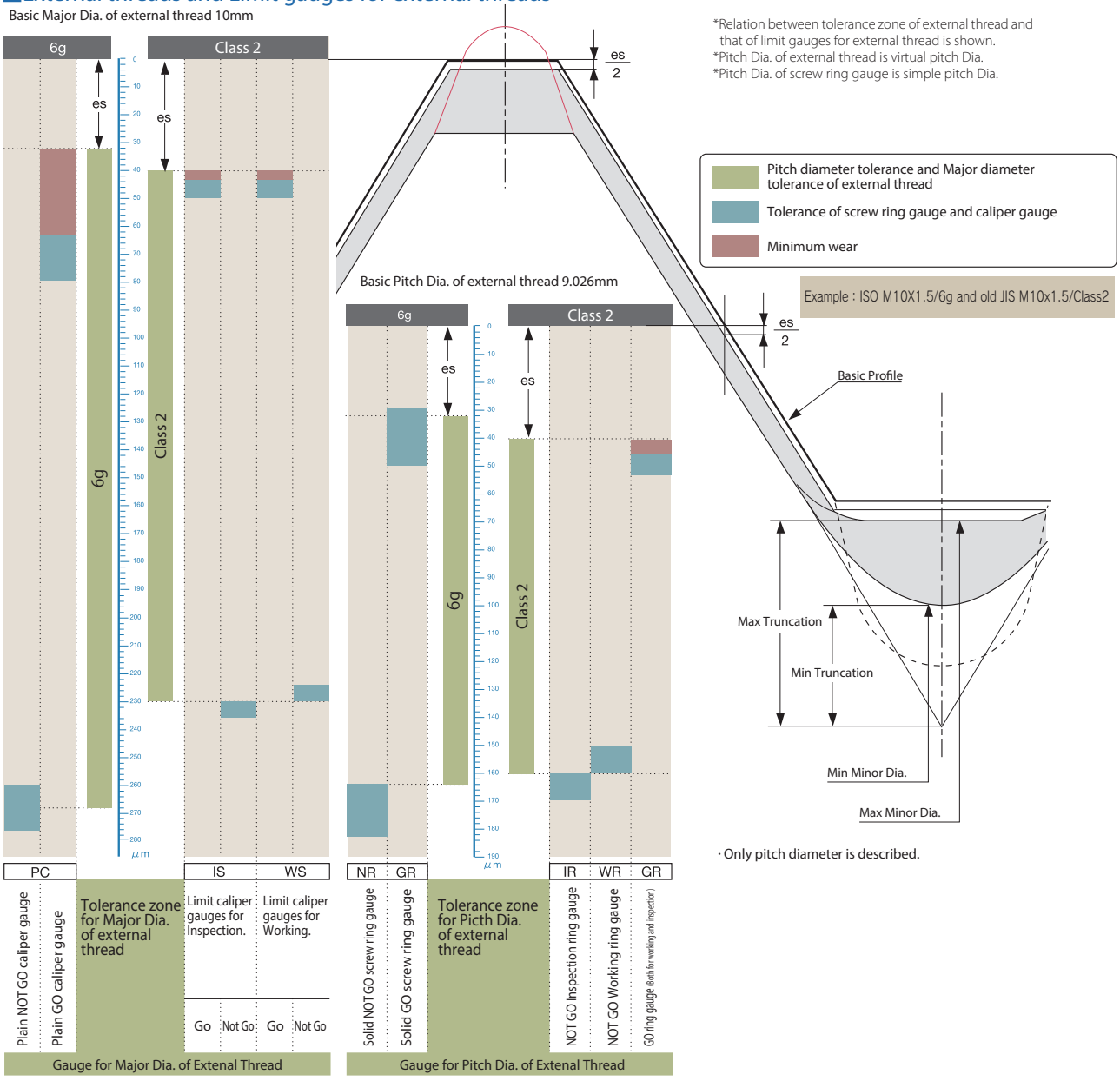
T : Tapping Torque (N-m)
Dc : Nominal Diameter of Tap (mm)
P : Pitch (mm)
Kf : Deforming resistance (N/mm^2)

Workpiece Materials	Deforming resistance (N/mm^2)
General Structure Steels, Low Carbon Steels	750～850
Medium Carbon Steels, Alloy Steels	1150～1350
Stainless Steels	1100～1300
Wrought Aluminum	250～350
Aluminum Die Castings	380～530
Coppers, Wrought Copper Alloys	750～1050

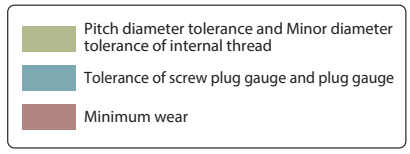
7. Metric Thread and Gauge Profile

Relation of tolerance position between screw thread classes and thread gauge classes in ISO(new JIS) and old JIS standard.

External threads and Limit gauges for external threads

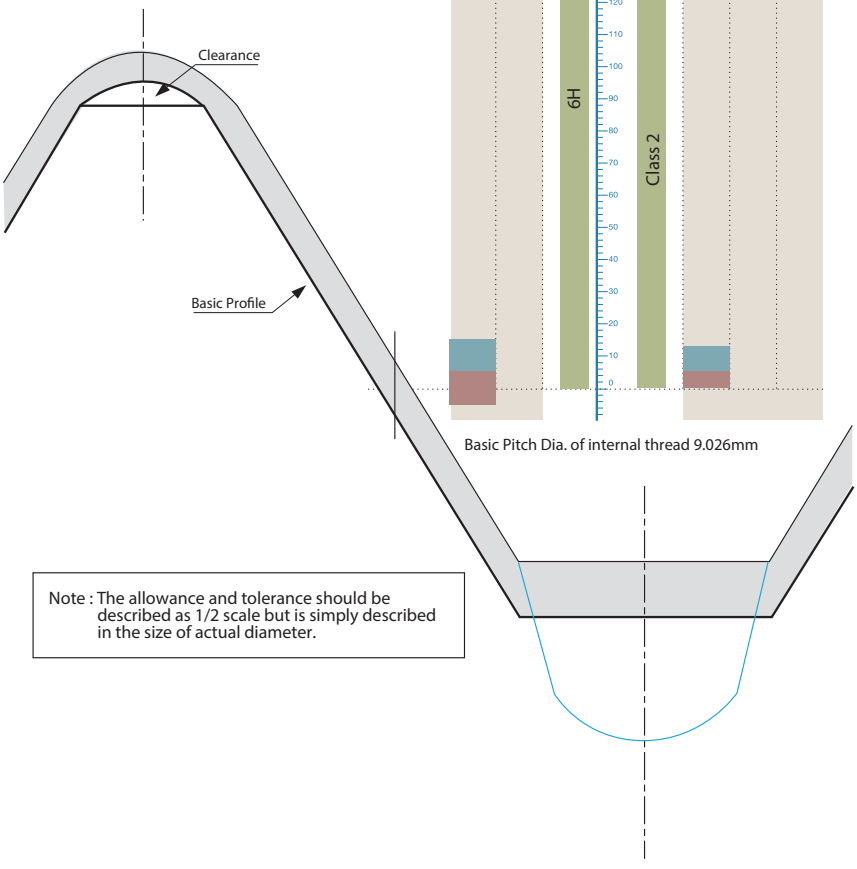


Internal threads and Limit gauges for internal threads

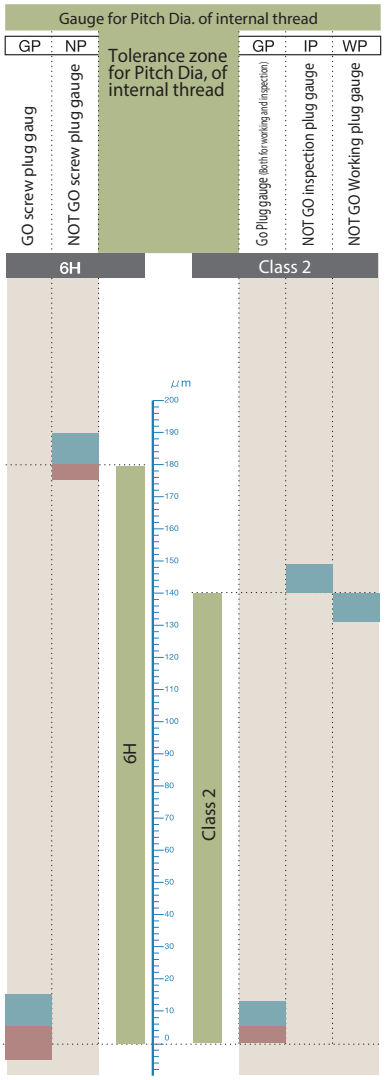


Example : ISO M10X1.5/6H and old JIS M10x1.5/Class2

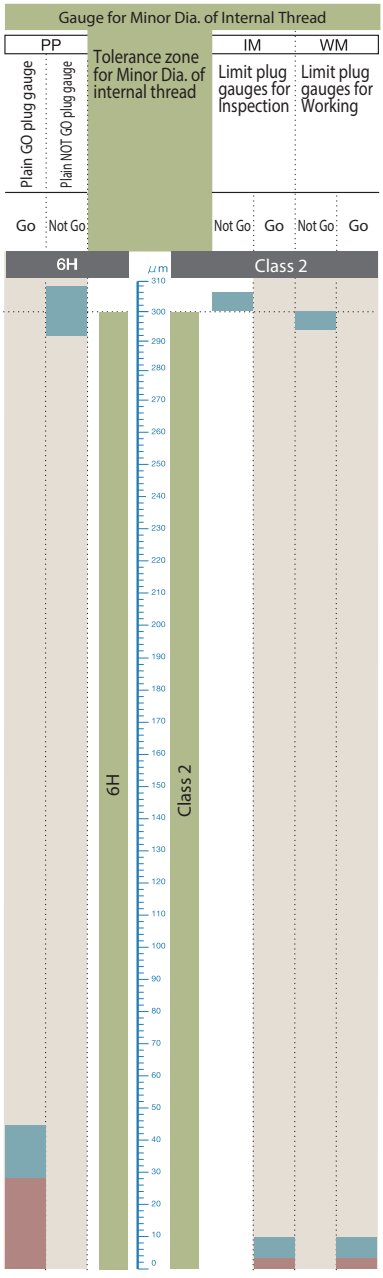
*Relation between tolerance zone of internal thread and that of limit gauges for internal thread is shown :
*Pitch diameter of internal thread is virtual pitch diameter.
*Pitch diameter of screw plug gauge is simple pitch diameter.



Note : The allowance and tolerance should be described as 1/2 scale but is simply described in the size of actual diameter.



Basic Pitch Dia. of internal thread 9.026mm



Basic Minor Dia. of internal thread 8.376mm

- Limit gauges for screw threads

JIS B 0251-2008 Limit gauges for metric screw threads

JIS B 0251-1975 Limit gauges for metric coarse screw threads Appendix

JIS B 0252-1996 Limit gauges for metric fine screw threads

JIS B 0253-1985 Gauges for taper pipe threads

JIS B 0254-1985 Gauges for parallel pipe threads

JIS B 0255-1975 Limit gauges for unified coarse screw threads

JIS B 0256-1975 Limit gauges for unified fine screw threads

8. Length of engagement

■Length of engagement

Thread tolerance class is chosen in consideration of "engagement classification" and "engagement length". To realize the stable tapping, it is necessary to fully understand the relation between these factors and to choose the suitable tolerance class.

On "engagement classification: middle", the tolerance class 6H is almost always chosen for standard internal threads. However, in case of "engagement length : L", tolerance class 7H can also be chosen.

On M12x1.75, the tolerance of 7H is 25% (50μm) larger than that of 6H. And this widens the selection range of the tolerance class for taps to customer's advantage.

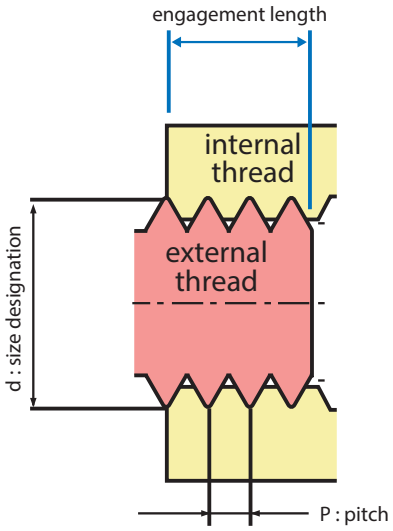
【M12x1.75】
6H Pitch diameter : 10.863 ~ 11.063mm (tolerance 0.200 mm)
7H Pitch diameter : 10.863 ~ 11.113mm (tolerance 0.250 mm)

1) Engagement classification

classification	application
fine	precise screw threads with a little allowance
middle	standard screw threads used for machines, apparatuses and constructions bodies
coarse	screw threads used for construction and building installation, and screw threads for which threading operation is very difficult such as threading of hot rolled steel bars.

2) Classification of engagement length

symbol	classification	limit size
S	short	up to and including $2.24Pd^{0.2}$
N	normal	over $2.24Pd^{0.2}$ up to and including $6.7Pd^{0.2}$
L	long	over $6.7Pd^{0.2}$



3) Selection rule of internal threads and external threads
Selection rule of the tolerance class of internal threads

tolerance position	H		
engagement length / engagement classification	S	N	L
fine	4H	5H	6H
middle	5H	6H	7H
coarse	-	7H	8H

Selection rule of the tolerance class of external threads

tolerance position	h			g		
engagement length / engagement classification	S	N	L	S	N	L
fine	(3h4h)	4h	(5h4h)	-	-	-
middle	(5h6h)	6h	(7h6h)	(5g6g)	6g	(7g6g)
coarse	-	-	-	-	8g	(9g8g)

4) Engagement length

Unit : mm

size	pitch	S	N		L
		up to and including	over	up to and including	over
M1	0.25	0.6	0.6	1.7	1.7
M1	0.2	0.5	0.5	1.4	1.4
M1.1	0.25	0.6	0.6	1.7	1.7
M1.1	0.2	0.5	0.5	1.4	1.4
M1.2	0.25	0.6	0.6	1.7	1.7
M1.2	0.2	0.5	0.5	1.4	1.4
M1.4	0.3	0.7	0.7	2	2
M1.4	0.2	0.5	0.5	1.4	1.4
M1.6	0.35	0.8	0.8	2.6	2.6
M1.6	0.2	0.5	0.5	1.5	1.5
M1.8	0.35	0.8	0.8	2.6	2.6
M1.8	0.2	0.5	0.5	1.5	1.5
M2	0.4	1	1	3	3
M2	0.25	0.6	0.6	1.9	1.9
M2.2	0.45	1.3	1.3	3.8	3.8
M2.2	0.25	0.6	0.6	1.9	1.9
M2.5	0.45	1.3	1.3	3.8	3.8
M2.5	0.35	0.8	0.8	2.6	2.6
M3	0.5	1.5	1.5	4.5	4.5
M3	0.35	1	1	3	3
M3.5	0.6	1.7	1.7	5	5
M3.5	0.35	1	1	3	3
M4	0.7	2	2	6	6
M4	0.5	1.5	1.5	4.5	4.5
M4.5	0.75	2.2	2.2	6.7	6.7
M4.5	0.5	1.5	1.5	4.5	4.5
M5	0.8	2.5	2.5	7.5	7.5
M5	0.5	1.5	1.5	4.5	4.5
M5.5	0.5	1.5	1.5	4.5	4.5
M6	1	3	3	9	9
M6	0.75	2.4	2.4	7.1	7.1
M7	1	3	3	9	9
M7	0.75	2.4	2.4	7.1	7.1
M8	1.25	4	4	12	12
M8	1	3	3	9	9
M8	0.75	2.4	2.4	7.1	7.1
M9	1.25	4	4	12	12
M9	1	3	3	9	9
M9	0.75	2.4	2.4	7.1	7.1

size	pitch	S	N		L
		up to and including	over	up to and including	over
M10	1.5	5	5	15	15
M10	1.25	4	4	12	12
M10	1	3	3	9	9
M10	0.75	2.4	2.4	7.1	7.1
M11	1.5	5	5	15	15
M11	1	3	3	9	9
M11	0.75	2.4	2.4	7.1	7.1
M12	1.75	6	6	18	18
M12	1.5	5.6	5.6	16	16
M12	1.25	4.5	4.5	13	13
M12	1	3.8	3.8	11	11
M14	2	8	8	24	24
M14	1.5	5.6	5.6	16	16
M14	1	3.8	3.8	11	11
M15	1.5	5.6	5.6	16	16
M15	1	3.8	3.8	11	11
M16	2	8	8	24	24
M16	1.5	5.6	5.6	16	16
M16	1	3.8	3.8	11	11
M17	1.5	5.6	5.6	16	16
M17	1	3.8	3.8	11	11
M18	2.5	10	10	30	30
M18	2	8	8	24	24
M18	1.5	5.6	5.6	16	16
M18	1	3.8	3.8	11	11
M20	2.5	10	10	30	30
M20	2	8	8	24	24
M20	1.5	5.6	5.6	16	16
M20	1	3.8	3.8	11	11
M22	2.5	10	10	30	30
M22	2	8	8	24	24
M22	1.5	5.6	5.6	16	16
M22	1	3.8	3.8	11	11
M24	3	12	12	36	36
M24	2	8.5	8.5	25	25
M24	1.5	6.3	6.3	19	19
M24	1	4	4	12	12

9. Classes of Internal Threads and Classes of Taps

1. YAMAWA P Class System

YAMAWA P Class system for thread limits is specified in accordance with JTA (The Japan Solid Cutting Tools' Association). Pitch diameter tolerance zones for normal size M1～M52 (U,W up to 2") are shown in the table below. Depending on pitch diameter tolerance and tolerance position, pitch diameter tolerance zones are classified into three types, A , B and C.
(1) A type : 15μm tolerance. The tolerance of P1, P2, P3… is defined as basic +10～+25μm, +25～+40μm, +40～+55μm and so on, respectively.
(2) B type : 20μm tolerance. The tolerance of P1, P2, P3… is defined as basic +0～+20μm, +20～+40μm, +40～+60μm and so on, respectively.
(3) C type : 40μm tolerance. The tolerance of P2, P3, P4… is defined as basic +0～+40μm, +20～+60μm, +40～+80μm and so on, respectively.
The pitch diameter tolerance zones are defined assuming that tolerance for type C is 40 μm and tolerance for type D type is 60 μm.
YAMAWA P class system is made in a step form. It can be used to select depending on the tapping conditions.

Pitch Tolerance zone for P Class with Nominal size and Pitch

Pitch \ Nominal Size		1≦D≦24	24<D≦30	30<D≦52	52<D≦96	96<D≦100
	TPI	D≦7/8	7/8<D≦1 1/4	1 1/4<D≦2	2<D≦3	–
P≦0.6	40≦n	A type	–	–	–	–
0.6<P≦1.75	12≦n<40	B type	B type	B type	B type	–
P=2	n=11	B type	B type	C type	C type	C type
2<P≦5	5≦n≦10	B type	C type	C type	C type	C type
P=5.5, P=6	n=4, n=4.5	–	–	–	D type	D type

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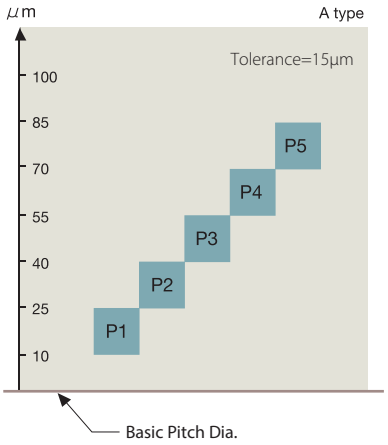
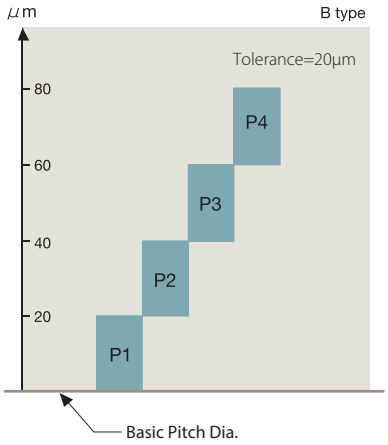
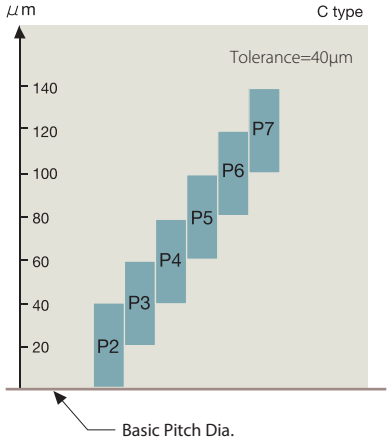
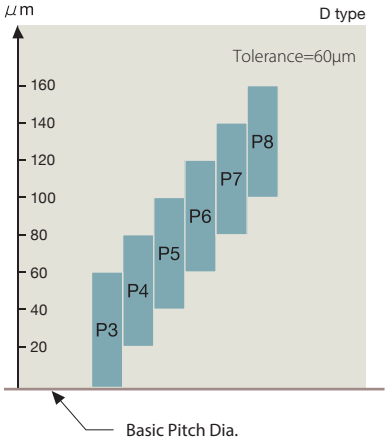




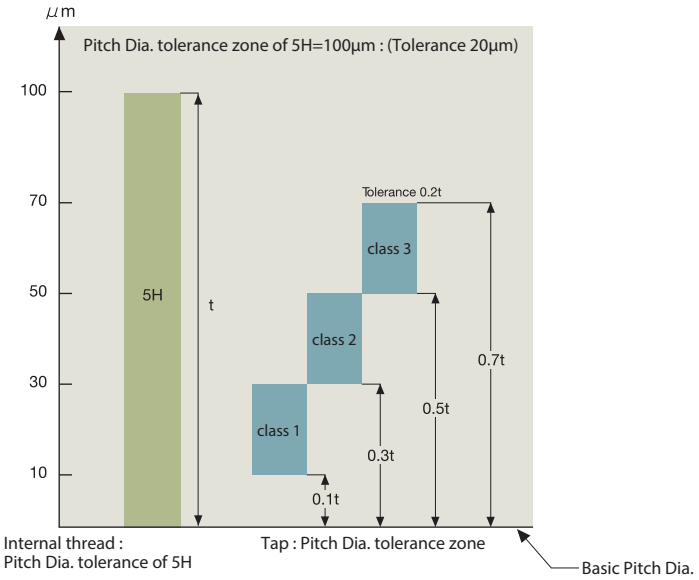




2. JIS Limit

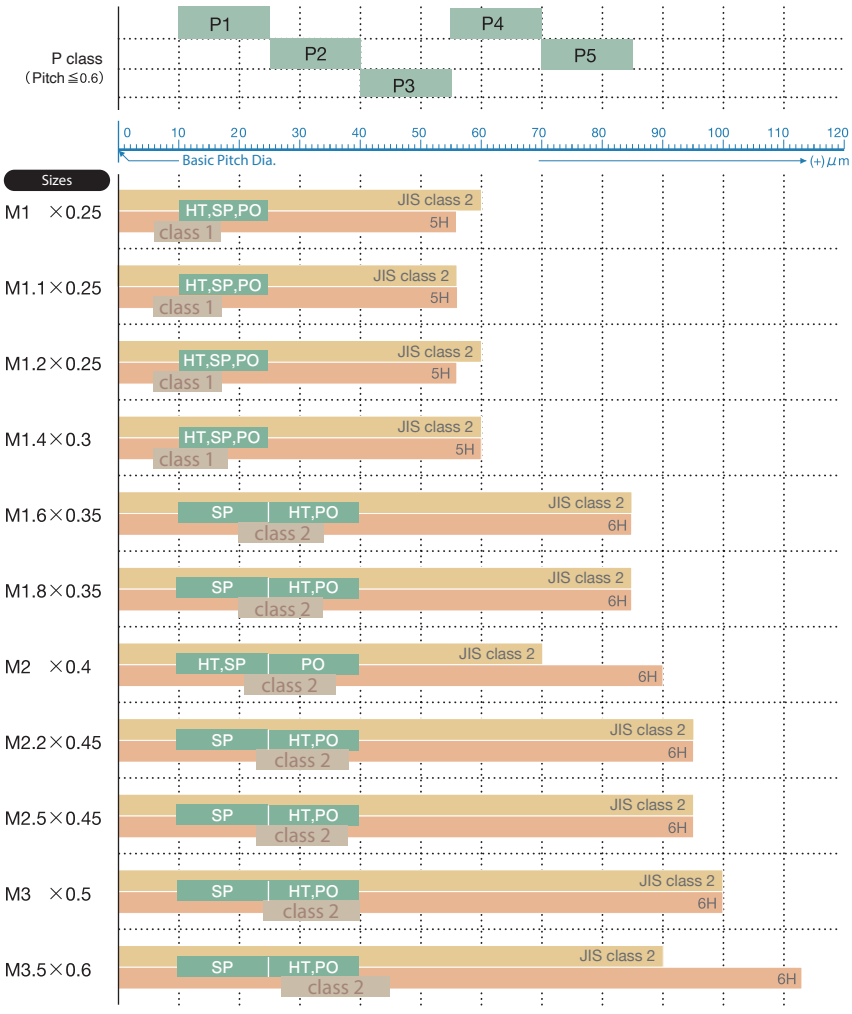
Thread limits of taps for metric threads : Today the thread limits of ISO2857 are specified in the main book of JIS, and those of old 1st class, 2nd class and 3rd class are specified in JIS Appendix. In the thread limits of 1st, 2nd and 3rd classes (old JIS), the pitch diameter tolerances change depending on nominal size and pitch even if the class is same. On the other hand, in the thread limit of ISO2857 (current JIS), the pitch diameter tolerance is same and only the tolerance position changes as far as the nominal size is same.

The tolerance, as shown in the next picture, is specified as X% of internal thread tolerance and it changes depending on nominal diameter and pitch. Thread classes of the main book of JIS will be said to be a system located in the middle of YAMAWA P class and old JIS class. To show clearly, thread limit classification is called Class 1, Class 2 and Class 3 in current JIS, and 1st class, 2nd class and3rd class in old JIS.



3. Comparison of pitch diameter tolerance zone for the classes of internal thread and tap.

Following graph shows :
In metric coarse threads
(1) Tap limit classes of YAMAWA P class.
(2) Pitch diameter tolerance zone of 2nd class (Tap) of JIS Appendix (old JIS) and that of class 2 (Tap) ＜class 1 for M1.4 and smaller＞of the main book of JIS (current JIS).
(3) Pitch diameter tolerance zone of old JIS 2nd class (Internal thread) and that of JIS 6Hclass (Internal thread) ＜5H class for M1.4 and smaller＞
(4) Pitch diameter tolerance zone of standard classes of YAMAWA P class.



P class
Pitch diameter tolerance zone of recommended class for YAMAWA P class

SP
Standard class of YAMAWA Spiral Fluted Tap

PO
Standard class of YAMAWA Spiral Pointed Tap

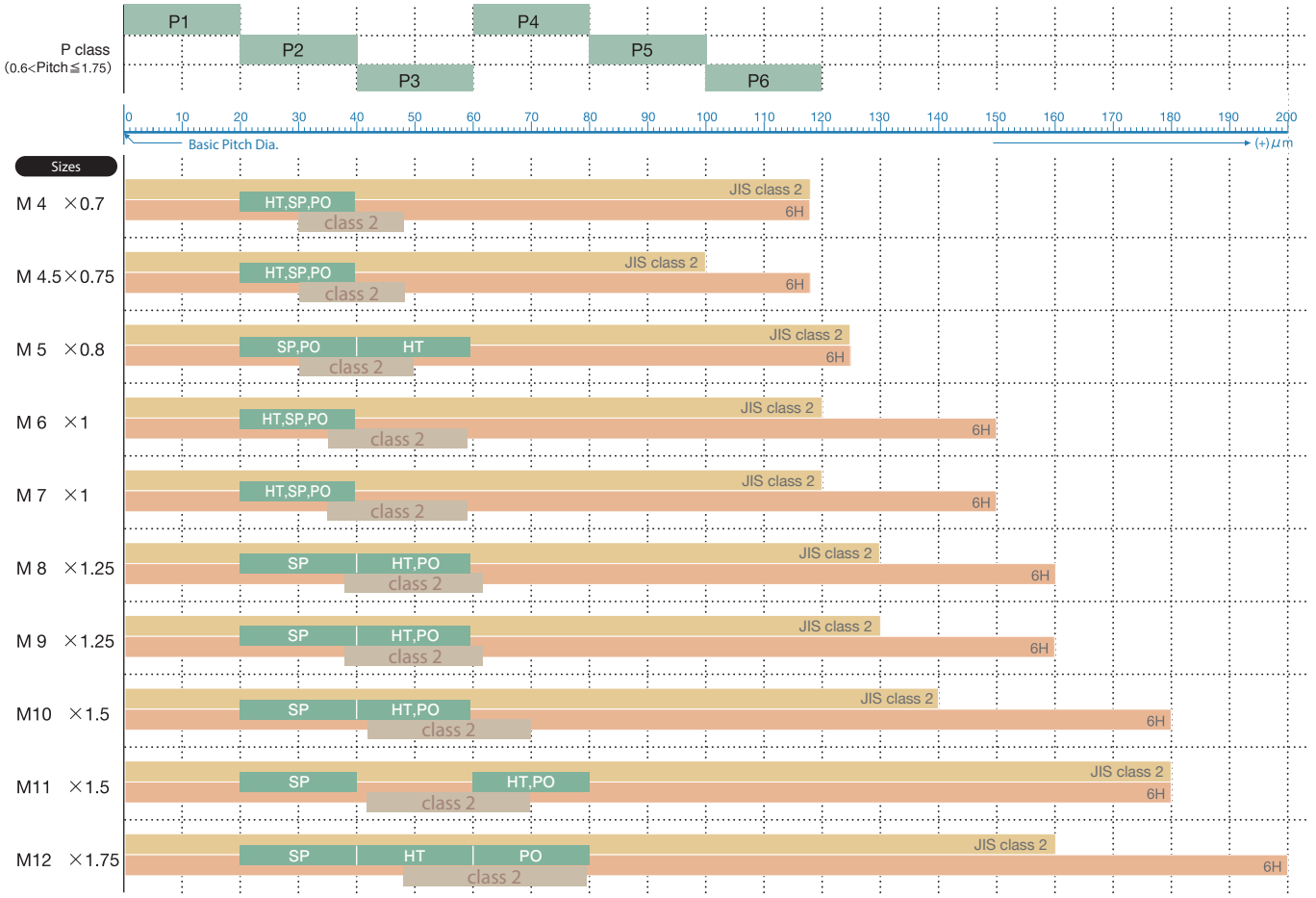
HT
Standard class of YAMAWA Spiral Hand Tap

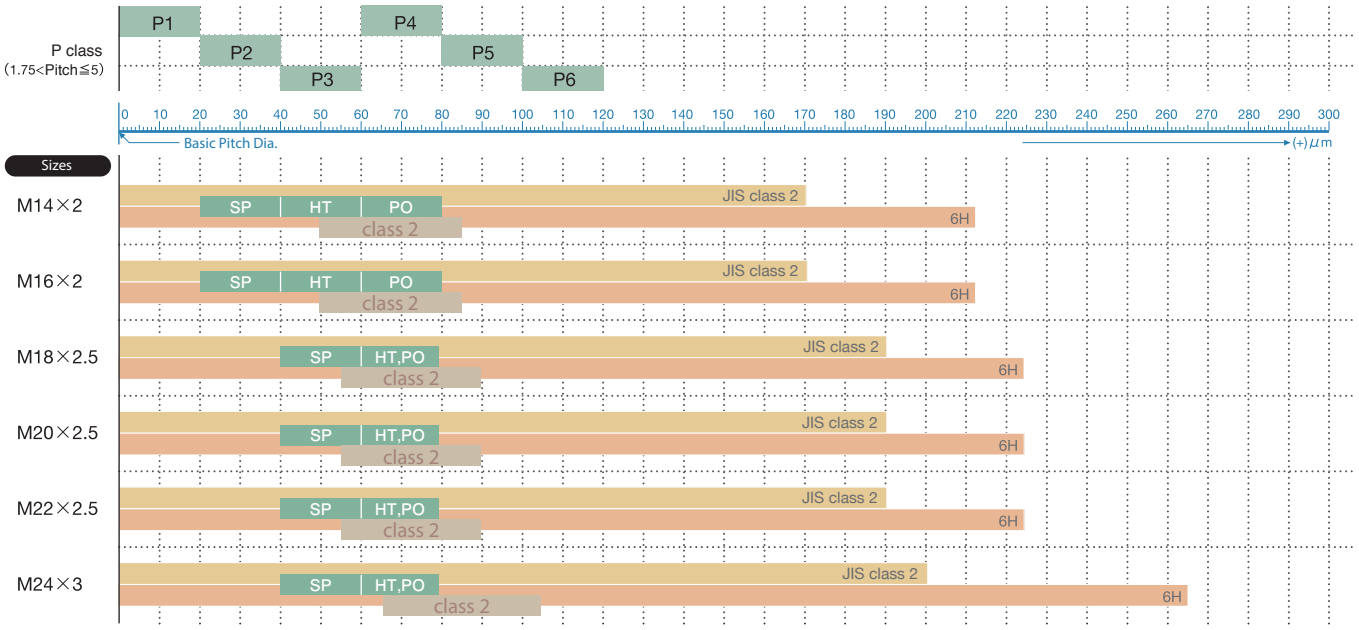
class
Pitch diameter tolerance zone of tap in the main book of JIS (current JIS).
Class 1 for M1.4 and smaller, class 2 for M1.6 and larger

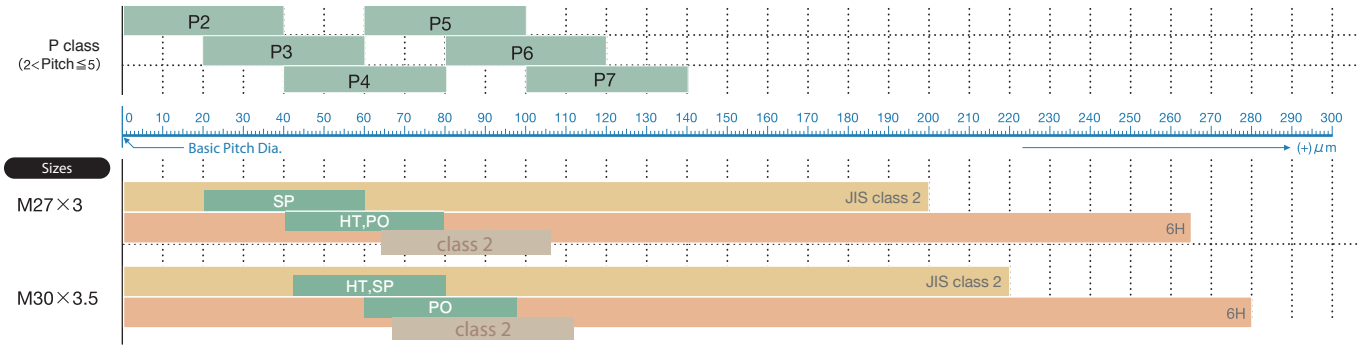
Pitch diameter tolerance zone of internal threads in old JIS class 2.

Pitch diameter tolerance zone of internal thread in current JIS (ISO)
Class 5H for M1.4 and smaller, class 6H for M1.6 and larger

9. Classes of Internal Threads and Classes of Taps







4. Standard Class and Oversize

The standard class of the tap which we have been manufacturing for general use is JIS 2nd class. This JIS 2nd class is basically defined as the thread limit of the tap which can cut the internal thread of old JIS 2nd class. With technical innovation such as various tap classification, high precision tapping machines, workpiece materials and diversity of workpieces' dimension, conventional products having JIS 2nd class could not always satisfy customers' requirement due to following situations.

(1) In cutting taps, the shape of flutes influences the thrust of axial direction. We explain about oversize cutting tendency caused by the thrust force of axial direction by referring to that of Straight fluted hand taps as a basic. Spiral pointed taps have little tendency of oversize cutting, but Spiral fluted taps have a tendency of oversize cutting.

(2) Due to the relation between pitch diameter of JIS 2nd class tap and that of GO thread plug gauge for the internal thread of old JIS 2nd class, if the cutting edge of tap wears normally, threads cut by the tap will become gauge out quickly resulting in short tool life.

(3) Due to the material or shape of workpiece, the material can shrink. In these cases, it would be better to use oversized taps to compensate for shrinkage after tapping.

(4) When plating is to be applied to internal threads after threading, we should use oversized taps to compensate for the thickness amount of plating.

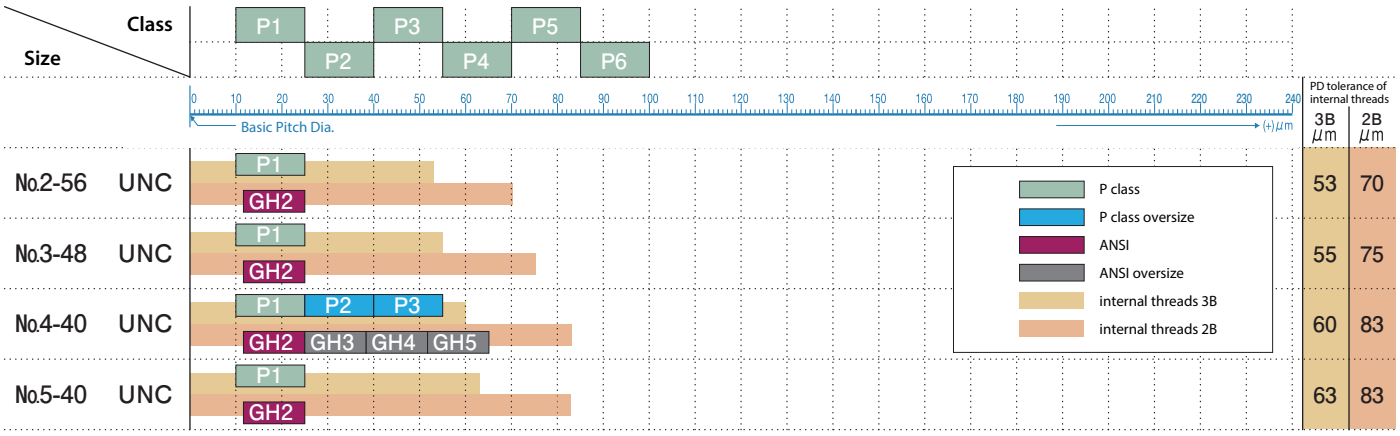
(5) Where little tendency of oversize cutting is expected, but large wear in tools is expected during tapping operation, it is better to consider using oversized taps as much as possible.

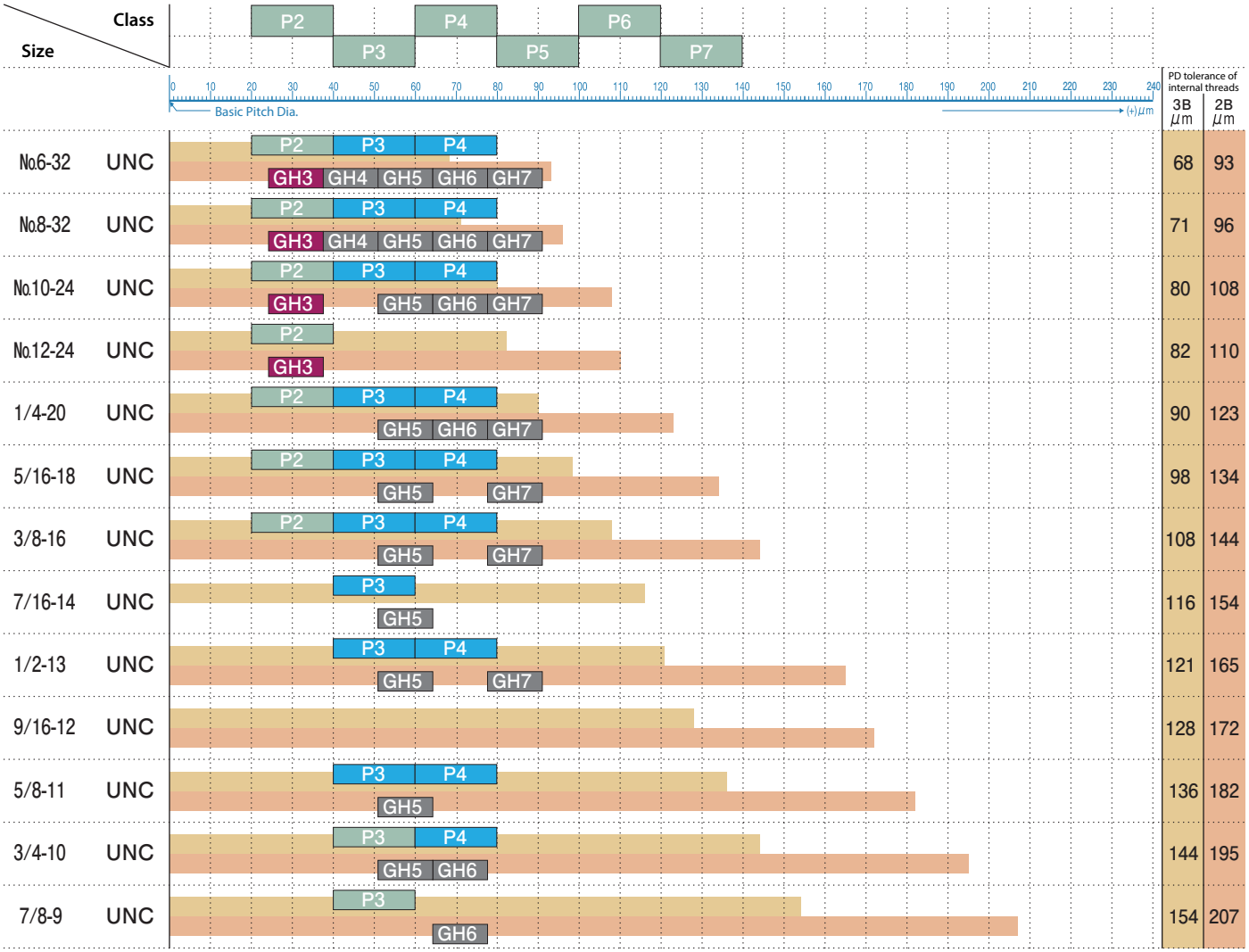
From these situations, in spiral pointed taps, spiral fluted taps and various types of special purpose taps, YAMAWA has adopted the P class limit system which is explained in previous pages. Depending on the type and designation of taps, YAMAWA has selected from the P class system the tap's thread limit which the tap manufacturer recommends for general tapping operation. From the reason of (1) stated above, even in the same tap designation, the recommendation for spiral pointed taps is different from that for spiral fluted taps. Especially in the standard products of spiral pointed taps and spiral fluted taps, YAMAWA has specified the recommendation differently in the relation to oversize cutting tendency. Oversize taps mean the taps of which thread limits are oversize above the recommendation. This is due to the reasons (3), (4) and (5) stated above. Usually for oversize taps, YAMAWA recommends the taps which thread tolerance classes are one or two steps above the standard recommendation.

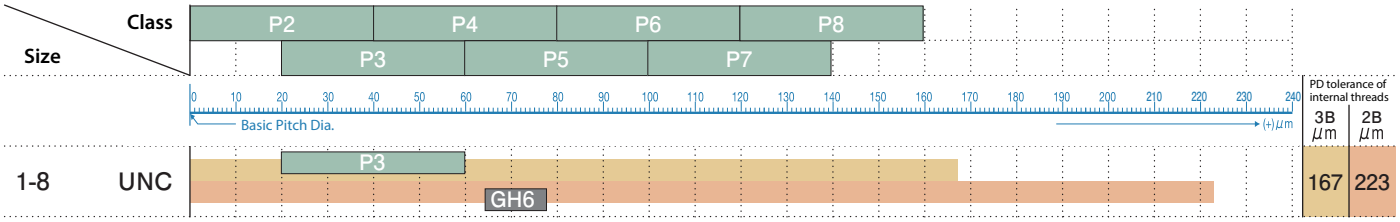
As you can see in the picture drawn in previous pages, the recommendation can be used for cutting JIS (ISO) 6H internal threads.

9. Classes of Internal Threads and Classes of Taps

5. Comparison of PD tolerances for tap classes for American market, for Yamawa P classes and for unified internal thread classes. (Comparison with SP tap)







Think threads with YAMAWA

10. About UNJ Threads

UNJ Threads are Unified Threads used for Aircrafts.

<Features of UNJ Threads>

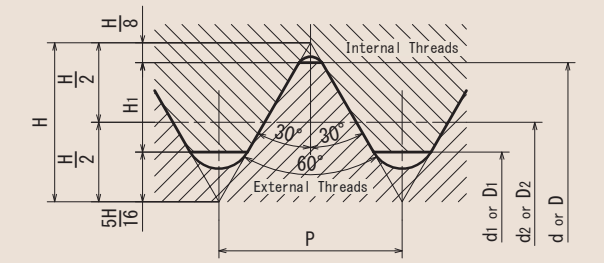
In order to protect the breakage from thread bottom of external threads, UNJ thread defines the minor diameter larger than Unified thread and the range of root bottom R.
And accuracy of threads is only defined in highest classes of unified threads, 3A of external threads and 3B of internal threads.
UNJ Threads were initially defined as a MIL Standard (American Military Standard). It is now superseded by American SAE Standard (Automobile Engineers Association).
Standard Numbers are as follows:

SAE AS8879D Screw Threads - UNJ Profile, Inch
Controlled Radius Root with Increased Minor Diameter

<Basic Profile of UNJ Thread>

Basic profile of UNJ thread is shown in the drawing below. Truncation on thread root of external threads is 5H/16, that is, H/16 larger than H/4 of normal Unified Thread's truncation. And radius of thread root is 0.18042P-0.15011P.

■ Basic Profile of UNJ Thread



H =0.866025P
H1 =9H/16
d2 =d-0.649519P
d1 =d-0.974278P

D =d
D2 =d2
D1 =d1
P =25.4/n
n =Threads per inch

【reference】
9H/16 =0.487139P
H/2 (8H/16) =0.433013P
5H/16 =0.270633P
H/8 (2H/16) =0.108253P

<Bored hole size>

Bored hole size is recommended to be a little larger than that for normal unified threads considering that the minor diameter of UNJ series is larger than that of normal Unified Threads.

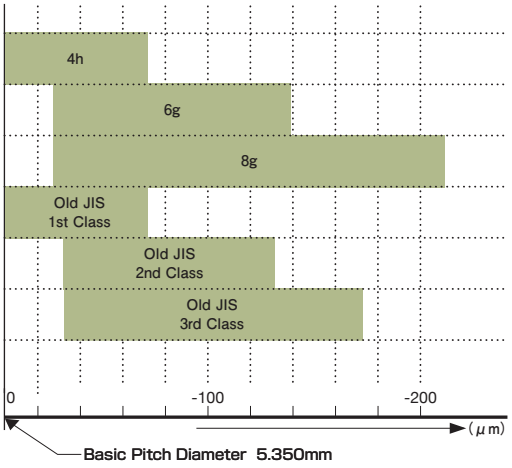
Unit : mm

Size	(Reference notation)	Minor Diameter		
		Maximum	Minimum	Bored Hole Size
0.1380-32 UNJC	No.6 - 32 UNJC	2.938	2.734	2.89
0.1380-40 UNJF	No.6 - 40 UNJF	3.053	2.888	3.01
0.1640-32 UNJC	No.8 - 32 UNJC	3.599	3.394	3.55
0.1640-36 UNJF	No.8 - 36 UNJF	3.662	3.480	3.62
0.1900-24 UNJC	No.10 - 24 UNJC	4.064	3.795	4.00
0.1900-32 UNJF	No.10 - 32 UNJF	4.254	4.054	4.20
0.2160-24 UNJC	No.12 - 24 UNJC	4.704	4.456	4.64
0.2160-28 UNJF	No.12 - 28 UNJF	4.815	4.603	4.76
0.2500-20 UNJC	1/4 - 20 UNJC	5.387	5.114	5.32
0.2500-28 UNJF	1/4 - 28 UNJF	5.661	5.467	5.61
0.3125-18 UNJC	5/16 - 18 UNJC	6.832	6.564	6.76
0.3125-24 UNJF	5/16 - 24 UNJF	7.109	6.907	7.06
0.3750-16 UNJC	3/8 - 16 UNJC	8.255	7.979	8.19
0.3750-24 UNJF	3/8 - 24 UNJF	8.679	8.494	8.63
0.4375-14 UNJC	7/16 - 14 UNJC	9.639	9.348	9.57
0.4375-20 UNJF	7/16 - 20 UNJF	10.083	9.876	10.03
0.5000-13 UNJC	1/2 - 13 UNJC	11.094	10.798	11.02
0.5000-20 UNJF	1/2 - 20 UNJF	11.661	11.464	11.61

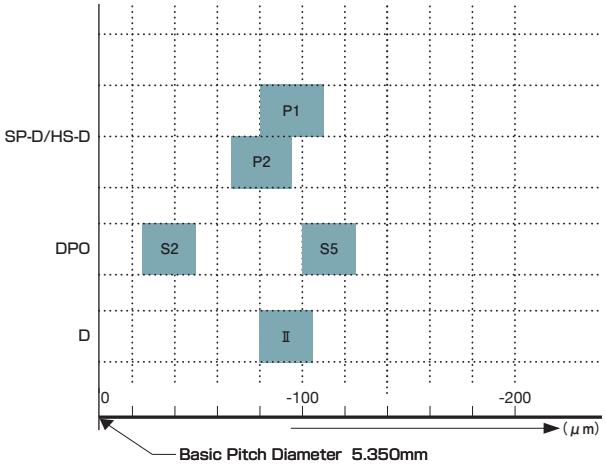
11. Class of external threads and class of Dies

■ Example : M6X1

Class of external threads



Class of Die



Class of Die shows pitch diameter tolerance of Testpiece External Threads cut by the die.

Dies type	Class of die	Application
SP-D / HS-D	P2	When the target is the middle of the tolerance of Class 2 or 6g external thread
	P1 (Standards)	When the target is the minimum limit size of Class 2 or 6g external thread
DPO	S5 (Standards)	For Class 2 or 6g external thread
	S2	For Class 1 or 4h external thread
D	Ⅱ	For Class 2 or 6g external thread

12. Guide to Thread Forming Taps (Roll Taps)

Thread Forming Taps are the tools used for producing internal threads by a thread forming process. Currently, YAMAWA's Thread Forming Taps have a good reputation by being used in large area. They are widely used along with the diversity of workpieces and with the change into miniaturization of workpieces. Followings are the characteristics and features of Thread Forming Taps (Roll Tap) which cutting type taps do not have.

<Features of Roll Taps>

○**Tapping without producing chips.** They are suitable for blind hole tapping. In producing internal threads with no chips, they save you a time for chip disposal.

○**Roll taps are stronger than cutting taps due to their design.** The effect of fluteless design gives a large cross-section area to the tap, and there is no worry of chip jamming, which makes Roll taps very tough against breakage.

○**Roll taps produce excellent pitch diameter well within pitch diameter tolerances.** Material deformation process produces the internal threads with good surface finish as well as precise pitch diameter.

○**High efficiency and tool life** The configuration of the lobes at the crests of the tap threads makes high speed tapping possible and extends tool life compared with cutting type taps. The addition of a supplemental tap surface treatment, such as Oxidizing, Nitriding, TiN, and TiCN can extend tool life 2 to 20 times over an uncoated (bright) tap performance.

<Points to note during a Roll tapping operation>

○Tapping torque is 2 to 3 times larger than that of cutting type taps.

○Roll tapping is only applicable to stringy materials.

○The deviation of hole size before tapping should be about 5% of pitch. The control of hole size before tapping should be more severe than that of cutting type taps.

○The selection of lubricants is important to prevent sticking or welding.

○Burrs at the face of an internal thread are larger than those produced by cutting type taps. In some cases it is necessary to take additional counter-sink processing at the top of hole.

○In the minor diameter of internal thread, U-shape form (Tine form) at the hole entrance can be seen. U-shape form is never seen when using cutting type taps.

<Selection of YAMAWA Roll Taps>

○**Types of Roll Taps** YAMAWA produces various types of Roll Taps which include General purpose taps, Special purpose taps for non-ferrous and steel, as well as special purpose taps with surface treatment for the specified applications. To provide for longer tool life, specially developed premium materials are also used together with physical vapor deposition (PVD) such as TiN and TiCN. In particular, OL-RZ is superior product developed for dry machining with good regards to tapping environment and performance.

○**Tap Materials** YAMAWA's standard tap material is SKH58 designed for improving torque, superior anti-friction properties as well as toughness. To extend tool life, we use SKH56, or SKH10(Powder HSS) which is the best tap material for antifriction.

○**Tolerance Class** Using the datum 12.7μm in a step form, in accordance with ANSI standard GH class, we made up YAMAWA's G class system. The differences in materials being Roll tapped, as well as hole size, contribute to differences in thread forming. YAMAWA offers 2 to 3 oversized tap tolerance classes in order to achieve the most suitable internal thread pitch diameter size.

○**Chamfer length** Chamfer lengths : 2 pitches for blind hole use and 4 pitches for through hole use. Basically 4 pitches have longer tool life than 2 pitches because force applied on one blade at 4 pitch chamfer is smaller than that at 2 pitch chamfer. However, it is difficult to say about tool life in a few words because each different tapping condition influences the tool life.

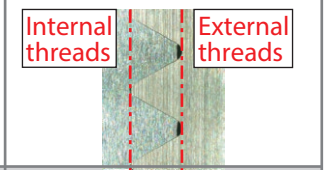
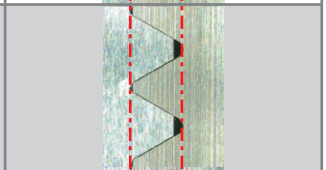
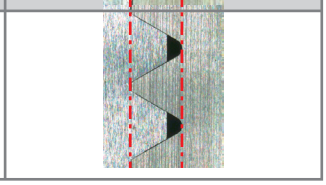
<Shape of internal threads and the ratio of thread engagement affected by bored hole diameter>

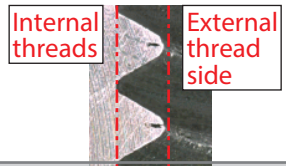
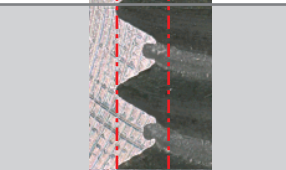
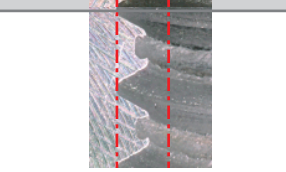
Compared with the basic height of thread engagement, the actual height of the thread engagement is called "thread engagement ratio" in percentage.

Depending on the bored hole diameter, internal threads and thread engagement ratio will change.

In tapping, the tapping condition must be chosen by referring to the thread engagement ratio.

In tapping, it can reduce cutting space and forming space to make bored hole diameters as large as possible. This, through reducing the load on taps, can restrict tap's wear and damage.

S50C, minor diameter of threads cut M24x3 minor dia. tolerance of internal threads ϕ20.752~ϕ21.252	
【S50C internal threads cut ①】 M24x3 bored hole size : ϕ20.652 minor dia. tolerance of internal threads NG thread engagement ratio : 103.1%	
【S50C internal threads cut ③】 M24x3 bored hole size : ϕ21.000 minor dia. tolerance of internal threads: Middle thread engagement ratio : 92.4%	
【S50C internal threads cut ⑤】 M24x3 bored hole size : ϕ21.352 minor dia. tolerance of internal threads NG thread engagement ratio : 81.5%	

Aluminum, minor diameter of threads formed M25x2 minor dia. tolerance of internal threads ϕ22.835~ϕ23.210	
【Aluminum, internal threads formed ①】 M25x2 bored hole size : ϕ23.903 minor diameter of finished internal threads : 22.723mm minor dia. tolerance of internal threads NG thread engagement ratio : 105.2%	
【Aluminum, internal threads formed ③】 M25x2 bored hole size : ϕ24.042mm minor diameter of finished internal threads : 23.067mm minor dia. tolerance of internal threads : Middle thread engagement ratio : 89.3%	
【Aluminum, internal threads formed ⑤】 M25x2 bored hole size : ϕ24.240mm minor diameter of finished internal threads : 23.462mm minor dia. tolerance of internal threads NG thread engagement ratio : 71.0%	

12. Guide to Threads Forming Taps (Roll Taps)

<Condition of use>

○Relation between tapping speed and tapping lubricant depending on work materials.

Work Material		Tapping Speed (m/min)	Tapping lubricant
Aluminum and Aluminum Alloy	Die Cast Materials	15～25	Not water soluble N1 type 4 issue Not water soluble N3 type 8 issue
	Cold Drawn, Cold Forged, Cast	25～35	
Zinc and Zinc Alloy	Die Cast Materials	15～25	
	Cold Drawn, Cold Forged, Cast	25～35	
Copper	Cold Forged, Cast	25～35	
Brass	Cold Drawn, Cold Forged	25～35	
Steel	Mild Steel, Medium Carbon Steel, Stainless Steel	6～15	Not water soluble N3 type 8 issue Not water soluble N4 type 8 issue
	Free Cutting Steel, Soft Magnetic Iron	15～25	

Note : It is necessary to carefully select a suitable tapping speed taking into consideration : machining conditions, style of tap, number of tap chamfered threads, work piece design, material being tapped, hole condition and type of tapping fluid.

<Accuracy of roll taps>

■YAMAWA G class system Thread Forming Taps

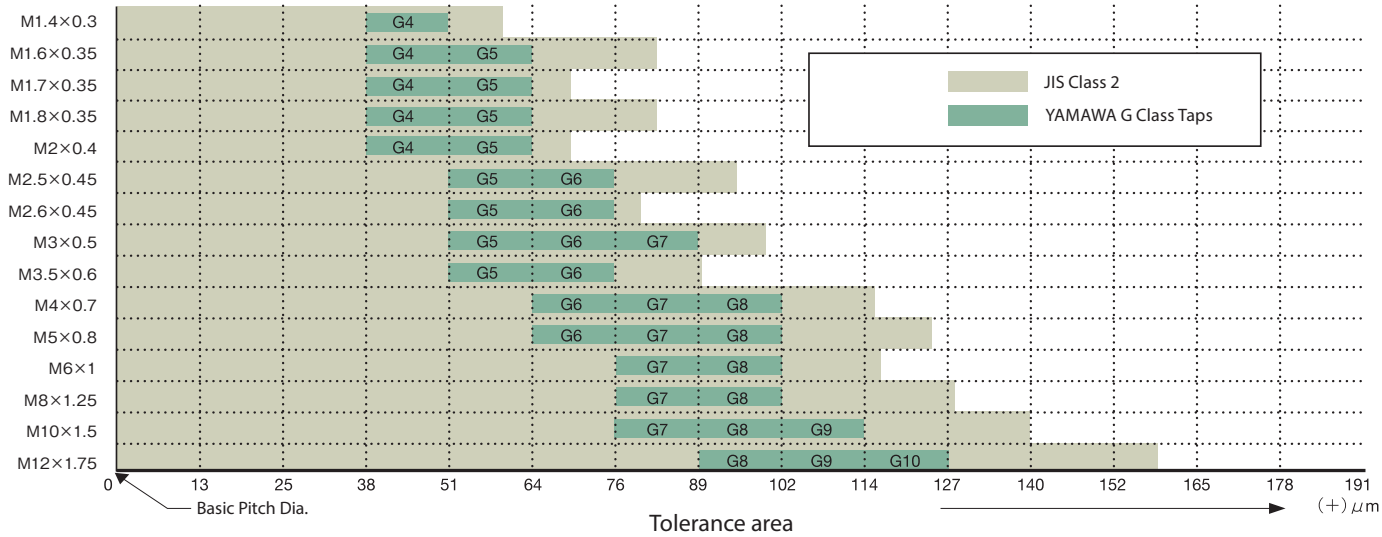
○YAMAWA G class system is made by using the datum 0.0005 inch (12.7μm) in a step form in accordance with ANSI standard GH class.

○The upper deviation of G class is decided by rounding off the grade No.× 12.7 to 1 decimal.

○The lower deviation of G class is specified in the same upper tolerance of one lower step.

○The tolerances are either 12 μm or 13μm.

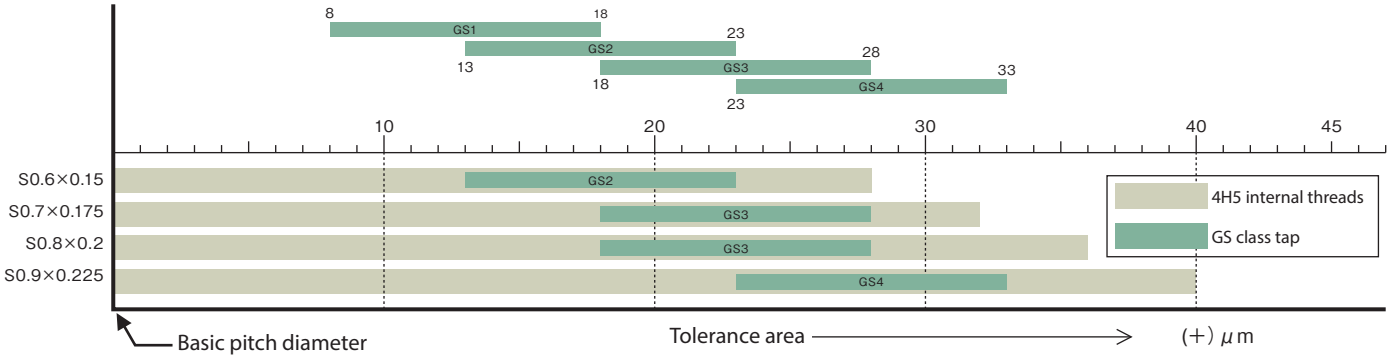
■Comparison of pitch diameter tolerance zone between class 2 internal threads and recommended Roll Taps G Class.



■Roll taps for miniature threads, Accuracy GS class

○GS class is the accuracy class special for roll taps for miniature threads.

Comparison table of PD tolerance of GS class of roll taps for miniature threads and 4H5 internal threads.



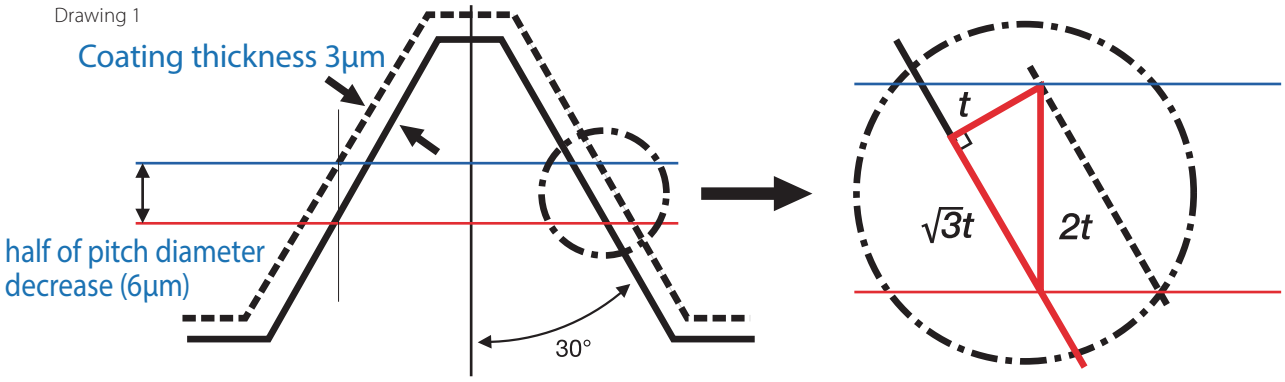
13. How to set the tap's oversize to meet with the coating margin of internal threads

1) Relation between coating thickness and pitch diameter when applied with coating

Dwg.1 shows the relation between coated internal thread and pitch diameter

* Thickness of coating is measured at right angle to flank face. Pitch diameter is measured at right angle to axis (radially).

Drawing 1

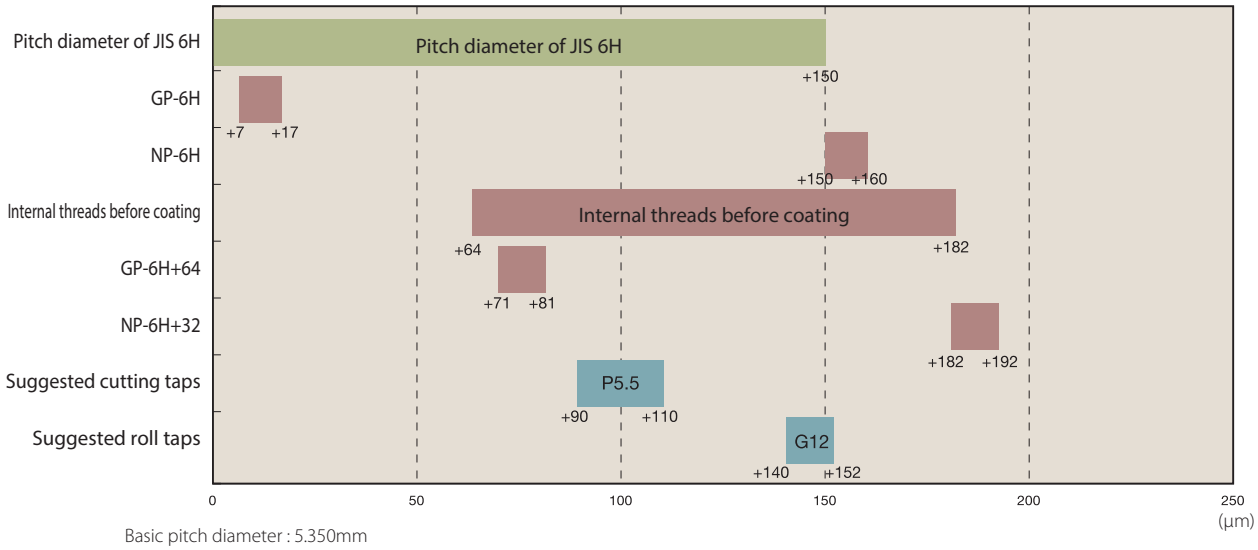


Where t (coating thickness) equals 3μm, by using following formula, oversize is roughly calculated.
Pitch diameter decrease 2t×2 (both side of threads) = 3μm×2×2 =12 μm (rough over size)

2) How to specify taps for coating

1. We suppose the accuracy of finished internal threads is 6H class, and inspection is done with GP-6H and NP-6H.
2. We suppose the disperse of coating thickness is controlled within the tolerance of 8~16μm.
   The disperse of coating thickness, when it is exchanged into pitch diameter, will become the disperse of 32~64μm.
3. Accuracy of internal threads before coating is the thread accuracy which GP-6H goes through (OK), even when max coating (64μm) is applied.
   And this accuracy is the thread accuray which NP-6H does not go through (OK), when min coating (32μm) is applied.
4. We propose followings for inspecting the accuracy of internal threads before coating :
   GO gauge before coating : GP-6H+64
5. Next, based on GO gauge before coating and NOT GO gauge before coating, we study to specify the suitable accuracy of the tap before coating.

M6×1 How to specify the accuracy of tap before coating (Coating thickness 8~16μm)



Basic pitch diameter : 5.350mm

M6×1 Basic pitch diameter	: 5.350mm		
Internal thread tolerance 6H	: 0~+150μm (Tolerance : 150μm)		
Accuracy GP-6H	: +7~+17μm	Accuracy NP-6H	: +150~+160μm
Internal thread tolerance before coating	: +64~+182μm (Tolerance : 118μm)		
Accuracy GP-6H+64	: +71~+81μm	Accuracy NP-6H+32	: +182~+192μm
Accuracy of suggested cutting taps (P5.5)	: +90~+110μm		
Accuracy of suggested roll taps (G12)	: +140~+152μm		

14. Tap, Thread Limits

for Metric Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
M1 ×0.25	P1	1.000	0.838	25	10	0.729
	G4			51	38	
	ISO2			28	17	
M1 ×0.2	P1	1.000	0.870	25	10	0.783
M1.1 ×0.25	P1	1.100	0.938	25	10	0.829
	ISO2			28	17	
M1.1 ×0.2	P1	1.100	0.970	25	10	0.883
M1.2 ×0.25	P1	1.200	1.038	25	10	0.929
	ISO2			28	17	
M1.2 ×0.2	P1	1.200	1.070	25	10	0.983
M1.4 ×0.3	P1	1.400	1.205	25	10	1.075
	G4			51	38	
	ISO2			30	18	
M1.4 ×0.2	P1	1.400	1.270	25	10	1.183
M1.6 ×0.35	P2	1.600	1.373	40	25	1.221
	G4			51	38	
	ISO2			34	20	
	D3			39	24	
M1.6 ×0.2	P1	1.600	1.470	25	10	1.383
M1.7 ×0.35	P1	1.700	1.473	25	10	1.321
	G4			51	38	
	ISO2			34	20	
M1.7 ×0.2	P1	1.700	1.570	25	10	1.483
M1.8 ×0.35	P2	1.800	1.573	40	25	1.421
	G4			51	38	
	ISO2			34	20	
	D3			39	24	
M1.8 ×0.2	P1	1.800	1.670	25	10	1.583
M2 ×0.4	P1	2.000	1.740	25	10	1.567
	Ⅱb			20	5	
	G4			51	38	
	ISO2			36	21	
	D3			39	24	
M2 ×0.25	P1	2.000	1.838	25	10	1.729
M2.2 ×0.45	P2	2.200	1.908	40	25	1.713
	G5			64	51	
	ISO2			38	23	
	D3			39	24	
M2.2 ×0.25	P1	2.200	2.038	25	10	1.929
M2.3 ×0.4	P1	2.300	2.040	25	10	1.867
	Ⅱb			20	5	
	G4			51	38	
	ISO2			36	21	
M2.3 ×0.25	P1	2.300	2.138	25	10	2.029
M2.5 ×0.45	P2	2.500	2.208	40	25	2.013
	Ⅱb			20	5	
	G5			64	51	
	ISO2			38	23	
	D3			39	24	
M2.5 ×0.35	P1	2.500	2.273	25	10	2.121
M2.6 ×0.45	P1	2.600	2.308	25	10	2.113
	Ⅱb			20	5	
	G5			64	51	
	ISO2			38	23	
M2.6 ×0.35	P1	2.600	2.373	25	10	2.221
M3 ×0.5	P2	3.000	2.675	40	25	2.459
	Ⅱb			20	5	
	G5			64	51	
	ISO2			40	24	
	D3			39	24	
M3 ×0.6	P1	3.000	2.610	25	10	2.350
M3 ×0.35	P2	3.000	2.773	40	25	2.621
	G5			64	51	
	ISO2			36	21	
M3.5 ×0.6	P2	3.500	3.110	40	25	2.850
	Ⅱb			20	5	
	G5			64	51	
	ISO2			45	27	
	D4			52	32	
M3.5 ×0.35	P2	3.500	3.273	40	25	3.121
	G5			64	51	
	ISO2			36	21	
M4 ×0.7	P2	4.000	3.545	40	20	3.242
	Ⅱb			25	5	
	G6			76	64	
	ISO2			48	29	
	D4			52	32	
M4 ×0.75	P2	4.000	3.513	40	20	3.188
M4 ×0.5	P2	4.000	3.675	40	25	3.459
	G6			76	64	
	ISO2			40	24	

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
M4.5 × 0.75	P2	4.500	4.013	40	20	3.688
M4.5 × 0.5	P2	4.500	4.175	40	25	3.959
	G6			76	64	
	ISO2			40	24	
M5 × 0.8	P3	5.000	4.480	60	40	4.134
	Ⅱb			25	5	
	G6			76	64	
	ISO2			50	30	
	D4			52	32	
M5 × 0.9	P2	5.000	4.415	40	20	4.026
M5 × 0.75	P2	5.000	4.513	40	20	4.188
M5 × 0.5	P2	5.000	4.675	40	25	4.459
	G6			76	64	
	ISO2			40	24	
M5.5 × 0.75	P2	5.500	5.013	40	20	4.688
M5.5 × 0.5	P2	5.500	5.175	40	25	4.959
	ISO2			40	24	
M6 × 1	P2	6.000	5.350	40	20	4.917
	Ⅱb			25	5	
	G7			89	76	
	ISO2			59	35	
	D5			65	40	
M6 × 0.75	P2	6.000	5.513	40	20	5.188
	Ⅱ			30	10	
	G6			76	64	
	ISO2			53	32	
M6 × 0.5	P2	6.000	5.675	40	25	5.459
	G6			76	64	
	ISO2			40	27	
M7 × 1	P2	7.000	6.350	40	20	5.917
	G7			89	76	
	ISO2			59	35	
	D5			65	40	
M7 × 0.75	P2	7.000	6.513	40	20	6.188
	G7			89	76	
	ISO2			53	32	
M7 × 0.5	P2	7.000	6.675	40	25	6.459

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
M8 × 1.25	P3	8.000	7.188	60	40	6.647
	Ⅱb			30	5	
	G7			89	76	
	ISO2			63	38	
	D5			65	34	
M8 × 1	P2	8.000	7.350	40	20	6.917
	Ⅱ			35	10	
	G7			89	76	
	ISO2			59	35	
	D5			65	40	
M8 × 0.75	P2	8.000	7.513	40	20	7.188
	Ⅱ			37	12	
	G7			89	76	
	ISO2			53	32	
M8 × 0.5	P2	8.000	7.675	40	25	7.459
	ISO2			40	27	
M9 × 1.25	P3	9.000	8.188	60	40	7.647
	ISO2			63	38	
M9 × 1	P2	9.000	8.350	40	20	7.917
	ISO2			59	35	
M9 × 0.75	P2	9.000	8.513	40	20	8.188
	ISO2			53	32	
M9 × 0.5	P2	9.000	8.675	40	25	8.459
M10 × 1.5	P3	10.000	9.026	60	40	8.376
	Ⅱb			30	5	
	G7			89	76	
	ISO2			70	42	
	D6			78	47	
M10 × 1.25	P3	10.000	9.188	60	40	8.647
	Ⅱ			35	10	
	G7			89	76	
	ISO2			63	38	
	D5			65	34	
M10 × 1	P3	10.000	9.350	60	40	8.917
	Ⅱ			37	12	
	G7			89	76	
	ISO2			59	35	
M10 × 0.75	P3	10.000	9.513	60	40	9.188
	ISO2			53	32	
M10 × 0.5	P2	10.000	9.675	40	25	9.459
	ISO2			40	27	

for Metric Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
M 11 ×1.5	P4	11.000	10.026	80	60	9.376
	ISO2			70	42	
M 11 ×1.25	P3	11.000	10.188	60	40	9.647
M 11 ×1	P3	11.000	10.350	60	40	9.917
	ISO2			59	35	
M 11 ×0.75	P3	11.000	10.513	60	40	10.188
M 11 ×0.5	P2	11.000	10.675	40	25	10.459
M 12 ×1.75	P3	12.000	10.863	60	40	10.106
	Ⅱb			35	5	
	G8			102	89	
	ISO2			80	48	
	D6			78	47	
M 12 ×1.5	P3	12.000	11.026	60	40	10.376
	Ⅱ			45	15	
	G8			102	89	
	ISO2			75	45	
M 12 ×1.25	P4	12.000	11.188	80	60	10.647
	Ⅱ			45	15	
	G9			114	102	
	ISO2			70	42	
	D6			78	47	
M 12 ×1	P3	12.000	11.350	60	40	10.917
	Ⅱ			45	15	
	ISO2			63	38	
M 12 ×0.75	P3	12.000	11.513	60	40	11.188
	ISO2			56	34	
M 12 ×0.5	P2	12.000	11.675	40	25	11.459
M 13 ×1.75	P3	13.000	11.863	60	40	11.106
M 13 ×1.5	P3	13.000	12.026	60	40	11.376
M 13 ×1.25	P4	13.000	12.188	80	60	11.647
M 13 ×1	P3	13.000	12.350	60	40	11.917
M 13 ×0.75	P3	13.000	12.513	60	40	12.188
M 13 ×0.5	P2	13.000	12.675	40	25	12.459
M 14 ×2	P3	14.000	12.701	60	40	11.835
	Ⅱb			35	5	
	G10			127	114	
	ISO2			85	51	
	D7			91	50	
M 14 ×1.5	P3	14.000	13.026	60	40	12.376
	Ⅱ			45	15	
	G9			114	102	
	ISO2			75	45	
	D7			91	60	
M 14 ×1.25	P4	14.000	13.188	80	60	12.647
	ISO2			70	42	
M 14 ×1	P3	14.000	13.350	60	40	12.917
	G9			114	102	
	ISO2			63	38	
M 14 ×0.75	P3	14.000	13.513	60	40	13.188
M 14 ×0.5	P2	14.000	13.675	40	25	13.459
M 15 ×2	P3	15.000	13.701	60	40	12.835
M 15 ×1.5	P3	15.000	14.026	60	40	13.376
M 15 ×1.25	P4	15.000	14.188	80	60	13.647
M 15 ×1	P3	15.000	14.350	60	40	13.917
M 15 ×0.75	P3	15.000	14.513	60	40	14.188
M 15 ×0.5	P2	15.000	14.675	40	25	14.459
M 16 ×2	P3	16.000	14.701	60	40	13.835
	Ⅱb			35	5	
	G10			127	114	
	ISO2			85	51	
	D7			91	50	
M 16 ×1.5	P3	16.000	15.026	60	40	14.376
	Ⅱ			45	15	
	G9			114	102	
	ISO2			75	45	
	D6			78	47	
M 16 ×1.25	P4	16.000	15.188	80	60	14.647
	ISO2			75	45	
M 16 ×1	P3	16.000	15.350	60	40	14.917
	G8			102	89	
	ISO2			75	45	
M 16 ×0.5	P2	16.000	15.675	40	25	15.459
M 17 ×1.5	P4	17.000	16.026	80	60	15.376
M 17 ×1	P3	17.000	16.350	60	40	15.917

Think threads with YAMAWA

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
M 18 ×2.5	P4	18.000	16.376	80	60	15.294
	Ⅱb			40	5	
	ISO2			90	54	
	D7			91	50	
M 18 ×2	P4	18.000	16.701	80	60	15.835
	ISO2			85	51	
M 18 ×1.5	P3	18.000	17.026	60	40	16.376
	Ⅱ			45	15	
	G9			114	102	
	ISO2			75	45	
	D6			78	47	
M 18 ×1	P3	18.000	17.350	60	40	16.917
	ISO2			63	38	
M 18 ×0.5	P2	18.000	17.675	40	25	17.459
M 19 ×1.5	P3	19.000	18.026	60	40	17.376
M 19 ×1	P3	19.000	18.350	60	40	17.917
M 20 ×2.5	P4	20.000	18.376	80	60	17.294
	Ⅱb			40	5	
	G11			140	127	
	ISO2			90	54	
	D7			91	50	
M 20 ×2	P4	20.000	18.701	80	60	17.835
	ISO2			85	51	
M 20 ×1.5	P3	20.000	19.026	60	40	18.376
	Ⅱ			50	15	
	G10			127	114	
	ISO2			75	45	
	D6			78	47	
M 20 ×1	P3	20.000	19.350	60	40	18.917
	ISO2			63	38	
M 22 ×2.5	P4	22.000	20.376	80	60	19.294
	Ⅱb			40	5	
	ISO2			90	54	
	D7			91	50	
M 22 ×2	P4	22.000	20.701	80	60	19.835
	ISO2			85	51	
M 22 ×1.5	P3	22.000	21.026	60	40	20.376
	ISO2			75	45	
	D6			78	47	
M 22 ×1	P3	22.000	21.350	60	40	20.917
	ISO2			63	38	
M 23 ×1.5	P3	23.000	22.026	60	40	21.376

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
M 24 ×3	P4	24.000	22.051	80	60	20.752
	Ⅱb			45	5	
	ISO2			106	64	
	D8			104	63	
M 24 ×2	P4	24.000	22.701	80	60	21.835
	ISO2			90	54	
	D8			104	63	
M 24 ×1.5	P3	24.000	23.026	60	40	22.376
	Ⅱ			50	15	
	ISO2			80	48	
M 24 ×1	P3	24.000	23.350	60	40	22.917
	ISO2			66	40	
M 25 ×3	P4	25.000	23.051	80	40	21.752
M 25 ×2	P4	25.000	23.701	80	60	22.835
	ISO2			90	54	
M 25 ×1.5	P3	25.000	24.026	60	40	23.376
	ISO2			80	48	
M 25 ×1	P3	25.000	24.350	60	40	23.917
M 26 ×3	P4	26.000	24.051	80	40	22.752
M 26 ×2	P4	26.000	24.701	80	60	23.835
M 26 ×1.5	P3	26.000	25.026	60	40	24.376
	Ⅱ			50	15	
	ISO2			80	48	
M 26 ×1	P2	26.000	25.350	40	20	24.917
M 27 ×3	P4	27.000	25.051	80	40	23.752
	Ⅱb			45	5	
	ISO2			106	64	
	D8			104	52	
M 27 ×2	P5	27.000	25.701	100	80	24.835
	ISO2			90	54	
	D7			91	50	
M 27 ×1.5	P3	27.000	26.026	60	40	25.376
	ISO2			80	48	
M 27 ×1	P3	27.000	26.350	60	40	25.917
M 28 ×3	P4	28.000	26.051	80	40	24.752
M 28 ×2	P4	28.000	26.701	80	60	25.835
	ISO2			90	54	
M 28 ×1.5	P3	28.000	27.026	60	40	26.376
	ISO2			80	48	
M 28 ×1	P3	28.000	27.350	60	40	26.917

for Metric Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
M30 ×3.5	P4	30.000	27.727	80	40	26.211
	Ⅱb			45	5	
	ISO2			112	67	
	D9			117	65	
M30 ×3	P5	30.000	28.051	100	60	26.752
M30 ×2	P4	30.000	28.701	80	60	27.835
	ISO2			90	54	
	D7			91	50	
M30 ×1.5	P3	30.000	29.026	60	40	28.376
	Ⅱ			50	15	
	ISO2			80	48	
M30 ×1	P3	30.000	29.350	60	40	28.917
M32 ×3	P3	32.000	30.051	60	20	28.752
M32 ×2	P4	32.000	30.701	80	40	29.835
M32 ×1.5	P4	32.000	31.026	80	60	30.376
	ISO2			80	48	
M32 ×1	P3	32.000	31.350	60	40	30.917
M33 ×3.5	P4	33.000	30.727	80	40	29.211
	ISO2			112	67	
	D9			117	65	
M33 ×3	P5	33.000	31.051	100	80	29.752
M33 ×2	P4	33.000	31.701	80	40	30.835
	ISO2			90	54	
	D7			91	50	
M33 ×1.5	P3	33.000	32.026	60	40	31.376
	ISO2			80	48	
M33 ×1	P3	33.000	32.350	60	40	31.917
M34 ×3	P3	34.000	32.051	60	20	30.752
M34 ×2	P4	34.000	32.701	80	40	31.835
M34 ×1.5	P4	34.000	33.026	80	60	32.376
	ISO2			80	48	
M34 ×1	P3	34.000	33.350	60	40	32.917
M35 ×3	P3	35.000	33.051	60	20	31.752
M35 ×2	P5	35.000	33.701	100	60	32.835
M35 ×1.5	P4	35.000	34.026	80	60	33.376
	ISO2			80	48	
M35 ×1	P2	35.000	34.350	40	20	33.917

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
M36 ×4	P5	36.000	33.402	100	60	31.670
	ISO2			118	71	
	D9			117	65	
M36 ×3	P5	36.000	34.051	100	60	32.752
	ISO2			106	64	
	D8			104	52	
M36 ×2	P4	36.000	34.701	80	40	33.835
	ISO2			90	54	
M36 ×1.5	P3	36.000	35.026	60	40	34.376
	ISO2			80	48	
M36 ×1	P3	36.000	35.350	60	40	34.917
M37 ×1.5	P4	37.000	36.026	80	60	35.376
M38 ×3	P3	38.000	36.051	60	20	34.752
M38 ×2	P4	38.000	36.701	80	40	35.835
M38 ×1.5	P4	38.000	37.026	80	60	36.376
	ISO2			80	48	
M38 ×1	P3	38.000	37.350	60	40	36.917
M39 ×4	P5	39.000	36.402	100	60	34.670
	ISO2			118	71	
	D10			130	78	
M39 ×3	P5	39.000	37.051	100	60	35.752
	D8			104	52	
M39 ×2	P4	39.000	37.701	80	40	36.835
M39 ×1.5	P3	39.000	38.026	60	40	37.376
	ISO2			80	48	
M39 ×1	P3	39.000	38.350	60	40	37.917
M40 ×4	P5	40.000	37.402	100	60	35.670
M40 ×3	P5	40.000	38.051	100	60	36.752
M40 ×2	P4	40.000	38.701	80	40	37.835
	ISO2			90	54	
M40 ×1.5	P4	40.000	39.026	80	60	38.376
	ISO2			80	48	
M42 ×4.5	P5	42.000	39.077	100	60	37.129
	ISO2			125	75	
M42 ×4	P6	42.000	39.402	120	80	37.670
M42 ×3	P5	42.000	40.051	100	60	38.752
	ISO2			106	64	
M42 ×2	P4	42.000	40.701	80	40	39.835
	ISO2			90	54	
M42 ×1.5	P4	42.000	41.026	80	60	40.376
	ISO2			80	48	

Think threads with YAMAWA

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
M 44 ×4	P6	44.000	41.402	120	80	39.670
M 44 ×3	P5	44.000	42.051	100	60	40.752
M 44 ×2	P4	44.000	42.701	80	40	41.835
M 44 ×1.5	P4	44.000	43.026	80	60	42.376
M 45 ×4.5	P5	45.000	42.077	100	60	40.129
	ISO2			125	75	
M 45 ×4	P6	45.000	42.402	120	80	40.670
M 45 ×3	P5	45.000	43.051	100	60	41.752
	ISO2			106	64	
M 45 ×2	P4	45.000	43.701	80	40	42.835
	ISO2			90	54	
M 45 ×1.5	P4	45.000	44.026	80	60	43.376
	ISO2			80	48	
M 45 ×1	P3	45.000	44.350	60	40	43.917
M 48 ×5	P5	48.000	44.752	100	60	42.587
	ISO2			133	80	
M 48 ×4	P6	48.000	45.402	120	80	43.670
M 48 ×3	P6	48.000	46.051	120	80	44.752
	ISO2			112	67	
M 48 ×2	P4	48.000	46.701	80	40	45.835
	ISO2			95	57	
M 48 ×1.5	P4	48.000	47.026	80	60	46.376
	ISO2			85	51	

for Unified Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
No. 0 - 80 UNF	P1	1.524	1.318	25	10	1.181
	G5			64	51	
	2B			26	11	
	GH1			12.7	0	
No. 1 - 64 UNC	P1	1.854	1.598	25	10	1.425
	2B			28	12	
	GH1			12.7	0	
No. 1 - 72 UNF	P1	1.854	1.626	25	10	1.473
	G5			64	51	
	2B			28	12	
	GH1			12.7	0	
No. 2 - 56 UNC	P1	2.184	1.890	25	10	1.694
	G4			51	38	
	2B			30	13	
	GH1			12.7	0	
No. 2 - 64 UNF	P1	2.184	1.928	25	10	1.755
	2B			29	12	
	GH1			12.7	0	
No. 3 - 48 UNC	P1	2.515	2.172	25	10	1.941
	G4			51	38	
	2B			32	14	
	GH1			12.7	0	
No. 3 - 56 UNF	P1	2.515	2.220	25	10	2.024
	2B			31	13	
	GH1			12.7	0	
No. 4 - 40 UNC	P2	2.845	2.433	40	25	2.156
	G5			64	51	
	2B			34	16	
	GH1			12.7	0	
No. 4 - 48 UNF	P1	2.845	2.502	25	10	2.271
	G5			64	51	
	2B			32	14	
	GH1			12.7	0	
No. 4 - 36 UNS	GH1	2.845	2.387	12.7	0	2.081
No. 5 - 40 UNC	P2	3.175	2.764	40	25	2.487
	2B			35	16	
	GH1			12.7	0	
No. 5 - 44 UNF	P1	3.175	2.799	25	10	2.550
	2B			34	15	
	GH1			12.7	0	

for Unified Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
No. 6 - 32 UNC	P2	3.505	2.990	40	20	2.647
	G5			64	51	
	2B			38	18	
	GH1			12.7	0	
No. 6 - 40 UNF	P2	3.505	3.094	40	25	2.817
	G5			64	51	
	2B			36	16	
	GH1			12.7	0	
No. 8 - 32 UNC	P2	4.166	3.650	40	20	3.307
	G6			76	64	
	2B			39	18	
	GH1			12.7	0	
No. 8 - 36 UNF	P2	4.166	3.708	40	20	3.401
	G5			64	51	
	2B			38	17	
	GH1			12.7	0	
No. 10 - 24 UNC	P2	4.826	4.138	40	20	3.680
	G6			76	64	
	2B			42	20	
	GH1			12.7	0	
No. 10 - 32 UNF	P2	4.826	4.310	40	20	3.967
	G5			64	51	
	2B			40	18	
	GH1			12.7	0	
No. 12 - 24 UNC	P2	5.486	4.798	40	20	4.341
	2B			43	20	
	GH1			12.7	0	
No. 12 - 28 UNF	P2	5.486	4.897	40	20	4.503
	2B			42	19	
	GH1			12.7	0	
No. 12 - 32 UNEF	P2	5.486	4.971	40	20	4.627
1/4 - 20 UNC	P2	6.350	5.524	40	20	4.976
	G7			89	76	
	2B			46	22	
	GH1			12.7	0	
1/4 - 28 UNF	P2	6.350	5.761	40	20	5.367
	G6			76	64	
	2B			43	19	
	GH1			12.7	0	
1/4 - 32 UNEF	P2	6.350	5.834	40	20	5.491
	2B			42	18	

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
5/16 - 18 UNC	P3	7.938	7.021	60	40	6.411
	2B			49	23	
	GH1			12.7	0	
5/16 - 24 UNF	P2	7.938	7.249	40	20	6.792
	2B			46	20	
	GH1			12.7	0	
5/16 - 32 UNEF	P2	7.938	7.422	40	20	7.079
	2B			44	18	
3/8 - 16 UNC	P3	9.525	8.494	60	40	7.805
	2B			53	25	
	GH1			12.7	0	
3/8 - 24 UNF	P3	9.525	8.837	60	40	8.379
	2B			48	20	
	GH2			25.4	12.7	
3/8 - 32 UNEF	P2	9.525	9.009	40	20	8.666
	2B			46	18	
7/16 - 14 UNC	P3	11.112	9.934	60	40	9.149
	2B			56	27	
	GH1			12.7	0	
7/16 - 20 UNF	P3	11.112	10.287	60	40	9.738
	2B			51	22	
	GH1			12.7	0	
7/16 - 28 UNEF	P2	11.112	10.523	40	20	10.130
1/2 - 13 UNC	P3	12.700	11.430	60	40	10.584
	2B			58	28	
	GH1			12.7	0	
1/2 - 20 UNF	P3	12.700	11.874	60	40	11.326
	2B			52	23	
	GH1			12.7	0	
1/2 - 28 UNEF	P2	12.700	12.111	40	20	11.717
9/16 - 12 UNC	P3	14.288	12.913	60	40	11.996
	2B			60	29	
	GH3			38.1	25.4	
9/16 - 18 UNF	P3	14.288	13.371	60	40	12.761
	2B			54	23	
	GH2			25.4	12.7	
9/16 - 24 UNEF	P2	14.288	13.599	40	20	13.142

Think threads with YAMAWA

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
5/8 - 11 UNC	P4	15.875	14.376	80	60	13.376
	2B			63	30	
	GH1			12.7	0	
5/8 - 18 UNF	P3	15.875	14.958	60	40	14.348
	2B			56	23	
	GH1			12.7	0	
5/8 - 24 UNEF	P3	15.875	15.187	60	40	14.729
11/16 - 11 UNS	GH3	17.462	15.964	38.1	25.4	14.963
11/16 - 16 UNS	GH3	17.462	16.431	38.1	25.4	15.743
3/4 - 10 UNC	P4	19.050	17.399	80	60	16.299
	2B			66	31	
	GH2			25.4	12.7	
3/4 - 16 UNF	P3	19.050	18.019	60	40	17.330
	2B			60	25	
	GH1			12.7	0	
3/4 - 20 UNEF	P3	19.050	18.224	60	40	17.676
7/8 - 9 UNC	P4	22.225	20.391	80	60	19.169
	2B			70	33	
	GH2			25.4	12.7	
7/8 - 14 UNF	P3	22.225	21.046	60	40	20.262
	2B			64	27	
	GH1			12.7	0	
7/8 - 20 UNEF	P3	22.225	21.400	60	40	20.851
1 - 8 UNC	P4	25.400	23.338	80	40	21.963
	2B			73	35	
	GH2			25.4	12.7	
1 - 12 UNF	P4	25.400	24.026	80	60	23.109
	2B			67	29	
	GH4			50.8	38.1	
1 - 14 UNS	P4	25.400	24.221	80	60	23.437
	2B			65	38	
	GH2			25.4	12.7	
1 - 20 UNEF	P3	25.400	24.574	60	40	24.026
1 1/8 - 7 UNC	P5	28.575	26.218	100	60	24.648
	GH4			50.8	25.4	
1 1/8 - 12 UNF	P3	28.575	27.201	60	40	26.284
	2B			69	29	
	GH4			50.8	25.4	
1 1/8 - 18 UNEF	P3	28.575	27.658	60	40	27.048

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
1 1/4 - 7 UNC	P5	31.750	29.393	100	60	27.823
	2B			79	38	
	GH4			50.8	25.4	
1 1/4 - 8 UN	P5	31.750	29.688	100	60	28.313
1 1/4 - 12 UNF	P4	31.750	30.376	80	60	29.459
	2B			70	29	
	GH4			50.8	25.4	
1 3/8 - 6 UNC	P5	34.925	32.174	100	60	30.343
	GH4			50.8	25.4	
1 3/8 - 8 UN	P5	34.925	32.863	100	60	31.488
1 3/8 - 12 UNF	P4	34.925	33.551	80	40	32.634
	2B			71	29	
	GH4			50.8	25.4	
1 1/2 - 6 UNC	P5	38.100	35.349	100	60	33.518
	GH4			50.8	25.4	
1 1/2 - 12 UNF	P4	38.100	36.726	80	40	35.809
	2B			73	29	
	GH4			50.8	25.4	
1 3/4 - 5 UNC	P6	44.450	41.151	120	80	38.951
1 3/4 - 12 UN	P4	44.450	43.076	80	40	42.159
2 - 4 1/2UNC	P6	50.800	47.135	120	80	44.689
2 - 12 UN	P4	50.800	49.426	80	40	48.509

for Whitworth Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
1/8 W 40	P1	3.175	2.768	25	10	2.362
5/32 W 32	P2	3.969	3.460	40	20	2.952
3/16 W 24	P2	4.762	4.085	40	20	3.407
7/32 W 24	P2	5.556	4.879	40	20	4.201
1/4 W 20	P2	6.350	5.537	40	20	4.724
5/16 W 18	P2	7.938	7.034	40	20	6.130
3/8 W 16	P2	9.525	8.509	40	20	7.493
7/16 W 14	P3	11.112	9.950	60	40	8.788
1/2 W 12	P3	12.700	11.345	60	40	9.990
9/16 W 12	P3	14.288	12.933	60	40	11.578
5/8 W 11	P3	15.875	14.396	60	40	12.917
3/4 W 10	P3	19.050	17.424	60	40	15.798
7/8 W 9	P3	22.225	20.418	60	40	18.611
1 W 8	P3	25.400	23.367	60	20	21.334
1 1/8 W 7	P4	28.575	26.252	80	40	23.929
1 1/4 W 7	P4	31.750	29.427	80	40	27.104
1 3/8 W 6	P4	34.925	32.214	80	40	29.503
1 1/2 W 6	P4	38.100	35.389	80	40	32.678
1 5/8 W 5	P4	41.275	38.022	80	40	34.769
1 3/4 W 5	P4	44.450	41.197	80	40	37.944
1 7/8 W 4 1/2	P4	47.625	44.011	80	40	40.397
2 W 4 1/2	P4	50.800	47.186	80	40	43.572

for Sewing Machine Screw Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
1/16 SM 80	P1	1.588	1.382	25	10	1.176
5/64 SM 64	P1	1.984	1.726	25	10	1.468
3/32 SM 56	P1	2.381	2.086	25	10	1.791
3/32 SM 100	P1	2.381	2.216	25	10	2.051
1/8 SM 40	P2	3.175	2.763	40	25	2.351
1/8 SM 44	P2	3.175	2.800	40	25	2.425
9/64 SM 40	P2	3.572	3.160	40	25	2.748
11/64 SM 40	P2	4.366	3.954	40	25	3.542
3/16 SM 24	P2	4.762	4.075	40	20	3.388
3/16 SM 28	P2	4.762	4.173	40	20	3.584
3/16 SM 32	P2	4.762	4.246	40	20	3.730
3/16 SM 40	P2	4.762	4.350	40	25	3.938
7/32 SM 32	P2	5.556	5.040	40	20	4.524
15/64 SM 28	P2	5.953	5.364	40	20	4.775
1/4 SM 24	P2	6.350	5.663	40	20	4.976
1/4 SM 40	P1	6.350	5.938	25	10	5.526

for Parallel Pipe Threads (PF·G)

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
PF 1/16 - 28	II	7.723	7.142	40	20	6.561
PF 1/8 - 28	II	9.728	9.147	40	20	8.566
PF 1/4 - 19	II	13.157	12.301	50	25	11.445
PF 3/8 - 19	II	16.662	15.806	50	25	14.950
PF 1/2 - 14	II	20.955	19.793	55	25	18.631
PF 5/8 - 14	II	22.911	21.749	55	25	20.587
PF 3/4 - 14	II	26.441	25.279	55	25	24.117
PF 7/8 - 14	II	30.201	29.039	55	25	27.877
PF 1 - 11	II	33.249	31.770	60	30	30.291
PF 1 1/4 - 11	II	41.910	40.431	65	30	38.952
PF 1 1/2 - 11	II	47.803	46.324	65	30	44.845
PF 2 - 11	II	59.614	58.135	75	35	56.656
PF 2 1/2 - 11	II	75.184	73.705	80	40	72.226
PF 3 - 11	II	87.884	86.405	85	40	84.926
PF 3 1/2 - 11	II	100.330	98.851	85	40	97.372
PF 4 - 11	II	113.030	111.551	85	40	110.072

Think threads with YAMAWA

■ for Parallel Pipe Threads (PS·Rp)

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) −	Lower Tolerance (μm) −	Basic Size
PS 1/16 - 28	Ⅱ	7.723	7.142	30	50	6.561
PS 1/8 - 28	Ⅱ	9.728	9.147	30	50	8.566
PS 1/4 - 19	Ⅱ	13.157	12.301	50	75	11.445
PS 3/8 - 19	Ⅱ	16.662	15.806	50	75	14.950
PS 1/2 - 14	Ⅱ	20.955	19.793	85	115	18.631
PS 5/8 - 14	Ⅱ	22.911	21.749	85	115	20.587
PS 3/4 - 14	Ⅱ	26.441	25.279	85	115	24.117
PS 7/8 - 14	Ⅱ	30.201	29.039	85	115	27.877
PS 1 - 11	Ⅱ	33.249	31.770	120	150	30.291
PS 1 1/4 - 11	Ⅱ	41.910	40.431	115	150	38.952
PS 1 1/2 - 11	Ⅱ	47.803	46.324	115	150	44.845
PS 2-11	Ⅱ	59.614	58.135	105	145	56.656
PS 2 1/2 - 11	Ⅱ	75.184	73.705	140	180	72.226
PS 3 - 11	Ⅱ	87.884	86.405	135	180	84.926
PS 4 - 11	Ⅱ	113.030	111.551	135	180	110.072

■ for Miniature Screw Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
S 0.5 × 0.125	-	0.500	0.419	15	7	0.380
S 0.6 × 0.15	-	0.600	0.503	15	7	0.456
	GS2			23	13	
S 0.7 × 0.175	-	0.700	0.586	20	10	0.532
	GS3			28	18	
S 0.8 × 0.2	-	0.800	0.670	20	10	0.608
	GS3			28	18	
S 0.9 × 0.225	-	0.900	0.754	20	10	0.684
	GS4			33	23	

■ for Taper Pipe Threads (PT·Rc)

Unit : mm

Size	Major Diameter	Pitch Diameter	Minor Diameter
	Basic Size	Basic Size	Basic Size
PT 1/16 - 28	7.723	7.142	6.561
PT 1/8 - 28	9.728	9.147	8.566
PT 1/4 - 19	13.157	12.301	11.445
PT 3/8 - 19	16.662	15.806	14.950
PT 1/2 - 14	20.955	19.793	18.631
PT 5/8 - 14	22.911	21.749	20.587
PT 3/4 - 14	26.441	25.279	24.117
PT 7/8 - 14	30.201	29.039	27.877
PT 1 - 11	33.249	31.770	30.291
PT 1 1/8 - 11	37.897	36.418	34.939
PT 1 1/4 - 11	41.910	40.431	38.952
PT 1 1/2 - 11	47.803	46.324	44.845
PT 1 3/4 - 11	53.746	52.267	50.788
PT 2 - 11	59.614	58.135	56.656
PT 2 1/4 - 11	65.710	64.231	62.752
PT 2 1/2 - 11	75.184	73.705	72.226
PT 3 - 11	87.884	86.405	84.926
PT 3 1/2 - 11	100.330	98.851	97.372
PT 4 - 11	113.030	111.551	110.072

■ for Trapezoidal Threads

Unit : mm

Size	Major Diameter	Pitch Diameter			Minor Diameter
	Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
Tr 10 × 2	10.500	9.000	0.070	0.025	8.000
Tr 12 × 3	12.500	10.500	0.090	0.030	9.000
Tr 12 × 2	12.500	11.000	0.070	0.025	10.000
Tr 14 × 3	14.500	12.500	0.090	0.030	11.000
Tr 16 × 4	16.500	14.000	0.095	0.030	8.000
Tr 16 × 3	16.500	14.500	0.090	0.030	13.000
Tr 18 × 4	18.500	16.000	0.095	0.030	14.000
Tr 20 × 4	20.500	18.000	0.095	0.030	16.000
Tr 22 × 5	22.500	19.500	0.110	0.035	17.000
Tr 24 × 5	24.500	21.500	0.110	0.035	19.000
Tr 25 × 5	25.500	22.500	0.110	0.035	20.000
Tr 26 × 5	26.500	23.500	0.110	0.035	21.000
Tr 28 × 5	28.500	25.500	0.110	0.035	23.000
Tr 30 × 6	30.500	27.000	0.125	0.035	24.000

14. Tap, Thread Limits

for Helical Coil Wire Thread Inserts, Metric Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
STI M 2.6 × 0.45	I b	3.185	2.892	18	6	2.698
STI M 3 × 0.5	I b	3.650	3.324	18	6	3.108
	G3			38	25	
STI M 4 × 0.7	I b	4.909	4.454	18	6	4.151
	G4			51	38	
STI M 5 × 0.8	I b	6.039	5.519	18	6	5.173
	G4			51	38	
STI M 6 × 1	I b	7.299	6.649	18	6	6.216
	G4			51	38	
STI M 8 × 1.25	I b	9.624	8.812	18	6	8.271
	G4			51	38	
STI M 10 × 1.5	I b	11.948	10.974	22	7	10.324
	G5			64	51	
STI M 10 × 1.25	I b	11.624	10.812	18	6	10.271
STI M 10 × 1	I b	11.299	10.649	18	6	10.216
STI M 12 × 1.75	I b	14.273	13.136	22	7	12.379
	G6			76	64	
STI M 12 × 1.5	I b	13.948	12.974	21	7	12.324
STI M 12 × 1.25	I b	13.624	12.812	21	7	12.271
STI M 14 × 2	I b	16.598	15.299	22	7	14.433
STI M 14 × 1.5	I b	15.948	14.974	21	7	14.324
STI M 16 × 2	I b	18.598	17.299	22	7	16.433
STI M 16 × 1.5	I b	17.948	16.974	21	7	16.324
STI M 18 × 2.5	I b	21.248	19.624	30	10	18.542
STI M 18 × 1.5	I b	19.948	18.974	24	8	18.324
STI M 20 × 2.5	I b	23.248	21.624	30	10	20.542
STI M 20 × 1.5	I b	21.948	20.974	24	8	20.324
STI M 22 × 2.5	I b	25.248	23.624	30	10	22.542
STI M 22 × 1.5	I b	23.948	22.974	24	8	22.324
STI M 24 × 3	I b	27.897	25.948	30	10	24.649
STI M 24 × 1.5	I b	25.948	24.974	24	8	24.324

for Helical Coil Wire Thread Inserts, Unified Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
STI No. 2 -56 UNC	I b	2.773	2.479	18	6	2.283
	GH2			25.4	12.7	
STI No. 4 -40 UNC	I b	3.670	3.258	18	6	2.981
	GH2			25.4	12.7	
STI No. 4 -48 UNF	I b	3.532	3.189	18	6	2.958
STI No. 5 -40 UNC	I b	4.000	3.589	18	6	3.312
STI No. 6 -32 UNC	I b	4.536	4.021	18	6	3.678
	GH3			38.1	25.4	
STI No. 6 -40 UNF	I b	4.330	3.919	18	6	3.642
STI No. 8 -32 UNC	I b	5.197	4.681	18	6	4.338
	GH3			38.1	25.4	
STI No. 8 -36 UNF	I b	5.083	4.625	18	6	4.318
STI No. 10 -24 UNC	I b	6.201	5.513	18	6	5.055
	GH2			25.4	12.7	
STI No. 10 -32 UNF	I b	5.857	5.341	18	6	4.998
	GH2			25.4	12.7	
STI No. 12 -24 UNC	I b	6.861	6.173	18	6	5.716
STI 1/4 - 20 UNC	I b	8.000	7.174	22	7	6.626
	GH3			38.1	25.4	
STI 1/4 - 28 UNF	I b	7.528	6.939	18	6	6.545
	GH2			25.4	12.7	
STI 5/16 - 18 UNC	I b	9.771	8.854	22	7	8.244
	GH3			38.1	25.4	
STI 5/16 - 24 UNF	I b	9.313	8.624	18	6	8.167
STI 3/8 - 16 UNC	I b	11.587	10.556	22	7	9.867
	GH3			38.1	25.4	
STI 3/8 - 24 UNF	I b	10.900	10.212	18	6	9.754
STI 7/16 - 14 UNC	I b	13.469	12.291	30	10	11.506
	GH3			38.1	25.4	
STI 7/16 - 20 UNF	I b	12.762	11.937	18	6	11.388
	GH3			38.1	25.4	
STI 1/2 - 13 UNC	I b	15.238	13.968	30	10	13.122
	GH3			38.1	25.4	
STI 1/2 - 20 UNF	I b	14.350	13.524	18	6	12.976
STI 5/8 - 11 UNC	I b	18.875	17.376	30	10	16.376
STI 5/8 - 18 UNF	I b	17.708	16.791	21	7	16.181
STI 3/4 - 16 UNF	I b	21.112	20.081	21	7	19.392

■ for Tripod Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
1/4 - 20	-	6.350	5.525	230	210	4.975

■ for Thick Steel Conduit Threads

Unit : mm

Size	Major Diameter	Pitch Diameter	Minor Diameter
	Basic Size	Basic Size	Basic Size
CTG 16 - 14	20.955	19.793	18.922
CTG 22 - 14	26.441	25.279	24.408
CTG 28 - 11	33.249	31.770	30.661
CTG 36 - 11	41.910	40.431	39.322
CTG 42 - 11	47.803	46.324	45.215
CTG 54 - 11	59.614	58.135	57.026
CTG 70 - 11	75.184	73.705	72.596
CTG 82 - 11	87.884	86.405	85.296
CTG 92 - 11	100.330	98.851	97.742
CTG 104 - 11	113.030	111.551	110.442

■ for Steel Conduit Threads

Unit : mm

Size	Major Diameter	Pitch Diameter	Minor Diameter
	Basic Size	Basic Size	Basic Size
CTC 19 - 16	19.100	18.343	17.708
CTC 25 - 16	25.400	24.643	24.008
CTC 31 - 16	31.800	31.043	30.408
CTC 39 - 16	38.100	37.343	36.708
CTC 51 - 16	50.800	50.043	49.408
CTC 63 - 16	63.500	62.743	62.108
CTC 75 - 16	76.200	75.443	74.808

■ for Tire Valve Threads

Unit : mm

Size	Major Diameter	Pitch Diameter	Minor Diameter
	Basic Size	Basic Size	Basic Size
5 V 1	5.334	4.869	4.597
8 V 1	7.798	7.284	7.036
8 V 2	7.938	7.250	6.782
9 V 1	9.525	9.010	8.661
10 V 1	9.800	9.380	8.750
10 V 2	10.414	9.815	9.350
11 V 1	11.113	10.287	9.729
12 V 1	12.319	11.669	11.176
13 V 1	12.700	11.875	11.328
13 V 2	12.700	12.185	11.837
15 V 1	15.137	14.380	13.750
16 V 1	15.875	15.263	14.869
17 V 1	17.137	16.380	15.750
17 V 2	17.463	16.775	16.307
17 V 3	17.463	16.432	15.748
19 V 1	19.050	18.019	17.323
20 V 1	20.642	19.885	19.250

■ for Bicycle Tire Valve Threads

Unit : mm

Size	Major Diameter	Pitch Diameter	Minor Diameter
	Basic Size	Basic Size	Basic Size
CTV 5 - 36	5.330	4.872	4.566
CTV 5 - 24	5.100	4.413	3.954
CTV 8 - 32	7.900	7.384	7.041
CTV 8 - 30	8.100	7.550	7.183
5 V 2	5.370	4.760	4.400
6 V 1	6.160	5.725	5.440

14. Tap, Thread Limits

for Bicycle Threads

Unit : mm

Size	Major Diameter	Pitch Diameter	Minor Diameter
	Basic Size	Basic Size	Basic Size
BC 5/16 - 26	7.94	7.42	6.90
BC 3/8 - 26	9.53	9.01	8.49
BC 7/16 - 26	11.11	10.59	10.07
BC 1/2 - 20	12.70	12.02	11.34
BC 9/16 - 20	14.29	13.61	12.93
BC 5/8 - 20	15.88	15.20	14.52
BC 11/16 - 24	17.46	16.90	16.34
BC 3/4 - 30	19.05	18.60	18.15
BC 31/32 - 30	24.61	24.16	23.71
BC 1 - 24	25.40	24.84	24.28
BC 1.29 - 24	32.77	32.21	31.65
BC 1.37 - 24	34.80	34.24	33.68
BC 1 7/16 - 24	36.51	35.95	35.39
BC 1.45 - 24	36.83	36.27	35.71
BC 1 9/16 - 24	39.69	39.13	38.57

for European Parallel Pipe Threads (G)

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
G 1/8 - 28	-	9.728	9.147	43	21	8.566
G 1/4 - 19	-	13.157	12.301	50	25	11.445
G 3/8 - 19	-	16.662	15.806	50	25	14.950
G 1/2 - 14	-	20.955	19.793	57	28	18.631
G 5/8 - 14	-	22.911	21.749	57	28	20.587
G 3/4 - 14	-	26.441	25.279	57	28	24.117
G 7/8 - 14	-	30.201	29.039	57	28	27.877
G 1 - 11	-	33.249	31.770	72	36	30.291
G 1 1/4 - 11	-	41.910	40.431	72	36	38.952
G 1 1/2 - 11	-	47.803	46.324	72	36	44.845

for BSW Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
3/32 BSW 48	-	2.381	2.042	32	15	1.704
1/8 BSW 40	-	3.175	2.768	35	15	2.362
5/32 BSW 32	-	3.969	3.460	40	18	2.952
3/16 BSW 24	-	4.762	4.085	44	21	3.407
7/32 BSW 24	-	5.556	4.879	44	21	4.201
1/4 BSW 20	-	6.350	5.537	46	23	4.724
5/16 BSW 18	-	7.938	7.034	49	23	6.130
3/8 BSW 16	-	9.525	8.509	51	25	7.493
7/16 BSW 14	-	11.112	9.950	56	28	8.788
1/2 BSW 12	-	12.700	11.345	61	30	9.990
9/16 BSW 12	-	14.288	12.933	61	30	11.578
5/8 BSW 11	-	15.875	14.396	63	30	12.917
3/4 BSW 10	-	19.050	17.424	69	33	15.798
7/8 BSW 9	-	22.225	20.418	69	33	18.611
1 BSW 8	-	25.400	23.367	74	36	21.334

for European Steel Conduit Threads (Pg)

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
Pg 7 - 20	-	12.50	11.89	60	30	11.28
Pg 9 - 18	-	15.20	14.53	60	30	13.86
Pg 11 - 18	-	18.60	17.93	60	30	17.26
Pg 13.5 - 18	-	20.40	19.73	60	30	19.06
Pg 16 - 18	-	22.50	21.83	60	30	21.16
Pg 21 - 16	-	28.30	27.54	100	50	26.78
Pg 29 - 16	-	37.00	36.24	100	50	35.48
Pg 36 - 16	-	47.00	46.24	100	50	45.48

for Microscope Objective Threads

Unit : mm

Size	Class	Major Diameter	Pitch Diameter			Minor Diameter
		Basic Size	Basic Size	Upper Tolerance (μm) +	Lower Tolerance (μm) +	Basic Size
20.32W36	-	20.320	19.868	38	23	19.416

15. Bored hole size before tapping (for thread cutting)

for Metric Threads

Unit : mm

Size	Minor diameter of internal threads (D1)		Bored hole size (ref.)
	Max.	Min.	
M1 ×0.25	(0.785)	(0.729)	0.77
M1 ×0.2	(0.821)	(0.783)	0.81
M1.1×0.25	(0.885)	(0.829)	0.87
M1.1×0.2	(0.921)	(0.883)	0.91
M1.2×0.25	(0.985)	(0.929)	0.97
M1.2×0.2	(1.021)	(0.983)	1.01
M1.4×0.3	(1.142)	(1.075)	1.13
M1.4×0.2	(1.221)	(1.183)	1.21
M1.6×0.35	1.321	1.221	1.30
M1.6×0.2	(1.421)	(1.383)	1.41
※1 M1.7×0.35	1.421	1.321	1.40
※1 M1.7×0.2	1.521	1.483	1.51
M1.8×0.35	1.521	1.421	1.50
M1.8×0.2	(1.621)	(1.583)	1.61
M2 ×0.4	1.679	1.567	1.65
M2 ×0.25	(1.785)	(1.729)	1.77
M2.2×0.45	1.838	1.713	1.81
M2.2×0.25	(1.985)	(1.929)	1.97
※1 M2.3×0.4	1.979	1.867	1.95
※1 M2.3×0.25	2.085	2.029	2.07
M2.5×0.45	2.138	2.013	2.11
M2.5×0.35	2.221	2.121	2.20
※1 M2.6×0.45	2.238	2.113	2.21
※1 M2.6×0.35	2.321	2.221	2.30
M3 ×0.5	2.599	2.459	2.56
※1 3M0.6	2.440	2.280	2.40
M3 ×0.35	2.721	2.621	2.70
M3.5×0.6	3.010	2.850	2.97
M3.5×0.35	3.221	3.121	3.20
M4 ×0.7	3.422	3.242	3.38
※1 4M0.75	3.326	3.106	3.27
M4 ×0.5	3.599	3.459	3.56
M4.5×0.75	3.878	3.688	3.83
M4.5×0.5	4.099	3.959	4.06
M5 ×0.8	4.334	4.134	4.28
※1 5M0.9	4.170	3.930	4.11
※2 M5 ×0.75	4.378	4.188	4.33
M5 ×0.5	4.599	4.459	4.56
※1 M5.5×0.9	4.670	4.430	4.61
M5.5×0.75	4.878	4.688	4.83
M5.5×0.5	5.099	4.959	5.06
M6 ×1	5.153	4.917	5.09
M6 ×0.75	5.378	5.188	5.33
※1 M6 ×0.5	5.599	5.459	5.56
※2 M6.5×0.5	6.099	5.959	6.06
M7 ×1	6.153	5.917	6.09
M7 ×0.75	6.378	6.188	6.33
※1 M7 ×0.5	6.599	6.459	6.56
※2 M7.5×0.5	7.099	6.959	7.06
M8 ×1.25	6.912	6.647	6.85
M8 ×1	7.153	6.917	7.09
M8 ×0.75	7.378	7.188	7.33
※1 M8 ×0.5	7.599	7.459	7.56
※2 M8.5×1	7.653	7.417	7.59
※2 M8.5×0.75	7.878	7.688	7.83
※2 M8.5×0.5	8.099	7.959	8.06

Size	Minor diameter of internal threads (D1)		Bored hole size (ref.)
	Max.	Min.	
M 9 ×1.25	7.912	7.647	7.85
M 9 ×1	8.153	7.917	8.09
M 9 ×0.75	8.378	8.188	8.33
※1 M 9 ×0.5	8.599	8.459	8.56
※2 M 9.5×1	8.653	8.417	8.59
※2 M 9.5×0.75	8.878	8.688	8.83
※2 M 9.5×0.5	9.099	8.959	9.06
M10 ×1.5	8.676	8.376	8.60
M10 ×1.25	8.912	8.647	8.85
M10 ×1	9.153	8.917	9.09
M10 ×0.75	9.378	9.188	9.33
※1 M10 ×0.5	9.599	9.459	9.56
M11 ×1.5	9.676	9.376	9.60
※1 M11 ×1.25	9.912	9.647	9.85
M11 ×1	10.153	9.917	10.09
M11 ×0.75	10.378	10.188	10.33
※1 M11 ×0.5	10.599	10.459	10.56
M12 ×1.75	10.441	10.106	10.4
M12 ×1.5	10.676	10.376	10.60
M12 ×1.25	10.912	10.647	10.85
M12 ×1	11.153	10.917	11.09
※2 M12 ×0.75	11.378	11.188	11.33
※1 M12 ×0.5	11.599	11.459	11.56
※2 M13 ×1.75	11.441	11.106	11.4
※1 M13 ×1.5	11.676	11.376	11.60
※2 M13 ×1.25	11.912	11.647	11.85
※1 M13 ×1	12.153	11.917	12.09
※2 M13 ×0.75	12.378	12.188	12.33
※1 M13 ×0.5	12.599	12.459	12.56
M14 ×2	12.210	11.835	12.1
※2 M14 ×1.75	12.441	12.106	12.4
M14 ×1.5	12.676	12.376	12.60
M14 ×1.25	12.912	12.647	12.85
M14 ×1	13.153	12.917	13.09
※2 M14 ×0.75	13.378	13.188	13.33
※1 M14 ×0.5	13.599	13.459	13.56
※2 M15 ×2	13.210	12.835	13.1
M15 ×1.5	13.676	13.376	13.60
※2 M15 ×1.25	13.912	13.647	13.85
M15 ×1	14.153	13.917	14.09
※2 M15 ×0.75	14.378	14.188	14.33
※1 M15 ×0.5	14.599	14.459	14.56
M16 ×2	14.210	13.835	14.1
M16 ×1.5	14.676	14.376	14.60
※2 M16 ×1.25	14.912	14.647	14.85
M16 ×1	15.153	14.917	15.09
※2 M16 ×0.75	15.378	15.188	15.33
※1 M16 ×0.5	15.599	15.459	15.56
※2 M17 ×2	15.210	14.835	15.1
M17 ×1.5	15.676	15.376	15.60
※2 M17 ×1.25	15.912	15.647	15.85
M17 ×1	16.153	15.917	16.09
※2 M17 ×0.75	16.378	16.188	16.33
※2 M17 ×0.5	16.599	16.459	16.56
M18 ×2.5	15.744	15.294	15.6
M18 ×2	16.210	15.835	16.1

The recommended tap drill sizes indicated above are for JIS 6H (Class 2) Metric Threads.
- D1: Minor diameter of JIS 6H (Class 2) internal thread. The Minor diameters D1 shown in ( ) are of 5H (Class 2) for coarse threads and of 4H • 5H (Class 1) for fine threads.
- Sizes marked with ※1 are already removed from JIS.
- Sizes marked with ※2 are not specified by JIS.
- ※Marked sizes have been eliminated from JIS.

15. Bored hole size before tapping (for thread cutting)

for Metric Threads

Unit : mm

Size	Minor diameter of internal threads (D_1)		Bored hole size (ref.)
	Max.	Min.	
M18×1.5	16.676	16.376	16.60
※2 M18×1.25	16.912	16.647	16.85
M18×1	17.153	16.917	17.09
※2 M18×0.75	17.378	17.188	17.33
※1 M18×0.5	17.599	17.459	17.56
※2 M19×2.5	16.744	16.294	16.6
※2 M19×2	17.210	16.835	17.1
※2 M19×1.5	17.676	17.376	17.60
※2 M19×1	18.153	17.917	18.09
※2 M19×0.75	18.378	18.188	18.33
※2 M19×0.5	18.599	18.459	18.56
M20×2.5	17.744	17.294	17.6
M20×2	18.210	17.835	18.1
M20×1.5	18.676	18.376	18.60
※2 M20×1.25	18.912	18.647	18.85
M20×1	19.153	18.917	19.09
※2 M20×0.75	19.378	19.188	19.33
※1 M20×0.5	19.599	19.459	19.56
※2 M21×2	19.210	18.835	19.1
※2 M21×1.5	19.676	19.376	19.60
※2 M21×1	20.153	19.917	20.09
M22×2.5	19.744	19.294	19.6
M22×2	20.210	19.835	20.1
M22×1.5	20.676	20.376	20.60
※2 M22×1.25	20.912	20.647	20.85
M22×1	21.153	20.917	21.09
※2 M22×0.75	21.378	21.188	21.33
※1 M22×0.5	21.599	21.459	21.56
※2 M23×2	21.210	20.835	21.1
※2 M23×1.5	21.676	21.376	21.60
※2 M23×1	22.153	21.917	22.09
M24×3	21.252	20.752	21.1
M24×2	22.210	21.835	22.1
M24×1.5	22.676	22.376	22.60
※2 M24×1.25	22.912	22.647	22.85
M24×1	23.153	22.917	23.09
※2 M24×0.75	23.378	23.188	23.33
※1 M24×0.5	23.599	23.459	23.56
※2 M25×3	22.252	21.752	22.1
M25×2	23.210	22.835	23.1
M25×1.5	23.676	23.376	23.60
M25×1	24.153	23.917	24.09
※2 M26×3	23.252	22.752	23.1
※1 M26×2	24.210	23.835	24.1
M26×1.5	24.676	24.376	24.60
※1 M26×1	25.153	24.917	25.09
M27×3	24.252	23.752	24.1
M27×2	25.210	24.835	25.1
M27×1.5	25.676	25.376	25.60
M27×1	26.153	25.917	26.09
※2 M28×3	25.252	24.752	25.1
M28×2	26.210	25.835	26.1
M28×1.5	26.676	26.376	26.60
M28×1	27.153	26.917	27.09
※2 M29×1.5	27.676	27.376	27.60
M30×3.5	26.771	26.211	26.6

Size	Minor diameter of internal threads (D_1)		Bored hole size (ref.)
	Max.	Min.	
M30×3	27.252	26.752	27.1
M30×2	28.210	27.835	28.1
M30×1.5	28.676	28.376	28.60
M30×1	29.153	28.917	29.09
※2 M32×3.5	28.771	28.211	28.6
※2 M32×3	29.252	28.752	29.1
M32×2	30.210	29.835	30.1
M32×1.5	30.676	30.376	30.60
※1 M32×1	31.153	30.917	31.09
M33×3.5	29.771	29.211	29.6
M33×3	30.252	29.752	30.1
M33×2	31.210	30.835	31.1
M33×1.5	31.676	31.376	31.60
※2 M33×1	32.153	31.917	32.09
※2 M34×3	31.252	30.752	31.1
※1 M34×2	32.210	31.835	32.1
※1 M34×1.5	32.676	32.376	32.60
※1 M34×1	33.153	32.917	33.09
※2 M35×3	32.252	31.752	32.1
※2 M35×2	33.210	32.835	33.1
M35×1.5	33.676	33.376	33.60
※2 M35×1	34.153	33.917	34.09
M36×4	32.270	31.670	32.1
M36×3	33.252	32.752	33.1
M36×2	34.210	33.835	34.1
M36×1.5	34.676	34.376	34.60
※1 M36×1	35.153	34.917	35.09
※2 M37×1.5	35.676	35.376	35.60
※2 M38×3	35.252	34.752	35.1
※1 M38×2	36.210	35.835	36.1
M38×1.5	36.676	36.376	36.60
※1 M38×1	37.153	36.917	37.09
M39×4	35.270	34.670	35.1
M39×3	36.252	35.752	36.1
M39×2	37.210	36.835	37.1
M39×1.5	37.676	37.376	37.60
※2 M39×1	38.153	37.917	38.09
※2 M40×4	36.270	35.670	36.1
M40×3	37.252	36.752	37.1
M40×2	38.210	37.835	38.1
M40×1.5	38.676	38.376	38.60
※1 M40×1	39.153	38.917	39.09
M42×4.5	37.799	37.129	37.6
M42×4	38.270	37.670	38.1
M42×3	39.252	38.752	39.1
M42×2	40.210	39.835	40.1
M42×1.5	40.676	40.376	40.60
※1 M42×1	41.153	40.917	41.09
※2 M44×4	40.270	39.670	40.1
※2 M44×3	41.252	40.752	41.1
※2 M44×2	42.210	41.835	42.1
※2 M44×1.5	42.676	42.376	42.60
※2 M44×1	43.153	42.917	43.09
M45×4.5	40.799	40.129	40.6
M45×4	41.270	40.670	41.1
M45×3	42.252	41.752	42.1

- D1: Minor diameter of JIS 6H (Class 2) internal thread.
- Sizes marked with ※1 are already removed from JIS.
- Sizes marked with ※2 are not specified by JIS.
- ※Marked sizes have been eliminated from JIS.

Unit : mm

Size	Minor diameter of internal threads (D_1)		Bored hole size (ref.)
	Max.	Min.	
M45×2	43.210	42.835	43.1
M45×1.5	43.676	43.376	43.60
※1 M45×1	44.153	43.917	44.09
※2 M46×4	42.270	41.670	42.1
※2 M46×3	43.252	42.752	43.1
※2 M46×2	44.210	44.835	44.1
※2 M46×1.5	44.676	44.376	44.60
M48×5	43.297	42.587	43.1
M48×4	44.270	43.670	44.1
M48×3	45.252	44.752	45.1
M48×2	46.210	45.835	46.1
M48×1.5	46.676	46.376	46.60
※1 M48×1	47.153	46.917	47.09
※2 M50×5	45.297	44.587	45.1
※2 M50×4	46.270	45.670	46.1
M50×3	47.252	46.752	47.1
M50×2	48.210	47.835	48.1
M50×1.5	48.676	48.376	48.60
※1 M50×1	49.153	48.917	49.09
M52×5	47.297	46.587	47.1
M52×4	48.270	47.670	48.1
M52×3	49.252	48.752	49.1
M52×2	50.210	49.835	50.1
M52×1.5	50.676	50.376	50.60
M55×4	51.270	50.670	51.1
M55×3	52.252	51.752	52.1
M55×2	53.210	52.835	53.1
M55×1.5	53.676	53.376	53.60
M56×5.5	50.796	50.046	50.6
M56×4	52.270	51.670	52.1
M56×3	53.252	52.752	53.1
M56×2	54.210	53.835	54.1
M56×1.5	54.676	54.376	54.60
M58×4	54.270	53.670	54.1
M58×3	55.252	54.752	55.1
M58×2	56.210	55.835	56.1
M58×1.5	56.676	56.376	56.60
M60×5.5	54.796	54.046	54.6
M60×4	56.270	55.670	56.1
M60×3	57.252	56.752	57.1
M60×2	58.210	57.835	58.1
M60×1.5	58.676	58.376	58.60
M62×4	58.270	57.670	58.1
M62×3	59.252	58.752	59.1
M62×2	60.210	59.835	60.1
M62×1.5	60.676	60.376	60.60
M64×6	58.305	57.505	58.1
M64×4	60.270	59.670	60.1
M64×3	61.252	60.752	61.1
M64×2	62.210	61.835	62.1
M64×1.5	62.676	62.376	62.60
※2 M65×6	59.305	58.505	59.1
M65×4	61.270	60.670	61.1
M65×3	62.252	61.752	62.1
M65×2	63.210	62.835	63.1
M65×1.5	63.676	63.376	63.60

Size	Minor diameter of internal threads (D_1)		Bored hole size (ref.)
	Max.	Min.	
M 68×6	62.305	61.505	62.1
M 68×4	64.270	63.670	64.1
M 68×3	65.252	64.752	65.1
M 68×2	66.210	65.835	66.1
M 68×1.5	66.676	66.376	66.60
M 70×6	64.305	63.505	64.1
M 70×4	66.270	65.670	66.1
M 70×3	67.252	66.752	67.1
M 70×2	68.210	67.835	68.1
M 70×1.5	68.676	68.376	68.60
M 72×6	66.305	65.505	66.1
M 72×4	68.270	67.670	68.1
M 72×3	69.252	68.752	69.1
M 72×2	70.210	69.835	70.1
M 72×1.5	70.676	70.376	70.60
※2 M 75×6	69.305	68.505	69.1
M 75×4	71.270	70.670	71.1
M 75×3	72.252	71.752	72.1
M 75×2	73.210	72.835	73.1
M 75×1.5	73.676	73.376	73.60
M 76×6	70.305	69.505	70.1
M 76×4	72.270	71.670	72.1
M 76×3	73.252	72.752	73.1
M 76×2	74.210	73.835	74.1
M 76×1.5	74.676	74.376	74.60
※2 M 78×3	75.252	74.752	75.1
M 78×2	76.210	75.835	76.1
M 80×6	74.305	73.505	74.1
M 80×4	76.270	75.670	76.1
M 80×3	77.252	76.752	77.1
M 80×2	78.210	77.835	78.1
M 80×1.5	78.676	78.376	78.60
M 82×2	80.210	79.835	80.1
M 85×6	79.305	78.505	79.1
M 85×4	81.270	80.670	81.1
M 85×3	82.252	81.752	82.1
M 85×2	83.210	82.835	83.1
M 90×6	84.305	83.505	84.1
M 90×4	86.270	85.670	86.1
M 90×3	87.252	86.752	87.1
M 90×2	88.210	87.835	88.1
M 95×6	89.305	88.505	89.1
M 95×4	91.270	90.670	91.1
M 95×3	92.252	91.752	92.1
M 95×2	93.210	92.835	93.1
M100×6	94.305	93.505	94.1
M100×4	96.270	95.670	96.1
M100×3	97.252	96.752	97.1
M100×2	98.210	97.835	98.1

- D1: Minor diameter of JIS 6H (Class 2) internal thread.
- Sizes marked with ※1 are already removed from JIS.
- Sizes marked with ※2 are not specified by JIS.
- ※Marked sizes have been eliminated from JIS.

15. Bored hole size before tapping (for thread cutting)

for Unified Threads

Unit : mm

Size	Minor diameter of internal threads (D1)		Bored hole size (ref.)
	Max.	Min.	
No. 0 - 80UNF	1.305	1.182	1.27
No. 1 - 64UNC	1.582	1.425	1.54
No. 1 - 72UNF	1.612	1.474	1.58
No. 2 - 56UNC	1.871	1.695	1.83
No. 2 - 64UNF	1.912	1.756	1.87
No. 3 - 48UNC	2.146	1.941	2.09
No. 3 - 56UNF	2.197	2.025	2.15
No. 4 - 40UNC	2.385	2.157	2.33
No. 4 - 48UNF	2.458	2.271	2.41
No. 5 - 40UNC	2.697	2.487	2.64
No. 5 - 44UNF	2.740	2.551	2.69
No. 6 - 32UNC	2.895	2.642	2.83
No. 6 - 40UNF	3.022	2.820	2.97
No. 8 - 32UNC	3.530	3.302	3.47
No. 8 - 36UNF	3.606	3.404	3.56
No.10 - 24UNC	3.962	3.683	3.89
No.10 - 32UNF	4.165	3.963	4.11
No.12 - 24UNC	4.597	4.344	4.53
No.12 - 28UNF	4.724	4.496	4.67
No.12 - 32UNEF	4.826	4.623	4.78
1/4 - 20UNC	5.257	4.979	5.19
1/4 - 28UNF	5.588	5.360	5.53
1/4 - 32UNEF	5.689	5.487	5.64
5/16 - 18UNC	6.731	6.401	6.65
5/16 - 24UNF	7.035	6.782	6.97
5/16 - 32UNEF	7.264	7.087	7.22
3/8 - 16UNC	8.153	7.798	8.06
3/8 - 24UNF	8.636	8.382	8.57
3/8 - 32UNEF	8.864	8.662	8.81
7/16 - 14UNC	9.550	9.144	9.4
7/16 - 20UNF	10.033	9.729	9.96
7/16 - 24UNS	10.210	9.957	10.15
7/16 - 28UNEF	10.337	10.135	10.29
1/2 - 13UNC	11.023	10.592	10.9
1/2 - 20UNF	11.607	11.329	11.54
1/2 - 24UNS	11.811	11.557	11.75
1/2 - 28UNEF	11.938	11.710	11.88
1/2 - 32UN	12.039	11.837	11.99
9/16 - 12UNC	12.446	11.989	12.3
9/16 - 18UNF	13.081	12.751	13.00
9/16 - 20UN	13.208	12.904	13.13
9/16 - 24UNEF	13.385	13.132	13.32
5/8 - 11UNC	13.868	13.386	13.7
5/8 - 18UNF	14.681	14.351	14.60

Size	Minor diameter of internal threads (D1)		Bored hole size (ref.)
	Max.	Min.	
5/8 - 20UN	14.782	14.504	14.71
5/8 - 24UNEF	14.986	14.732	14.92
3/4 - 10UNC	16.840	16.307	16.7
3/4 - 16UNF	17.678	17.323	17.59
3/4 - 20UNEF	17.957	17.679	17.89
7/8 - 9UNC	19.761	19.177	19.6
7/8 - 14UNF	20.675	20.270	20.6
7/8 - 20UNEF	21.132	20.854	21.06
1 - 8UNC	22.606	21.971	22.4
1 - 12UNF	23.571	23.114	23.5
1 - 14UNS	23.825	23.445	23.7
1 - 20UNEF	24.307	24.029	24.24
1 1/16 - 12UN	25.146	24.689	25.0
1 1/16 - 14UNS	25.412	25.032	25.3
1 1/8 - 7UNC	25.349	24.638	25.2
1 1/8 - 8UN	25.781	25.146	25.6
1 1/8 - 12UNF	26.746	26.289	26.6
1 1/8 - 14UNS	27.000	26.620	26.9
1 3/16 - 12UN	28.321	27.864	28.2
1 1/4 - 7UNC	28.524	27.813	28.3
1 1/4 - 8UN	28.956	28.321	28.8
1 1/4 - 12UNF	29.921	29.464	29.8
1 5/16 - 12UN	31.496	31.039	31.4
1 3/8 - 6UNC	31.115	30.353	30.9
1 3/8 - 8UN	32.131	31.496	32.0
1 3/8 - 12UNF	33.096	32.639	33.0
1 1/2 - 6UNC	34.290	33.528	34.1
1 1/2 - 8UN	35.306	34.671	35.1
1 1/2 - 12UNF	36.271	35.814	36.2
1 5/8 - 5UNS	36.652	35.789	36.4
1 5/8 - 8UN	38.481	37.846	38.3
1 5/8 - 12UN	39.446	38.989	39.3
1 3/4 - 5UNC	39.827	38.964	39.6
1 3/4 - 8UN	41.656	41.021	41.5
1 3/4 - 12UN	42.621	42.164	42.5
1 7/8 - 8UN	44.831	44.196	44.7
1 7/8 - 12UN	45.796	45.339	45.7
2 - 4 1/2UNC	45.593	44.679	45.4
2 - 8UN	48.006	47.371	47.8
2 - 12UN	48.971	48.514	48.9
2 1/4 - 8UN	54.356	53.721	54.2
2 1/2 - 8UN	60.706	60.071	60.5
2 3/4 - 8UN	67.056	66.421	66.9
3 - 8UN	73.406	72.771	73.2

• The recommended tap drill sizes indicated above are for JIS Class 2B UNC & UNF threads, and ANSI B1.1 Class 2B UNEF, UN & UNS threads.

for Helical Coil Wire Thread Inserts, Metric Threads

Unit : mm

Nominal size	Bored hole size		Bored hole size (ref.)
	Max.	Min.	
STI M2.6 × 0.45	2.798	2.698	2.77
STI M 3 × 0.5	3.221	3.109	3.19
STI M 4 × 0.7	4.291	4.151	4.26
STI M 5 × 0.8	5.333	5.173	5.29
STI M 6 × 1	6.406	6.216	6.36
STI M 8 × 1.25	8.483	8.271	8.43
STI M10 × 1.5	10.561	10.325	10.50
STI M10 × 1.25	10.483	10.271	10.43
STI M10 × 1	10.406	10.216	10.36
STI M12 × 1.75	12.644	12.379	12.6
STI M12 × 1.5	12.561	12.325	12.50
STI M12 × 1.25	12.483	12.271	12.43
STI M14 × 2	14.733	14.433	14.7
STI M14 × 1.5	14.561	14.325	14.50
STI M14 × 1.25	14.483	14.271	14.43
STI M16 × 2	16.733	16.433	16.7
STI M16 × 1.5	16.561	16.325	16.50
STI M18 × 2.5	18.897	18.542	18.8
STI M18 × 1.5	18.561	18.325	18.50
STI M20 × 2.5	20.897	20.542	20.8
STI M20 × 1.5	20.561	20.325	20.50
STI M22 × 2.5	22.897	22.542	22.8
STI M22 × 1.5	22.561	22.325	22.50
STI M24 × 3	25.049	24.649	24.9
STI M24 × 2	24.733	24.433	24.7
STI M24 × 1.5	24.561	24.325	24.50

for Helical Coil Wire Thread Inserts, Unified Threads

Unit : mm

Size	Minor diameter of internal threads (D_1)		Bored hole size (ref.)
	Max.	Min.	
STI No. 4 - 40 UNC	3.180	2.985	3.13
STI No. 4 - 48 UNF	3.121	2.962	3.08
STI No. 5 - 40 UNC	3.487	3.315	3.44
STI No. 6 - 32 UNC	3.878	3.678	3.83
STI No. 6 - 40 UNF	3.817	3.645	3.77
STI No. 8 - 32 UNC	4.523	4.339	4.48
STI No. 8 - 36 UNF	4.498	4.321	4.45
STI No. 10 - 24 UNC	5.283	5.055	5.23
STI No. 10 - 32 UNF	5.184	4.999	5.14
STI No. 12 - 24 UNC	5.943	5.715	5.89
STI 1/4 - 20 UNC	6.868	6.625	6.81
STI 1/4 - 28 UNF	6.720	6.546	6.68
STI 5/16 - 18 UNC	8.488	8.243	8.43
STI 5/16 - 24 UNF	8.351	8.167	8.31
STI 3/8 - 16 UNC	10.126	9.868	10.06
STI 3/8 - 24 UNF	9.931	9.754	9.89
STI 7/16 - 14 UNC	11.783	11.507	11.7
STI 7/16 - 20 UNF	11.584	11.387	11.53
STI 1/2 - 13 UNC	13.393	13.122	13.3
STI 1/2 - 20 UNF	13.172	12.975	13.12
STI 5/8 - 11 UNC	16.672	16.376	16.60
STI 5/8 - 18 UNF	16.385	16.180	16.33
STI 3/4 - 10 UNC	19.908	19.599	19.8
STI 3/4 - 16 UNF	19.608	19.393	19.55

• The figures listed above are according to the data provided by helical coil wire insert manufacturers.

15. Bored hole size before tapping (for thread cutting)

■ for Whitworth Threads

Unit : mm

Size	Minor diameter of internal threads (D_1)		Bored hole size (ref.)
	Max.	Min.	
※ 1/16 W 60	1.230	1.107	1.20
※ 3/32 W 48	1.914	1.785	1.88
※ 1/8 W 40	2.591	2.456	2.56
※ 5/32 W 32	3.214	3.071	3.18
※ 3/16 W 24	3.745	3.563	3.70
※ 7/32 W 24	4.540	4.358	4.49
1/4 W 20	5.204	4.914	5.13
5/16 W 18	6.670	6.340	6.59
3/8 W 16	8.113	7.733	8.02
7/16 W 14	9.508	9.048	9.4
1/2 W 12	10.830	10.310	10.7
9/16 W 12	12.418	11.898	12.3
5/8 W 11	13.817	13.257	13.7
3/4 W 10	16.778	16.178	16.6
7/8 W 9	19.691	19.031	19.5
1 W 8	22.514	21.814	22.3
1 1/8 W 7	25.229	24.469	25.0
1 1/4 W 7	28.404	27.644	28.2
1 3/8 W 6	30.923	30.123	30.7
1 1/2 W 6	34.098	33.298	33.9
1 5/8 W 5	36.409	35.529	36.2
1 3/4 W 5	39.584	38.704	39.4
1 7/8 W 4 1/2	42.227	41.237	42.0
2 W 4 1/2	45.402	44.412	45.2
2 1/4 W 4	51.068	49.958	50.8
2 1/2 W 4	57.418	56.308	57.1
2 3/4 W 3 1/2	62.816	61.636	62.5
3 W 3 1/2	69.166	67.986	68.9
3 1/4 W 3 1/4	74.902	73.702	74.6
3 1/2 W 3 1/4	81.252	80.052	81.0
3 3/4 W 3	86.908	85.668	86.6
4 W 3	93.258	92.018	92.9

- D1: Minor diameter of JIS Class 2 internal thread.
- Whitworth Threads have been eliminated from JIS.
- ※Marked sizes are in accordance with BSW.

■ for Sewing Machine Threads

Unit : mm

Size	Minor diameter of internal threads (D_1)		Bored hole size (ref.)
	Max.	Min.	
1/16 SM 80	1.281	1.211	1.26
5/64 SM 64	1.593	1.513	1.57
3/32 SM 56	1.936	1.841	1.91
3/32 SM 100	2.156	2.081	2.14
1/8 SM 40	2.551	2.421	2.52
1/8 SM 44	2.605	2.485	2.58
9/64 SM 40	2.948	2.818	2.92
11/64 SM 32	3.584	3.424	3.54
11/64 SM 40	3.742	3.612	3.71
3/16 SM 24	3.658	3.498	3.62
3/16 SM 28	3.844	3.684	3.80
3/16 SM 32	3.980	3.820	3.94
3/16 SM 40	4.138	4.008	4.11
7/32 SM 32	4.774	4.614	4.73
15/64 SM 28	5.055	4.875	5.01
1/4 SM 24	5.266	5.086	5.22
1/4 SM 28	5.452	5.272	5.41
1/4 SM 40	5.726	5.596	5.69
9/32 SM 28	6.256	6.066	6.21
5/16 SM 24	6.864	6.674	6.82
11/32 SM 28	7.843	7.653	7.80

■ for Pipe Threads

○PS

Unit : mm

Size	Minor Diameter of JIS internal thread (D_1)		Bored hole size (ref.)
	Max.	Min.	
PS 1/16 - 28	6.632	6.490	6.50
PS 1/8 - 28	8.637	8.495	8.50
PS 1/4 - 19	11.549	11.341	11.30
PS 3/8 - 19	15.054	14.846	14.80
PS 1/2 - 14	18.773	18.489	18.5
PS 5/8 - 14	20.729	20.445	20.4
PS 3/4 - 14	24.259	23.975	24.0
PS 7/8 - 14	28.019	27.735	27.7
PS 1 - 11	30.472	30.110	30.1
PS 1 1/8 - 11	35.120	34.758	34.7
PS 1 1/4 - 11	39.133	38.771	38.8
PS 1 1/2 - 11	45.026	44.664	44.7
PS 1 3/4 - 11	50.969	50.607	50.6
PS 2 - 11	56.837	56.475	56.5
PS 2 1/4 - 11	62.933	62.571	62.5
PS 2 1/2 - 11	72.442	72.010	72.0
PS 3 - 11	85.142	84.710	84.7
PS 3 1/2 - 11	97.588	97.156	97.2
PS 4 - 11	110.288	109.856	109.9

· For taps with the product symbol of "PS" or "Rp", see the list above.

○Rp

Unit : mm

Size	Minor diameter of internal threads (D_1)		Bored hole size (ref.)
	Max.	Min.	
Rp 1/8 - 28	8.637	8.495	8.50
Rp 1/4 - 19	11.549	11.341	11.40
Rp 3/8 - 19	15.054	14.846	14.90
Rp 1/2 - 14	18.773	18.489	18.5
Rp 3/4 - 14	24.259	23.975	24.0
Rp 1 - 11	30.472	30.110	30.2

· For the product symbol of "AUSP Rp", see the list above.

for Pipe Threads

○PF, G

Unit : mm

Size	Minor Diameter of JIS internal thread (D_1)		Bored hole size (ref.)
	Max.	Min.	
PF 1/16 - 28	6.843	6.561	6.77
PF 1/8 - 28	8.848	8.566	8.78
PF 1/4 - 19	11.890	11.445	11.78
PF 3/8 - 19	15.395	14.950	15.28
PF 1/2 - 14	19.172	18.631	19.0
PF 5/8 - 14	21.128	20.587	21.0
PF 3/4 - 14	24.658	24.117	24.5
PF 7/8 - 14	28.418	27.877	28.3
PF 1 - 11	30.931	30.291	30.8
PF 1 1/8 -11	35.579	34.939	35.4
PF 1 1/4 -11	39.592	38.952	39.4
PF 1 1/2 -11	45.485	44.845	45.3
PF 1 3/4 -11	51.428	50.788	51.3
PF 2 - 11	57.296	56.656	57.1
PF 2 1/2 -11	72.866	72.226	72.7
PF 3 - 11	85.566	84.926	85.4
PF 3 1/2 -11	98.012	97.372	97.9
PF 4 - 11	110.712	110.072	110.6

for American Standard Pipe Thread

Unit : mm

Size		Minor diameter of internal threads		Bored hole size (ref.)
		Max.	Min.	
1/16 - 27	NPSC	6.604	6.300	6.53
1/8 - 27	NPSC	8.940	8.636	8.86
1/4 - 18	NPSC	11.633	11.227	11.53
3/8 - 18	NPSC	15.087	14.656	14.98
1/2 - 14	NPSC	18.643	18.161	18.5
3/4 - 14	NPSC	24.003	23.495	23.9
1 - 11 1/2	NPSC	30.073	29.490	29.9
1 1/4 - 11 1/2	NPSC	38.836	38.253	38.7
1 1/2 - 11 1/2	NPSC	44.907	44.323	44.8
2 - 11 1/2	NPSC	56.946	56.363	56.8

Unit : mm

Size		Minor diameter of internal threads		Bored hole size (ref.)
		Max.	Min.	
1/16 - 27	NPSM	6.908	6.731	6.86
1/8 - 27	NPSM	9.245	9.094	9.21
1/4 - 18	NPSM	12.217	11.888	12.13
3/8 - 18	NPSM	15.544	15.317	15.49
1/2 - 14	NPSM	19.278	18.974	19.2
3/4 - 14	NPSM	24.638	24.334	24.6
1 - 11 1/2	NPSM	30.759	30.506	30.7
1 1/4 - 11 1/2	NPSM	39.497	39.269	39.4
1 1/2 - 11 1/2	NPSM	45.567	45.339	45.5
2 - 11 1/2	NPSM	57.607	57.379	57.6

for Dryseal American Standard Pipe Thread

Unit : mm

Size		Minor diameter of internal threads		Bored hole size (ref.)
		Max.	Min.	
1/16 - 27	NPSF	6.482	6.305	6.44
1/8 - 27	NPSF	8.829	8.652	8.78
1/4 - 18	NPSF	11.455	11.232	11.40
3/8 - 18	NPSF	14.892	14.672	14.84
1/2 - 14	NPSF	18.374	18.118	18.3
3/4 - 14	NPSF	23.721	23.465	23.7
1 - 11 1/2	NPSF	29.758	29.464	29.7
1 1/4 - 11 1/2	NPSF	38.514	38.220	38.4
1 1/2 - 11 1/2	NPSF	44.584	44.290	44.5
2 - 11 1/2	NPSF	56.621	56.328	56.5

15. Bored hole size before tapping (for thread cutting)

■ Recommended Bored Hole Size Table for Taper Pipe Threads (PT) (refer to JIS B 0203)

<Remarks during tapping>

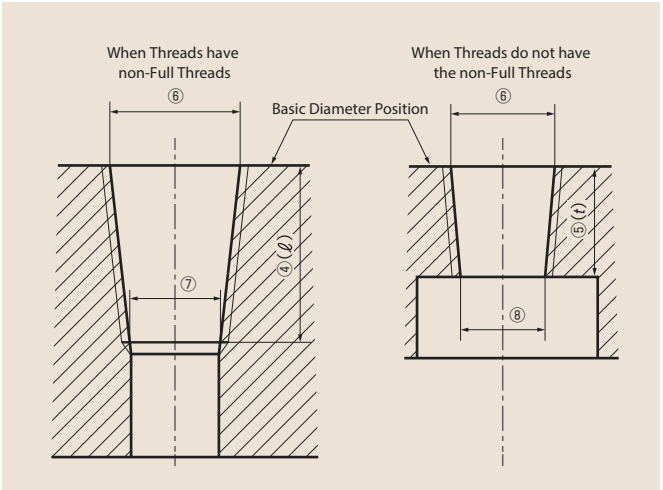
· PT internal threads have R design on their crests. The taps should cut threads with their thread root.

· On thread having non-full threads, if you are going to cut effective thread length ℓ , use the tap of long type.

Unit : mm

Size	Thread Standards				Minor Diameter			Recommended Bored Hole Sizes (reference)		reference		
	Basic Diameter	Basic Diameter Position	Effective Thread Length (Minimum)		Pipe End (Workpiece Face) (Basic Diameter)	When Threads have non-Full Threads	When Threads do not have the non-Full Threads	Maximum Size of Straight Bored Hole		Tap		
		Pipe End	When Threads have non-Full Threads[1] ℓ	When Threads do not have the non-Full Threads[1] t		Position away from Pipe End by ℓ	Position away from Pipe End by t			Basic Diameter Position, ℓ g		
	Tolerance in radial direction	Tolerance in axial direction c			Basic Size	Basic Size	Basic Size	When Threads have non-Full Threads	When Threads do not have the non-Full Threads	Long Thread Type	Short Thread Type	Rc
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬
PT 1/16 - 28	± 0.071	± 1.13	6.2	4.4	6.561	6.174	6.286	6.1	6.2	13.0	10.5	10.1
PT 1/8 - 28	± 0.071	± 1.13	6.2	4.4	8.566	8.179	8.291	8.1	8.2	13.0	10.5	10.1
PT 1/4 - 19	± 0.104	± 1.67	9.4	6.7	11.445	10.858	11.026	10.7	10.9	21.0	12.5	15.0
PT 3/8 - 19	± 0.104	± 1.67	9.7	7.0	14.950	14.344	14.513	14.2	14.4	21.0	14.0	15.4
PT 1/2 - 14	± 0.142	± 2.27	12.7	9.1	18.631	17.837	18.062	17.6	17.9	25.0	17.0	20.5
PT 5/8 - 14	± 0.142	± 2.27	(13.4)	(9.65)	20.587	19.750	19.984	19.6	19.8	25.0	-	-
PT 3/4 - 14	± 0.142	± 2.27	14.1	10.2	24.117	23.236	23.480	23.0	23.3	25.0	19.0	21.8
PT 7/8 - 14	± 0.142	± 2.27	(15.2)	(10.9)	27.877	26.930	27.196	26.7	27.0	28.0	-	-
PT 1 - 11	± 0.181	± 2.89	16.2	11.6	30.291	29.279	29.566	29.0	29.3	32.0	22.0	26.0
PT 1 1/8 - 11	± 0.181	± 2.89	(17.4)	(12.5)	34.939	33.855	34.158	33.6	33.9	32.0	-	-
PT 1 1/4 - 11	± 0.181	± 2.89	18.5	13.4	38.952	37.796	38.115	37.6	37.9	32.0	24.5	28.3
PT 1 1/2 - 11	± 0.181	± 2.89	18.5	13.4	44.845	43.689	44.008	43.5	43.8	32.0	25.5	28.3
PT 1 3/4 - 11	± 0.181	± 2.89	(18.5)	(13.4)	50.788	49.632	49.951	49.4	49.7	32.0	-	-
PT 2 - 11	± 0.181	± 2.89	22.8	16.9	56.656	55.231	55.600	55.0	55.4	35.0	27.5	32.7
PT 2 1/4 - 11	± 0.216	± 3.46	(26.7)	(18.6)	62.752	61.083	61.590	60.8	61.3	50.0	-	-
PT 2 1/2 - 11	± 0.216	± 3.46	26.7	18.6	72.226	70.557	71.064	70.3	70.8	50.0	32.0	37.1
PT 3 - 11	± 0.216	± 3.46	29.8	21.1	84.926	83.064	83.607	82.8	83.3	52.0	36.0	40.2
PT 3 1/2 - 11	± 0.216	± 3.46	31.4	22.4	97.372	95.410	95.972	95.1	95.7	52.0	-	46.2
PT 4 - 11	± 0.216	± 3.46	35.8	25.9	110.072	107.835	108.453	107.6	108.2	55.0	-	46.2

Note 1) Length toward End of Smaller Diameter from Basic Diameter Position



Remarks 1. Opening of Internal Thread (Face of workpiece) is Basic Diameter Position.

Remarks 2. Effective Thread Length has 2 types, with non-Full Thread Type and without non-Full Thread Type.

Remarks 3. Concerning bored hole shape, considering load on taps, taper bored hole is recommended.

Remarks 4. When a prepared hole is tapered, use a synchronized feed tapping machine.

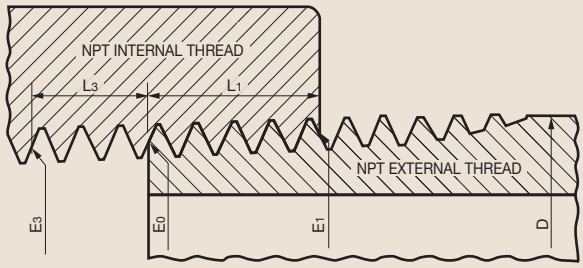
Remarks 5. When applying taper bored hole, by referring to values shown in columns ② · ⑥~⑧, prepare the taper hole by using pipe reamer (1/16 taper). By referring to values shown in columns ⑨ and ⑩, select the drill diameter before reaming by taking reamer's margin into account.

Remarks 6. When preparing straight bored hole, by referring to values shown in columns ⑨ and ⑩, select drill diameter.

Recommended Bored Hole Size Table for American Taper Pipe Threads (NPT) (Refer to ANSI/ASME B1.20.1-1983)

Unit : mm

Size	L1	L3	L1+L3	Minor Diameter						Bored Hole Size (reference)	reference Tap
				Pipe End (Basic Diameter Position)			Position away from Pipe End by (L1+L3)			Maximum Size of Straight Bored Hole	Basic Diameter Position ℓg
				Maximum Value	Minimum Value	Tolerance	Maximum Value	Minimum Value	Tolerance		
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
1/16 - 27 NPT	4.064	2.822	6.886	6.510	6.388	0.122	6.080	5.958	0.122	6.05	12.00
1/8 - 27 NPT	4.102	2.822	6.924	8.857	8.736	0.122	8.425	8.303	0.122	8.39	12.05
1/4 - 18 NPT	5.786	4.234	10.020	11.514	11.357	0.157	10.888	10.730	0.157	10.85	17.45
3/8 - 18 NPT	6.096	4.234	10.330	14.953	14.796	0.157	14.308	14.150	0.157	14.27	17.65
1/2 - 14 NPT	8.128	5.443	13.571	18.485	18.323	0.163	17.637	17.475	0.163	17.60	22.85
3/4 - 14 NPT	8.611	5.443	14.054	23.831	23.668	0.163	22.952	22.790	0.163	22.91	22.95
1 - 11 1/2 NPT	10.160	6.627	16.787	29.868	29.696	0.173	28.819	28.647	0.173	28.78	27.40
1 1/4 - 11 1/2 NPT	10.668	6.627	17.295	38.625	38.452	0.173	37.544	37.372	0.173	37.50	28.10
1 1/2 - 11 1/2 NPT	10.668	6.627	17.295	44.695	44.522	0.173	43.614	43.441	0.173	43.57	28.40
2 - 11 1/2 NPT	11.074	6.627	17.701	56.732	56.560	0.173	55.626	55.454	0.173	55.58	28.00
2 1/2 - 8 NPT	17.323	6.350	23.673	67.806	67.618	0.188	66.326	66.138	0.188	66.28	40.80
3 - 8 NPT	19.456	6.350	25.806	83.715	83.527	0.188	82.102	81.914	0.188	82.05	42.95



Remarks 1. Pipe End is Basic Diameter Position (E1).

Remarks 2. Effective Thread Length is the length away from Pipe End by (L1+L3).

Remarks 3. Concerning bored hole shape, considering load on taps, taper bored hole is recommended.

Remarks 4. When applying taper bored hole, by referring to values in shown columns ⑤, ⑥ and ⑧, ⑨, prepare the taper hole by using pipe reamer (1/16 taper). By referring to values shown in column ⑪, select the drill diameter before reaming by taking reamer's margin into account.

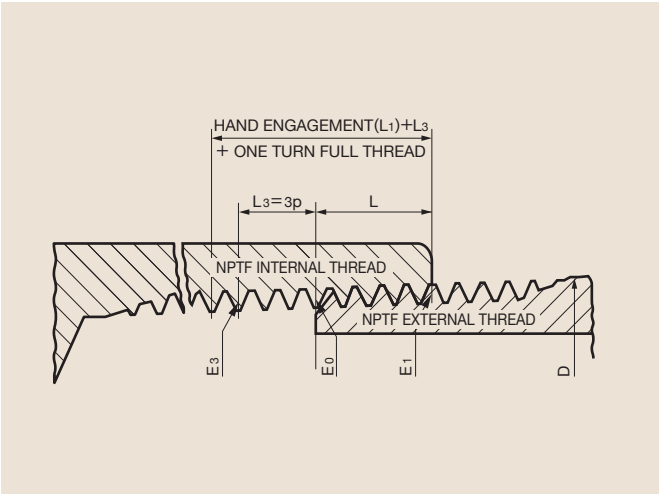
Remarks 5. When preparing straight bored hole, by referring to values shown in column ⑪, select drill diameter.

15. Bored hole size before tapping (for thread cutting)

■ Recommended Bored Hole Size Table for American Dryseal Taper Pipe Threads (NPTF)
(Refer to ANSI B1.20.3-1976, re-confirmed in 1982)

Unit : mm

Size	L1	L3 (3P)	L1+L3+1P	Minor Diameter						Bored Hole Size (reference)	reference Tap
				Pipe End (Basic Diameter Position)			Position of (L1+L3+1P)			Maximum Size of Straight Bored Hole	Basic Diameter Position ℓ g
				Maximum Value	Minimum Value	Tolerance	Maximum Value	Minimum Value	Tolerance		
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
1/16 - 27 NPTF	4.064	2.822	7.827	6.505	6.414	0.091	6.015	5.923	0.091	5.99	12.00
1/8 - 27 NPTF	4.102	2.822	7.865	8.852	8.761	0.091	8.362	8.270	0.091	8.34	12.05
1/4 - 18 NPTF	5.786	4.234	11.431	11.484	11.397	0.086	10.770	10.684	0.086	10.75	17.45
3/8 - 18 NPTF	6.096	4.234	11.741	14.923	14.836	0.086	14.189	14.103	0.086	14.17	17.65
1/2 - 14 NPTF	8.128	5.443	15.386	18.419	18.333	0.086	17.459	17.373	0.086	17.44	22.85
3/4 - 14 NPTF	8.611	5.443	15.868	23.764	23.678	0.086	22.773	22.687	0.086	22.75	22.95
1 - 11 1/2 NPTF	10.160	6.627	18.996	29.812	29.726	0.086	28.625	28.538	0.086	28.60	27.40
1 1/4 - 11 1/2 NPTF	10.668	6.627	19.504	38.569	38.483	0.086	37.350	37.263	0.086	37.33	28.10
1 1/2 - 11 1/2 NPTF	10.668	6.627	19.504	44.639	44.552	0.086	43.420	43.334	0.086	43.40	28.40
2 - 11 1/2 NPTF	11.074	6.627	19.910	56.677	56.590	0.086	55.432	55.345	0.086	55.41	28.00



Remarks 1. Pipe End is Basic Diameter Position (E1).
Remarks 2. Effective Thread Length is the length away from Pipe End by (L1+L3+1P).
Remarks 3. Concerning bored hole shape, considering load on taps, taper bored hole is recommended.
Remarks 4. When applying taper bored hole, by referring to values shown in columns ⑤, ⑥ and ⑧, ⑨, prepare the taper hole by using pipe reamer (1/16 taper). By referring to values in shown column ⑪, select the drill diameter before reaming by taking reamer's margin into account.
Remarks 5. When preparing straight bored hole, by referring to values shown in column ⑪, select drill diameter.

■ Percentage of Thread Engagement & Relation between Percentage of Thread Height and Area Removed at A Thread Height

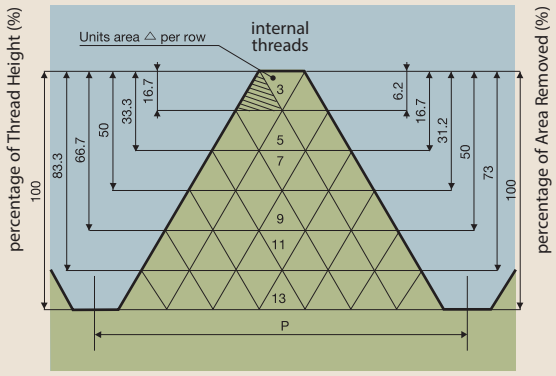
Percentage of Thread Engagement

$$\frac{\text{Basic Major Dia.} - \text{Hole Size Before Tapping}}{2\times(\text{Basic Thread Overlap})} \times 100$$

Basic Thread Overlap

Metric & Unified Thread	0.5413P
Whitworth Thread	0.5664P
Pipe Thread (Rc, Rp, G, PT, PS, PF)	0.6403P

P=Pitch



As shown above, when the thread height increases, the amount of material to be removed increases rapidly, so it is an advantage to tap users to keep the hole size (thread minor diameter) as large as possible.

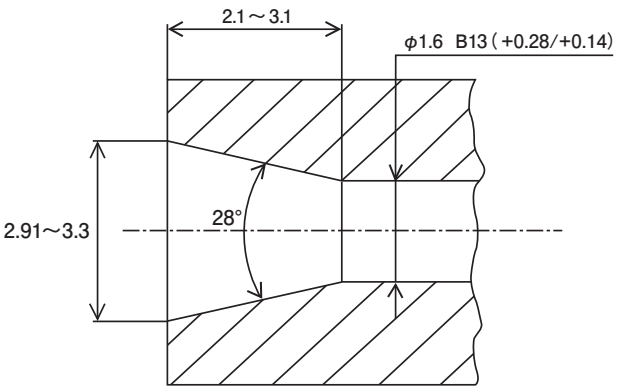
for Camera Tripod Mounting Threads

Unit : mm

Size	Minor diameter of internal threads (D_1)		Tap drill hole size (reference)
	Max.	Min.	
1/4 - 20	5.267	4.975	5.19

for Camera Release Mounting Taper Internal Threads

Unit : mm



for Automobile Tire Valve Threads

Unit : mm

Size	Minor diameter of internal threads (D_1)		Tap drill hole size (reference)
	Max.	Min.	
5 V 1	4.801	4.597	4.75
8 V 1	7.239	7.036	7.19
8 V 2	7.035	6.782	6.97
9 V 1	8.865	8.661	8.81
10 V 1	8.900	8.750	8.86
10 V 2	9.550	9.350	9.50
11 V 1	10.033	9.729	9.96
12 V 1	11.379	11.176	11.33
13 V 1	11.608	11.328	11.54
13 V 2	12.039	11.837	11.99
15 V 1	13.950	13.750	13.90
16 V 1	15.088	14.859	15.03
17 V 1	15.950	15.750	15.90
17 V 2	16.560	16.307	16.50
17 V 3	16.103	15.748	16.01
19 V 1	17.678	17.323	17.59
20 V 1	19.450	19.250	19.40

for Bicycle Tire Valve Threads

Unit : mm

Size	Minor diameter of internal threads (D_1)		Tap drill hole size (reference)
	Max.	Min.	
CTV 5 - 36	4.732	4.630	4.71
CTV 5 - 24	4.214	3.954	4.15
CTV 8 - 32	7.192	7.040	7.15
CTV 8 - 30	7.344	7.183	7.30
5 V 2	4.600	4.400	4.55
6 V 1	5.540	5.440	5.52

for Steel Conduit Threads (CTC)

Unit : mm

Size	Minor diameter of internal threads(D_1)		Tap drill hole size (reference)
	Max.	Min.	
CTC 19 - 16	18.208	17.808	18.11
CTC 25 - 16	24.508	24.108	24.41
CTC 31 - 16	30.908	30.508	30.81
CTC 39 - 16	37.208	36.808	37.11

for Thick Steel Conduit Threads (CTG)

Unit : mm

Size	Minor diameter of internal threads(D_1)		Tap drill hole size (reference)
	Max.	Min.	
CTG 16 - 14	19.522	19.022	19.4
CTG 22 - 14	25.008	24.508	24.9
CTG 28 - 11	31.361	30.761	31.2
CTG 36 - 11	40.022	39.422	39.9
CTG 42 - 11	45.915	45.315	45.8

15. Bored hole size before tapping (for thread cutting)

■ for General Bicycle Threads (BC)

Unit : mm

Size	Minor diameter of internal threads(D_1)		Tap drill hole size (reference)
	Max.	Min.	
BC 5/16 - 26	7.16	7.06	7.14
BC 3/8 - 26	8.75	8.65	8.73
BC 7/16 - 26	10.33	10.23	10.31
BC 1/2 - 20	11.66	11.55	11.63
BC 9/16 - 20	13.25	13.14	13.22
BC 5/8 - 20	14.84	14.73	14.81
BC 11/16 - 24	16.59	16.48	16.56
BC 3/4 - 30	18.40	18.29	18.37
BC 31/32 - 30	23.96	23.85	23.93
BC 1 - 24	24.58	24.46	24.55
BC 1.29 - 24	31.96	31.83	31.93
BC 1.37 - 24	33.99	33.86	33.96
BC 1 7/16 - 24	35.70	35.57	35.67
BC 1.45 - 24	36.02	35.89	35.99
BC 1 9/16 - 24	38.88	38.75	38.85

■ for European Steel Conduit Threads (Pg)

Unit : mm

Size	Minor diameter of internal threads(D_1)		Tap drill hole size (reference)
	Max.	Min.	
Pg 7 - 20	11.43	11.28	11.39
Pg 9 - 18	14.01	13.86	13.97
Pg 11 - 18	17.41	17.26	17.37
Pg 13.5 - 18	19.21	19.06	19.17
Pg 16 - 18	21.31	21.16	21.27
Pg 21 - 16	27.03	26.78	26.97
Pg 29 - 16	35.73	35.48	35.67
Pg 36 - 16	45.73	45.48	45.67

■ For miniature threads

Unit : mm

Size	Minor diameter of internal threads(D_1)		Tap drill hole size (reference)
	Max.	Min.	
S0.4 × 0.1	0.330	0.304	0.32
S0.5 × 0.125	0.415	0.380	0.41
S0.6 × 0.15	0.502	0.456	0.49
S0.7 × 0.175	0.585	0.532	0.57
S0.8 × 0.2	0.665	0.608	0.65
S0.9 × 0.225	0.745	0.684	0.73

■ For trapezoidal threads

Unit : mm

Size	Minor diameter of internal threads(D_1)		Tap drill hole size (reference)
	Max.	Min.	
Tr 10 × 2	8.236	8.000	8.2
Tr 12 × 3	9.315	9.000	9.2
Tr 12 × 2	10.236	10.000	10.2
Tr 14 × 3	11.315	11.000	11.2
Tr 16 × 4	12.375	12.000	12.3
Tr 16 × 3	13.315	13.000	13.2
Tr 18 × 4	14.375	14.000	14.3
Tr 20 × 4	16.375	16.000	16.3
Tr 22 × 5	17.450	17.000	17.3
Tr 24 × 5	19.450	19.000	19.3
Tr 25 × 5	20.450	20.000	20.3
Tr 26 × 5	21.450	21.000	21.3
Tr 28 × 5	23.450	23.000	23.3
Tr 30 × 6	24.500	24.000	24.4

■ For microscope objective lenses

Unit : mm

Size	Minor diameter of internal threads(D_1)		Tap drill hole size (reference)
	Max.	Min.	
20.32W36	19.550	19.474	19.53

16. Bored hole size before tapping (for thread forming)

■ for Metric Threads

Unit : mm

Size	Class	Bored Hole Size	Expected minor Diameter of Internal Thread Size
M1 × 0.25	G4	0.91	0.76
	G5	0.92	
M1.2 × 0.25	G4	1.11	0.96
	G5	1.12	
M1.4 × 0.3	G4	1.28	1.12
	G5	1.30	
M1.4 × 0.2	G3	1.32	1.21
M1.6 × 0.35	G4	1.46	1.28
	G5	1.47	
	G6	1.48	
M1.6 × 0.2	G3	1.52	1.41
※ M1.7 × 0.35	G4	1.56	1.38
	G5	1.57	
	G6	1.58	
M1.8 × 0.35	G4	1.66	1.48
	G5	1.67	
M2 × 0.4	G4	1.82	1.64
	G5	1.83	
	G6	1.85	
M2 × 0.25	G4	1.90	1.76
	G5	1.92	
M2.2 × 0.45	G5	2.01	1.79
※ M2.3 × 0.4	G4	2.12	1.94
	G5	2.13	
	G6	2.15	
M2.5 × 0.45	G5	2.31	2.09
	G6	2.33	
M2.5 × 0.35	G4	2.35	2.18
	G5	2.37	
※ M2.6 × 0.45	G5	2.41	2.19
	G6	2.43	
※ M2.6 × 0.35	G5	2.47	2.28
	G6	2.48	
M3 × 0.5	G5	2.79	2.55
	G6	2.81	
	G7	2.82	
	G8	2.83	
M3 × 0.35	G5	2.85	2.68
	G6	2.87	
M3.5 × 0.6	G5	3.24	2.95
	G6	3.25	
	G7	3.26	
M3.5 × 0.35	G5	3.35	3.18
	G6	3.36	
M4 × 0.7	G5	3.69	3.35
	G6	3.70	
	G7	3.72	
	G8	3.73	
M4 × 0.5	G5	3.79	3.55
	G6	3.80	
	G7	3.82	
M5 × 0.8	G5	4.63	4.26
	G6	4.65	
	G7	4.66	
	G8	4.67	
M5 × 0.5	G6	4.80	4.55
	G7	4.81	
M6 × 1	G5	5.53	5.06
	G6	5.55	
	G7	5.56	
	G8	5.57	
M6 × 0.75	G6	5.67	5.31
	G7	5.68	
※ M6 × 0.5	G6	5.79	5.55
M7 × 1	G6	6.54	6.06
	G7	6.56	
M7 × 0.75	G7	6.68	6.31
M8 × 1.25	G7	7.44	6.81
	G8	7.45	
M8 × 1	G7	7.55	7.06
M8 × 0.75	G7	7.68	7.31
M10 × 1.5	G7	9.31	8.56
	G8	9.33	
M10 × 1.25	G7	9.44	8.81
	G8	9.45	
M10 × 1	G7	9.55	9.06
M12 × 1.75	G8	11.20	10.32
	G9	11.21	
M12 × 1.5	G8	11.31	10.56
	G9	11.32	
M12 × 1.25	G8	11.43	10.81
	G9	11.45	
M12 × 1	G7	11.55	11.06
M14 × 2	G9	13.08	12.07
	G10	13.10	
M14 × 1.5	G9	13.32	12.56
M14 × 1	G8	13.55	13.06
M16 × 2	G9	15.08	14.07
	G10	15.09	
M16 × 1.5	G9	15.31	14.56
M16 × 1	G8	15.55	15.06
M18 × 1.5	G9	17.31	16.56
	G10	17.32	
M20 × 2.5	G11	18.86	17.58
M20 × 1.5	G9	19.31	18.56
	G10	19.32	

Sizes with * mark are deleted from JIS.

16. Bored hole size before tapping (for thread forming)

for Unified Threads

Unit : mm

Size	Class	Bored Hole Size	Expected minor Diameter of Internal Thread Size
No.0-80UNF	G5	1.43	1.26
No.1-72UNF	G5	1.75	1.56
No.2-56UNC	G4	2.01	1.81
	G5	2.03	
	G6	2.04	
	G7	2.05	
No.2-64UNF	G4	2.03	1.85
No.3-48UNC	G4	2.31	2.07
	G5	2.33	
No.3-56UNF	G4	2.34	2.13
No.4-40UNC	G5	2.61	2.30
	G6	2.62	
	G7	2.64	
No.4-48UNF	G5	2.65	2.39
	G6	2.66	
No.5-40UNC	G5	2.94	2.62
No.5-44UNF	G5	2.96	2.67
	G6	2.97	
No.6-32UNC	G5	3.19	2.80
	G6	3.20	
	G7	3.21	
No.6-40UNF	G5	3.25	2.95
No.8-32UNC	G6	3.85	3.44
	G7	3.86	
	G8	3.88	
No.8-36UNF	G5	3.88	3.53
	G6	3.89	
No.10-24UNC	G6	4.39	3.86
	G7	4.40	
No.10-32UNF	G6	4.50	4.09
	G7	4.51	
No.12-24UNC	G6	5.04	4.50
No.12-28UNF	G6	5.10	4.64
1/4-20UNC	G6	5.80	5.15
	G7	5.82	
	G8	5.83	
1/4-28UNF	G6	5.96	5.50
	G7	5.97	
5/16-18UNC	G7	7.33	6.61
3/8-24UNF	G7	9.07	8.54
7/16-14UNC	G8	10.32	9.40
7/16-20UNF	G8	10.57	9.92
1/2-13UNC	G8	11.84	10.86
1/2-20UNF	G8	12.15	11.50

for Helical Coil Wire Screw Thread Inserts

Unit : mm

Size	Class	Bored Hole Size	Expected minor Diameter of Internal Thread Size
STI M3 × 0.5	G3	3.41	3.18
STI M4 × 0.7	G4	4.57	4.24
STI M5 × 0.8	G4	5.65	5.27
STI M6 × 1	G4	6.80	6.33
STI M8 × 1.25	G4	9.01	8.40
STI M10 × 1.5	G5	11.21	10.47
STI M10 × 1.25	G5	11.02	10.40
STI M12 × 1.75	G6	13.42	12.54
STI M12 × 1.5	G6	13.21	12.47
STI M12 × 1.25	G6	13.01	12.40

for Miniature Screw Threads

Unit : mm

Size	Class	Bored Hole Size
S0.6 × 0.15	GS2	0.55
S0.7 × 0.175	GS3	0.63
S0.8 × 0.2	GS3	0.72
S0.9 × 0.225	GS4	0.81

Concerning bored hole sizes for metric extra fine screw series, please contact Yamawa or The Japan Research Institute for Screw Thread and Fastener.

SURZ

SURZ adopts special design on the thread root of tap, and is applicable to the control of minor diameter of internal threads and seams of thread crests.

Unit : mm

Size	Class	Recommended bored hole sizes
M1 × 0.25	G4	0.90
M1.2 × 0.25	G4	1.10
M1.4 × 0.3	G4	1.28
M1.6 × 0.35	G4	1.46
M1.6 × 0.2	G3	1.52
M1.7 × 0.35	G4	1.56
M2 × 0.4	G4	1.82
M2.3 × 0.4	G4	2.12
M2.5 × 0.45	G4	2.30
M2.6 × 0.45	G5	2.40
M3 × 0.5	G5	2.77
No. 2 - 56UNC	G4	1.98
No. 4 - 40UNC	G5	2.55
No. 6 - 32UNC	G5	3.14

*Recommended bored hole sizes shown above aim at 90% percentage of thread engagement, and are decided by paying attention to tap breakage possibility based on our test results.

*Material deformation can slightly change depending on material, hardness and shape of workpiece and cutting condition, and hole sizes should be changed accordingly.
Please choose the suitable bored hole size.

17. Bar diameter for external threads (for cutting type dies)

Metric threads

Unit : mm

Size	Outside diameter of external thread				Bar diameter	
	Current JIS		Old JIS			
	Max.	Min.	Max.	Min.	Current JIS	Old JIS
M1X0.25	1.000	0.933	0.985	0.940	0.95	0.95
M1X0.2	1.000	0.944	0.980	0.930	0.96	0.94
M1.1X0.25	1.100	1.033	1.100	1.033	1.05	1.05
M1.2X0.25	1.200	1.133	1.185	1.140	1.15	1.15
M1.2X0.2	1.200	1.144	1.180	1.130	1.16	1.14
M1.4X0.3	1.400	1.325	1.380	1.320	1.34	1.34
M1.4X0.2	1.400	1.344	1.380	1.330	1.36	1.34
M1.6X0.35	1.581	1.496	1.581	1.496	1.52	1.52
M1.6X0.2	1.583	1.527	1.583	1.527	1.54	1.54
※1 M1.7X0.35	1.681	1.596	1.680	1.610	1.62	1.63
※1 M1.7X0.2	1.683	1.627	1.680	1.630	1.64	1.64
M1.8X0.35	1.781	1.696	1.781	1.696	1.72	1.72
M1.8X0.2	1.783	1.727	1.783	1.727	1.74	1.74
M2X0.4	1.981	1.886	1.980	1.890	1.91	1.91
M2X0.25	1.982	1.915	1.980	1.930	1.93	1.94
M2.2X0.45	2.180	2.080	2.180	2.080	2.11	2.11
M2.2X0.25	2.182	2.115	2.182	2.115	2.13	2.13
※1 M2.3X0.4	2.281	2.186	2.280	2.190	2.21	2.21
※1 M2.3X0.25	2.282	2.215	2.280	2.230	2.23	2.24
M2.5X0.45	2.480	2.380	2.480	2.380	2.41	2.41
M2.5X0.35	2.481	2.396	2.481	2.396	2.42	2.42
※1 M2.6X0.45	2.580	2.480	2.580	2.480	2.51	2.51
※1 M2.6X0.35	2.581	2.496	2.580	2.480	2.52	2.51
M3X0.5	2.980	2.874	2.980	2.874	2.90	2.90
※1 3M0.6	-	-	2.970	2.860	-	2.89
M3X0.35	2.981	2.896	2.980	2.880	2.92	2.91
M3.5X0.6	3.479	3.354	3.470	3.360	3.39	3.39
※2 M3.5X0.5	3.480	3.374	3.470	3.360	3.40	3.39
M3.5X0.35	3.481	3.396	3.480	3.380	3.42	3.41
M4X0.7	3.978	3.838	3.978	3.838	3.87	3.87
※1 4M0.75	-	-	3.970	3.840	-	3.87
M4X0.5	3.980	3.874	3.970	3.860	3.90	3.89
※2 M4X0.35	3.981	3.896	3.980	3.880	3.92	3.91
M4.5X0.75	4.478	4.338	4.470	4.340	4.37	4.37
M4.5X0.5	4.480	4.374	4.470	4.360	4.40	4.39
M5X0.8	4.976	4.826	4.976	4.826	4.86	4.86
※1 5M0.9	-	-	4.970	4.830	-	4.87
※2 M5X0.75	4.978	4.838	4.970	4.850	4.87	4.88
M5X0.5	4.980	4.874	4.970	4.860	4.90	4.89
※1 M5.5X0.9	-	-	5.470	5.330	-	5.37
M5.5X0.5	5.480	5.374	5.470	5.360	5.40	5.39
M6X1	5.974	5.794	5.970	5.820	5.84	5.86
M6X0.75	5.978	5.838	5.970	5.850	5.87	5.88
※1 M6X0.5	5.980	5.874	5.970	5.880	5.90	5.90

Size	Outside diameter of external thread				Bar diameter	
	Current JIS		Old JIS			
	Max.	Min.	Max.	Min.	Current JIS	Old JIS
M7X1	6.974	6.794	6.970	6.820	6.84	6.86
M7X0.75	6.978	6.838	6.970	6.850	6.87	6.88
※1 M7X0.5	6.980	6.874	6.970	6.880	6.90	6.90
M8X1.25	7.972	7.760	7.960	7.790	7.81	7.83
M8X1	7.974	7.794	7.970	7.830	7.84	7.87
M8X0.75	7.978	7.838	7.970	7.830	7.87	7.87
※1 M8X0.5	7.980	7.874	7.990	7.910	7.90	7.93
M9X1.25	8.972	8.760	8.960	8.790	8.81	8.83
M9X1	8.974	8.794	8.970	8.830	8.84	8.87
M9X0.75	8.978	8.838	8.970	8.830	8.87	8.87
※1 M9X0.5	8.980	8.874	8.990	8.910	8.90	8.93
M10X1.5	9.968	9.732	9.960	9.770	9.79	9.82
M10X1.25	9.972	9.760	9.960	9.810	9.81	9.85
M10X1	9.974	9.794	9.970	9.820	9.84	9.86
M10X0.75	9.978	9.838	9.978	9.838	9.87	9.87
※1 M10X0.5	9.980	9.874	9.990	9.910	9.90	9.93
M11X1.5	10.968	10.732	10.968	10.732	10.79	10.79
※1 M11X1.25	10.972	10.760	10.960	10.810	10.81	10.85
M11X1	10.974	10.794	10.970	10.820	10.84	10.86
M11X0.75	10.978	10.838	10.978	10.838	10.87	10.87
※1 M11X0.5	10.980	10.874	10.990	10.910	10.90	10.93
M12X1.75	11.966	11.701	11.950	11.760	11.8	11.8
M12X1.5	11.968	11.732	11.960	11.790	11.79	11.83
M12X1.25	11.972	11.760	11.972	11.760	11.81	11.81
M12X1	11.974	11.794	11.960	11.810	11.84	11.85
※2 M12X0.75	11.978	11.838	11.970	11.850	11.87	11.88
※1 M12X0.5	11.980	11.874	11.990	11.910	11.90	11.93
※1 M13X1.5	12.968	12.732	12.960	12.790	12.79	12.83
※2 M13X1.25	12.972	12.760	12.960	12.810	12.81	12.85
※1 M13X1	12.974	12.794	12.960	12.810	12.84	12.85
※2 M13X0.75	12.978	12.838	12.970	12.850	12.87	12.88
※1 M13X0.5	12.980	12.874	12.990	12.910	12.90	12.93
M14X2	13.962	13.682	13.950	13.740	13.8	13.8
M14X1.5	13.968	13.732	13.960	13.790	13.79	13.83
M14X1.25	13.972	13.760	13.960	13.810	13.81	13.85
M14X1	13.974	13.794	13.960	13.810	13.84	13.85
※2 M14X0.75	13.978	13.838	13.970	13.850	13.87	13.88
※1 M14X0.5	13.980	13.874	13.990	13.910	13.90	13.93
※2 M15X2	14.962	14.682	14.950	14.740	14.8	14.8
M15X1.5	14.968	14.732	14.960	14.790	14.79	14.83
※2 M15X1.25	14.972	14.760	14.960	14.810	14.81	14.85
M15X1	14.974	14.794	14.960	14.810	14.84	14.85
※2 M15X0.75	14.978	14.838	14.970	14.850	14.87	14.88
※1 M15X0.5	14.980	14.874	14.990	14.910	14.90	14.93

17. Bar diameter for external threads (for cutting type dies)

Unit : mm

Size	Outside diameter of external thread				Bar diameter	
	Current JIS		Old JIS			
	Max.	Min.	Max.	Min.	Current JIS	Old JIS
M16X2	15.962	15.682	15.950	15.740	15.8	15.8
M16X1.5	15.968	15.732	15.960	15.790	15.79	15.83
※2 M16X1.25	15.972	15.760	15.960	15.810	15.81	15.85
M16X1	15.974	15.794	15.960	15.810	15.84	15.85
※2 M16X0.75	15.978	15.838	15.970	15.850	15.87	15.88
※1 M16X0.5	15.980	15.874	15.990	15.910	15.90	15.93
※2 M17X2	16.962	16.682	16.950	16.740	16.8	16.8
M17X1.5	16.968	16.732	16.968	16.732	16.79	16.79
M17X1	16.974	16.794	16.974	16.794	16.84	16.84
※2 M17X0.5	16.980	16.874	16.990	16.910	16.90	16.93
M18X2.5	17.958	17.623	17.950	17.710	17.7	17.8
M18X2	17.962	17.682	17.950	17.650	17.8	17.7
M18X1.5	17.968	17.732	17.950	17.780	17.79	17.82
M18X1	17.974	17.794	17.960	17.810	17.84	17.85
※1 M18X0.5	17.980	17.874	17.990	17.910	17.90	17.93
※2 M19X1.5	18.968	18.732	18.950	18.780	18.79	18.82
※2 M19X1	18.974	18.794	18.960	18.810	18.84	18.85
M20X2.5	19.958	19.623	19.950	19.710	19.7	19.8
M20X2	19.962	19.682	19.950	19.650	19.8	19.7
M20X1.5	19.968	19.732	19.950	19.780	19.79	19.82
※2 M20X1.25	19.972	19.760	19.960	19.810	19.81	19.85
M20X1	19.974	19.794	19.960	19.810	19.84	19.85
※1 M20X0.5	19.980	19.874	19.990	19.910	19.90	19.93
※2 M21X1.5	20.968	20.732	20.950	20.780	20.79	20.82
※2 M21X1	20.974	20.794	20.960	20.810	20.84	20.85
M22X2.5	21.958	21.623	21.950	21.710	21.7	21.8
M22X2	21.962	21.682	21.950	21.650	21.8	21.7
M22X1.5	21.968	21.732	21.950	21.780	21.79	21.82
※2 M22X1.25	21.972	21.760	21.960	21.810	21.81	21.85
M22X1	21.974	21.794	21.960	21.810	21.84	21.85
※1 M22X0.5	21.980	21.874	21.990	21.910	21.90	21.93
※2 M23X1.5	22.968	22.732	22.950	22.780	22.79	22.82
※2 M23X1	22.974	22.794	22.960	22.810	22.84	22.85
M24X3	23.952	23.577	23.940	23.680	23.7	23.7
M24X2	23.962	23.682	23.940	23.640	23.8	23.7
M24X1.5	23.968	23.732	23.950	23.780	23.79	23.82
※2 M24X1.25	23.972	23.760	23.960	23.810	23.81	23.85
M24X1	23.974	23.794	23.960	23.810	23.84	23.85
※2 M25X3	24.952	24.577	24.940	24.680	24.7	24.7
M25X2	24.962	24.682	24.940	24.640	24.8	24.7
M25X1.5	24.968	24.732	24.950	24.780	24.79	24.82
※2 M25X1.25	24.972	24.760	24.960	24.810	24.81	24.85
M25X1	24.974	24.794	24.960	24.810	24.84	24.85
※1 M26X2	25.962	25.682	25.940	25.640	25.8	25.7

Size	Outside diameter of external thread				Bar diameter	
	Current JIS		Old JIS			
	Max.	Min.	Max.	Min.	Current JIS	Old JIS
M26X1.5	25.968	25.732	25.950	25.780	25.79	25.82
※2 M26X1	25.974	25.794	25.960	25.810	25.84	25.85
M27X3	26.952	26.577	26.940	26.680	26.7	26.7
M27X2	26.962	26.682	26.962	26.682	26.8	26.8
M27X1.5	26.968	26.732	26.950	26.780	26.79	26.82
M27X1	26.974	26.794	26.974	26.794	26.84	26.84
M28X2	27.962	27.682	27.940	27.640	27.8	27.7
M28X1.5	27.968	27.732	27.950	27.780	27.79	27.82
M28X1	27.974	27.794	27.960	27.810	27.84	27.85
M30X3.5	29.947	29.522	29.940	29.660	29.6	29.7
M30X3	29.952	29.577	29.952	29.577	29.7	29.7
M30X2	29.962	29.682	29.940	29.640	29.8	29.7
M30X1.5	29.968	29.732	29.950	29.780	29.79	29.82
M30X1	29.974	29.794	29.960	29.810	29.84	29.85
※1 M30X0.5	29.980	29.874	29.990	29.910	29.90	29.93
※2 M32X3	31.952	31.577	31.952	31.577	31.7	31.7
M32X2	31.962	31.682	31.940	31.640	31.8	31.7
M32X1.5	31.968	31.732	31.950	31.780	31.79	31.82
※1 M32X1	31.974	31.794	31.950	31.800	31.84	31.84
※1 M32X0.5	31.980	31.874	31.990	31.910	31.90	31.93
M33X3.5	32.947	32.522	32.940	32.660	32.6	32.7
M33X3	32.952	32.577	32.952	32.577	32.7	32.7
M33X2	32.962	32.682	32.962	32.682	32.8	32.8
M33X1.5	32.968	32.732	32.950	32.780	32.79	32.82
※2 M33X1	32.974	32.794	32.950	32.800	32.84	32.84
※2 M34X3	33.952	33.577	33.952	33.577	33.7	33.7
※1 M34X2	33.962	33.682	33.940	33.640	33.8	33.7
※1 M34X1.5	33.968	33.732	33.950	33.780	33.79	33.82
※1 M34X1	33.974	33.794	33.950	33.800	33.84	33.84
※2 M35X3	34.952	34.577	34.952	34.577	34.7	34.7
※2 M35X2	34.962	34.682	34.940	34.640	34.8	34.7
M35X1.5	34.968	34.732	34.950	34.780	34.79	34.82
※2 M35X1.25	34.972	34.760	34.960	34.810	34.81	34.85
※2 M35X1	34.974	34.794	34.950	34.800	34.84	34.84
M36X4	35.940	35.465	35.930	35.630	35.6	35.7
M36X3	35.952	35.577	35.952	35.577	35.7	35.7
M36X2	35.962	35.682	35.940	35.640	35.8	35.7
M36X1.5	35.968	35.732	35.950	35.780	35.79	35.82
※1 M36X1	35.974	35.794	35.950	35.800	35.84	35.84
※1 M36X0.5	35.980	35.874	35.990	35.910	35.90	35.93
※2 M37X1.5	36.968	36.732	36.950	36.780	36.79	36.82
※2 M37X1	36.974	36.794	36.950	36.800	36.84	36.84
※2 M38X4	37.940	37.465	37.930	37.630	37.6	37.7
※2 M38X3	37.952	37.577	37.952	37.577	37.7	37.7

Unit : mm

Size	Outside diameter of external thread				Bar diameter	
	Current JIS		Old JIS			
	Max.	Min.	Max.	Min.	Current JIS	Old JIS
※1 M38X2	37.962	37.682	37.940	37.640	37.8	37.7
M38X1.5	37.968	37.732	37.950	37.780	37.79	37.82
※1 M38X1	37.974	37.794	37.950	37.800	37.84	37.84
M39X4	38.940	38.465	38.930	38.630	38.6	38.7
M39X3	38.952	38.577	38.952	38.577	38.7	38.7
M39X2	38.962	38.682	38.962	38.682	38.8	38.8
M39X1.5	38.968	38.732	38.968	38.732	38.79	38.79
※2 M39X1	38.974	38.794	38.950	38.800	38.84	38.84
※2 M40X4	39.940	39.465	39.930	39.630	39.6	39.7
M40X3	39.952	39.577	39.952	39.577	39.7	39.7
M40X2	39.962	39.682	39.940	39.640	39.8	39.7
M40X1.5	39.968	39.732	39.950	39.780	39.79	39.82
※1 M40X1	39.974	39.794	39.950	39.800	39.84	39.84
M42X4.5	41.937	41.437	41.930	41.610	41.6	41.7
M42X4	41.940	41.465	41.940	41.465	41.6	41.6
M42X3	41.952	41.577	41.952	41.577	41.7	41.7
M42X2	41.962	41.682	41.940	41.640	41.8	41.7
M42X1.5	41.968	41.732	41.950	41.780	41.79	41.82
※1 M42X1	41.974	41.794	41.950	41.800	41.84	41.84
※2 M44X2	43.962	43.682	43.940	43.640	43.8	43.7
※2 M44X1.5	43.968	43.732	43.950	43.780	43.79	43.82
M45X4.5	44.937	44.437	44.930	44.610	44.6	44.7
M45X4	44.940	44.465	44.940	44.465	44.6	44.6
M45X3	44.952	44.577	44.952	44.577	44.7	44.7
M45X2	44.962	44.682	44.940	44.640	44.8	44.7
M45X1.5	44.968	44.732	44.950	44.780	44.79	44.82
※1 M45X1	44.974	44.794	44.950	44.800	44.84	44.84
※2 M46X4	45.940	45.465	45.940	45.465	45.6	45.6
※2 M46X3	45.952	45.577	45.952	45.577	45.7	45.7
※2 M46X2	45.962	45.682	45.940	45.640	45.8	45.7
※2 M46X1.5	45.968	45.732	45.950	45.780	45.79	45.82
M48X5	47.929	47.399	47.930	47.590	47.5	47.7
M48X4	47.940	47.465	47.940	47.465	47.6	47.6
M48X3	47.952	47.577	47.952	47.577	47.7	47.7
M48X2	47.962	47.682	47.940	47.640	47.8	47.7
M48X1.5	47.968	47.732	47.950	47.780	47.79	47.82
※2 M48X1.25	47.972	47.760	47.960	47.810	47.81	47.85
※1 M48X1	47.974	47.794	47.950	47.800	47.84	47.84
※2 M50X4	49.940	49.465	49.940	49.465	49.6	49.6
M50X3	49.952	49.577	49.952	49.577	49.7	49.7
M50X2	49.962	49.682	49.940	49.640	49.8	49.7
M50X1.5	49.968	49.732	49.950	49.780	49.79	49.82
※1 M50X1	49.974	49.794	49.950	49.800	49.84	49.84
M52X5	51.929	51.399	51.929	51.399	51.5	51.5

Size	Outside diameter of external thread				Bar diameter	
	Current JIS		Old JIS			
	Max.	Min.	Max.	Min.	Current JIS	Old JIS
M52X4	51.940	51.465	51.940	51.465	51.6	51.6
M52X3	51.952	51.577	51.952	51.577	51.7	51.7
M52X2	51.962	51.682	51.940	51.640	51.8	51.7
M52X1.5	51.968	51.732	51.950	51.700	51.79	51.76
M55X4	54.940	54.465	54.940	54.465	54.6	54.6
M55X3	54.952	54.577	54.952	54.577	54.7	54.7
M55X2	54.962	54.682	54.940	54.640	54.8	54.7
M55X1.5	54.968	54.732	54.950	54.700	54.79	54.76
M56X5.5	55.925	55.365	55.925	55.365	55.5	55.5
M56X4	55.940	55.465	55.940	55.465	55.6	55.6
M56X3	55.952	55.577	55.952	55.577	55.7	55.7
M56X2	55.962	55.682	55.962	55.682	55.8	55.8
M56X1.5	55.968	55.732	55.968	55.732	55.79	55.79
M58X4	57.940	57.465	57.940	57.465	57.6	57.6
M58X3	57.952	57.577	57.952	57.577	57.7	57.7
M58X2	57.962	57.682	57.940	57.640	57.8	57.7
M58X1.5	57.968	57.732	57.950	57.700	57.79	57.76
M60X5.5	59.925	59.365	59.925	59.365	59.5	59.5
M60X4	59.940	59.465	59.940	59.465	59.6	59.6
M60X3	59.952	59.577	59.952	59.577	59.7	59.7
M60X2	59.962	59.682	59.940	59.640	59.8	59.7
M60X1.5	59.968	59.732	59.950	59.700	59.79	59.76
M62X4	61.940	61.465	61.940	61.465	61.6	61.6
M62X3	61.952	61.577	61.952	61.577	61.7	61.7
M62X2	61.962	61.682	61.940	61.640	61.8	61.7
M62X1.5	61.968	61.732	61.950	61.700	61.79	61.76
M64X6	63.920	63.320	63.920	63.320	63.5	63.5
M64X4	63.940	63.465	63.940	63.465	63.6	63.6
M64X3	63.952	63.577	63.952	63.577	63.7	63.7
M64X2	63.962	63.682	63.962	63.682	63.8	63.8
M64X1.5	63.968	63.732	63.968	63.732	63.79	63.79
※2 M65X6	64.920	64.320	64.920	64.320	64.5	64.5
M65X4	64.940	64.465	64.920	64.465	64.6	64.6
M65X3	64.952	64.577	64.952	64.577	64.7	64.7
M65X2	64.962	64.682	64.940	64.640	64.8	64.7
M65X1.5	64.968	64.732	64.950	64.700	64.79	64.76
M68X6	67.920	67.320	67.920	67.320	67.5	67.5
M68X4	67.940	67.465	67.940	67.465	67.6	67.6
M68X3	67.952	67.577	67.952	67.577	67.7	67.7
M68X2	67.962	67.682	67.940	67.640	67.8	67.7
M68X1.5	67.968	67.732	67.950	67.700	67.79	67.76
M70X6	69.920	69.320	69.920	69.320	69.5	69.5
M70X4	69.940	69.465	69.940	69.465	69.6	69.6
M70X3	69.952	69.577	69.952	69.577	69.7	69.7

17. Bar diameter for external threads (for cutting type dies)

Size	Outside diameter of external thread				Bar diameter	
	Current JIS		Old JIS			
	Max.	Min.	Max.	Min.	Current JIS	Old JIS
M70X2	69.962	69.682	69.940	69.640	69.8	69.7
M70X1.5	69.968	69.732	69.950	69.700	69.79	69.76
M72X6	71.920	71.320	71.920	71.320	71.5	71.5
M72X4	71.940	71.465	71.940	71.465	71.6	71.6
M72X3	71.952	71.577	71.952	71.577	71.7	71.7
M72X2	71.962	71.682	71.940	71.640	71.8	71.7
M72X1.5	71.968	71.732	71.950	71.700	71.79	71.76
※2 M75X6	74.920	74.320	74.920	74.320	74.5	74.5
M75X4	74.940	74.465	74.940	74.465	74.6	74.6
M75X3	74.952	74.577	74.952	74.577	74.7	74.7
M75X2	74.962	74.682	74.940	74.640	74.8	74.7
M75X1.5	74.968	74.732	74.950	74.700	74.79	74.76
M76X6	75.920	75.320	75.920	75.320	75.5	75.5
M76X4	75.940	75.465	75.940	75.465	75.6	75.6
M76X3	75.952	75.577	75.952	75.577	75.7	75.7
M76X2	75.962	75.682	75.962	75.682	75.8	75.8
M76X1.5	75.968	75.732	75.968	75.732	75.79	75.79
M78X2	77.962	77.682	77.940	77.640	77.8	77.7
M80X6	79.920	79.320	79.920	79.320	79.5	79.5
M80X4	79.940	79.465	79.940	79.465	79.6	79.6
M80X3	79.952	79.577	79.952	79.577	79.7	79.7
M80X2	79.962	79.682	79.940	79.640	79.8	79.7
M80X1.5	79.968	79.732	79.950	79.700	79.79	79.76

Current JIS: Tolerance class 6g (M1.6 or larger), 6h (M1.4 or smaller)
Old JIS: Class 2

- Current JIS: JIS B 0209-2 and JIS B 0209-3
- Old JIS: JIS B 0209-1959 and JIS B 0211-1959
- Nominal sizes marked with *1 have been removed from the current JIS.
- Nominal sizes marked with *2 are not specified in the current JIS nor in the old JIS.

Unified threads (for 2A class)

Unit : mm

Size	Outside diameter of external thread		Bar diameter
	Max.	Min.	
No.0-80UNF	1.511	1.431	1.45
No.1-64UNC	1.838	1.743	1.77
No.1-72UNF	1.838	1.751	1.77
No.2-56UNC	2.169	2.066	2.09
No.2-64UNF	2.169	2.073	2.10
No.3-48UNC	2.496	2.383	2.41
No.3-56UNF	2.496	2.393	2.42
No.4-40UNC	2.824	2.695	2.73
No.4-48UNF	2.827	2.713	2.74
No.5-40UNC	3.154	3.026	3.06
No.5-44UNF	3.157	3.036	3.07
No.6-32UNC	3.484	3.333	3.37
No.6-40UNF	3.484	3.356	3.39
No.8-32UNC	4.142	3.991	4.03
No.8-36UNF	4.145	4.006	4.04
No.10-24UNC	4.800	4.618	4.66
No.10-32UNF	4.803	4.651	4.69
No.12-24UNC	5.461	5.279	5.32
No.12-28UNF	5.461	5.296	5.34
1/4-20UNC	6.322	6.117	6.17
1/4-28UNF	6.324	6.160	6.20
1/4-32UNEF	6.324	6.173	6.21
5/16-18UNC	7.907	7.687	7.74
5/16-24UNF	7.909	7.727	7.77
5/16-32UNEF	7.912	7.760	7.80
3/8-16UNC	9.491	9.254	9.31
3/8-24UNF	9.497	9.315	9.36
3/8-32UNEF	9.499	9.348	9.39
7/16-14UNC	11.076	10.816	10.9
7/16-20UNF	11.079	10.874	10.93
7/16-24UNS	11.082	10.900	10.95
7/16-28UNEF	11.084	10.920	10.96
1/2-13UNC	12.661	12.386	12.5
1/2-20UNF	12.666	12.462	12.51
1/2-28UNEF	12.672	12.507	12.55
9/16-12UNC	14.246	13.958	14.0
9/16-18UNF	14.251	14.031	14.09
9/16-20UN	14.254	14.049	14.10
9/16-24UNEF	14.257	14.075	14.12
5/8-11UNC	15.834	15.528	15.6
5/8-18UNF	15.839	15.619	15.67
5/8-24UNEF	15.844	15.662	15.71
3/4-10UNC	19.004	18.677	18.8
3/4-16UNF	19.011	18.774	18.83
3/4-20UNEF	19.017	18.812	18.86
7/8-9UNC	22.176	21.824	21.9
7/8-14UNF	22.184	21.923	22.0
1 -8UNC	25.349	24.969	25.1
1 -12UNF	25.354	25.065	25.1
1 -14UNS	25.359	25.098	25.2
1 -20UNEF	25.364	25.159	25.21
1 1/8-7UNC	28.519	28.103	28.2
1 1/8-8UN	28.521	28.141	28.2
1 1/8-12UNF	28.529	28.240	28.3
1 1/4-7UNC	31.694	31.278	31.4
1 1/4-8UN	31.696	31.316	31.4
1 1/4-12UNF	31.704	31.415	31.5
1 3/8-6UNC	34.864	34.402	34.5
1 3/8-12UNF	34.876	34.588	34.7
1 1/2-6UNC	38.039	37.577	37.7
1 1/2-8UN	38.044	37.664	37.8
1 1/2-12UNF	38.051	37.763	37.8
1 5/8-12UN	41.229	40.940	41.0
1 3/4-5UNC	44.381	43.861	44.0
1 3/4-12UN	44.404	44.115	44.2
2 -12UN	50.754	50.465	50.5

· UNC, UNF: JIS B 0210 and JIS B 0212
· UNEF, UN, UNS: ASME B1.1

17. Bar diameter for external threads (for cutting type dies)

■Sewing machine screw threads (for 2nd class)

Unit : mm

Size	Outside diameter of external thread		Bar diameter
	Max.	Min.	
3/32 SM 56	2.381	2.286	2.31
1/8 SM 40	3.175	3.045	3.08
1/8 SM 44	3.175	3.055	3.09
9/64 SM 40	3.572	3.442	3.47
11/64 SM 40	4.366	4.236	4.27
3/16 SM 28	4.762	4.602	4.64
3/16 SM 32	4.762	4.602	4.64
7/32 SM 32	5.556	5.396	5.44
15/64 SM 28	5.953	5.773	5.82
1/4 SM 24	6.350	6.170	6.22
1/4 SM 40	6.350	6.220	6.25

Sewing machine screw threads have been removed from the current JIS.

■Whitworth thread (for 2nd class)

Unit : mm

Size	Outside diameter of external thread		Bar diameter
	Max.	Min.	
※ 1/16 W 60	1.525	1.427	1.45
※ 3/32 W 48	2.304	2.201	2.23
※ 1/8 W 40	3.081	2.972	3.00
※ 5/32 W 32	3.851	3.734	3.76
※ 3/16 W 24	4.606	4.475	4.51
※ 7/32 W 24	5.401	5.270	5.30
1/4 W 20	6.260	6.140	6.17
5/16 W 18	7.838	7.708	7.74
3/8 W 16	9.405	9.265	9.30
7/16 W 14	10.982	10.842	10.9
1/2 W 12	12.540	12.380	12.4
9/16 W 12	14.128	13.968	14.0
5/8 W 11	15.705	15.535	15.6
3/4 W 10	18.860	18.680	18.7
7/8 W 9	22.015	21.815	21.9
1 W 8	25.160	24.950	25.0
1 1/8 W 7	28.305	28.075	28.1
1 1/4 W 7	31.480	31.250	31.3
1 3/8 W 6	34.615	34.365	34.4
1 1/2 W 6	37.790	37.540	37.6

· Whitworth threads are deleted from JIS.
· The nominal size with * is based on BSW.

■Taper pipe threads (PT, R)

Unit : mm

Size	Bar diameter	
	taper (dia. of thread end)	Straight
PT 1/16 - 28	7.48	7.88
PT 1/8 - 28	9.48	9.89
PT 1/4 - 19	12.86	13.39
PT 3/8 - 19	16.34	16.90
PT 1/2 - 14	20.5	21.3
※ PT 5/8 - 14	22.4	23.3
PT 3/4 - 14	25.9	26.8
※ PT 7/8 - 14	29.6	30.6
PT 1 - 11	32.7	33.7
PT 1 1/4 - 11	41.2	42.3
PT 1 1/2 - 11	47.1	48.2
PT 2 - 11	58.7	60.1

Nominal sizes marked with * are not specified in the current JIS nor in the old JIS.

■Parallel pipe threads (PF · G)(for A class)

Unit : mm

Size	Outside diameter of external thread		Bar diameter
	Max.	Min.	
PF 1/16 - 28	7.723	7.509	7.56
PF 1/8 - 28	9.728	9.514	9.57
PF 1/4 - 19	13.157	12.907	12.97
PF 3/8 - 19	16.662	16.412	16.47
PF 1/2 - 14	20.955	20.671	20.7
PF 5/8 - 14	22.911	22.627	22.7
PF 3/4 - 14	26.441	26.157	26.2
PF 7/8 - 14	30.201	29.917	30.0
PF 1 - 11	33.249	32.889	33.0
PF 1 1/4 - 11	41.910	41.550	41.6
PF 1 1/2 - 11	47.803	47.443	47.5
PF 2 - 11	59.614	59.254	59.3

■For American taper pipe threads (NPT)

Unit : mm

Size	Bar diameter		Outside diameter of pipe (for reference)
	Taper (tip diameter)	Straight	
1/16-27 NPT	7.64	7.93	7.938
1/8-27 NPT	9.98	10.28	10.287
1/4-18 NPT	13.25	13.71	13.716
3/8-18 NPT	16.67	17.14	17.145
1/2-14 NPT	20.7	21.3	21.336
3/4-14 NPT	26.0	26.6	26.670
1 -11 NPT	32.5	33.3	33.401
1 1/4-11 1/2 NPT	41.3	42.1	42.164

■For American Dryseal taper pipe threads (NPTF)

Unit : mm

Size	Bar diameter		Outside diameter of pipe (for reference)
	Taper (tip diameter)	Straight	
1/16-27 NPTF	7.61	7.93	7.938
1/8-27 NPTF	9.95	10.28	10.287
1/4-18 NPTF	13.20	13.71	13.716
3/8-18 NPTF	16.63	17.14	17.145
1/2-14 NPTF	20.7	21.3	21.336
3/4-14 NPTF	26.0	26.6	26.670
1 -11 NPTF	32.5	33.4	33.401
1 1/4-11 1/2 NPTF	41.3	42.1	42.164

■For American parallel pipe threads (NPSM)

Unit : mm

Size	Outside diameter of external thread		Bar diameter	Outside diameter of pipe (for reference)
	Max.	Min.		
1/16-27 NPSM	7.721	7.544	7.59	7.938
1/8-27 NPSM	10.083	9.906	9.95	10.287
1/4-18 NPSM	13.360	13.132	13.19	13.716
3/8-18 NPSM	16.814	16.587	16.64	17.145
1/2-14 NPSM	20.904	20.651	20.7	21.336
3/4-14 NPSM	26.263	26.010	26.1	26.670
1 -11 1/2 NPSM	32.842	32.538	32.6	33.401
1 1/4-11 1/2 NPSM	41.605	41.301	41.4	42.164

18. Bar diameter of external threads (for thread rolling dies)

Recommended bar diameters for MS-R-SD Miniature external threads

Unit : mm

size	Class	Recommended bar diameter	Major diameter of external thread	
			Max.	Min.
S0.5X0.125	R2	0.410	0.500	0.480
S0.6X0.15	R2	0.495	0.600	0.575
S0.7X0.175	R3	0.570	0.700	0.675
S0.8X0.2	R3	0.655	0.800	0.770
S0.9X0.225	R3	0.740	0.900	0.870

The major diameters of external threads are based on the tolerance class 5h3 of JIS B 0201.

Recommended bar diameters for RS-D Metric external threads

Unit : mm

size	Class	Recommended bar diameter		Major diameter of external thread			
				Current JIS		Old JIS	
		Current JIS	Old JIS	Max.	Min.	Max.	Min.
M1X0.25	R2	0.815	0.815	1.000	0.933	0.985	0.940
	R3	0.800	0.800				
	R4	0.780	0.780				
M1.1X0.25	R1	0.930	0.930	1.100	1.033	1.100	1.033
	R2	0.915	0.915				
	R3	0.900	0.900				
M1.2X0.25	R2	1.015	1.015	1.200	1.133	1.185	1.140
	R3	0.995	0.995				
	R4	0.980	0.980				
M1.4X0.3	R2	1.180	1.180	1.400	1.325	1.380	1.320
	R3	1.165	1.165				
	R4	1.150	1.145				
M1.6X0.35	R2	1.345	1.345	1.581	1.496	1.581	1.496
	R3	1.330	1.330				
	R4	1.315	1.315				
※ M1.7X0.35	R2	1.445	1.450	1.681	1.596	1.680	1.610
	R3	1.430	1.430				
	R4	1.415	1.415				
M1.8X0.35	R2	1.545	1.545	1.781	1.696	1.781	1.696
	R3	1.530	1.530				
	R4	1.515	1.515				
M2X0.4	R2	1.715	1.715	1.981	1.886	1.980	1.890
	R3	1.700	1.700				
	R4	1.680	1.680				
M2X0.25	R2	1.810	1.810	1.982	1.915	1.980	1.930
	R3	1.790	1.795				
	R4	1.775	1.775				
M2.2X0.45	R2	1.88	1.88	2.180	2.080	2.180	2.080
	R3	1.87	1.87				
	R4	1.85	1.85				

Unit : mm

size	Class	Recommended bar diameter		Major diameter of external thread			
				Current JIS		Old JIS	
		Current JIS	Old JIS	Max.	Min.	Max.	Min.
※ M2.3X0.4	R2	2.01	2.01	2.281	2.186	2.280	2.190
	R3	2.00	2.00				
	R4	1.98	1.98				
※ M2.3X0.25	R2	2.11	2.11	2.282	2.215	2.280	2.230
	R3	2.09	2.09				
	R4	2.07	2.07				
M2.5X0.45	R2	2.18	2.18	2.480	2.380	2.480	2.380
	R4	2.15	2.15				
	R5	2.13	2.13				
M2.5X0.35	R2	2.24	2.24	2.481	2.396	2.481	2.396
	R3	2.23	2.23				
	R4	2.21	2.21				
※ M2.6X0.45	R2	2.28	2.28	2.580	2.480	2.580	2.480
	R4	2.25	2.25				
	R5	2.23	2.23				
※ M2.6X0.35	R2	2.34	2.34	2.581	2.496	2.580	2.480
	R4	2.31	2.31				
	R5	2.29	2.29				
M3X0.5	R2	2.65	2.65	2.980	2.874	2.980	2.874
	R4	2.62	2.62				
	R5	2.60	2.60				
M3X0.35	R2	2.74	2.74	2.981	2.896	2.980	2.880
	R4	2.71	2.71				
	R5	2.69	2.69				
M3.5X0.35	R2	3.24	3.24	3.481	3.396	3.480	3.380
	R4	3.21	3.21				
	R5	3.19	3.19				
M4X0.5	R3	3.63	3.63	3.980	3.874	3.970	3.860
	R5	3.60	3.59				
	R6	3.58	3.58				
M5X0.5	R3	4.63	4.63	4.980	4.874	4.970	4.860
	R4	4.61	4.61				
	R5	4.59	4.59				
	R6	4.58	4.58				

Current JIS: Tolerance class 6g (M1.6 or larger), 6h (M1.4 or smaller)
· JIS: Class 2
· The column of class ▭ shows the recommended classes.
· Nominal sizes marked with * have been removed from the current JIS.

Recommended bar diameters for N-RSD Metric external threads

Unit : mm

size	Class	Recommended bar diameter		Major diameter of external thread			
				Current JIS		Old JIS	
		Current JIS	Old JIS	Max.	Min.	Max.	Min.
M3X0.5	R4	2.62	2.62	2.980	2.874	2.980	2.874
M4X0.7	R4	3.49	3.49	3.978	3.838	3.978	3.838
M5X0.8	R5	4.41	4.41	4.976	4.826	4.976	4.826
M6X1	R5	5.28	5.28	5.974	5.794	5.970	5.820
M8X1.25	R6	7.10	7.11	7.972	7.760	7.960	7.790

Current JIS: Tolerance class 6g
Old JIS: Class 2

19. Surface Treatment

The best surface treatment is applied to each tap depending on the tapping purpose.
Characteristics and effectiveness of surface treatment are introduced at next section.

■Oxidizing

○This treatment was processed by using HOMO furnace being made by LEED AND NORTHUP company USA in 1938, and it is called HOMO treatment. This treatment is also called vapor treatment and steam treatment. Through this treatment, Fe_3O_4 layer of blue black color is produced over the tool surface.

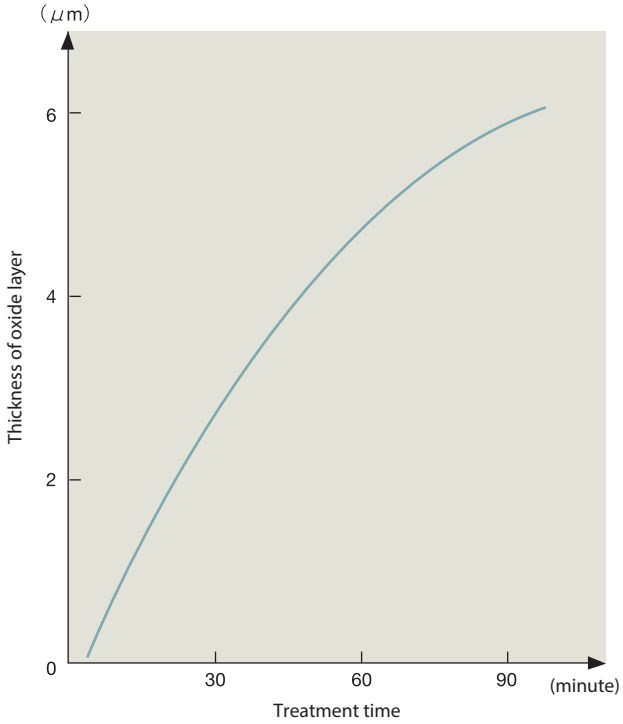
○Oxidization treatment produces porous layer on tool's surface. This porous layer works as oil pocket to reduce friction, to avoid welding and to improve the surface roughness of internal screw. Moreover, longer tool life is expected because the treatment reduces the remaining stress of HSS tools.

○This treatment does not increase the hardness on tool surface. Using the furnace of YAMAWA original design and choosing the proper treatment time, we have marked good result of oxidizing for YAMAWA HSS tools.

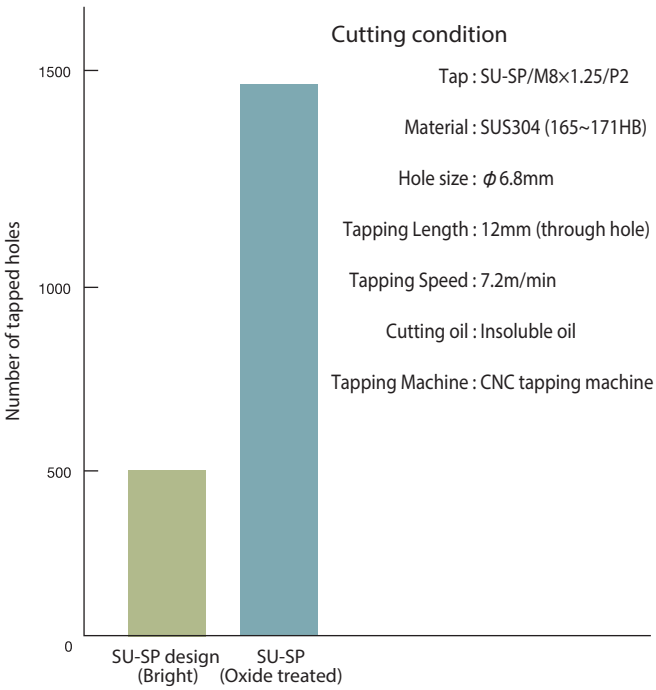
○Stainless steel and low carbon steel are the materials that are easy to get welding. We are applying this treatment to the special purpose taps for these materials to get good result. Further due to the reduction of friction force, this treatment has good result for wide range of steel type material.

○We combine oxidizing with nitriding for the taps designed for thermal refined steels of high carbon steels and alloy steels. This double treatment wins good reputation of the market.

■Thickness of oxide layer and the time of treatment



■Comparison between bright and oxide treated



19. Surface Treatment

■Nitriding

○In this treatment, we have Nitrogen and Carbon soak into the surface of HSS tools, and react with chemical of HSS material to produce hard nitride. There are 3 methods in the treatment, composition gas method, salt bath nitride method and ion nitride method.

○Salt bath nitride treatment is shifted into gas nitride treatment method because of cyanic environmental pollution.

○The temperature of treatment is 500 to 550 degree. Hardness and depth of the treatment can be controlled by active nitrogen concentration and reaction time.

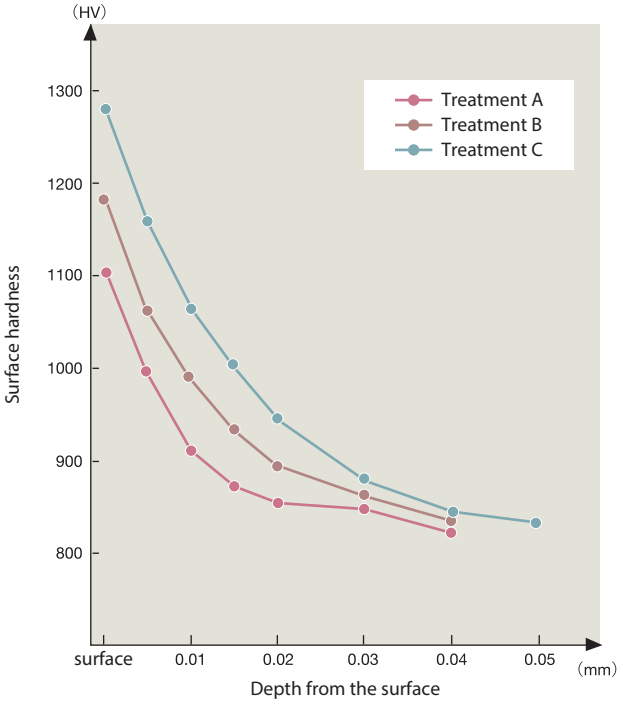
○The high hardness of tool surface minimizes chemical attraction. Result is less welding and friction reduction. Great improvement is expected in tool's performance.

○We have found out the best combinations of hardness and toughness through our treatment technology

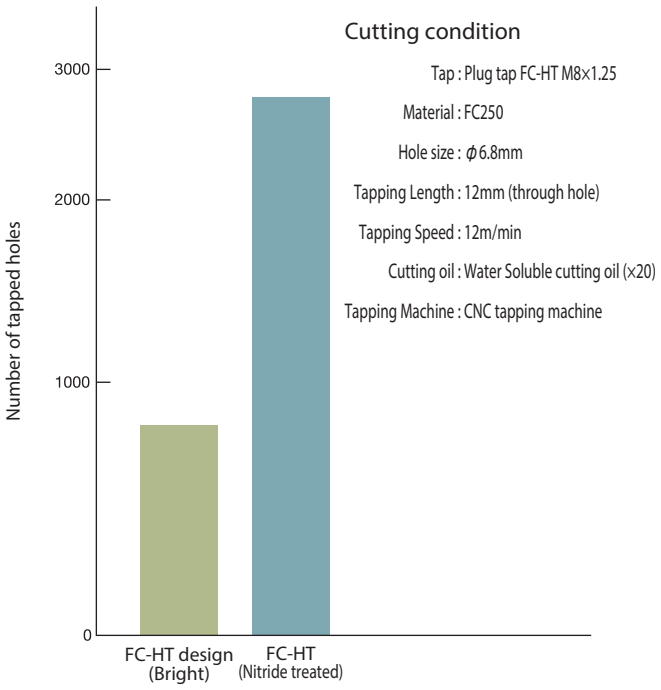
○The nitride treatment will be widely applicable to the taps for such workpiece materials as gray cast irons, special cast irons, aluminum diecastings with higher silicone content, copper alloys, and resinoids (plastics). These materials produce small segmental chips and are very abrasive.

○We combine nitrogen and oxidizing for comparatively sticky material such as thermal refined steels of high carbon steel and alloy steel. This double treatment improves the chipping resistance and have won good reputation.

■Depth and hardness of Nitride Surface Treatment



■Comparison between bright and nitride treated



High speed cutting and hard-to-machine material cutting are the recent technology. To meet this tendency, the hard layer coating by vapor deposition over tool's surface has become popular. There are two coating methods, CVD and PVD. PVD is mainly used for tap.

■Physical Vapor Deposition

○Inside of the container of high vacuum, are vapor deposition materials heated. And we vapor-deposit particles ionized by electric discharge on tool's surface.

○Due to its low reaction temperature (lower than 500˚C), PVD makes little change in shape and hardness of HSS tools.

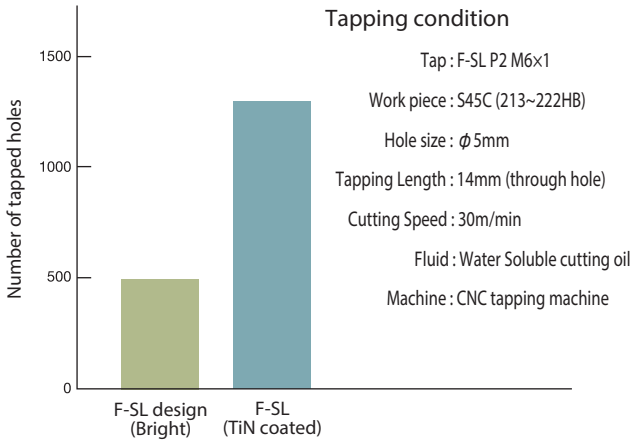
○We have adopted iron plating method, and are coating thin layer (1-4um) over our HSS and carbide tools. The layer processed by this method is very high in its adherence and its wear resistance.

■The features and classification of coating

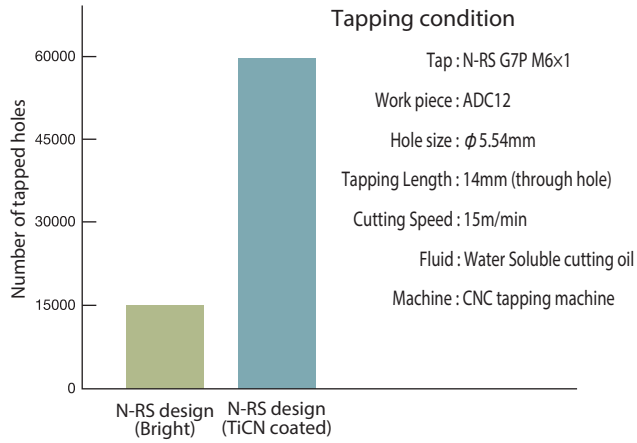
Classification / Features	Titanium nitride (TiN)	Titanium carbonitride (TiCN)	Titanium nitride aluminum (TiAlN)	Chromium nitride (CrN)
Vickers Hardness	2000～2400	3000～3500	2300～2700	1800～2200
Wear resistance	Good	Excellent	Excellent	Normal
Welding resistance	Good	Good	Good	Excellent
Heat resistance	Good	Normal	Excellent	Excellent
Acid resistance	Good	Normal	Excellent	Good
Slippery	Good	Excellent	Good	Excellent
Color	Gold	Blue Dray Violet	Violet	Silver
Workpiece materials	Carbon Steels Aluminum forging	Carbon Steels Hard Steels Stainless Steels Aluminum forging Cast Irons Brass・Bronze	Stainless Steels Cast Irons	Copper

Note: Evaluation (tri-level) of characteristic features is just comparative of these four coatings, TiN, TiCN, TiAlN, and CrN, in the table. These coatings have great advantages of wear resistance, welding resistance, and friction reduction. The values of vickers hardness are also higher than the heat treatment or nitriding of HSS cutting tools from the table.

■Comparison between bright and TiN coated



■Comparison between bright and TiCN coated



20. Carbide Taps

Technological advances in CNC machines and machining centers, and machining automation have helped improve the overall tapping process. YAMAWA was quick to respond to evolving customer needs resulting from technological innovations.
We can now recommend carbide taps, which provide tremendous improvements in mass-production and in reducing costs. It is estimated that carbide taps have 50 times more durability than HSS taps in tapping, when used properly. YAMAWA engineering believes the best carbide materials suitable for taps are ultramicro grain tungsten carbide, or ultrafine grain carbide made of high cobalt.

■Features of Carbide Taps

(1)Excellent durability with high toughness is obtainable.
(2)High anti-friction features are provided by the material's high hardness and comparatively high toughness, which ultimately results in a longer tool life.
(3)Specially designed cutting angle and other dimensional features produce the internal threads with high tolerance accuracy and consistency.
(4)Under certain tapping condition, YAMAWA carbide taps can be used even for tapping hard-to-machine materials.

■Points to note during tapping with Carbide taps:

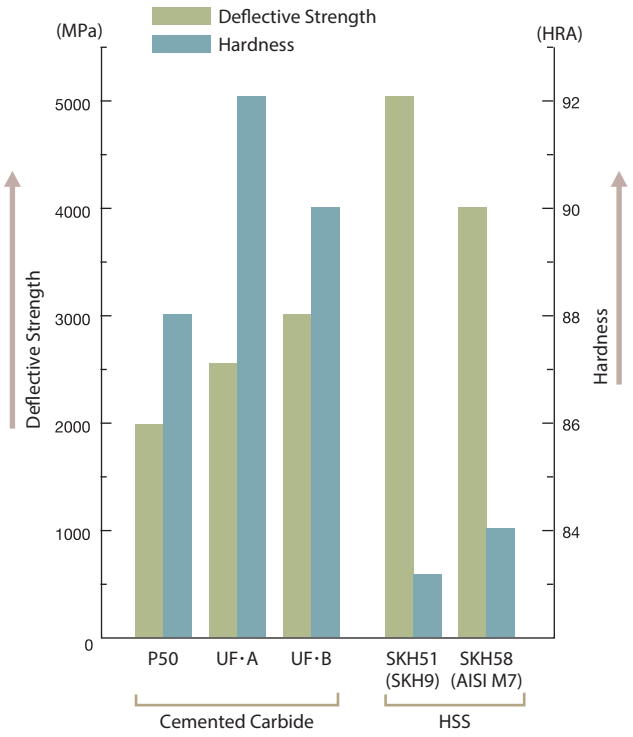
(1) Machine vibration, or run-out, can lead to Carbide tap chipping and premature failure. Tapping vibrations need to be kept to a minimum.
(2) Tap holder should be a rigid type for a Carbide tap. A holder attachment with axial float, or radial float tends to promote Carbide tap breakage and chipping.
(3) The hole to be tapped must be located correctly and on center ; any centering off or non-straight drilled hole tends to cause Carbide tap breakage due to deflection. Select correct hole depth with respect to tapping length (for blind hole only). It is especially important to prevent tap damage from chip packing and bottom thrusting in blind hole tapping.
(4) Cutting lubricants - select grade of lubricant. Improper flow of coolant, or lack of sufficient amount of lubricant, or cooling can increase the likelihood of Carbide tap chipping due to work material welding. Caution must be taken during dry machining to prevent chip welding to the tap.
(5) Work pieces - we provide Carbide taps with increased toughness, but Carbide taps are inferior to High Speed Steel (HSS) in the area of toughness. As a matter of fact Carbide taps have limited application due to this difference in toughness to HSS.

■Commonly used materials and cutting conditions.

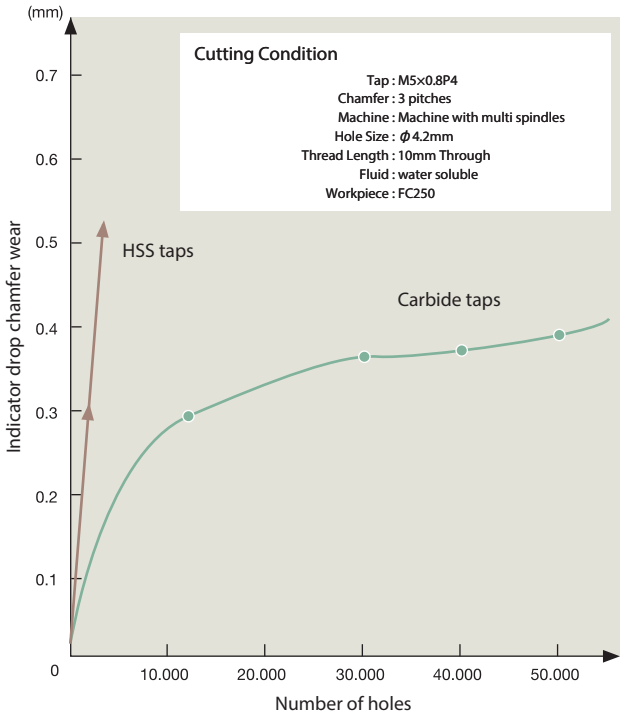
Work Materials		Cutting Speed (m/min)	Cutting Fluid (General recommendation)	Soluble cutting oil (JIS display lectotype)
Cast Iron	Ordinary	15～25	Dry, light oil, water soluble oil	Not water soluble N4 type 5 issue, 7 issue Water soluble A1 type 1 issue, A2 type 1 issue
	Nodular Graphite	10～20	Light oil, water soluble oil	
	Malleable	10～20	Water soluble oil	
Aluminum		20～40	Light oil, water soluble oil	Not water soluble N1 type 3 issue, 4 issue Not water soluble N3 type 8 issue Water soluble A1 type 1 issue
Copper		15～30	Light oil, water soluble oil	
Copper Alloy	Brass	20～30	Light oil, water soluble oil	
	Phosphor Bronze	15～30	Light oil, water soluble oil	
Die-Cast	Aluminum Alloy	15～25	Mixed oil of lard oil and kerosene	Not water soluble N3 type 8 issue Water soluble A1 type 1 issue
	Zinc Alloy	12～20	Mixed oil of lard oil and kerosene	
Plastic	Thermosetting	15～25	Water soluble oil, air	Water soluble A2 type 2 issue
	Thermoplastic	15～25	Water soluble oil, air	
Hard Rubber		15～30	Dry, air	

Note : The table shows only general conditions. As for actual cutting operation, please consider the following points : (1) Machine Capacity, (2) Work piece(s), (3) Work Shape, (4) Setup (5) other factors.

Toughness and Hardness of Cemented Carbide and HSS



Chamfer wear and number of holes of Carbide taps and HSS taps



Carbide Tap examples and comparison of tool life

Classification \ Size		M2×0.4	M8×1.25	M6×1	M8×1.25	M10×1.25
Workpiece	Material	Plastic with glass fiber	ADC12	FC250	FC250	FC250
	Part's name	Electric Parts	Car Parts	Electric Parts	Car Parts	Car Parts
Thread Condition	Tapping Hole. condition	ϕ1.6 Through	ϕ6.7 Blind	ϕ5.0 Blind	ϕ6.7 Blind	ϕ8.7 Blind
	Tapping Length	4mm	18mm	10mm	16mm	18mm
Condition of Use	Machine	Special Machine	Special Machine	4 spindle Machine	Multi Spindle Machine	Special Machine
	Cutting Speed	6.3m/min	8.5m/min	8m/min	6m/min	5.7m/min
	Fluid	Dry	Water soluble	Water soluble	Water soluble	Water soluble
Number of Holes	Carbide Tap	10.000	75.400	53.000	18.860	38.500
	HSS Tap	200	1.000	1.000	300	500
	Comparison of Life	50	75.4	53	62.9	77

Note : In all situations, HSS taps being used are standard ones.
Carbide taps, when used properly, bring out a long tool life.
These datum have come from end users of carbide taps.

21. Taps for Pipe Threads

1. JIS Pipe Taps

The pipe thread standard (JIS B 0202,0203) was revised in 1982 to meet ISO standard. In the same year, JIS B 4445 (straight pipe thread taps) and JIS B 4446 (taper pipe thread taps) were also revised.

○A part of the pipe thread standard was revised in 1966 to meet ISO, but in the 1982 revision, the ISO standard was defined in the main book of JIS and the old 1966 standard was defined in JIS Appendix. For Pipe Threads specified in the main book of JIS and JIS Appendix, thread symbols are different but the nominal size 1/8 to 6 inch are same. In the 1998 revision, the contents of the main book of JIS and JIS Appendix are not changed.

○ISO tap standard for pipe threads is different from the JIS tap standard in style, size and thread limit. Like the pipe thread standard, in JIS tap standards for pipe threads, style, size and thread limits of ISO standard are adopted in the main book of JIS and those of old JIS standard are in the JIS Appendix. For ISO standard (style and size), please refer to the next page.

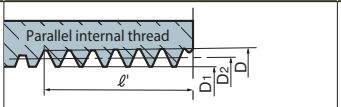
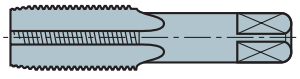
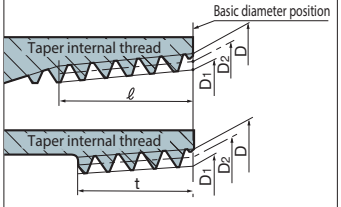
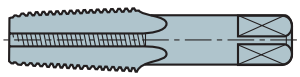
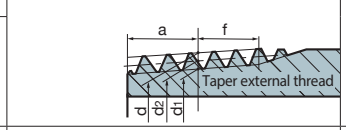
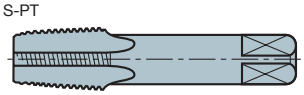
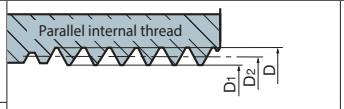
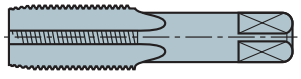
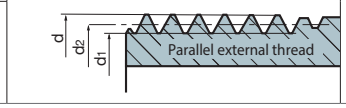
○Thread limits of Rp and G taps are the same as the ISO standard. The thread limit of Rc taps is the same as the JIS class 2 of PT taps shown in JIS Appendix because Rc is not specified in the ISO standard. Therefore, both Rc taps and PT taps can be used interchangeably. For the relation between thread limit of internal threads and tap thread limit, please refer to the table below.

○Pipe Tap standard was revised in 1987. And tap designations shown in JIS Appendix were changed to PF taps for Parallel Pipe Thread, PT taps for Taper Pipe Thread, and PS taps for Parallel Pipe Thread.

■Symbol of Pipe threads

Type	Classification		Standard	JIS (ISO)	JIS Appendix
Taper Thread	Taper Thread	Internal Thread	JIS B 0203—1982	Rc	PT
		External Thread		R	PT
	Parallel Thread	Internal Thread		Rp	PS
		External Thread		—	—
Parallel Thread	Parallel Thread	Internal Thread	JIS B 0202—1982	G	PF, A class
				—	PF, B class
		External Thread		G, A class	PF, A class
				G, B class	PF, B class

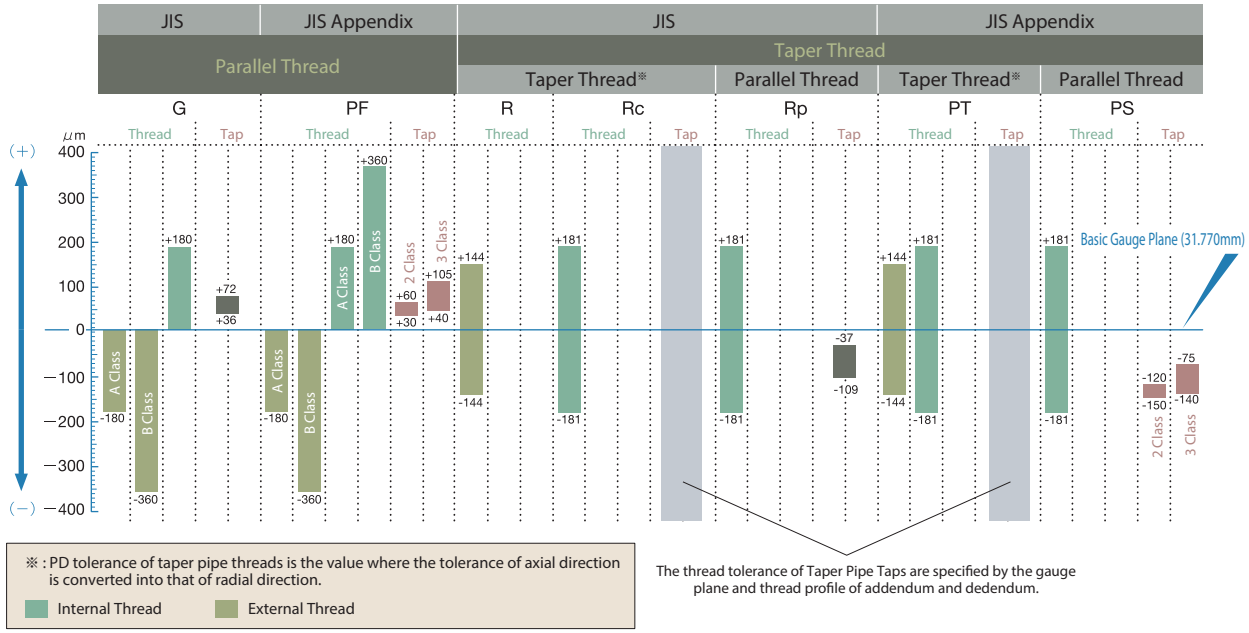
■ Relation between classification/engagement of pipe threads and taps

Kind of thread	Classification	Main usage	type		Engagement	Pipe taps
Pipe thread	Taper pipe threads	In connection of pips, pipe parts and fluid parts they are used mainly for the purpose of pressure type joints.	Internal threads	Parallel PS (Rp)		PS 
				Taper PT (Rc)		PT 
			External threads	Taper PT (R)		S-PT 
	Parallel pipe threads	In connection of pipes, pipe parts and fluid parts, they are used mainly for the purpose of mechanical type joints.	Internal threads	PF (G)		PF 
			External threads	PF (G)		

■Relation of pitch diameter tolerance zone between thread and tap

Example.1-11

Parallel Pipe Thread : JIS B 0202
Taper Pipe Thread : JIS B 0203
Straight Pipe Thread Taps : JIS B 4445
Taper Pipe Thread Taps : JIS B 4446



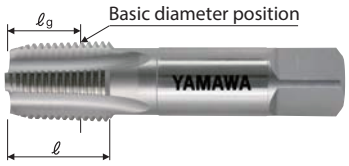
※ : PD tolerance of taper pipe threads is the value where the tolerance of axial direction is converted into that of radial direction.

Internal Thread　External Thread

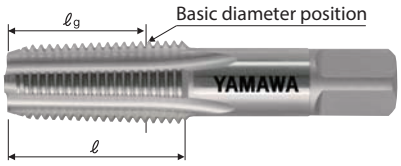
The thread tolerance of Taper Pipe Taps are specified by the gauge plane and thread profile of addendum and dedendum.

■Comparison of the thread limit of taper pipe tap

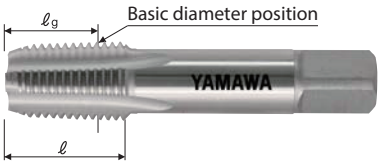
Rc



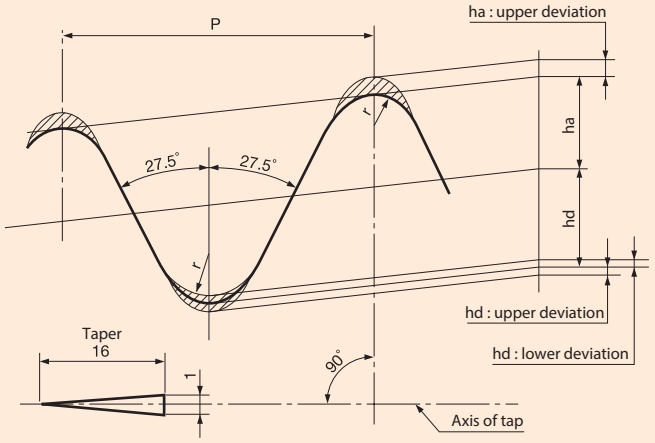
PT



S-PT



P = 25.4/n
n = Number of threads



Unit : mm

Size	Basic major Dia. of Gauge Plane	Number of Threads※	ISO (Rc)		Appendix (PT)				Thread Limit			
					PT Thread		S-PT Thread		ha		hd	
			Thread Length ℓ	Basic Diameter Position ℓg	Thread Length ℓ	Basic Diameter Position ℓg	Thread Length ℓ	Basic Diameter Position ℓg	Basic Size	Tolerance (μm)	Basic Size	Tolerance (μm)
1/16	7.723	28	14	10.1	—	—	—	—	0.291	0～+30	0.291	±15
1/8	9.728	28	15	10.1	19	13	16.5	10.5	0.291	0～+30	0.291	±15
1/4	13.157	19	19	15	28	21	19.5	12.5	0.428	0～+40	0.428	±20
3/8	16.662	19	21	15.4	28	21	21	14	0.428	0～+40	0.428	±20
1/2	20.955	14	26	20.5	35	25	27	17	0.581	0～+50	0.581	±25
3/4	26.441	14	28	21.8	35	25	29	19	0.581	0～+50	0.581	±25
1	33.249	11	33	26	45	32	35	22	0.740	0～+60	0.740	±30
1 1/4	41.910	11	36	28.3	45	32	37.5	24.5	0.740	0～+60	0.740	±30
1 1/2	47.803	11	37	28.3	45	32	38.5	25.5	0.740	0～+60	0.740	±30
2	59.614	11	41	32.7	50	35	42.5	27.5	0.740	0～+60	0.740	±30
2 1/2	75.184	11	45	37.1	—	—	—	—	0.740	0～+60	0.740	±30
3	87.884	11	48	40.2	—	—	—	—	0.740	0～+70	0.740	±35
4	113.030	11	53	46.2	—	—	—	—	0.740	0～+70	0.740	±35

Note : JIS standard has 2 types of Taper pipe thread, PT and S-PT taps. ISO standard has one type of Taper pipe thread Rc.

※ : No. of threads: Every 25.4 mm.

Think threads with YAMAWA

■Comparison of the thread limit for straight pipe taps

Unit : μm

Size	Number of Threads※	Pitch (mm)	The Thread Limit of ISO (G)								The Thread Limit of Appendix of PF							
			Major Dia.		Pitch Dia.				Minor Dia.		Major Dia.		Pitch Dia.				Minor Dia.	
			Basic Size (mm)	LT (+)	Basic Size (mm)	UT (+)	LT (+)	Tolerance	Basic Size (mm)	UT	Basic Size (mm)	LT (+)	Basic Size (mm)	UT (+)	LT (+)	Tolerance	Basic Size (mm)	UT (+)
1/16	28	0.9071	7.723	32	7.142	43	21	22	6.561	Not Specified	—		—				—	
1/8	28	0.9071	9.728	32	9.147	43	21	22	8.566		9.728	65	9.147	40	20	20	8.566	40
1/4	19	1.3368	13.157	37	12.301	50	25	25	11.445		13.157	90	12.301	50	25	25	11.445	50
3/8	19	1.3368	16.662	37	15.806	50	25	25	14.950		16.662	90	15.806	50	25	25	14.950	50
1/2	14	1.8143	20.955	43	19.793	57	28	29	18.631		20.955	115	19.793	55	25	30	18.631	55
5/8	14	1.8143	22.911	43	21.749	57	28	29	20.587		22.911	115	21.749	55	25	30	20.587	55
3/4	14	1.8143	26.441	43	25.279	57	28	29	24.117		26.441	115	25.279	55	25	30	24.117	55
7/8	14	1.8143	30.201	43	29.039	57	28	29	27.877		30.201	115	29.039	55	25	30	27.877	55
1	11	2.3091	33.249	54	31.770	72	36	36	30.291		33.249	145	31.770	60	30	30	30.291	60
1 1/8	11	2.3091	37.897	54	36.418	72	36	36	34.939		37.897	145	36.418	60	30	30	34.939	60
1 1/4	11	2.3091	41.910	54	40.431	72	36	36	38.952		41.910	145	40.431	65	30	35	38.952	65
1 1/2	11	2.3091	47.803	54	46.324	72	36	36	44.845		47.803	145	46.324	65	30	35	44.845	65
1 3/4	11	2.3091	53.746	54	52.267	72	36	36	50.788		53.746	145	52.267	65	30	35	50.788	65
2	11	2.3091	59.614	54	58.135	72	36	36	56.656		59.614	150	58.135	75	35	40	56.656	75
2 1/4	11	2.3091	65.710	65	64.231	87	43	44	62.752									
2 1/2	11	2.3091	75.184	65	73.705	87	43	44	72.226									
2 3/4	11	2.3091	81.534	65	80.055	87	43	44	78.576									
3	11	2.3091	87.884	65	86.405	87	43	44	84.926									
3 1/2	11	2.3091	100.330	65	98.851	87	43	44	97.372									
4	11	2.3091	113.030	65	111.551	87	43	44	110.072									

※ : No. of ridges: Every 25.4 mm.
UT : The upper deviation
LT : The lower deviation

■Comparison of the thread limit of taper pipe taps

Unit : μm

Size	Number of Threads※	Pitch (mm)	The Thread Limit of ISO (Rp)								The Thread Limit of Appendix of PS								
			Major Dia.		Pitch Dia.				Minor Dia.		Major Dia.			Pitch Dia.				Minor Dia.		
			Basic Size (mm)	LT (−)	Basic Size (mm)	UT (−)	LT (−)	Tolerance	Basic Size (mm)	UT	Basic Size (mm)	UT	LT (−)	Basic Size (mm)	UT (−)	LT (−)	Tolerance	Basic Size (mm)	UT	LT (−)
1/16	28	0.9071	7.723	43	7.142	14	43	29	6.561	Not Specified	—			—				—		
1/8	28	0.9071	9.728	43	9.147	14	43	29	8.566		9.728	+10	50	9.147	30	50	20	8.566	+10	50
1/4	19	1.3368	13.157	63	12.301	21	63	42	11.445		13.157	+ 5	75	12.301	50	75	25	11.445	+ 5	75
3/8	19	1.3368	16.662	63	15.806	21	63	42	14.950		16.662	+ 5	75	15.806	50	75	25	14.950	+ 5	75
1/2	14	1.8143	20.955	86	19.793	29	86	57	18.631		20.955	- 25	115	19.793	85	115	30	18.631	- 25	115
3/4	14	1.8143	26.441	86	25.279	29	86	57	24.117		26.441	- 25	115	25.279	85	115	30	24.117	- 25	115
1	11	2.3091	33.249	109	31.770	37	109	72	30.291		33.249	- 50	150	31.770	120	150	30	30.291	- 50	150
1 1/4	11	2.3091	41.910	109	40.431	37	109	72	38.952		41.910	- 50	150	40.431	115	150	35	38.952	- 50	150
1 1/2	11	2.3091	47.803	109	46.324	37	109	72	44.845		47.803	- 50	150	46.324	115	150	35	44.845	- 50	150
2	11	2.3091	59.614	109	58.135	37	109	72	56.656		59.614	- 45	145	58.135	105	145	40	56.656	- 45	145
2 1/2	11	2.3091	75.184	130	73.705	43	130	87	72.226											
3	11	2.3091	87.884	130	86.405	43	130	87	84.926											
4	11	2.3091	113.030	130	111.551	43	130	87	110.072											

※ : No. of ridges: Every 25.4 mm.
UT : The upper deviation
LT : The lower deviation

2. American Pipe Thread Taps

American standard pipe thread has various types. We show their symbols and engagement of threads as follows.

■Pair groups of external thread and internal thread.

Standard	Symbol	Internal Thread	Mating Thread	External Thread	Mating Thread
Pipe Threads, General Purpose (ANSI/ASME B1.20.1)	American Standard Taper Pipe Thread for General Use	NPT	NPT	NPT	NPT NPSC
	American Standard Straight Pipe Thread in Pipe Couplings	NPSC	NPT	—	—
	American Standard Taper Pipe Threads for Railing Joints	NPTR	NPTR	NPTR	NPTR
	American Standard Straight Pipe Thread for Free-Fitting Mechanical Joints for Fixtures	NPSM	NPSM	NPSM	NPSM
	American Standard Straight Pipe Thread for Loose-Fitting Mechanical Joints with Locknuts	NPSL	NPSL	NPSL	NPSL
	American Standard Straight Pipe Threads for Loose-Fitting Mechanical Joints for Hose Couplings	NPSH	NPSH	NPSH	NPSH
Dryseal Pipe Threads (ANSI B1.20.3)	Dryseal American Standard Taper Pipe Thread	NPTF	NPTF PTF-SAE-SHORT	NPTF	NPTF,NPSF,NPSI PTF-SAE-SHORT
	Dryseal SAE Short Taper Pipe Thread	PTF-SAE-SHORT	NPTF	PTF-SAE-SHORT	NPTF NPSI
	Dryseal American Standard Fuel Internal Straight Pipe Thread	NPSF	NPTF	—	—
	Dryseal American Standard Intermediate Internal Straight Pipe Thread	NPSI	NPTF PTF-SAE-SHORT	—	—

Note : These symbols correspond to the name of American pipe thread.

These threads are

(1) Thread angle is 60˚

(2) Taper of Taper Thread is 3/4" per foot.

(3) Fundamental height of triangle : H=Height of triangle thread profile H=0.866025P

(4) The difference between American Standard Pipe Thread for general use and Dryseal American Standard Pipe

- Crests and roots truncation of thread is different.
- The length of engagement for pipe thread is different by types.
- With regard to standard, Dryseal American Standard Pipe Thread is available in right hand.

In accordance with ANSI B 94.9, 4 types of pipe thread are specified in American Pipe Thread Standard.

Please refer to next page about the relation between taps and threads and about thread tolerance.

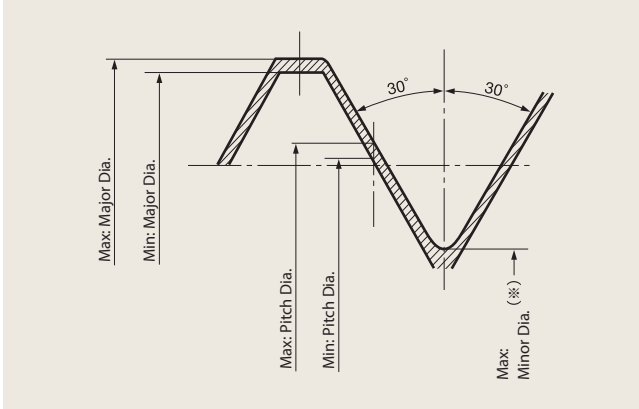
Think threads with YAMAWA

○Classification of American pipe thread taps

Designation	Symbol	Class	Material	Threads to be cut	Range
Straight Pipe Thread Tap	NPS	Ground Thread	HSS	NPSC,NPSM	1/8～1
Dryseal Straight Pipe Thread Tap	NPSF	Ground Thread	HSS	NPSF	1/8～3/4
Taper Pipe Thread Tap	NPT	Ground Thread	HSS	NPT	1/16～2
Dryseal Taper Pipe Thread Tap	NPTF	Ground Thread	HSS	NPTF	1/16～2

■Thread limit of American Pipe Thread Taps

○Straight pipe thread taps for (NPS) G Class



Unit : mm

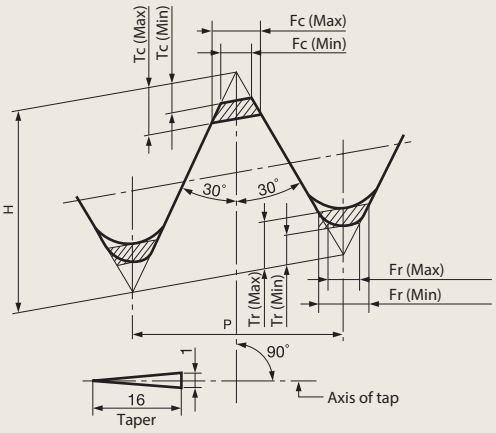
Size	Major diameter			Pitch diameter			Minor diameter※
	Max.	Min.	Tolerance	Max.	Min.	Tolerance	Max.
1/8 - 27 NPS	10.241	10.216	0.025	9.527	9.515	0.012	M－0.653
1/4 - 18 NPS	13.606	13.582	0.024	12.542	12.530	0.012	M－1.019
3/8 - 18 NPS	17.045	17.021	0.024	15.981	15.969	0.012	M－1.019
1/2 - 14 NPS	21.226	21.202	0.024	19.840	19.828	0.012	M－1.334
3/4 - 14 NPS	26.560	26.536	0.024	25.186	25.162	0.024	M－1.334
1 - 11 1/2 NPS	33.215	33.178	0.037	31.526	31.502	0.024	M－1.644

※ : Above dimensions change depending on actually measured.

○Taper pipe thread taps (NPT) G Class

p = 25.4/n
n = Number of threads

H = 0.866025P



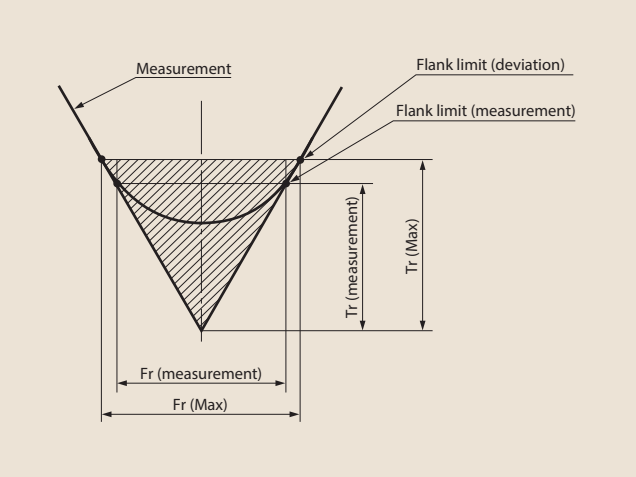
21. Taps for Pipe Threads

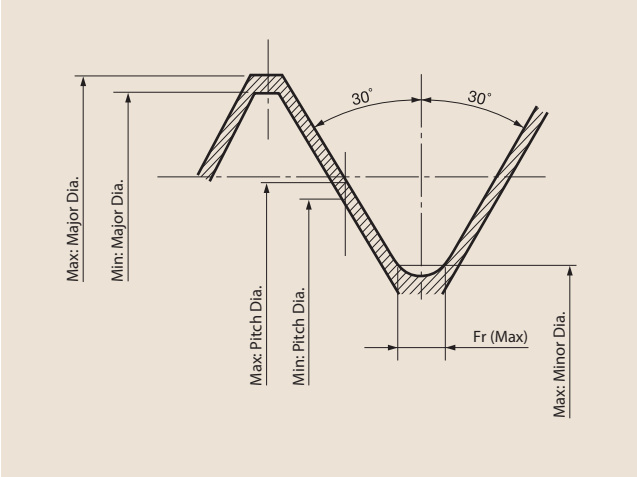
Unit : μm

Size	Crest				Root			
	Tc		Fc		Tr		Fr	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1/16 - 27 NPT	68	32	78	37	80	32	92	37
1/8 - 27 NPT	68	32	78	37	80	32	92	37
1/4 - 18 NPT	92	48	106	56	101	48	116	56
3/8 - 18 NPT	92	48	106	56	101	48	116	56
1/2 - 14 NPT	106	61	122	71	118	61	136	71
3/4 - 14 NPT	106	61	122	71	118	61	136	71
1 - 11 1/2 NPT	120	74	138	85	134	74	154	85
1 1/4-11 1/2 NPT	120	74	138	85	134	74	154	85
1 1/2-11 1/2 NPT	120	74	138	85	134	74	154	85
2 - 11 1/2 NPT	120	74	138	85	134	74	154	85
2 1/2 - 8 NPT	147	105	169	122	173	105	199	122
3 - 8 NPT	147	105	169	122	173	105	199	122

■Thread limit of Dryseal American Pipe Thread Taps

○Straight pipe thread taps (NPSF) G Class



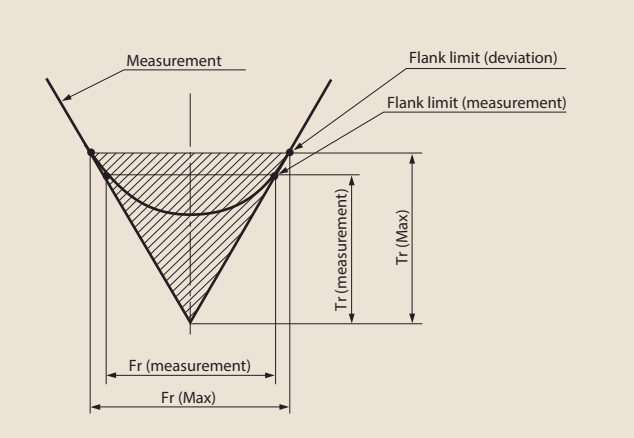


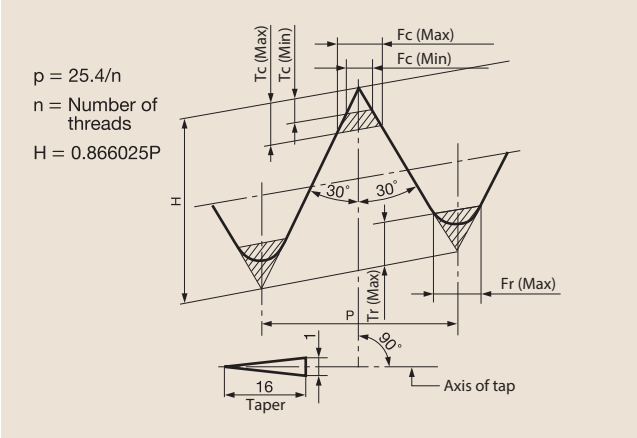
Unit : mm

Size	Major diameter			Pitch diameter			Minor diameter※		
	Max.	Min.	Tolerance	Max .	Min.	Tolerance	Max.	Fr (Max)	Tr (Max)
1/16 - 27 NPSF	7.665	7.641	0.024	7.053	7.041	0.012	M−0.638	0.101	0.086
1/8 - 27 NPSF	10.012	9.988	0.024	9.400	9.388	0.012	M−0.638	0.101	0.086
1/4 - 18 NPSF	13.332	13.308	0.024	12.354	12.342	0.012	M−1.004	0.127	0.109
3/8 - 18 NPSF	16.771	16.747	0.024	15.793	15.781	0.012	M−1.004	0.127	0.109
1/2 - 14 NPSF	20.929	20.905	0.024	19.601	19.589	0.012	M−1.354	0.127	0.109
3/4 - 14 NPSF	26.276	26.251	0.025	24.947	24.936	0.011	M−1.354	0.127	0.109

※ : Above dimensions change depending on actually measured.

○Taper pipe thread taps (NPTF) G Class





Unit : μm

Size	Crest				Root	
	Tc		Fc		Tr	Fr
	Max.	Min.	Max.	Min.	Max.	Min.
1/16 - 27 NPTF	110	89	127	103	86	101
1/8 - 27 NPTF	110	89	127	103	86	101
1/4 - 18 NPTF	132	110	152	127	109	125
3/8 - 18 NPTF	132	110	152	127	109	125
1/2 - 14 NPTF	131	109	151	126	108	124
3/4 - 14 NPTF	131	109	151	126	108	124
1 - 11 1/2 NPTF	176	133	203	154	132	152
1 1/4-11 1/2 NPTF	176	133	203	154	132	152
1 1/2-11 1/2 NPTF	176	133	203	154	132	152
2 - 11 1/2 NPTF	176	133	203	154	132	152

3. Troubles on taper pipe thread tapping, and their solution

Taper pipe thread tapping such as for PT thread and for NPT thread is quite different from parallel thread tapping such as for metric thread. There, the trouble particularly special in taper thread tapping tends to happen.
Following is the explanation about tapping troubles on taper pipe thread tapping and their solution:

■ Materials and troubles

material / trouble	low carbon steel	middle carbon steel	tool steel, alloy steel, high carbon steel, heat treated steel of lower than 35HRC	stainless steel	cast iron, tough cast iron	aluminum alloy, zinc alloy, brass	thermosetting resin, thermoplastic resin	nickel base alloy, titanium alloy, heat treated steel of lower than 35HRC
tap wear, cutting performance decreased		▲	●	▲	●			—
welding on tap	●			●	▲	●	●	—
chipping on tap	▲	▲	●	●				—
rough surface	▲	▲	▲	▲	●	▲	▲	—
torn threads	●			●	▲	●	▲	—
chip clogging	●			●			▲	—

● Trouble occurs quite frequently ▲ Trouble occurs rather frequently — Hard-to-machine material

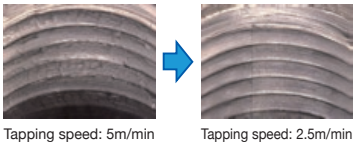
■ Trouble shooting

check point / trouble		Over-cutting of internal threads	Shrinkage of internal threads	Rough surface, Torn threads	Stop line	tap wear, cutting performance decreased	welding on tap	chipping on tap	chip clogging
Used machine		Select machine suitable for tapping size		Use machine with more power		Use machine with more power			
Jigs, Holders		Fix workpiece firmly			Use tap holder of floating type, Prevent vibrating of axis of tap, Prevent centering-off with workpiece				
Cutting condition		Adjust properly the stroke of tapping / Reduce cutting speed, Adjust a feed		Reduce cutting speed		Reduce cutting speed			
Lubricant			Change to insoluble oil from water soluble, Use other cutting oil which prevents cold welding			Change to insoluble oil from water soluble, Use other cutting oil when prevents cold welding		Adjust oil volume, supply oil properly	
On process					Prevent slanting of hole		Use taper reamer for boring hole	Provide deeper tapping hole, Remove unnecessary chips during tapping	Provide deeper tapping hole, Check the viscosity, Use taper reamer for boring hole
Tap	Selection			Use spiral fluted tap, Use interrupted tap	Use thread mill cutters	Use carbide tap (depending on materials being cut)	Use interrupted taps	Use spiral fluted tap, Use interrupted tap	
	Design				Reconsider of number of flutes of tap	Change material of tap	Provide oxide surface treatment, Provide TiN or TiCN on taps, Provide larger cutting angle	Select long shank tap when ejecting chips interferes with tap holder in the case of SP tapping	

■ Examples of trouble shooting

1) Torn thread trouble was solved by changing cutting speed

Tapping condition
size : PT1/4-19
tap : Straight flute tap
material : SS400
machine : Machining center
holder : fixed type
lubricant : water soluble

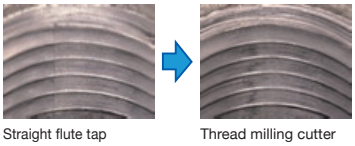


Tapping speed: 5m/min
Torn threads

Tapping speed: 2.5m/min
No torn threads

2) Stop line trouble was solved by using Thread milling cutter

Cutting condition
size : PT1/4-19
tap : Straight flute tap
milling cutter : 08153X19G
material : SS400
machine : Machining center
holder : fixed
lubricant : water soluble



Straight flute tap
There is the stop line

Thread milling cutter
There is no stop line

Think threads with YAMAWA

22. Features of MC-Helical Thread Mills

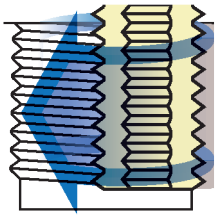
Cutting principles

The edge of an MC-helical thread mill does not have lead, like a tap. To tap internal threads with an MC-helical thread mill, you need to use "helical interpolation" on an MC machine. Helical interpolation moves a tool in a helical manner using simultaneous 3-axis control. Right-hand or left-hand is determined by combining the vertical and horizontal moving directions of the shaft (X-axis) as shown in the figure below. The shaft itself rotates clockwise.

【Meanings of arrows】



Rotation direction of the tool

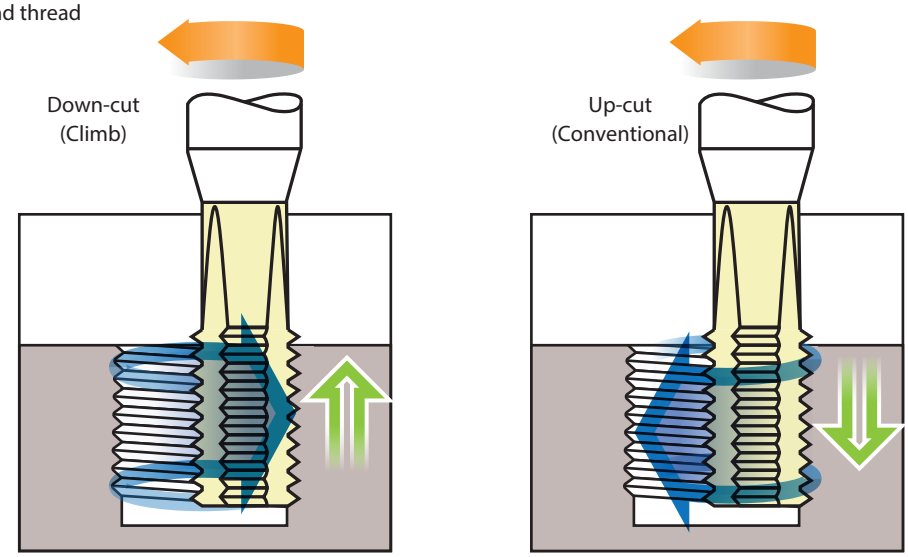


Horizontal moving direction of the tool

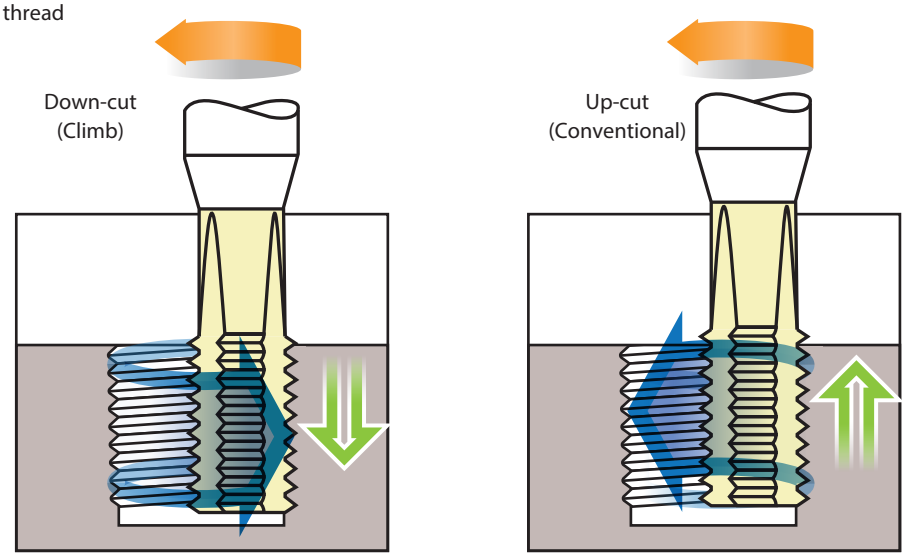


Vertical moving direction of the shaft

Right hand thread



Left hand thread

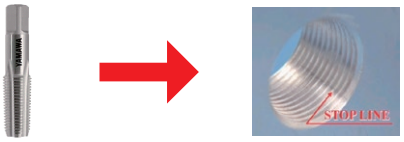


Note : Basically, conventional milling is recommended due to excellent chip ejection. However, climb milling is recommended in the case of poor horse power and poor rigidity of the machine.

■Comparison of internal threads cut by helical cutter and by PT tap

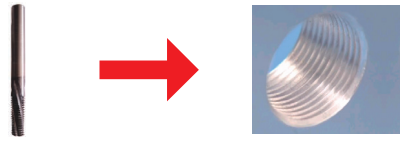
■Pipe thread cutting by tap

When PT tap cuts internal threads, the tap cuts the threads with all cutting edges and the tap reverses from the position where each cutting edge on lands sticks into the material wall of internal threads. This results in the stop line due to a step caused by this sticking.



■Pipe thread cutting by helical cutter

Due to the thread cutting of 3 axis movement without reversing, the internal thread has no stop line.



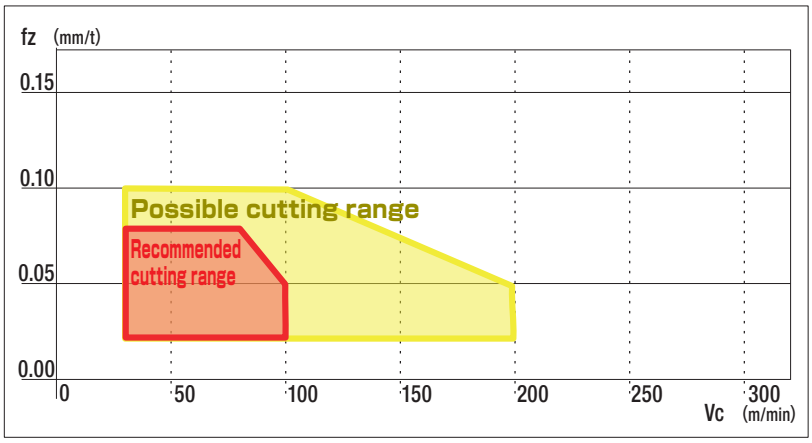
■Selection of tool diameter against the size of the internal threads

When cutting internal threads with MC-HLC, please choose the tool which diameter is smaller than 70% of internal threads diameter. The cutter having larger outside diameter is preferable due to its high rigidity.
Thread milling cutters do not have screw lead. Please select thread milling cutters by referring to product specification table to avoid poor threads caused by interference.

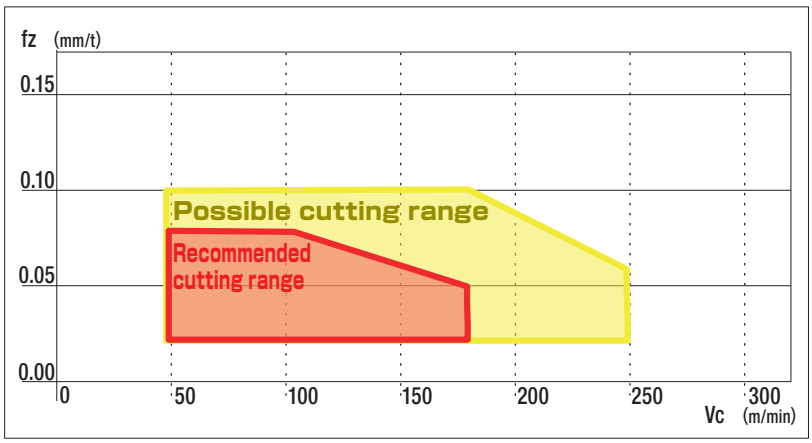
■Cutting conditions

○For MC-CSLC

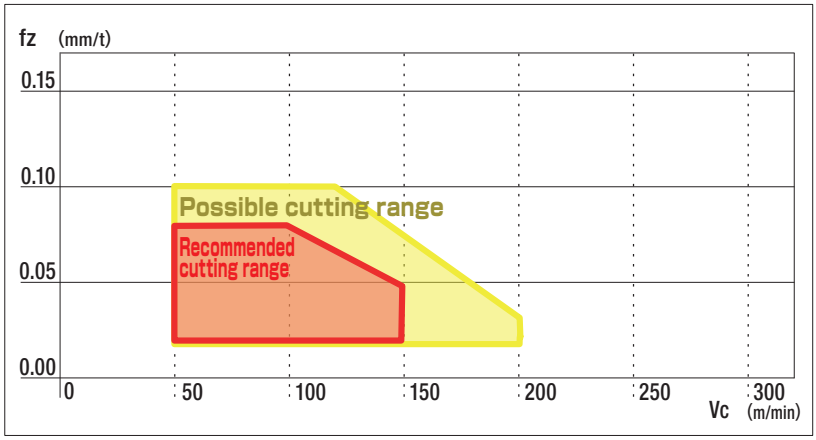
—Stainless steel—



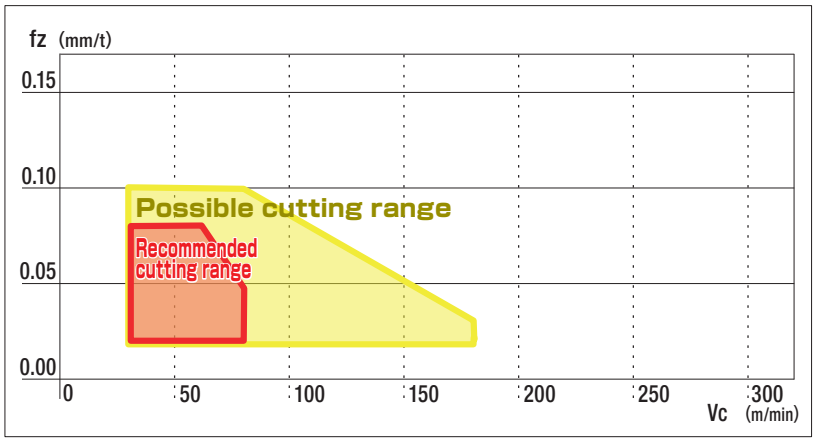
—Structural steel —



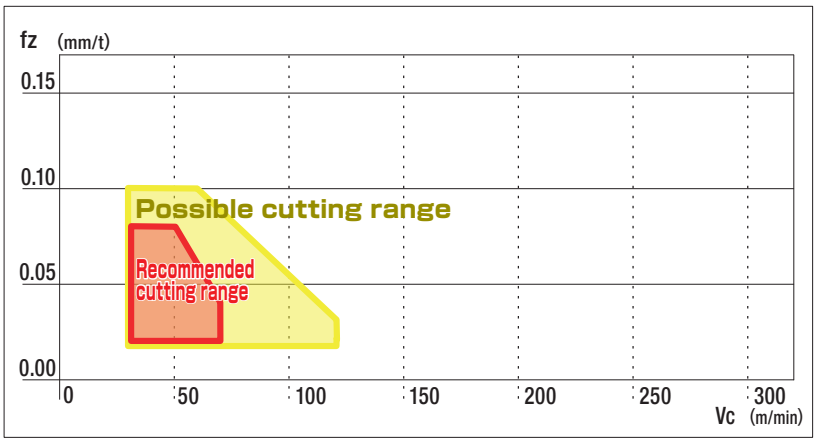
—Carbon steel—



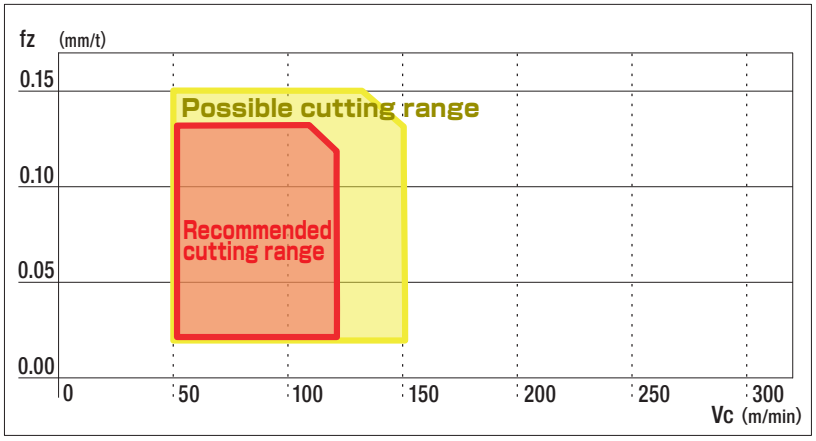
—Alloy steel—



—Tool steel —

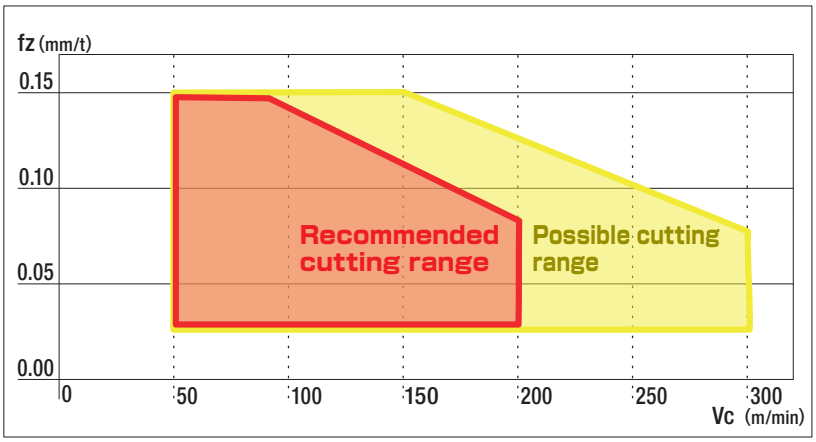


—Cast iron—

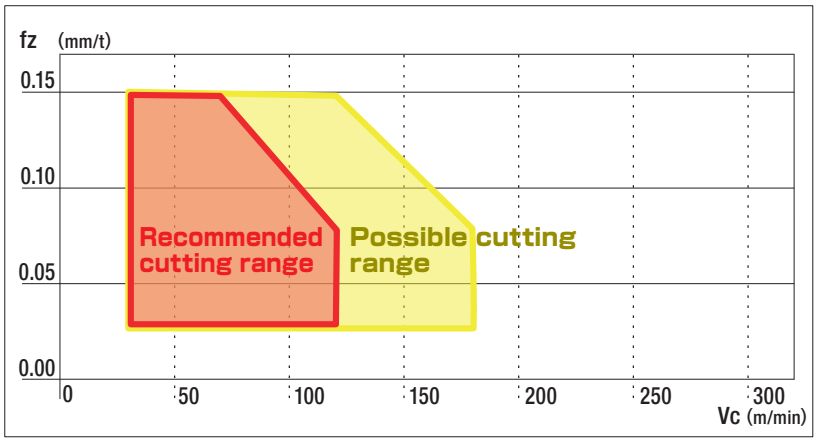


22. Features of MC-Helical Thread Mills

—Aluminum / Aluminum alloy—

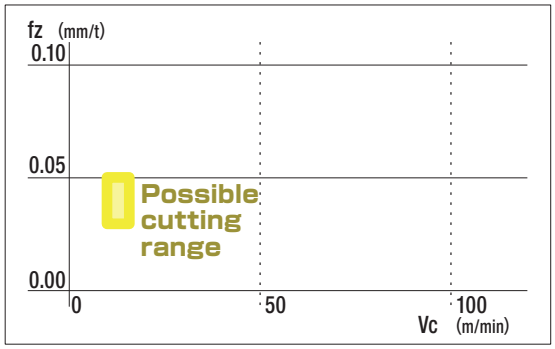


—Copper / Copper alloy—

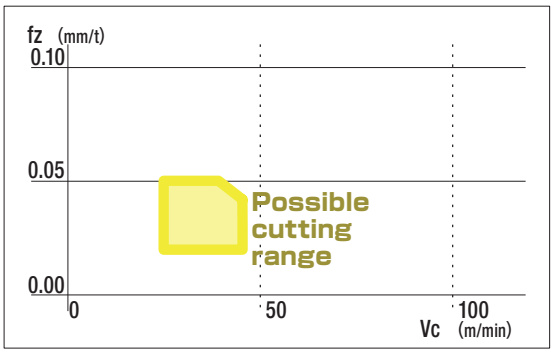


○For MC-HLC

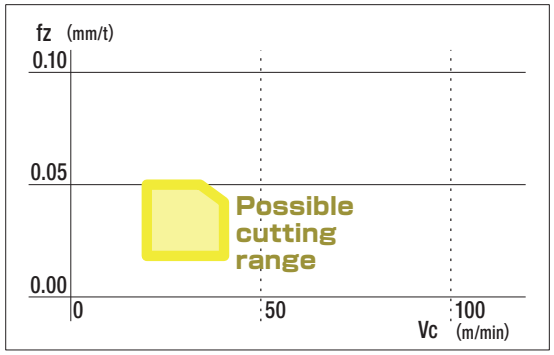
— Stainless steel—



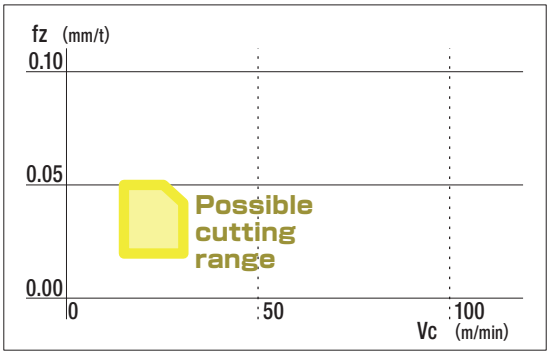
—Structural steel—



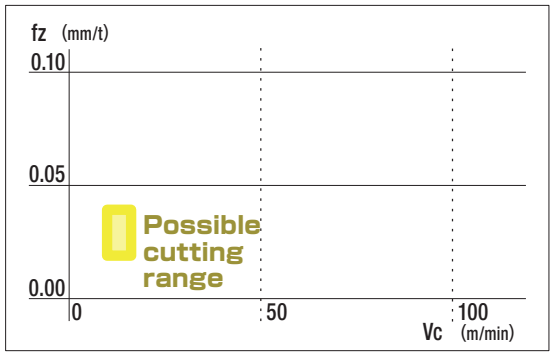
—Carbon steel —



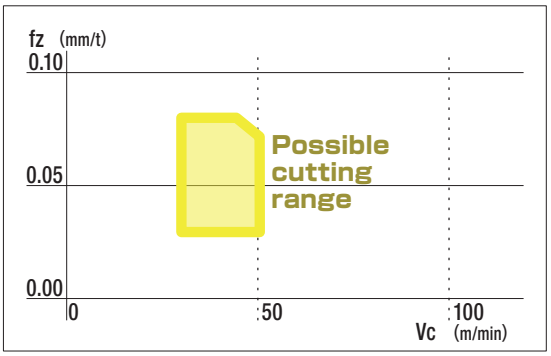
—Alloy steel—



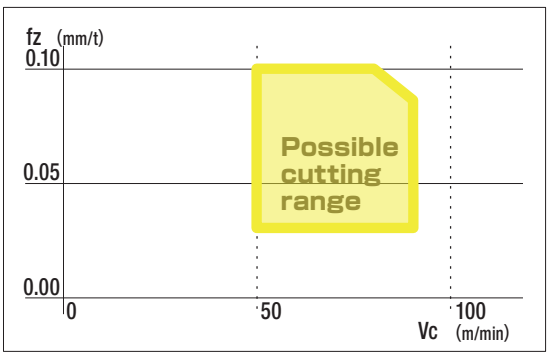
—Tool steel —



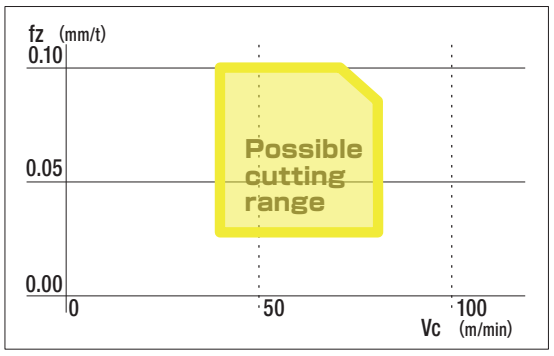
—Cast iron—



—Aluminum / Aluminum alloy—



—Copper / Copper alloy —



■Feed speed

Feed speed is decided by the characteristic of work materials. Feed speed is an important factor because machining time, thread finish and tool durability are getting influenced by the feed speed.
In the material of low tensile strength, feed per tooth can be set up rather large. However, if you set up feed per one tooth too large, thread milling cutters can cause deflection and may badly cause thread limit.

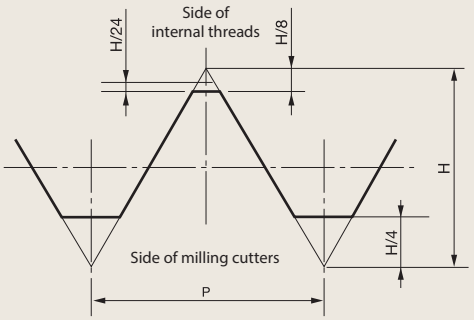
Feed speed of tool

$$Vf = fz \cdot Z \cdot n \cdot (D-Dc)/D \ (mm/min)$$

fz : Feed per tooth(mm/t)
z : Number of tooth
n : Spindle RPM Revolution Speed (min^{-1})
Dc : Outer diameter of tool (mm)
D : Nominal size of internal thread (mm)

■Cut of cutters

Generally, Cut of cutter is decided by the machine programming in which the machine enables the cutter to cut the thread height in one revolution. MC helical cutter is so designed that its minor diameter does not cut, and the same bored hole size as that for cutting tap is adopted.



—Metric thread

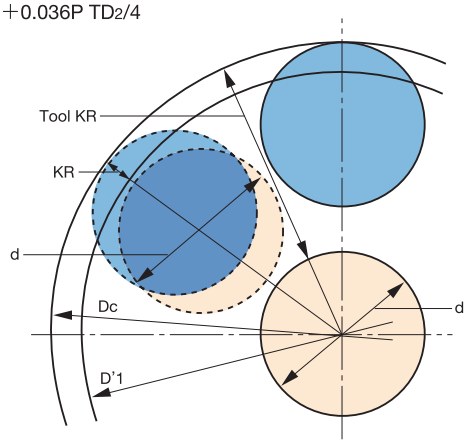
[Minor dia. basis]
Tool cut

$$KR = H - (H/8 + H/4) + H/24 + TD_2/4 - (D'_1 - D_1)/2$$
$$= (D_1 - D'_1)/2 + 2H/3 + TD_2/4$$
$$= (D_1 - D'_1)/2 + 0.577P + TD_2/4$$

—Metric thread

[Tool basis]
Tool transverse

$$\text{Tool } KR = Dc/2 - d/2 + H/24 + TD_2/4$$
$$= (Dc - d)/2 + H/24 + TD_2/4$$
$$= (Dc - d)/2 + 0.036P\ TD_2/4$$



where,

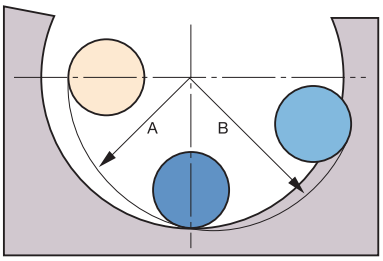
Dc : Nominal size of internal threads
D_1 : Basic minor diameter of internal threads
D'_1 : Minor diameter before cutting
d : Outside diameter of tool
H : 0.866025P
P : Pitch
TD_2 : Tolerance of pitch diameter for producing internal thread
$TD_2/4$: Shrinkage after cutting
(Set up in the middle of pitch diameter tolerance)

H/24 : Difference between of basic thread profile and O.D. of the cutters.

Think threads with YAMAWA

■Approaching and leaving to and from work material

On approaching and leaving to and from work material, the cutter must always be traversed in helical interpolating movement so that the cutter enables smooth cutting in and out. And it is necessary to cut the material gradually by the lead of screw thread. Otherwise, threads can be thinned.



Initial cutting A＜B

■Helical cutting trouble countermeasure

Trouble location		Finished internal thread	Finished internal thread	Finished internal thread	Finished internal thread	Tool	Environment
Trouble contents / Check section		Chattering	Gouges	Burrs	Taper	Chipping	Cutting sound, mechanical vibration
Work material	Hardness	Pay attention to variations.					
	Shape	· Pay attention to cutting position, material thickness, etc.					
	Prepared hole	· Pay attention to work hardening and inclination.		· Increase prepared hole size as much as possible.		· Pay attention to work hardening and inclination.	
Machine tool		· Pay attention to rigidity.					
Tooling		· Pay attention to rigidity and grip.					
Jig		· Pay attention to rigidity.					
Cutting conditions		· Lower cutting speed and feed.					
Cutting fluid		· Use insoluble oil instead of water-soluble oil. Use insoluble oil with extreme pressure additive.					
Processing method		· Add zero-cut process. · Perform rough cutting and finish cutting in the radial direction.			· Add zero-cut process. · Perform rough cutting and finish cutting in the radial direction. Perform rough cutting and finish cutting in the depth direction.	· Perform rough cutting and finish cutting in the radial direction.	· Perform rough cutting and finish cutting in the radial direction. Perform rough cutting and finish cutting in the depth direction.
Helical thread mills	Selection	· Use MC-HLC.	· Use MC-CSLC.			· Use MC-HLC.	
	Design	· Use smaller rake.	· Use larger rake.		· Use proper rake.	· Use smaller rake.	· Use proper rake.
	Resharpening	· Use proper rake.					

■Thread Milling Programmer NC program application for thread mill



It's easy to create a program with Thread Milling Programmer.
Simply select a tool to use and input a "nominal diameter", "pitch", "tapping length" and other necessary information to create a program.
You can output the created program as an NC program file or text file and send it directly to your machining center.

Download Thread Milling Programmer from our website.
An instruction manual describing the installation procedure and basic instructions for use is also available.

Notes

We do not guarantee the accuracy of internal threads of NC programs created in Thread Milling Programmer.
Thread Milling Programmer has been tested and verified on Windows 10.
We cannot be held liable for any problems resulting from the use of NC programs created in Thread Milling Programmer.
Thread Milling Programmer cannot be used on smart devices.
(It works on Windows 10 only.)

23. Selecting different tap holder combinations by machine feed system

The function of machine feed systems

Fully synchronous feed (Rigid) tapping system

Spindle revolution and machine feed are synchronized, a perfect thread lead and feed per revolution are realized.

Feed by lead screws

A better-feed condition is realized because the tap is fed by a master lead screw shaft that has the same thread lead as this tap.

Feed by gear

The tap is fed at the same thread lead by a combinations of gears. This creates a better-feed to thread lead condition.

Asynchronous feed system

Best used when the spindle rotation and the machine feed are set independently, especially, if the machine feed value cannot be accurately predicted to be that of the tap thread lead.

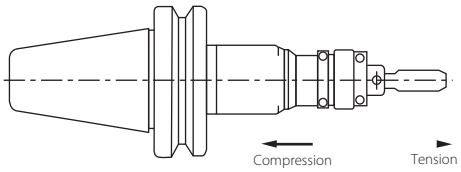
Hydraulic or Pneumatic pressure feed system

Feed is controlled by a pressure regulation system which normally results in an inaccurate feed per revolution compared to the tap thread lead.

Manual feed

Feed is controlled by operator which is difficult to keep a stable amount of feed per revolution.

Holders aspects



Spring direction

Completely rigid holder type

The tap is held with no axial or radial adjustment in the collet and holder.

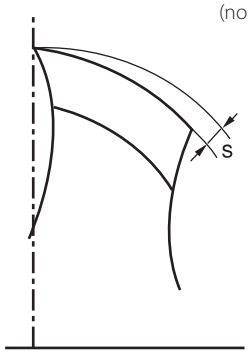
Adjustable spring floating holder (Tension & Compression)

Machine feed and tap's thread lead errors are corrected by two types of spring system in the holder, the axial tension direction of the tap and the axial compression direction of the tap.

Characteristics of tap self-guiding behavior

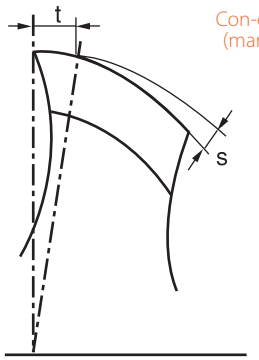
r=tap's radius, s=thread relief, t=margin width

Eccentric thread relief
(no width of margin)



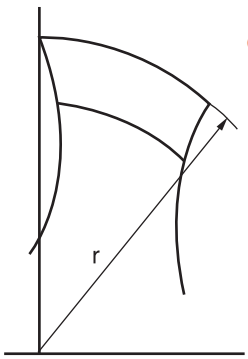
Tap characteristics ; high cutting performance and machining performance, with little to no self-guiding features.
Operation ; A fully synchronous machining system with fixed rigid holder is needed.
Example : "High speed tapping" and "fully synchronous tapping."

Con-eccentric thread relief
(margin and thread relief)



Tap ; High level of self-guidance due to suitable tap diameter margin and thread relief. The combination of nice portion of margin and chamfer relief helps to make appropriate tap guidance.

Concentric (No relief)



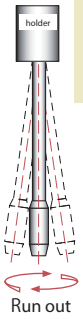
Tap ; A full thread land stays in contact with the thread major diameter at all times. Tap has no thread relief on major diameter, creating a high level of self-guidance even with unbalanced feeding conditions.

24. The mechanism for a tap to cut oversize on an internal thread

1. Run out, misalignment and tap cutting in non perpendicular to holes → Over-cutting at radial direction

Tool run out during tapping

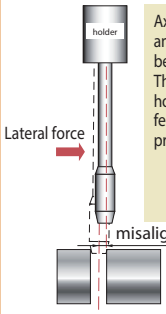
Holder needs to be adjusted. Tapping with run out can be observed and checked when idle running.



Misalignment during tapping

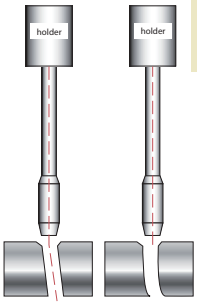
Axis of tapping process and bored hole should be lined up correctly. The use of adjustable holder with floating features will reduce this problem.

Solutions



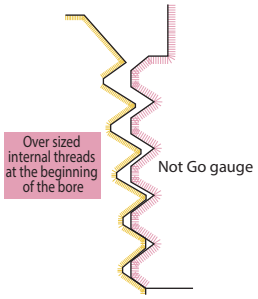
Tapping a non-parallel or non-perpendicular thread to the axis of the hole.

Verification of prepared hole condition.

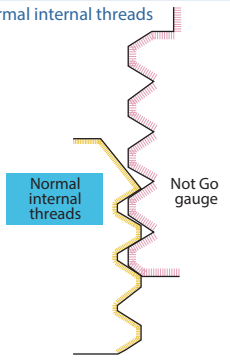


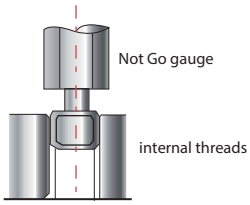
Excessive cutting in radial direction causes oversized internal threads. Since tapping proceeds along bored hole, in the depth of hole, oversize cutting is minimized, that is, oversize cutting in the beginning of the hole and normal cutting in the depth of the hole.

Excessive-cutting in the radial direction



Normal internal threads





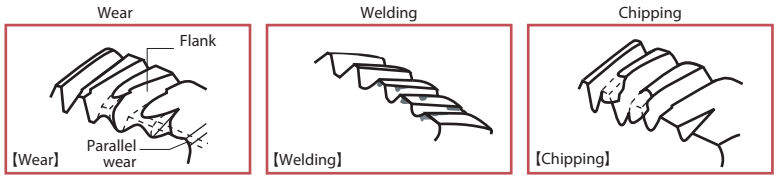
2. Using a tap not suitable for the operation or a tap with dull cutting edge may cause galling and result in over-cutting. → Over-cutting caused by galling and excess cutting

Using an incorrect tap for a specific workpiece material can cause problems

Select the correct Tap
- Straight fluted tap
- Spiral fluted tap
- Spiral pointed tap
- Roll tap

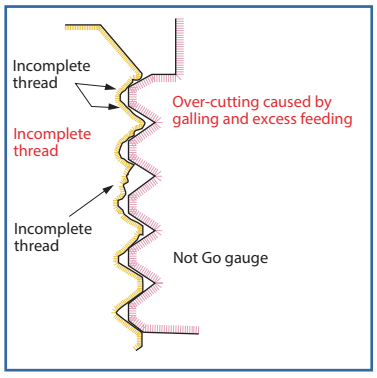
Selection of correct taps suitable for material being tapped is strongly recommended.

Tapping process with dull edge



Solution: Proper use of cutting oil, confirmation of a constant for tool life

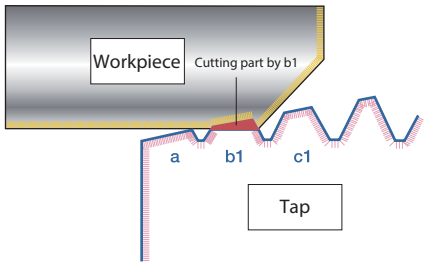
Torn threads occur on the thread flanks. If this situation gets worse, there occur large thread collapses or incomplete threads finally bringing out oversized internal threads.
Depending on the condition of collapsed threads such trouble tends to occur discontinuously as NOT-GO gouge enters.
Special attention needs to be taken so that random inspection should not miss this kind of trouble.



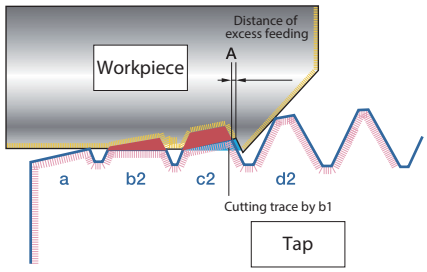
3. Tapping with an improper feed condition → over-cutting at axial direction

Process of over-cutting due to excessive feed

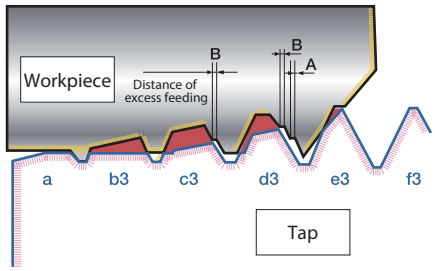
① With cutting edge b1, cutting starts.



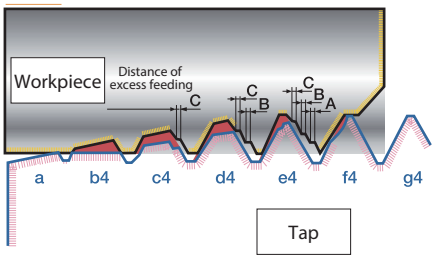
② Position between workpiece and tap after the tap rotates 1 turn.



③ Position between workpiece and tap after the tap rotates 2 turns.



④ The position between workpiece and tap after 3 rotations of tap.



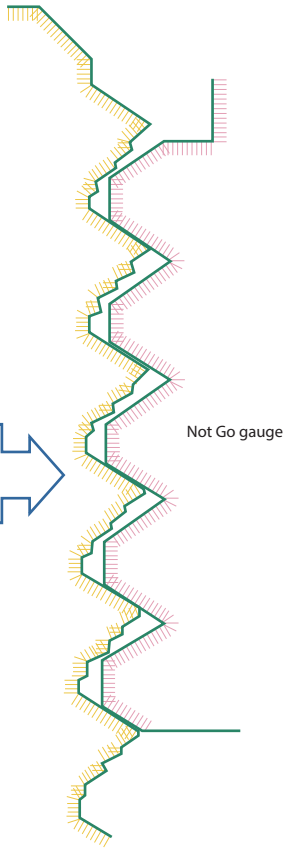
Solutions

Feed adjustment is strongly recommanded.

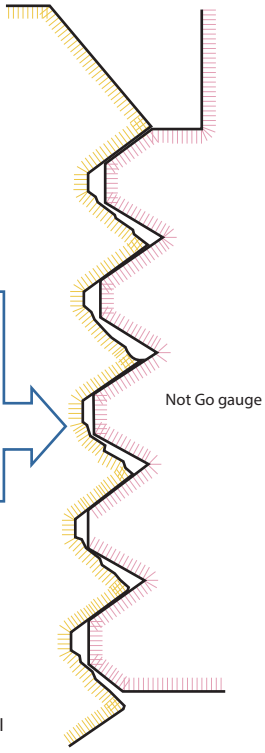
* (Use fully synchronous feed system and fixing holder)

When using machines that do not have the synchronous feed system, such as drilling machine.

* Adjust the correct weight balance of main spindle properly.
* Use an axial/radial floating holder for adjustment.



Excessive-cutting of the thread with excessive feeding



Over-cutting of the thread by too slow feeding

Process Opposite of excessive feeding Factors in fluencing extra material is cut at back frank.

over-cutting during tapping

① The tap mounting condition in the holder.
② The condition of bored hole.
③ The cutting oil selection.
④ Incorrect adjustment of feed balance.
⑤ Selection of the tap depending on material being cut.

25. Trouble Shooting

Troubles / Check point / Segments		Breakage			Excessive wear	
		Prevent excessive cutting torque	Prevent clogging of chips	Tap	Workpiece	Tap
Workpiece	Hardness	●Use workpiece which has even structure and hardness.			○Use workpiece which has even structure and hardness.	
	Shape	●Pay attention to tapping position and material thickness.			●Pay attention to tapping position and material thickness.	
	Bored hole	◎Provide bigger bored holes. ●Prevent work hardening.			○Provide bigger bored holes. ●Provide countersinking on hole entrance. ○Prevent work hardening.	
		◎Provide deeper tapping hole. ●Prevent slanting of hole.				
Machine		●Avoid inconsistent feed. ●Adjust feed stroke.				
Jigs, Holders		●Use tap holder of floating type. ◎Use tap holder with torque limiter.				
Cutting condition		○Reduce cutting speed.			○Reduce cutting speed.	
Lubricant		●Use the other cutting oil which prevents cold welding. ●Use insoluble type cutting oil.			●Provide proper timing for changing or filling-up of cutting oil. ●Prevent mixing of other oil into cutting oil. ●Use other cutting oil which prevents cold welding. ●Use cutting oil of insoluble type. ●Adjust flow of cutting oil and method of lubrication.	
On process			●Remove unnecessary chips during tapping. ●Provide bigger space for chips disposal.			
Tap	Selection			●Use PO tap(through hole). ●Use SP tap(blind hole). ●Use Roll tap.		
	Design		●Provide bigger chiproom.	●Change material of taps. ●Provide proper hardness on taps.		●Use serial set tap. ●Change material of taps. ●Provide proper hardness on taps.
		●Reconsider length of cutting chamfer. ●Use set tap.			●Reconsider length of cutting chamfer. ●Provide nitride on taps.	
	Re-grind	●Be careful about burning during re-sharpening. ●Provide proper land.			●Be careful about burning during re-sharpening. ●Increase re-sharpening frequency.	

◎ : Most suitable solution ○ : Second most suitable solution

Undersize cutting of internal thread			Bad surface, surface damaged		
Improve cutting performance	Selection and design of tap	Work material	Improve cutting performance	Prevent welding	Check cutting condition
		●Check workmaterial.			●Use workpiece which has even structure and hardness.
		●Pay attention to tapping position and material thickness.			●Pay attention to tapping position and material thickness.
●Adopt bigger bored hole. ●Prevent work hardening of material.					
			●Prevent work hardening.	●Provide bigger bored holes.	○Prevent slanting of hole.
					○Feed according to pitch.
					●Use the tap holder of floating type. ●Prevent vibrating of axis of tap ●Prevent centering-off with work piece.
			●Reduce cutting speed.		
			●Provide proper timing for changing or filling-up of cutting oil. ●Prevent mixing of other oil into cutting oil. ●Use other cutting oil which prevents cold welding. ●Use cutting oil of insoluble type. ●Adjust flow of cutting oil and method of lubrication.		
				●Remove unnecessary chips	
●Provide Nitride on taps.	◎Use oversize taps.		●Use spiral pointed taps (for through hole).	◎Provide oxide coating on taps.	◎Use oil hole taps.
○Provide larger cutting angle.	●Adjust relief angle on cutting chamfer. ○Provide thread relief.		◎Provide larger cutting angle. ●Adjust relief angle on cutting chamfer. ○Provide more narrow margin.	●Change of no. of flutes on taps.	●Reconsider length of cutting chamfer.
●Increase re-sharpening frequency.			●Increase re-sharpening frequency.	●Provide better surface finishing on flutes.	
			●Provide precise re-sharpening. ●Be careful about burning during re-sharpening.		

25. Trouble Shooting

Troubles / Check point / Segments		Over-cutting of internal thread				
		Prevent uneven in feed of tap	Prevent over cutting on thread	Prevent welding	Check cutting condition	Prevent unbalance on entering
Workpiece	Hardness	●Pay attention to unevenness, and variation of materials.				
	Shape					
	Bored hole			●Provide bigger bored hole.	●Prevent slanting of hole.	●Provide countersinking on the hole entrance.
Machine		●Adjust a feed. ◎Feed according to pitch.				
Jigs, Holders					○Use tap holder of floating type.	◎Prevent vibrating of axis of tap. ○Prevent centering-off with work piece. ●Use tap holder of floating type.
Cutting condition				●Reduce cutting speed.		
Lubricant				●Use other cutting lubricant which prevents cold welding. ●Check the viscosity.		
On process						
Tap	Selection			◎Provide oxide surface treatment. ○Use tap with oil hole.		
	Design		○Provide small cutting angle. ●Adjust chamfer relief angle. ◎Check the width of thread margin.	●Provide short thread length.	●Reconsider number of flutes of tap.	●Reconsider length of cutting chamfer.
	Re-grind		●Remove burrs on teeth after re-grinding. ●Provide proper land.		●Provide precise re-sharpening.	◎Care for vibration.

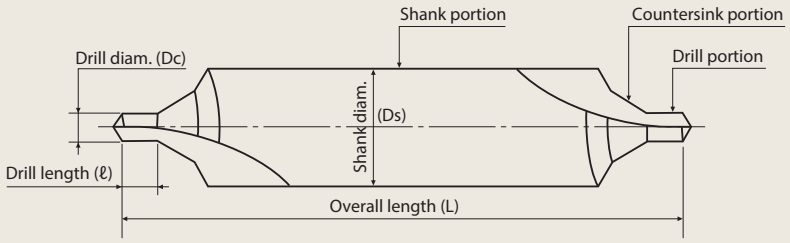
◎ : Most suitable solution ○ : Second most suitable solution

<table>
<tr><th colspan="4">Chipping</th><th colspan="2">Tapping operation</th></tr>
<tr><th>Prevent clogging of chips</th><th>Prevent excessive cutting torque</th><th>Improve tapping method</th><th>Tap</th><th>Prevent clogging of chips</th><th>Tap</th></tr>
<tr><td></td><td>●Use workpiece material which has even structure and hardness.</td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td>○Pay attention to tapping position and material thickness.</td><td></td><td colspan="2">●If possible, use finer pitch tap or shorter tapping length.</td></tr>
<tr><td>Provide deeper tapping hole (Blind hole).</td><td>◎Provide bigger bored hole.
●Prevent work hardening.</td><td>●Prevent slanting of holes.</td><td></td><td>○Provide bigger bored hole.
◎Provide deeper tapping hole (Blind hole).</td><td></td></tr>
<tr><td colspan="3">●Provide countersinking on hole the entrance.</td><td></td><td></td><td></td></tr>
<tr><td></td><td>●Avoid inconsistent feed.</td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>○Use tapping holder with torque limiter.</td><td>●Prevent centering-off with workpiece.
●Prevent vibration of axis of tap.
●Use the tap holder of floating type.</td><td></td><td></td><td>●Use the tap holder of floating type.
●Prevent vibration of axis of tap.
●Prevent centering-off with workpiece.</td></tr>
<tr><td colspan="3">●Reduce cutting speed.</td><td></td><td>●Reduce cutting speed.</td><td></td></tr>
<tr><td></td><td>●Use the other cutting oil which prevent cold welding.</td><td></td><td></td><td>●Check the viscosity.</td><td></td></tr>
<tr><td>●Remove unnecessary chips during tapping.
●Provide bigger space for chip disposal.</td><td></td><td></td><td></td><td colspan="2">●Remove unnecessary chips during tapping.
●Provide bigger space for chip disposal.</td></tr>
<tr><td></td><td></td><td></td><td>●Use PO taps (Through hole).
●Use SP taps (Blind hole).
●Use Roll tap.</td><td></td><td>●Use PO taps (Through hole).
●Use SP taps (Blind hole).
●Use Roll tap.</td></tr>
<tr><td>●Provide bigger chip room.</td><td></td><td></td><td>●Change material of tap.
●Provide smaller cutting angle.
●Provide proper hardness.</td><td colspan="2" rowspan="2">●Provide bigger chip room.
●Reconsider length of cutting chamfer.
◎Use oil hole tap.
●Provide shorter thread length to tap.</td></tr>
<tr><td colspan="3">●Reconsider length of cutting chamfer.
●Use set tap(Serial or conventional).
●Adjust relief angle on cutting chamfer.</td></tr>
<tr><td colspan="3">●Be careful about burning during re-sharpening.</td><td></td><td></td><td></td></tr>
</table>

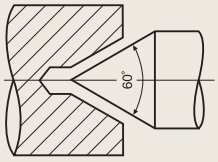
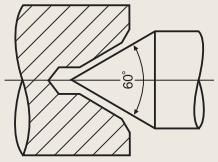
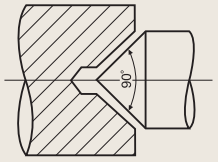
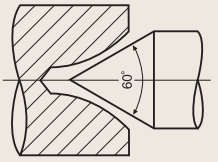
26. Center Drills

Center Drills are the tool for making center hole. Center Drills are also used for positioning before drilling, and for chamfering of the hole.

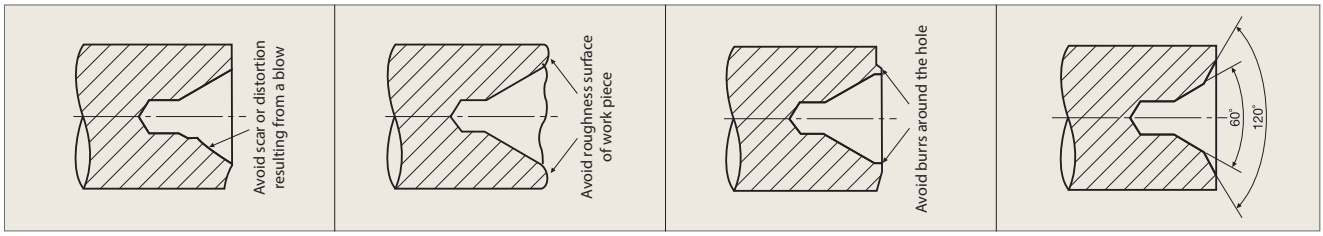
Names of each part



Shape of center hole and center

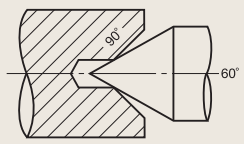
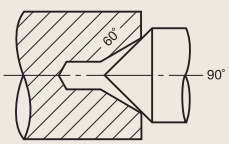
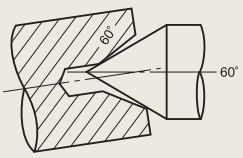
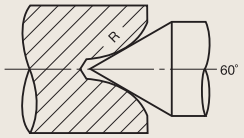
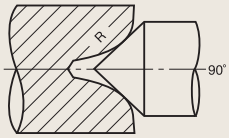
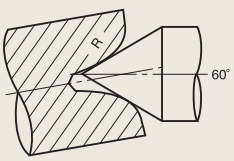
Type A (60°) Center hole & 60°center	Type B (60°) Center hole & 60°center	Type A (90°) Center hole & 90°center	Type R Center hole & 60°center
			

Advantage of Type B Center holes



Note : Advantage of Type B center holes : B type center drill protect the 60° conical bearing surface from scar or distortion resulting from a blow, roughness of workpiece surface or burrs around the hole.

Advantage of Type R Center holes

	Angle of center hole is higher than that of center.	Angle of center hole is lower than that of center.	Center hole and center are misaligned.
A type			
R type			

Note : R type center hole stably holds the center. It also some of advantage of B type center hole.

27. Table of recommend centering condition

■Table of Recommended Cutting Conditions for High Helix Center Drills (CE Series)

《Uncoated products with standard overall length》

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Low carbon steels		Medium carbon steels		Stainless steels		Brass		Brass castings		Wrought aluminums		Aluminum alloy castings	
	Cutting speed v_c	15~30 m/min		15~30 m/min		5~12 m/min		25~50 m/min		25~50 m/min		20~40 m/min		20~40 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
CESA, CEIR															
0.5 (3.15)	1.06	4500	0.01~0.02	4500	0.01~0.02	1500	0.01~0.02	7500	0.01~0.02	7500	0.01~0.02	6000	0.01~0.02	6000	0.01~0.02
0.63 (3.15)	1.32	3900	0.01~0.03	3900	0.01~0.03	1300	0.01~0.03	6400	0.01~0.03	6400	0.01~0.03	5100	0.01~0.03	5100	0.01~0.03
0.8 (3.15)	1.7	3200		3200		1100		5400		5400		4300		4300	
1 (3.15)	2.12	2800	0.02~0.04	2800	0.02~0.04	1000	0.02~0.04	4700	0.02~0.04	4700	0.02~0.04	3800	0.02~0.04	3800	0.02~0.04
1.25 (3.15)	2.65	2500		2500		920		4100		4100		3300		3300	
1.6 (4)	3.35	2200	0.02~0.05	2200	0.02~0.05	840	0.02~0.05	3700	0.02~0.05	3700	0.02~0.05	2900	0.02~0.05	2900	0.02~0.05
2 (5)	4.25	2000	0.03~0.06	2000	0.03~0.06	770		3300	0.03~0.06	3300	0.03~0.06	2600	0.03~0.06	2600	0.03~0.06
2.5 (6.3)	5.3	1800	0.03~0.07	1800	0.03~0.07	720	0.03~0.06	3000	0.03~0.07	3000	0.03~0.07	2400	0.03~0.07	2400	0.03~0.07
3.15 (8)	6.7	1400		1400		570		2400		2400		1900		1900	
4 (10)	8.5	1100	0.05~0.1	1100	0.05~0.1	450	0.04~0.08	1900	0.05~0.1	1900	0.05~0.1	1500	0.05~0.1	1500	0.05~0.1
5 (12.5)	10.6	900	0.08~0.13	900	0.08~0.13	360	0.05~0.1	1500	0.08~0.13	1500	0.08~0.13	1200	0.08~0.13	1200	0.08~0.13
6.3 (16)	13.2	720	0.1~0.15	720	0.1~0.15	290		1200	0.1~0.15	1200	0.1~0.15	970	0.1~0.15	970	0.1~0.15
8 (20)	17	560	0.13~0.18	560	0.13~0.18	220	0.06~0.11	940	0.13~0.18	940	0.13~0.18	750	0.13~0.18	750	0.13~0.18
10 (25)	21.2	450	0.19~0.24	450	0.19~0.24	180		750	0.19~0.24	750	0.19~0.24	600	0.19~0.24	600	0.19~0.24
CE-S, CE-T															
0.3 (3)	1	3200		3200		1100		5300		5300		4200		4200	
0.4 (3)	1	3200	0.01~0.02	3200	0.01~0.02	1100	0.01~0.02	5300	0.01~0.02	5300	0.01~0.02	4200	0.01~0.02	4200	0.01~0.02
0.5 (3.5)	1.5	3200		3200		1100		5300		5300		4200		4200	
0.6 (3.5)	1.5	3300		3300		1100		5600		5600		4500		4500	
0.7 (3.5)	2	2600	0.01~0.03	2600	0.01~0.03	910	0.01~0.03	4400	0.01~0.03	4400	0.01~0.03	3500	0.01~0.03	3500	0.01~0.03
0.8 (3.5)	2	2700		2700		960		4600		4600		3700		3700	
0.9 (4)	2.5	2300		2300		820		3800		3800		3100		3100	
1 (4)	2.5	2400	0.02~0.04	2400	0.02~0.04	860	0.02~0.04	4000	0.02~0.04	4000	0.02~0.04	3200	0.02~0.04	3200	0.02~0.04
1.2 (5)	3	2100		2100		790		3600		3600		2900		2900	
1.5 (5)	4	1800	0.02~0.05	1800	0.02~0.05	680	0.02~0.05	3000	0.02~0.05	3000	0.02~0.05	2400	0.02~0.05	2400	0.02~0.05
2 (6)	5	1700	0.03~0.06	1700	0.03~0.06	650		2800	0.03~0.06	2800	0.03~0.06	2200	0.03~0.06	2200	0.03~0.06
2.5 (7.7)	6.5	1500		1500		590		2400		2400		2000		2000	
3 (7.7)	6.5	1500	0.03~0.07	1500	0.03~0.07	590	0.03~0.06	2400	0.03~0.07	2400	0.03~0.07	2000	0.03~0.07	2000	0.03~0.07
3 (8)	6.5	1500		1500		590		2400		2400		2000		2000	
4 (10)	8.5	1100	0.05~0.1	1100	0.05~0.1	450	0.04~0.08	1900	0.05~0.1	1900	0.05~0.1	1500	0.05~0.1	1500	0.05~0.1
5 (11)	9	1100	0.08~0.13	1100	0.08~0.13	420	0.05~0.1	1800	0.08~0.13	1800	0.08~0.13	1400	0.08~0.13	1400	0.08~0.13
5 (12)	10	960		960		380		1600		1600		1300		1300	
6 (16)	13.5	710	0.1~0.15	710	0.1~0.15	280		1200	0.1~0.15	1200	0.1~0.15	940	0.1~0.15	940	0.1~0.15
6 (18)	15	640		640		250		1100		1100		850		850	
8 (18)	15	640	0.13~0.18	640	0.13~0.18	250	0.06~0.11	1100	0.13~0.18	1100	0.13~0.18	850	0.13~0.18	850	0.13~0.18
10 (18)	15	640	0.19~0.24	640	0.19~0.24	250		1100	0.19~0.24	1100	0.19~0.24	850	0.19~0.24	850	0.19~0.24
12 (25)	21	450	0.22~0.27	450	0.22~0.27	180		760	0.22~0.27	760	0.22~0.27	610	0.22~0.27	610	0.22~0.27
1/16 (5)	4	1800	0.02~0.05	1800	0.02~0.05	700	0.02~0.05	3100	0.02~0.05	3100	0.02~0.05	2500	0.02~0.05	2500	0.02~0.05
3/32 (7.7)	6	1500	0.03~0.07	1500	0.03~0.07	610	0.03~0.06	2600	0.03~0.07	2600	0.03~0.07	2100	0.03~0.07	2100	0.03~0.07
1/8 (7.7)	6.5	1500		1500		590		2400		2400		2000		2000	
3/16 (11)	9	1100	0.08~0.13	1100	0.08~0.13	420	0.05~0.1	1800	0.08~0.13	1800	0.08~0.13	1400	0.08~0.13	1400	0.08~0.13
1/4 (18)	15	640	0.1~0.15	640	0.1~0.15	250	0.06~0.11	1100	0.1~0.15	1100	0.1~0.15	850	0.1~0.15	850	0.1~0.15
CE-S (I)															
2.5 (8)	6.5	1500	0.03~0.07	1500	0.03~0.07	590	0.03~0.06	2400	0.03~0.07	2400	0.03~0.07	2000	0.03~0.07	2000	0.03~0.07
3 (10)	8	1200		1200		480		2000		2000		1600		1600	
4 (12)	10	960	0.05~0.1	960	0.05~0.1	380	0.04~0.08	1600	0.05~0.1	1600	0.05~0.1	1300	0.05~0.1	1300	0.05~0.1
5 (14)	12	800	0.08~0.13	800	0.08~0.13	320	0.05~0.1	1300	0.08~0.13	1300	0.08~0.13	1100	0.08~0.13	1100	0.08~0.13

27. Table of recommend centering condition

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Low carbon steels		Medium carbon steels		Stainless steels		Brass		Brass castings		Wrought aluminums		Aluminum alloy castings	
	Cutting speed v_c	15~30 m/min		15~30 m/min		5~12 m/min		25~50 m/min		25~50 m/min		20~40 m/min		20~40 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
CEQA															
1 (4)	2.8	2100	0.02~0.04	2100	0.02~0.04	770	0.02~0.04	3600	0.02~0.04	3600	0.02~0.04	2800	0.02~0.04	2800	0.02~0.04
1.25 (5)	3.55	1900		1900		680		3100		3100		2500		2500	
1.6 (6.3)	4.5	1600	0.02~0.05	1600	0.02~0.05	630	0.02~0.05	2700	0.02~0.05	2700	0.02~0.05	2200	0.02~0.05	2200	0.02~0.05
2 (8)	5.6	1500	0.03~0.06	1500	0.03~0.06	580		2500	0.03~0.06	2500	0.03~0.06	2000	0.03~0.06	2000	0.03~0.06
2.5 (10)	7.1	1300	0.03~0.07	1300	0.03~0.07	540	0.03~0.06	2200	0.03~0.07	2200	0.03~0.07	1800	0.03~0.07	1800	0.03~0.07
3.15 (11.2)	9	1100		1100		420		1800		1800		1400		1400	
4 (12.5)	11.2	850	0.05~0.1	850	0.05~0.1	340	0.04~0.08	1400	0.05~0.1	1400	0.05~0.1	1100	0.05~0.1	1100	0.05~0.1
5 (16)	14	680	0.08~0.13	680	0.08~0.13	270	0.05~0.1	1100	0.08~0.13	1100	0.08~0.13	910	0.08~0.13	910	0.08~0.13
6.3 (20)	18	530	0.1~0.15	530	0.1~0.15	210	0.06~0.11	880	0.1~0.15	880	0.1~0.15	710	0.1~0.15	710	0.1~0.15
8 (25)	22.4	430	0.13~0.18	430	0.13~0.18	170		710	0.13~0.18	710	0.13~0.18	570	0.13~0.18	570	0.13~0.18
10 (31.5)	28	340	0.19~0.24	340	0.19~0.24	140		570	0.19~0.24	570	0.19~0.24	450	0.19~0.24	450	0.19~0.24
12.5 (35.5)	31.5	300	0.22~0.27	300	0.22~0.27	120		510	0.22~0.27	510	0.22~0.27	400	0.22~0.27	400	0.22~0.27
CE-Q															
0.5 (3.5)	1.5	3200	0.01~0.02	3200	0.01~0.02	1100	0.01~0.02	5300	0.01~0.02	5300	0.01~0.02	4200	0.01~0.02	4200	0.01~0.02
0.6 (3.5)	2	2500	0.01~0.03	2500	0.01~0.03	850	0.01~0.03	4200	0.01~0.03	4200	0.01~0.03	3300	0.01~0.03	3300	0.01~0.03
0.7 (3.5)	2	2600		2600		910		4400		4400		3500		3500	
0.8 (3.5)	2.5	2200		2200		770		3700		3700		2900		2900	
0.9 (4)	2.5	2300		2300		820		3800		3800		3100		3100	
1 (4)	3	2000	0.02~0.04	2000	0.02~0.04	720	0.02~0.04	3300	0.02~0.04	3300	0.02~0.04	2700	0.02~0.04	2700	0.02~0.04
1.2 (5)	3.5	1800		1800		680		3100		3100		2500		2500	
1.5 (5)	4	1800	0.02~0.05	1800	0.02~0.05	680	0.02~0.05	3000	0.02~0.05	3000	0.02~0.05	2400	0.02~0.05	2400	0.02~0.05
2 (6)	5	1700	0.03~0.06	1700	0.03~0.06	650		2800	0.03~0.06	2800	0.03~0.06	2200	0.03~0.06	2200	0.03~0.06
2.5 (7.7)	6.5	1500	0.03~0.07	1500	0.03~0.07	590	0.03~0.06	2400	0.03~0.07	2400	0.03~0.07	2000	0.03~0.07	2000	0.03~0.07
3 (7.7)	6.5	1500		1500		590		2400		2400		2000		2000	
4 (10)	8.5	1100	0.05~0.1	1100	0.05~0.1	450	0.04~0.08	1900	0.05~0.1	1900	0.05~0.1	1500	0.05~0.1	1500	0.05~0.1
5 (11)	9	1100	0.08~0.13	1100	0.08~0.13	420	0.05~0.1	1800	0.08~0.13	1800	0.08~0.13	1400	0.08~0.13	1400	0.08~0.13
6 (16)	13.5	710	0.1~0.15	710	0.1~0.15	280	0.06~0.11	1200	0.1~0.15	1200	0.1~0.15	940	0.1~0.15	940	0.1~0.15
6 (18)	15	640		640		250		1100		1100		850		850	
CESB															
0.5 (3.15)	1.6	3000	0.01~0.02	3000	0.01~0.02	1000	0.01~0.02	5000	0.01~0.02	5000	0.01~0.02	4000	0.01~0.02	4000	0.01~0.02
0.63 (3.15)	2	2500	0.01~0.03	2500	0.01~0.03	870	0.01~0.03	4200	0.01~0.03	4200	0.01~0.03	3400	0.01~0.03	3400	0.01~0.03
0.8 (3.15)	2.5	2200		2200		770		3700		3700		2900		2900	
1 (4)	3.15	1900	0.02~0.04	1900	0.02~0.04	680	0.02~0.04	3200	0.02~0.04	3200	0.02~0.04	2500	0.02~0.04	2500	0.02~0.04
1.25 (5)	4	1600		1600		610		2700		2700		2200		2200	
1.6 (6.3)	5	1500	0.02~0.05	1500	0.02~0.05	560	0.02~0.05	2500	0.02~0.05	2500	0.02~0.05	2000	0.02~0.05	2000	0.02~0.05
2 (8)	6.3	1300	0.03~0.06	1300	0.03~0.06	520		2200	0.03~0.06	2200	0.03~0.06	1800	0.03~0.06	1800	0.03~0.06
2.5 (10)	8	1200	0.03~0.07	1200	0.03~0.07	480	0.03~0.06	2000	0.03~0.07	2000	0.03~0.07	1600	0.03~0.07	1600	0.03~0.07
3.15 (11.2)	10	960		960		380		1600		1600		1300		1300	
4 (14)	12.5	760	0.05~0.1	760	0.05~0.1	310	0.04~0.08	1300	0.05~0.1	1300	0.05~0.1	1000	0.05~0.1	1000	0.05~0.1
5 (18)	16	600	0.08~0.13	600	0.08~0.13	240	0.05~0.1	1000	0.08~0.13	1000	0.08~0.13	800	0.08~0.13	800	0.08~0.13
6.3 (20)	18	530	0.1~0.15	530	0.1~0.15	210	0.06~0.11	880	0.1~0.15	880	0.1~0.15	710	0.1~0.15	710	0.1~0.15
8 (25)	22.4	430	0.13~0.18	430	0.13~0.18	170		710	0.13~0.18	710	0.13~0.18	570	0.13~0.18	570	0.13~0.18
10 (31.5)	28	340	0.19~0.24	340	0.19~0.24	140		570	0.19~0.24	570	0.19~0.24	450	0.19~0.24	450	0.19~0.24
CE-S（Ⅱ）															
1 (6)	4	1500	0.02~0.04	1500	0.02~0.04	540	0.02~0.04	2500	0.02~0.04	2500	0.02~0.04	2000	0.02~0.04	2000	0.02~0.04
1.5 (8)	6	1200	0.02~0.05	1200	0.02~0.05	450	0.02~0.05	2000	0.02~0.05	2000	0.02~0.05	1600	0.02~0.05	1600	0.02~0.05
2 (10)	8	1000	0.03~0.06	1000	0.03~0.06	410		1700	0.03~0.06	1700	0.03~0.06	1400	0.03~0.06	1400	0.03~0.06
2.5 (12)	10	960	0.03~0.07	960	0.03~0.07	380	0.03~0.06	1600	0.03~0.07	1600	0.03~0.07	1300	0.03~0.07	1300	0.03~0.07
3 (14)	12	800		800		320		1300		1300		1100		1100	
4 (18)	14	680	0.05~0.1	680	0.05~0.1	270	0.04~0.08	1100	0.05~0.1	1100	0.05~0.1	910	0.05~0.1	910	0.05~0.1

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Low carbon steels		Medium carbon steels		Stainless steels		Brass		Brass castings		Wrought aluminums		Aluminum alloy castings	
	Cutting speed v_c	15~30 m/min		15~30 m/min		5~12 m/min		25~50 m/min		25~50 m/min		20~40 m/min		20~40 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
5 (22)	17	560	0.08~0.13	560	0.08~0.13	220	0.05~0.1	940	0.08~0.13	940	0.08~0.13	750	0.08~0.13	750	0.08~0.13
6 (25)	21	450	0.1~0.15	450	0.1~0.15	180	0.06~0.11	760	0.1~0.15	760	0.1~0.15	610	0.1~0.15	610	0.1~0.15
CESC															
0.5 (3.15)	1.6	3000	0.01~0.02	3000	0.01~0.02	1000	0.01~0.02	5000	0.01~0.02	5000	0.01~0.02	4000	0.01~0.02	4000	0.01~0.02
0.63 (3.15)	2	2500	0.01~0.03	2500	0.01~0.03	870	0.01~0.03	4200	0.01~0.03	4200	0.01~0.03	3400	0.01~0.03	3400	0.01~0.03
0.8 (3.15)	2.5	2200		2200		770		3700		3700		2900		2900	
1 (3.15)	3.15	1900	0.02~0.04	1900	0.02~0.04	680	0.02~0.04	3200	0.02~0.04	3200	0.02~0.04	2500	0.02~0.04	2500	0.02~0.04
1.25 (4)	4	1600		1600		610		2700		2700		2200		2200	
1.6 (5)	5	1500	0.02~0.05	1500	0.02~0.05	560	0.02~0.05	2500	0.02~0.05	2500	0.02~0.05	2000	0.02~0.05	2000	0.02~0.05
2 (6.3)	6.3	1300	0.03~0.06	1300	0.03~0.06	520		2200	0.03~0.06	2200	0.03~0.06	1800	0.03~0.06	1800	0.03~0.06
2.5 (8)	8	1200	0.03~0.07	1200	0.03~0.07	480	0.03~0.06	2000	0.03~0.07	2000	0.03~0.07	1600	0.03~0.07	1600	0.03~0.07
3.15 (10)	10	960		960		380		1600		1600		1300		1300	
4 (12.5)	12.5	760	0.05~0.1	760	0.05~0.1	310	0.04~0.08	1300	0.05~0.1	1300	0.05~0.1	1000	0.05~0.1	1000	0.05~0.1
5 (16)	16	600	0.08~0.13	600	0.08~0.13	240	0.05~0.1	1000	0.08~0.13	1000	0.08~0.13	800	0.08~0.13	800	0.08~0.13
6.3 (18)	18	530	0.1~0.15	530	0.1~0.15	210		880	0.1~0.15	880	0.1~0.15	710	0.1~0.15	710	0.1~0.15
8 (22.4)	22.4	430	0.13~0.18	430	0.13~0.18	170	0.06~0.11	710	0.13~0.18	710	0.13~0.18	570	0.13~0.18	570	0.13~0.18
10 (28)	28	340	0.19~0.24	340	0.19~0.24	140		570	0.19~0.24	570	0.19~0.24	450	0.19~0.24	450	0.19~0.24

《Long shank (including joint tool) products》

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Low carbon steels		Medium carbon steels		Stainless steels		Brass		Brass castings		Wrought aluminums		Aluminum alloy castings	
	Cutting speed v_c	12~24 m/min		12~24 m/min		4~10 m/min		20~40 m/min		20~40 m/min		16~32 m/min		16~32 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
CE-SL															
1 (4)	2.5	1900	0.01~0.03	1900	0.01~0.03	700	0.01~0.03	3200	0.01~0.03	3200	0.01~0.03	2500	0.01~0.03	2500	0.01~0.03
1.5 (5)	4	1400	0.02~0.04	1400	0.02~0.04	560	0.02~0.04	2400	0.02~0.04	2400	0.02~0.04	1900	0.02~0.04	1900	0.02~0.04
2 (6)	5	1300	0.02~0.05	1300	0.02~0.05	540		2200	0.02~0.05	2200	0.02~0.05	1800	0.02~0.05	1800	0.02~0.05
2.5 (8)	6.5	1200	0.03~0.06	1200	0.03~0.06	490	0.02~0.05	2000	0.03~0.06	2000	0.03~0.06	1600	0.03~0.06	1600	0.03~0.06
3 (8)	6.5	1200		1200		490		2000		2000		1600		1600	
4 (10)	8.5	900	0.04~0.08	900	0.04~0.08	370	0.03~0.07	1500	0.04~0.08	1500	0.04~0.08	1200	0.04~0.08	1200	0.04~0.08
5 (12)	10	760	0.06~0.11	760	0.06~0.11	320	0.04~0.08	1300	0.06~0.11	1300	0.06~0.11	1000	0.06~0.11	1000	0.06~0.11
CE-QL															
1 (4)	3	1600	0.01~0.03	1600	0.01~0.03	580	0.01~0.03	2700	0.01~0.03	2700	0.01~0.03	2100	0.01~0.03	2100	0.01~0.03
1.5 (5)	4	1400	0.02~0.04	1400	0.02~0.04	560	0.02~0.04	2400	0.02~0.04	2400	0.02~0.04	1900	0.02~0.04	1900	0.02~0.04
2 (6)	5	1300	0.02~0.05	1300	0.02~0.05	540		2200	0.02~0.05	2200	0.02~0.05	1800	0.02~0.05	1800	0.02~0.05
2.5 (8)	6.5	1200	0.03~0.06	1200	0.03~0.06	490	0.02~0.05	2000	0.03~0.06	2000	0.03~0.06	1600	0.03~0.06	1600	0.03~0.06
3 (8)	6.5	1200		1200		490		2000		2000		1600		1600	
4 (10)	8.5	900	0.04~0.08	900	0.04~0.08	370	0.03~0.07	1500	0.04~0.08	1500	0.04~0.08	1200	0.04~0.08	1200	0.04~0.08
5 (12)	10	760	0.06~0.11	760	0.06~0.11	320	0.04~0.08	1300	0.06~0.11	1300	0.06~0.11	1000	0.06~0.11	1000	0.06~0.11
JO-CES															
4 (10)	8.5	900	0.04~0.08	900	0.04~0.08	370	0.03~0.07	1500	0.04~0.08	1500	0.04~0.08	1200	0.04~0.08	1200	0.04~0.08
5 (12)	10	760	0.06~0.11	760	0.06~0.11	320	0.04~0.08	1300	0.06~0.11	1300	0.06~0.11	1000	0.06~0.11	1000	0.06~0.11
6 (16)	13.5	570		570		240	0.04~0.09	940		940		750		750	

27. Table of recommend centering condition

《Coated products》

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Low carbon steels		Medium carbon steels		Stainless steels		Brass		Brass castings		Wrought aluminums		Aluminum alloy castings	
	Cutting speed v_c	20~40 m/min		20~40 m/min		6~15 m/min		30~60 m/min		30~60 m/min		25~50 m/min		25~50 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
CE-S V															
1 (4)	2.5	3200	0.02～0.04	3200	0.02～0.04	1100	0.02～0.04	4800	0.02～0.04	4800	0.02～0.04	4000	0.02～0.04	4000	0.02～0.04
1.5 (5)	4	2400	0.02～0.05	2400	0.02～0.05	840	0.02～0.05	3600	0.02～0.05	3600	0.02～0.05	3000	0.02～0.05	3000	0.02～0.05
2 (6)	5	2200	0.03～0.06	2200	0.03～0.06	810		3300	0.03～0.06	3300	0.03～0.06	2800	0.03～0.06	2800	0.03～0.06
2.5 (7.7)	6.5	2000	0.03～0.07	2000	0.03～0.07	730	0.03～0.06	2900	0.03～0.07	2900	0.03～0.07	2400	0.03～0.07	2400	0.03～0.07
3 (7.7)	6.5	2000		2000		730		2900		2900		2400		2400	
3 (8)	6.5	2000		2000		730		2900		2900		2400		2400	
4 (10)	8.5	1500	0.05～0.1	1500	0.05～0.1	560	0.04～0.08	2200	0.05～0.1	2200	0.05～0.1	1900	0.05～0.1	1900	0.05～0.1
5 (11)	9	1400	0.08～0.13	1400	0.08～0.13	530	0.05～0.1	2100	0.08～0.13	2100	0.08～0.13	1800	0.08～0.13	1800	0.08～0.13
6 (18)	15	850	0.1～0.15	850	0.1～0.15	320	0.06～0.11	1300	0.1～0.15	1300	0.1～0.15	1100	0.1～0.15	1100	0.1～0.15
CE-S V (Ⅰ)															
2.5 (8)	6.5	2000	0.03～0.07	2000	0.03～0.07	730	0.03～0.06	2900	0.03～0.07	2900	0.03～0.07	2400	0.03～0.07	2400	0.03～0.07
3 (10)	8	1600		1600		600		2400		2400		2000		2000	
4 (12)	10	1300	0.05～0.1	1300	0.05～0.1	480	0.04～0.08	1900	0.05～0.1	1900	0.05～0.1	1600	0.05～0.1	1600	0.05～0.1
5 (14)	12	1100	0.08～0.13	1100	0.08～0.13	400	0.05～0.1	1600	0.08～0.13	1600	0.08～0.13	1300	0.08～0.13	1300	0.08～0.13
CE-Q V															
1 (4)	3	2700	0.02～0.04	2700	0.02～0.04	880	0.02～0.04	4000	0.02～0.04	4000	0.02～0.04	3300	0.02～0.04	3300	0.02～0.04
1.5 (5)	4	2400	0.02～0.05	2400	0.02～0.05	840	0.02～0.05	3600	0.02～0.05	3600	0.02～0.05	3000	0.02～0.05	3000	0.02～0.05
2 (6)	5	2200	0.03～0.06	2200	0.03～0.06	810		3300	0.03～0.06	3300	0.03～0.06	2800	0.03～0.06	2800	0.03～0.06
2.5 (7.7)	6.5	2000	0.03～0.07	2000	0.03～0.07	730	0.03～0.06	2900	0.03～0.07	2900	0.03～0.07	2400	0.03～0.07	2400	0.03～0.07
3 (7.7)	6.5	2000		2000		730		2900		2900		2400		2400	
4 (10)	8.5	1500	0.05～0.1	1500	0.05～0.1	560	0.04～0.08	2200	0.05～0.1	2200	0.05～0.1	1900	0.05～0.1	1900	0.05～0.1
5 (11)	9	1400	0.08～0.13	1400	0.08～0.13	530	0.05～0.1	2100	0.08～0.13	2100	0.08～0.13	1800	0.08～0.13	1800	0.08～0.13
6 (18)	15	850	0.1～0.15	850	0.1～0.15	320	0.06～0.11	1300	0.1～0.15	1300	0.1～0.15	1100	0.1～0.15	1100	0.1～0.15

《Long shank coated (including joint tool) products》

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Low carbon steels		Medium carbon steels		Stainless steels		Brass		Brass castings		Wrought aluminums		Aluminum alloy castings	
	Cutting speed v_c	15~30 m/min		15~30 m/min		5~12 m/min		25~50 m/min		25~50 m/min		20~40 m/min		20~40 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
CE-SL V															
1 (4)	2.5	2400	0.01～0.03	2400	0.01～0.03	860	0.01～0.03	4000	0.01～0.03	4000	0.01～0.03	3200	0.01～0.03	3200	0.01～0.03
1.5 (5)	4	1800	0.02～0.04	1800	0.02～0.04	680	0.02～0.04	3000	0.02～0.04	3000	0.02～0.04	2400	0.02～0.04	2400	0.02～0.04
2 (6)	5	1700	0.02～0.05	1700	0.02～0.05	650		2800	0.02～0.05	2800	0.02～0.05	2200	0.02～0.05	2200	0.02～0.05
2.5 (8)	6.5	1500	0.03～0.06	1500	0.03～0.06	590	0.02～0.05	2400	0.03～0.06	2400	0.03～0.06	2000	0.03～0.06	2000	0.03～0.06
3 (8)	6.5	1500		1500		590		2400		2400		2000		2000	
4 (10)	8.5	1100	0.04～0.08	1100	0.04～0.08	450	0.03～0.07	1900	0.04～0.08	1900	0.04～0.08	1500	0.04～0.08	1500	0.04～0.08
5 (12)	10	960	0.06～0.11	960	0.06～0.11	380	0.04～0.08	1600	0.06～0.11	1600	0.06～0.11	1300	0.06～0.11	1300	0.06～0.11
CE-QL V															
1 (4)	3	2000	0.01～0.03	2000	0.01～0.03	720	0.01～0.03	3300	0.01～0.03	3300	0.01～0.03	2700	0.01～0.03	2700	0.01～0.03
1.5 (5)	4	1800	0.02～0.04	1800	0.02～0.04	680	0.02～0.04	3000	0.02～0.04	3000	0.02～0.04	2400	0.02～0.04	2400	0.02～0.04
2 (6)	5	1700	0.02～0.05	1700	0.02～0.05	650		2800	0.02～0.05	2800	0.02～0.05	2200	0.02～0.05	2200	0.02～0.05
2.5 (8)	6.5	1500	0.03～0.06	1500	0.03～0.06	590	0.02～0.05	2400	0.03～0.06	2400	0.03～0.06	2000	0.03～0.06	2000	0.03～0.06
3 (8)	6.5	1500		1500		590		2400		2400		2000		2000	
4 (10)	8.5	1100	0.04～0.08	1100	0.04～0.08	450	0.03～0.07	1900	0.04～0.08	1900	0.04～0.08	1500	0.04～0.08	1500	0.04～0.08
5 (12)	10	960	0.06～0.11	960	0.06～0.11	380	0.04～0.08	1600	0.06～0.11	1600	0.06～0.11	1300	0.06～0.11	1300	0.06～0.11
JO-CES V															
4 (10)	8.5	1100	0.04～0.08	1100	0.04～0.08	450	0.03～0.07	1900	0.04～0.08	1900	0.04～0.08	1500	0.04～0.08	1500	0.04～0.08
5 (12)	10	960	0.06～0.11	960	0.06～0.11	380	0.04～0.08	1600	0.06～0.11	1600	0.06～0.11	1300	0.06～0.11	1300	0.06～0.11
6 (16)	13.5	710		710		280	0.04～0.09	1200		1200		940		940	

《Single end coated products》

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Low carbon steels		Medium carbon steels		Stainless steels		Brass		Brass castings		Wrought aluminums		Aluminum alloy castings	
	Cutting speed v_c	20~40 m/min		20~40 m/min		10~20 m/min		30~60 m/min		30~60 m/min		25~60 m/min		25~60 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
AUCES															
1 (4)	2.5	3200	0.03~0.06	3200	0.03~0.06	1600	0.02~0.04	4800	0.06~0.11	4800	0.06~0.11	4300	0.06~0.11	4300	0.06~0.11
1.5 (5)	4	2400	0.03~0.07	2400	0.03~0.07	1200	0.02~0.05	3600	0.07~0.12	3600	0.07~0.12	3400	0.07~0.12	3400	0.07~0.12
2 (6)	5	2200		2200	0.04~0.08	1100		3300	0.08~0.13	3300	0.08~0.13	3300	0.08~0.13	3300	0.08~0.13
2.5 (8)	6.5	2000	0.04~0.08	2000	0.04~0.09	980	0.03~0.06	2900	0.09~0.14	2900	0.09~0.14	2900	0.09~0.14	2900	0.09~0.14
3 (8)	6.5	2000		2000	0.05~0.1	980		2900		2900		2900		2900	
4 (10)	8.5	1500	0.06~0.11	1500	0.09~0.14	750	0.04~0.08	2200	0.11~0.16	2200	0.11~0.16	2200	0.11~0.16	2200	0.11~0.16
5 (12)	10	1300	0.08~0.13	1300	0.13~0.18	640	0.05~0.1	1900	0.14~0.19	1900	0.14~0.19	1900	0.14~0.19	1900	0.14~0.19
6 (16)	13.5	940	0.1~0.15	940	0.16~0.21	470	0.06~0.11	1400	0.16~0.21	1400	0.16~0.21	1400	0.16~0.21	1400	0.16~0.21

Table of Recommended Cutting Conditions for Low Helix Center Drills (CD Series)

《Uncoated products with standard overall length》

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Low carbon steels		Medium carbon steels		High carbon steels		Alloy steels		Cast steels		Cast irons		Tough cast irons	
	Cutting speed v_c	15~30 m/min		15~30 m/min		15~30 m/min		10~25 m/min		15~30 m/min		8~15 m/min		8~20 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
CD-S, CD-S LH															
0.3 (3)	1	3200		3200		3200		2100		3200		1700		1700	
0.4 (3)	1	3200	0.01~0.02	3200	0.01~0.02	3200	0.01~0.02	2100	0.01~0.02	3200	0.01~0.02	1700	0.01~0.02	1700	0.01~0.02
0.5 (3.5)	1.5	3200		3200		3200		2100		3200		1700		1700	
0.6 (4.5)	1.5	3300		3300		3300		2300		3300		1800		1800	
0.7 (3.5)	2	2600	0.01~0.03	2600	0.01~0.03	2600	0.01~0.03	1800	0.01~0.03	2600	0.01~0.03	1400	0.01~0.03	1500	0.01~0.03
0.8 (3.5)	2	2700		2700		2700		2000		2700		1400		1600	
0.9 (4)	2.5	2300		2300		2300		1700		2300		1200		1300	
1 (4)	2.5	2400	0.02~0.04	2400	0.02~0.04	2400	0.02~0.04	1800	0.02~0.04	2400	0.02~0.04	1200	0.02~0.04	1400	0.02~0.04
1.2 (5)	3	2100		2100		2100		1600		2100		1100		1300	
1.5 (5)	4	1800	0.02~0.05	1800	0.02~0.05	1800	0.02~0.05	1400	0.02~0.05	1800	0.02~0.05	920	0.02~0.05	1100	0.02~0.05
2 (6)	5	1700	0.03~0.06	1700	0.03~0.06	1700	0.03~0.06	1400	0.03~0.06	1700	0.03~0.06	840	0.03~0.06	1100	0.03~0.06
2.5 (7.7)	6.5	1500		1500		1500		1200		1500		730		980	
3 (7.7)	6.5	1500	0.03~0.07	1500	0.03~0.07	1500	0.03~0.07	1200	0.03~0.07	1500	0.03~0.07	730	0.03~0.07	980	0.03~0.07
3 (8)	6.5	1500		1500		1500		1200		1500		730		980	
4 (10)	8.5	1100	0.05~0.1	1100	0.05~0.1	1100	0.05~0.1	940	0.05~0.1	1100	0.05~0.1	560	0.05~0.1	750	0.05~0.1
5 (11)	9	1100	0.08~0.13	1100	0.08~0.13	1100	0.08~0.13	880	0.08~0.13	1100	0.08~0.13	530	0.08~0.13	710	0.08~0.13
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6 (16)	13.5	710	0.1~0.15	710	0.1~0.15	710	0.1~0.15	590	0.1~0.15	710	0.1~0.15	350	0.1~0.15	470	0.1~0.15
6 (18)	15	640		640		640		530		640		320		420	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1/8 (7.7)	6.5	1500	0.03~0.07	1500	0.03~0.07	1500	0.03~0.07	1200	0.03~0.07	1500	0.03~0.07	730	0.03~0.07	980	0.03~0.07
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CD-S (I)															
2.5 (8)	6.5	1500	0.03~0.07	1500	0.03~0.07	1500	0.03~0.07	1200	0.03~0.07	1500	0.03~0.07	730	0.03~0.07	980	0.03~0.07
3 (10)	8	1200		1200		1200		1000		1200		600		800	
4 (12)	10	960	0.05~0.1	960	0.05~0.1	960	0.05~0.1	800	0.05~0.1	960	0.05~0.1	480	0.05~0.1	640	0.05~0.1
5 (14)	12	800	0.08~0.13	800	0.08~0.13	800	0.08~0.13	660	0.08~0.13	800	0.08~0.13	400	0.08~0.13	530	0.08~0.13

27. Table of recommend centering condition

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Low carbon steels		Medium carbon steels		High carbon steels		Alloy steels		Cast steels		Cast irons		Tough cast irons	
	Cutting speed v_c	15～30 m/min		15～30 m/min		15～30 m/min		10～25 m/min		15～30 m/min		8～15 m/min		8～20 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
CD-Q															
0.5 (3.5)	1.5	3200	0.01～0.02	3200	0.01～0.02	3200	0.01～0.02	2100	0.01～0.02	3200	0.01～0.02	1700	0.01～0.02	1700	0.01～0.02
0.6 (3.5)	2	2500	0.01～0.03	2500	0.01～0.03	2500	0.01～0.03	1700	0.01～0.03	2500	0.01～0.03	1300	0.01～0.03	1400	0.01～0.03
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.8 (3.5)	2.5	2200	0.01～0.03	2200	0.01～0.03	2200	0.01～0.03	1600	0.01～0.03	2200	0.01～0.03	1200	0.01～0.03	1200	0.01～0.03
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 (4)	3	2000	0.02～0.04	2000	0.02～0.04	2000	0.02～0.04	1500	0.02～0.04	2000	0.02～0.04	1000	0.02～0.04	1200	0.02～0.04
1.2 (5)	3.5	1800		1800		1800		1400		1800		950		1100	
1.5 (5)	4	1800	0.02～0.05	1800	0.02～0.05	1800	0.02～0.05	1400	0.02～0.05	1800	0.02～0.05	920	0.02～0.05	1100	0.02～0.05
2 (6)	5	1700	0.03～0.06	1700	0.03～0.06	1700	0.03～0.06	1400	0.03～0.06	1700	0.03～0.06	840	0.03～0.06	1100	0.03～0.06
2.5 (7.7)	6.5	1500	0.03～0.07	1500	0.03～0.07	1500	0.03～0.07	1200	0.03～0.07	1500	0.03～0.07	730	0.03～0.07	980	0.03～0.07
3 (7.7)	6.5	1500		1500		1500		1200		1500		730		980	
4 (10)	8.5	1100	0.05～0.1	1100	0.05～0.1	1100	0.05～0.1	940	0.05～0.1	1100	0.05～0.1	560	0.05～0.1	750	0.05～0.1
5 (11)	9	1100	0.08～0.13	1100	0.08～0.13	1100	0.08～0.13	880	0.08～0.13	1100	0.08～0.13	530	0.08～0.13	710	0.08～0.13
6 (16)	13.5	710	0.1～0.15	710	0.1～0.15	710	0.1～0.15	590	0.1～0.15	710	0.1～0.15	350	0.1～0.15	470	0.1～0.15
6 (18)	15	640		640		640		530		640		320		420	
CD-Q LH															
1 (4)	3	2000	0.02～0.04	2000	0.02～0.04	2000	0.02～0.04	1500	0.02～0.04	2000	0.02～0.04	1000	0.02～0.04	1200	0.02～0.04
1.2 (5)	3.5	1800		1800		1800		1400		1800		950		1100	
1.5 (5)	4	1800	0.02～0.05	1800	0.02～0.05	1800	0.02～0.05	1400	0.02～0.05	1800	0.02～0.05	920	0.02～0.05	1100	0.02～0.05
2 (6)	5	1700	0.03～0.06	1700	0.03～0.06	1700	0.03～0.06	1400	0.03～0.06	1700	0.03～0.06	840	0.03～0.06	1100	0.03～0.06
2.5 (7.7)	6.5	1500	0.03～0.07	1500	0.03～0.07	1500	0.03～0.07	1200	0.03～0.07	1500	0.03～0.07	730	0.03～0.07	980	0.03～0.07
2.5 (8)	6.5	1500		1500		1500		1200		1500		730		980	
3 (7.7)	6.5	1500		1500		1500		1200		1500		730		980	
3 (8)	6.5	1500		1500		1500		1200		1500		730		980	
4 (10)	8.5	1100	0.05～0.1	1100	0.05～0.1	1100	0.05～0.1	940	0.05～0.1	1100	0.05～0.1	560	0.05～0.1	750	0.05～0.1
5 (12)	10	960	0.08～0.13	960	0.08～0.13	960	0.08～0.13	800	0.08～0.13	960	0.08～0.13	480	0.08～0.13	640	0.08～0.13
6 (18)	15	640	0.1～0.15	640	0.1～0.15	640	0.1～0.15	530	0.1～0.15	640	0.1～0.15	320	0.1～0.15	420	0.1～0.15
CD-S (Ⅱ)															
1 (6)	4	1500	0.02～0.04	1500	0.02～0.04	1500	0.02～0.04	1100	0.02～0.04	1500	0.02～0.04	780	0.02～0.04	880	0.02～0.04
1.5 (8)	6	1200	0.02～0.05	1200	0.02～0.05	1200	0.02～0.05	930	0.02～0.05	1200	0.02～0.05	610	0.02～0.05	740	0.02～0.05
2 (10)	8	1000	0.03～0.06	1000	0.03～0.06	1000	0.03～0.06	850	0.03～0.06	1000	0.03～0.06	530	0.03～0.06	680	0.03～0.06
2.5 (12)	10	960	0.03～0.07	960	0.03～0.07	960	0.03～0.07	800	0.03～0.07	960	0.03～0.07	480	0.03～0.07	640	0.03～0.07
3 (14)	12	800		800		800		660		800		400		530	
4 (18)	14	680	0.05～0.1	680	0.05～0.1	680	0.05～0.1	570	0.05～0.1	680	0.05～0.1	340	0.05～0.1	450	0.05～0.1
5 (22)	17	560	0.08～0.13	560	0.08～0.13	560	0.08～0.13	470	0.08～0.13	560	0.08～0.13	280	0.08～0.13	370	0.08～0.13
6 (25)	21	450	0.1～0.15	450	0.1～0.15	450	0.1～0.15	380	0.1～0.15	450	0.1～0.15	230	0.1～0.15	300	0.1～0.15
CD-R															
0.7 (3.5)	2	2600	0.01～0.03	2600	0.01～0.03	2600	0.01～0.03	1800	0.01～0.03	2600	0.01～0.03	1400	0.01～0.03	1500	0.01～0.03
0.8 (3.5)	2	2700		2700		2700		2000		2700		1400		1600	
1 (4)	2.5	2400	0.02～0.04	2400	0.02～0.04	2400	0.02～0.04	1800	0.02～0.04	2400	0.02～0.04	1200	0.02～0.04	1400	0.02～0.04
1.5 (5)	4	1800	0.02～0.05	1800	0.02～0.05	1800	0.02～0.05	1400	0.02～0.05	1800	0.02～0.05	920	0.02～0.05	1100	0.02～0.05
2 (6)	5	1700	0.03～0.06	1700	0.03～0.06	1700	0.03～0.06	1400	0.03～0.06	1700	0.03～0.06	840	0.03～0.06	1100	0.03～0.06
2.5 (7.7)	6.5	1500	0.03～0.07	1500	0.03～0.07	1500	0.03～0.07	1200	0.03～0.07	1500	0.03～0.07	730	0.03～0.07	980	0.03～0.07
3 (7.7)	6.5	1500		1500		1500		1200		1500		730		980	
4 (10)	8.5	1100	0.05～0.1	1100	0.05～0.1	1100	0.05～0.1	940	0.05～0.1	1100	0.05～0.1	560	0.05～0.1	750	0.05～0.1
5 (11)	9	1100	0.08～0.13	1100	0.08～0.13	1100	0.08～0.13	880	0.08～0.13	1100	0.08～0.13	530	0.08～0.13	710	0.08～0.13
6 (16)	13.5	710	0.1～0.15	710	0.1～0.15	710	0.1～0.15	590	0.1～0.15	710	0.1～0.15	350	0.1～0.15	470	0.1～0.15
6 (18)	15	640		640		640		530		640		320		420	

Think threads with YAMAWA

《Long shank (including joint tool) products》

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Low carbon steels		Medium carbon steels		High carbon steels		Alloy steels		Cast steels		Cast irons		Tough cast irons	
	Cutting speed v_c	12~24 m/min		12~24 m/min		12~24 m/min		8~20 m/min		12~24 m/min		6~12 m/min		6~16 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
CD-SL															
1 (4)	2.5	1900	0.01~0.03	1900	0.01~0.03	1900	0.01~0.03	1400	0.01~0.03	1900	0.01~0.03	960	0.01~0.03	1100	0.01~0.03
1.5 (5)	4	1400	0.02~0.04	1400	0.02~0.04	1400	0.02~0.04	1100	0.02~0.04	1400	0.02~0.04	720	0.02~0.04	880	0.02~0.04
2 (6)	5	1300	0.02~0.05	1300	0.02~0.05	1300	0.02~0.05	1100	0.02~0.05	1300	0.02~0.05	670	0.02~0.05	860	0.02~0.05
2.5 (8)	6.5	1200	0.03~0.06	1200	0.03~0.06	1200	0.03~0.06	980	0.03~0.06	1200	0.03~0.06	590	0.03~0.06	780	0.03~0.06
3 (8)	6.5	1200		1200		1200		980		1200		590		780	
4 (10)	8.5	900	0.04~0.08	900	0.04~0.08	900	0.04~0.08	750	0.04~0.08	900	0.04~0.08	450	0.04~0.08	600	0.04~0.08
5 (12)	10	760	0.06~0.11	760	0.06~0.11	760	0.06~0.11	640	0.06~0.11	760	0.06~0.11	380	0.06~0.11	510	0.06~0.11
JO-CDS															
4 (10)	8.5	900	0.04~0.08	900	0.04~0.08	900	0.04~0.08	750	0.04~0.08	900	0.04~0.08	450	0.04~0.08	600	0.04~0.08
5 (12)	10	760	0.06~0.11	760	0.06~0.11	760	0.06~0.11	640	0.06~0.11	760	0.06~0.11	380	0.06~0.11	510	0.06~0.11
6 (16)	13.5	570		570		570		470		570		280		380	
JO-CDS (Ⅱ)															
2 (10)	8	840	0.02~0.05	840	0.02~0.05	840	0.02~0.05	680	0.02~0.05	840	0.02~0.05	420	0.02~0.05	540	0.02~0.05
2.5 (12)	10	760	0.03~0.06	760	0.03~0.06	760	0.03~0.06	640	0.03~0.06	760	0.03~0.06	380	0.03~0.06	510	0.03~0.06
3 (16)	12	640		640		640		530		640		320		420	

《Coated products》

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Low carbon steels		Medium carbon steels		High carbon steels		Alloy steels		Cast steels		Cast irons		Tough cast irons	
	Cutting speed v_c	20~40 m/min		20~40 m/min		20~40 m/min		15~30 m/min		20~40 m/min		10~20 m/min		10~25 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
CD-S V															
1 (4)	2.5	3200	0.02~0.04	3200	0.02~0.04	3200	0.02~0.04	2400	0.02~0.04	3200	0.02~0.04	1600	0.02~0.04	1800	0.02~0.04
1.5 (5)	4	2400	0.02~0.05	2400	0.02~0.05	2400	0.02~0.05	1800	0.02~0.05	2400	0.02~0.05	1200	0.02~0.05	1400	0.02~0.05
2 (6)	5	2200	0.03~0.06	2200	0.03~0.06	2200	0.03~0.06	1700	0.03~0.06	2200	0.03~0.06	1100	0.03~0.06	1400	0.03~0.06
2.5 (7.7)	6.5	2000	0.03~0.07	2000	0.03~0.07	2000	0.03~0.07	1500	0.03~0.07	2000	0.03~0.07	980	0.03~0.07	1200	0.03~0.07
3 (7.7)	6.5	2000		2000		2000		1500		2000		980		1200	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4 (10)	8.5	1500	0.05~0.1	1500	0.05~0.1	1500	0.05~0.1	1100	0.05~0.1	1500	0.05~0.1	750	0.05~0.1	940	0.05~0.1
5 (11)	9	1400	0.08~0.13	1400	0.08~0.13	1400	0.08~0.13	1100	0.08~0.13	1400	0.08~0.13	710	0.08~0.13	880	0.08~0.13
6 (18)	15	850	0.1~0.15	850	0.1~0.15	850	0.1~0.15	640	0.1~0.15	850	0.1~0.15	420	0.1~0.15	530	0.1~0.15
CD-S V (Ⅰ)															
2.5 (8)	6.5	2000	0.03~0.07	2000	0.03~0.07	2000	0.03~0.07	1500	0.03~0.07	2000	0.03~0.07	980	0.03~0.07	1200	0.03~0.07
3 (10)	8	1600		1600		1600		1200		1600		800		1000	
4 (12)	10	1300	0.05~0.1	1300	0.05~0.1	1300	0.05~0.1	960	0.05~0.1	1300	0.05~0.1	640	0.05~0.1	800	0.05~0.1
5 (14)	12	1100	0.08~0.13	1100	0.08~0.13	1100	0.08~0.13	800	0.08~0.13	1100	0.08~0.13	530	0.08~0.13	660	0.08~0.13
CD-Q V															
1 (4)	3	2700	0.02~0.04	2700	0.02~0.04	2700	0.02~0.04	2000	0.02~0.04	2700	0.02~0.04	1300	0.02~0.04	1500	0.02~0.04
1.5 (5)	4	2400	0.02~0.05	2400	0.02~0.05	2400	0.02~0.05	1800	0.02~0.05	2400	0.02~0.05	1200	0.02~0.05	1400	0.02~0.05
2 (6)	5	2200	0.03~0.06	2200	0.03~0.06	2200	0.03~0.06	1700	0.03~0.06	2200	0.03~0.06	1100	0.03~0.06	1400	0.03~0.06
2.5 (7.7)	6.5	2000	0.03~0.07	2000	0.03~0.07	2000	0.03~0.07	1500	0.03~0.07	2000	0.03~0.07	980	0.03~0.07	1200	0.03~0.07
3 (7.7)	6.5	2000		2000		2000		1500		2000		980		1200	
4 (10)	8.5	1500	0.05~0.1	1500	0.05~0.1	1500	0.05~0.1	1100	0.05~0.1	1500	0.05~0.1	750	0.05~0.1	940	0.05~0.1
5 (11)	9	1400	0.08~0.13	1400	0.08~0.13	1400	0.08~0.13	1100	0.08~0.13	1400	0.08~0.13	710	0.08~0.13	880	0.08~0.13
6 (18)	15	850	0.1~0.15	850	0.1~0.15	850	0.1~0.15	640	0.1~0.15	850	0.1~0.15	420	0.1~0.15	530	0.1~0.15

27. Table of recommend centering condition

《Long shank coated (including joint tool) products》

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Low carbon steels		Medium carbon steels		High carbon steels		Alloy steels		Cast steels		Cast irons		Tough cast irons	
	Cutting speed v_c	15~30 m/min		15~30 m/min		15~30 m/min		10~25 m/min		15~30 m/min		8~15 m/min		8~20 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
CD-SL V															
1 (4)	2.5	2400	0.01～0.03	2400	0.01～0.03	2400	0.01～0.03	1800	0.01～0.03	2400	0.01～0.03	1200	0.01～0.03	1400	0.01～0.03
1.5 (5)	4	1800	0.02～0.04	1800	0.02～0.04	1800	0.02～0.04	1400	0.02～0.04	1800	0.02～0.04	900	0.02～0.04	1100	0.02～0.04
2 (6)	5	1700	0.02～0.05	1700	0.02～0.05	1700	0.02～0.05	1400	0.02～0.05	1700	0.02～0.05	840	0.02～0.05	1100	0.02～0.05
2.5 (8)	6.5	1500	0.03～0.06	1500	0.03～0.06	1500	0.03～0.06	1200	0.03～0.06	1500	0.03～0.06	730	0.03～0.06	980	0.03～0.06
3 (8)	6.5	1500		1500		1500		1200		1500		730		980	
4 (10)	8.5	1100	0.04～0.08	1100	0.04～0.08	1100	0.04～0.08	940	0.04～0.08	1100	0.04～0.08	560	0.04～0.08	750	0.04～0.08
5 (12)	10	960	0.06～0.11	960	0.06～0.11	960	0.06～0.11	800	0.06～0.11	960	0.06～0.11	480	0.06～0.11	640	0.06～0.11
JO-CDS V															
4 (10)	8.5	1100	0.04～0.08	1100	0.04～0.08	1100	0.04～0.08	940	0.04～0.08	1100	0.04～0.08	560	0.04～0.08	750	0.04～0.08
5 (12)	10	960	0.06～0.11	960	0.06～0.11	960	0.06～0.11	800	0.06～0.11	960	0.06～0.11	480	0.06～0.11	640	0.06～0.11
6 (16)	13.5	710		710		710		590		710		350		470	

《Single end coated products》

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Medium carbon steels		High carbon steels		Alloy steels		Thermal refined steels (25~35HRC)		Cast steels		Cast irons		Tough cast irons	
	Cutting speed v_c	20~40 m/min		20~40 m/min		20~40 m/min		15~30 m/min		20~40 m/min		10~40 m/min		10~40 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
AUCDS															
1 (4)	2.5	3200	0.03～0.06	3200	0.03～0.06	3200	0.03～0.06	2400	0.03～0.06	3200	0.03～0.06	2200	0.03～0.06	2200	0.03～0.06
1.5 (5)	4	2400	0.03～0.07	2400	0.03～0.07	2400	0.03～0.07	1800	0.03～0.07	2400	0.03～0.07	2000	0.03～0.07	2000	0.03～0.07
2 (6)	5	2200	0.04～0.08	2200	0.04～0.08	2200	0.04～0.08	1700	0.04～0.08	2200	0.04～0.08	2100	0.04～0.08	2100	0.04～0.08
2.5 (8)	6.5	2000	0.04～0.09	2000	0.04～0.09	2000	0.04～0.09	1500	0.04～0.09	2000	0.04～0.09	2000	0.04～0.09	2000	0.04～0.09
3 (8)	6.5	2000	0.05～0.1	2000	0.05～0.1	2000		1500	0.05～0.1	2000	0.05～0.1	2000	0.05～0.1	2000	0.05～0.1
4 (10)	8.5	1500	0.09～0.14	1500	0.09～0.14	1500	0.06～0.11	1100	0.09～0.14	1500	0.09～0.14	1500	0.09～0.14	1500	0.09～0.14
5 (12)	10	1300	0.13～0.18	1300	0.13～0.18	1300	0.09～0.14	960	0.13～0.18	1300	0.13～0.18	1300	0.13～0.18	1300	0.13～0.18
6 (16)	13.5	940	0.16～0.21	940	0.16～0.21	940	0.11～0.16	710	0.16～0.21	940	0.16～0.21	940	0.16～0.21	940	0.16～0.21

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	Medium carbon steels		High carbon steels		Alloy steels		Thermal refined steels (25~35HRC)		Stainless steels		Tool steels		Tough cast irons	
	Cutting speed v_c	20~40 m/min		20~40 m/min		20~40 m/min		10~20 m/min		10~20 m/min		15~30 m/min		15~40 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
MHCDS															
1 (4)	2.5	3800	0.06～0.11	3800	0.06～0.11	3800	0.06～0.11	1900	0.06～0.11	1900	0.06～0.11	2900	0.06～0.11	3200	0.06～0.11
1.5 (5)	4	2400		2400		2400		1200		1200		1800		2000	
2 (6)	5	1900		1900		1900		1000		1000		1400		1600	
2.5 (8)	6.5	1500	0.11～0.16	1500	0.11～0.16	1500	0.11～0.16	700	0.11～0.16	700	0.11～0.16	1100	0.11～0.16	1200	0.11～0.16
3 (8)	6.5	1200		1200		1200		600		600		900		1000	
4 (10)	8.5	900		900		900		500		500		700		800	
5 (12)	10	800	0.16～0.21	800	0.16～0.21	800	0.16～0.21	400	0.16～0.21	400	0.16～0.21	600	0.16～0.21	700	0.16～0.21
6 (16)	13.5	600		600		600		300		300		400		500	

《Carbide products》

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	High carbon steels		Alloy steels		Thermal refined steels (25~35HRC)		Thermal refined steels (35~45HRC)		Cast irons		Brass castings		Aluminum alloy castings	
	Cutting speed v_c	30~50 m/min		20~40 m/min		10~25 m/min		5~15 m/min		30~50 m/min		30~60 m/min		30~60 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
C-CD-S															
1 (4)	2.5	4500		3200		1800		960		4500		4800		4800	
1.2 (5)	3	3900	0.01～0.03	2900	0.01～0.03	1600	0.01～0.03	900	0.01～0.03	3900	0.01～0.03	4300	0.01～0.03	4300	0.01～0.03
1.5 (5)	4	3200		2400		1400		800		3200		3600		3600	
2 (6)	5	2900	0.01～0.035	2200	0.01～0.035	1400	0.01～0.035	800	0.01～0.035	2900	0.01～0.035	3300	0.01～0.035	3300	0.01～0.035

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	High carbon steels		Alloy steels		Thermal refined steels (25~35HRC)		Thermal refined steels (35~45HRC)		Cast irons		Brass castings		Aluminum alloy castings	
	Cutting speed v_c	30~50 m/min		20~40 m/min		10~25 m/min		5~15 m/min		30~50 m/min		30~60 m/min		30~60 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
2.5 (7.7)	6.5	2400	0.02~0.04	2000	0.02~0.04	1200	0.02~0.04	730	0.02~0.04	2400	0.02~0.04	2900	0.02~0.04	2900	0.02~0.04
2.5 (8)	6.5	2400		2000		1200		730		2400		2900		2900	
3 (7.7)	6.5	2400	0.02~0.05	2000	0.02~0.05	1200	0.02~0.05	730	0.02~0.05	2400	0.02~0.05	2900	0.02~0.05	2900	0.02~0.05
3 (8)	6.5	2400		2000		1200		730		2400		2900		2900	
4 (10)	8.5	1900	0.03~0.06	1500	0.03~0.06	940	0.03~0.06	560	0.03~0.06	1900	0.03~0.06	2200	0.03~0.06	2200	0.03~0.06
5 (11)	9	1800	0.04~0.07	1400	0.04~0.07	880	0.04~0.07	530	0.04~0.07	1800	0.04~0.07	2100	0.04~0.07	2100	0.04~0.07
5 (12)	10	1600		1300		800		480		1600		1900		1900	
6 (18)	13.5	1100	0.05~0.08	850	0.05~0.08	530	0.05~0.08	320	0.05~0.08	1100	0.05~0.08	1300	0.05~0.08	1300	0.05~0.08
C-CD-Q															
1	3	3700	0.01~0.03	2700	0.01~0.03	1500	0.01~0.03	800	0.01~0.03	3700	0.01~0.03	4000	0.01~0.03	4000	0.01~0.03
1.5	4	3200		2400		1400		800		3200		3600		3600	
2	5	2900	0.01~0.035	2200	0.01~0.035	1400	0.01~0.035	800	0.01~0.035	2900	0.01~0.035	3300	0.01~0.035	3300	0.01~0.035
2.5 (7.7)	6.5	2400	0.02~0.04	2000	0.02~0.04	1200	0.02~0.04	730	0.02~0.04	2400	0.02~0.04	2900	0.02~0.04	2900	0.02~0.04
2.5 (8)	6.5	2400		2000		1200		730		2400		2900		2900	
3 (7.7)	6.5	2400	0.02~0.05	2000	0.02~0.05	1200	0.02~0.05	730	0.02~0.05	2400	0.02~0.05	2900	0.02~0.05	2900	0.02~0.05
3 (8)	6.5	2400		2000		1200		730		2400		2900		2900	
4 (10)	8.5	1900	0.03~0.06	1500	0.03~0.06	940	0.03~0.06	560	0.03~0.06	1900	0.03~0.06	2200	0.03~0.06	2200	0.03~0.06
5 (11)	9	1800	0.04~0.07	1400	0.04~0.07	880	0.04~0.07	530	0.04~0.07	1800	0.04~0.07	2100	0.04~0.07	2100	0.04~0.07
5 (12)	10	1600		1300		800		480		1600		1900		1900	
6 (18)	15	1100	0.05~0.08	850	0.05~0.08	530	0.05~0.08	320	0.05~0.08	1100	0.05~0.08	1300	0.05~0.08	1300	0.05~0.08

《Carbide long shank (including joint tool) products》

Drill size Dc mm ( )is Shank Dia Ds	Workpice material	High carbon steels		Alloy steels		Thermal refined steels (25~35HRC)		Thermal refined steels (35~45HRC)		Cast irons		Brass castings		Aluminum alloy castings	
	Cutting speed v_c	25~40 m/min		15~30 m/min		8~20 m/min		4~12 m/min		25~40 m/min		20~50 m/min		25~50 m/min	
	Workpiece end-face Hole size[1] D_w mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
C-CD-SL															
1 (4)	2.5	3700	0.01~0.025	2400	0.01~0.025	1400	0.01~0.025	760	0.01~0.025	3700	0.01~0.025	4000	0.01~0.025	4000	0.01~0.025
1.5 (5)	4	2600		1800		1100		640		2600		3000		3000	
2 (6)	5	2300	0.01~0.03	1700	0.01~0.03	1100	0.01~0.03	640	0.01~0.03	2300	0.01~0.03	2800	0.01~0.03	2800	0.01~0.03
2.5 (8)	6.5	2000	0.01~0.035	1500	0.01~0.035	980	0.01~0.035	590	0.01~0.035	2000	0.01~0.035	2400	0.01~0.035	2400	0.01~0.035
3 (8)	6.5	2000	0.02~0.04	1500	0.02~0.04	980	0.02~0.04	590	0.02~0.04	2000	0.02~0.04	2400	0.02~0.04	2400	0.02~0.04
4 (10)	8.5	1500	0.02~0.05	1100	0.02~0.05	750	0.02~0.05	450	0.02~0.05	1500	0.02~0.05	1900	0.02~0.05	1900	0.02~0.05
5 (12)	10	1300	0.03~0.06	960	0.03~0.06	640	0.03~0.06	380	0.03~0.06	1300	0.03~0.06	1600	0.03~0.06	1600	0.03~0.06
C-CD-QL															
1 (4)	3	3100	0.01~0.025	2000	0.01~0.025	1200	0.01~0.025	640	0.01~0.025	3100	0.01~0.025	3300	0.01~0.025	3300	0.01~0.025
1.5 (5)	4	2600		1800		1100		640		2600		3000		3000	
2 (6)	5	2300	0.01~0.03	1700	0.01~0.03	1100	0.01~0.03	640	0.01~0.03	2300	0.01~0.03	2800	0.01~0.03	2800	0.01~0.03
2.5 (8)	6.5	2000	0.01~0.035	1500	0.01~0.035	980	0.01~0.035	590	0.01~0.035	2000	0.01~0.035	2400	0.01~0.035	2400	0.01~0.035
3 (8)	6.5	2000	0.02~0.04	1500	0.02~0.04	980	0.02~0.04	590	0.02~0.04	2000	0.02~0.04	2400	0.02~0.04	2400	0.02~0.04
4 (10)	8.5	1500	0.02~0.05	1100	0.02~0.05	750	0.02~0.05	450	0.02~0.05	1500	0.02~0.05	1900	0.02~0.05	1900	0.02~0.05
5 (12)	10	1300	0.03~0.06	960	0.03~0.06	640	0.03~0.06	380	0.03~0.06	1300	0.03~0.06	1600	0.03~0.06	1600	0.03~0.06
JO-C-CDS															
4 (10)	3	1500	0.02~0.05	1100	0.02~0.05	750	0.02~0.05	450	0.02~0.05	1500	0.02~0.05	1900	0.02~0.05	1900	0.02~0.05
5 (12)	4	1300	0.03~0.06	960	0.03~0.06	640	0.03~0.06	380	0.03~0.06	1300	0.03~0.06	1600	0.03~0.06	1600	0.03~0.06
6 (16)	5	940	0.04~0.07	710	0.04~0.07	470	0.04~0.07	280	0.04~0.07	940	0.04~0.07	1200	0.04~0.07	1200	0.04~0.07

Note 1 : The workpiece end face hole diameter (Dw) is used instead of the shank diameter (Ds) to calculate the rotational speed (n).
Note 2: Formula for revolution speed (n) $n\ (min^{-1}) = 1000 \times v_c \div D_w \div 3.14$ where v_c: Cutting speed (m/min)
Note 3: Formula for feed speed (v_f) v_f (mm/min) = n x f where f: Feed per revolution (mm)
v_c: Cutting speed (m/min), f: Feed per revolution (mm)

27. Table of recommend centering condition

■Table of Recommended Cutting Conditions for NC Starting Drills

《Uncoated products with standard overall length》

Workpice material	Low carbon steels		Medium carbon steels		High carbon steels		Alloy steels		Stainless steels		Tool steels		Cast irons		Aluminum alloy castings	
Cutting speed v_c	20～32 m/min		20～29 m/min		20～26 m/min		12～20 m/min		6～10 m/min		6～10 m/min		16～28 m/min		48～72 m/min	
Shank Dia[1] D_s mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
NC-SD																
3	2800	0.03～0.06	2600	0.03～0.06	2400	0.03～0.06	1700	0.03～0.06	850	0.03～0.06	850	0.03～0.06	2300	0.03～0.06	6400	0.03～0.06
4	2100	0.05～0.10	2000	0.05～0.10	1800	0.05～0.10	1300	0.05～0.10	640	0.05～0.10	640	0.05～0.10	1800	0.05～0.10	4800	0.05～0.10
5	1700	0.06～0.12	1600	0.06～0.12	1500	0.06～0.12	1000	0.06～0.12	510	0.06～0.12	510	0.06～0.12	1400	0.06～0.12	3800	0.06～0.12
6	1400	0.08～0.15	1300	0.08～0.15	1200	0.08～0.15	850	0.08～0.15	420	0.08～0.15	420	0.08～0.15	1200	0.08～0.15	3200	0.08～0.15
8	1000	0.10～0.18	980	0.10～0.18	920	0.10～0.18	640	0.10～0.18	320	0.10～0.18	320	0.10～0.18	880	0.10～0.18	2400	0.10～0.18
10	830	0.15～0.20	780	0.15～0.20	730	0.15～0.20	510	0.15～0.20	250	0.15～0.20	250	0.15～0.20	700	0.15～0.20	1900	0.15～0.20
12	690	0.15～0.25	650	0.15～0.25	610	0.15～0.25	420	0.15～0.25	210	0.15～0.25	210	0.15～0.25	580	0.15～0.25	1600	0.15～0.25
16	520	0.15～0.30	490	0.15～0.30	460	0.15～0.30	320	0.15～0.30	160	0.15～0.30	160	0.15～0.30	440	0.15～0.30	1200	0.15～0.30
20	410	0.20～0.30	390	0.20～0.30	370	0.20～0.30	250	0.20～0.30	130	0.20～0.30	130	0.20～0.30	350	0.20～0.30	960	0.20～0.30
25	330	0.20～0.30	310	0.20～0.30	290	0.20～0.30	200	0.20～0.30	100	0.20～0.30	100	0.20～0.30	280	0.20～0.30	760	0.20～0.30

《Coated products》

Workpice material	Low carbon steels		Medium carbon steels		High carbon steels		Alloy steels		Stainless steels		Tool steels		Cast irons		Aluminum alloy castings	
Cutting speed v_c	25～40 m/min		25～36 m/min		25～32 m/min		15～25 m/min		7～12 m/min		7～12 m/min		20～35 m/min		60～90 m/min	
Shank Dia[1] D_s mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
NC-SD V																
3	3500	0.03～0.06	3200	0.03～0.06	3000	0.03～0.06	2100	0.03～0.06	1000	0.03～0.06	1000	0.03～0.06	2900	0.03～0.06	8000	0.03～0.06
4	2600	0.05～0.10	2400	0.05～0.10	2300	0.05～0.10	1600	0.05～0.10	760	0.05～0.10	760	0.05～0.10	2200	0.05～0.10	6000	0.05～0.10
5	2100	0.06～0.12	1900	0.06～0.12	1800	0.06～0.12	1300	0.06～0.12	610	0.06～0.12	610	0.06～0.12	1800	0.06～0.12	4800	0.06～0.12
6	1700	0.08～0.15	1600	0.08～0.15	1500	0.08～0.15	1100	0.08～0.15	500	0.08～0.15	500	0.08～0.15	1500	0.08～0.15	4000	0.08～0.15
8	1300	0.10～0.18	1200	0.10～0.18	1100	0.10～0.18	800	0.10～0.18	380	0.10～0.18	380	0.10～0.18	1100	0.10～0.18	3000	0.10～0.18
10	1000	0.15～0.20	970	0.15～0.20	910	0.15～0.20	640	0.15～0.20	300	0.15～0.20	300	0.15～0.20	880	0.15～0.20	2400	0.15～0.20
12	860	0.15～0.25	810	0.15～0.25	760	0.15～0.25	530	0.15～0.25	250	0.15～0.25	250	0.15～0.25	730	0.15～0.25	2000	0.15～0.25
16	650	0.15～0.30	610	0.15～0.30	570	0.15～0.30	400	0.15～0.30	190	0.15～0.30	190	0.15～0.30	550	0.15～0.30	1500	0.15～0.30
20	520	0.20～0.30	490	0.20～0.30	450	0.20～0.30	320	0.20～0.30	150	0.20～0.30	150	0.20～0.30	440	0.20～0.30	1200	0.20～0.30
25	410	0.20～0.30	390	0.20～0.30	360	0.20～0.30	250	0.20～0.30	120	0.20～0.30	120	0.20～0.30	350	0.20～0.30	960	0.20～0.30

《Coated joint tool products》

Workpice material	Low carbon steels		Medium carbon steels		High carbon steels		Alloy steels		Stainless steels		Tool steels		Cast irons		Aluminum alloy castings	
Cutting speed v_c	20～32 m/min		20～29 m/min		20～26 m/min		12～20 m/min		6～10 m/min		6～10 m/min		16～28 m/min		48～72 m/min	
Shank Dia[1] D_s mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
JO-NCSD V																
10	830	0.12～0.16	780	0.12～0.16	730	0.12～0.16	510	0.12～0.16	250	0.12～0.16	250	0.12～0.16	700	0.12～0.16	1900	0.12～0.16
12	690	0.12～0.20	650	0.12～0.20	610	0.12～0.20	420	0.12～0.20	210	0.12～0.20	210	0.12～0.20	580	0.12～0.20	1600	0.12～0.20
16	520	0.12～0.24	490	0.12～0.24	460	0.12～0.24	320	0.12～0.24	160	0.12～0.24	160	0.12～0.24	440	0.12～0.24	1200	0.12～0.24

Note 1: The shank diameter (D_s) is used for the calculation of revolution speed (n).
Note 2: Formula for revolution speed (n)　n (min^{-1}) = 1000 x v_c ÷ D_w ÷ 3.14　v_c : Cutting speed (m/min)
Note 3: Formula for feed speed (v_f)　v_f (mm/min) = n x f　f: Feed per revolution (mm)

■Table of Recommended Cutting Conditions for Countersinks

《Untreated products with standard overall length》

Workpice material	Low carbon steels		Medium carbon steels		High carbon steels		Alloy steels		Stainless steels		Tool steels		Cast irons		Aluminum alloy castings	
Cutting speed v_c	10～20 m/min		10～20 m/min		10～20 m/min		8～16 m/min		8～13 m/min		8～16 m/min		12～30 m/min		15～45 m/min	
diameter[1] D_1 mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
CS-Q																
4	560	0.02～0.04	560	0.02～0.04	560	0.02～0.04	450	0.02～0.04	390	0.02～0.04	450	0.02～0.04	780	0.02～0.04	1100	0.02～0.04
6	420	0.03～0.05	420	0.03～0.05	420	0.03～0.05	340	0.03～0.05	300	0.03～0.05	340	0.03～0.05	590	0.03～0.05	850	0.03～0.05
8	360	0.05～0.07	360	0.05～0.07	360	0.05～0.07	290	0.05～0.07	250	0.05～0.07	290	0.05～0.07	500	0.05～0.07	720	0.05～0.07
10	320	0.06～0.09	320	0.06～0.09	320	0.06～0.09	250	0.06～0.09	220	0.06～0.09	250	0.06～0.09	450	0.06～0.09	640	0.06～0.09
15	270	0.08～0.13	270	0.08～0.13	270	0.08～0.13	210	0.08～0.13	190	0.08～0.13	210	0.08～0.13	370	0.08～0.13	530	0.08～0.13
20	240	0.09～0.15	240	0.09～0.15	240	0.09～0.15	190	0.09～0.15	170	0.09～0.15	190	0.09～0.15	330	0.09～0.15	480	0.09～0.15
25	190	0.10～0.16	190	0.10～0.16	190	0.10～0.16	150	0.10～0.16	130	0.10～0.16	150	0.10～0.16	270	0.10～0.16	380	0.10～0.16
30	160	0.10～0.16	160	0.10～0.16	160	0.10～0.16	130	0.10～0.16	110	0.10～0.16	130	0.10～0.16	220	0.10～0.16	320	0.10～0.16
35	140	0.10～0.16	140	0.10～0.16	140	0.10～0.16	110	0.10～0.16	100	0.10～0.16	110	0.10～0.16	190	0.10～0.16	270	0.10～0.16
40	120	0.10～0.16	120	0.10～0.16	120	0.10～0.16	100	0.10～0.16	80	0.10～0.16	100	0.10～0.16	170	0.10～0.16	240	0.10～0.16
45	110	0.10～0.16	110	0.10～0.16	110	0.10～0.16	80	0.10～0.16	70	0.10～0.16	80	0.10～0.16	150	0.10～0.16	210	0.10～0.16
50	100	0.10～0.16	100	0.10～0.16	100	0.10～0.16	80	0.10～0.16	70	0.10～0.16	80	0.10～0.16	130	0.10～0.16	190	0.10～0.16
60	80	0.10～0.16	80	0.10～0.16	80	0.10～0.16	60	0.10～0.16	60	0.10～0.16	60	0.10～0.16	110	0.10～0.16	160	0.10～0.16
CS-QM																
Workpice material	Low carbon steels		Medium carbon steels		High carbon steels		Alloy steels		Stainless steels		Tool steels		Cast irons		Aluminum alloy castings	
Cutting speed v_c	10～20 m/min		10～20 m/min		10～20 m/min		8～15 m/min		5～10 m/min		8～15 m/min		12～30 m/min		15～45 m/min	
diameter[1] D_1 mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
6	420	0.05～0.12	420	0.05～0.12	420	0.05～0.12	320	0.05～0.12	210	0.05～0.12	320	0.05～0.12	590	0.05～0.12	850	0.05～0.12
8	360	0.07～0.15	360	0.07～0.15	360	0.07～0.15	270	0.07～0.15	180	0.07～0.15	270	0.07～0.15	500	0.07～0.15	720	0.07～0.15
10	320	0.10～0.16	320	0.10～0.16	320	0.10～0.16	240	0.10～0.16	160	0.10～0.16	240	0.10～0.16	450	0.10～0.16	640	0.10～0.16
12	290	0.10～0.20	290	0.10～0.20	290	0.10～0.20	220	0.10～0.20	150	0.10～0.20	220	0.10～0.20	410	0.10～0.20	580	0.10～0.20
16	260	0.10～0.20	260	0.10～0.20	260	0.10～0.20	190	0.10～0.20	130	0.10～0.20	190	0.10～0.20	360	0.10～0.20	520	0.10～0.20
20	240	0.10～0.25	240	0.10～0.25	240	0.10～0.25	180	0.10～0.25	120	0.10～0.25	180	0.10～0.25	330	0.10～0.25	480	0.10～0.25
25	190	0.15～0.30	190	0.15～0.30	190	0.15～0.30	140	0.15～0.30	100	0.15～0.30	140	0.15～0.30	270	0.15～0.30	380	0.15～0.30
30	160	0.15～0.30	160	0.15～0.30	160	0.15～0.30	120	0.15～0.30	80	0.15～0.30	120	0.15～0.30	220	0.15～0.30	320	0.15～0.30
35	140	0.15～0.30	140	0.15～0.30	140	0.15～0.30	100	0.15～0.30	70	0.15～0.30	100	0.15～0.30	190	0.15～0.30	270	0.15～0.30
40	120	0.15～0.30	120	0.15～0.30	120	0.15～0.30	90	0.15～0.30	60	0.15～0.30	90	0.15～0.30	170	0.15～0.30	240	0.15～0.30

《Joint tool products》

Workpice material	Low carbon steels		Medium carbon steels		High carbon steels		Alloy steels		Stainless steels		Tool steels		Cast irons		Aluminum alloy castings	
Cutting speed v_c	8～16 m/min		8～16 m/min		8～16 m/min		6～12 m/min		4～8 m/min		6～12 m/min		10～24 m/min		12～36 m/min	
diameter[1] D_1 mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
JO-CSQM																
16	210	0.08～0.16	210	0.08～0.16	210	0.08～0.16	160	0.08～0.16	100	0.08～0.16	160	0.08～0.16	290	0.08～0.16	410	0.08～0.16
20	190	0.08～0.20	190	0.08～0.20	190	0.08～0.20	140	0.08～0.20	100	0.08～0.20	140	0.08～0.20	270	0.08～0.20	380	0.08～0.20

Note 1: The diameter (D_1) is used for the calculation of revolution speed (n).

Note 2: Formula for revolution speed (n)　n (min^{-1}) = 1000 x v_c ÷ D_w ÷ 3.14　where v_c : Cutting speed (m/min)

Note 3: The formula for feed speed (v_f) is based on v_f (mm/min) = n x f.

v_c: Cutting speed (m/min),　f: Feed per revolution (mm)

27. Table of recommend centering condition

■Table of Recommended Cutting Conditions for Submarine Gate Cutters

Workpice material	Medium carbon steels		High carbon steels		Alloy steels	
Cutting speed v_c	7～15 m/min		7～15 m/min		7～15 m/min	
Diameter×Shank Dia[1] $D_1 \times D_s$ mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm	Revolution speed[2] n min^{-1}	Feed per revolution[3] f mm
CS-G						
0.5×6	500	0.01～0.02	500	0.01～0.02	500	0.01～0.02
0.6×6	500	0.01～0.03	500	0.01～0.03	500	0.01～0.03
0.7×6	500	0.01～0.03	500	0.01～0.03	500	0.01～0.03
0.8×6	500	0.01～0.03	500	0.01～0.03	500	0.01～0.03
0.9×6	500	0.01～0.03	500	0.01～0.03	500	0.01～0.03
1×6	500	0.02～0.04	500	0.02～0.04	500	0.02～0.04
1×8	370	0.02～0.04	370	0.02～0.04	370	0.02～0.04
1.5×8	370	0.03～0.06	370	0.03～0.06	370	0.03～0.06
2×8	370	0.03～0.06	370	0.03～0.06	370	0.03～0.06

Note 1: The shank diameter (D_s) is used for the calculation of revolution speed (n).
Note 2: Formula for revolution speed (n) $n\ (min^{-1}) = 1000 \times v_c \div Dw \div 3.14$ where v_c: Cutting speed (m/min)
Note 3: Formula for feed speed (v_f) v_f (mm/min) = n x f where f: Feed per revolution (mm)
v_c: Cutting speed (m/min), f: Feed per revolution (mm)

28. Thread Series

Metric Threads

Unit : mm

Nominal Dia.			Pitch※																
Column 1	Column 2	Column 3	Coarse	Fine															
1			0.25																0.2
	1.1		0.25																0.2
1.2			0.25																0.2
	1.4		0.3																0.2
1.6			0.35																0.2
	1.8		0.35																0.2
2			0.4															0.25	
	2.2		0.45															0.25	
2.5			0.45														0.35		
3			0.5														0.35		
	3.5		0.6														0.35		
4			0.7													0.5			
	4.5		0.75													0.5			
5			0.8													0.5			
		5.5														0.5			
6			1												0.75				
	7		1												0.75				
8			1.25										1		0.75				
		9	1.25										1		0.75				
10			1.5									1.25	1		0.75				
		11	1.5										1		0.75				
12			1.75								1.5	1.25	1						
	14		2								1.5	1.25	1						
		15									1.5		1						
16			2								1.5		1						
		17									1.5		1						
	18		2.5							2	1.5		1						
20			2.5							2	1.5		1						
	22		2.5							2	1.5		1						
24			3							2	1.5		1						
		25								2	1.5		1						
		26									1.5								
	27		3							2	1.5		1						
		28								2	1.5		1						
30			3.5						3	2	1.5		1						
		32								2	1.5								
	33		3.5						3	2	1.5								
		35									1.5								
36			4						3	2	1.5								
		38									1.5								
	39		4						3	2	1.5								
		40							3	2	1.5								
42			4.5				4		3	2	1.5								
	45		4.5				4		3	2	1.5								
48			5				4		3	2	1.5								
		50							3	2	1.5								
	52		5				4		3	2	1.5								
		55					4		3	2	1.5								
56			5.5				4		3	2	1.5								
		58					4		3	2	1.5								
	60		5.5				4		3	2	1.5								
64			6				4		3	2	1.5								
		62					4		3	2	1.5								
		65					4		3	2	1.5								
	68		6				4		3	2	1.5								
		70			6		4		3	2	1.5								
72					6		4		3	2	1.5								
		75					4		3	2	1.5								
	76				6		4		3	2	1.5								
		78								2									
80					6		4		3	2	1.5								
		82								2									
	85				6		4		3	2									
90					6		4		3	2									
	95				6		4		3	2									
100					6		4		3	2									
110	105				6		4		3	2									
					6		4		3	2									
	115				6		4		3	2									
125	120				6		4		3	2									
				8	6		4		3	2									
	130			8	6		4		3	2									
		135			6		4		3	2									
140				8	6		4		3	2									
		145			6		4		3	2									
	150			8	6		4		3	2									

※ : Please select the first column by priority. And select second column and third column if necessary.

28. Thread Series

Unified Threads

Size		Nominal Dia.		Threads per inch										
				Coarse	Fine	Extra Fine	Constant pitch series							
Column 1	Column 2	inch	mm	UNC	UNF	UNEF	4UN	6UN	8UN	12UN	16UN	20UN	28UN	32UN
No. 0		0.0600	1.524		80									
	No. 1	0.0730	1.854	64	72									
No. 2		0.0860	2.184	56	64									
	No. 3	0.0990	2.515	48	56									
No. 4		0.1120	2.845	40	48									
No. 5		0.1250	3.175	40	44									
No. 6		0.1380	3.505	32	40									UNC
No. 8		0.1640	4.166	32	36									UNC
No.10		0.1900	4.826	24	32									UNF
	No.12	0.2160	5.486	24	28	32							UNF	UNEF
¼		0.2500	6.350	20	28	32						UNC	UNF	UNEF
5/16		0.3125	7.938	18	24	32						20	28	UNEF
3/8		0.3750	9.525	16	24	32					UNC	20	28	UNEF
7/16		0.4375	11.112	14	20	28					16	UNF	UNEF	32
1/2		0.5000	12.700	13	20	28					16	UNF	UNEF	32
9/16		0.5625	14.288	12	18	24				UNC	16	20	28	32
5/8		0.6250	15.875	11	18	24				12	16	20	28	32
	11/16	0.6875	17.462			24				12	16	20	28	32
3/4		0.7500	19.050	10	16	20				12	UNF	UNEF	28	32
	13/16	0.8125	20.638			20				12	16	UNEF	28	32
7/8		0.8750	22.225	9	14	20				12	16	UNEF	28	32
	15/16	0.9375	23.812			20				12	16	UNEF	28	32
1		1.0000	25.400	8	12	20			UNC	UNF	16	UNEF	28	32
	1 1/16	1.0625	26.988			18			8	12	16	20	28	
1 1/8		1.1250	28.575	7	12	18			8	UNF	16	20	28	
	1 3/16	1.1875	30.162			18			8	12	16	20	28	
1 1/4		1.2500	31.750	7	12	18			8	UNF	16	20	28	
	1 5/16	1.3125	33.338			18			8	12	16	20	28	
1 3/8		1.3750	34.925	6	12	18		UNC	8	UNF	16	20	28	
	1 7/16	1.4375	36.512			18		6	8	12	16	20	28	
1 1/2		1.5000	38.100	6	12	18		UNC	8	UNF	16	20	28	
	1 9/16	1.5625	39.688			18		6	8	12	16	20		
1 5/8		1.6250	41.275			18		6	8	12	16	20		
	1 11/16	1.6875	42.862			18		6	8	12	16	20		
1 3/4		1.7500	44.450	5				6	8	12	16	20		
	1 13/16	1.8125	46.038					6	8	12	16	20		
1 7/8		1.8750	47.625					6	8	12	16	20		
	1 15/16	1.9375	49.212					6	8	12	16	20		
2		2.0000	50.800	4 1/2				6	8	12	16	20		
	2 1/8	2.1250	53.975					6	8	12	16	20		
2 1/4		2.2500	57.150	4 1/2				6	8	12	16	20		
	2 3/8	2.3750	60.325					6	8	12	16	20		
2 1/2		2.5000	63.500	4			UNC	6	8	12	16	20		
	2 5/8	2.6250	66.675				4	6	8	12	16	20		
2 3/4		2.7500	69.850	4			UNC	6	8	12	16	20		
	2 7/8	2.8750	73.025				4	6	8	12	16	20		
3		3.0000	76.200	4			UNC	6	8	12	16	20		
	3 1/8	3.1250	79.375				4	6	8	12	16			
3 1/4		3.2500	82.550	4			UNC	6	8	12	16			
	3 3/8	3.3750	85.725				4	6	8	12	16			
3 1/2		3.5000	88.900	4			UNC	6	8	12	16			
	3 5/8	3.6250	92.075				4	6	8	12	16			
3 3/4		3.7500	95.250	4			UNC	6	8	12	16			
	3 7/8	3.8750	98.425				4	6	8	12	16			
4		4.0000	101.600	4			UNC	6	8	12	16			
	4 1/8	4.1250	104.775				4	6	8	12	16			
4 1/4		4.2500	107.950				4	6	8	12	16			
	4 3/8	4.3750	111.125				4	6	8	12	16			
4 1/2		4.5000	114.300				4	6	8	12	16			
	4 5/8	4.6250	117.475				4	6	8	12	16			
4 3/4		4.7500	120.650				4	6	8	12	16			
	4 7/8	4.8750	123.825				4	6	8	12	16			
5		5.0000	127.000				4	6	8	12	16			
	5 1/8	5.1250	130.175				4	6	8	12	16			
5 1/4		5.2500	133.350				4	6	8	12	16			
	5 3/8	5.3750	136.525				4	6	8	12	16			
5 1/2		5.5000	139.700				4	6	8	12	16			
	5 5/8	5.6250	142.875				4	6	8	12	16			
5 3/4		5.7500	146.050				4	6	8	12	16			
	5 7/8	5.8750	149.225				4	6	8	12	16			
6		6.0000	152.400				4	6	8	12	16			

※ : Please select the first column by priority. And select second column and third column if necessary.

Conversion Table

Threads per inch (25.4mm)	Pitch (mm)
100	0.2540
80	0.3175
72	0.3528
64	0.3969
60	0.4233
56	0.4536
48	0.5292
44	0.5773
40	0.6350
36	0.7056
32	0.7938
28	0.9071
27	0.9407
24	1.0583
20	1.2700
19	1.3368
18	1.4111
16	1.5875
14	1.8143
13	1.9538
12	2.1167
11 1/2	2.2087
11	2.3091
10	2.5400
9	2.8222
8	3.1750
7	3.6286
6	4.2333
5	5.0800
4 1/2	5.6444
4	6.3500

General size list of metric trapezoidal threads

Unit : mm

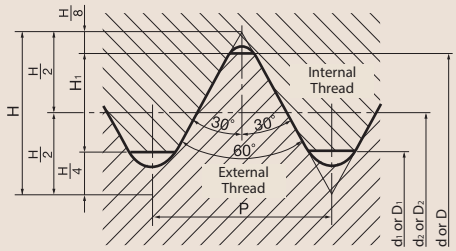
	1.5	2	3	4	5	6	7	8	10	12
Tr 8	1.5									
Tr 9	1.5	2								
Tr 10	1.5	2								
Tr 11		2	3							
Tr 12		2	3							
Tr 14		2	3							
Tr 16		2		4						
Tr 18		2		4						
Tr 20		2		4						
Tr 22			3		5			8		
Tr 24			3		5			8		
Tr 26			3		5			8		
Tr 28			3		5			8		
Tr 30			3			6			10	
Tr 32			3			6			10	
Tr 34			3			6			10	
Tr 36			3			6			10	
Tr 38			3				7		10	
Tr 40			3				7		10	
Tr 42			3				7		10	
Tr 44			3				7			12
Tr 46			3					8		12
Tr 48			3					8		12

When the tap for the trapezoidal threads not listed in the catalogue is required, please contact Yamawa sales.

Think threads with YAMAWA

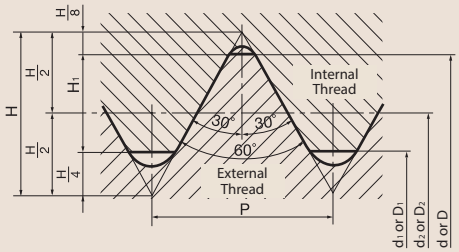
29. Basic profile of threads

■Metric Screw Threads (M)



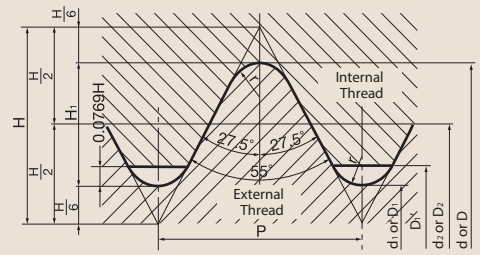
H =0.866025P
H_1 =0.541266P
d_2 =d−0.649519P
d_1 =d−1.082532P
D =d
D_2 =d_2
D_1 =d_1

■Unified Screw Threads (UNC, UNF, etc.)



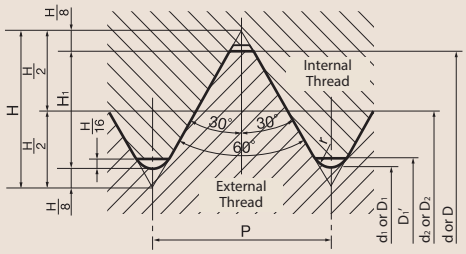
H =0.866025P
H_1 =0.541266P
d_2 =d−0.649519P
d_1 =d−1.082532P
D =d
D_2 =d_2
D_1 =d_1
P =25.4/n
n =Threads per inch

■Whitworth Screw Threads (W)



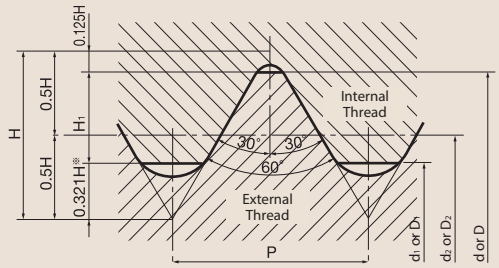
H =0.9605P
H_1 =0.6403P
d_2 =d−H_1
d_1 =d−2H_1
D =d
D_2 =d_2
D_1 =d_1
D_1' =d_1+2×0.0769H
r =0.1373P
P =25.4/n
n =Threads per inch

■Screw Threads for Sewing Machine (SM)



H =0.8660P
H_1 =0.6495P
d_2 =d−H_1
d_1 =d−2H_1
D =d
D_2 =d_2
D_1 =d_1
D_1' =d_1+2×H/16
r =0.1083P
P =25.4/n
n =Threads per inch

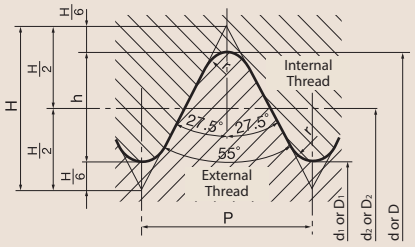
■Miniature Screw Threads (S)



H =0.866025P
H_1 =0.48P
d_2 =d−0.649519P
d_1 =d−0.96P
D =d
D_2 =d_2
D_1 =d_1

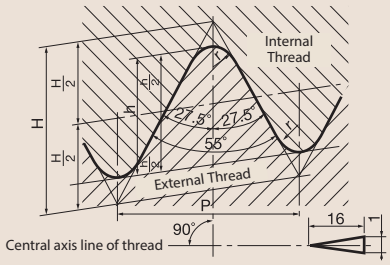
Note : This figure rounds off 0.320744H.

■Parallel Pipe Threads (G,PF)



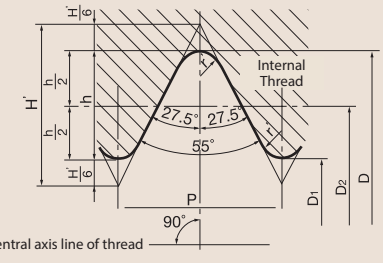
H =0.960491P
h =0.640327P
d_2 =d−h
d_1 =d−2h
D =d
D_2 =d_2
D_1 =d_1
r =0.137329P
P =25.4/n
n =Threads per inch

■Taper Pipe Threads (R, Rc, PT)



H =0.960237P
h =0.640327P
r =0.137278P
P =25.4/n
n =Threads per inch

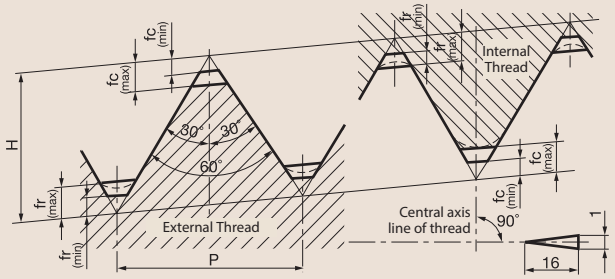
■Parallel Pipe Threads for Taper Pipe Threads (Rp, PS)



H' =0.960491P
h =0.640327P
r' =0.137329P
P =25.4/n
n =Threads per inch

29. Basic profile of threads

■American Standard Taper Pipe Threads (NPT)

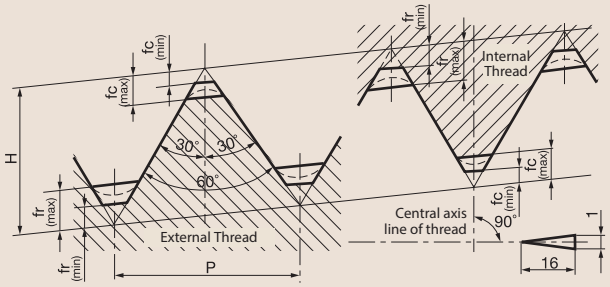


H =0.866025P
P =25.4/n
n =Threads per inch

Truncation Unit : mm

Threads per inch	Section	fc=fr
27	Max.	0.096P
	Min.	0.033P
18	Max.	0.088P
	Min.	0.033P
14	Max.	0.078P
	Min.	0.033P
11.5	Max.	0.073P
	Min.	0.033P
8	Max.	0.062P
	Min.	0.033P

■Dryseal American Standard Taper Pipe Threads (NPTF)

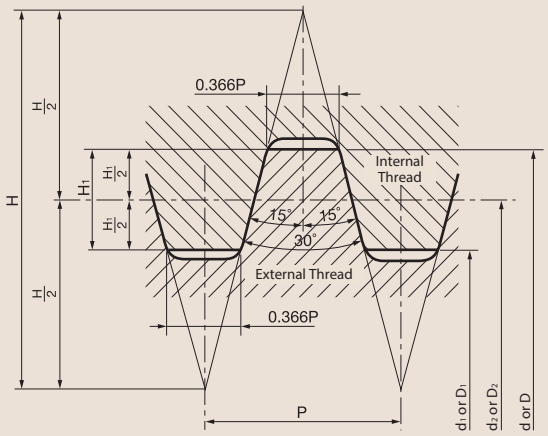


H =0.866025P
P =25.4/n
n =Threads per inch

Truncation Unit : mm

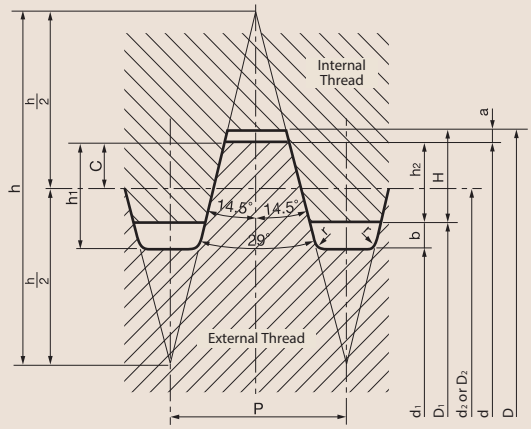
Threads per inch	Section	fc	fr
27	Max.	0.094P	0.140P
	Min.	0.047P	0.094P
18	Max.	0.078P	0.109P
	Min.	0.047P	0.078P
14	Max.	0.060P	0.085P
	Min.	0.036P	0.060P
11.5	Max.	0.060P	0.090P
	Min.	0.040P	0.060P
8	Max.	0.055P	0.076P
	Min.	0.042P	0.055P

■Metric Trapezoidal Screw Threads (Tr)



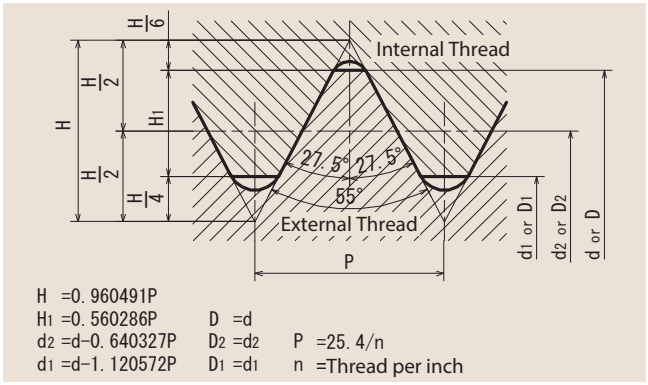
H =1.866P
H1 =0.5P
d2 =d−0.5P
d1 =d−P
D =d
D2 =d2
D1 =d1

■29° Trapezoidal Screw Threads (TW)



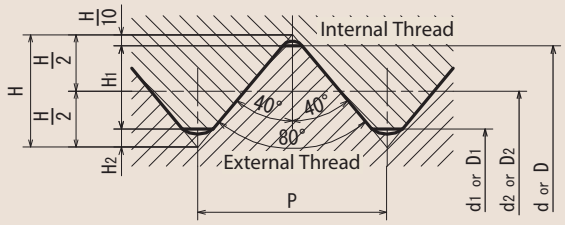
h =1.9335P
h1 =2c+a
h2 =2c+a−b
H =2c+2a−b
c ≒0.25P
d2 =d−2c
d1 =d−2h1
P =25.4/n
D =d+2a
D2 =d2
D1 =d1+2b
n =Threads per inch

Thick Steel Conduit Threads (CTG)



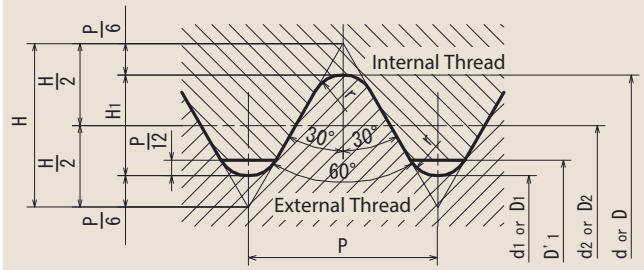
H =0.960491P
H1 =0.560286P
d2 =d−0.640327P
d1 =d−1.120572P
D =d
D2 =d2
D1 =d1
P =25.4/n
n =Thread per inch

Steel Conduit Threads (CTC)



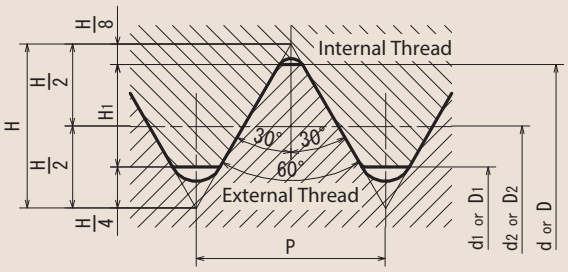
H =0.59588P
H1 =0.43851P
H2 =0.09778P
d2 =d−0.47670P
d1 =d−0.87703P
D =d
D2 =d2
D1 =d1
P =25.4/n
n =Thread per inch

Bicycle Threads (BC)



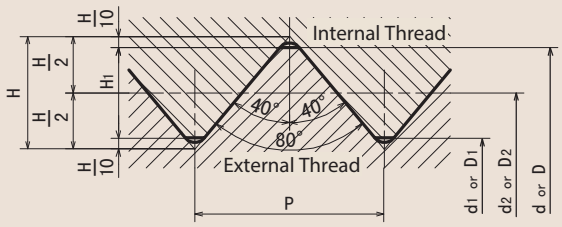
H =0.8660P
H1 =0.5327P
r =P/6
d2 =d−H1
d1 =d−2H1
D =d
D2 =d2
D1 =d1
D'1 =d1+2×P/12
P =25.4/n
n =Thread per inch

Tire Valve Threads (TV), Bicycle Tire Valve Threads (CTV)



H =0.866025P
H1 =0.541266P
d2 =d−0.649519P
d1 =d−1.082532P
D =d
D2 =d2
D1 =d1
P =25.4/n
n =Thread per inch

for European Steel Conduit Threads(Pg)



H =0.59588P
H1 =0.47670P
d2 =d−0.47670P
d1 =d−0.95340P
D =d
D2 =d2
D1 =d1
P =25.4/n
n =Thread per inch

30. List of Thread Standards and Nominal Diameter Ranges of YAMAWA Taps

	Thread type	Thread type symbol	Thread angle	Standard	Nominal diameter range	Internal thread class	Nominal diameter range of Yamawa taps		
							JIS	ANSI	DIN
Parallel thread	Metric thread (coarse/fine)	M	60°	JIS B 0205-1 ~ 4 JIS B 0209-1 ~ 5	1 ~ 300	4H,5H,6H,7H,6G	1 ~ 100	2 ~ 48	2 ~ 48
	Unified thread (coarse)	UNC	60°	JIS B 0206 JIS B 0210	No.1 ~ 4	3B,2B,1B	No.1 ~ 3	No.1 ~ 1 1/2	No.4 ~ 13/4
	Unified thread (fine)	UNF	60°	JIS B 0208 JIS B 0212	No.0 ~ 1 1/2		No.0 ~ 1 1/2	No.0 ~ 1 1/2	No.4 ~ 1 1/2
	Whitworth thread (coarse)	W	55°	Old JIS B 0206 Old JIS B 0210	1/4 ~ 6	Class 2/3/4	1/16 ~ 2	—	—
	Whitworth thread (fine)			Old JIS B 0208 Old JIS B 0212	9.5 ~ 150		—	—	—
	Miniature thread	S	60°	JIS B 0201	0.3 ~ 0.9	3G5,3G6,4H5,4H6	0.4 ~ 0.9	—	—
				JIS B 0201 Appendix	1 ~ 1.4		—	—	—
	Parallel pipe thread	G	55°	JIS B 0202	1/16 ~ 6	—	1/16 ~ 2	—	1/16 ~ 1 1/2
		PF		JIS B 0202 Appendix	1/8 ~ 12	Class A/B	1/16 ~ 4	—	—
	Parallel pipe thread for taper pipe thread	Rp	55°	JIS B 0203	1/16 ~ 6	—	1/16 ~ 2	—	—
		PS		JIS B 0203 Appendix	1/8 ~ 12	—	1/16 ~ 4	—	—
	Thick steel conduit thread	CTG	55°	JIS C 8305 Appendix	16 ~ 104	—	16 ~ 42	—	—
	Thin steel conduit thread	CTC	80°	JIS C 8305 Appendix	19 ~ 75	—	19 ~ 39	—	—
	Metric trapezoidal thread	Tr	30°	JIS B 0216-1 ~ 3 JIS B 0217-1 ~ 2	8 ~ 300	7H,8H	10 ~ 30	—	—
	30° trapezoidal thread	TM	30°	Old JIS B 0216 Appendix	10 ~ 300	—	—	—	—
	29° trapezoidal thread	TW	29°	Old JIS B 0222	10 ~ 100	—	—	—	—
	Bicycle thread (for general use)	BC	60°	Old JIS B 0225	5/16 ~ 19/16	—	5/16 ~ 19/16	—	—
	(for spoke)				1.8 ~ 4.0	—	—	—	—
	Thread for sewing machine	SM	60°	Old JIS B 0226	1/16 ~ 13/16	Class 1/2/3	1/16 ~ 11/32	—	—
	Thread for connecting camera tripod	(U)	60°	JIS B 7103	1/4, 3/8	—	1/4	—	—
	Lens mounting thread	(M)	60°	JIS B 7111	13.5 ~ 122	—	—	—	—
	Lens mounting thread for motion picture camera	U	60°	JIS B 7127	5/8, 1	—	—	—	—
	Thread for microscope objective lens	(W)	55°	JIS B 7141	20.32, 26	—	20.32	—	—
		(M)	60°		25 ~ 32	—	—	—	—
	Automobile tire valve thread	V	60°	JIS D 4207 Appendix	5 ~ 20	—	5 ~ 20	—	—
		TV	60°	Old JIS D 4208 Appendix	5 ~ 17	—	—	—	—
	Bicycle tire valve thread	V	60°	JIS D 9422 Appendix	5, 6	—	5, 6	—	—
		CTV			5, 8	—	5, 8	—	—
	Thread for lamp cap and holder	E	—	JIS C 7709	10 ~ 40	—	—	—	—
	Thread for plug and flange of steel drum	G	55°	JIS Z 1604 Appendix	3/4, 2	—	—	—	—
	Thread for coupling of fire hose	—	55°	JIS B 9912	48 ~ 175	—	—	—	—
	Thread for connection of fire hose nozzle tip	—	55°	JIS B 9913	36 ~ 68	—	—	—	—
	Unified inch thread (USA) (UN & UNR thread)	UNC/UNRC	60°	ASME B1.1	No.1 ~ 4	3B,2B,1B	No.1 ~ 3	No.1 ~ 1 1/2	No.4 ~ 13/4
		UNF/UNRF			No.0 ~ 1 1/2		No.0 ~ 1 1/2	No.0 ~ 1 1/2	No.4 ~ 1 1/2
		UNEF/UNREF			No.12 ~ 1 11/16		No.12 ~ 1	—	—
		UNS/UNRS			0.047 ~ 13		7/16 ~ 15/8	—	—
		4UN/UNR			2 5/8 ~ 6		—	—	—
		6UN/UNR			1 7/16 ~ 6		—	—	—
		8UN/UNR			1 1/16 ~ 6		1 1/8 ~ 3	1 1/8 ~ 1 1/2	—
		12UN/UNR			5/8 ~ 6		13/16 ~ 2	—	13/4
		16UN/UNR			7/16 ~ 6		—	—	—
		20UN/UNR			5/16 ~ 3		9/16 ~ 5/8	—	—
		28UN/UNR			5/16 ~ 1 1/2		—	—	—
		32UN/UNR			7/16 ~ 1		1/2	—	—

	Thread type	Thread type symbol	Thread angle	Standard	Nominal diameter range	Internal thread class	Nominal diameter range of Yamawa taps		
							JIS	ANSI	DIN
Parallel thread	Unified inch thread (USA) (UNJ thread)	UNJC	60°	SAE AS 8879D	0.0730 ~ 4.0000	3B	—	—	—
		UNJF			0.0600 ~ 1.5000				
		UNJEF			0.2160 ~ 1.6875				
		8UNJ			0.2160 ~ 1.6875				
		12UNJ			0.6250 ~ 6.0000				
		16UNJ			0.4375 ~ 6.0000				
		UNJC		ASME B1.15	0.0730 ~ 4.0000	3B,2B	—	—	—
		UNJF			0.0600 ~ 1.5000				
		UNJEF			0.2160 ~ 1.6875				
		8UNJ			1.0625 ~ 4.0000				
		12UNJ			0.6250 ~ 6.0000				
		16UNJ			0.4375 ~ 6.0000				
	Unified miniature thread (USA)	UNM	60°	ASA B1.10	0.3 ~ 1.4	—	—	—	—
	American parallel pipe thread								
	Straight pipe thread for coupling	NPSC	60°	ANSI/ASME B1.20.1	1/8 ~ 4	—	1/8 ~ 2	1/8 ~ 1	—
	For fitting (mechanical joint)	NPSM			1/8 ~ 6	2B			
	For use with locknut (mechanical joint)	NPSL			1/8 ~ 12	—	—	—	—
	For hose coupling (mechanical joint)	NPSH		ANSI/ASME B1.20.7	1/2 ~ 4	—	—	—	—
	American Dryseal parallel pipe thread								
	Fuel internal parallel pipe thread	NPSF	60°	ANSI B1.20.3	1/16 ~ 1	—	1/16 ~ 2	1/8 ~ 1	—
	Intermediate internal parallel pipe thread	NPSI				—	—	—	—
	Acme thread (USA)	ACME	29°	ASME B1.5	1/4 ~ 5	4G,3G,2G,4C,3C,2C	—	—	—
	Stub acme thread (USA)	STUB ACME	29°	ASME B1.8	1/4 ~ 5	—	—	—	—
	Steel conduit thread (Germany)	Pg	80°	DIN 40430	7 ~ 48	—	—	—	7 ~ 36
	Internal thread for insert coil (Germany)	EG M	60°	DIN 8141-2	2 ~ 56	6H mod, 6G mod	—	—	—
	Trapezoidal thread for plastic container (Germany)	KT	20°	DIN 6063-2	10 ~ 50	—	—	—	—
	Buttress thread for plastic or glass container with screw cap (Germany)	S	10+30°	DIN 55525	10 ~ 50	—	—	—	—
	Round thread for general use (Germany)	Rd	30°	DIN 405-1,-2	8 ~ 200	—	—	—	—
	Round thread for glass container (Germany)	GL	30°	DIN 168-1	8 ~ 45	—	—	—	—
	Bicycle thread (Germany)	FG	60°	DIN 79012	2 ~ 34.8	—	—	—	—
	Tire valve thread (Germany)	Vg	60°	DIN 7756	5 ~ 12	—	—	—	—
	Whitworth thread (UK)	BSW	55°	BS 84	1/8 ~ 6	MEDIUM CLASS, NORMAL CLASS	—	—	3/32 ~ 1 3/4
	BA thread (UK)	BA	47 1/2°	BS 93	0 ~ 25	—	—	—	—
	MJ thread (for aerospace use) (ISO)	MJ MJS	60°	ISO 5855-1 ~ 3	1.6 ~ 300	4H6H,4H5H	—	—	—

30. List of Thread Standards and Nominal Diameter Ranges of Yamawa Taps

	Thread type	Thread type symbol	Thread angle	Standard	Nominal diameter range	Taper	Nominal diameter range of Yamawa taps		
							JIS	ANSI	DIN
Taper thread	Taper pipe thread	R, Rc	55°	JIS B 0203	1/16 ～ 6	1/16	1/16 ～ 2	—	—
		PT		JIS B 0203 Appendix	1/8 ～ 12		1/16 ～ 4	—	—
	Thread for shutter cable release tip and socket for camera	—	60°	JIS B 7104	3.4	28°	3.4	—	—
	Thread for seamless steel gas cylinder	—	55°	JIS B 8241 Appendix	V1,V2,V3	3/26	—	—	—
	Thread for valve for dissolved acetylene cylinder	—	55°	JIS B 8244 Appendix	39		—	—	—
	Thread for valve for liquefied petroleum gas cylinder	—	55°	JIS B 8245 Appendix	V1,V2		—	—	—
	Thread for valve for high pressure gas cylinder	—	55°	JIS B 8246 Appendix	V1,V2,V3		—	—	—
	Thread for artificial graphite electrode	—	60°	JIS R 7201	45 ～ 406	1/3	—	—	—
	American taper pipe thread								
	For general use	NPT	60°	ANSI/ASME B1.20.1	1/16 ～ 24O.D.	1/16	1/16 ～ 3	1/16 ～ 2	—
	For railing joint	NPTR			1/2 ～ 4		—	—	—
	American dryseal taper pipe thread								
	For dryseal connection	NPTF	60°	ANSI B1.20.3	1/16 ～ 3	1/16	1/16 ～ 2	1/16 ～ 2	—
	SAE SHORT	PTF-SAE SHORT							
	American taper pipe thread for aircraft	ANPT	60°	SAE AS 71051B	1/16 ～ 3	1/16	—	—	—
	API thread for steel pipe for oil well (USA)	LP	60°	API Std 5B	1/8 ～ 20O.D.	1/16	—	—	—
	Thread for mining drill tube (Germany)	Gg	60°	DIN 20314	3 1/4 ～ 6 5/8	1/4	—	—	—
	Thread for gas container valve (UK)	—	55°	BS 341:Part1,2	0.6 ～ 1.25	0.6 : 1/5.625	—	—	—
						0.715 ～ 1.25 : 1/8	—	—	—

31. Cross chart of thread cutting tool standard

Tap and Die names	JIS	TAS	ISO	ANSI	BS	DIN
General specification		4051				
Measuring method		4053				
Technical requirement			8830			2197
Thread limit (Metric)		4052	2857			
Thread limit (Pipe)			5969			
Hand taps (Metric coarse)	B4430	4105	529	B94.9	949	352
Hand taps (Metric fine)	B4430	4106	529	B94.9	949	2181
Hand taps (Unified coarse)	B4432	4107	529	B94.9	949	
Hand taps (Unified fine)	B4438		529	B94.9	949	
Hand taps (Parallel pipe thread)	B4445		2284	B94.9	949	
Hand taps (Taper pipe thread)	B4446		2284	B94.9	949	
Hand taps (American parallel pipe thread)		4113		B94.9		
Hand taps (American taper pipe thread)		4114		B94.9		
Hand taps (American dryseal parallel pipe thread)		4115		B94.9		
Hand taps (American dryseal taper pipe thread)		4116		B94.9		
Nut taps (Metric coarse)	B4433	4109			357	
Nut taps (Metric fine)		4110				
Nut taps (Unified coarse)		4111		B94.9		
Nut taps (Unified fine)		4112				
Machine taps (Metric coarse)						371,376
Machine taps (Metric fine)						374
Bent shank taps (Metric coarse)		4101				
Bent shank taps (Metric fine)		4102				
Bent shank taps (Unified coarse)		4103				
Bent shank taps (Unified fine)		4104				
Long shank machine taps (Metric thread)		4153	2283			
Long shank machine taps (Inch thread)		4153	2283			
Spiral pointed taps		4155		B94.9		
Spiral fluted taps		4154		B94.9		
Shell taps (Metric thread)		4117				
Pulley taps				B94.9		
Thread Forming taps				B94.9		
Blanks for carbide taps				B94.1		
Thread cutting round dies (Metric coarse, Adjustable)	B4451					223
Thread cutting round dies (Metric fine, Adjustable)	B4451					223
Thread cutting round dies (Metric, Solid)	B4451		2568		1127	223
Thread cutting round dies (Unified coarse adjustable)	B4451					
Thread cutting round dies (Unified fine adjustable)	B4451					
Thread cutting round dies (Unified thread)	B4451		2568		1127	
Thread cutting round dies (Parallel pipe thread)	B4455		4231		1127	5158
Thread cutting round dies (Taper pipe thread)	B4456		4230			5159
Hexagon dies			7226		1127	382

Symbols : Organization names

ISO : International Organization for Standardization
JIS : Japanese Industrial Standards Committee
TAS : Japan Cutting & Wear-resistant Tool Association
ANSI : American National Standards Institute
BS : British Standards Institution, UK
DIN : Deutsches Institiut fur Normung

32. Hardness conversion table

■Conversion table from Rockwell C hardness of steel. (Approximate)

Rockwell C Scale Hardness	Vickers Hardness	Brinell Hardness		Rockwell Hardness※2			Rockwell Superficial Hardness			Shore Hardness	Tensile Strength MPa※1	Rockwell C Scale Hardness※2
		Standard ball	Tungsten Carbide ball	A scale	B scale	D scale	15-N scale	30-N scale	45-N scale			
HRC	HV	HBS	HBW	HRA	HRB	HRD	HR15N	HR30N	HR45N	HS	—	HRC
68	940	—	—	85.6	—	76.9	93.2	84.4	75.4	97	—	68
67	900	—	—	85.0	—	76.1	92.9	83.6	74.2	95	—	67
66	865	—	—	84.5	—	75.4	92.5	82.8	73.3	92	—	66
65	832	—	(739)	83.9	—	74.5	92.2	81.9	72.0	91	—	65
64	800	—	(722)	83.4	—	73.8	91.8	81.1	71.0	88	—	64
63	772	—	(705)	82.8	—	73.0	91.4	80.1	69.9	87	—	63
62	746	—	(688)	82.3	—	72.2	91.1	79.3	68.8	85	—	62
61	720	—	(670)	81.8	—	71.5	90.7	78.4	67.7	83	—	61
60	697	—	(654)	81.2	—	70.7	90.2	77.5	66.7	81	—	60
59	674	—	(634)	80.7	—	69.9	89.8	76.6	65.5	80	—	59
58	653	—	615	80.1	—	69.2	89.3	75.7	64.3	78	—	58
57	633	—	595	79.6	—	68.5	88.9	74.8	63.2	76	—	57
56	613	—	577	79.0	—	67.7	88.3	73.9	62.0	75	—	56
55	595	—	560	78.5	—	66.9	87.9	73.0	60.9	74	2075	55
54	577	—	543	78.0	—	66.1	87.4	72.0	59.8	72	2015	54
53	560	—	525	77.4	—	65.4	86.9	71.2	58.6	71	1950	53
52	544	(500)	512	76.8	—	64.6	86.4	70.2	57.4	69	1880	52
51	528	(487)	496	76.3	—	63.8	85.9	69.4	56.1	68	1820	51
50	513	(475)	481	75.9	—	63.1	85.5	68.5	55.0	67	1760	50
49	498	(464)	469	75.2	—	62.1	85.0	67.6	53.8	66	1695	49
48	484	451	455	74.7	—	61.4	84.5	66.7	52.5	64	1635	48
47	471	442	443	74.1	—	60.8	83.9	65.8	51.4	63	1580	47
46	458	432	432	73.6	—	60.0	83.5	64.8	50.3	62	1530	46
45	446	421	421	73.1	—	59.2	83.0	64.0	49.0	60	1480	45
44	434	409	409	72.5	—	58.5	82.5	63.1	47.8	58	1435	44
43	423	400	400	72.0	—	57.7	82.0	62.2	46.7	57	1385	43
42	412	390	390	71.5	—	56.9	81.5	61.3	45.5	56	1340	42
41	402	381	381	70.9	—	56.2	80.9	60.4	44.3	55	1295	41
40	392	371	371	70.4	—	55.4	80.4	59.5	43.1	54	1250	40
39	382	362	362	69.9	—	54.6	79.9	58.6	41.9	52	1215	39
38	372	353	353	69.4	—	53.8	79.4	57.7	40.8	51	1180	38
37	363	344	344	68.9	—	53.1	78.8	56.8	39.6	50	1160	37
36	354	336	336	68.4	(109.0)	52.3	78.3	55.9	38.4	49	1115	36
35	345	327	327	67.9	(108.5)	51.5	77.7	55.0	37.2	48	1080	35
34	336	319	319	67.4	(108.0)	50.8	77.2	54.2	36.1	47	1055	34
33	327	311	311	66.8	(107.5)	50.0	76.6	53.3	34.9	46	1025	33
32	318	301	301	66.3	(107.0)	49.2	76.1	52.1	33.7	44	1000	32
31	310	294	294	65.8	(106.0)	48.4	75.6	51.3	32.5	43	980	31
30	302	286	286	65.3	(105.5)	47.7	75.0	50.4	31.3	42	950	30
29	294	279	279	64.7	(104.5)	47.0	74.5	49.5	30.1	41	930	29
28	286	271	271	64.3	(104.0)	46.1	73.9	48.6	28.9	41	910	28
27	279	264	264	63.8	(103.0)	45.2	73.3	47.7	27.8	40	880	27
26	272	258	258	63.3	(102.5)	44.6	72.8	46.8	26.7	38	860	26
25	266	253	253	62.8	(101.5)	43.8	72.2	45.9	25.5	38	840	25
24	260	247	247	62.4	(101.0)	43.1	71.6	45.0	24.3	37	825	24
23	254	243	243	62.0	100.0	42.1	71.0	44.0	23.1	36	805	23
22	248	237	237	61.5	99.0	41.6	70.5	43.2	22.0	35	785	22
21	243	231	231	61.0	98.5	40.9	69.9	42.3	20.7	35	770	21
20	238	226	226	60.5	97.8	40.1	69.4	41.5	19.6	34	760	20
(18)	230	219	219	—	96.7	—	—	—	—	33	730	(18)
(16)	222	212	212	—	95.5	—	—	—	—	32	705	(16)
(14)	213	203	203	—	93.9	—	—	—	—	31	675	(14)
(12)	204	194	194	—	92.3	—	—	—	—	29	650	(12)
(10)	196	187	187	—	90.7	—	—	—	—	28	620	(10)
(8)	188	179	179	—	89.5	—	—	—	—	27	600	(8)
(6)	180	171	171	—	87.1	—	—	—	—	26	580	(6)
(4)	173	165	165	—	85.5	—	—	—	—	25	550	(4)
(2)	166	158	158	—	83.5	—	—	—	—	24	530	(2)
(0)	160	152	152	—	81.7	—	—	—	—	24	515	(0)

※1 : 1Mpa=1N/mm^2
※2 : In above table, numbers in parenthesis are only for reference.
This table is abstracted from SAE J 417.
※Reference (SAE J417)

Think threads with YAMAWA

33. Conversion table from inch to millimeter

Conversion table from inch to millimeter

Designation		0"	1"	2"	3"	4"	5"	6"	7"	8"	9"
Fractional	Decimal										
0"	0"	–	25.400	50.800	76.200	101.600	127.000	152.400	177.800	203.200	228.600
1/64"	0.015625"	0.397	25.797	51.197	76.597	101.997	127.397	152.797	178.197	203.597	228.997
1/32"	0.03125"	0.794	26.194	51.594	76.994	102.394	127.794	153.194	178.594	203.994	229.394
3/64"	0.046875"	1.191	26.591	51.991	77.391	102.791	128.191	153.591	178.991	204.391	229.791
1/16"	0.0625"	1.588	26.988	52.388	77.788	103.188	128.588	153.988	179.388	204.788	230.188
5/64"	0.078125"	1.984	27.384	52.784	78.184	103.584	128.984	154.384	179.784	205.184	230.584
3/32"	0.09375"	2.381	27.781	53.181	78.581	103.981	129.381	154.781	180.181	205.581	230.981
7/64"	0.109375"	2.778	28.178	53.578	78.978	104.378	129.778	155.178	180.578	205.978	231.378
1/8"	0.125"	3.175	28.575	53.975	79.375	104.775	130.175	155.575	180.975	206.375	231.775
9/64"	0.140625"	3.572	28.972	54.372	79.772	105.172	130.572	155.972	181.372	206.772	232.172
5/32"	0.15625"	3.969	29.369	54.769	80.169	105.569	130.969	156.369	181.769	207.169	232.569
11/64"	0.171875"	4.366	29.766	55.166	80.566	105.966	131.366	156.766	182.166	207.566	232.966
3/16"	0.1875"	4.762	30.162	55.562	80.962	106.362	131.762	157.162	182.562	207.962	233.362
13/64"	0.203125"	5.159	30.559	55.959	81.359	106.759	132.159	157.559	182.959	208.359	233.759
7/32"	0.21875"	5.556	30.956	56.356	81.756	107.156	132.556	157.956	183.356	208.756	234.156
15/64"	0.234375"	5.953	31.353	56.753	82.153	107.553	132.953	158.353	183.753	209.153	234.553
1/4"	0.25"	6.350	31.750	57.150	82.550	107.950	133.350	158.750	184.150	209.550	234.950
17/64"	0.265625"	6.747	32.147	57.547	82.947	108.347	133.747	159.147	184.547	209.947	235.347
9/32"	0.28125"	7.144	32.544	57.944	83.344	108.744	134.144	159.544	184.944	210.344	235.744
19/64"	0.296875"	7.541	32.941	58.341	83.741	109.141	134.541	159.941	185.341	210.741	236.141
5/16"	0.3125"	7.938	33.338	58.738	84.138	109.538	134.938	160.338	185.738	211.138	236.538
21/64"	0.328125"	8.334	33.734	59.134	84.534	109.934	135.334	160.734	186.134	211.534	236.934
11/32"	0.34375"	8.731	34.131	59.531	84.931	110.331	135.731	161.131	186.531	211.931	237.331
23/64"	0.359375"	9.128	34.528	59.928	85.328	110.728	136.128	161.528	186.928	212.328	237.728
3/8"	0.375"	9.525	34.925	60.325	85.725	111.125	136.525	161.925	187.325	212.725	238.125
25/64"	0.390625"	9.922	35.322	60.722	86.122	111.522	136.922	162.322	187.722	213.122	238.522
13/32"	0.40625"	10.319	35.719	61.119	86.519	111.919	137.319	162.719	188.119	213.519	238.919
27/64"	0.421875"	10.716	36.116	61.516	86.916	112.316	137.716	163.116	188.516	213.916	239.316
7/16"	0.4375"	11.112	36.512	61.912	87.312	112.712	138.112	163.512	188.912	214.312	239.712
29/64"	0.453125"	11.509	36.909	62.309	87.709	113.109	138.509	163.909	189.309	214.709	240.109
15/32"	0.46875"	11.906	37.306	62.706	88.106	113.506	138.906	164.306	189.706	215.106	240.506
31/64"	0.484375"	12.303	37.703	63.103	88.503	113.903	139.303	164.703	190.103	215.503	240.903
1/2"	0.5"	12.700	38.100	63.500	88.900	114.300	139.700	165.100	190.500	215.900	241.300
33/64"	0.515625"	13.097	38.497	63.897	89.297	114.697	140.097	165.497	190.897	216.297	241.697
17/32"	0.53125"	13.494	38.894	64.294	89.694	115.094	140.494	165.894	191.294	216.694	242.094
35/64"	0.546875"	13.891	39.291	64.691	90.091	115.491	140.891	166.291	191.691	217.091	242.491
9/16"	0.5625"	14.288	39.688	65.088	90.488	115.888	141.288	166.688	192.088	217.488	242.888
37/64"	0.578125"	14.684	40.084	65.484	90.884	116.284	141.684	167.084	192.484	217.884	243.284
19/32"	0.59375"	15.081	40.481	65.881	91.281	116.681	142.081	167.481	192.881	218.281	243.681
39/64"	0.609375"	15.478	40.878	66.278	91.678	117.078	142.478	167.878	193.278	218.678	244.078
5/8"	0.625"	15.875	41.275	66.675	92.075	117.475	142.875	168.275	193.675	219.075	244.475
41/64"	0.640625"	16.272	41.672	67.072	92.472	117.872	143.272	168.672	194.072	219.472	244.872
21/32"	0.65625"	16.669	42.069	67.469	92.869	118.269	143.669	169.069	194.469	219.869	245.269
43/64"	0.671875"	17.066	42.466	67.866	93.266	118.666	144.066	169.466	194.866	220.266	245.666
11/16"	0.6875"	17.462	42.862	68.262	93.662	119.062	144.462	169.862	195.262	220.662	246.062
45/64"	0.703125"	17.859	43.259	68.659	94.059	119.459	144.859	170.259	195.659	221.059	246.459
23/32"	0.71875"	18.256	43.656	69.056	94.456	119.856	145.256	170.656	196.056	221.456	246.856
47/64"	0.734375"	18.653	44.053	69.453	94.853	120.253	145.653	171.053	196.453	221.853	247.253
3/4"	0.75"	19.050	44.450	69.850	95.250	120.650	146.050	171.450	196.850	222.250	247.650
49/64"	0.765625"	19.447	44.847	70.247	95.647	121.047	146.447	171.847	197.247	222.647	248.047
25/32"	0.78125"	19.844	45.244	70.644	96.044	121.444	146.844	172.244	197.644	223.044	248.444
51/64"	0.796875"	20.241	45.641	71.041	96.441	121.841	147.241	172.641	198.041	223.441	248.841
13/16"	0.8125"	20.638	46.038	71.438	96.838	122.238	147.638	173.038	198.438	223.838	249.238
53/64"	0.828125"	21.034	46.434	71.834	97.234	122.634	148.034	173.434	198.834	224.234	249.634
27/32"	0.84375"	21.431	46.831	72.231	97.631	123.031	148.431	173.831	199.231	224.631	250.031
55/64"	0.859375"	21.828	47.228	72.628	98.028	123.428	148.828	174.228	199.628	225.028	250.428
7/8"	0.875"	22.225	47.625	73.025	98.425	123.825	149.225	174.625	200.025	225.425	250.825
57/64"	0.890625"	22.622	48.022	73.422	98.822	124.222	149.622	175.022	200.422	225.822	251.222
29/32"	0.90625"	23.019	48.419	73.819	99.219	124.619	150.019	175.419	200.819	226.219	251.619
59/64"	0.921875"	23.416	48.816	74.216	99.616	125.016	150.416	175.816	201.216	226.616	252.016
15/16"	0.9375"	23.812	49.212	74.612	100.012	125.412	150.812	176.212	201.612	227.012	252.412
61/64"	0.953125"	24.209	49.609	75.009	100.409	125.809	151.209	176.609	202.009	227.409	252.809
31/32"	0.96875"	24.606	50.006	75.406	100.806	126.206	151.606	177.006	202.406	227.806	253.206
63/64"	0.984375"	25.003	50.403	75.803	101.203	126.603	152.003	177.403	202.803	228.203	253.603

34. Chemical Component table of work materials

The name of work materials and material Symbols			Chemical Composition (%)							
			C	Si	Mn	P	S	Ni	Cr	Mo
Carbon steels for machine structural use	Low carbon steels	S10C	0.08～0.13	0.15～0.35	0.30～0.60	0.030≧	0.035≧	–	–	–
		S15C	0.13～0.18	0.15～0.35	0.30～0.60	0.030≧	0.035≧	–	–	–
		S20C	0.18～0.23	0.15～0.35	0.30～0.60	0.030≧	0.035≧	–	–	–
	Medium carbon steels	S25C	0.22～0.28	0.15～0.35	0.30～0.60	0.030≧	0.035≧	–	–	–
		S35C	0.32～0.38	0.15～0.35	0.60～0.90	0.030≧	0.035≧	–	–	–
		S45C	0.42～0.48	0.15～0.35	0.60～0.90	0.030≧	0.035≧	–	–	–
	High carbon steels	S48C	0.45～0.51	0.15～0.35	0.60～0.90	0.030≧	0.035≧	–	–	–
		S55C	0.52～0.58	0.15～0.35	0.60～0.90	0.030≧	0.035≧	–	–	–
		S58C	0.55～0.61	0.15～0.35	0.60～0.90	0.030≧	0.035≧	–	–	–
Alloy steels for machine structural use	Chromium Molybdenum Steels	SCM415	0.13～0.18	0.15～0.35	0.60～0.90	0.030≧	0.030≧	0.25≧	0.90～1.20	0.15～0.25
		SCM418	0.16～0.21	0.15～0.35	0.60～0.90	0.030≧	0.030≧	0.25≧	0.90～1.20	0.15～0.25
		SCM420	0.18～0.23	0.15～0.35	0.60～0.90	0.030≧	0.030≧	0.25≧	0.90～1.20	0.15～0.25
		SCM430	0.28～0.33	0.15～0.35	0.60～0.90	0.030≧	0.030≧	0.25≧	0.90～1.20	0.15～0.30
		SCM435	0.33～0.38	0.15～0.35	0.60～0.90	0.030≧	0.030≧	0.25≧	0.90～1.20	0.15～0.30
		SCM440	0.38～0.43	0.15～0.35	0.60～0.90	0.030≧	0.030≧	0.25≧	0.90～1.20	0.15～0.30
		SCM445	0.43～0.48	0.15～0.35	0.60～0.90	0.030≧	0.030≧	0.25≧	0.90～1.20	0.15～0.30
	Nickel Chromium Steels	SNC236	0.32～0.40	0.15～0.35	0.50～0.90	0.030≧	0.030≧	1.00～1.50	0.50～0.90	–
		SNC415	0.12～0.18	0.15～0.35	0.35～0.65	0.030≧	0.030≧	2.00～2.50	0.20～0.50	–
		SNC631	0.27～0.35	0.15～0.35	0.35～0.65	0.030≧	0.030≧	2.50～3.00	0.60～1.00	–
		SNC815	0.12～0.18	0.15～0.35	0.35～0.65	0.030≧	0.030≧	3.00～3.50	0.60～1.00	–
	Chromium Steels	SCr415	0.13～0.18	0.15～0.35	0.60～0.90	0.030≧	0.030≧	0.25≧	0.90～1.20	–
		SCr420	0.18～0.23	0.15～0.35	0.60～0.90	0.030≧	0.030≧	0.25≧	0.90～1.20	–
		SCr430	0.28～0.33	0.15～0.35	0.60～0.90	0.030≧	0.030≧	0.25≧	0.90～1.20	–
		SCr440	0.38～0.43	0.15～0.35	0.60～0.90	0.030≧	0.030≧	0.25≧	0.90～1.20	–
	Nickel Chromium Molybdenum Steels	SNCM220	0.17～0.23	0.15～0.35	0.60～0.90	0.030≧	0.030≧	0.40～0.70	0.40～0.60	0.15～0.25
		SNCM240	0.38～0.43	0.15～0.35	0.70～1.00	0.030≧	0.030≧	0.40～0.70	0.40～0.60	0.15～0.30
		SNCM420	0.17～0.23	0.15～0.35	0.40～0.70	0.030≧	0.030≧	1.60～2.00	0.40～0.60	0.15～0.30
		SNCM439	0.36～0.43	0.15～0.35	0.60～0.90	0.030≧	0.030≧	1.60～2.00	0.60～1.00	0.15～0.30

Chemical Composition (%)					Mechanical Property of Standard test block		
					Tensile strength (N/mm^2)	Hardness	Heat treatment of standard test block
W	V	Pb	Cu	others			
–	–	–	–	–	314≦	109～156 HB	900～950℃ normalizing
–	–	–	–	–	373≦	111～167 HB	880～930℃ normalizing
–	–	–	–	–	402≦	116～174 HB	870～920℃ normalizing
–	–	–	–	–	441≦	123～183 HB	860～910℃ normalizing
–	–	–	–	–	510≦	149～207 HB	840～890℃ normalizing
					569≦	167～235 HB	840～890℃ water hardening・550～650℃ air hardening
–	–	–	–	–	569≦	167～229 HB	820～870℃ normalizing
					686≦	201～269 HB	820～870℃ water hardening・550～650℃ air hardening
–	–	–	–	–	608≦	179～235 HB	810～860℃ normalizing
					735≦	212～277 HB	810～860℃ water hardening・550～650℃ air hardening
–	–	–	–	–	647≦	183～255 HB	800～850℃ normalizing
					785≦	229～285 HB	800～850℃ water hardening・550～650℃ air hardening
–	–	–	–	–	647≦	183～255 HB	800～850℃ normalizing
					785≦	229～285 HB	800～850℃ water hardening・550～650℃ air hardening
–	–	–	–	–	834≦	235～321 HB	850～900℃ Oil hardening 800～850℃ Oil hardening 150～200℃ tempering
–	–	–	–	–	883≦	248～331 HB	
–	–	–	–	–	932≦	262～352 HB	
–	–	–	–	–	834≦	241～302 HB	830～880℃ Oil hardening 530～630℃ air hardening
–	–	–	–	–	932≦	269～331 HB	
–	–	–	–	–	980.7≦	285～352 HB	
–	–	–	–	–	1030≦	302～363 HB	
–	–	–	–	–	736≦	217～277 HB	820～880℃ Oil hardening・550～650℃ air hardening 150～200℃ tempering
–	–	–	–	–	785≦	235～341 HB	850～900℃ Oil hardening 740～790℃ Water hardening 150～200℃ tempering
–	–	–	–	–	834≦	248～302 HB	820～880℃ Oil hardening・550～650℃ air hardening
–	–	–	–	–	980.7≦	285～388 HB	830～880℃ Oil hardening 750～800℃ Oil hardening 150～200℃ tempering
–	–	–	–	–	785≦	217～302 HB	850～900℃ Oil hardening 800～850℃ Oil hardening 150～200℃ tempering
–	–	–	–	–	834≦	235～321 HB	
–	–	–	–	–	785≦	229～293 HB	830～880℃ Oil hardening 520～620℃ air hardening
–	–	–	–	–	932≦	269～331 HB	
–	–	–	–	–	834≦	248～341 HB	850～900℃ Oil hardening 800～850℃ Oil hardening 150～200℃ tempering
–	–	–	–	–	883≦	255～311 HB	820～870℃ Oil hardening・580～680℃ air hardening
–	–	–	–	–	980.7≦	293～375 HB	850～900℃ Oil hardening 770～820℃ Oil hardening 150～200℃ tempering
–	–	–	–	–	980.7≦	293～352 HB	820～870℃ Oil hardening・580～680℃ air hardening

34. Chemical Component table of work materials

The name of work materials and material Symbols			Chemical Composition (%)							
			C	Si	Mn	P	S	Ni	Cr	Mo
Alloy steels for machine structural use	Nickel Chromium Molybdenum Steels	SNCM625	0.20～0.30	0.15～0.35	0.35～0.60	0.030≧	0.030≧	3.00～ 3.50	1.00～ 1.50	0.15～0.30
		SNCM630	0.25～0.35	0.15～0.35	0.35～0.60	0.030≧	0.030≧	2.50～ 3.50	2.50～ 3.50	0.50～0.70
		SNCM815	0.12～0.18	0.15～0.35	0.30～0.60	0.030≧	0.030≧	4.00～ 4.50	0.70～ 1.00	0.15～0.30
Tool steels	Chromium Tool steels	SK2	1.15～1.25	0.10～0.35	0.10～0.50	0.030≧	0.030≧	–	–	–
		SK4	0.90～1.00	0.10～0.35	0.10～0.50	0.030≧	0.030≧	–	–	–
		SK6	0.70～0.80	0.10～0.35	0.10～0.50	0.030≧	0.030≧	–	–	–
	Alloys Tool steels	SKS11	1.20～1.30	0.35≧	0.50≧	0.030≧	0.030≧	–	0.20～ 0.50	–
		SKS51	0.75～0.85	0.35≧	0.50≧	0.030≧	0.030≧	1.30～ 2.00	0.20～ 0.50	–
		SKS4	0.45～0.55	0.35≧	0.50≧	0.030≧	0.030≧	–	0.50～ 1.00	–
		SKS3	0.90～1.00	0.35≧	0.90～1.20	0.030≧	0.030≧	–	0.50～ 1.00	–
		SKS94	0.90～1.00	0.50≧	0.80～1.10	0.030≧	0.030≧	–	0.20～ 0.60	–
		SKD11	1.40～1.60	0.40≧	0.60≧	0.030≧	0.030≧	–	11.00～13.00	0.80～1.20
		SKD61	0.35～0.42	0.80～1.20	0.25～0.50	0.030≧	0.020≧	–	4.80～ 5.50	1.00～1.50
		SKT3	0.50～0.60	0.35≧	0.60～1.00	0.030≧	0.020≧	0.25～ 0.60	0.90～ 1.20	0.30～0.50
		SKT4	0.50～0.60	0.10～0.40	0.60～0.90	0.030≧	0.020≧	1.50～ 1.80	0.80～ 1.20	0.35～0.55
Stainless steels	Austenite type	SUS301	0.15≧	1.00≧	2.00≧	0.045≧	0.030≧	6.00～ 8.00	16.00～18.00	–
		SUS303	0.15≧	1.00≧	2.00≧	0.20≧	0.15≦	8.00～10.00	17.00～19.00	–
		SUS304	0.08≧	1.00≧	2.00≧	0.045≧	0.030≧	8.00～10.50	18.00～20.00	–
		SUS316	0.08≧	1.00≧	2.00≧	0.045≧	0.030≧	10.00～14.00	16.00～18.00	2.00～3.00
	Martensite type	SUS403	0.15≧	0.50≧	1.00≧	0.040≧	0.030≧	–	11.50～13.00	–
		SUS416	0.15≧	1.00≧	1.25≧	0.060≧	0.15≦	–	12.00～14.00	–
		SUS420J2	0.26～0.40	1.00≧	1.00≧	0.040≧	0.030≧	–	12.00～14.00	–
		SUS440C	0.95～1.20	1.00≧	1.00≧	0.040≧	0.030≧	–	16.00～18.00	–
	Ferrite type	SUS430	0.12≧	0.75≧	1.00≧	0.040≧	0.030≧	–	16.00～18.00	–
	Precipitation hardening	SUS630	0.07≧	1.00≧	1.00≧	0.040≧	0.030≧	3.00～ 5.00	15.00～17.50	–
Cast steels	Carbon steels Cast steels	SC360	0.20≧	–	–	0.040≧	0.040≧	–	–	–
		SC410	0.30≧	–	–	0.040≧	0.040≧	–	–	–
		SC450	0.35≧	–	–	0.040≧	0.040≧	–	–	–
		SC480	0.40≧	–	–	0.040≧	0.040≧	–	–	–
	Stainless steels casting	SCS13	0.08≧	2.00≧	2.00≧	0.040≧	0.040≧	8.00～11.00	18.00～21.00	–
		SCS14	0.08≧	2.00≧	2.00≧	0.040≧	0.040≧	10.00～14.00	17.00～20.00	2.00～3.00
	Steel casting for high temperature and high pressure	SCPH1	0.25≧	0.60≧	0.70≧	0.040≧	0.040≧	–	–	–
		SCPH2	0.30≧	0.60≧	1.00≧	0.040≧	0.040≧	–	–	–
		SCPH21	0.20≧	0.60≧	0.50～0.80	0.040≧	0.040≧	–	1.00～ 1.50	0.45～0.65
		SCPH32	0.20≧	0.60≧	0.50～0.80	0.040≧	0.040≧	–	2.00～ 2.75	0.90～1.20
	Steel casting for welded structure	SCW480	0.22≧	0.80≧	1.50≧	0.040≧	0.040≧	0.50≧	0.50≧	–

Chemical Composition (%)					Mechanical Property of Standard test block		
					Tensile strength (N/mm^2)	Hardness	Heat treatment of standard test block
W	V	Pb	Cu	others			
–	–	–	–	–	932≦	269～321 HB	820～870℃ oil hardening・570～670℃ air hardening
–	–	–	–	–	1079≦	302～352 HB	850～950℃ normalizing・550～650℃ air hardening
–	–	–	–	–	1079≦	311～375 HB	830～880℃ Oil hardening 750～800℃ Oil hardening 150～200℃ tempering
–	–	–	–	–	–	212 HB≦	750～780℃ annealing
–	–	–	–	–	–	207 HB≦	740～760℃ annealing
–	–	–	–	–	–	201 HB≦	730～760℃ annealing
3.00～4.00	0.10～0.30	–	–	–	–	241 HB≦	780～850℃ annealing
–	–	–	–	–	–	207 HB≦	750～800℃ annealing
0.50～1.00	–	–	–	–	–	201 HB≦	740～780℃ annealing
0.50～1.00	–	–	–	–	–	217 HB≦	750～800℃ annealing
–	–	–	–	–	–	212 HB≦	740～760℃ annealing
–	0.20～0.50	–	–	–	–	255 HB≦	830～880℃ annealing
–	0.80～1.15	–	–	–	–	229 HB≦	820～870℃ annealing
–	–	–	–	–	–	235 HB≦	760～810℃ annealing
–	0.05～0.15	–	–	–	–	241 HB≦	740～800℃ annealing
–	–	–	–	–	520≦	187 HB≦	1010～1150℃ solution treatment
–	–	–	–	–	520≦	187 HB≦	
–	–	–	–	–	520≦	187 HB≦	
–	–	–	–	–	520≦	187 HB≦	
–	–	–	–	–	–	200 HB≦	800～900℃ annealing
–	–	–	–	–	–	200 HB≦	
–	–	–	–	–	–	235 HB≦	
–	–	–	–	–	–	269 HB≦	800～920℃ annealing
–	–	–	–	–	451≦	183 HB≦	780～850℃ normalizing
–	–	–	3.00～5.00	Nb0.15～0.45	–	363 HB≦	1020～1060℃ solution treatment
–	–	–	–	–	363≦	–	annealing, normalizing, or normalizing, tempering
–	–	–	–	–	412≦	–	
–	–	–	–	–	451≦	–	
–	–	–	–	–	481≦	–	
–	–	–	–	–	440≦	183 HB≦	1030～1150℃ solution treatment
–	–	–	–	–	480≦	183 HB≦	
–	–	–	–	–	412≦	–	annealing, normalizing, or normalizing, tempering
–	–	–	–	–	481≦	–	
–	–	–	–	–	481≦	–	
–	–	–	–	–	481≦	–	
–	–	–	–	–	480≦	–	

34. Chemical Component table of work materials

The name of work materials and material Symbols			Chemical Composition (%)							
			C	Si	Mn	P	S	Ni	Cr	Mo
Cast irons	Gray iron castings	FC150	—	—	—	—	—	—	—	—
		FC200	—	—	—	—	—	—	—	—
		FC250	—	—	—	—	—	—	—	—
		FC300	—	—	—	—	—	—	—	—
		FC350	—	—	—	—	—	—	—	—
Tough cast irons Ductile cast irons	Spheroidal graphite Cast irons	FCD400	2.5≧	—	—	—	0.02≧	—	—	—
		FCD450	2.5≧	—	—	—	0.02≧	—	—	—
		FCD500	2.5≧	—	—	—	0.02≧	—	—	—
		FCD600	2.5≧	—	—	—	0.02≧	—	—	—
		FCD700	2.5≧	—	—	—	0.02≧	—	—	—
High carbon chromium bearing steels		SUJ2	0.95～1.10	0.15～0.35	0.50≧	0.025≧	0.025≧	—	1.30～1.60	—
		SUJ3	0.95～1.10	0.40～0.70	0.90～1.15	0.025≧	0.025≧	—	0.90～1.20	—
		SUJ4	0.95～1.10	0.15～0.35	0.50≧	0.025≧	0.025≧	—	1.30～1.60	0.10～0.25
		SUJ5	0.95～1.10	0.40～0.70	0.90～1.15	0.025≧	0.025≧	—	0.90～1.20	0.10～0.25
Free cutting carbon steels		SUM22	0.13≧	—	0.70～1.00	0.07～0.12	0.24～0.33	—	—	—
		SUM22L	0.13≧	—	0.70～1.00	0.07～0.12	0.24～0.33	—	—	—
		SUM31	0.14～0.20	—	1.00～1.30	0.040≧	0.08～0.13	—	—	—
		SUM31L	0.14～0.20	—	1.00～1.30	0.040≧	0.08～0.13	—	—	—
		SUM42	0.37～0.45	—	1.35～1.65	0.040≧	0.08～0.13	—	—	—
Rolled steels for general structure		SS330	—	—	—	0.050≧	0.050≧	—	—	—
		SS400	—	—	—	0.050≧	0.050≧	—	—	—
		SS490	—	—	—	0.050≧	0.050≧	—	—	—
		SS540	0.30≧	—	1.60≧	0.040≧	0.040≧	—	—	—
Cold-reduced carbon steel sheets		SPCC	0.15≧	—	0.60≧	0.100≧	0.035≧	—	—	—
		SPCD	0.10≧	—	0.50≧	0.040≧	0.035≧	—	—	—
		SPCE	0.08≧	—	0.45≧	0.030≧	0.030≧	—	—	—

Chemical Composition (%)					Mechanical Property of Standard test block		
					Tensile strength (N/mm^2)	Hardness	Heat treatment of standard test block
W	V	Pb	Cu	others			
–	–	–	–	–	127～186	210～241 HB	–
–	–	–	–	–	167～235	217～255 HB	
–	–	–	–	–	216～275	229～269 HB	
–	–	–	–	–	265～304	248～269 HB	
–	–	–	–	–	314～343	269～277 HB	
–	–	–	–	–	392≦	201 HB ≧	–
–	–	–	–	–	441≦	143～217 HB	
–	–	–	–	–	490≦	170～241 HB	
–	–	–	–	–	588≦	192～269 HB	
–	–	–	–	–	686≦	229～302 HB	
–	–	–	–	–	–	201 HB ≧	Spheroidizing
–	–	–	–	–	–	207 HB ≧	
–	–	–	–	–	–	201 HB ≧	
–	–	–	–	–	–	207 HB ≧	
–	–	–	–	–	–	–	–
–	–	0.10～0.35	–	–			
–	–	–	–	–			
–	–	0.10～0.35	–	–			
–	–	–	–	–			
–	–	–	–	–	330～430	–	–
–	–	–	–	–	400～510		
–	–	–	–	–	490～610		
–	–	–	–	–	540≦		
–	–	–	–	–	270≦	65 HRB ≧	Standard thermal refining
–	–	–	–	–			
–	–	–	–	–			

34. Chemical Component table of work materials

The name of work materials and material Symbols			Chemical Composition (%)									
			Cu	Pb	Fe	Sn	Zn	Al	Mn	Ni	P	Si
Copper	Oxygen free high conductivity copper	C1020	99.96≦	—	—	—	—	—	—	—	—	—
	tough pitch copper	C1100	99.90≦	—	—	—	—	—	—	—	—	—
	Phosphorus deoxidized copper	C1201	99.90≦	—	—	—	—	—	—	—	0.004～0.015	—
		C1221	99.75≦	—	—	—	—	—	—	—	0.004～0.040	—
Brass	Brass	C2600	68.5～71.5	0.05≧	0.05≧	—	remaining	—	—	—	—	—
		C2720	62.0～64.0	0.05≧	0.05≧	—	remaining	—	—	—	—	—
		C2801	59.0～62.0	0.10≧	0.07≧	—	remaining	—	—	—	—	—
	Free cutting brass	C3560	61.0～64.0	2.0～3.0	0.10≧	—	remaining	—	—	—	—	—
		C3713	58.0～62.0	1.0～2.0	0.10≧	—	remaining	—	—	—	—	—
Bras s casting		CAC201	83.0～88.0	0.5≧	0.2≧	0.1≧	11.0～17.0	0.2≧	—	0.2≧	—	—
		CAC203	58.0～64.0	0.5～3.0	0.8≧	1.0≧	30.0～41.0	0.5≧	—	1.0≧	—	—
Bronze casting		CAC401	79.0～83.0	3.0～7.0	0.35≧	2.0～4.0	8.0～12.0	—	—	1.0≧	—	—
		CAC403	86.5～89.5	1.0≧	0.2≧	9.0～11.0	1.0～3.0	—	—	1.0≧	—	—
		CAC406	83.0～87.0	4.0～6.0	0.3≧	4.0～6.0	4.0～6.0	—	—	1.0≧	—	—
Aluminum alloy	Aluminum rolling material	A1080	0.03≧	—	0.15≧	—	0.03≧	99.80≦	0.02≧	—	—	0.15≧
		A1080-H16										
		A2017	3.5～4.5	—	0.7≧	—	0.25≧	remaining	0.40～1.0	—	—	0.20～0.8
		A2017-T3										
		A3003	0.05～0.20	—	0.7≧	—	0.10≧	remaining	1.0～1.5	—	—	0.6≧
		A3003-H16										
		A5052	0.10≧	—	0.4≧	—	0.10≧	remaining	0.10≧	—	—	0.25≧
		A5052-H16										
		A6061	0.15～0.40	—	0.7≧	—	0.25≧	remaining	0.15≧	—	—	0.40～0.8
		A6061-T6										
		A7075	1.2～2.0	—	0.50≧	—	5.1～6.1	remaining	0.30≧	—	—	0.40≧
		A7075-T6										
	Aluminum alloy casting	AC2A-F	3.0～4.5	0.15≧	0.8≧	0.05≧	0.55≧	remaining	0.55≧	0.30≧	—	4.0～6.0
		AC2A-T6										
		AC2B-F	2.0～4.0	0.20≧	1.0≧	0.10≧	1.0≧	remaining	0.50≧	0.35≧	—	5.0～7.0
		AC2B-T6										
		AC4B-F	2.0～4.0	0.20≧	1.0≧	0.10≧	1.0≧	remaining	0.50≧	0.35≧	—	7.0～10.0
		AC4B-T6										
		AC4C-F	0.20≧	0.05≧	0.50≧	0.05≧	0.30≧	remaining	0.60≧	0.05≧	—	6.5～7.5
		AC4C-T6										
	Aluminum alloy diecasting	ADC10	2.0～4.0	0.2≧	1.3≧	0.2≧	1.0≧	remaining	0.5≧	0.5≧	—	7.5～9.5
		ADC12	1.5～3.5	0.2≧	1.3≧	0.2≧	1.0≧	remaining	0.5≧	0.5≧	—	9.6～12.0

Chemical Composition (%)							Mechanical Property of Standard test block		
Mg	Cr	Ti	Zr	Zr+Ti,V,Zr	Cd	others	Tensile strength (N/mm²)	Hardness	Heat treatment of standard test block
–	–	–	–	–	–	–	215～275	55～100 HV	C1020P-¼H
–	–	–	–	–	–	–	215～275	55～100 HV	C1100P-¼H
–	–	–	–	–	–	–	215～275	55～100 HV	C1201P-¼H
–	–	–	–	–	–	–	215～275	55～100 HV	C1221P-¼H
–	–	–	–	–	–	–	325～410	75～125 HV	C2600P-¼H
–	–	–	–	–	–	–	325～410	75～125 HV	C2720P-¼H
–	–	–	–	–	–	–	355～440	85～145 HV	C2801P-¼H
–	–	–	–	–	–	–	345～430	–	C3560P-¼H
–	–	–	–	–	–	–	375～460	–	C3713P-¼H
–	–	–	–	–	–	–	147≦	–	–
–	–	–	–	–	–	–	245≦	–	
–	–	–	–	–	–	impurity 2.0≧	167≦	–	–
–	–	–	–	–	–	impurity 1.0≧	245≦	–	
–	–	–	–	–	–	impurity 2.0≧	196≦	–	
0.02≧	–	0.03≧	–	–	–	–	54～94	–	annealing
							98～137	–	thermal refining
0.40～0.8	0.10≧	0.15≧	–	–	–	0.15≧	216≧	–	annealing
							373≦	–	–
–	–	–	–	–	–	0.15≧	94～127	–	annealing
							167～206	–	thermal refining
2.2～2.8	0.15～0.35	–	–	–	–	0.15≧	177～216	–	annealing
							255～304	–	thermal refining
0.8～1.2	0.04～0.35	0.15≧	–	–	–	0.15≧	147≧	–	annealing
							294≦	–	–
2.1～2.9	0.18～0.28	0.20≧	–	–	–	0.15≧	275≧	–	annealing
							530≦	–	–
0.25≧	0.15≧	0.20≧	–	–	–	–	186≦	about 75 HB	casted
							275≦	about 90 HB	–
0.50≧	0.20≧	0.20≧	–	–	–	–	157≦	about 70 HB	casted
							245≦	about 90 HB	–
0.50≧	0.20≧	0.20≧	–	–	–	–	177≦	about 80 HB	casted
							245≦	about 100 HB	–
0.2～0.4	–	0.20≧	–	–	–	–	157≦	about 55 HB	casted
							226≦	about 85 HB	–
0.3≧	–	0.3≧	–	–	–	–	–	–	–
0.3≧	–	0.3≧	–	–	–	–			

34. Chemical Component table of work materials

The name of work materials and material Symbols			Chemical Composition (%)									
			Cu	Pb	Fe	Sn	Zn	Al	Mn	Ni	P	Si
Magnesium alloy Casting	Magnesium alloy	MC1-F	0.10≧	—	—	—	2.5～3.5	5.3～6.7	0.15～0.6	0.01≧	—	0.30≧
		MC1-T6	—	—	—	—	—	—	—	—	—	—
		MC3-F	0.10≧	—	—	—	1.6～2.4	8.3～9.7	0.10～0.5	0.01≧	—	0.30≧
		MC3-T6	—	—	—	—	—	—	—	—	—	—
		MC6-T5	0.10≧	—	—	—	3.6～5.5	—	—	0.01≧	—	—
	Magnesium alloy diecasting	MDC1A	0.10≧	—	—	—	0.35～1.0	8.3～9.7	0.15≦	0.03≧	—	0.50≧
		MDC1B	0.35≧	—	0.03≧	—	0.35～1.0	8.3～9.7	0.13～0.5	0.03≧	—	0.50≧
Zinc alloy	Zinc alloy diecasting	ZDC1	0.75～1.25	0.005≧	0.10≧	0.003≧	Remaining	3.5～4.3	—	—	—	—
		ZDC2	0.25≧	0.005≧	0.10≧	0.003≧	Remaining	3.5～4.3	—	—	—	—

■Category and brevity code of thermoplastic resin

Name	Symbol
ASB resin	ABS
Acetal resin	POM
Methacrylic resin	PMMA
Acetyl cellulose	CA
Tetrafluoride ethylene resin	PTFE
Trifluoride ethylene resin	PCTEF
Hexafluoride ethylene resin	PFEP
Fluoride vinyl resin	PVF
Fluoride vinylidene resin	PVDF
Ethylene tetrafluoride ethylene copolymer	ETFE
Ionomer	IO
Methyl Benzene polymer	MPP
Nylon (Polyamide)	PA
Polycarbonate	PC
Polyethylene	PE

Name	Symbol
Polyethylene terephthalate	PETP
Polyethylene terephthalate	PBTP
Polyimide	PI
Polyphenylene oxide	PPO
Polyphenylene sulfide	PPS
Polyarylsulfone	PASF
Polyarylate	PAR
Polypropylene	PP
Polystyrene	PS
Polysulfone	PSF
Vinyl acetate resin	PVAC
Vinylidene chloride fiber	PVDC
AS resin	SAN
Vinyl chloride resin	PVC

· Thermoplastic resin : As temperature rises, this resin becomes soft → gammy → fluidity liquid. For example, polystyrene (PS) is like glass at normal temperature. From 80℃ and higher its elastic modules decreases, from 110℃ it becomes gammy, and higher than 170℃, it becomes sticky paste.

Chemical Composition (%)							Mechanical Property of Standard test block		
Mg	Cr	Ti	Zr	Zr+Ti,V,Zr	Cd	Others	Tensile strength (N/mm^2)	Hardness	Heat treatment of standard test block
remaining	–	–	–	–	–	–	177≦	–	Casted
–	–	–	–	–	–	–	235≦		–
remaining	–	–	–	–	–	–	157≦		Casted
–	–	–	–	–	–	–	235≦		–
remaining	–	–	0.50～1.0	–	–	–	235≦		–
remaining	–	–	–	–	–	–	–	–	–
remaining	–	–	–	–	–	–			
0.020～0.06	–	–	–	–	0.004≧	–	–	–	–
0.020～0.06	–	–	–	–	0.004≧	–			

■Kinds of thermosetting plastics and symbols

Name	Symbol
Alkyd resin	Alk
Allyl resin	DAP
Urea resin	UF
Melamine resin	MF
Epoxy resin	EP

Name	Symbol
Phenol resin	PF
Unsaturated polyester resin	UP
Silicone resin	SI
Polyurethane	PUR

・Thermosetting resin : Heated at 80 °C, it becomes sticky paste with fluidity. Then it is injected into the mold under pressure. Once hardened, the plastics does not get soft owing to polymer processing.

35. Materials used for Cutting Tools

■Materials

We have been seeking the best materials used for cutting tools since the company establishment because the performance of tools are depending on the selection of materials used. Major materials used in our company are listed below.

(1) Taps	● HSS :	Equivalent to SKH58, SKH51, SKH56 Powder HSS (SKH10, High Vanadium High cobalt material)
	● Carbide :	Cemented Carbide Materials of ultra micro grain
(2) Dies	● HSS :	SKH51, SKH56
	● Alloy Tool Steel :	SKS2, SKS21, SKS3, SKS31
(3) Center Drills and Centering Tools	● HSS :	SKH51, SKH56 Powder HSS (SKH10, High Vanadium High cobalt material)
	● Carbide :	Cemented Carbide Materials of ultra micro grain

※For product's improvement, material may be changed without notice.

■Circumstance of tools' materials

Tensile strength, heat resistance, corrosion resistance and accuracy are the important features required of tool’ s materials. These requirements have been changing due to miniaturization and lightening of parts.

And manufacturing methods, as well, have been changing because of necessity of economical efficiency such as saving process/cycle time while parts become hard-to-machine type and their hardness increases.

As a result, the demand of industrial tools by users has become very tough.

For example, higher wear resistance and chipping resistance are required in the area of hardness, and heavy cutting process or high-speed cutting are required in the area of cycle time.

Moreover, product accuracy with its rigidity, laborsaving brought by uniformity, and systematic reliability are highly required.

Therefore, technological improvement of tool steels never stops developing so that they satisfy users needs.

○The major materials used for taps are already listed in the chart, but those materials are ready to develop from conventional alloy tool steels and current high speed steel into next generation materials such as cemented carbide and cermet materials.

New materials are developed even in high-speed tool steel area, such as SKH51 and SKH58 from SKH2, and they are moving into high performance materials, such as high vanadium, cobalt, and powder HSS made of high vanadium and high cobalt contents.

○For materials of round dies, instead of conventional alloy tool steel, high-speed tool steel is increasingly used to meet the need for high-precision processing and hard-to-machine material processing.

○For materials of center drills and centering tools, SKH51, a type of high-speed tool steel, is normally used. For applications requiring even higher speed, higher accuracy, and longer life, HSS-Co and cemented carbide are used.

We keep on seeking to develop our technology to meet user's needs and are trying to find the best materials in collaboration with steel manufacturers.

■Chemical composition of the materials specified in JIS

Classification	Symbols	Chemical composition									
		C	Si	Mn	P	S	Cr	Mo	W	V	Co
W type HSS	SKH 2	0.73～0.83	≦0.45	≦0.4	≦0.030	≦0.030	3.80～4.50	—	17.20～18.70	1.00～1.20	—
	SKH 3	0.73～0.83	≦0.45	≦0.4	≦0.030	≦0.030	3.80～4.50	—	17.00～19.00	0.80～1.20	4.50～ 5.50
	SKH 4	0.73～0.83	≦0.45	≦0.4	≦0.030	≦0.030	3.80～4.50	—	17.00～19.00	1.00～1.50	9.00～11.00
	SKH10	1.45～1.60	≦0.45	≦0.4	≦0.030	≦0.030	3.80～4.50	—	11.50～13.50	4.20～5.20	4.20～ 5.20
Mo type HSS	SKH51	0.80～0.88	≦0.45	≦0.4	≦0.030	≦0.030	3.80～4.50	4.70～ 5.20	5.90～ 6.70	1.70～2.10	—
	SKH52	1.00～1.10	≦0.45	≦0.4	≦0.030	≦0.030	3.80～4.50	5.50～ 6.50	5.90～ 6.70	2.30～2.80	—
	SKH53	1.15～1.25	≦0.45	≦0.4	≦0.030	≦0.030	3.80～4.50	4.70～ 5.20	5.90～ 6.70	2.70～3.20	—
	SKH54	1.25～1.40	≦0.45	≦0.4	≦0.030	≦0.030	3.80～4.50	4.20～ 5.00	5.20～ 6.00	3.70～4.20	—
	SKH55	0.87～0.95	≦0.45	≦0.4	≦0.030	≦0.030	3.80～4.50	4.70～ 5.20	5.90～ 6.70	1.70～2.10	4.50～ 5.00
	SKH56	0.85～0.95	≦0.45	≦0.4	≦0.030	≦0.030	3.80～4.50	4.70～ 5.20	5.90～ 6.70	1.70～2.10	7.00～ 9.00
	SKH57	1.20～1.35	≦0.45	≦0.4	≦0.030	≦0.030	3.80～4.50	3.20～ 3.90	9.00～10.00	3.00～3.50	9.50～10.50
	SKH58	0.95～1.05	≦0.7	≦0.4	≦0.030	≦0.030	3.50～4.50	8.20～ 9.20	1.50～ 2.10	1.70～2.20	—
	SKH59	1.05～1.15	≦0.7	≦0.4	≦0.030	≦0.030	3.50～4.50	9.00～10.00	1.20～ 1.90	0.90～1.30	7.50～ 8.50

Classification	Symbols	Usage	Cross chart		
			AISI	VDEH	ISO
W type HSS	SKH 2	Tools for general cutting and other kinds of tools.	T 1	S18-0-1	S1 (HS18-0-1)
	SKH 3	Tools for high speed heavy cutting and other kinds of tools.	T 4	S18-1-2-5	S7 (HS18-1-1-5)
	SKH 4	Tools for cutting hard -to-machine materials and other kinds of tools.	T 5	S18-1-2-10	S6 (HS18-0-1-10)
	SKH10	Tools for cutting ultra hard-to-machine materials and other kinds of tools.	T15	—	S9 (HS12-1-5-5)
Mo type HSS	SKH51	General cutting tools from which toughness is particularly required, and other kinds of tools.	M 2	S6-5-2	S4 (HS6-5-2)
	SKH52	Tools for cutting high hardness material from which comparatively high toughness is required and other kinds of tools.	M 3-1	—	—
	SKH53		M 3-2	S6-5-3	S5 (HS6-5-3)
	SKH54	Tools for cutting ultra hard-to-machine materials and other kinds of tools.	M 4	—	—
	SKH55	High speed cutting tools from which comparatively high toughness is required and other kinds of tools.	M35	S6-5-2-5	S8 (HS6-5-2-5)
	SKH56		M36	—	—
	SKH57	Tools for cutting ultra hard-to-machine materials and other kinds of tools.	—	S10-4-3-10	S10 (HS10-4-3-10)
	SKH58	General cutting tools from which toughness is particularly required, and other kinds of tools.	M 7	S2-9-2	S2 (HS2-9-2)
	SKH59	High speed heavy cutting tools from which comparatively high toughness is required, and other kinds of tools.	M42	S2-10-1-8	S11 (HS2-9-1-8)

The standard of HSS material is specified in JIS. But there are many HSS materials which standard is not specified in JIS. Recently even the kind of HSS-P is getting wider and various. Besides, SKH10, SKH53, SKH57 and their equivalents, such Hi vanadium/hi cobalt material as contains 4-12% vanadium and 8-11% cobalt is now being manufactured. Material engineering will be developed rapidly in the future. Under such situation, there can be many cases where JIS symbols are not used, and the use of larger classification and their symbols is getting popular.

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	GYMPT∗∗0NEBC	D PT LH 50mm OD	⑩ -27
	GYMU∗∗∗DNEBC	D LH Unified Threads 50mm OD	⑩ -16
	GYMW∗∗∗DNEBC	D LH Whitworth Threads 50mm OD	⑩ -16
	GYR∗∗∗∗DNEBC	D LH Metric 63mm OD	⑩ -16
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Think threads with YAMAWA

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	TYEU∗∗∗DNEBC	D Unified Threads 20mm OD	⑩ -1
	TYEW∗∗∗DNEBC	D Whitworth Threads 20mm OD	⑩ -1
	TYF∗∗∗∗DNEBC	D Metric 125mm OD	⑩ -1
	TYG∗∗∗∗DNEBC	D Metric 25mm OD	⑩ -1
	TYGPF∗∗0NEBC	D PF 25mm OD	⑩ -28
	TYGU∗∗∗DNEBC	D Unified Threads 25mm OD	⑩ -1
	TYGW∗∗∗DNEBC	D Whitworth Threads 25mm OD	⑩ -1
	TYJ∗∗∗∗DNEBC	D Metric 38mm OD	⑩ -1
	TYJNF∗∗0NEBC	D NPTF 38mm OD	⑩ -31
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Think threads with YAMAWA

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Company Background (Company Outline)

November 1923: Founded by Jokichi Watanabe in Shibuya-ku, Tokyo.
December 1937: Company incorporated.
May 1945: Factory established in Yonezawa City in Yamagata prefecture.
January 1953: Spun off Yonezawa Factory into a separate company as YAMAWA TAP Co., Ltd.
June 1955: All products certified to Japanese Industrial Standard (JIS) categories.
October 1956: Awarded by the Department of Trade and Industry for superiority in industrial standardization.
October 1963: Awarded by the Institute of Industrial Technology for superiority in industrial standardization.
April 1964: Newly constructed Fukushima Factory began operation.
November 1973: Awarded from the Department of Trade and Industry as superiority in industrial standardization.
October 1983: Established YAMAWA ENGINEERING Co., Ltd.
December 1984: New machine tool manufacturing shop constructed inside the Fukushima Factory.
October 1986: Newly completed Aizu Factory began operation.
July 1989: Newly constructed Taiwan Factory opened.
April 1991: Spun off Fukushima Factory and Aizu Factory into a separate company, YAMAWA PRECISION Co., Ltd.
November 1995: Established TC (Total Cutting) CENTER Co., Ltd.
June 1996: YAMAWA TAP Co., Ltd. obtained ISO 9001 certification
July 2000: YAMAWA PRECISION Co., Ltd. in Aizu Factory obtained ISO 9001 certification.
October 2000 YAMAWA PRECISION Co., Ltd. in Fukushima Factory also obtained ISO 9001 certification.
August 2001: Established YAMAWA TC CENTER Co., Ltd. from TC CENTER.
October 2002: Obtained ISO14001 certification in YAMAWA PRECISION Co., Ltd. at Fukushima Factory.
December 2002: Obtained ISO14001 certification in YAMAWA PRECISION Co., Ltd. at Aizu Factory.
January 2003: Obtained ISO14001 certification in YAMAWA TAP Co., Ltd.
October 2003: Obtained ISO14001 certificaiton in YAMAWA MFG. Co., Ltd.
April 2006: Obtained ISO14001 certification in TAIWAN YAMAWA Co., Ltd.
October 2006: Spun off Export Dept. into a separate company, YAMAWA INTERNATIONAL Co., Ltd.
January 2007: Spun off Taiwan Sales Dept into a separate company, YAMAWA ASIA Co., Ltd.
May 2007: Obtained ISO14001 certification in YAMAWA ASIA Co., Ltd.
March 2008: Newly constructed Tsutsumi Factory of Yamawa Mfg began operation.
September 2008: Obtained ISO14001certification in YAMAWA ENGINEERING Co., Ltd. YAMAWA TC CENTER Co., Ltd. and YAMAWA INTERNATIONAL Co., Ltd.
June 2011: Obtained ISO14001 and ISO9001 certification in YAMAWA Tsutsumi Factory.
February 2012: Obtained ISO9001 certification in TAIWAN YAMAWA and YAMAWA ASIA
October 2012: Obtained ISO9001 certification in YAMAWA MFG. Co., Ltd.
December 2013: Newly constructed Tsutsumi No.2 Factory of YAMAWA MFG. Co., Ltd. began operation.
October 2014: YAMAWA TC Center Co., Ltd. and YAMAWA Engineering Co., Ltd. were merged into a new company "YAMAWA Engineering Service Co., Ltd."
September 2015: Established "YAMAWA EUROPE S.p.A".
December 2020: Merged YAMAWA Taps Co., Ltd. & YAMAWA Precision Co., Ltd. into YAMAWA MFG. Co., Ltd.
October 2021: Established YAMAWA HOLDINGS Co., Ltd.

ISO 9001/14001 certification



Origin of corporate name, "YA" "MA" "WA"

Mr. Jokichi Watanabe, the founder of the company, decided to use shop name "YA" "MA" "WA", which he had been using in his family business instead of using his personal name. And he gave to his company the name "YA" "MA" "WA" by employing lucky words and the same connotation "YAMAWA" from ancient Japanese characters, MANYOGANA. The meaning of YAMAWA is "Greater prosperity, More united". In this word, he puts a wish, "As the company becomes prosperous, the harmony among employees becomes more precious".

YAMAWA GROUP information

● Manufacturing sector ●● Sales base

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YAMAWA MFG. Co., Ltd.[Yonezawa plant]
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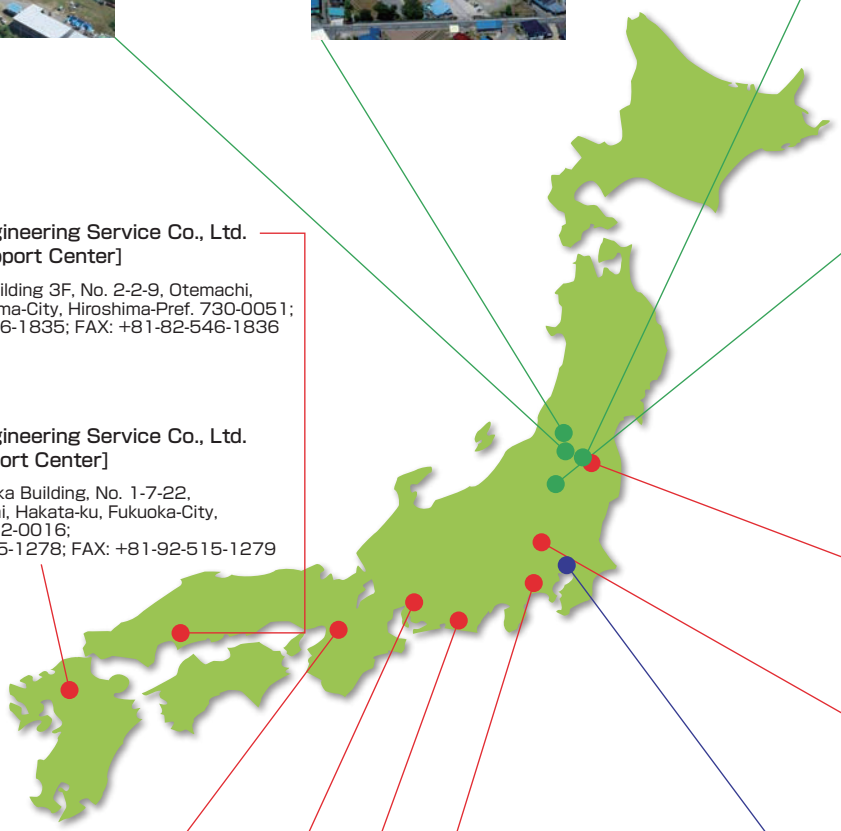

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