TWS - Retention Knobs Sockets

Features

- Fits HPS Retention Knobs on the previous page
- May not fit other manufacturers designs & styles
- Uses standard torque wrench fractional drive
- Use Machine Tool Manufacturer's recommended tightening torque

Part Number	Retention Knob Flats	Torque Wrench Drive	Socket Length	Socket Diameter
TWS-075	0.750	1/2	1.15	1.30
TWS-125	1.250	1/2	1.56	1.93
TWS-118	1.187	1/2	1.56	1.93
TWS-M13	13mm	3/8	1.40	0.98
TWS-M17	17mm	1/2	1.74	1.30
TWS-M19	19mm	1/2	1.74	1.30
TWS-M30	30mm	1/2	2.24	1.97

Retention Knob Tightening Torque

To avoid any warranty and safety issues always use the machine tool manufacturer's specifications.

Traditional locking torque for Retention Knobs are as follows:

- 30 Taper = 35-40 ft/lbs
- 40 Taper = 75-85 ft/lbs
- 50 Taper = 100-110 ft/lbs

Depending on the material, heat treat and wall thickness of the tool holder the above torque specifications can expand the tool holder taper at the small end causing uneven spindle wear and cutting tool runout. Many companies have started using a lighter torque number to reduce or eliminate the expansion. Many machine tool manufacturers do not recommend this lighter system. **Check with your machine tool manufacturer for recommending operational torque.**

Torque Wrench

Recommended settings to be 10% below maximum torque to prevent over tightening.

Note: It is recommended to calibrate the wrench to manufacturer's specifications and re-calibrate as recommended. Over torque will cause damage to the tool holder (and collet if applicable).

PITTSBURGH PRO

Part Number	Type	Drive Sq.	Torque Range
TWSQ025-W-ECO	Click & Reversible	1/4 (0.25)	20-200 in/lbs (+/- 4%)
TWSQ037-W-ECO	Click & Reversible	3/8 (0.37)	5-80 ft/lbs (+/-4%)
TWSQ050-W-ECO	Click & Reversible	1/2 (0.50)	10-150 ft/lbs (+/-4%)

NEIKO PRO

Part Number	Type	Drive Sq.	Torque Range
TWSQ025-W-NEIKO	Click & Reversible	1/4 (0.25)	20-200 in/lbs (+/- 4%)
TWSQ037-W-NEIKO	Click & Reversible	3/8 (0.37)	15-80 ft/lbs (+/-4%)
TWSQ050-W-NEIKO	Click & Reversible	1/2 (0.50)	50-250 ft/lbs (+/-4%)