## 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 <br> Number | Retention Knob <br> Flats | Torque Wrench <br> Drive | Socket <br> Length | Socket <br> 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 | 13 mm | $3 / 8$ | 1.40 | 0.98 |
| TWS-M17 | 17 mm | $1 / 2$ | 1.74 | 1.30 |
| TWS-M19 | 19 mm | $1 / 2$ | 1.74 | 1.30 |
| TWS-M30 | 30 mm | $1 / 2$ | 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 $=35-40 \mathrm{ft} / \mathrm{lbs}$
- 40 Taper $=75-85 \mathrm{ft} / \mathrm{lbs}$
- 50 Taper $=100-110 \mathrm{ft} / \mathrm{lbs}$


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.

