



## Why Make The Investment?

We can give you plenty of reasons.

- J&M Machine, with the support of Mitutoyo American Corporation, conducted tests using the leading brands of retention knobs in the leading brands of v-flange tool holders.
- These tests have proven that these wear marks are a result of the expansion of the tool holder shank due to the installation of the standard retention knob.
- The pressure exerted by the 60 degree angle of the threads of the standard retention knob results in growth in diameter of the small end of the tool holder shank.
- Testing performed by J&M Machine has proven that tool holders should be checked for expansion prior to their installation in the machines.
- Use of the Test Fixture guarantees that holders seat properly in the spindle when tool holders are changed.
- Proper seating eliminates the fretting of a second angle at the gage line of the tool holder by eliminating movement caused by cutting force pressure.
- This increases tool life by reducing tool run-out and uneven chip load resulting in better finishes, increased feed rates and closer tolerances.
- Run-out and vibration that can break the fine razor edge on carbide tools prematurely is virtually eliminated.
- Balance of high speed tools after installation of the retention knob is maintained, which in turn, reduces tool life variance from one tool to another in the same cutting operation.

*Set Your Course For Quality*





# J&M MACHINE, INC.

Since 1965



- Longer tool life, less breakage, improved feed rates, and reduced down-times for machine and spindle maintenance, which all add up to more money to the bottom line.
- J&M Machine responded by developing a new, patent pending High Torque retention knob design that produces the **ONLY BALANCED RETENTION KNOB AVAILABLE ON THE MARKET.**
- High Torque retention knobs can be tightened to the same torque levels as standard retention knobs but with two to ten times **LESS** toolholder distortion.
- ANSI retention knob designs include a pilot which greatly reduces the chance of breakage.
- Made in the USA of hot rolled 8620H material and black oxidized to guard against rust, these retention knobs provide improved durability, extended life and reduced cracking potential.
- J&M retention knobs are lasered with easy to read markings so choosing the wrong knob isn't an issue.
- Installation of these high Torque retention knobs using J&M manufactured sockets
- Will yield longer tool life, less breakage, consistent feed rates, and reduced down-times for machine and spindle maintenance which all add up to more money to the bottom line.

**Order by phone or write us at [sales@jmmachineinc.com](mailto:sales@jmmachineinc.com).** To order, simply use the part number from your present knob, and we'll cross match it with the high torque knob. Visit us online at <http://www.jmmachineinc.com>.

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