



Standard retention knobs cause the toolholder shank to expand at the small end, and once installed, could be outside AT3 specifications. By using this Test Fixture along with threaded test masters, it can be determined what toolholders meet or exceed specifications.

When toolholders are distorted, the large end is free to move from side to side in the spindle while cutting. The affects of this movement are:

- Toolholder run-out
- Vibration
- Breakage of tool razor edges

Why is this important?

- Proper seating of holders in the spindles
- Reduces toolholder movement while cutting
- Increases tool life
- Ensures better finishes
- Yields increased feed rates
- Allows for maintenance of closer tolerances
- Eliminates run-out and vibration
- Better balance = less tool life variance
- Reduces tool breakage
- Helps guarantee retention knobs are not over-torqued during installation
- Reduces down-time for machine and spindle maintenance
- Reduces milling costs

Taper	Order Number
Steep Taper 40	430.130.940.000
Steep Taper 50	430.130.950.000



High Torque Retention Knobs (690.005)

Made from hot rolled 8620H fine grain steel: improves durability, extends part life, and reduces distortion from heat treat. Designed to reduce toolholder expansion and improve toolholder balance.