

# Taper Shank Test Fixture Checks for Deformities

JM Performance Products Inc.'s Taper Shank test fixture ensures optimal mill productivity and tooling performance by checking toolholders for distortion caused by retention knob installation.

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JM Performance Products Inc.'s Taper Shank test fixture performs tests on a toolholder with a retention knob already installed.

[JM Performance Products Inc.](#)'s Taper Shank test fixture checks toolholders and tests for taper deformation in an effort to ensure optimal mill productivity and tooling performance. The test fixture does this by checking toolholders for distortion caused by retention knob installation.

A test using the the test fixture can be performed on a toolholder with a retention knob already installed. Following the manufacturer's instructions to fit the fixture and zeroing out the indicators for a base reading, and then loosening the knob for a second reading, will return an immediate indication of whether or not the holder has experienced expansion. An expanded toolholder does not need to be removed from service and scrapped. Once the retention knob has been removed, the toolholder should return to its original state and can be used with a high torque knob tightened to the correct torque spec.

When the toolholder taper is deformed, it prevents the toolholder from properly seating within the spindle. The elastic zone at the small end makes contact with the spindle before the large end of the taper is engaged. This reversal of contact allows the toolholder to move at the gage line. Ultimately, this movement at the gage line is what produces fretting marks found on the toolholder.