

# TUBING & CASING THREAD INSPECTION - External Taper



# GAGEMAKER®



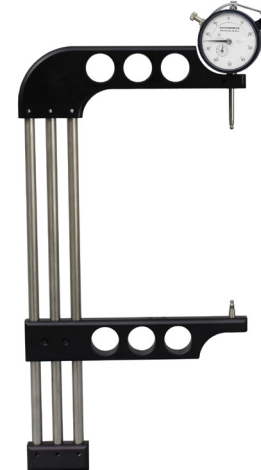
## External Taper Gage - ET-7000 Series

### Taper:

Taper is the increase in diameter over a 1" length. It is generally designated in inches per foot (TPF), but it is measured in inches per inch (in/in).

### Gage Description:

The ET-7000 series of gages inspect variations in connection taper of external threads ranging from 0" - 24". The ET-7000 gages require no setting standard to inspect parts. The gages use precision contact points that seat in the threads of the part during inspection. The gage's indicator reports actual measurement readings.

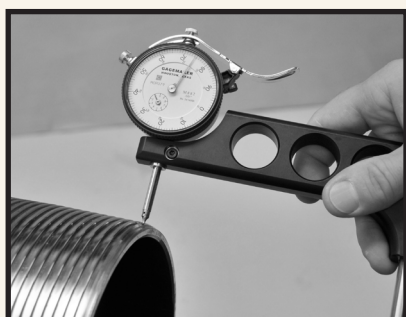
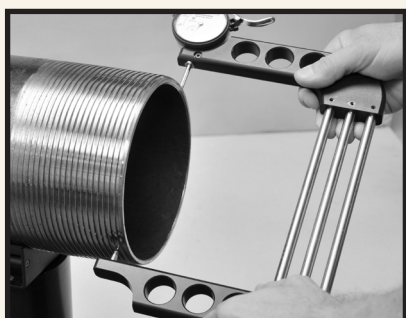
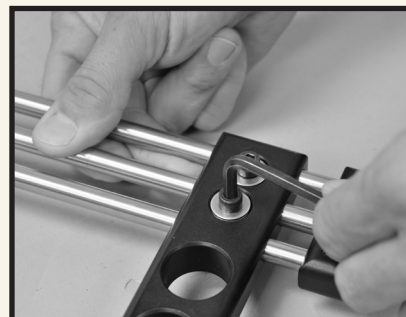
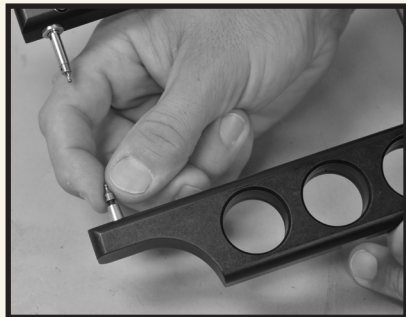


ET-7000 Series

## External Taper Inspection with ET-7000 Series Gages

### Setting Up the Gage

1. Select the correct contact point based on the connection type and thread pitch.
2. Install one contact point into the upper arm of the gage and another into the lower arm and tighten.
3. Loosen the capscrews on the lower arm with a hex wrench.
4. Slide the lower arm of the gage open enough to fit over the part.
5. Seat the lower contact point into the first perfect thread of the part.
6. Adjust the lower arm to seat the upper contact point in the same thread of the part.
7. Continue to slide the lower arm until the indicator shows one revolution of preload.
8. Remove the gage from the part and tighten the cap screws on the lower arm.



### Inspecting a Part

1. Using a marking pen, draw an axis line perpendicular to the threads on the part.
2. Draw one half revolution on the threads, starting at the first perfect thread. Draw another line 1" back from the first thread.
3. Loosen the indicator bezel and seat the lower contact point into the first marked thread and seat the upper contact point into the same thread.
4. Using the lower contact point as the pivot point, sweep the gage from side to side to obtain the largest indicator reading.
5. Adjust the indicator bezel to align the needle with zero.
6. Move to the gage to the second marked thread and sweep the upper contact point to obtain the largest indicator reading and determine if the part is within tolerance.
7. Record findings on the inspection report.
8. Verify repeatability of the gage periodically.

