

TUBING & CASING THREAD INSPECTION - Thread Lead



GAGEMAKER®



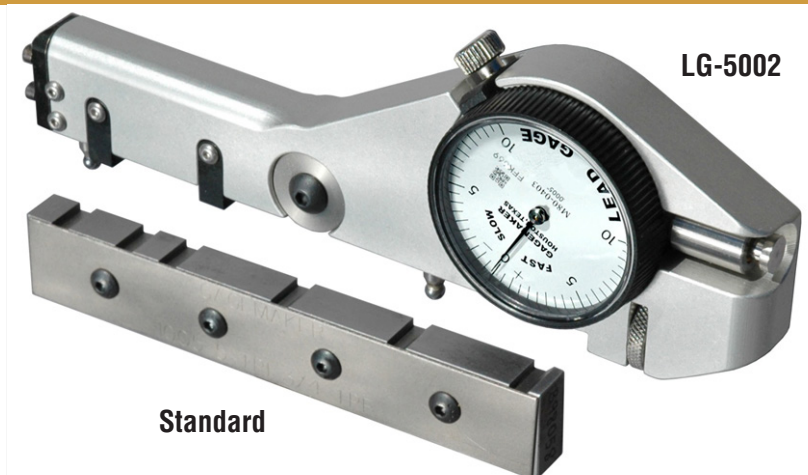
Thread Lead Gage

Thread Lead:

Thread lead is the distance from a point on a thread to a corresponding point on the next thread turn, measured parallel to the thread axis.

Lead Gage Description:

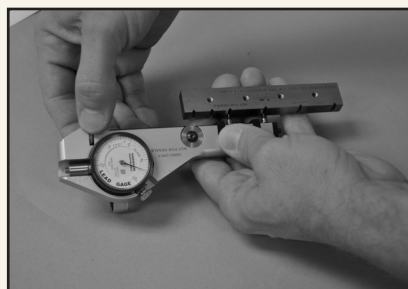
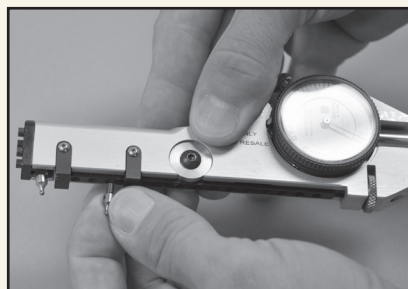
The LG-5000 series of gages inspects both internal and external thread lead using two contact points that seat in the threads of a part. Before inspecting parts, the lead gage must be preset to a nominal predetermined dimension, using a lead gage setting standard.



Thread Lead Inspection with LG-5000 Series Gages

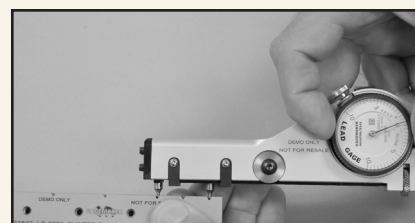
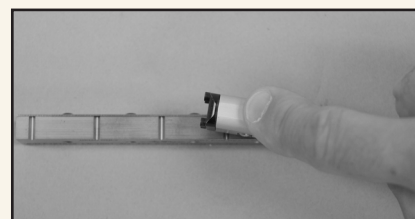
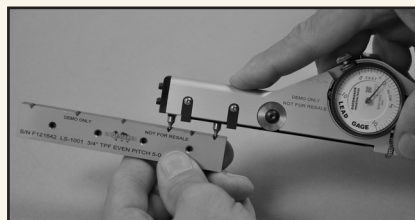
Setting Up the Gage

1. Select the correct contact point based on the connection type and thread pitch.
2. Determine the interval of measurement for the inspection. Increments on the lead gage allow contact point placement at intervals from 1" - 4".
3. Install one contact point into the moveable holder at the front of the lead gage and install another contact point into the fixed holder at the rear of the gage.
4. To adjust the lead gage on the lead gage standard, loosen the indicator clamp. Loosen the screw at the front of the gage with a hex wrench.
5. Place the gage in the standard and turn the adjustment knob at the rear of the gage until the rear contact point is aligned with the appropriate groove in the standard.
6. Rotate the adjustment knob until the indicator needle makes one full revolution of preload and lock the indicator knob. Tighten the screw on the front of the gage.



Zeroing the Gage

1. Loosen the indicator clamp and place fixed contact point in the second groove of the standard.
2. Place the moveable contact point into the first groove of standard.
3. Sweep the moveable contact point from side to side in order to obtain the smallest indicator reading (needle changes direction).
4. With the two contact points properly seated in the grooves of the standard, turn the indicator dial to align the needle with zero and tighten the indicator clamp.



Inspecting Parts

1. Seat the rear contact point into the first full thread.
2. Rock the gage forward to seat the moveable contact point into the thread.
3. Use your index finger to apply just enough pressure to maintain the gage's contact with the thread flanks.
4. Using the rear contact point as the pivot point, sweep the gage to locate the smallest indicator reading. Take note of the reading.
5. Move the gage to the next thread, repeat the sweeping action and note the indicator reading.
6. Move the gage to a thread at the rear of the part and seat the moveable contact point in the last full thread. Sweep the gage from side to side to obtain an indicator reading. Take note of the reading.
7. Record the maximum lead error on an inspection report.
8. During the inspection process, periodically verify the gage's repeatability by placing it on the lead standard.

