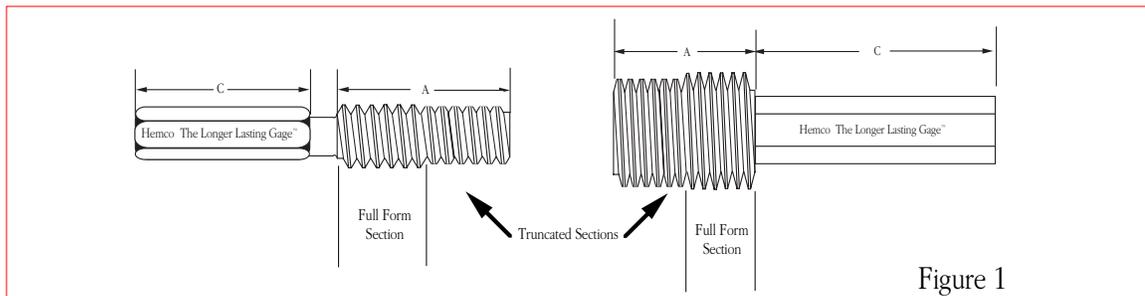


Setting Thread Rings

HEMCO

Evaluation of and procedure for setting thread ring gages to master setting plugs.

1. Thoroughly clean, inspect for nicks or damage and calibrate the master setting plug. The master should be straight or have back taper, no front taper, and be in tolerance. Lubricate the master with a thin film of light oil.
2. Thoroughly clean the thread ring gage and inspect for nicks. Remove the sealing wax with a small pointed knife. Turn the locking screw counter clockwise until it is loose. Turn the adjusting screw clockwise, opening the ring until the master freely enters. In some cases a small screwdriver should be levered into the adjustment slot area to facilitate opening the ring as you turn the adjustment screw.
3. Turn the ring gage onto the master plug's full form section with no more than one thread of the ring gage beyond the last thread of the master. (Figure 1)



4. Turn the adjustment screw counter clockwise. Now rotate ring on master plug until there is a slight drag between them. Tighten the locking screw. The ring should exhibit a larger degree of drag or snug fit to the master. This operation may have to be repeated to obtain the proper degree of drag. The degree of drag is somewhat subjective, particularly with regards to the size and pitch of the gage and where the master is found to be in its tolerance. Generally smaller rings and those set to masters near the low limit would require less drag than larger rings or rings set to masters on the high limit. ******(See note below.)
5. After adjusting and with set plug still inserted, the ring should be tapped with a brass or plastic hammer to fully seat the ring to the master. The drag after doing this should feel the same as before. If not, the ring was not properly seated. Repeat Step 4.
6. Next step is to turn the ring gage to the truncated portion at the front half of the master. (Figure 1) The drag should be essentially the same. There should be no shake or play. If there is, the ring has lost its root relief or its flank angles are worn out of tolerance and the ring should be reworked or replaced under Hemco's Gage Saver Service. (see page 4) Remove the ring from the master.
7. To test the ring gage for taper or bell mouth, turn the ring onto the truncated portion of the master plug 1-1/2 to 2 turns. You should detect some drag. Continue turning the ring onto the master noting any definite difference in the degree of drag. This indicates an unacceptable bell mouth or taper condition. Remove the set plug and follow the above procedure for the other side of the ring. The fit should be about the same on both sides. If the ring is bell mouthed or tapered, it should be reworked or replaced under Hemco's Gage Saver Service. (see page 3)
8. The minor diameter of the ring can be measured with an internal measuring machine or Go and NotGo X-tolerance plain plug gages. The minor diameter of the ring is in tolerance if the Go plug enters and the NotGo does not.
9. It is strongly recommended that once the ring gage has passed all the above, the locking and adjustment screw holes be filled with sealing wax to prevent any tampering.
10. You are now ready to place the ring gage into service.

**** Note:** *A thread ring gage setting is unique to the particular setting plug the ring is set to and cannot be expected to be duplicated on any other setting plug without re-adjustment. This is because of differences in allowable gagemaker's tolerances on lead, angles and pitch diameter.*