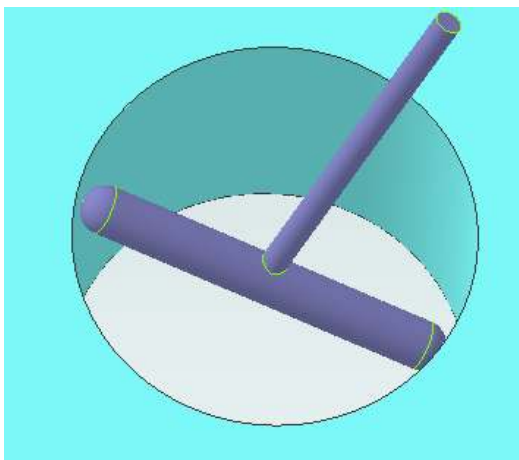


Using a Telescoping Inside Diameter Gage

By “doc” as told to R. G. Sparber

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A telescoping Inside Diameter gage can drive you crazy. In theory, you slightly compress the measurement bar and lock it in place. Then you place it in the hole along a diameter and release the lock. The bar then extends until it hits the wall of the hole. Lock the bar and remove the instrument. Then use a caliper or micrometer to measure the length of the bar.

The frustration comes when you find that even though the walls of the hole set the length of the rod, it ends up being a loose fit. “doc” of the Yahoo group metal_shapers explained a simple procedure that solves this problem.

1. Compress the gage so it easily fits in the hole to be measured and lock it.
2. Position the telescoping bar at an angle of about 20° relative to the surface of the part and on a diameter as shown above.
3. Unlock the bar and let it extend until it hits the walls of the hole.
4. Lock the bar just enough to prevent it from extending.
5. While still in the hole and on a diameter, straighten out the instrument so the bar is now parallel to the surface of the part. This action will force the bar to be slightly shorter.
6. Fully tighten the lock.
7. Remove the gage and measure the rod's length.

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