



### Notes on replacing the tip of the 316 punch

While customer replacement of the tip is not recommended, here are our steps used to replace the tip.

We place the tip in a lathe chuck so that it contacts the tip at the screw end (not the ball end). Then the shaft is turned while holding it with a pair of customized vice-grips. The vice-grips has smooth brass pads to grip the shaft.

The new tip is then attached to the shaft and hand-tightened. The above procedure is reversed to tighten tip to the shaft.

Special care must be used to not scratch or mar the surface of the shaft. The shaft is ground to be within  $\text{Ø}0.1585''$  to  $\text{Ø}0.1590''$  so that there is no drag or play when it moves. Any damage to it could cause erroneous readings. The same care must be used to not damage the carbide ball as well.