The Hardinge Knurling Tool is a crush-type knurl. The single depth is determined by the pitch of the knurling wheel. Both straight and diamond knurls can be cut using this holder. Diamond knurling wheels are furnished with the holder. The knurling capacity of the Model K075 tool is from 1/8" to 1-1/4".

1. Mount the holder in a square or round shank holder and mount the head so with the knurling wheels are perpendicular to the centerline of the spindle. Using standard machine tool practices, determine the single depth of the knurl (see note). Double the Single depth dimension and subtract it from the stock diameter (figure 1). Because this tool has fingers that flex you may find that the dimension between wheels will be between .100" and .130" less than the diameter of the turned diameter before knurling.

2. To set the distance between the rollers to this dimension do the following. Loosen the lock screw (figure 2) and turn the adjusting screw, either from the front (figure 3) or rear (figure 4), until the proper dimension is achieved, then tighten the lock screw (figure 2).

3. Slowly move the cross slide in and adjust the knurling tool head either up or down (figure 5) until the rollers are equal-distance from the centerline of the spindle (figure 6). Lock the head in this position.

4. Adjust the cross slide stop or the X axis program dimension to bring the center of the knurling wheels directly over the vertical centerline of the spindle (figure 7).

5. Select the proper spindle speeds and feed rates (see note). Knurl the part and check for the proper depth. If necessary, adjust the distance between the knurling wheels until you achieve the proper form (see step 2).

6. The knurling tool is normally used for cross knurling. Longitudinal knurling can be done.

NOTE: Use the “Machinery Handbook” or another source devoted to machining practices for proper knurling depth, diameter relationship to knurling wheel pitch, and tracking corrections.