Flex Hose Mandrel Project

Parts
(1) AN 815-6 flared union fitting
(1) Letter “M” drill
(1) 8-32 x ½ recessed hex set screw

Tools
Hacksaw
#28 drill
8-32 tap w/ handle
5/64” allen wrench
Aeroquip (-6) B-nut/nipple fitting
Grinder or file
6” rule

Instructions

1. Drill a hole in the flat of the AN 815 union through to the inside using a #28 drill
   (see diagram – Letter A).

2. Tap the hole using an 8-32 tap.

3. Ream and clear the passage in the AN 815 union using the “M” drill.

4. Grind a radius on the end of the “M” drill (see diagram). Smooth the radiused end.

5. Perform the following operations to manufacture the shaft.
   A. Install an Aeroquip -6 size B-nut/nipple fitting on the AN 815 fitting.
   B. Insert the “M” drill into the AN 815 fitting until the radiused end extends
      1/8” out of the nipple (see diagram – Letter B).
   C. With the drill in position, mark the drill through the drilled hole in the AN
      815 fitting.
   D. At the mark, cut a V-notch in the drill approximately 1/16” deep (see diagram – Letter C).
E. Cut off the excess on the drill’s fluted end, about ½” from the notch.

   Dress the end.

6. Insert the drill in the AN815 fitting and secure with the 8-32 set screw, fitting the screw into the notch (see diagram – Letter D).

7. Measure the amount of set screw sticking out of the fitting flat.

8. Remove the set screw and trim the end opposite the hex hole by the measured amount. Round and smooth the cut end.

9. Reinstall the shaft into the AN815 fitting and secure with the shortened set screw.