

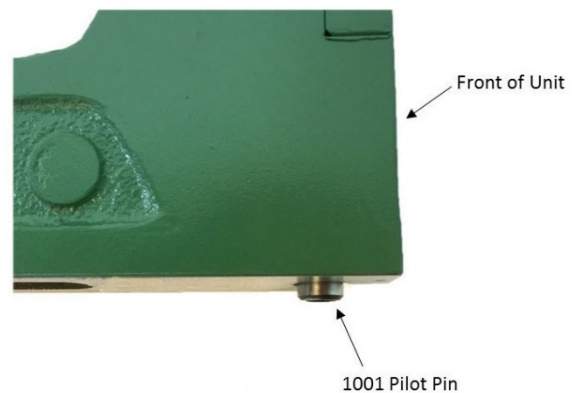
## A-2 Unit (For Round Holes)

### Assembly and Punch and Die Replacement

#### Lower Arm Assembly

**Pilot Pin Removal:** To remove the pilot pin, thread the ¼-20 x ½ set screw into the holder to back the pilot pin out of its hole.

**Pilot Pin Installation:** Use a brass or aluminum hammer to install the pilot pin assembly (P/N 1001) into the hole on the bottom of the holder under the die. Ensure the pilot pin is perpendicular to the bottom and extends 3/32" from the bottom surface. Thread the 1/4-20 x 1/2 set screw (P/N 91332, supplied with pilot pin), until it touches the bottom of the hole, being careful not to push the pilot pin back out.



**Die Removal:** To remove the die, first use a hex key wrench to remove the ¼-20 x 1 ½" socket head cap screws (P/N 91011) from the die block (P/N 2375) and pull the die block off the front of the lower arm. Remove the die.

**Die Installation:** First make sure the bottom die seat and the die are free of debris. Then insert the die button (P/N 2320-1 or 2320-2) with the cutting edge on the top, being sure the die is fully seated in the lower arm of the holder and the die block is, itself, fully seated in the lower arm of the holder and securely held in place with the socket head cap screws. (The die block creates half the die seat and it is important the die block be fully seated in the holder for the die to be flat.) A useful tip is to put a guide in the upper arm and push it down against the die to fully seat it.

## Upper Arm Assembly

**Guide Installation:** Guide installation is a two-step process. First apply a thin coat of lubricant (*e.g.* P/N 8007 Molykote® type G-N metal assembly paste) to the outside of the guide body (P/N 2330). Slide the conical lifter spring (P/N 2370) on to the guide with the narrow end of spring against the collar, and insert the guide into the holder guide bore.

While pushing down on the guide, align the flat on the guide retainer (P/N 1018) with the flat on the guide. Insert the guide retainer in the guide retainer bore in the upper arm with the small diameter up and use the button head screw (P/N 91130) to secure the guide retainer under the lifter spring. (For additional feed clearance, assemble the guide retainer with the small diameter down.)



**Punch Installation:** First assemble a punch head (P/N 2371) onto a punch (P/N 2311) being sure the counter bore in the flange of the punch head faces the retaining ring, creating a punch and head assembly (P/N 2310). When assembled correctly, the top of the punch head is flush with the top of the punch.

Then be sure the punch and head assembly will fit in the die by dropping it through the guide (without the stripping spring) and into the die. Visually look to see that the die clearance is even all the way around. If the die clearance is uneven, contact UniPunch.

Extract the punch and apply a thin coat of lubricant (*e.g.* P/N 8007 Molykote® type G-N metal assembly paste) to the punch body. Put the punch and head assembly through a stripping spring (P/N 2340) and into the guide. Rotate the punch so the flat on the punch is parallel to the hole in the collar of the guide and push the retainer pin (P/N 2180) through the hole until it clips on to the guide collar.

## To Convert a Round Unit to a Shaped Unit

To convert a round unit to a shaped unit, purchase the (P/N 7114) shaped hole conversion kit and follow the shaped unit instructions.