



# ADVANCED SEALING TECHNOLOGY INSTALLATION INSTRUCTIONS

## AST 40 BEARING ISOLATOR

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### PREPARATION

1. Disassemble the equipment so that the seal can be installed over the end of the shaft. Clean the seal cavity.
2. Remove all sharp edges and burrs from the shaft especially where the O-ring will slide. Cover threads and keyway slots with thin tape to prevent cutting the O-ring.
3. The shaft finish must be smooth, free from nicks and grooves. It should feel smooth when you run your fingernail along the shaft (32-63 microinch Ra).
4. The shaft diameter must be within  $+.001/-0.003$  inch of the nominal shaft size.
5. The shaft must run true in the area where the seal is installed. No more than  $.001$  inch of runout per inch of shaft diameter is acceptable. Use a dial indicator to measure runout.
6. Bearing end play must not exceed  $.010$ ". Excessive end play or shaft runout will shorten seal life. Check with a dial indicator.
3. If the magnet is separate from the insulator, lubricate the magnet O-ring and the outside diameter of the magnet with the fluid provided. Install the magnet O-ring into the insulator. Cover the highly polished lapped surface of the magnet with a lint-free wiper and press the magnet into the insulator by hand until the magnet is squarely seated. **Hammering the magnet will break it.**
4. Press the insulator into the equipment housing using an installer made of aluminum, brass, wood, or plastic (Figure 2). Press on the insulator only, not the magnet. Use a dial indicator to check squareness of the insulator to the shaft.
5. Without touching the carbon face, remove the O-ring from the seal case and lubricate it with the fluid supplied with the seal. Reinstall the O-ring.
6. Completely lubricate the shaft where the O-ring will slide with a small amount of the same fluid.
7. Slide the seal case along the shaft and into contact with the magnet (Figure 3). Push the O-ring which contacts the shaft toward the carbon using an installer (Figure 4) or thin plastic shim.

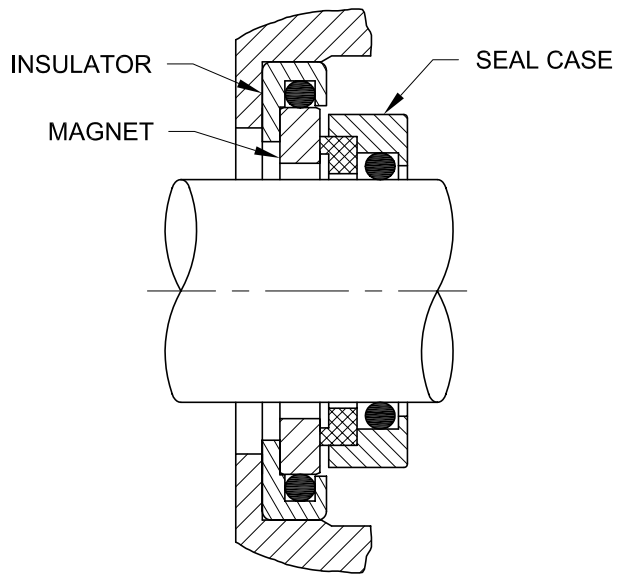
### INSTALLATION

1. The bearing isolator has three parts: the seal case, the magnet, and the insulator (Figure 1). The seal case is the rotating part of the seal, including the carbon, and has an O-ring on its inside diameter. The magnet has one lapped face and one unlapped face. The insulator adapts the magnet to fit the equipment housing bore and acts as a magnetic insulator between the magnet and the housing.
2. Disassemble the seal by pulling the seal case straight back from the magnet. Sliding the seal case across the magnet will damage the carbon.

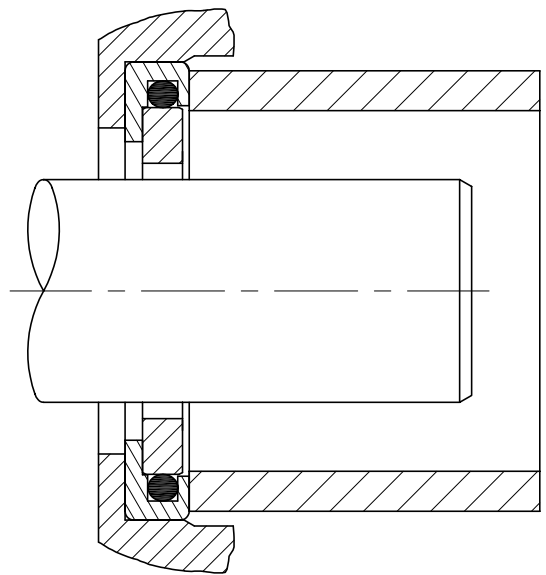
### NOTE

The seal installer should be familiar with the installation of mechanical seals and with the plant safety requirements. If you are in doubt about any phase of installing this mechanical seal, stop the installation and get assistance. The decision to use any AST mechanical seal in a particular service is the customer's responsibility.

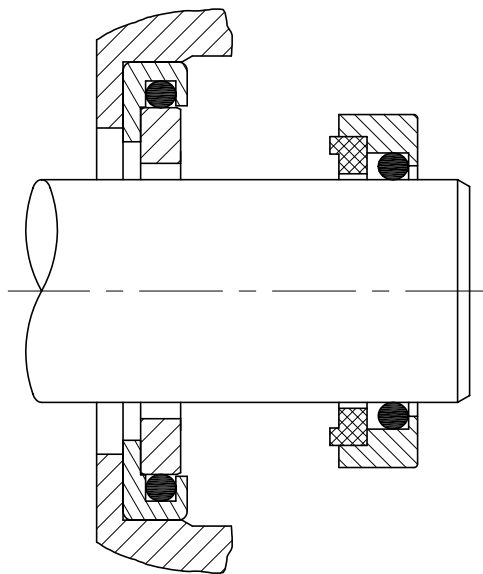
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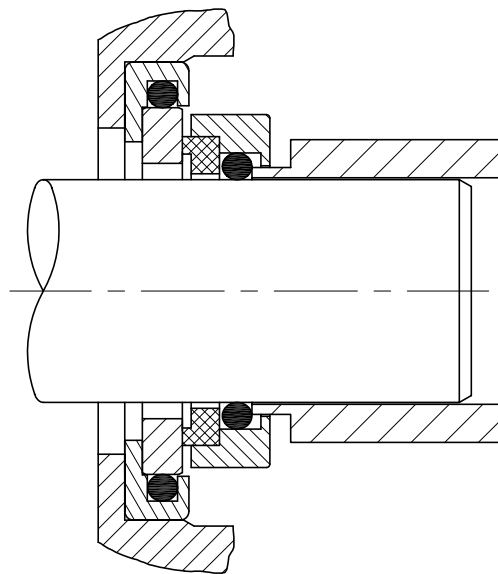
1. SEAL COMPONENTS



2. PRESS INSULATOR INTO HOUSING



3. SLIDE SEAL CASE ONTO SHAFT



4. PUSH O-RING TOWARD CARBON