



ADVANCED SEALING TECHNOLOGY

REBUILD INSTRUCTIONS

AST 80 SEAL

DISASSEMBLY

1. If centering blocks are installed, remove 3 button head cap screws and centering blocks. Remove 6 set screws. Lift outboard rotary seal ring with lock ring off end of sleeve. Pull outboard seal ring off lock ring. Remove O-rings from lock ring.
2. Lift gland off end of sleeve. Remove stationary seal rings and three O-rings from gland.
3. Pull rotary holder with seal ring from sleeve. Remove rotary seal ring, two O-rings and springs from holder. Remove O-ring from sleeve bore.
4. Discard all O-rings, seal rings, screws and springs.
5. Clean gland, sleeve, rotary holder and lock ring. Examine parts for wear, damage, or corrosion, checking O-ring contact surfaces and drive pins and notches. Replace any worn or damaged parts. If parts are bead blasted, polish O-ring contact surfaces and clean parts of all grit.
6. Lubricate two O-rings (Item 9) and install in grooves in gland. Align slots in outboard stationary seal ring with pins in gland and press seal ring straight into gland using finger pressure. Repeat for inboard seal ring.
7. There are three sets of three tapped holes in the lock ring. Loosely attach centering blocks (Item 18) with button head cap screws (Item 19) in center hole of each set of holes.
8. Install a half-dog point set screw (Item 17) in the left hand hole of each set of holes and a cup point set screw (Item 16) in right hand hole of each set. Make sure that none of the six set screws extends into bore of lock ring.
9. Lubricate O-rings (Items 13 & 14) and install in lock ring. Insert springs in rotary (Item 12) spring holes. Align drive pin with slots and install rotary seal ring onto lock ring. Avoid touching the seal face.

ASSEMBLY

1. Use the seal cross section drawing included in rebuild kit to select the correct O-ring for each location.
2. Install the smallest O-ring (Item 1) in groove in sleeve bore.
3. O-ring (Item 6) is slightly larger than O-ring (Item 2). Lubricate each O ring with supplied silicone lubricant or with other lubricant compatible with the O-rings and your machinery and product. Do not use petroleum lubricants on EP O-rings. Install Item 6 in the holder groove and Item 2 on sleeve OD against shoulder.
4. Insert rotary seal ring into the rotary holder, aligning pins in holder with slots in seal ring. Insert springs in inboard rotary holder spring holes.
5. Hold sleeve with the screw holes down, and slide rotary holder with seal ring onto sleeve. Align drive pins in rotary holder with slots in sleeve and compress rotary assembly until flush with end of sleeve. Invert assembly and set on table with holes in sleeve up.
6. Clean faces of all four seal rings with denatured alcohol and a clean lint-free wiper.
7. Slide gland (with seal rings installed) over end of sleeve, being careful not to hit seal rings on end of sleeve. Push down on gland to move back of rotary holder even with end of sleeve as shown in seal cross section view. This insures that the drive pins are engaged in the sleeve slots.
8. Slide rotary seal ring and lock ring together over end of sleeve, aligning the dog point set screws with the small holes in the sleeve. The ends of the centering blocks should fit in the counterbore on the gland. Push on end of lock ring and screw in the dog point set screws to engage the holes, but don't tighten them. Overtightening the screws will deform the sleeve. The ends of the screws should not extend into the sleeve bore.
9. Uniformly tighten the three button head cap screws on the centering blocks.
10. Install the largest O-ring (or gasket) (Item 10) in groove on gland face. The seal rebuild is complete.

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