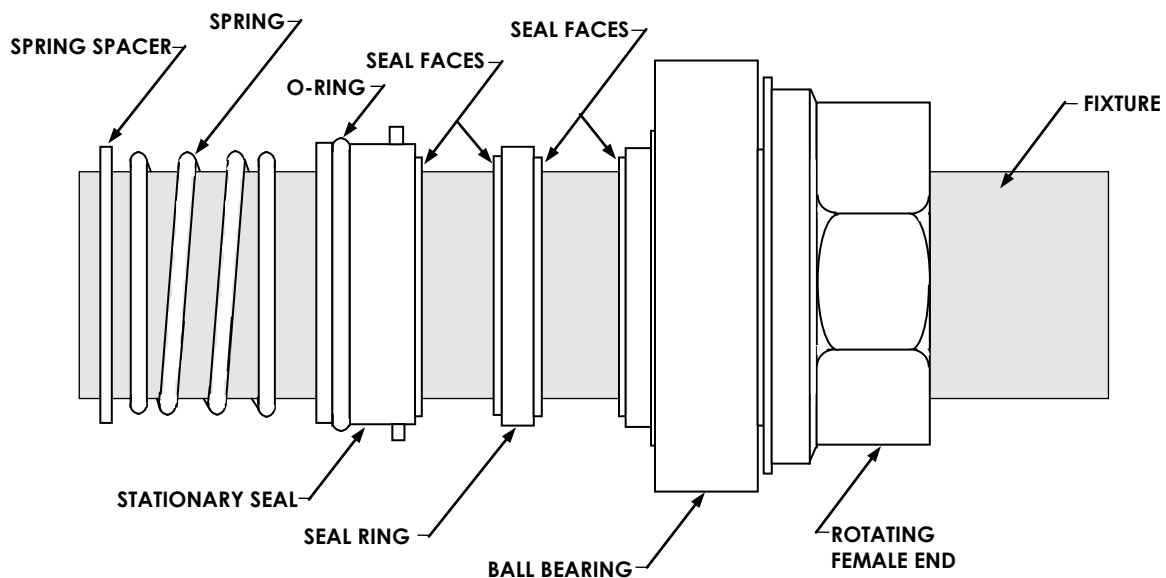


**INSTALLING NEW REPLACEMENT PARTS** (see figures 4 & 5)

To ensure a satisfactory and SAFE repair, ALL parts in the swivel should be replaced. DO NOT REUSE OLD PARTS as serious leakage may result. The following procedure should be followed:

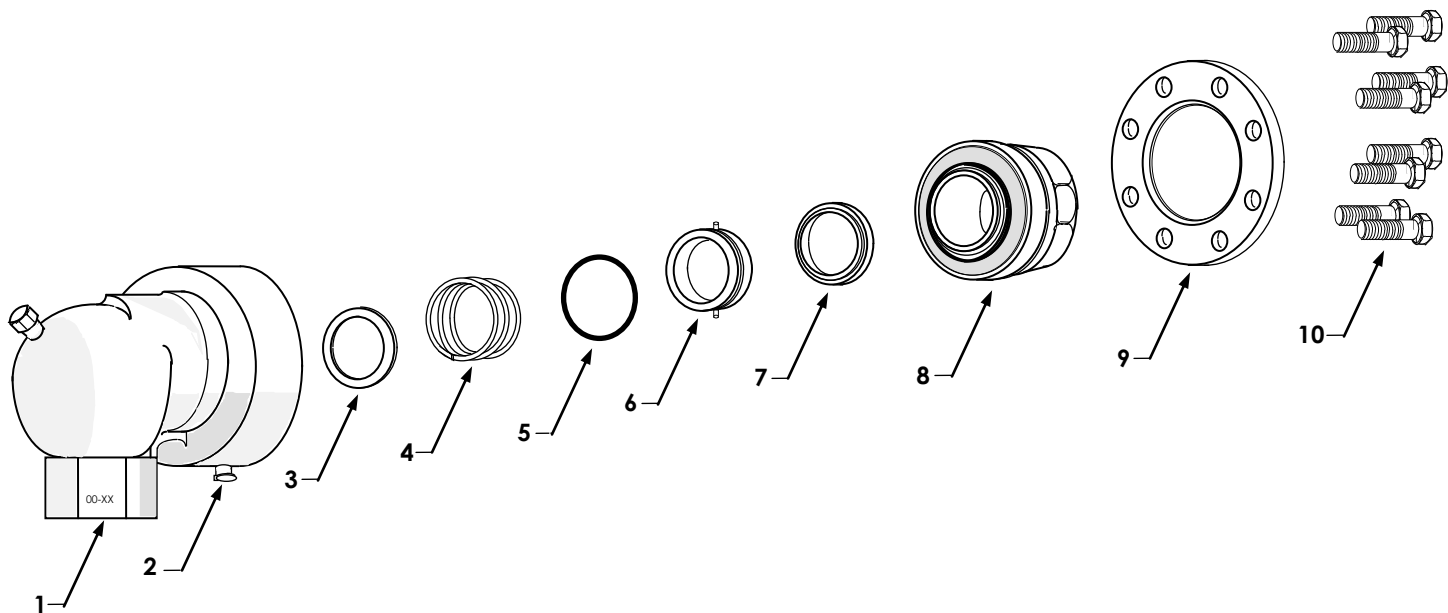
- 1.) Make sure that the inside of the swivel body is clean and free from all debris. Set in vise, face up.
- 2.) Install the spring spacer, then the spring. For all models except the 1-1/2 and 2-inch swivels, the large end of the spring MUST be installed first.
- 3.) Install the stationary seal. Make sure that the o-ring is installed on the stationary seal. The stationary seal has a lapped face on one side that seals against the seal ring. This lapped face should be facing up. It is important that the seal face be clean. AVOID touching the lapped face with your hands. Push the stationary seal into the swivel body with the two pins aligned with the half-moon grooves in the swivel body. Push the stationary seal all the way into the swivel body until it engages the spring.
- 4.) Install the plastic fixture through the stationary seal. This helps to align the rest of the seal components.
- 5.) Now install the seal ring. The seal ring is lapped on both faces and either face can be installed facing up. AVOID touching either face with your hands to ensure that contaminants do not touch the lapped seal faces. Center the seal ring on the stationary seal by laying the seal ring on top of the stationary seal so that the centerline of the seal ring is the same as the centerline of the valve body. Use of the fixture will align the seal ring properly.



**figure 4: SEAL COMPONENTS**

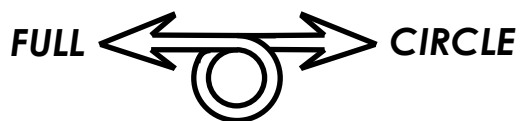
- 6.) Now place the rotating female end with the ball bearing into the swivel body, over the fixture. The rotating female end contains a lapped seal face on the end. AVOID touching this seal face to ensure that contaminants do not touch the lapped seal face. With hand pressure, press the rotating female end into the swivel body until the ball bearing is flush with the top of the swivel body. At this point, the spring will exert some pressure. While holding down the rotating female end, install the bearing retainer plate. DO NOT RELIEVE PRESSURE WHILE SCREWING ON THE BEARING RETAINER PLATE AS DAMAGE TO THE SEAL COMPONENTS WILL RESULT. Remove the fixture by pulling it out.
- 7.) Now rotate the swivel once or twice ONLY to ensure it is rotating smoothly.
- 8.) Install as recommended above.

Should leakage occur after the repair procedure, disassemble as outlined above and carefully check the condition of the o-ring on the stationary seal as well as all seal faces for contamination or damage. Replace parts if damage is found and reassemble as outlined above.



**figure 5**

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| <b>1 - VALVE BODY</b>                 | <b>6 - STATIONARY SEAL</b>        |
| <b>2 - BLEEDER CUP</b>                | <b>7 - SEAL RING</b>              |
| <b>3 - SPACER</b>                     | <b>8 - ROTATING FEMALE END</b>    |
| <b>4 - SPRING</b>                     | <b>9 - BEARING RETAINER PLATE</b> |
| <b>5 - O-RING FOR STATIONARY SEAL</b> | <b>10 - CAP SCREWS</b>            |



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