



CAUTION: HEAVY COMPONENTS. HANDLE PROPERLY

Begin Seal Installation

If your mixer is equipped with a BDRA mechanical seal, follow the Seal Manufacturer's Instructions for Seal Installation and Removal. The following steps are generic and assume use of a piloted seal. Here is the basic process:

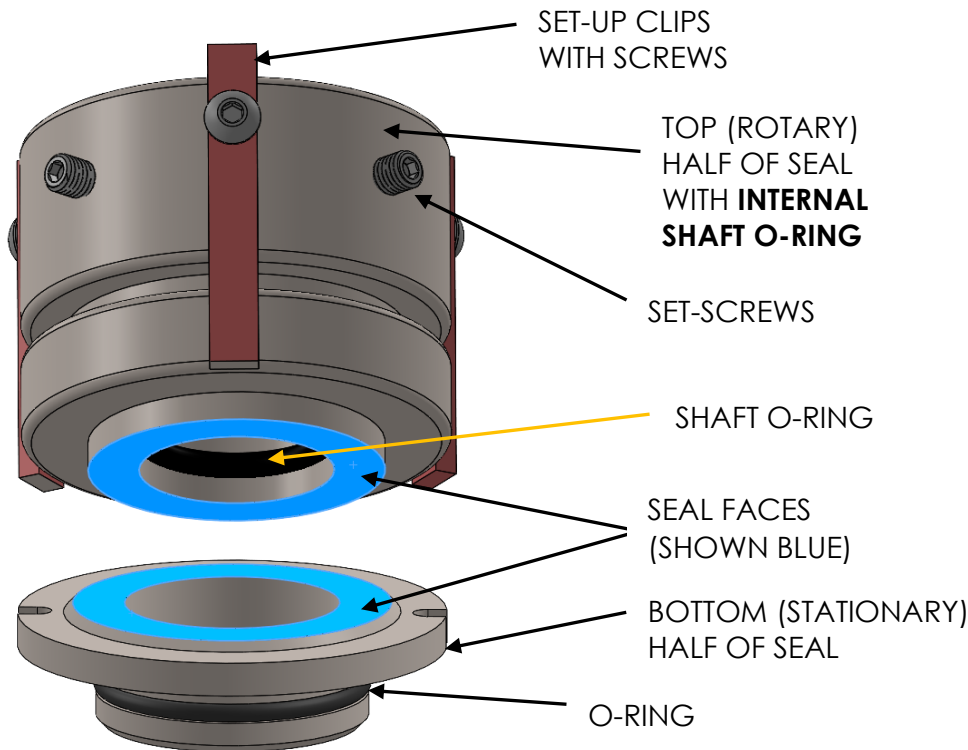
Basic Seal Installation Process

- Float the Seal
- Install the Shaft
- Mount the Seal
- Tighten Set Screws onto Shaft
- Remove Set-up Clips

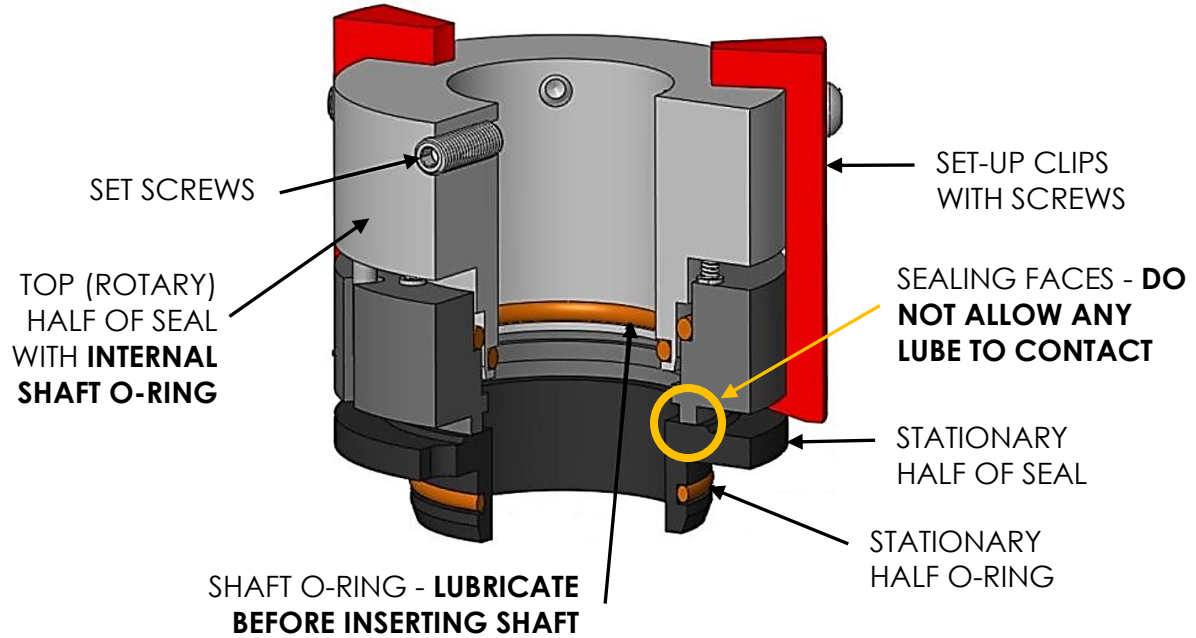


CAUTION: PINCH POINTS & SHARP EDGES MAY BE LOCATED IN THIS AREA

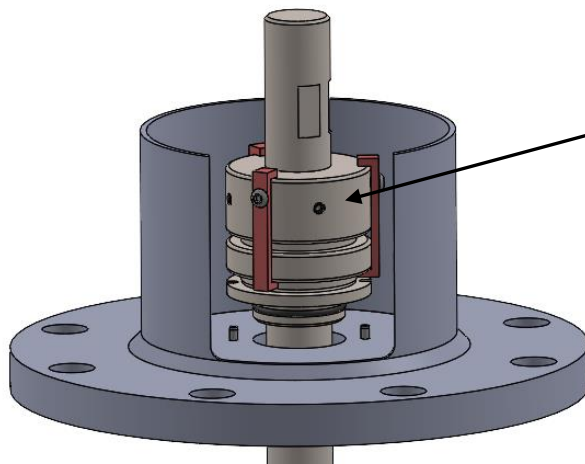
SHOWN BELOW IS THE PROCESS FOR INSTALLING A BDRA SEAL



BDRA SEAL SHOWN SEPARATED (as received)



CUTAWAY OF BDRA SEAL
 (O-RINGS SHOWN ORANGE FOR VISIBILITY)



SECURE BOTH HALVES OF SEAL TOGETHER WITH TAPE OR PLASTIC WRAP. **ENSURE THAT THE TAPE OR WRAP DOES NOT COME IN CONTACT WITH THE SEAL FACES.** THEN INSERT SHAFT THROUGH SEAL AS SHOWN. (TOP OF PEDESTAL NOT SHOWN FOR CLARITY)

CHECK FOR SHARP EDGES OR BURRS ON SHAFT BEFORE INSERTING INTO SEAL. DEBURR AS NECESSARY TO PREVENT DAMAGE TO O-RINGS.

Float the Seal

Handle the seal with care to prevent damage to the fragile sealing faces of the seal.

Back out the set screws on the rotary half of the seal so they are clear of the bore. Use of a process-compatible lubricant on the O-ring located within the bore of the seal will help the shaft pass through the O-ring. Apply process-compatible lubricant on the O-ring located in the bottom half of the seal. Do not apply or allow any grease to contact the carbon or silicon carbide mating faces of the seal. To Float the Seal, position the seal in the pedestal and orient with the mounting face toward the base of the

pedestal. Insert the shaft through the pedestal then into the mechanical seal bore. Slide the shaft through the bore of the seal.

Seal installation will resume after the shaft is properly installed.

Install drive end of shaft to mixer drive. See appropriate shaft installation section for your mixer model.

Complete Seal Installation

Now that the shaft is properly located and securely affixed, complete the mechanical seal installation. Be sure to follow the manufacturer's instructions. Here is the basic process.

Basic Seal Installation Process

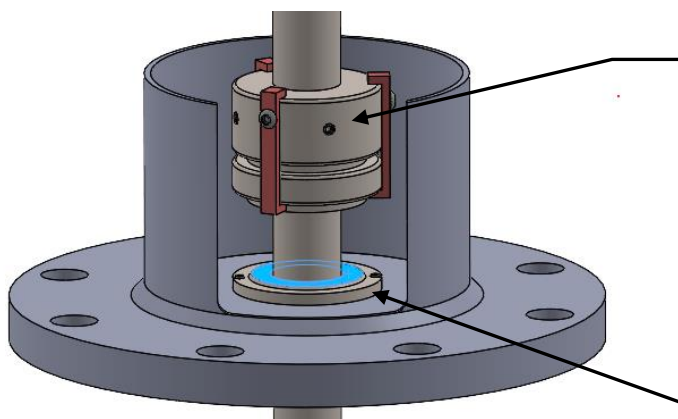
- ✓ Float the Seal (*Previously Completed*)
- ✓ Mount the Shaft (*Previously Completed*)
- Mount the Seal
- Tighten Set Screws onto Shaft
- Remove Set-up Clips



CAUTION: PINCH POINTS & SHARP EDGES MAY BE LOCATED IN THIS AREA

Mount the Seal

Remove the tape or plastic wrap keeping the two seal halves together. Make sure O-ring in the bottom half of the seal is lubricated to help with installation. Use the roll pins installed in pedestal to mount the bottom half of the seal in the pedestal per Manufacturer's specifications. The piloted design ensures that the seal is already aligned with the mixer shaft. The installation clips that hold the seal together and set the spring tension should remain in place until the end of the installation process.



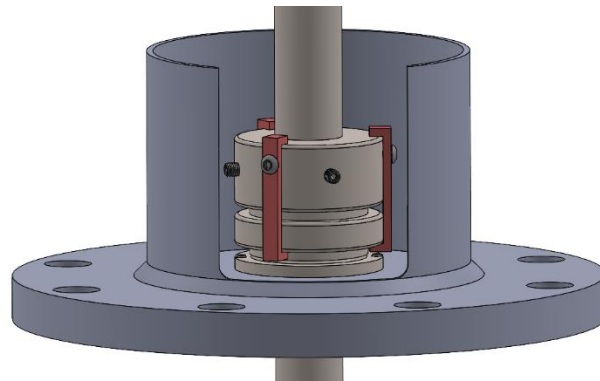
SEPARATE THE BOTTOM (STATIONARY) HALF OF SEAL AND INSERT INTO BORE OF PEDESTAL. MAKE SURE TO ALIGN SLOTS WITH PINS IN PEDESTAL AND PUSH ON FACE AROUND INNER BORE (SHOWN IN BLUE) WITH CLEAN GLOVES ON TO PROTECT SEAL FACE. ENSURE THAT STATIONARY FACE IS FULLY SEATED INTO BORE. WIPE OFF SEAL FACES WITH AN ISOPROPYL WIPE OR CLEAN LINT FREE CLOTH IF NEEDED.

BE SURE NOT TO PUT PRESSURE ON OUTSIDE FACE OF STATIONARY HALF OF SEAL DURING INSTALLATION AS THIS MAY CAUSE THE SEAL TO FRACTURE. MATERIAL IS VERY BRITTLE.

- ✓ Float the Seal (*Previously Completed*)
- ✓ Mount the Shaft (*Previously Completed*)
- ✓ Mount the Seal
- Tighten Set Screws onto Shaft
- Remove Set-up Clips

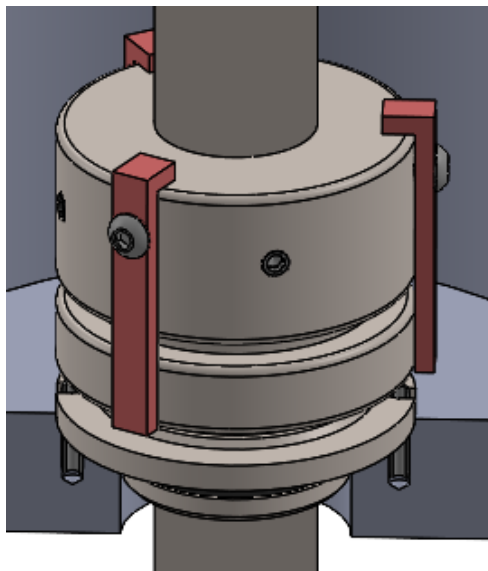
Move Rotary Seal Half to touch Stationary Seal Half

Push rotary seal half on shaft towards stationary half in pedestal until set-up clips touch the stationary half.



Tighten Set Screws onto Shaft

Use an alternating sequence to tighten and then torque the shaft set screws located on the rotating collar of the seal as required by the seal manufacturer. The goal is to keep the shaft centered within the seal bore, rather than pushed completely to one side. Start by loosely snugging the set screws in the prescribed pattern, then tighten the set screws a little more, and a little more, repeating the same pattern multiple times. Finally, torque the set screws to the appropriate value in table.



| HEX SIZE | SET SCREW THREAD SIZE | 18-8 STAINLESS |
|----------|-----------------------|-----------------|
| 1/8" | 1/4"-28 | 72 in-lb |
| 5/32" | 5/16"-24 | 147 in-lb |
| 3/16" | 3/8"-24 | 22 FT-LB |

- ✓ Float the Seal (*Previously Completed*)
- ✓ Mount the Shaft (*Previously Completed*)
- ✓ Mount the Seal
- ✓ Tighten Set Screws onto Shaft
- Remove Set-up Clips

Remove Set-up Clips

A common mistake is failure to **remove the set-up clips** at the end of the seal installation process. **Failure to perform this step will impact performance and cause damage to the seal. Remove set-up clips and be sure to save the seal's set-up clips.** They will be essential for future disassembly, shipment, rebuild, and reassembly of the mechanical seal.

