


CAUTION:

- **DISCONNECT AND LOCK OUT POWER SOURCE BEFORE SERVICING MIXER. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN DEATH, PERSONAL INJURY OR PROPERTY DAMAGE.**
- **HEAVY COMPONENTS. HANDLE PROPERLY.**
- **DO NOT ALLOW ROTARY OR STATIONARY SEALING FACES TO CONTACT ANY HARD SURFACES.**
- **STATIONARY SEALING FACE AND O-RINGS CAN FALL OUT OF GLAND RING. WHEN HANDLING, BE SURE THEY DON'T FALL OUT.**

Begin the Seal Installation

If your mixer is equipped with a DDRA 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:

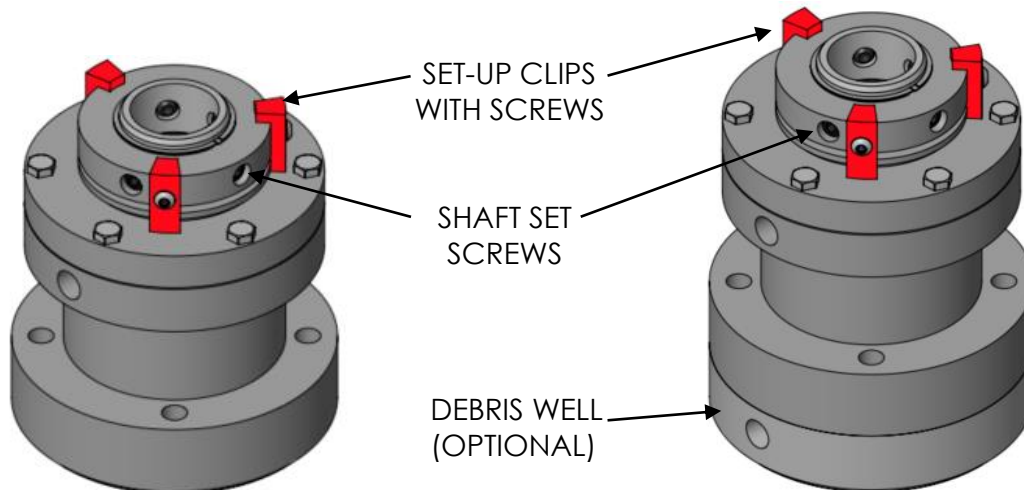
Basic Seal Installation Process

- 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

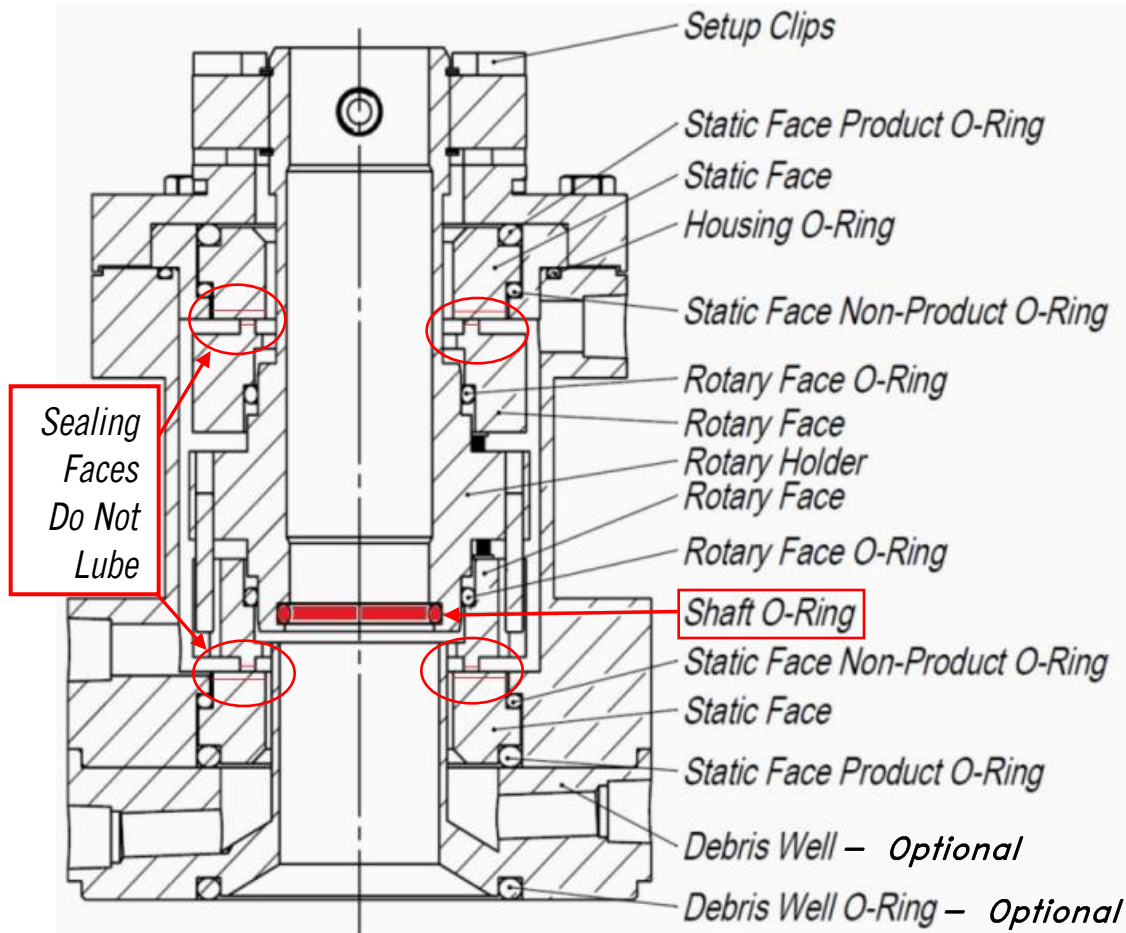
SHOWN BELOW IS THE PROCESS FOR INSTALLING DDRA SEAL



DDRA SEAL (as received)

**DDRA SEAL WITH DEBRIS WELL
(as received)**

CROSS-SECTION OF DDRA SEAL WITH DEBRIS WELL



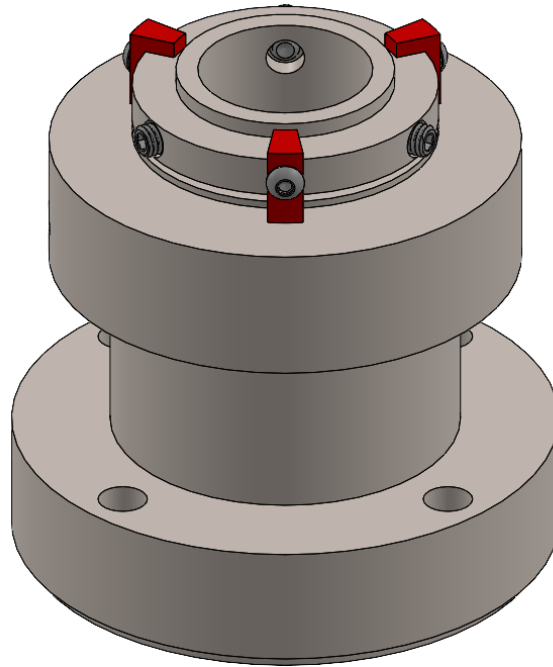
Float the Seal - DDRA

Handle the seal with care to prevent damage to the fragile sealing faces of the seal. The seal excluding the lower stationary (static) face is supplied as a cartridge assembly. The set-up clips set correct spring tension on sealing faces & for optimal seal performance. Ensure that the stationary face with O-rings does not fall out until the assembly is seated in pedestal.

Float the Seal – DDRA with Debris Well

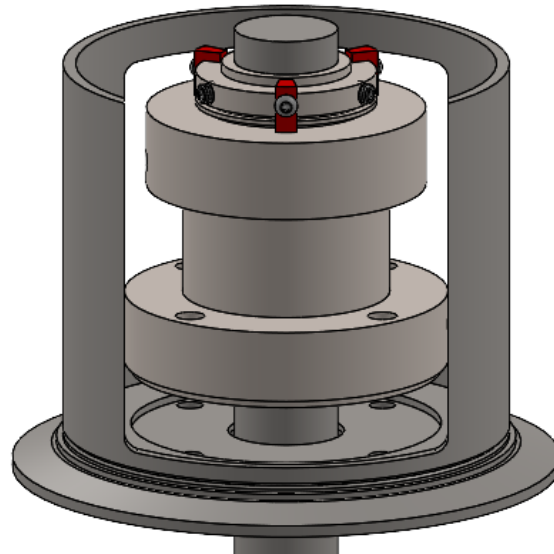
Handle the seal with care to prevent damage to the fragile sealing faces of the seal. The seal is supplied as a cartridge assembly. The set-up clips set correct spring tension on sealing faces & for optimal seal performance. Ensure that the Debris Well O-ring does not fall out until the assembly is seated in pedestal.

- Back out the set screws on the rotary half of the seal so they are clear of the bore. Use a process-compatible lubricant on the Shaft O-ring located within the bore of the seal as it will help the shaft pass through the O-ring. **Do not apply or allow any grease to contact the mating/sealing faces of the seal (see cross section on previous page).**



- 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. (Top of pedestal removed for clarity)

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



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 the Seal Installation

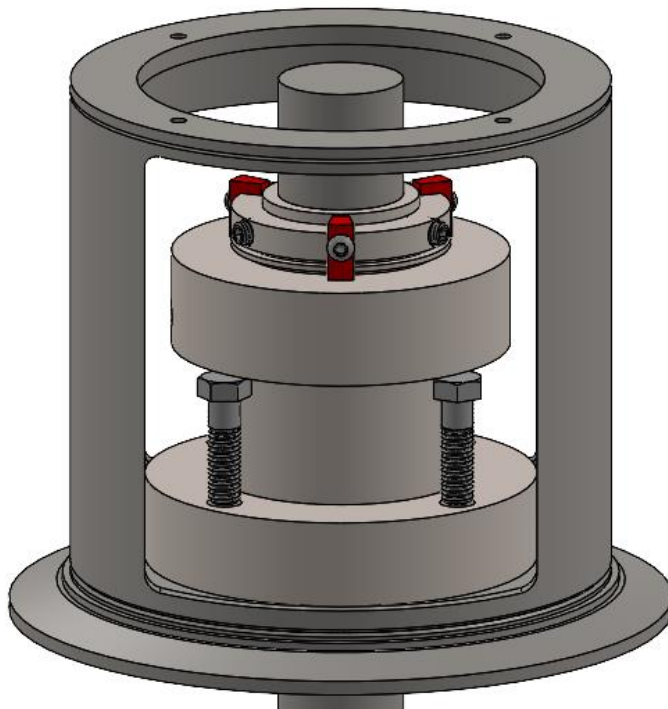
Now that the shaft is properly located and securely affixed, complete the mechanical seal installation. Be sure to follow the manufacturer's instructions. Here is the basic process.



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Mount the Seal

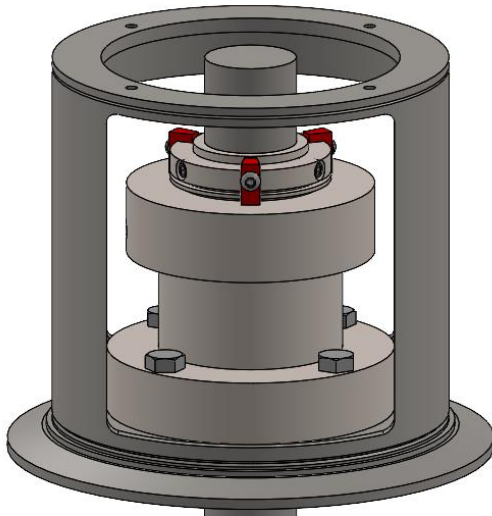
Slide the seal into the pedestal female registration, aligning the bolt holes in the seal to the holes in the pedestal. Insert and tighten the 4 provided bolts evenly to the appropriate torque value for thread size called out in the table. The installation clips that hold the seal together and set the spring tension should remain in place until the end of the installation process.



THREAD SIZE	18-8 STAINLESS
5/16"-18	103 in-lb
3/8"-16	16 FT-LB
1/2"-13	36 FT-LB

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

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 remove set-up clips before operating mixer can permanently damage seal and equipment.

Remove the set-up clips and be sure to save them. They will be essential for future disassembly, shipment, rebuild, and reassembly of the mechanical seal.

