PENTAIR SUBMERSIBLE CARTRIDGE SEAL
INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS

⚠ DANGER **UNEXPECTED STARTUP HAZARD:** DISCONNECT AND LOCK OUT POWER BEFORE SERVICING SEAL. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS PERSONAL INJURY OR DEATH, OR PROPERTY DAMAGE.

⚠ WARNING **EXTREME TEMPERATURE HAZARD:** Allow pump temperatures to reach acceptable levels before proceeding. Failure to follow these instructions could result in property damage and/or moderate personal injury.

⚠ DANGER **EXCESSIVE PRESSURE HAZARD:** MAKE CERTAIN INTERNAL PRESSURE OF THE PUMP IS RELIEVED BEFORE CONTINUING. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS PERSONAL INJURY OR DEATH, OR PROPERTY DAMAGE.

Read the installation instructions thoroughly before installing the cartridge seal onto the pump. To achieve proper function of the cartridge seal careful handling is required throughout the entire installation.

1. Ensure that the shaft seal mating surface meets the specification. If necessary, polish the shaft to prevent damages to the shaft O-ring.
2. Check seal housing and shaft dimensions to ensure they match the seal.
3. Do not apply oil or other lubricants to the seal faces.
4. Lightly lubricate the O-rings with a temporary lubricant, such as P-80® Emulsion. Avoid using any form of permanent lubricant such as silicone grease or oil.

CARTRIDGE SEAL INSTALLATION

1. Align the pin in the sleeve with the slot on the shaft (Figure 1). Prior to installing the seal, ensure the shaft slot is free of burrs and sharp edges that could damage the seal.

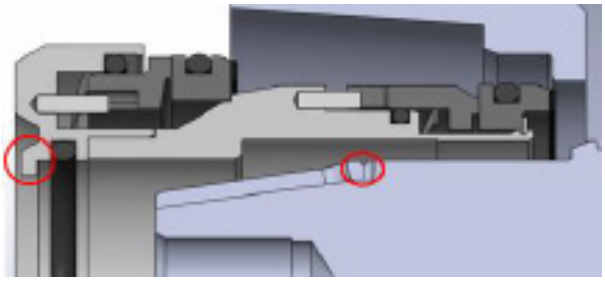


Figure 1. Sleeve And Shaft Slots

2. Slide the seal assembly onto the shaft until the seal sleeve hits the step in the shaft (Figure 2). There will be some resistance from the seal springs as the spring force tries to push the seal back out.

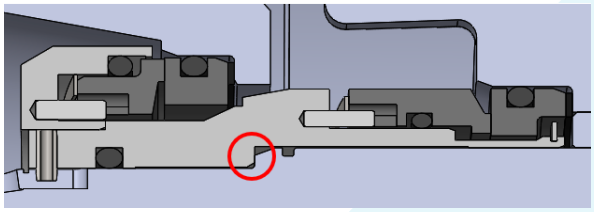


Figure 2. Seal on Shaft

3. Continue applying pressure to keep the seal sleeve pressed against the shaft step. Align the gap in the retaining ring with the shaft slot, and place the retaining ring in the shaft groove (Figure 3).

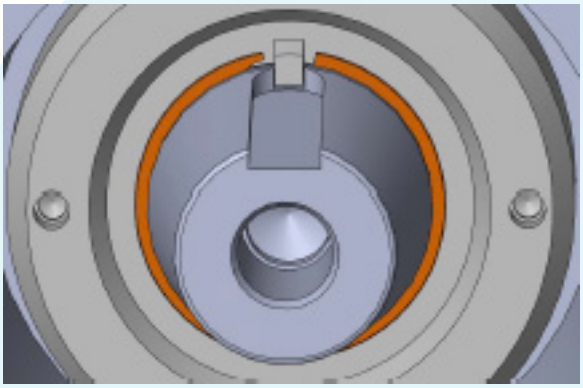


Figure 3. Retaining Ring in Shaft Groove

4. Immediately after installing the seal, pressurize the bearing housing (Area 1 in Figure 4) with air to ensure the static face is properly seated. The motor housing can only be pressure tested after the cooling chamber has been checked and the seal.

⚠ CAUTION FAILURE TO PERFORM PRESSURE CHECK PRIOR TO STARTUP MAY RESULT IN LEAKAGE OR COMPLETE PUMP FAILURE.

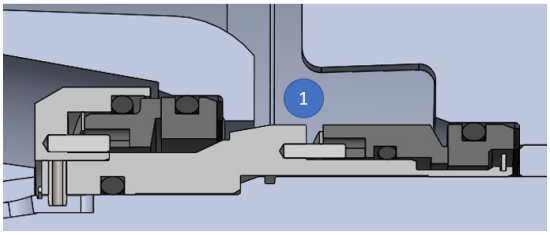


Figure 4. Area to Pressurize

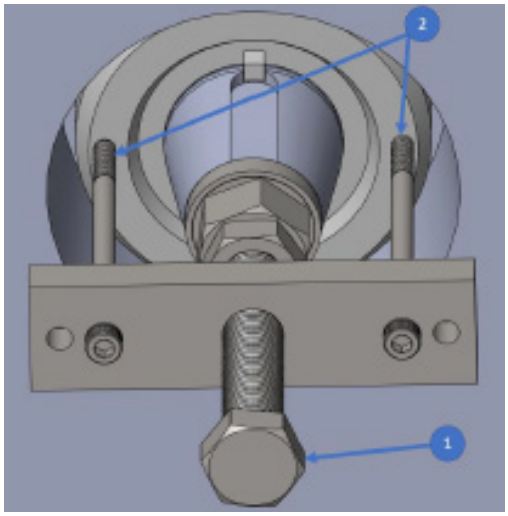


Figure 5. Removal Tool

SEAL REMOVAL

1. Remove the retaining ring from the pump shaft groove.
2. To remove the seal, assemble the removal tool as shown in Figure 5. Thread item 2 into the seal. Rotate item 1 to pull the seal assembly out of the pump cavity.
3. **⚠ CAUTION** USED SEAL PARTS MAY CONTAIN SHARP BURRS OR EDGES.

   Disposal of used seals and packaging material should be performed in accordance with applicable local rules and regulations.

DRAWINGS

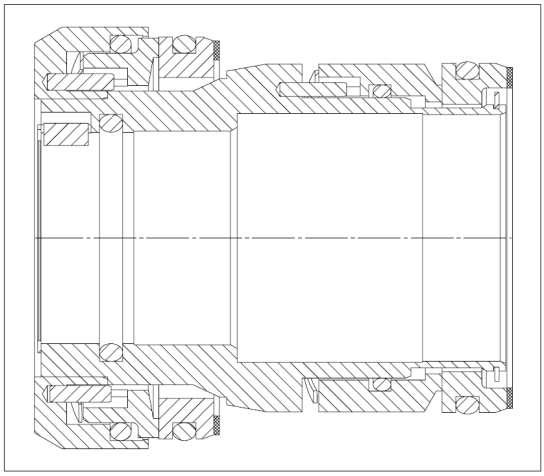


Figure 6. Cartridge Seal Cross Section

PENTAIR

1101 Myers Parkway
Ashland, OH 44805
Ph: 855.274.8947
Fx: 800.426.9446

490 Pinebush Rd.,Unit 4
Cambridge, Ontario N1T 0A5, Canada
Ph: 800.363.7867
Fx: 888.606.5484

pentair.com

All indicated Pentair trademarks and logos are property of Pentair. Third party registered and unregistered trademarks and logos are the property of their respective owners. Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice. Pentair is an equal opportunity employer.

® P-80 is a registered trademark of International Products Corporation

©2022 Pentair. All Rights Reserved.