

LPP SEAL REPLACEMENT

As your watermaker ages, your low-pressure pump seals will start to deteriorate and leak. When this happens, you will likely need to replace the seals. This procedure will instruct you on how to do this.

Disassembly

1. Disconnect power source to motor.
2. Disconnect electrical connections, tagging wires carefully to preserve correct rotation. Loosen motor base.
3. Remove pump and motor assembly to repair area. Observe position of all parts prior to disassembly. (Note: Volute may be left in piping.)
4. Remove bolts and volute from pump.
5. Remove impeller by unscrewing CCW. (Note: Remove center cap from rear of motor; insert screwdriver to hold shaft while unscrewing impeller.)
6. Remove seal head from motor shaft.
7. Remove motor bolts and remove bracket from motor.
8. Remove seal seat from bracket using fingers.

Assembly

1. Clean seat cavity of the bracket thoroughly and clean pump shaft.
2. Place the bracket on a firm surface with the seat cavity (pump end) up.
3. Install seal seat into seat cavity. Evenly push seat into cavity with fingers. To help ensure the seat is not damaged, place cardboard disk over the seat face then gently tap seat into place with a wooden dowel or plastic rod (1-1/8" outside diameter).
4. Lubricate shaft and elastomer with vegetable oil.
5. Install rotary seal head onto motor shaft and slide toward seat until carbon face touches seal seat.
6. Install seal spring and seal retainer.
7. Install impeller. Thread impeller onto shaft CW. (Apply Loctite 248 or equivalent to the motor shaft before threading the impeller onto the motor shaft.) Place screwdriver in motor shaft slot in rear of motor to hold while tightening impeller firmly. Install the O-ring onto the bracket face. (Note: Ensure that the spring retainer does not slip between the shoulder of the shaft and the hub of the impeller.)
8. Install volute and tighten bolts evenly (star pattern) to required torque.
9. Rotate shaft by hand to make sure impeller does not rub against volute.
10. Return pump to installation, reconnect electric connections.
11. Start pump momentarily to observe shaft rotation. If rotation corresponds to the rotation arrow, pump may be put into service. If rotation is incorrect, switch any two leads on 3-phase motors. Check the wiring diagram of motor for single phase rotation.
12. Prime pump thoroughly, making sure all air is purged.
13. Start pump, allowing adequate time to purge any additional air from system. Observe any gauges, flow meters, etc. to verify that pump is performing properly.

FAQS

Q: Why do you need to change the seal?

A: Typically, you would only need to replace the seal if you notice leaking around the shaft of the motor.

Q: How often do you need to change the seal?

A: Seals should be inspected once a month and replaced every 1000 run hours.

Q: What causes the seal to fail?

A: Seals can fail due to normal wear, the pump running dry, or in some cases, when debris gets between the sealing surfaces.

Q: What tools will you need?

A: Standard slot screwdriver, 1/2" open end or socket, 9/16" open end or socket, torque wrench, and Loctite.

SPECIFICATIONS

Volute Bolt Torque

10-12 ft/lbs. (13.5-16.3 Nm)

REPLACEMENT PARTS

SS Pump

43-2235 — Seal Kit

43-2421 — Volute O-ring

Noryl Pump (6-Bolt)

43-7205 — Seal Kit

43-7208 — Volute O-ring

FOR EASIER APPLICATION, VIEW THIS INSTRUCTIONAL VIDEO.



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