



# Replacement Seal Instructions for Close-Coupled and Base Mounted Centrifugal Pumps

**CLOSE-COUPLED PUMP**

**SAFETY INSTRUCTIONS**

This safety alert symbol will be used in this manual and on the pump safety instruction decals to draw attention to safety related instructions. When used the safety alert symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! FAILURE TO FOLLOW THE INSTRUCTIONS MAY RESULT IN A SAFETY HAZARD.**

**NOTE:** For additional information and instructions, refer to the Installation Operation & Service Instructions Manual supplied with your pump.

## SERVICE INSTRUCTIONS

1. **WARNING: UNEXPECTED STARUP HAZARD**  
Disconnect and lock out power before servicing. Failure to follow these instructions could result in serious personal injury or death, or property damage.

2. Close valves on suction and discharge sides of pump. (If no valves have been installed, it will be necessary to drain the system.)

3. **CAUTION: EXTREME TEMPERATURE HAZARD**  
Allow pump temperature to reach acceptable levels before proceeding. Open drain valve, do not proceed until liquid stops coming out of drain valve. If liquid does not stop flowing from drain valve, isolation valves are not sealing and should be repaired before proceeding. After liquid stops flowing from the drain valve, leave valves open and continue. Remove the drain plug located on the bottom of the pump housing. Do not reinstall plug or close drain valve until re-assembly is completed. Failure to follow these instructions could result in property damage and/or moderate personal injury.

4. Remove motor foot capscrews. Loosen volute capscrews, do not remove them. Use capscrews in the jack screw holes. Start to remove the pump assembly from the volute.

**WARNING: 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.

5. Remove seal flushing tube, if used. Remove the volute capscrews and remove the pump assembly from the volute.
6. Remove the impeller capscrews, lock washer and washer. Remove the impeller.
7. Remove the rotating portion of the seal, use a screwdriver to loosen the rubber ring.
8. Remove the seal insert along with the insert gasket and retainer (if used).
9. Thoroughly clean the shaft sleeve and the coverplate seal cavity. Inspect for surface damage like pitting, corrosion, nicks or scratches. Replace if necessary.
10. Lubricate the shaft sleeve and coverplate seal cavity with soapy water. (Do not use petroleum lubricant.) Install a new cup gasket and a new seal insert with indentation side down into the cup.
11. Slide a new rotating seal assembly onto the shaft sleeve. With a screwdriver push on the top of the compression ring until the seal is tight against the seal insert. Install seal spring.
12. Install impeller, impeller washer, lock washer and capscrew, then tighten capscrews (per torque chart).
13. Install new volute gasket then install pump assembly into volute. Tighten volute capscrews (per torque chart). Install seal flushing tube, if used. Install motor foot capscrews and tighten. Install drain plug, close drain valve.
14. Open isolation valves, inspect pump for leaks, if not leaking return pump to service.

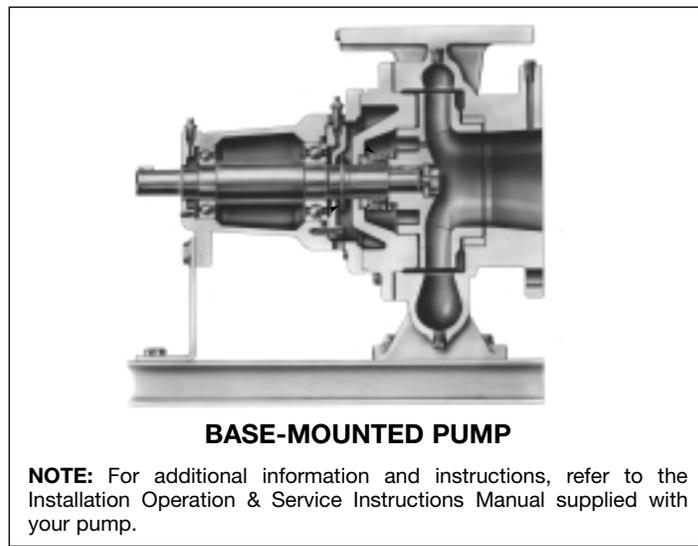
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4. Remove coupler guard and loosen set screws in both coupler halves and slide each half back as far as possible on its shaft. Remove coupler sleeve. Where a full diameter impeller is used, it may be necessary to remove the pump side coupler half and slide the motor back on its base in order to gain sufficient clearance to remove the pump assembly from the volute.
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Capscrew Type	Head Marking	CAPSCREW TORQUE (FOOT-POUND)								
		Capscrew Diameter								
		1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1
SAE Grade 2		6	13	25	38	60	120	190	210	300
Brass Stainless Steel	or	4	10	17	27	42	83	130	200	300
SAE Grade 5		10	20	35	60	90	180	325	525	800



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