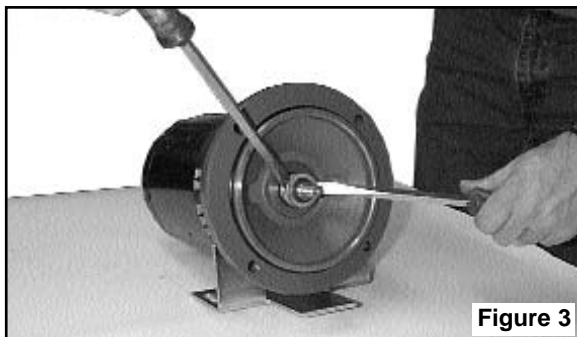
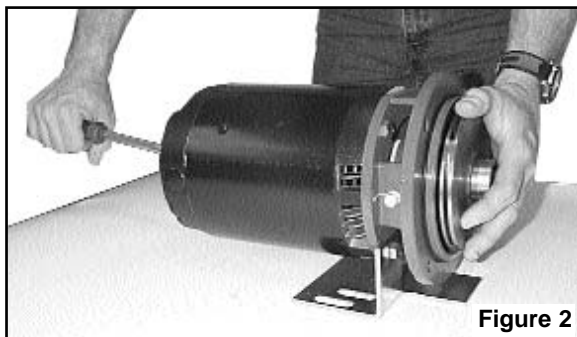
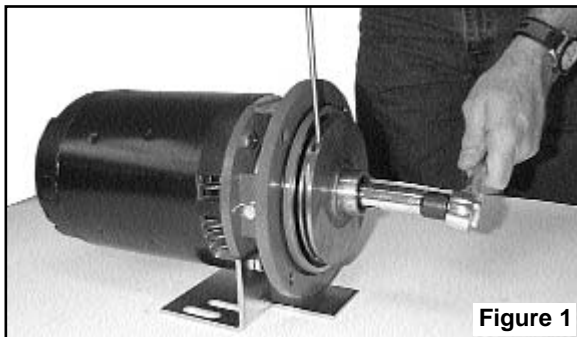


MECHANICAL SEAL REPLACEMENT

J56 FRAME MOTOR

A.) Disassembly:

1. Turn off power.
2. Close suction and discharge valves.
3. Drain pump.
4. Remove bolts holding base to foundation
5. Remove casing bolts.
6. Remove motor and rotating element from casing, leaving casing and piping undisturbed.
7. Insert a screwdriver in one of the impeller waterway passages and back off the impeller nut as shown in Figure 1.
8. Remove motor shaft end cap. Insert a screwdriver in slot of motor shaft. While holding shaft against rotation, unscrew impeller from shaft by turning counterclockwise when facing impeller (Figure 2).
9. Pry off rotating member of mechanical seal from motor or stub shaft by using two (2) screwdrivers. (Figure 3)
10. Remove bolts holding adapter to motor and take off adapter.
11. Place adapter on a flat surface with case rabbet facing down, and push out stationary part of mechanical seal.



B.) Reassembly:

1. Clean gasket and flange faces, seal seat cavity and shaft, in particular shaft shoulder fitting against impeller.
2. Position the stationary seat with the silver dot down (away from you) and the lapped face (shiny side) facing you. Lubricate the seal seat cavity of the adapter and the rubber cup or O-ring of stationary seal seat with the lubricating fluid that comes with the mechanical seal or repair kit. Press the stationary seat in seal seat cavity of the adapter squarely and evenly using a arbor press (if possible) and the cardboard disc supplied with the seal. Be certain that the lapped face (shiny side) is facing you.
3. Remount the adapter on motor, making sure the motor shaft does not dislocate or chip the stationary seat of the seal.
4. Apply the lubricating fluid that comes with the mechanical seal or repair kit to the motor shaft and the rubber bellows of the rotary seal. Slide the seal head on the shaft, press the rubber drive band on the rotary head until the lapped face on the head seats firmly against the lapped face of the stationary seat. Do not chip or scratch faces during installation. Take extra care to make sure the lapped faces are clean. Install spring on seal head (only applies to Type 21 seal).
5. Hold shaft against rotation as described in paragraph 8 of disassembly procedure, and thread impeller on shaft until it is tight against the shaft shoulder. The impeller will compress the seal spring to the proper length assuring correct pressure on lapped faces.
6. Replace D-washer and impeller nut holding impeller against rotation as indicated in paragraph 7 of disassembly procedure (2 & 3 HP 1PH, and all 3PH motors only).
7. Remove any burrs caused by screwdriver on the vane of impeller in waterway passage.
8. Replace motor and rotating element in casing. Be sure that any damaged O-ring or gasket is replaced.
9. Tighten casing bolts alternately and evenly.
10. Replace hold-down bolts.
11. Check for free rotation after assembly is completed.
12. Replace motor shaft end cap.
13. Seal all drain openings using pipe sealant on threads.
14. Reprime before starting. Do not start until pump is completely filled with water.

MECHANICAL SEAL REPLACEMENT

C56 FRAME MOTOR, TYPE 6A SEAL

A.) Disassembly:

1. Follow paragraphs 1 - 6 of instructions for Mechanical Seal Replacement J56 frame.
2. Insert wrench between openings in adapter and place on flats of stub shaft. While holding shaft against rotation, remove the impeller retaining assembly using a 7/16 socket (Figure 4).

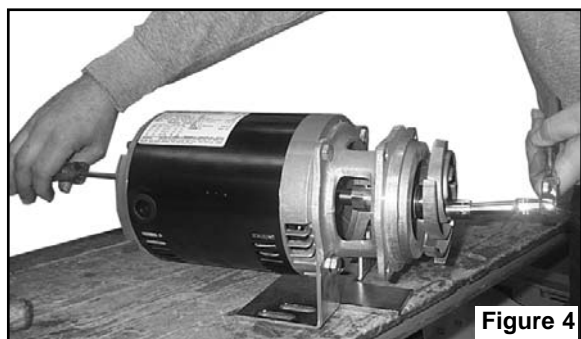


Figure 4

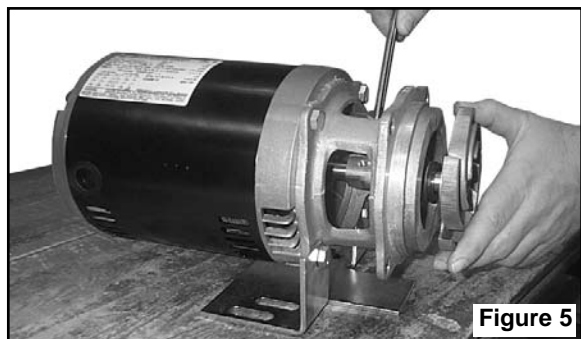


Figure 5

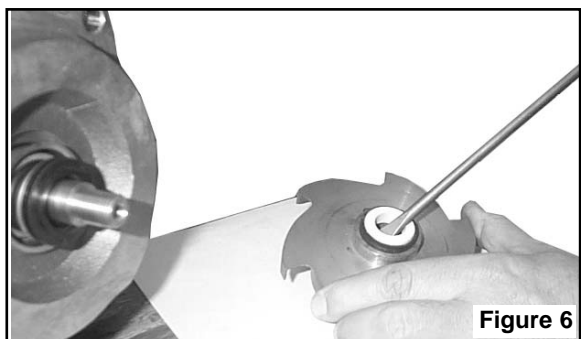


Figure 6

3. Leave the wrench on flats of stub shaft and unscrew the impeller by turning counterclockwise when facing the impeller (Figure 5).
4. The seal can now be removed from the impeller (Figure 6).
5. Remove cap screws holding adapter to the motor and remove adapter.
6. Place adapter on a flat surface with adapter rabbet facing down, and push out the mechanical seal head.

A.) Reassembly:

CAUTION: The mechanical seal is a precision product and should be handled

accordingly. Use care when handling lapped running surfaces of the mechanical seal to ensure they remain clean and are free of chips or scratches.

1. Clean gasket and flange faces, seal seat cavity, seal head bore and shaft, in particular shaft shoulder fitting against impeller.
2. Lubricate the seal seat cavity of the impeller and the rubber cup or O-ring of seal seat with the lubricating fluid that comes with the mechanical seal or repair kit. Press the stationary seat in seal seat cavity or the impeller squarely and evenly using a arbor press (if possible) and the cardboard disc supplied with the seal. Be certain that the lapped face (shiny side) is facing you.
3. Apply pipe sealant on outside of the stainless portion of the seal head to ease head into adapter. Press in the adapter on the stainless lip using a 3" long piece of 1 1/4" PVC pipe.
4. Hold shaft against rotation as discussed in paragraph 3 of disassembly procedure, and thread impeller on shaft until it is tight against the shaft shoulder. The impeller will compress the seal assuring proper pressure on the lapped faces.
5. Replace impeller retaining assembly holding impeller against rotation as indicated in paragraph 3 of disassembly procedure. (2 & 3 HP, 1PH and all 3PH motors only.)
6. Replace motor and rotating element in casing. Be sure that any damaged gasket is replaced.
7. Tighten case bolts alternately and evenly.
8. Replace hold-down bolts.
9. Check for free rotation after assembly is completed.
10. Seal all drain openings using pipe sealant on threads.
11. Reprime before starting. Do not start unit until pump is completely filled with water.

The approved lubricating fluid for seal installation is included with the mechanical seal or repair kit. **DO NOT USE OTHER LUBRICATING LIQUIDS!**

WE RECOMMEND STOCKING A SPARE MECHANICAL SEAL OR REPAIR KIT TO ELIMINATE DOWN TIME.

**PRESSURE AND TEMPERATURE LIMITATION
STANDARD FITTED PUMPS**

PUMP NO.	PRESSURE		TEMPERATURE	
	STANDARD	OPTIONAL	STANDARD	OPTIONAL
69	75 PSI	N/A	220°F	275°F
51, 61, 74	75 PSI	150 PSI	220°F	275°F
77, 77, 78, 79, 82	75 PSI	N/A	220°F	275°F
11, 12, 13, 16, 27, 60, 125, 126	75 PSI	150 PSI	220°F	275°F
62	165 PSI	165 PSI	220°F	275°F
ALL OTHERS	175 PSI	175 PSI	220°F	275°F
N/A-NOT AVAILABLE				

CAUTION

DO NOT ALLOW EITHER THE DISCHARGE PRESSURE OR THE TEMPERATURE OF THE LIQUID TO EXCEED THE LIMITATIONS LISTED ABOVE.