

INSTRUCTION BULLETIN

MP CENTRIFUGAL PEDESTAL PUMP

MODEL: CHEMFLO 5, 6,7,8

**READ THIS BULLETIN CAREFULLY
BEFORE INSTALLING OR OPERATING THE PUMP**

INTRODUCTION

The instructions contained in this bulletin pertain to the installation, operation and maintenance of a CHEMFLO pedestal pump only.

Inspect the pump as soon as it is received to make certain that no parts are missing or have been broken in shipment. Damage should be immediately reported to the shipping company

The pump utilizes a single self-adjusting type mechanical seal that is lubricated and cooled by the liquid in the pump. **THE PUMP MUST NEVER BE OPERATED WITHOUT LIQUID IN THE HOUSING.**

Check rotation of the driver to be sure it coincides with the required rotation of the pump. When viewed from the **driver end** the rotation of the pump is **CLOCKWISE.**

The pump's grease lubricated bearings are sealed. They have been pre-lubricated at the factory and require no further lubrication or maintenance for the life of the bearing. Electric motors or other rotating equipment used to drive the pump should be lubricated in accordance with the manufacturers instructions.

INSTALLATION

Check the shaft to insure that it rotates freely. Shafts should be aligned in accordance with the instructions of the coupling manufacturer. Final alignment must be performed after the pump has been completely installed and the pump and

driver are at operating temperature. **Proper shaft alignment is the responsibility of the installer.**

The MP CHEMFLO centrifugal pump should be installed with a flooded suction as near to the liquid source as possible. An **MP CHEMFLO is not self-priming pump.** If the liquid source is located below the pump a footvalve and some provision for priming must be used. The pump housing and suction line must be fully primed before operation. **The mechanical seal in the pump must not be operated dry.**

Piping should include shutoff valves on both the discharge and suction to isolate the pump for maintenance. Provisions for suction and discharge pressure gages are recommended for trouble shooting. The suction line should be as short as possible, at least as large as the pump suction connection, include as few fittings as possible and those should long radius to keep friction losses at a minimum. If a footvalve or strainer is included the Free Area should be at least three times the area of the pump suction connection. **The suction piping must be absolutely free of leaks.**

Both suction and discharge piping should be supported independently of the pump. Never draw pipe into place. This may impose a strain that will result in misalignment between the pump and driver or otherwise adversely affect the operation of the pump. After connecting piping to the pump rotate the shaft several times to check for rubbing or binding.



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DISASSEMBLY

Drain the housing by removing the drain plug. Unless the housing requires replacement it may be left in place.

Remove the hex nuts and lock washers from the housing studs.

Slide the bearing housing/impeller assembly out of the housing, it may be necessary to rotate the driver shaft out of the way.

With bearing/impeller assembly on a bench secure shaft, unthread impeller nut then unthread impeller.

Remove the seal from the shaft.

Lift off the seal plate.

Place the seal plate face down on the bench and press the seal seat out.

Remove the snap ring from the backside of the bearing housing. With a soft mallet, loosen the shaft assembly by tapping the impeller end then slide the bearing assembly from the housing.

Press the bearings from the shaft.

ASSEMBLY

Press bearings onto the shaft.

Slide the shaft/bearing assembly into the bearing housing and install the snap ring.

Place seal housing face up on bench. Lubricate non-Teflon seal seat with water-soluble lubricant and gently press into seal housing. If pinned seat is used be certain that pin is in place, lined-up with groove in seal seat.

Place seal housing onto pilot of bearing housing.

Lubricate shaft with water-soluble lubricant. Slide seal onto shaft.

Instructions for set screw type seal:

▲ Do not remove the seal retaining clips.

Slide the seal into place on the shaft. The end of the shaft will be recessed approximately $.080" \pm .020"$ from the end of the seal. The proper seal working height is achieved when the seal faces are set flush with the seal clips in place.

With the seal clips still in place tighten the seal fasteners with a ball end allen wrench. **It is important that the allen wrench not rest upon the seal housing during tightening as this may affect the position of the seal on the shaft.** After the seal fasteners have been tightened the seal clips should be removed and saved

▲ Do not use the seal shim with setscrew type seal.

For bellows seal install the seal spacer on the backside of the impeller. Use a light grease or similar tacky material.

Thread impeller onto shaft.

Install jam nut.

Place o-ring onto seal plate.

Install impeller/bearing housing assembly into pump housing.

Install lock washers and hex nuts.

Rotate the shaft several times to check for rubbing or binding.

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