# MP PUMPS MAX EB SERIES



# INSTRUCTION BULLETIN MAX EB2



Read this bulletin in full before installing, operating or servicing this pump.



# **WARNING!**

Do not perform service or maintenance when pumping system is pressurized or hot.

Do not operate the pump in a manner that it was not intended to be used.

Do not allow severe temperature changes to occur in a short time period within the pumping system

Do not mount pump in conditions that high piping loads exist on the pump flanges.

Do not continue to operate the pump when unusual noise or vibration occurs.



#### **Illinois Location:**

(847) 841-7867 860 Church Rd Elgin, IL 60123

#### Minnesota Location:

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 ${\bf Pump Supply Inc.com}$ 



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## APPLICATION AND INSTALLATION INSTRUCTIONS

It is important that this Instruction Bulletin be read carefully to fully familiarize yourself with the pump assembly arrangement. The instructions contained herein pertain to installation and maintenance of the pump assembly only. Check unit carefully to make certain that no parts are missing or have been broken in shipment. Any questions call 800-563-8006 or visit mppumps.com

#### **INSTALLATION**

### PIPING/MOUNTING

Pump must be mounted in a vertical shaft position.

Pipe thread sealing compound must be used on the NPT flanges that is compatible with the operating fluid and is rated for the temperature requirements

Pipe or hose of the same size (or larger) as inlet and outlet NPT should be used on the installation. When using pipe use long radius elbows wherever possible.

#### **ELECTRICAL**

Follow the wiring diagram found on or near the electric motor name plate for the desired voltage of the system.

#### START-UP

Check for proper shaft rotation by jogging the power and observing the impeller rotation. Correct rotation arrows are provided on the pump housing.

Fill pumping system with fluid before start-up. This line of product will not handle air and therefor all air must be displaced fro the suction line and pump before the pump can operate.

#### **OPERATION**

Any system leak should be repaired immediately.

Ideal mechanical seal life is 20,000 hours. Reduced seal life may be experienced from extreme conditions.

The mechanical seal in the pump must not be operated dry

#### **DISSASEMBLY**

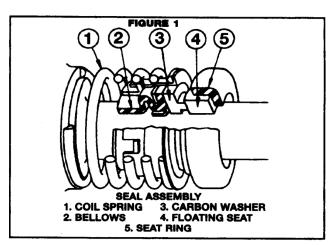
Drain the system of liquid. If removing the pump from the system break the suction and discharge unions.

Remove the fasteners holding the pump to the adapter. Pull the housing away from the adapter carefully to avoid tearing gaskets.

To disassemble the impeller, hold the end of the motor shaft. It may be necessary to remove the rain cap and end bell. Remove the jam nut. Unthread the impeller from the motor shaft. Heat may need to be applied to dissolve the Loctite.

Once disassembled check the impeller and other wear items for unusual wear. Replace if necessary.

If the mechanical seal is suspect of damage, lubricate the motor shaft with a clean light oil and slide the parts off the shaft. Inspect the lapped seal faces (part 3 & 4). If chipped or scored replace entire seal. Inspect elastomer bellows (part 2 &5) for rips, tears or deterioration.



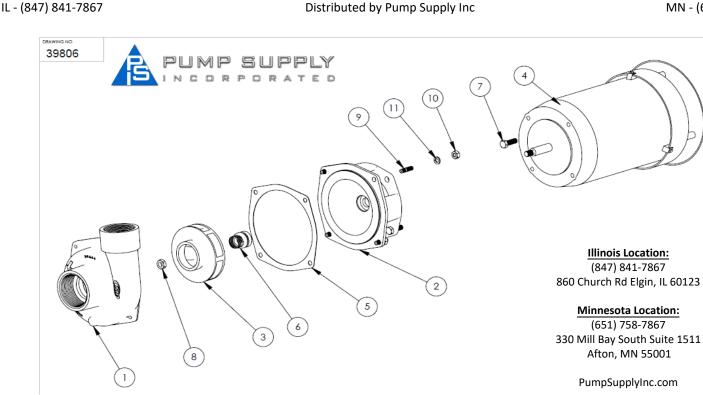
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| ITEM NO. | PART<br>NUMBER | DESCRIPTION               | MATERIAL            | QTY. |
|----------|----------------|---------------------------|---------------------|------|
| 1        | 39665          | HSG MACH                  | CAST IRON           | 1    |
| 2        | 39669          | ADP MACH                  | CAST IRON           | 1    |
| 3        | 39667          | IMP MACH                  | 304 STAINLESS STEEL | 1    |
| 4        | 39805          | ELE. MOTOR                | STD.                | 1    |
| 5        | 39670          | GASKET                    | VITON               | 1    |
| 6        | 35052          | SEAL ASY:5/8 T-21         | CCS/VITON           | 1    |
| 7        | 21291          | CAPSCREW 3/8-16X1.13      | 304 STAINLESS STEEL | 4    |
| 8        | 30382          | JAMNUT 7/16-20            | SS 316              | 1    |
| 9        | 28059          | STUD 5/16-18X1.19         | 304 STAINLESS STEEL | 4    |
| 10       | 21284          | HEXNUT: 5/16-18X1/2X17/64 | 304 STAINLESS STEEL | 4    |
| 11       | 21238          | LOCKWASHER 5/16 X 18      | 304 STAINLESS STEEL | 4    |

#### ASSEMBLY INSTRUCTIONS

If needed assemble the adapter onto the electric motor using the 4 capscrews and tighten evenly

Clean the inner bore of the adapter with a fine Emory cloth if needed. Lubricate the bore and seal seat bellow (part 5 of Figure 1) with a light oil. Press (do not drive) the seat into the adapter counter bore seating it firmly and squarely. Inspect and clean the lapped sealing surface. This can be done prior to the previous step.

Inspect and clean the sealing face of the carbon washer (part 3 of Figure 1). Polish the electric motor shaft with a fine Emory cloth or crocus cloth. Lubricate the inside of the washer and bellows assembly (Part 2 &3) with a clean light oil and slide it onto the motor shaft until it clears the chamfer.

Slide the seal bellows and washer assembly onto the electric motor shaft. Push the seal down over the shaft until it seats squarely with the stationary seat in the adapter.

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# MP PUMPS MAX EB SERIES ASSEMBLY INSTUCTION CONT.

Place spring over shaft onto seal assembly.

Using a small amount of Loctite on the impeller threads, thread the impeller onto the motor shaft until it seats with the shaft shoulder. If necessary, reassemble the electric motor end bell and rain cap. Tighten jam nut on the end of the

Place the gasket over the housing careful to not tear the gasket. Assemble the housing onto the adapter with the lock washers and hexnuts. Tighten Evenly

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