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# MDX

INSTALLATION, OPERATION, AND REPAIR MANUAL  
FORM XXXX (04/15)

MDX is a magnetically driven circulator pump designed to pump engine coolant.

The MDX features a type 3 anodized aluminum housing and adaptor for corrosion resistance. There is no mechanical seal in the pump since the rotor is magnetically coupled to the motor.



#### GENERAL SAFETY INFORMATION:

THE FOLLOWING WARNINGS ARE USED TO NOTIFY AND ADVISE THE USER OF THIS PRODUCT OF PROCEDURES THAT MAY BE DANGEROUS TO THE USER OR RESULT IN DAMAGE TO THE PRODUCT.

THIS BULLETIN MUST BE READ COMPLETELY BEFORE INSTALLING , OPERATING, OR SERVICING THE PUMP.

- DO NOT** perform service or maintenance when the pumping system is pressurized. Injury may occur.
- DO NOT** operate the pump in a manner that was not intended to be used.
- DO NOT** mount the pump such that high piping loads exist on the pump flanges, or in a rigid piping system that does not allow the pipe to expand and cause the pump to be strained.
- DO NOT** continue to operate the pumping system when a known leak exists.
- DO NOT** continue to operate the pump when unusual noise or vibration occurs.
- DO NOT** continue to operate beyond the pressure or temperature limits stated in the product literature.
- DO NOT** allow severe temperature changes to occur in a short time period within the pumping system.

#### INSTALLATION:

Never expose the pump to extremely wet or dirty conditions. The pump should be mounted away from highly contaminated areas or shielded from the environment. Use of additives in the cooling systems can cause excessive wear and premature failure. Check with factory on coolant additive usage.

#### PIPING /MOUNTING:

The MDX has flange connections so the motor should not require further restraint. However, if the system cannot carry the weight of the pump then the motor should be secured with a strap clamp or optional base.

#### ELECTRICAL:

24-volt systems should never exceed 30-volts, while the 12-volt systems should never exceed 15-volts.

### **Operation:**

Never run the pump dry as it can harm the pump and cause premature failures. Do not place the MDX in ambient temperatures exceeding 200 degrees Fahrenheit. Coolant temperatures in excess of 210°F are not recommended. High temperatures will reduce life of motor components

### **Repair and Maintenance:**

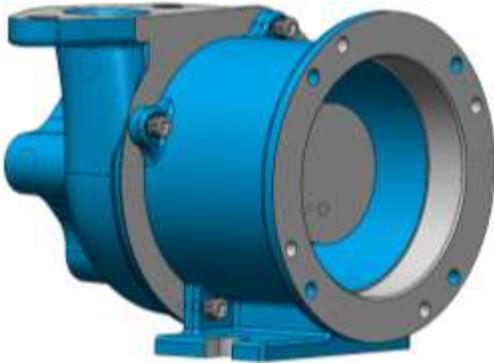
The pump has no mechanical seal and instead has a wet rotor that is magnetically coupled to the motor. A pump that leaks means that the O-Ring between the housing and adaptor is not sealing properly. If the pump stops working, you must check the rotor assembly for damage and replace if necessary.

With the use of the above installation parameters, each MP pump should provide years of trouble-free service. Not considering these installation criteria could cause premature failure and voids the warranty.

## **REASSEMBLY INSTRUCTIONS:**

### **1. Housing Assembly/Disassembly**

Have the housing face down on the work surface and line up the adaptor holes with the holes in the housing. Then install the four (4) #8 capscrews by having them go through the adaptor and into the housing. /Remove the four (4) #8 capscrews that go through the adaptor and into the housing.



### **2. Rotor Assembly/Disassembly**

Slide the rotor assembly onto the shaft and then slide the ceramic washer onto the shaft. /Remove the ceramic washer and then slide off the rotor assembly.

