Hale Products, Inc. Service Bulletins

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Product Type Covered: **Hale Pump** X **Hurst Tool** **Lukas Tool**

Keywords: MIV Operating Time and Pressure

Product Covered: MIV – Master Intake Valve

Summary Statement: **MIV motor update reduces power draw, and increases operating time for better control of water flows as well as operation to 250 psi.**

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Body of the Bulletin

The Hale MIV is a popular accessory that maintains the full rated flow of the pump while safely mounting behind the pump panel. The reason why the MIV does not require de-rating the pump is held in the oversized disk design with a narrow streamlined shape for low pressure drop. The original "Big Water" valve has proven reliable over many years in applications all over the world. A new upgraded drive motor on the MIV-E reduces the current draw required from the apparatus wiring. The updated motor reduces voltage drops that can cause erratic operation.

Note: MIV operating time has been increased from 3-5 seconds to 9-10 seconds on all new MIV valves built after November 1st 2008 with the updated motor. Beginning in November, all spare parts orders for MIV motors or motor and actuator assemblies will be filled with the higher torque motor.

This improvement allows even better control of high flows with the MIV. The MIV still has a maximum pressure of 250 psi, however this upgraded motor will require less current draw. Note that an absolute minimum of 11.5 volts DC is required at that motor to provide adequate power to operate the valve. To operate properly at 250 psi, the MIV must be properly maintained and lubricated as well as having an adequate power supply to the motor.

The MIV Master Intake Valve still requires normal maintenance and lubrication per the manual for peak performance. Maintenance and service hints are provided here in addition to the information in the MIV manual:

1. Use a quality waterproof grease. It has been shown that a quality synthetic water proof grease will last longer and ease operation effort. Hale has tested "Waterproof Green Grease" manufactured by Omni lubricants and recommends this lubricant for valves. "Green Grease" is readily available at major auto parts stores such as AutoZone.
   A standard 14 Oz grease gun tube can be ordered from Hale under P/N 029-0661-00-0.

   Note that any high quality valve lubricant that is compatible with water, foam, acetal, viton and buna elastomers can be used.

2. Clean Grit and Dirt from valve disk before application of new grease. The grease is much more effective when it is properly distributed around the valve disk. Lubricate the valve and cycle back and forth to distribute the grease.

3. Check electrical connections. In many cases, the original wiring may have deteriorated to the point that inadequate power is reaching the MIV motor. When checking voltage, check it at the MIV motor under load (purple and white wires)

4. Check for water in the switch housing. In some cases water has entered the switches below the actuator. This water can come from rain or road spray thru the strain relief entering the MIV or from a leak in the seal on the valve shaft. Refer to the MIV manual for further details and make sure the gasket between the actuator gearbox and the MIV housing is intact.

Using the best practices and hints here has been proven to enhance MIV operation in the field. This product improvement is a result of input from operators who asked for better control of the "Big Water" flow with the MIV and increased reliability when opening from higher pressure ranges.