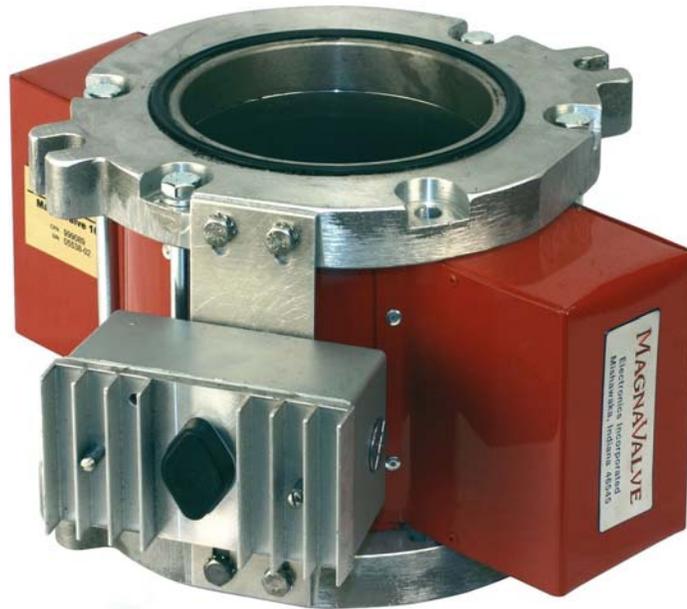


Model 100 MagnaValve



Electronics Inc.
Shot Peening Control

Electronics Inc.

56790 Magnetic Drive

Mishawaka, Indiana 46545

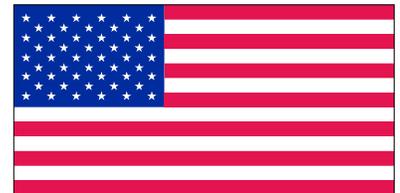
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Made in the USA

Model 100 MagnaValve

The model 100 MagnaValve uses permanent magnets as a normally-closed valve for flow regulation of steel shot or grit. When the red LED indicator is on, the permanent magnet is cancelled and shot will flow.

The controller or power pak (order separately) supplies a voltage to the valve at a fixed rate of 10 Hertz. The duration, or duty cycle determines the amount of shot that the valve will regulate. When the red LED is off, there will be no flow. When the red LED is on constantly, the valve will flow shot at maximum capacity. When the red LED is blinking, the shot flow rate will be proportional to the knob setting.

To get perfect cancellation of the permanent magnet, a current regulator is installed at the valve junction box. This device is labeled Valve Driver Module model VD-7 and it limits the current to approximately 0.7 Amps DC. (at 100% duty cycle). The actual factory setting of this module is noted on the junction box label and it should not be changed.

At 100% duty cycle (red LED constantly on), no shot should cling to the interior of the valve. If the valve driver module should fail, then shot will cling to the valve interior (at 100% duty cycle). Either replace the valve driver module or replace the entire valve.

To replace the valve driver module requires calibration information listed on the valve driver module label. The neutral field cancellation current must be factory pre-set for the replacement valve driver module, or the customer must adjust the neutral field setting to achieve magnetic field cancellation. This can be done by use of an ammeter in series with the either one of the connection wires, or by adjusting and observing when the shot falls freely through the valve (at 100% duty cycle).

Variation in flow rates of 5% of range (i.e. 2 to 3 amperes) is common for mechanical and MagnaValves. Several things can influence the shot flow rate, such as shot contamination (oil, water, dust, broken shot, debris). Obstructions in (or above) the MagnaValve can affect both maximum flow rate and flow rate stability.

CALL 574-256-5001 for service assistance