

Model 700-24 MagnaValve®

Non-Ferrous Media Valve for Air Blast Machines

For Ceramic Bead and Glass Bead

Features

- $\pm 5\%$ full-scale accuracy
- $\pm 2\%$ accuracy with advanced calibration (upon request)
- Normally closed
- Meets SAE AMS 2430 and 2432 specifications
- 24 Vdc operation
- Only one moving part
- CE compliant

Description

The Model 700-24 MagnaValve® is a normally closed valve that regulates the flow of non-ferrous media in either direct pressure- or suction-type air blast machines. The MagnaValve's built-in sensor measures flow rate and, together with the FC-24 Controller (sold separately), provides accurate and repeatable flow rates. The valve meets the accuracy requirements of SAE AMS 2430, AMS 2432 and other aerospace and commercial specifications required for shot peening applications. Ceramic Bead or Glass Bead can be used in this valve. Other non-ferrous materials, such as Aluminum Oxide (AlOx), may also be used by special arrangement. Contact the factory for more information. Each valve will be pre-calibrated with customer-specified media.

How It Works

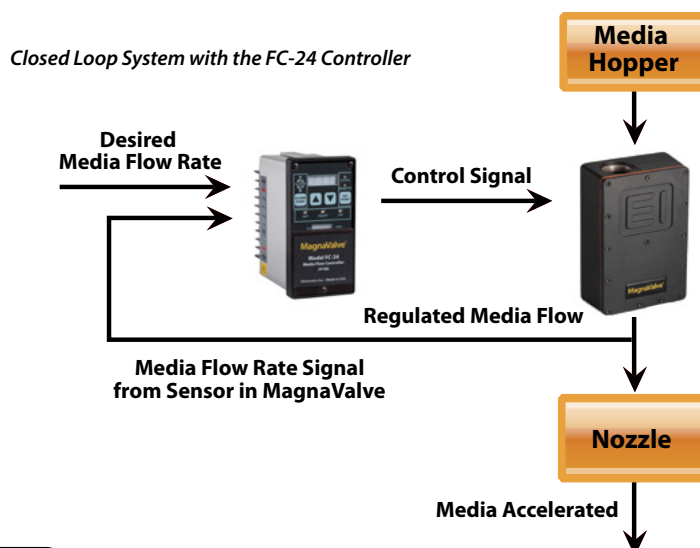
The MagnaValve's construction incorporates an electromagnetically controlled plunger for media flow control. The plunger rests in an orifice. With power applied, an electromagnet raises the plunger to allow media to flow through the valve. The media falls past the plunger and drops onto a paddle, bending it according to the media's flow rate and thereby producing an accurate flow rate signal. When no power is applied to the MagnaValve, the plunger returns to its rest position and stops all media flow. If the power is interrupted for any reason, the plunger returns to the rest position and securely holds the media, thereby virtually eliminating media leakage.

Closed Loop Operation

The FC-24 Controller provides a closed-loop system for the MagnaValve. The MagnaValve and controller provide accurate regulation of non-ferrous media in shot peening and blast cleaning applications where accurate and repeatable flow rates are desired. The controller may operate as a stand-alone control or work with a customer's programmable controller via standard analog 0-10 Vdc interface. The flow rate signal from the MagnaValve is used as the flow rate feedback signal to the FC-24 Controller.



FC-24 Controller
(sold separately)



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Specification is subject to change without notice
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Specifications

Power	24 Vdc \pm 2 Vdc @ 2A (50 VA)	Servo Command Input	0 - 10 Vdc
Media	Ceramic Bead & Glass Bead	Flow Enable Input	24 Vdc
Maximum Pressure	60 PSI	Flow Sensor Output	0 -10 Vdc
Mode	Normally Closed	Weight	19.4 lb. (8.8 kg)
Temperature Range	40°F - 110°F (5°C - 43°C)	Flow Ports	Top (entry) and Bottom (exit) are 2" NPT Female Threads

Media Flow Rates

Media Size	Ceramic Bead				Glass Bead					
	100	150	300	425	#5	#6	#7	#12	40-60	70-140
Maximum Media Weight	13 lb 6 kg	13 lb 6 kg	20 lb 10 kg	20 lb 10 kg	10 lb 5 kg	13 lb 6 kg	10 lb 5 kg	13 lb 6 kg	15 lb 7 kg	13 lb 6 kg

Please note: For proper operation, media must be free from ferrous contamination and fines (broken media and dust). The media must be free flowing. Install a magnetic separator and a screen separator in the reclaim system to ensure necessary media quality.

Dimensions

Inches (Metric)

