

24 Vdc Series MagnaValve®

Steel Shot Media Valve for Air Blast Machines

| Model | Flow Rate Range |
|--------|-------------------------------------|
| 576-24 | .2 - 2 lb/min (.1 - 1 kg/min) |
| 577-24 | 1 - 10 lb/min (.45 - 4.5 kg/min) |
| 578-24 | 3 - 30 lb/min (1.4 - 13.5 kg/min) |
| 579-24 | 10 - 100 lb/min (4.5 - 45 kg/min) |
| 580-24 | 20 - 200 lb/min (9 - 90 kg/min) |
| 590-24 | 30 - 300 lb/min (13.6 - 136 kg/min) |

Flow rates based on S230 cast steel shot. See complete flow rate chart on page three.

Features

- 24 Vdc
- $\pm 5\%$ full-scale accuracy*
- Normally closed
- No moving parts for low-maintenance operation
- Meets SAE AMS 2430 and 2432 specifications
- CE compliant
- Includes a 6 ft. (1.83 m) plug and cable

*Higher accuracy available upon request

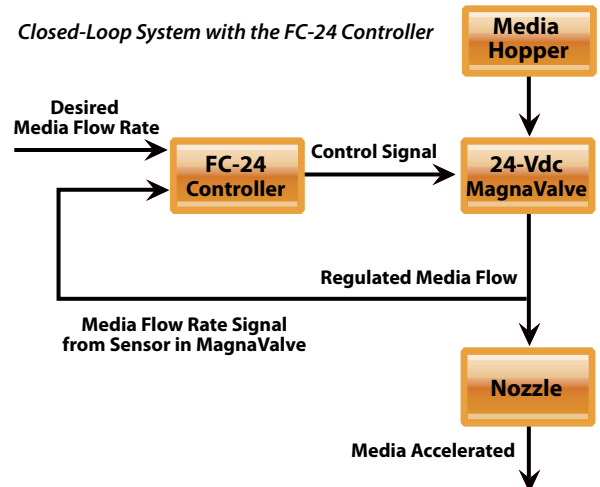
Description

The MagnaValve® is a normally closed magnetic valve that regulates the flow of steel shot and cut wire media in 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 MagnaValve can be factory calibrated for various media types and sizes. It will be calibrated for the media type, size and flow rate specified on the purchase order.

The MagnaValve has a strong and stable rare earth permanent magnet for normally closed operation and an electromagnet for controlling shot flow rates. When no power is applied to the MagnaValve, the permanent magnet stops all flow. With power applied, the magnetic field is neutralized and shot is allowed to flow through the valve. If the power is interrupted for any reason, the permanent magnet in the valve securely holds the shot. The valve is factory calibrated and results are supplied upon request.

The MagnaValve provides reliable, repetitive, and consistent media flow rates for shot peening and blast cleaning applications. The MagnaValve makes it easy to document flow rates and establish or repeat a good set-up. The valve meets the requirements of SAE AMS 2430, AMS 2432 and other aerospace and commercial specifications.

Clear and comprehensive installation manuals simplify installation for the 24 Vdc Series MagnaValves and the FC-24 Controller. In addition, the products are supported by the Electronics Inc. application engineering staff.



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Specification is subject to change without notice
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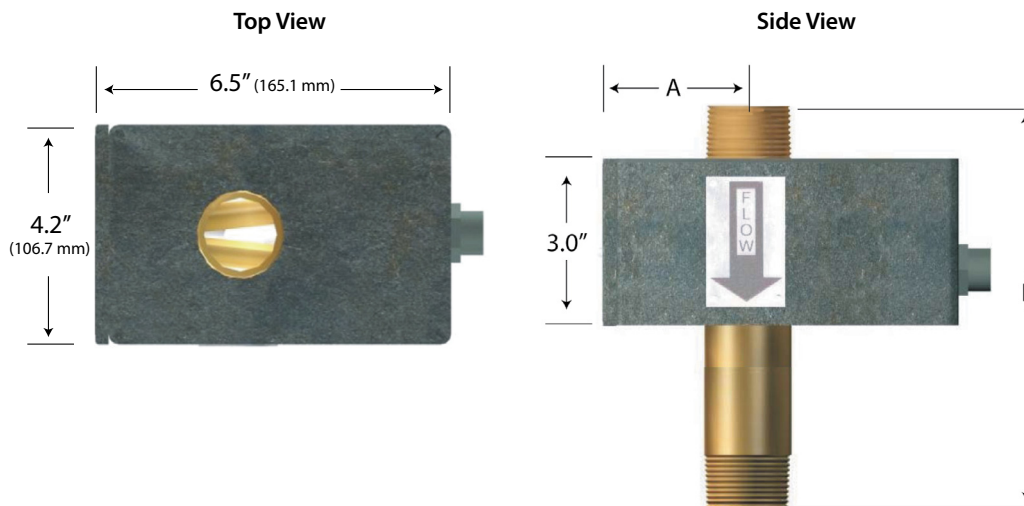
24 Vdc Series MagnaValve

Steel Shot Media Valve for Air Blast Machines

Specifications

| | | | |
|--------------------------|--|----------------------------|--|
| Power | +24 Vdc @ 2A (50 VA) | Servo Command Input | 0 - 10 Vdc |
| Media | All ferrous media except Cast Stainless Steel | Flow Sensor Output | 0 - 10 Vdc, max output 11.5 Vdc |
| Maximum Pressure | 100 PSI | Display LEDs | Valve On Command Input Flow Enable +24V Power |
| Mode | Normally Closed | | |
| Temperature Range | 40°F- 110°F (5°F - 43°C) | | |
| Flow Enable Input | 24 Vdc | | |

Dimensions Inches (Millimeters)



| Model Number | Pipe Size | "A" | "B" |
|--------------|-----------|----------------|-----------------|
| 576-24 | 1" NPT | 2.5" (63.5 mm) | 6.0" (152.4 mm) |
| 577-24 | 1" NPT | 2.5" (63.5 mm) | 6.0" (152.4 mm) |
| 578-24 | 1.25" NPT | 2.5" (63.5 mm) | 6.0" (152.4 mm) |
| 579-24 | 1.25" NPT | 2.5" (63.5 mm) | 8.0" (203.2 mm) |
| 580-24 | 2" NPT | 3.0" (76.2 mm) | 8.0" (203.2 mm) |
| 590-24 | 2" NPT | 3.0" (76.2 mm) | 8.0" (203.2 mm) |

FC-24 Controller (sold separately)

| | |
|------------------------------------|----------------------|
| Flow Sensor Input from MagnaValve | 0 - 10 Vdc into 100K |
| Flow Enable Input from PLC | 24 Vdc @ 10 mA |
| Flow Enable Output to MagnaValve | 24 Vdc @ 10 mA |
| Servo Command Output to MagnaValve | 0 - 10 Vdc |
| Remote Setpoint Input from PLC | 0 - 10 Vdc |



24 Vdc MagnaValve Selector Guide Based on Flow Rate

| Maximum Flow Rate (pounds per minute/kilograms per minute) | | | | | | | | | | | | |
|---|--------|----|--------|----|--------|------|--------|----|--------|----|--------|-----|
| Shot | 576-24 | | 577-24 | | 578-24 | | 579-24 | | 580-24 | | 590-24 | |
| Size | lb | kg | lb | kg | lb | kg | lb | kg | lb | kg | lb | kg |
| S-70 | 2 | 1 | 10 | 5 | 30 | 15 | 100 | 45 | 200 | 90 | 300 | 150 |
| S-110 | 2 | 1 | 10 | 5 | 30 | 15 | 100 | 45 | 200 | 90 | 300 | 150 |
| S-170 | 2 | 1 | 10 | 5 | 30 | 15 | 100 | 45 | 200 | 90 | 300 | 150 |
| S-230 | 2 | 1 | 10 | 5 | 30 | 15 | 100 | 45 | 200 | 90 | 300 | 150 |
| S-280 | - | - | 10 | 5 | 28 | 13 | 100 | 45 | 200 | 90 | 300 | 135 |
| S-330 | - | - | - | - | 26 | 12 | 100 | 45 | 200 | 90 | 300 | 135 |
| S-390 | - | - | - | - | 25 | 11 | 100 | 45 | 200 | 90 | 250 | 125 |
| S-460 | - | - | - | - | 25 | 11 | 85 | 38 | 200 | 90 | 250 | 125 |
| S-550 | - | - | - | - | - | - | 70 | 32 | 200 | 90 | 250 | 110 |
| S-660 | - | - | - | - | - | - | 70 | 32 | 200 | 90 | 240 | 105 |
| S-930 | - | - | - | - | - | - | 45 | 20 | 200 | 90 | 225 | 100 |
| | | | | | | | | | | | | |
| CCW-14 | 2 | 1 | 10 | 5 | 30 | 15 | 100 | 45 | 200 | 90 | 300 | 150 |
| CCW-23 | 2 | 1 | 10 | 5 | 30 | 15 | 100 | 45 | 200 | 90 | 300 | 150 |
| CCW-28 | 2 | 1 | 10 | 5 | 30 | 15 | 100 | 45 | 200 | 90 | 300 | 150 |
| CCW-32 | - | - | 10 | 5 | 30 | 13.5 | 100 | 45 | 200 | 90 | 300 | 135 |
| CCW-35 | - | - | - | - | 26 | 12 | 88 | 40 | 200 | 90 | 300 | 135 |



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Shot Peening Control

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