Slide Valves for Bulk Material Shut-Off

Dust tight and fully sealed closure
The Mucon name has been synonymous with the flow control of bulk solids, since launching the first ever Iris Diaphragm Valve in 1946.

However, in applications where flow control is not a key requirement, a more robust total shut-off solution can be more appropriate. Identifying this need, we have developed a range of innovative, yet cost effective, Slide Gate Valves: Harnessing over seventy years experience in the design and manufacture of valves and other bulk solids handling equipment allows Mucon to continually meet the requirements of an ever demanding market.

**SD-P In-line Pneumatic Actuated Valves**
Cutting edge moving orifice slide gate technology for in-line isolation.

Patented self compensating seals reduce maintenance and improve sealing performance.

**SD-H In-line Hand Wheel Actuated Valves**
All the technology of the SD range, but with a simple hand wheel operation.

**RGV Roller Gate Valve**
Designed to be as modular and configurable as it is robust and reliable.

Ideal for heavy duty and large scale applications. Patented blade support ensures uninterrupted opening / flow control.

**DSV Slide Gate Valve**
Simple cost effective isolation solution for powders, granules and pellets.

Double flanged for in-line applications, yet slim and compact.

**DSV-P Pneumatic Slide Gate Valve**
Enhanced DSV design with a pneumatic actuator. Ideal for remote isolation applications where infrequent operation is required.

Take a look at our 4–step upgrade procedure from your hand operated DSV.

**SV Open Discharge Slide Gate Valve**
Simple, cost effective solution for IBC closure and discharge.
SD-P In-Line Pneumatic Operation Valve

Key Benefits

- Uninterrupted smooth bore when the valve is fully open
- Effective fully sealed closure
- Self cleaning slide gate blade
- Dust tight operation
- Extremely low maintenance
- Smooth, efficient operation
- Slim design

Main Features

- Powered by a low friction, high efficiency pneumatic cylinder
- Provision for 'earth' tags where there is potential for static electricity generation
- Lifting points provided at the valve's centre of gravity
- Flange dimensions to DIN or ANSI patterns
- Rated up to +1barg conveying pressures
- ATEX certified to 1D/2D categories

<table>
<thead>
<tr>
<th>Valve Type</th>
<th>Nom Bore mm</th>
<th>Cylinder Port BSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD04-P</td>
<td>100</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>SD06-P</td>
<td>150</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>SD08-P</td>
<td>200</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>SD10-P</td>
<td>250</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>SD12-P</td>
<td>300</td>
<td>1/2&quot;</td>
</tr>
</tbody>
</table>

Air Supply

Dry, filtered compressed air, lubricated or non-lubricated

Pressure

6-10 barg (85 - 145 psi)

<table>
<thead>
<tr>
<th>Valve Type</th>
<th>Nom Bore mm</th>
<th>Body Dimensions</th>
<th>Flange PN10</th>
<th>Flange ANSI 150</th>
<th>Nett Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD04-P</td>
<td>100</td>
<td>924 340 214 664 97 108 94 M16 x 2 28 228 4</td>
<td>4</td>
<td>4</td>
<td>M16 x 2</td>
</tr>
<tr>
<td>SD06-P</td>
<td>150</td>
<td>1164 390 302 839 97 108 94 M20 x 2.5 28 285 4</td>
<td>4</td>
<td>4</td>
<td>M20 x 2.5</td>
</tr>
<tr>
<td>SD08-P</td>
<td>200</td>
<td>1374 440 378 989 97 124 111 M20 x 2.5 28 340 4</td>
<td>4</td>
<td>4</td>
<td>M20 x 2.5</td>
</tr>
<tr>
<td>SD10-P</td>
<td>250</td>
<td>1569 504 428 1130 97 148 135 M20 x 2.5 28 406 8</td>
<td>4</td>
<td>4</td>
<td>M20 x 2.5</td>
</tr>
<tr>
<td>SD12-P</td>
<td>300</td>
<td>1880 574 518 1362 97 190 170 M20 x 2.5 28 478 8</td>
<td>4</td>
<td>4</td>
<td>M20 x 2.5</td>
</tr>
</tbody>
</table>

All dimensions in mm / weights given in kg
**SD-H In-Line Hand Wheel Operation Valve**

### Key Benefits
- Uninterrupted smooth bore when the valve is fully open
- Effective fully sealed closure
- Self cleaning slide gate blade
- Dust tight operation
- Extremely low maintenance
- Smooth, efficient operation
- Slim design

### Main Features
- Operated by a multi-start drive screw via a large radius hand wheel
- Provision for 'earth' tags, where there is potential for static electricity generation
- Lifting points provided at the valve's centre of gravity
- Flange dimensions to DIN or ANSI patterns
- Rated up to +1barg conveying pressures
- ATEX certified to 1D/2D categories

<table>
<thead>
<tr>
<th>Valve Type</th>
<th>Nom Bore (in)</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>Net Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD04-H</td>
<td>100mm (4&quot;)</td>
<td>860</td>
<td>340</td>
<td>214</td>
<td>664</td>
<td>97</td>
<td>375</td>
<td>4</td>
<td>18</td>
<td>180</td>
<td>4</td>
<td>M16 x 2</td>
<td>28</td>
<td>51</td>
</tr>
<tr>
<td>SD06-H</td>
<td>150mm (6&quot;)</td>
<td>1095</td>
<td>390</td>
<td>302</td>
<td>839</td>
<td>97</td>
<td>375</td>
<td>4</td>
<td>22</td>
<td>240</td>
<td>4</td>
<td>M20 x 2.5</td>
<td>28</td>
<td>285</td>
</tr>
<tr>
<td>SD08-H</td>
<td>200mm (8&quot;)</td>
<td>1285</td>
<td>440</td>
<td>378</td>
<td>989</td>
<td>97</td>
<td>375</td>
<td>4</td>
<td>22</td>
<td>295</td>
<td>4</td>
<td>M20 x 2.5</td>
<td>28</td>
<td>340</td>
</tr>
<tr>
<td>SD10-H</td>
<td>250mm (10&quot;)</td>
<td>1486</td>
<td>504</td>
<td>428</td>
<td>1130</td>
<td>97</td>
<td>375</td>
<td>51</td>
<td>4</td>
<td>22</td>
<td>350</td>
<td>8</td>
<td>M20 x 2.5</td>
<td>28</td>
</tr>
<tr>
<td>SD12-H</td>
<td>300mm (12&quot;)</td>
<td>1780</td>
<td>574</td>
<td>518</td>
<td>1362</td>
<td>97</td>
<td>375</td>
<td>51</td>
<td>4</td>
<td>22</td>
<td>400</td>
<td>8</td>
<td>M20 x 2.5</td>
<td>28</td>
</tr>
</tbody>
</table>

All dimensions in mm / weights given in mm
SD-P In-Line Pneumatic Operation Valve

**Standard Materials**

- **Body**: Aluminium Alloy
- **Bore Liner**: Stainless Steel - 316L
- **Side Rail**: Aluminium Alloy
- **Hand Wheel**: Carbon Steel - 32'h'(5&2$7(')
- **Side Rail**: Aluminium Alloy
- **Operation Support**: Aluminium Alloy
- **Seal Loading Mat**: Silicone
- **Seal Plates**: PET Polymer
- **Blade**: Stainless Steel - 316L
- **Covers**: Aluminium Alloy

**Open and Closed Switches**

In most cases, an automated control system will require a feedback signal, identifying whether the valve is open or closed. To facilitate this requirement the cylinder of the SD-P valve can be fitted with open and closed indication switches, as shown below.

- **Nominal voltage**: 8.2V (Use with barrier)
- **Max values**: U=15 V, I=50 mA, P=120 mW
- **Temperature range**: -25°C to +70°C
- **Connection**: 5m long PVC flying lead, 2 wires 0.14mm² stripped ends
- **Degree of protection**: IP67
- **Switch certification**: CE, ATEX 1G/D, ATEX 3G/D
- **6 barg air supply**

**Solenoid Assembly**

To simplify the installation of the SD-P valve into your system, we offer a simple open and closed solenoid control package that mounts directly onto the cylinder. Simply connect your compressed air feed to the push in fitting provided and wire the solenoid coil to your control system.

- **Standard voltages**: 24 to 230 VAC - 50/60Hz
- **12–24 VDC**
- **Rated power**: 5.3 VA (50Hz), 5.3 VA (60Hz)
- **5.4 W (DC)**
- **Voltage tolerance**: ±10%
- **Temperature range**: -20°C to +40°C
- **Coil certification**: CE, EExm II T4 (135°C)
- **Duty cycle**: 100%
**RGV Roller Gate Valve**

### Key Benefits
- Uninterrupted opening due to our patented blade support system
- Heavy duty construction for arduous applications
- Self compensating blade scraper seal keeps the product contained and also cleans the blade during operation
- All valve seals and guides can be replaced in-situ
- Easily adapted for round outlets or ducts
- Steel rollers as standard
- Fast and smooth blade action

### Main Features
- Available in a variety of materials and finishes
- Able to support high product loads
- Inlet baffle is available for use with extremely arduous applications
- Modular square and rectangular design allows configuration of custom opening dimensions
- Electric and Pneumatic actuators available

---

**Valve Type**

<table>
<thead>
<tr>
<th>Valve Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G x H</th>
<th>J x K</th>
<th>L</th>
<th>M</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGV-6W6S</td>
<td>150</td>
<td>150</td>
<td>250</td>
<td>250</td>
<td>496</td>
<td>12</td>
<td>3 x 70mm</td>
<td>3 x 70mm</td>
<td>793</td>
<td>110</td>
<td>126</td>
</tr>
<tr>
<td>RGV-8W8S</td>
<td>200</td>
<td>200</td>
<td>300</td>
<td>300</td>
<td>596</td>
<td>16</td>
<td>4 x 65mm</td>
<td>4 x 65mm</td>
<td>943</td>
<td>110</td>
<td>126</td>
</tr>
<tr>
<td>RGV-10W10S</td>
<td>250</td>
<td>250</td>
<td>350</td>
<td>350</td>
<td>696</td>
<td>16</td>
<td>4 x 77.5mm</td>
<td>4 x 77.5mm</td>
<td>1093</td>
<td>110</td>
<td>126</td>
</tr>
<tr>
<td>RGV-12W12S</td>
<td>300</td>
<td>300</td>
<td>400</td>
<td>400</td>
<td>796</td>
<td>16</td>
<td>4 x 90mm</td>
<td>4 x 90mm</td>
<td>1243</td>
<td>110</td>
<td>126</td>
</tr>
<tr>
<td>RGV-16W16S</td>
<td>400</td>
<td>400</td>
<td>500</td>
<td>500</td>
<td>996</td>
<td>20</td>
<td>5 x 92mm</td>
<td>5 x 92mm</td>
<td>1543</td>
<td>110</td>
<td>126</td>
</tr>
<tr>
<td>RGV-20W20S</td>
<td>500</td>
<td>500</td>
<td>600</td>
<td>600</td>
<td>1196</td>
<td>20</td>
<td>5 x 112mm</td>
<td>5 x 112mm</td>
<td>1843</td>
<td>110</td>
<td>126</td>
</tr>
<tr>
<td>RGV-24W24S</td>
<td>600</td>
<td>600</td>
<td>700</td>
<td>700</td>
<td>1396</td>
<td>24</td>
<td>6 x 110mm</td>
<td>6 x 110mm</td>
<td>2143</td>
<td>110</td>
<td>126</td>
</tr>
</tbody>
</table>

All dimensions in mm
Replaceable Blade Guides and Seals

Replaceable Blade Stop

Uninterrupted Product Flow

Self compensating blade scraper seal is provided in a cassette assembly to ease replacement and ensure constant contact with the moving blade

Contact our technical sales team for bespoke sizing and configuration queries.
**Key Benefits**

- Externally replaceable slide gate supports
- Unlike other manual slide valves the DSV does not use an eccentric cam to support the slide gate
- Slim, compact design
- Pneumatic cylinder can be added retrospectively
- Ideally suited for the gravity discharging of materials in an in-line application
- Robust integrated handle

**Main Features**

- Robust aluminium construction
- Anti-tamper locking facility – allowing the user to lock or tag the valve in the closed position
- Provision for 'earth' tag where there is potential for static electricity generation
- Lightweight cast aluminium body with machine flanged face
- Externally replaceable slide gate supports allow the height of the slide gate to be finitely adjusted to compensate for wear

### TOLERANCE SPECIFICATIONS

- **Limits & Fits to BS4500**
- **Dimension & Geometrical Tolerances to BS308**
- **Screw threads to BS3643**
- **Surface Finish to BS1134 in micrometres**
- **Welding Symbols to BS499 Part 2**

### Main Features Diagram

* Needs 10mm thread engagement into the body of the valve.
  * Must not exceed 12mm into valve body, as it will interfere with the blade

### Dimensions Table

<table>
<thead>
<tr>
<th>Valve Type</th>
<th>Nom Bore mm Inch</th>
<th>Body Dimensions</th>
<th>Nett Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSV06-H</td>
<td>150mm (6&quot;)</td>
<td>A1 155  A2 160  B 251  C 168  D 290  E 53  F 222  G 128  H 6  J 213  K M8  P 230</td>
<td>5.0</td>
</tr>
<tr>
<td>DSV08-H</td>
<td>200mm (8&quot;)</td>
<td>A1 205  A2 210  B 301  C 193  D 340  E 53  F 272  G 128  H 6  J 264  K M8  P 280</td>
<td>6.5</td>
</tr>
<tr>
<td>DSV10-H</td>
<td>250mm (10&quot;)</td>
<td>A1 255  A2 260  B 361  C 218  D 390  E 53  F 325  G 128  H 6  J 320  K M10  P 340</td>
<td>8.6</td>
</tr>
<tr>
<td>DSV12-H</td>
<td>300mm (12&quot;)</td>
<td>A1 305  A2 310  B 419  C 253  D 450  E 53  F 383  G 106  H 8  J 369  K M8  P 390</td>
<td>15.4</td>
</tr>
</tbody>
</table>

All dimensions in mm / weights given in kg
4 step conversion procedure from hand operated to pneumatic actuation - without the need to remove the valve from its application.

Fit the clevis to the existing handle – note the holes are already there

Simply loosen some of the existing fasteners and slide the pneumatic support housing into place

Attach the cylinder on its support plate

Connect the cylinder to the clevis and fix the guard plate
DSV-P Valve

**Key Benefits**

- Externally replaceable slide gate supports
- Unlike other manual slide valves, the DSV does not use an eccentric cam to support the slide gate
- Slim, compact design
- Compact and lightweight
- Full bore opening
- Pneumatic actuator, specifically designed to facilitate addition retrospectively

**Main Features**

- Ideal for the isolation of powders, granules and pellets
- Position switches and solenoid assemblies are available
- Optional adapters to fit PN10, ASME and ANSI flanges
- Can be converted to hand operation in just minutes
- Optional open and closed position indication switches

---

### DSV-P Valve Specifications

<table>
<thead>
<tr>
<th>Valve Type</th>
<th>Nom Bore mm Inch</th>
<th>A1</th>
<th>A2</th>
<th>B</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>S</th>
<th>T</th>
<th>Nett Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSV06-P</td>
<td>150mm (6&quot;)</td>
<td>155</td>
<td>160</td>
<td>251</td>
<td>6</td>
<td>213</td>
<td>M8</td>
<td>780</td>
<td>443</td>
<td>658</td>
<td>230</td>
<td>318</td>
<td>107</td>
<td>122</td>
<td>105</td>
<td>9.6</td>
</tr>
<tr>
<td>DSV08-P</td>
<td>200mm (8&quot;)</td>
<td>205</td>
<td>210</td>
<td>301</td>
<td>6</td>
<td>264</td>
<td>M8</td>
<td>930</td>
<td>518</td>
<td>783</td>
<td>280</td>
<td>368</td>
<td>107</td>
<td>147</td>
<td>105</td>
<td>12.2</td>
</tr>
<tr>
<td>DSV10-P</td>
<td>250mm (10&quot;)</td>
<td>255</td>
<td>260</td>
<td>361</td>
<td>6</td>
<td>320</td>
<td>M10</td>
<td>1079</td>
<td>592</td>
<td>907</td>
<td>340</td>
<td>429</td>
<td>107</td>
<td>172</td>
<td>105</td>
<td>15.3</td>
</tr>
<tr>
<td>DSV12-P</td>
<td>300mm (12&quot;)</td>
<td>305</td>
<td>310</td>
<td>419</td>
<td>8</td>
<td>369</td>
<td>M8</td>
<td>1239</td>
<td>677</td>
<td>1042</td>
<td>390</td>
<td>486</td>
<td>107</td>
<td>197</td>
<td>105</td>
<td>19.3</td>
</tr>
</tbody>
</table>

All dimensions in mm / weights given in kg
SV Open Discharge Valve

**Main Features and Benefits**

- Greater forces can be applied to the stainless steel stiffened handle compared to conventional plastic handles
- Slide plate runners are designed to withstand heavy loading
- Fully interchangeable with the equivalent size Mucon Series H Iris Valve
- All stainless steel slide plate, handle and fixings provide greater protection from corrosion
- Robust aluminium body
- Full bore opening

*optional - High temperature version available

Earth Point Provision – Facilitates earth continuity in applications where there is potential for static generation

Lock Off Facility – Locks the valve in the closed position utilising Lockout Hasp, Padlock or Lockout tags

<table>
<thead>
<tr>
<th>Valve Type</th>
<th>Nom Bore mm Inch</th>
<th>Body Dimensions</th>
<th>Flange</th>
<th>Nett Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A    B   C   D  E  F  G  H   J   K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SV06</td>
<td>150mm (6&quot;)</td>
<td>152   230  122 268 57 192 128   6   213  M8</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>SV08</td>
<td>200mm (8&quot;)</td>
<td>206   283  142 313 57 248 128   6   264  M8</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>SV10</td>
<td>250mm (10&quot;)</td>
<td>255   340  170 367 57 333 128   6   320  M10</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>SV12</td>
<td>300mm (12&quot;)</td>
<td>302   406  203 436 57 344 228   8   369  M8</td>
<td>7.6</td>
<td></td>
</tr>
</tbody>
</table>

All dimensions in mm / weights given in kg