Back-Flushing Valves

Back-Flushing Valves Catalogue
Dorot, part of Matholding Group since 2014, is one of the world’s leading manufacturers and developers of sustainable technologies and products for water control and optimization systems. With more than 70 years of experience, the company is a worldwide pioneer in providing high quality solutions for Hydraulic Controlled Valves and Air Valves.

Customers around the globe benefit on a daily basis from our experience and wide variety of solutions and services in the following areas:

- **Waterworks Distribution Systems for civil and industrial engineering**
- **Fire Protection**
- **Industrial Applications such as Mining, Wastewater, Marine**
- **Water Treatment and Filtration**
- **Agricultural and Landscape Irrigation**
- **Water Metering and others**

Innovation and expertise are the backbones of Dorot. It drove us into developing a diverse portfolio of water and other fluids systems application, in compliance with specifications and international quality standards. Customer satisfaction and recognition is of paramount importance for Dorot. This guarantees uncompromised know-how, expertise and professionalism in planning, designing and providing the optimal hydraulic control solutions.

We invite you to join our family of business partners. Together we can provide the best control solutions for the world’s most valuable natural resource: **water**
# Back-Flushing Valves

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</tr>
</tbody>
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Dorot Control Valves have been delivering successful control valve solutions for back-flush systems for the last 35 years. Due to its strong relationship with leading filter manufacturers around the world, Dorot has succeeded developing the highest-end solutions available in the marketplace with an understanding of filtration system’s needs. The valves are designed and manufactured in-house to offer the highest performance and reliability.

This catalogue will provide designers, dealers and end users with essential, up-to-date data as for the operation principles, technical specifications, hydraulic performance and ordering guides for the whole range of Dorot back-flush valves, including special solutions and control applications.

Filtration is an essential part of every modern water system. Whether the system supplies water for residential, irrigation or industrial use, removing impurities efficiently and ensuring water quality is always a main concern of the system designer. Every filtration method chosen by the designer -screen filters, disc filters, media filters, sand separators or others- require a thorough cleaning procedure to remove the accumulated dirt particles from the filtration element. Cleaning the filtration element can be performed in several ways: manual rinsing, mechanical brushing/scraping, suction by scanner or back-flushing.

In this catalogue we will focus on Dorot products and solutions for automatic back-flush systems for filtration devices.

**Back-flushing** - The principle of back-flushing consist in applying relatively clean, reverse-flow through the filter element and discharging the water flow that is carrying dirt and particles out of the system through a drain line.

**Example: single media filter back-flush principle (without back-flushing valves):**

The back-flushing procedure requires numerous valves (at least 4 per filter) operated in a synchronized manner, making it complex to operate manually and costly to automate. Using hydraulic back-flushing valves simplifies the synchronization of the control system, minimizes the number of valves required, and allows valve operation with minimal or no electric power consumption.
Hydraulic Back-flushing valve - operation principle:
Back-flushing control valves are 3/2, semi-automatic control valves actuated by a pressure command. The valve has 3 ports:

<table>
<thead>
<tr>
<th>Port</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inlet port</td>
<td>connected to the water source</td>
</tr>
<tr>
<td>Outlet / Common port</td>
<td>connected to the filter</td>
</tr>
<tr>
<td>Drain port</td>
<td>connected to the drain collector</td>
</tr>
</tbody>
</table>

The valve is controlled manually, electrically or by remote pressure command to change position and connect the outlet and drain ports during the back-flushing cycle. As flushing cycle ends, the valve returns to its normal position- connecting the inlet and outlet ports.

Operating principle of a straight-flow, back-flush control valve:

Media filter back-flush system using back-flush control valves:

Benefits of hydraulic back-flushing valves:

- Low-power automation (actuation by the line pressure or by compressed air). Electric actuation is possible using low-power solenoid valves that can be either fed by continuous power or by battery powered controller.
- Minimal number of valves required per filter.
- No need to synchronize the operation of two valves- one port closes while the other simultaneously opens - the entire operation is integrated in the back-flush control valve.
- Simple maintenance, no motor gear or other electro-mechanical elements.
Dorot Model 58P “Plaslite” ® Back-Flushing Control Valve

Reinforced-Polyamide body, Direct Diaphragm-Sealing valve, designed for automatic back-flush of filtration batteries

Features:
• Corrosion-proof materials (additional versions for sea-water and aggressive media available)
• Sturdy body, made of Glass-Reinforced Polyamide (GRP)
• Light weight
• Valve changes position in a frictionless manner
• Simple and easy maintenance
• Easy installation, no special tools or expertise required.
• Special design models for disc and media filtration systems
Operating principle:

**Filtration mode**
De-pressurized command - control chamber is vented to atmosphere:
The valve allows straight flow. Bottom drain port is closed.

**Back-Flushing mode**
Pressure command - control chamber is pressurized:
The valve inlet port is closed by the diaphragm and the bottom port opens to allow flow from the filter, out to the drain.

### Dimensions:

<table>
<thead>
<tr>
<th>Inlet / Outlet</th>
<th>Drain</th>
<th>Dimensions mm / inch</th>
<th>Weight Kg / Lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm</td>
<td>inch</td>
<td>mm</td>
<td>inch</td>
</tr>
<tr>
<td>100</td>
<td>4</td>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td>100</td>
<td>4</td>
<td>80</td>
<td>3</td>
</tr>
<tr>
<td>80</td>
<td>3</td>
<td>80</td>
<td>3</td>
</tr>
<tr>
<td>80</td>
<td>3</td>
<td>50</td>
<td>2</td>
</tr>
</tbody>
</table>

### End connections:

<table>
<thead>
<tr>
<th>Inlet / Outlet ports</th>
<th>Drain ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grooved</td>
<td>Grooved / Female-threaded</td>
</tr>
<tr>
<td></td>
<td>Male-threaded (only for 3” drain port) model (thread standards: NPT / BSP)</td>
</tr>
</tbody>
</table>

### Materials:

<table>
<thead>
<tr>
<th>Part</th>
<th>Standard</th>
<th>Drinking water</th>
<th>Sea water</th>
<th>Mines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Body &amp; Cover</td>
<td>PA</td>
<td>PA</td>
<td>PA</td>
<td>PA</td>
</tr>
<tr>
<td>2. Shaft</td>
<td>SST 302</td>
<td>SST 302</td>
<td>SST 316</td>
<td>SST 316</td>
</tr>
<tr>
<td>3. Spring</td>
<td>SST 302</td>
<td>SST 302</td>
<td>SST 316</td>
<td>SST 316</td>
</tr>
<tr>
<td>4. Screws</td>
<td>SST 302</td>
<td>SST 302</td>
<td>SST 316</td>
<td>SST 316</td>
</tr>
<tr>
<td>5. Seals</td>
<td>NR</td>
<td>EPDM</td>
<td>NR</td>
<td>ALD</td>
</tr>
<tr>
<td>6. Diaphragm</td>
<td>NR</td>
<td>EPDM</td>
<td>NR</td>
<td>ALD</td>
</tr>
</tbody>
</table>
Back-Flushig Valves

Model 58P ("Plaslite")

Hydraulic performance:

<table>
<thead>
<tr>
<th>Size</th>
<th>3X2</th>
<th>3X3</th>
<th>4X3</th>
<th>4X4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. recommended flow at filtration mode</td>
<td>m³/h</td>
<td>90</td>
<td>90</td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>gpm</td>
<td>400</td>
<td>400</td>
<td>700</td>
</tr>
<tr>
<td>Max. recommended flow at back-flushing mode</td>
<td>m³/h</td>
<td>40</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>gpm</td>
<td>180</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Flow rate factor at filtration mode</td>
<td>Kv (metric)</td>
<td>130</td>
<td>130</td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>Cv (US)</td>
<td>150</td>
<td>150</td>
<td>185</td>
</tr>
<tr>
<td>Flow rate factor at back-flushing mode</td>
<td>Kv (metric)</td>
<td>57</td>
<td>65</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Cv (US)</td>
<td>66</td>
<td>75</td>
<td>81</td>
</tr>
</tbody>
</table>

Operating pressure range:
Low pressure model: 1 - 6 bar / 15 - 90 psi
Standard model: 2 - 10 bar / 30 - 145 psi
Maximum operating temperature: 60°C (140°F)

Head loss chart:

<table>
<thead>
<tr>
<th>psi</th>
<th>mwc</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

Filteration mode
Flushing mode

Main parts:
1. Bonnet
2. Diaphragm kit
3. Body
4. Sealing ring
5. Seat
6. Plug
7. Spring
8. Adapter
9. Locking nut
# Back-Flushing Valves

## Model 58P (“Plaslite”)

### Applications:

![Disc Filter System]

### Ordering guide:

<table>
<thead>
<tr>
<th>Ordering data</th>
<th>Ordering code</th>
<th>Ordering data</th>
<th>Ordering code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure rating</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard (2-10 bar)</td>
<td>→ S</td>
<td>Low Pressure (1-6 bar)</td>
<td>→ L</td>
</tr>
<tr>
<td>Main Ports Size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3” / 80mm</td>
<td>→ 3</td>
<td>4” / 100mm</td>
<td>→ 4</td>
</tr>
<tr>
<td>Drain Port Size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2” / 50mm *</td>
<td>→ 2</td>
<td>3” / 80mm</td>
<td>→ 3</td>
</tr>
<tr>
<td>4” / 100mm</td>
<td>→ 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drain connection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grooved (VIC) **</td>
<td>→ V M</td>
<td>BSP Thread</td>
<td>→ F</td>
</tr>
<tr>
<td>NPT Thread</td>
<td>→ N O</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Available only for 3” / 80mm main ports only**

**Available only for 3” / 80mm and 4” / 100mm**

### Special Features

| DW | Drinking Water |
| SW | Sea Water |
| MI | Mining |
| SK | Spin-Klin systems® |
| AK | Galaxy systems® |

<table>
<thead>
<tr>
<th>Drain port Thread type</th>
<th>Male (Only for 3” drain port)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grooved</td>
<td>Grooved</td>
</tr>
<tr>
<td>Female</td>
<td>Female</td>
</tr>
</tbody>
</table>

* Available only for 3” / 80mm main ports only

** Available only for 3” / 80mm and 4” / 100mm
Dorot Model 57 & 58 “FlushGAL” Back Flushing Valve

Cast iron body, Direct Diaphragm-Sealing valve, designed for automatic back-flush of filtration filters

Features:

- Sturdy body made of cast iron (optional SST version)
- Frictionless position exchange
- Low head-losses
- Easy installation, no special tools or expertise required.
- Grooved (model 58) or flanged (model 57) connections available
- Special design model for disc filtration systems
- Optional model for high-pressure filtration systems available
Operating principle:

**Filtration mode**
De-pressurized command - control chamber vents to atmosphere:
The valve allows straight flow. Bottom drain plug is closed.

**Back-Flushing mode**
Pressure command - control chamber is pressurized:
The valve inlet port is closed by the diaphragm and the bottom port opens to allow flow from the filter, out to the drain.

### Dimensions:

<table>
<thead>
<tr>
<th>Inlet / Outlet</th>
<th>Drain</th>
<th>Dimensions mm / inch</th>
<th>Weight Kg / Lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm</td>
<td>inch</td>
<td>mm</td>
<td>inch</td>
</tr>
<tr>
<td>57</td>
<td>80</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>58</td>
<td>80</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>4</td>
<td>80</td>
</tr>
</tbody>
</table>

### End connections:

- **Inlet / Outlet ports**: Model 57 - Flanged  
  Model 58 - Grooved
- **Drain ports**: Grooved or Female-threaded
- **In 4x3 models**: Internal 3" / 80mm thread and external Grooved 4" / 100mm connection
- **Flange standards**: ISO 2084 / ANSI B16 / BSTD (others on request)
- **Thread standards**: Female NPT / BSP
Back-Flushing Valves

Models 57 / 58 (“FlushGAL”)

Materials:

<table>
<thead>
<tr>
<th>Part</th>
<th>Material</th>
<th>Optional materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Body &amp; Cover</td>
<td>Cast Iron</td>
<td>SST</td>
</tr>
<tr>
<td>2. Bolts &amp; nuts</td>
<td>Coated Steel</td>
<td>SST</td>
</tr>
<tr>
<td>3. Diaphragm</td>
<td>NR</td>
<td>NBR, EPDM, ALD or other</td>
</tr>
<tr>
<td>4. Shaft</td>
<td>SST 303</td>
<td></td>
</tr>
<tr>
<td>5. Seat</td>
<td>Brass</td>
<td>SST</td>
</tr>
<tr>
<td>6. Plug cone</td>
<td>Brass</td>
<td>SST</td>
</tr>
<tr>
<td>7. Seal</td>
<td>NR</td>
<td>NBR, EPDM, ALD or other</td>
</tr>
<tr>
<td>8. Spring (optional)</td>
<td>SST 302</td>
<td></td>
</tr>
</tbody>
</table>

Hydraulic performance:

<table>
<thead>
<tr>
<th>Model</th>
<th>57 / 58</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>3 X 2</td>
</tr>
<tr>
<td>Max. recommended flow</td>
<td></td>
</tr>
<tr>
<td>at filtration mode</td>
<td>m³/h</td>
</tr>
<tr>
<td>3 X 2</td>
<td>90</td>
</tr>
<tr>
<td>4 X 3</td>
<td>160</td>
</tr>
<tr>
<td>Max. recommended flow</td>
<td></td>
</tr>
<tr>
<td>at back-flushing mode</td>
<td>m³/h</td>
</tr>
<tr>
<td>3 X 2</td>
<td>40</td>
</tr>
<tr>
<td>4 X 3</td>
<td>90</td>
</tr>
<tr>
<td>Flow rate factor</td>
<td></td>
</tr>
<tr>
<td>at filtration mode</td>
<td>Kv (metric)</td>
</tr>
<tr>
<td>3 X 2</td>
<td>160</td>
</tr>
<tr>
<td>4 X 3</td>
<td>70</td>
</tr>
<tr>
<td>Flow rate factor</td>
<td></td>
</tr>
<tr>
<td>at back-flushing mode</td>
<td>Cv (US)</td>
</tr>
<tr>
<td>3 X 2</td>
<td>67</td>
</tr>
<tr>
<td>4 X 3</td>
<td>81</td>
</tr>
</tbody>
</table>

Operating pressure range:
Standard model: 0.7 - 10 bar / 10 - 150 psi
High pressure model: 1 - 16 bar / 15 - 250 psi
Maximum operating temperature: 60°C (140°F)

Head loss chart:

<table>
<thead>
<tr>
<th>psi mwc</th>
<th>m³/h</th>
<th>gpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>80</td>
<td>40</td>
</tr>
<tr>
<td>5</td>
<td>90</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>100</td>
<td>60</td>
</tr>
<tr>
<td>7</td>
<td>110</td>
<td>70</td>
</tr>
<tr>
<td>8</td>
<td>120</td>
<td>80</td>
</tr>
<tr>
<td>9</td>
<td>130</td>
<td>90</td>
</tr>
<tr>
<td>10</td>
<td>140</td>
<td>100</td>
</tr>
</tbody>
</table>

Main parts:

1. Bonnet
2. Diaphragm kit
3. Body
4. Sealing ring
5. Seat
6. Plug
7. Adapter
Models 57 / 58 (”FlushGAL“)

Applications:

Gravel Media Filters

Disc Filter System

Ordering guide:

<table>
<thead>
<tr>
<th>Main ports connections</th>
<th>Ordering code</th>
<th>Ordering data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flanged</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Grooved (VIC)</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Main Ports Size</th>
<th>Ordering code</th>
</tr>
</thead>
<tbody>
<tr>
<td>3” / 80mm</td>
<td>3</td>
</tr>
<tr>
<td>4” / 100mm</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drain Port Size</th>
<th>Ordering code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2” / 50mm</td>
<td>2</td>
</tr>
<tr>
<td>3” / 80mm</td>
<td>3</td>
</tr>
<tr>
<td>4” / 100mm *</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Main Ports Connections Standard</th>
<th>Ordering code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO PN16</td>
<td>I1</td>
</tr>
<tr>
<td>ANSI 125</td>
<td>A1 V</td>
</tr>
<tr>
<td>BS TD / AS TD</td>
<td>B D B</td>
</tr>
<tr>
<td>Grooved</td>
<td>VI N</td>
</tr>
</tbody>
</table>

Special Features

- HP: High Pressure (1-16 bar)
- SK: Spin-Klin version

Coating

- R: Polyester Red
- L: Polyester Blue
- X: Other (Specify)

Drain Port Connection Standard

- Grooved (VIC)
- ** BSP Thread
- *** NPT Thread

* only available for the 58 model
** only available for ISO / BSTD / ASTD
*** only available for ANSI
Dorot Back Flushing Valve- Model 51 & 52

2”/ 50mm Brass body, 3-directional, double-chamber valve for back-flushing of filtration batteries

Features:

- Simple, compact design
- Double chamber structure
- Non-metallic actuator construction
- Super-fast position change
- In-line maintenance
- Easy installation, no special tools or expertise required.
- Straight or angle flow with easy conversion from one model to the other, offering maximum flexibility to system design
Operating principle:

**Filtration mode**
Control chamber is de-pressurized -
The valve is in filtration mode

**Back-Flushing mode**
Control chamber pressurized -
The valve is in flushing mode

**Dimensions & weights:**

<table>
<thead>
<tr>
<th>Inlet / Outlet / Drain</th>
<th>Dimensions mm / inch</th>
<th>Weight Kg / Lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm</td>
<td>inch</td>
<td>A</td>
</tr>
<tr>
<td>50</td>
<td>2</td>
<td>155 / 6 7/8</td>
</tr>
</tbody>
</table>

Groove adapters supplied on request.
Each groove adapter will add 30 mm (1 1/8 inch) to the length / height dimensions according to its location.

Threaded connections:
Female - NPT / BSP
## Materials:

<table>
<thead>
<tr>
<th>Part</th>
<th>Standard</th>
<th>High Pressure</th>
<th>Optional</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bonnet</td>
<td>GRP</td>
<td>Aluminum</td>
<td>SST</td>
</tr>
<tr>
<td>2. Diaphragm</td>
<td>NR</td>
<td>NR</td>
<td>EPDM</td>
</tr>
<tr>
<td>3. Spring</td>
<td>SST 302</td>
<td>SST 302</td>
<td>SST 316</td>
</tr>
<tr>
<td>4. Diaphragm discs</td>
<td>Brass</td>
<td>Brass</td>
<td>SST 316</td>
</tr>
<tr>
<td>5. Screws</td>
<td>SST 302</td>
<td>SST 302</td>
<td>SST 316</td>
</tr>
<tr>
<td>6. Operator Body</td>
<td>GRP</td>
<td>Brass</td>
<td>SST</td>
</tr>
<tr>
<td>7. Body</td>
<td>Brass</td>
<td>Brass</td>
<td>SST</td>
</tr>
<tr>
<td>8. Shaft</td>
<td>SST 304</td>
<td>SST 304</td>
<td>SST 316</td>
</tr>
<tr>
<td>9. Plug assy.</td>
<td>Brass</td>
<td>Brass</td>
<td>SST</td>
</tr>
<tr>
<td>10. Seals</td>
<td>NBR</td>
<td>NBR</td>
<td>Viton</td>
</tr>
</tbody>
</table>

## Hydraulic performance:

<table>
<thead>
<tr>
<th>Model</th>
<th>51</th>
<th>52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>2 X 2</td>
<td>2 X 2</td>
</tr>
<tr>
<td>Max. recommended flow at filtering</td>
<td>m³/h</td>
<td>40</td>
</tr>
<tr>
<td>Max. recommended flow at flushing</td>
<td>m³/h</td>
<td>40</td>
</tr>
<tr>
<td>Flow rate factor at filtering</td>
<td>Kv (metric)</td>
<td>43</td>
</tr>
<tr>
<td>Flow rate factor at flushing</td>
<td>Cv (US)</td>
<td>50</td>
</tr>
</tbody>
</table>

### Operating pressure range:
- Standard model: 0.7 - 10 bar / 10 - 150 psi
- High Pressure model: 0.7 - 16 bar / 10 - 250 psi

### Maximal operating temperature:
- Standard models - 60°C (140°F)
- Hot water model - 90°C (195°F)

## Head loss chart:

Filtration mode  
Flushing mode

### Main parts:
1. Bonnet
2. Spring
3. Diaphragm & actuator kit
4. Body
5. Grooved connection adapter
### Applications:

![Sand Media Filter](image)

![Double Disc Filters System](image)

### Ordering guide:

<table>
<thead>
<tr>
<th>Ordering data</th>
<th>Ordering code</th>
<th>Ordering data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filtration Flow Direction</td>
<td>5□ 2X2 □ □ □ □</td>
<td>Special Versions</td>
</tr>
<tr>
<td>Straight</td>
<td>1</td>
<td>HW Hot Water</td>
</tr>
<tr>
<td>Angle</td>
<td>2</td>
<td>HP High Pressure (16 bar)</td>
</tr>
<tr>
<td>Inlet port connection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grooved adapter</td>
<td>→ V</td>
<td>R ← Polyester Red</td>
</tr>
<tr>
<td>BSP Thread</td>
<td>→ B</td>
<td>L ← Polyester Blue</td>
</tr>
<tr>
<td>NPT Thread</td>
<td>→ N</td>
<td>X ← Other (Specify)</td>
</tr>
<tr>
<td>Outlet port connection</td>
<td></td>
<td>Drain port connection</td>
</tr>
<tr>
<td>Grooved adapter</td>
<td>→ V V</td>
<td>← Grooved adapter</td>
</tr>
<tr>
<td>BSP Thread</td>
<td>→ B B</td>
<td>← BSP Thread</td>
</tr>
<tr>
<td>NPT Thread</td>
<td>→ N N</td>
<td>← NPT Thread</td>
</tr>
</tbody>
</table>

---

**Note:**

- □: Optional choices
- □□: Multiple options
- →: Direction of flow
- ←: Direction of port connection
- Hot Water: HW
- High Pressure (16 bar): HP
- Other (Specify): X
Dorot Back Flushing Valve- Model 51P and 52P

2”/ 50mm Reinforced-Polyamide body, 3-directional, double-chamber valve for back-flushing of filtration batteries

Features:

- Corrosion-proof materials (additional versions for sea-water and aggressive media available)
- Sturdy body, made of Glass-Reinforced Polyamide (GRP)
- Light weight
- Simple, compact design
- Double chamber structure
- Super-fast position change
- In-line maintenance
- Easy installation, no special tools or expertise required
- Straight or angle flow with easy conversion from one model to the other, offering maximum flexibility to system design
Operating principle:

**Filtration mode**
Control chamber is de-pressurized -
The valve is in filtration mode

**Back-Flushing mode**
Control chamber pressurized -
The valve is in flushing mode

<table>
<thead>
<tr>
<th>Inlet / Outlet / Drain</th>
<th>Dimensions mm / inch</th>
<th>Weight Kg / Lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>50</td>
<td>180 / 7(\frac{1}{4})</td>
<td>135 / 5(\frac{3}{16})</td>
</tr>
</tbody>
</table>

* Offsetted adaptor model - AZ

Groove adapters supplied on request.
Each groove adapter will add 30 mm (1\(\frac{1}{8}\) inch) to the length / height dimensions according to its location.

Threaded connections:
Female - NPT / BSP
Back-Flushing Valves

Double Chamber Valve Model 51P / 52P

Materials:

<table>
<thead>
<tr>
<th>Part</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bonnet</td>
<td>GRP</td>
</tr>
<tr>
<td>2. Diaphragm</td>
<td>NR</td>
</tr>
<tr>
<td>3. Spring</td>
<td>SST 302</td>
</tr>
<tr>
<td>4. Diaphragm discs</td>
<td>GRP</td>
</tr>
<tr>
<td>5. Screws</td>
<td>SST 302</td>
</tr>
<tr>
<td>6. Operator Body</td>
<td>GRP</td>
</tr>
<tr>
<td>7. Body</td>
<td>GRP</td>
</tr>
<tr>
<td>8. Shaft</td>
<td>SST 316</td>
</tr>
<tr>
<td>9. Plug assy.</td>
<td>PA</td>
</tr>
<tr>
<td>10. Seals</td>
<td>NR</td>
</tr>
</tbody>
</table>

Hydraulic performance:

<table>
<thead>
<tr>
<th>Model</th>
<th>51</th>
<th>52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>2 X 2</td>
<td>2 X 2</td>
</tr>
<tr>
<td>Flow rate factor at filtering</td>
<td>Kv (metric)</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>Cv (US)</td>
<td>65</td>
</tr>
<tr>
<td>Flow rate factor at flushing</td>
<td>Kv (metric)</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>Cv (US)</td>
<td>80</td>
</tr>
</tbody>
</table>

Operating pressure range: Standard model: 1 - 10 bar / 15 - 150 psi
Maximal operating temperature: Standard models - 65°C (150°F)

Head loss chart:

Main parts:

1. Bonnet
2. Spring
3. Diaphragm & actuator kit
4. O-ring
5. Actuator body
6. Body
7. Locking ring
8. Adaptor
Back-Flushing Valves
Edition 06/2019

Applications:

Sand Media Filter

Double Disc Filters System

Ordering guide:

<table>
<thead>
<tr>
<th>Ordering data</th>
<th>Ordering code</th>
<th>Ordering data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5□P 2X2 □ □ □ □ □ □</td>
<td>Special Versions</td>
</tr>
<tr>
<td>Filtration Flow Direction</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Straight</td>
<td>1</td>
<td>AZ Offsetted adaptor</td>
</tr>
<tr>
<td>Angle</td>
<td>2</td>
<td>None</td>
</tr>
<tr>
<td>Inlet port connection</td>
<td></td>
<td>Drain port connection</td>
</tr>
<tr>
<td>Grooved adapter</td>
<td>→ V</td>
<td>V Grooved adapter</td>
</tr>
<tr>
<td>BSP Thread</td>
<td>→ B</td>
<td>B BSP Thread</td>
</tr>
<tr>
<td>NPT Thread</td>
<td>→ N</td>
<td>N NPT Thread</td>
</tr>
<tr>
<td>Outlet port connection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grooved adapter</td>
<td>→ V</td>
<td></td>
</tr>
<tr>
<td>BSP Thread</td>
<td>→ B</td>
<td></td>
</tr>
<tr>
<td>NPT Thread</td>
<td>→ N</td>
<td></td>
</tr>
</tbody>
</table>
Dorot Double Chamber Back-Flushing Control Valve, Model 62 & 63

Cast iron, 3-directional, double-chamber valve for back-flushing of filtration batteries

Features:

• Sturdy body made of cast iron
• Double chamber structure
• High-flow coefficient allows high flow and low pressure losses operation.
• Super-fast position change
• Easy installation, no special tools or expertise required
• Suitable materials for drinking-water use
• Straight or angle flow with easy conversion from one model to the other, offering maximum flexibility to system design.
Operating principle:

**Filtration mode**
Control chamber is de-pressurized -
The valve is in filtration mode

**Back-Flushing mode**
Control chamber pressurized -
The valve is in flushing mode

### Dimensions & weights:

<table>
<thead>
<tr>
<th>Inlet / Outlet</th>
<th>Drain</th>
<th>Dimensions mm / inch</th>
<th>Weight Kg / Lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm</td>
<td>inch</td>
<td>mm</td>
<td>inch</td>
</tr>
<tr>
<td>80</td>
<td>3</td>
<td>50</td>
<td>2</td>
</tr>
<tr>
<td>80</td>
<td>3</td>
<td>80</td>
<td>3</td>
</tr>
<tr>
<td>100</td>
<td>4</td>
<td>80</td>
<td>3</td>
</tr>
<tr>
<td>100</td>
<td>4</td>
<td>100</td>
<td>4</td>
</tr>
</tbody>
</table>

**End connections:**

Inlet / Outlet - Grooved
Drain - Threaded or Grooved.
Thread standards: Female NPT / BSP
Materials:

<table>
<thead>
<tr>
<th>Part</th>
<th>Standard</th>
<th>High Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bonnet</td>
<td>C.I.</td>
<td>C.I.</td>
</tr>
<tr>
<td>2. Diaphragm disc</td>
<td>PAGF</td>
<td>PAGF</td>
</tr>
<tr>
<td>3. Bottom chamber</td>
<td>PAGF</td>
<td>Bronze</td>
</tr>
<tr>
<td>4. Spring</td>
<td>SST 302</td>
<td>SST 302</td>
</tr>
<tr>
<td>5. Seals</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>6. Diaphragm</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>7. Bolts &amp; nuts</td>
<td>SST 302</td>
<td>SST 302</td>
</tr>
<tr>
<td>8. Shaft</td>
<td>SST 316</td>
<td>SST 316</td>
</tr>
<tr>
<td>9. Plug assy.</td>
<td>PAGF</td>
<td>PAGF</td>
</tr>
<tr>
<td>10. Seats</td>
<td>SST 304</td>
<td>SST 304</td>
</tr>
</tbody>
</table>

Hydraulic performance:

<table>
<thead>
<tr>
<th>Model</th>
<th>62 &amp; 63</th>
<th>Size</th>
<th>4X2</th>
<th>4X3</th>
<th>4X4</th>
<th>3X3</th>
<th>3X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. recommended flow at filtration mode</td>
<td>m³/h</td>
<td></td>
<td>160</td>
<td></td>
<td>90</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>gpm</td>
<td></td>
<td>700</td>
<td></td>
<td>400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. recommended flow at back-flushing mode</td>
<td>m³/h</td>
<td></td>
<td>40</td>
<td>90</td>
<td>160</td>
<td>90</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>gpm</td>
<td></td>
<td>180</td>
<td>400</td>
<td>700</td>
<td>400</td>
<td>180</td>
</tr>
<tr>
<td>Flow rate factor at filtration mode</td>
<td>Kv (metric)</td>
<td></td>
<td>160</td>
<td></td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cv (US)</td>
<td></td>
<td>185</td>
<td></td>
<td>115</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow rate factor at back-flushing mode</td>
<td>Kv (metric)</td>
<td></td>
<td>110</td>
<td>140</td>
<td>205</td>
<td>145</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Cv (US)</td>
<td></td>
<td>128</td>
<td>163</td>
<td>238</td>
<td>168</td>
<td>93</td>
</tr>
</tbody>
</table>

Operating pressure range:
Standard version: 0.5 - 12 bar / 7 - 180 psi
*When using 4 way control circuit with external pressure source, no minimal line pressure is required
Maximum operating temperature: 60°C (140°F)

Head loss chart:

Main parts:

1. Bonnet
2. Diaphragm and actuator kit
3. Seat
4. O-ring
5. Body
6. O-ring
7. Seat
8. O-ring
9. Connection adapter
## Applications:

- Sand Media Filters
- Disc Filter System

### Ordering guide:

<table>
<thead>
<tr>
<th>Ordering data</th>
<th>Ordering code</th>
<th>Coating</th>
<th>Drain port connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow direction at filtering</td>
<td>6☐ □ □ X ☐ ☐</td>
<td>L</td>
<td>V ← Grooved (VIC)</td>
</tr>
<tr>
<td>Straight</td>
<td>2</td>
<td>Polyester Blue</td>
<td></td>
</tr>
<tr>
<td>Angle</td>
<td>3</td>
<td>R</td>
<td>B ← BSP Thread</td>
</tr>
<tr>
<td>Top Ports Size</td>
<td></td>
<td>X</td>
<td>N ← NPT Thread</td>
</tr>
<tr>
<td>4&quot; / 100mm</td>
<td>→ 4</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>3&quot; / 80mm</td>
<td>→ 3</td>
<td>Z</td>
<td></td>
</tr>
<tr>
<td>Bottom Port Size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4&quot; / 100mm</td>
<td>→ 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3&quot; / 80mm</td>
<td>→ 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2&quot; / 50mm</td>
<td>→ 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Dorot Double Chamber 2”/ 50mm Valve - Model 09 (“Galil”)

Brass body, Double-chamber control valve, made to enable automatic backflush of screen filters.

Features:

- A sturdy body made of Brass (SST optional)
- Double chamber control
- In-line maintenance
- Fast reaction
- Easy installation, no special tools or expertise required
- Configurable to “Normally Open” or “Normally Closed” operation
- Optional manual throttling
- Straight (model 09) or angle (model 09-A) flow
Double Chamber Valve Model 09 ("Galil")

Operating principle:

**Standard model**
- **Closed valve**
- **Open valve**

**Normally Open model**
- **Closed valve**
- **Open valve**

**Normally Closed model (Normal Flow)**
- **Closed valve**
- **Open valve**

**Normally Closed model (Reverse Flow)**
- **Closed valve**
- **Open valve**

Dimensions & weights:

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Dimensions mm / inch</th>
<th>Weight Kg / Lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>09</td>
<td>Straight</td>
<td>196 / 71/4, 193 / 73/4, 125 / 415/16</td>
<td>3.2 / 7</td>
</tr>
<tr>
<td>09 + throttling handle</td>
<td>Straight</td>
<td>235 / 91/4, 219 / 85/8, 125 / 415/16</td>
<td>3.2 / 7</td>
</tr>
<tr>
<td>09-A</td>
<td>Angle</td>
<td>192 / 711/16, 130 / 51/4, 66 / 21/4</td>
<td></td>
</tr>
<tr>
<td>09-A + throttling handle</td>
<td>Angle</td>
<td>260 / 101/4, 130 / 51/4, 66 / 21/4</td>
<td></td>
</tr>
</tbody>
</table>

Threaded connections:
Female - NPT / BSP
**Materials:**

<table>
<thead>
<tr>
<th>Part</th>
<th>Standard model</th>
<th>High Pressure model</th>
<th>Hot water model</th>
<th>Sea water model *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Body</td>
<td>Brass</td>
<td>Brass</td>
<td>Brass</td>
<td>SST 316</td>
</tr>
<tr>
<td>2. Bonnet</td>
<td>PAGF</td>
<td>AL</td>
<td>AL</td>
<td>SST 316</td>
</tr>
<tr>
<td>3. Actuator housing</td>
<td>PAGF</td>
<td>Brass</td>
<td>Brass</td>
<td>SST 316</td>
</tr>
<tr>
<td>4. Shaft</td>
<td>SST 302</td>
<td>SST 302</td>
<td>SST 302</td>
<td>SST 316</td>
</tr>
<tr>
<td>5. Spring</td>
<td>SST 302</td>
<td>SST 302</td>
<td>SST 302</td>
<td>SST 316</td>
</tr>
<tr>
<td>6. Screws</td>
<td>Steel</td>
<td>Steel</td>
<td>Steel</td>
<td>SST 316</td>
</tr>
<tr>
<td>7. Seals</td>
<td>NR</td>
<td>NR</td>
<td>Viton / EPDM</td>
<td>NR</td>
</tr>
<tr>
<td>8. Diaphragm</td>
<td>NR</td>
<td>NR</td>
<td>EPDM</td>
<td>NR</td>
</tr>
</tbody>
</table>

*In Angle pattern only

**Hydraulic performance:**

<table>
<thead>
<tr>
<th>Size</th>
<th>2” / 50mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. recommended flow rate</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flow rate factor</th>
<th>2” / 50mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 09</td>
<td></td>
</tr>
<tr>
<td>Kv (metric)</td>
<td>35</td>
</tr>
<tr>
<td>Cv (US)</td>
<td>41</td>
</tr>
<tr>
<td>Model 09-A</td>
<td></td>
</tr>
<tr>
<td>Kv (metric)</td>
<td>55</td>
</tr>
<tr>
<td>Cv (US)</td>
<td>65</td>
</tr>
</tbody>
</table>

**Operating pressure range:**
- Standard version: 1 - 10 bar / 14.5 - 145 psi
- High Pressure version: 1 - 16 bar / 14.5 - 250 psi

**Maximum operating temperature:**
- Standard model - 60°C (140°F)
- Hot water model - 90°C (195°F)

**Head loss chart:**

**Main parts:**
1. Bonnet
2. Spring
3. Operator kit
4. Body
## Double Chamber Valve Model 09 ("Galil")

### Applications:

- Automatic Screen Filter
- Sand-Separator (Hydrocyclone) System

### Ordering guide:

<table>
<thead>
<tr>
<th>Ordering data</th>
<th>Ordering code</th>
<th>Ordering data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve body</td>
<td>09 □ □ -2- □□ □□ □□ □□ □□ □□</td>
<td>Special Features</td>
</tr>
<tr>
<td>Straight flow</td>
<td>→ □ □</td>
<td>WB Wide Body version</td>
</tr>
<tr>
<td>Angle flow</td>
<td>→ A</td>
<td>HP High Pressure (16 bar)</td>
</tr>
<tr>
<td>Trotting handle</td>
<td>→ □ □</td>
<td>IN Indicator rod (supplied with metallic bonnet)</td>
</tr>
<tr>
<td>Without</td>
<td>→ □ □</td>
<td>HW Hot Water</td>
</tr>
<tr>
<td>With</td>
<td>→ T</td>
<td>RS Low-Pressure Seal</td>
</tr>
<tr>
<td>Connections Standard</td>
<td></td>
<td>PC Conic Plug</td>
</tr>
<tr>
<td>BSP Threads</td>
<td>→ BS</td>
<td>S0 No Spring</td>
</tr>
<tr>
<td>NPT Threads</td>
<td>→ NP</td>
<td>XS Stiff Spring</td>
</tr>
<tr>
<td>Function</td>
<td></td>
<td>Coating</td>
</tr>
<tr>
<td>Standard</td>
<td>→ -</td>
<td>- Uncoated</td>
</tr>
<tr>
<td>Normaly Close</td>
<td>→ NC</td>
<td>CR Polyester Red</td>
</tr>
<tr>
<td>Normaly Open</td>
<td>→ NO</td>
<td>CB Polyester Blue</td>
</tr>
<tr>
<td>Flow direction</td>
<td></td>
<td>RF Other (Specify)</td>
</tr>
<tr>
<td>Normal (under the seat)</td>
<td>→</td>
<td>- CB Polyester Blue</td>
</tr>
<tr>
<td>Reverse (over the seat)</td>
<td>→ RF X</td>
<td>- CR Polyester Red</td>
</tr>
</tbody>
</table>
Dorot Normally Closed Valve Model 60

Features:
- High resistance to corrosive fluids
- Normally-Closed operation
- Fast reaction
- Easy installation and maintenance
- Tough and durable construction
- Drip-tight sealing at zero pressure
- Angle pattern minimizes pressure losses

Operating principle:

Dimensions & weights:

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimensions mm / inch</th>
<th>Weight Kg / Lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>40mm / 1.5&quot;</td>
<td>164 / 6 11/16</td>
<td>0.7 / 1.6</td>
</tr>
</tbody>
</table>

Threaded connections:
Inlet Female, Outlet male - NPT / BSP

Materials:

<table>
<thead>
<tr>
<th>Part</th>
<th>Standard model</th>
<th>Mining model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Body</td>
<td>PPGF</td>
<td>PPGF</td>
</tr>
<tr>
<td>2. Bonnet</td>
<td>PPGF</td>
<td>PPGF</td>
</tr>
<tr>
<td>3. Shaft</td>
<td>PPGF</td>
<td>PPGF</td>
</tr>
<tr>
<td>4. Spring</td>
<td>SST 302</td>
<td>SST 316</td>
</tr>
<tr>
<td>5. Screws</td>
<td>SST 304</td>
<td>SST 304</td>
</tr>
<tr>
<td>6. Seals</td>
<td>EPDM</td>
<td>ALD and Viton</td>
</tr>
<tr>
<td>7. Diaphragm</td>
<td>EPDM</td>
<td>ALD</td>
</tr>
</tbody>
</table>

Hydraulic performance:

<table>
<thead>
<tr>
<th>Size</th>
<th>Max. recommended flow rate</th>
<th>Flow rate factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>m³/h</td>
<td>Kv (metric)</td>
</tr>
<tr>
<td></td>
<td>gpm</td>
<td>Cv (US)</td>
</tr>
<tr>
<td>11/2&quot; / 40mm</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>25</td>
<td>110</td>
<td>30</td>
</tr>
</tbody>
</table>

Operating pressure range:
Standard version: 0.4 – 8 bar / 6 – 115 psi
Maximal operating temperature: 60°C (140°F)
Minimal command pressure: 0.4 bar, will be at least 60% of line pressure
Main parts:

1. Body
2. O-ring
3. Diaphragm assembly
4. Bonnet
5. Bolt
6. Washer
7. Nut
8. ID.Plate
9. Ring

Applications:

Ordering guide:

<table>
<thead>
<tr>
<th>Connection standard</th>
<th>Ordering code</th>
<th>Special Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPT → NP ST</td>
<td>60-ANC</td>
<td>Standard</td>
</tr>
<tr>
<td>BSP → BS MI</td>
<td></td>
<td>Mining</td>
</tr>
</tbody>
</table>
Models S-300, S-500, S-100

Hydraulic control valves of series S-300, S-500 and S-100 are frequently assembled in filtration systems as regulating valves (Pressure Reducing / Sustaining, Flow Control), as safety valves (Quick Relief), or as a part of the automatic flushing system. Detailed engineering and technical data for these models are available in the relevant DOROT catalogues.
Back-Flushing Valves

Models S-300, S-500, S-100

Sand Media Filter

Sand Media Filters
5 valves array for high flow media filters:

Each valve is controlled by a solenoid, connected to the back-flushing controller.

- At filtration mode, no electric command is supplied: valves [1] and [2] are open to allow flow, and valves [3,4,5] are closed.
- At flushing mode, valves [1,2] are energized to close and valves [3,4] are energized to open, flushing the filter to the drain line.
- As flushing time elapses, valves [3,4] are de-energized to close, valve [1] is de-energized to open and valve [5] is energized to open, pressing the media and directing the initial, “dirty stage” of filtered water, to the drain.
- Valve [5] is de-energized to close, valve [2] is de-energized to open, system returns to filtering mode.
- Solenoid valves may be assembled on the valves (Application code: EL) or on a common bracket, activating the valves by pressure tubes (Application code: RC model).

Typical Models:

![Typical Models](image)

Regulation of flushing flow rate in media filtration batteries

The pressure differential between the filter’s internal pressure and atmospheric pressure may reach a point where flow rates during flushing are significantly high. This may carry out the media through the drain port of the filter (which is costly) and may increase the risk for pressure surges. Electrically controlled Flow Regulating valves, prevent these undesired situations. The valves are controlled by a solenoid-valve, actuated by the back-flush controller.

- At filtration mode, no electric command is supplied: valve [1] is fully open and the flow regulating valve [2] is closed.
- At flushing mode, valve [1] is energized to close and the flow regulating valve [2] is energized to open while limiting the flushing flow rate to a desired maximal level.
- Application codes: EL, FR/EL

Typical Models:

![Typical Models](image)
Regulation of flushing flow rate in Disc Filtration Batteries

Automatic filtration systems require minimal pressure to ensure appropriate flushing, and may not function properly at too-low pressure. During the flushing procedure, system pressure may drop significantly. The electrically controlled, Pressure Sustaining Normally Open (PSNO) valve [1] is fully open during the filtration mode; enabling minimal pressure losses on the supply line to the users. The valve will start regulating to sustain a minimal pressure in its upstream side when receiving an electric command from the back-flushing controller. Combining the PSNO valve in the filtration system enables working with lower pressures during normal supply water while ensuring sufficient pressure for back flushing.

- Application code: PSNO

Typical Models:

![47-6-PSNO](image1)
![96-6-PSNO](image2)

Flushing Pressure-Differential Control in Automatic Screen Filters

During the flushing procedure of an automatic screen filter, a high pressure differential is generated on the screen by the suction nozzles. The force applied by this pressure differential may cause the screen to collapse and ruin the filter. The Pressure Differential Reducing application added to the Flushing valve [1] limits the pressure differential between the hydraulic motor chamber and dirt collector (the valve inlet) and the filter outlet port, to a safe, adjustable value, thus preventing collapse and damage to the filter.

- Application code: PD

Typical Models:

![30A-2-PD](image3)
![50A-2-PD](image4)
Hundreds of companies in the industrial, civil engineering, municipal and agricultural sectors around the world have chosen DOROT’s innovative and field-proven technologies. Since its establishment in 1946, DOROT leads the valves market with continued innovation, uncompromising excellence and firm commitment to its customers, consulting and supporting them through all stages of a project and overcoming challenges in R&D, design, implementation, and maintenance.