



Product Catalogue
Back-Flushing Valves

Back-Flushing Valves

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Catalogue



WATERWORKS

Dorot's valves are specially designed to comply with all the demands of waterworks systems such as: pressure management, low flow regulation, leakage prevention, pump control, level control, surge prevention, sewage and water treatment.

IRRIGATION

Dorot is a leader in Automatic Control valves for irrigation applications: drip irrigation, greenhouses, turf and landscaping. The innovative state of the art products are made of a variety of materials such as: cast Iron, ductile iron, steel, stainless steel, bronze, polyamide and uPVC.

CONSTRUCTION AND INDUSTRY

Dorot offers control applications for high rise buildings such as: flow and pressure regulation, water hammer prevention and reservoir level control.

FIRE PROTECTION

Dorot offers a variety of valves for fire protection applications with UL Approvals.

FILTRATION AND WATER TREATMENT

Dorot offers a variety of Back Flushing valves for filtration systems. These valves are made of high durability materials for water treatment of aggressive waters.



Back-Flushing Valves

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Control Valves

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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.

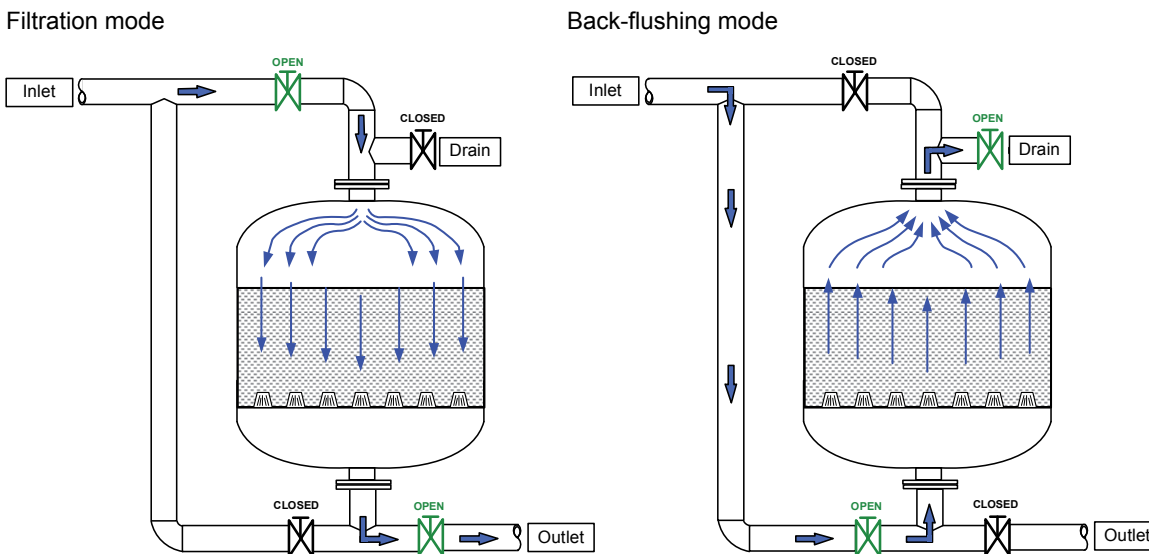
Every filtration method chosen by the designer -screen filters, disc filters, media filters, sand separators or others- require a thorough cleaning procedure to remove the accumulated dirt particles from the filtration element.

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:

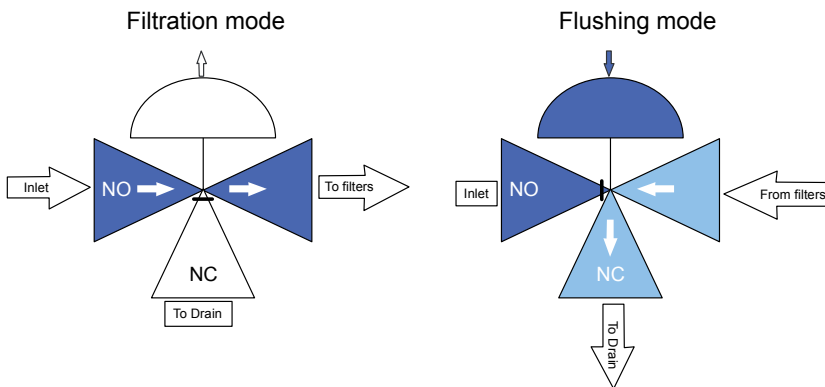
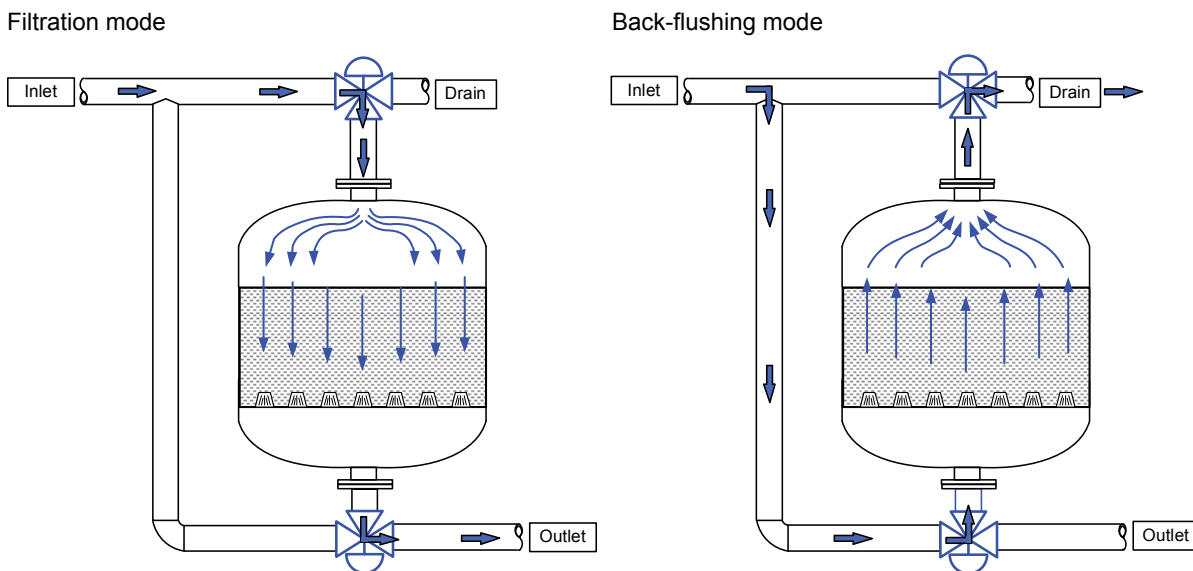
Back-flushing control valves are 3/2, semi-automatic control valves actuated by a pressure command.

The valve has 3 ports:

• Inlet port	connected to the water source
• Outlet / Common port	connected to the filter
• Drain port	connected to the drain collector

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



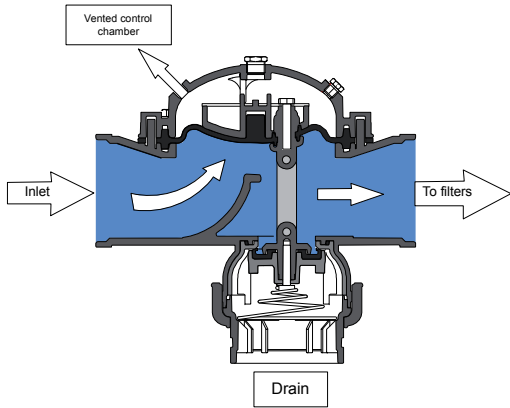
Features:

- 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:

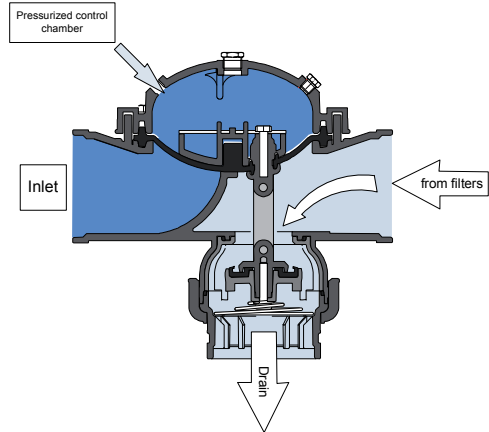
Filtration mode

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



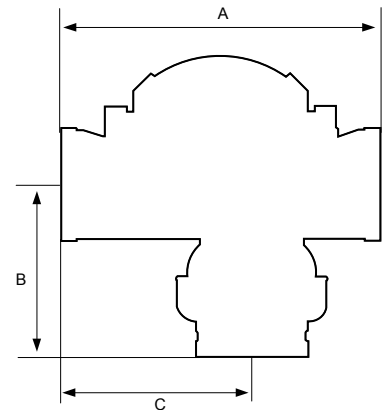
Back-Flushing mode

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:

Inlet / Outlet		Drain		Dimensions mm / inch			Weight Kg / Lbs
mm	inch	mm	inch	A	B	C	
100	4	100	4	316 / 12 ⁷ / ₁₆	170 / 6 ¹¹ / ₁₆	187 / 7 ³ / ₄	5.5 / 12.2
100	4	80	3	316 / 12 ⁷ / ₁₆	170 / 6 ¹¹ / ₁₆	187 / 7 ³ / ₄	5.5 / 12.2
80	3	80	3	286 / 11 ¹ / ₄	164 / 6 ⁷ / ₁₆	174 / 6 ⁷ / ₈	4.2 / 9.2
80	3	50	2	286 / 11 ¹ / ₄	164 / 6 ⁷ / ₁₆	174 / 6 ⁷ / ₈	4.2 / 9.2

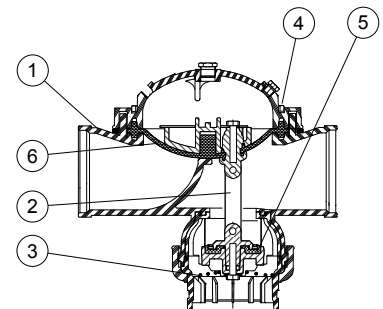


End connections:

Inlet / Outlet ports	Grooved
Drain ports	Grooved / Female-threaded Male-threaded (only for 3" drain port) model (thread standards: NPT / BSP)

Materials:

Part	Standard	Drinking water	Sea water	Mines
1. Body & Cover	PA	PA	PA	PA
2. Shaft	SST 302	SST 302	SST 316	SST 316
3. Spring	SST 302	SST 302	SST 316	SST 316
4. Screws	SST 302	SST 302	SST 316	SST 316
5. Seals	NR	EPDM	NR	ALD
6. Diaphragm	NR	EPDM	NR	ALD



Hydraulic performance:

Size		3X2	3X3	4X3	4X4
Max. recommended flow at filtration mode	m ³ /h	90	90	160	160
	gpm	400	400	700	700
Max. recommended flow at back-flushing mode	m ³ /h	40	90	90	160
	gpm	180	400	400	700
Flow rate factor at filtration mode	Kv (metric)	130	130	160	160
	Cv (US)	150	150	185	185
Flow rate factor at back-flushing mode	Kv (metric)	57	65	70	83
	Cv (US)	66	75	81	96

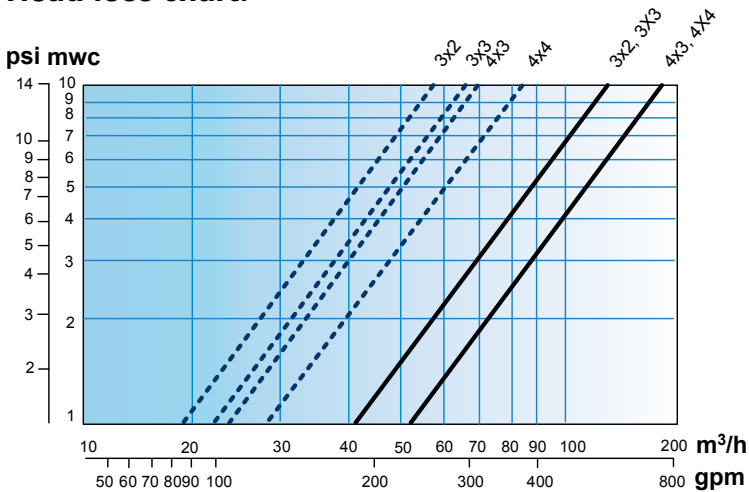
Operating pressure range:

Low pressure model: 1 - 6 bar / 15 - 90 psi

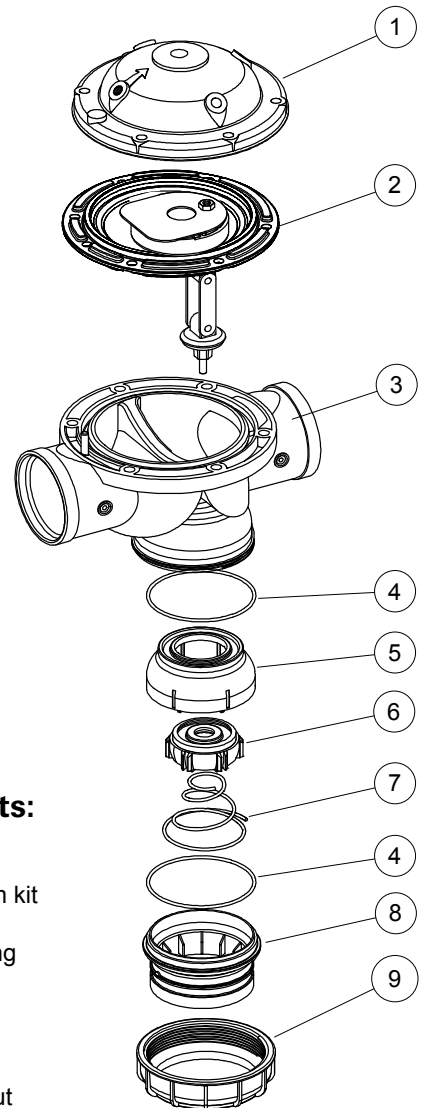
Standard model: 2 - 10 bar / 30 - 145 psi

Maximum operating temperature: 60°C (140°F)

Head loss chart:



Filtration mode —————
 Flushing mode - - - - -

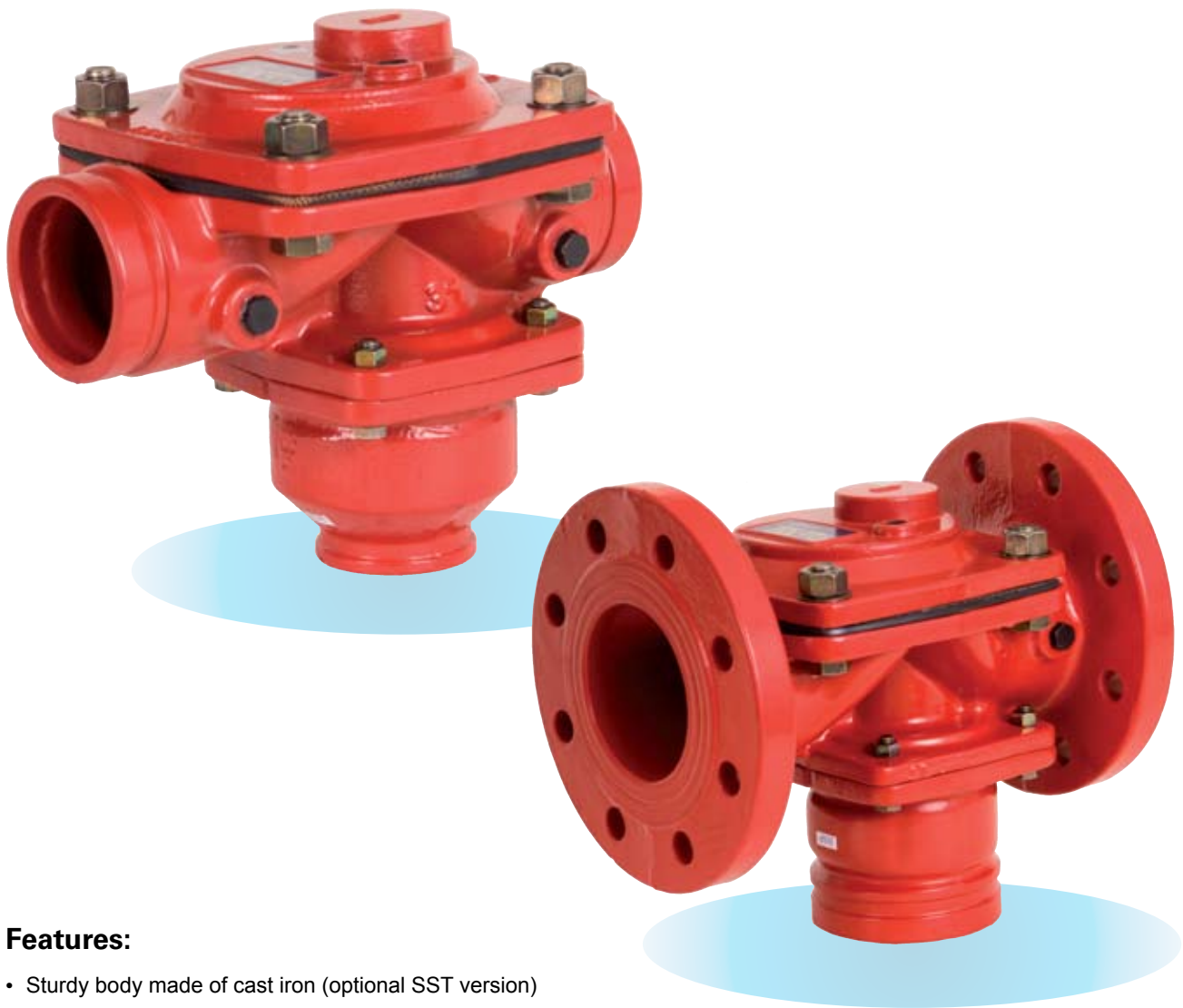


Main parts:

1. Bonnet
2. Diaphragm kit
3. Body
4. Sealing ring
5. Seat
6. Plug
7. Spring
8. Adapter
9. Locking nut

Dorot Model 57 & 58 "FlushGAL" Back Flushing Valve

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



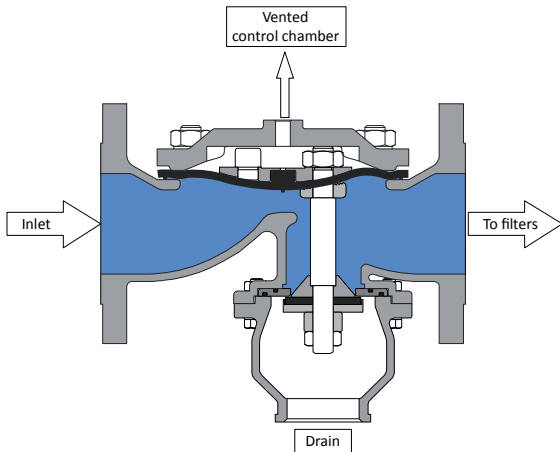
Features:

- 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:

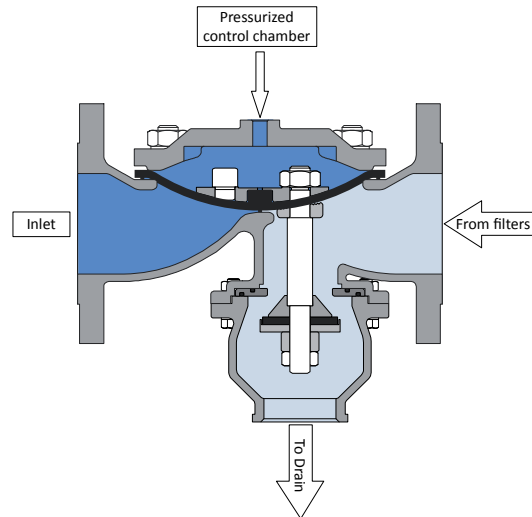
Filtration mode

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.

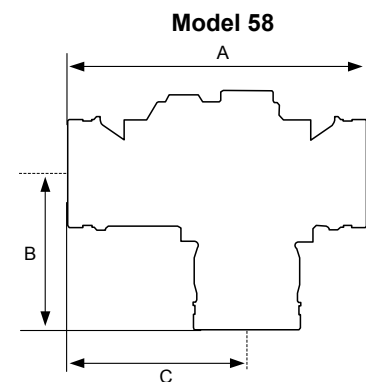
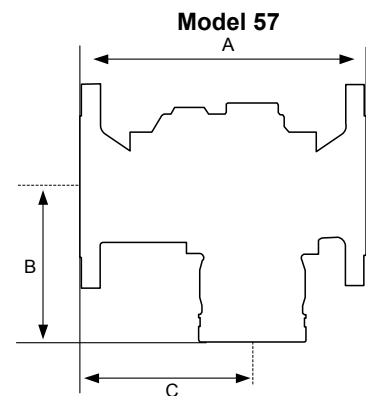


Dimensions:

	Inlet / Outlet		Drain		Dimensions mm / inch			Weight Kg / Lbs
	mm	inch	mm	inch	A	B	C	
57	80	3	50	2	289 / 11 ³ / ₈	158 / 6 ¹ / ₄	176 / 6 ¹⁵ / ₁₆	22 / 48
	100	4	80	3	305 / 12 ³ / ₁₆	161 / 6 ⁷ / ₁₆	184 / 7 ⁵ / ₁₆	25 / 55
58	80	3	50	2	287 / 11 ⁵ / ₁₆	152 / 6	175 / 6 ⁷ / ₈	15 / 33
	100	4	80	3	323 / 12 ¹¹ / ₁₆	167 / 6 ⁹ / ₁₆	194 / 7 ⁵ / ₈	18 / 40

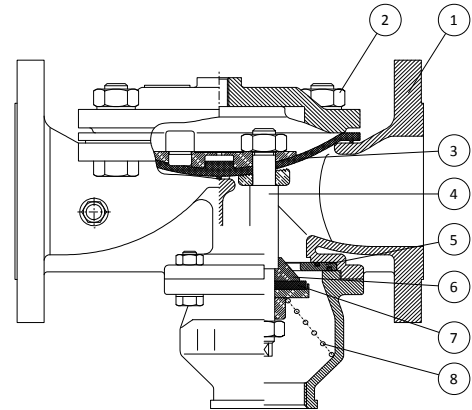
End connections:

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



Materials:

Part	Material	Optional materials
1. Body & Cover	Cast Iron	SST
2. Bolts & nuts	Coated Steel	SST
3. Diaphragm	NR	NBR, EPDM, ALD or other
4. Shaft	SST 303	
5. Seat	Brass	SST
6. Plug cone	Brass	SST
7. Seal	NR	NBR, EPDM, ALD or other
8. Spring (optional)	SST 302	



Hydraulic performance:

Model		57 / 58	
Size		3 X 2	4 X 3
Max. recommended flow at filtration mode	m ³ /h	90	160
	gpm	400	705
Max. recommended flow at back-flushing mode	m ³ /h	40	90
	gpm	180	400
Flow rate factor at filtration mode	Kv (metric)	130	160
	Cv (US)	150	185
Flow rate factor at back-flushing mode	Kv (metric)	58	70
	Cv (US)	67	81

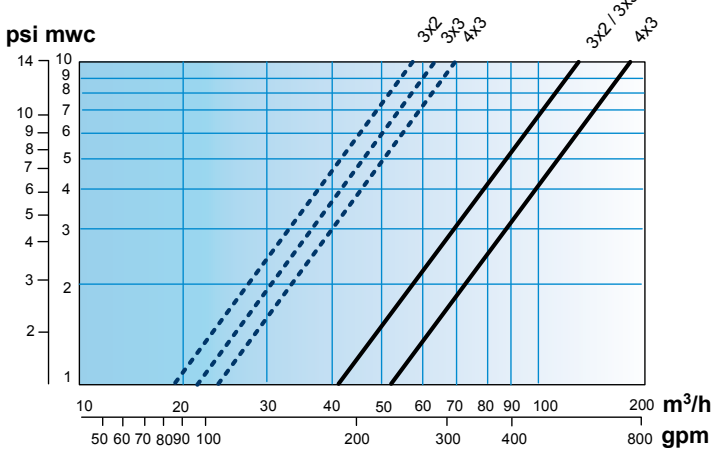
Operating pressure range:

Standard model: 0.7 - 10 bar / 10 - 150 psi

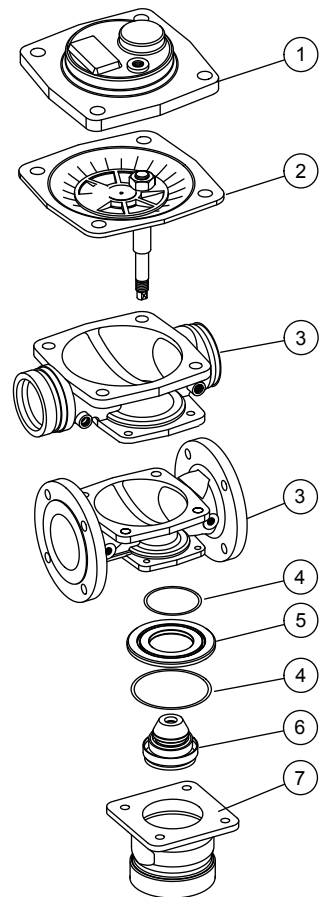
High pressure model: 1 - 16 bar / 15 - 250 psi

Maximum operating temperature: 60°C (140°F)

Head loss chart:



Filtration mode —————
 Flushing mode - - - - -



Main parts:

1. Bonnet
2. Diaphragm kit
3. Body
4. Sealing ring
5. Seat
6. Plug
7. Adapter

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:

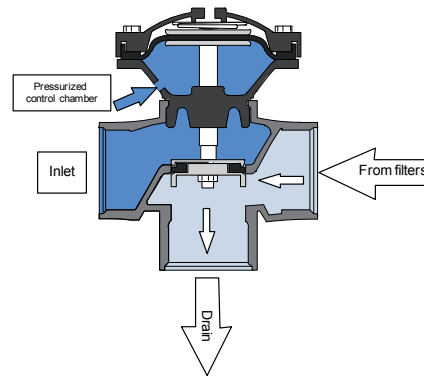
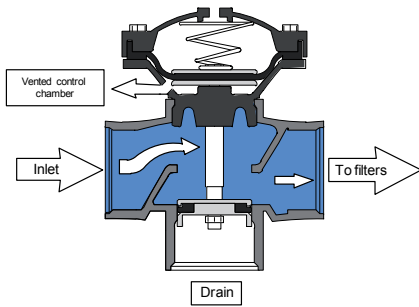
Filtration mode

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

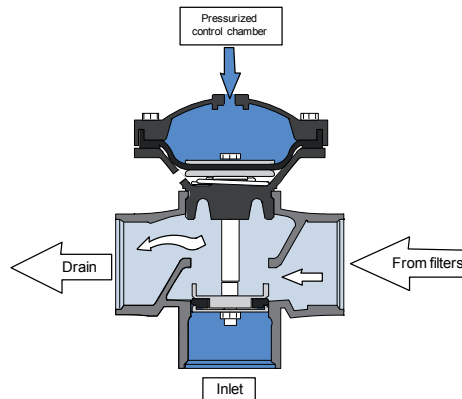
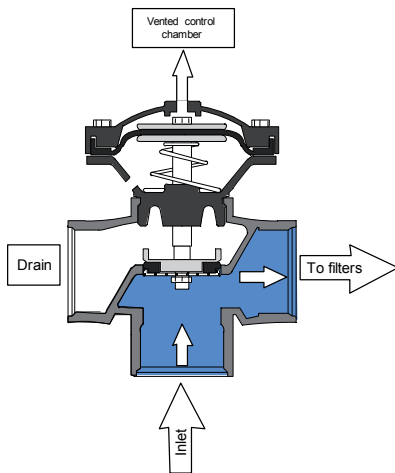
Back-Flushing mode

Control chamber pressurized -
The valve is in flushing mode

Model 51



Model 52



Dimensions & weights:

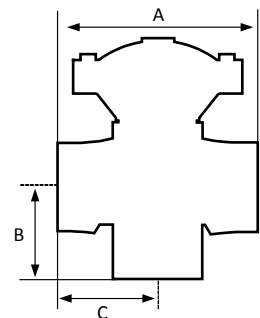
Inlet / Outlet/ Drain		Dimensions mm / inch			Weight Kg / Lbs
mm	inch	A	B	C	
50	2	155 / 6 ⁷ / ₈	75 / 2 ¹⁵ / ₁₆	78 / 3 ¹ / ₁₆	3.1 / 6.8

Groove adapters supplied on request.

Each groove adapter will add 30 mm (1¹/₈ inch) to the length / height dimensions according to its location.

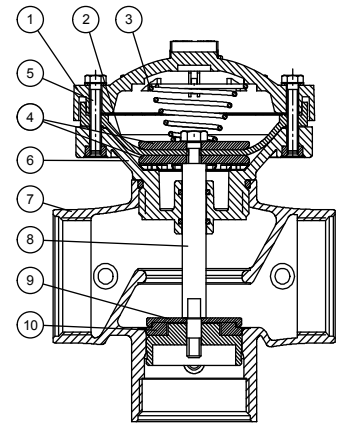
Threaded connections:

Female - NPT / BSP



Materials:

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



Hydraulic performance:

Model		51	52
Size		2 X 2	2 X 2
Max. recommended flow at filtering	m ³ /h	40	40
	gpm	176	176
Max. recommended flow at flushing	m ³ /h	40	40
	gpm	176	176
Flow rate factor at filtering	Kv (metric)	43	52
	Cv (US)	50	60
Flow rate factor at flushing	Kv (metric)	40	37
	Cv (US)	45	43

Operating pressure range:

Standard model: 0.7 - 10 bar / 10 - 150 psi

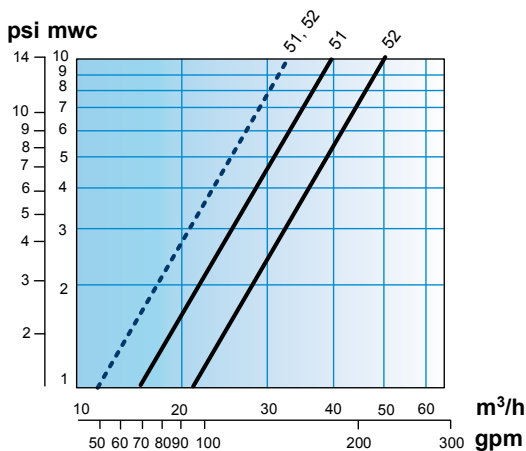
High Pressure model: 0.7 - 16 bar / 10 - 250 psi

Maximal operating temperature:

Standard models - 60°C (140°F)

Hot water model - 90°C (195°F)

Head loss chart:

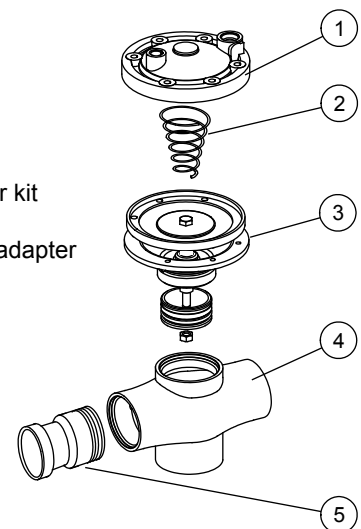


Filtration mode —————

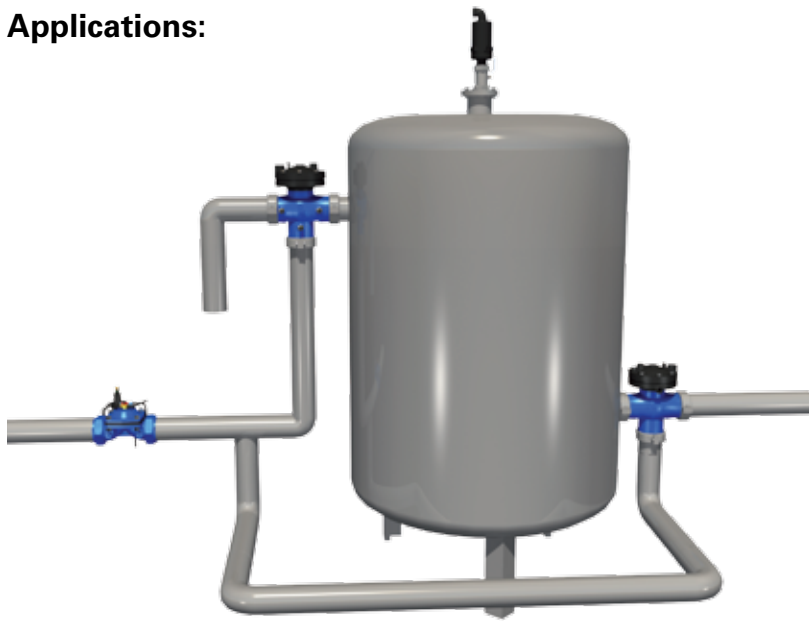
Flushing mode - - - - -

Main parts:

1. Bonnet
2. Spring
3. Diaphragm & actuator kit
4. Body
5. Grooved connection adapter



Applications:



Sand Media Filter



Double Disc Filters System

Ordering guide:

Ordering data	Ordering code						Ordering data							
	5 <input type="checkbox"/>	2X2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
Filtration Flow Direction							Special Versions							
Straight							1						HW	Hot Water
Angle							2						HP	High Pressure (16 bar)
Inlet port connection							Coating							
Grooved adapter							→	V	R	←	Polyester Red			
BSP Thread							→	B	L	←	Polyester Blue			
NPT Thread							→	N	X	←	Other (Specify)			
Outlet port connection							Drain port connection							
Grooved adapter							→	V	V	←	Grooved adapter			
BSP Thread							→	B	B	←	BSP Thread			
NPT Thread	→	N	N	←	NPT Thread									

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.

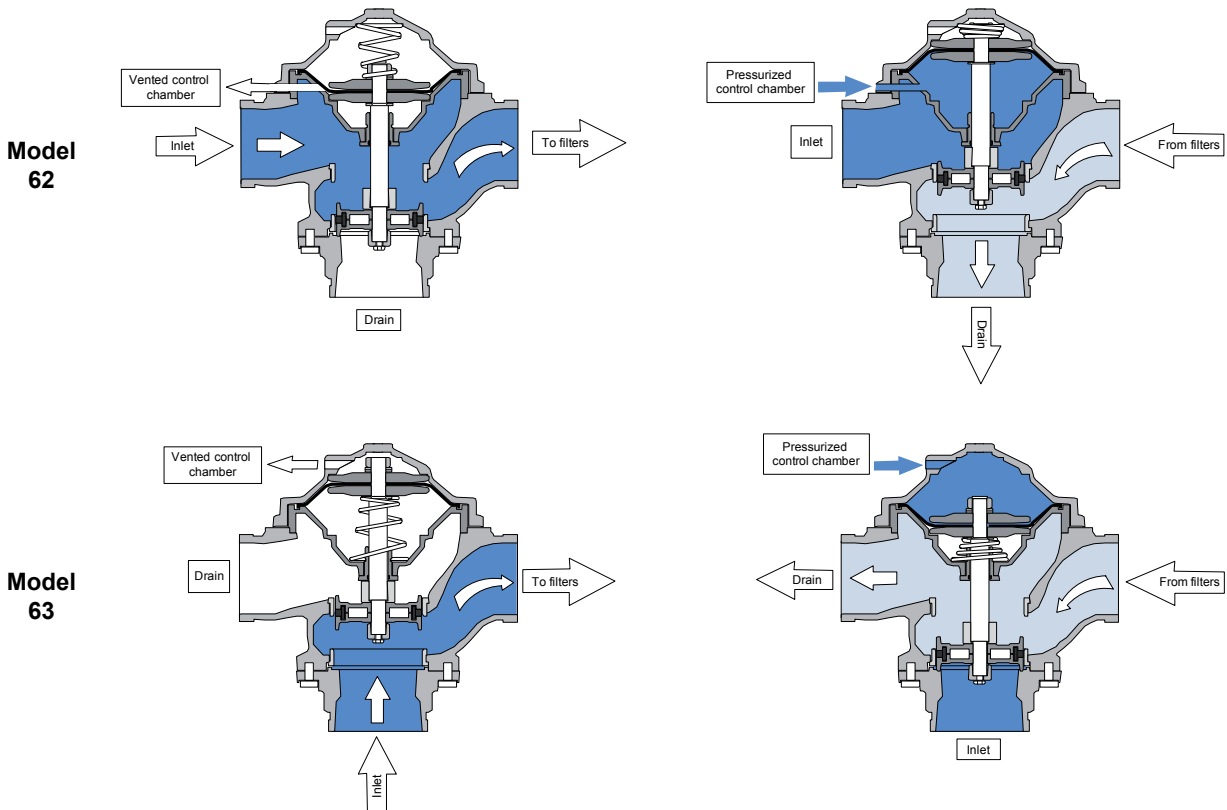
Operating principle:

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:

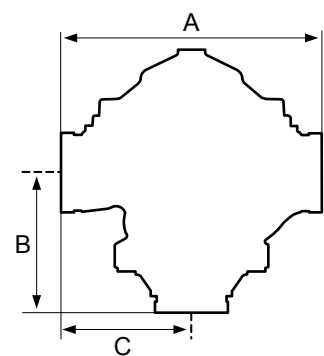
Inlet / Outlet		Drain		Dimensions mm / inch			Weight Kg / Lbs
mm	inch	mm	inch	A	B	C	
80	3	50	2	290 / 11 ⁷ / ₁₆	168 / 6 ⁵ / ₈	145 / 5 ¹¹ / ₁₆	18 / 40
80	3	80	3	290 / 11 ⁷ / ₁₆	157 / 3 ³ / ₁₆	145 / 5 ¹¹ / ₁₆	
100	4	80	3	317 / 12 ¹ / ₂	200 / 7 ⁷ / ₈	158 / 6 ¹ / ₄	27 / 60
100	4	100	4	317 / 12 ¹ / ₂	200 / 7 ⁷ / ₈	158 / 6 ¹ / ₄	

End connections:

Inlet / Outlet - Grooved

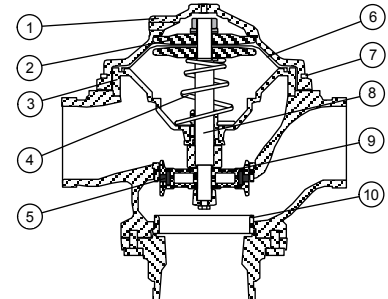
Drain - Threaded or Grooved.

Thread standards: Female NPT / BSP



Materials:

Part	Standard	High Pressure
1. Bonnet	C.I.	C.I.
2. Diaphragm discs	PAGF	PAGF
3. Bottom chamber	PAGF	Bronze
4. Spring	SST 302	SST 302
5. Seals	NR	NR
6. Diaphragm	NR	NR
7. Bolts & nuts	SST 302	SST 302
8. Shaft	SST 316	SST 316
9. Plug assy.	PAGF	PAGF
10. Seats	SST 304	SST 304



Hydraulic performance:

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

Operating pressure range:

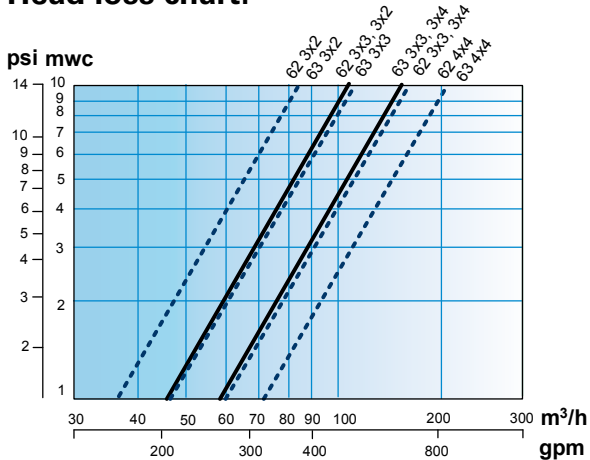
Standard version: 0.5 - 12 bar / 7 - 180 psi

High Pressure version: 1.0 - 16 bar / 15 - 250 psi

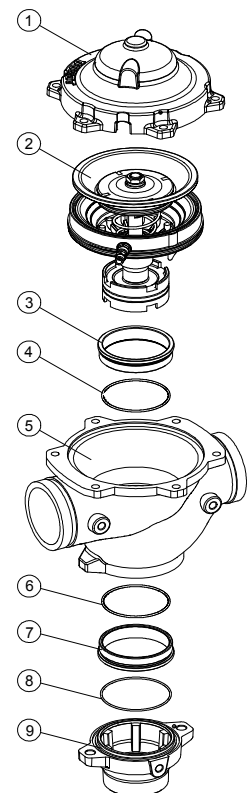
*When using 4 way control circuit with external pressure source, no minimal line pressure is required

Maximum operating temperature: 60°C (140°F)

Head loss chart:



Filtration mode —————
 Flushing mode - - - - -



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:



Disc Filter System



Sand Media Filters

Ordering guide:

Ordering data		Ordering code						Ordering data		
	6 <input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Flow direction at filtering								Special Features		
Straight	2								HP	High Pressure Model (16 bar)
Angle	3									
Top Ports Size						Coating				
4" / 100mm	→	4		L	←	Polyester Blue				
3" / 80mm	→	3		R	←	Polyester Red				
				X	←	Other (specify)				
Bottom Port Size						Drain port connection				
4" / 100mm	→	4	V	←	Grooved (VIC)					
3" / 80mm	→	3	B	←	BSP Thread					
2" / 50mm	→	2	N	←	NPT Thread					

Dorot Double Chamber 2" / 50mm Valve - Model 09 ("Galil")

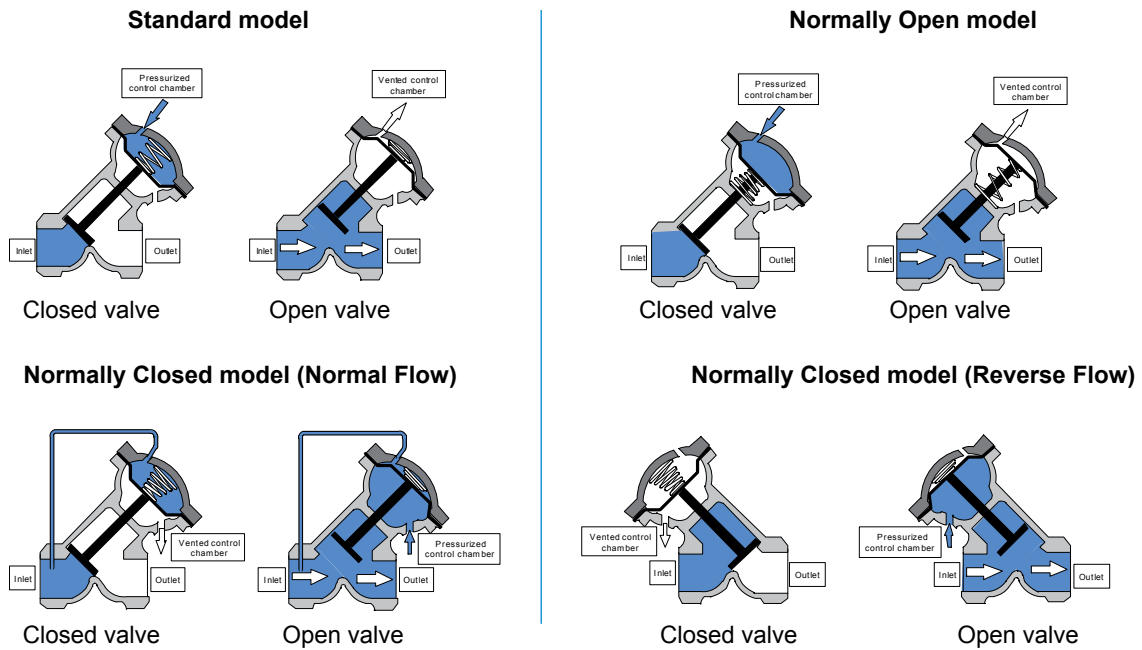
Brass body, Double-chamber control valve, made to enable automatic backflush of screen filters.



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

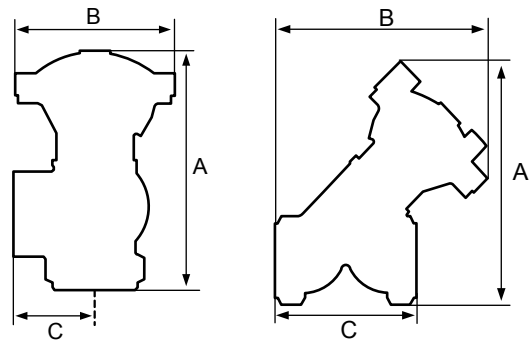
Operating principle:



Dimensions & weights:

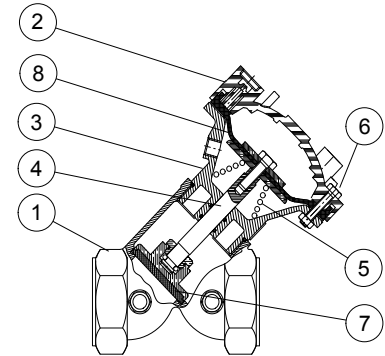
Model	Type	Dimensions mm / inch			Weight Kg / Lbs
		A	B	C	
09	Straight	196 / 7 ¹¹ / ₁₆	193 / 7 ⁵ / ₈	125 / 4 ¹⁵ / ₁₆	3.2 / 7
09 + throttling handle	Straight	235 / 9 ¹ / ₄	219 / 8 ⁵ / ₈	125 / 4 ¹⁵ / ₁₆	
09-A	Angle	192 / 7 ⁹ / ₁₆	130 / 5 ¹ / ₈	66 / 2 ⁵ / ₈	
09-A + throttling handle	Angle	260 / 10 ¹ / ₄	130 / 5 ¹ / ₈	66 / 2 ⁵ / ₈	

Threaded connections:
Female - NPT / BSP



Materials:

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



*In Angle pattern only

Hydraulic performance:

Size		2" / 50mm	
Max. recommended flow rate		m ³ /h	40
		gpm	176
Flow rate factor	Model 09	Kv (metric)	35
		Cv (US)	41
	Model 09-A	Kv (metric)	55
		Cv (US)	65

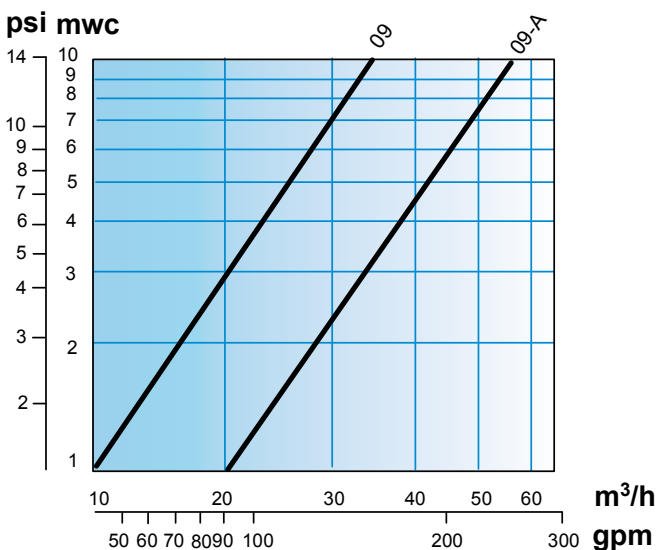
Operating pressure range:

Standard version: 1 - 10 bar / 14.5 - 145 psi

High Pressure version: 1 - 16 bar / 14.5 - 250 psi

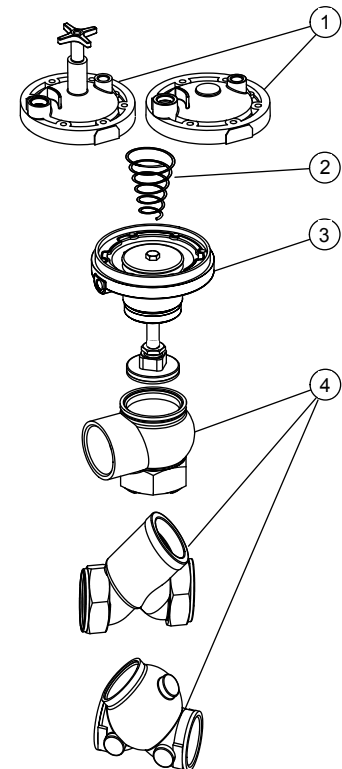
Maximum operating temperature: Standard model - 60°C (140°F)
Hot water model - 90°C (195°F)

Head loss chart:

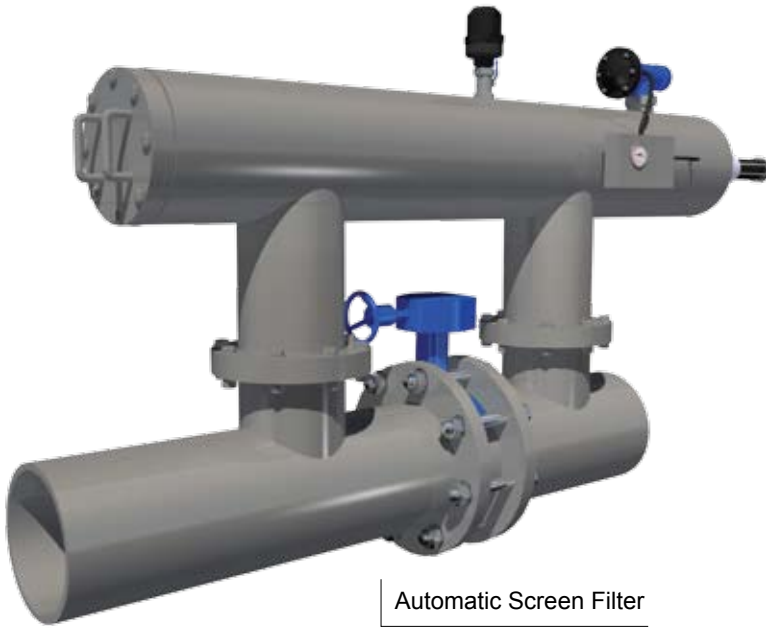


Main parts:

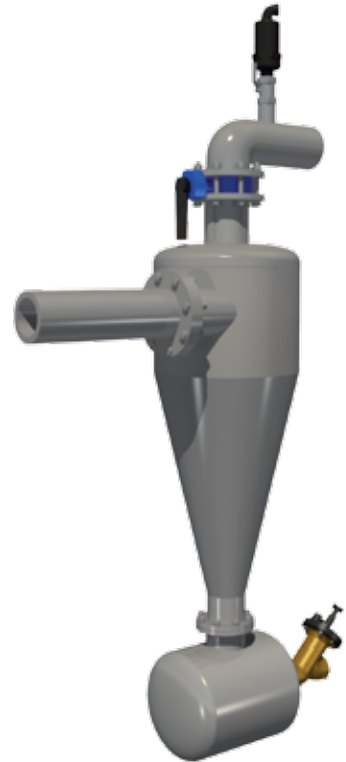
1. Bonnet
2. Spring
3. Operator kit
4. Body



Applications:



Automatic Screen Filter



Sand-Separator
(Hydrocyclone) System

Ordering guide:

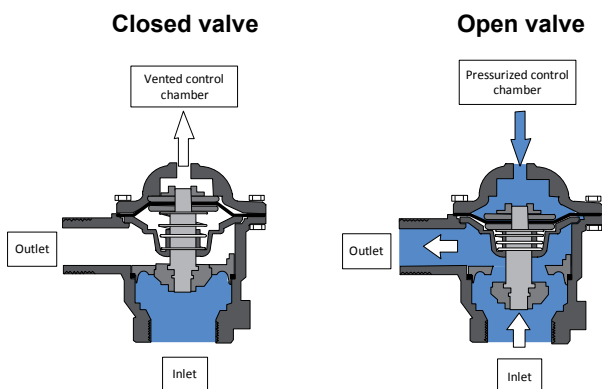
Ordering data	Ordering code									Ordering data			
	09	<input type="checkbox"/>	<input type="checkbox"/>	-2-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Valve body													
Straight flow	→	-											
Angle flow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

Dorot Normally Closed Valve Model 60

Features:

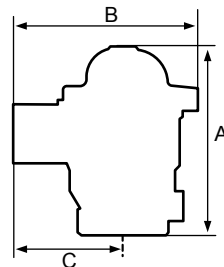
- High resistance to corrosive fluids
- Normally-Closed operation
- Fast reaction
- Easy installation and maintenance
- Tough and durable construction
- Drip-tight sealing at zero pressure
- Angle pattern minimizes pressure losses

Operating principle:



Dimensions & weights:

Size	Dimensions mm / inch			Weight Kg / Lbs
	A	B	C	
40mm / 1.5"	164 / 6 ⁷ / ₁₆	127 / 5	89 / 3 ¹ / ₂	0.7 / 1.6

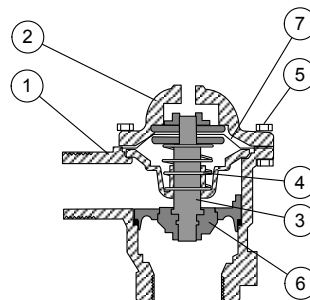


Threaded connections:

Inlet Female, Outlet male - NPT / BSP

Materials:

Part	Standard model	Mining model
1. Body	PPGF	PPGF
2. Bonnet	PPGF	PPGF
3. Shaft	PPGF	PPGF
4. Spring	SST 302	SST 316
5. Screws	SST 304	SST 304
6. Seals	EPDM	ALD and Viton
7. Diaphragm	EPDM	ALD



Hydraulic performance:

Size	1 ¹ / ₂ " / 40mm	
Max. recommended flow rate	m ³ /h	25
	gpm	110
Flow rate factor	Kv (metric)	25
	Cv (US)	30

Operating pressure range:

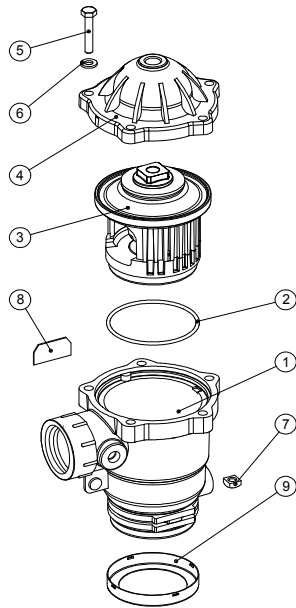
Standard version: 0.4 – 8 bar / 6 – 115 psi

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:

Ordering data	Ordering code			Ordering data
	60-ANC	<input type="checkbox"/>	<input type="checkbox"/>	
Connection standard				Special Features
NPT	→	NP	ST	Standard
BSP	→	BS	MI	Mining

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.



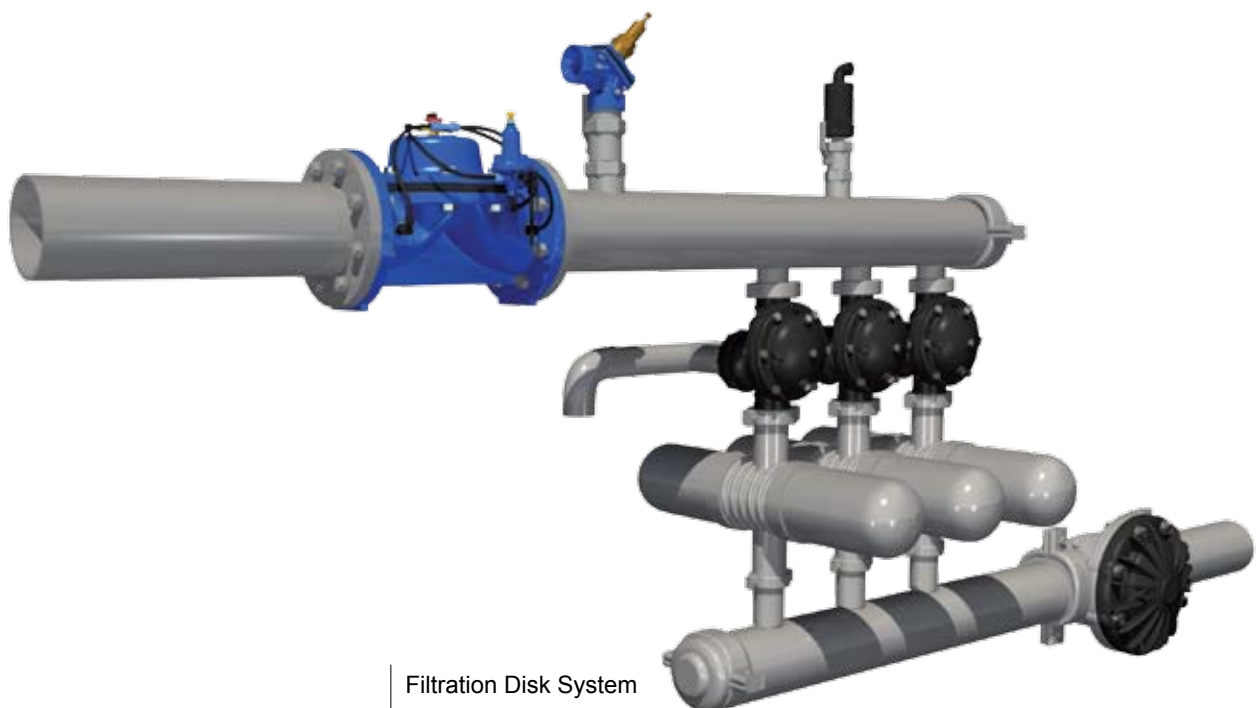
S-100



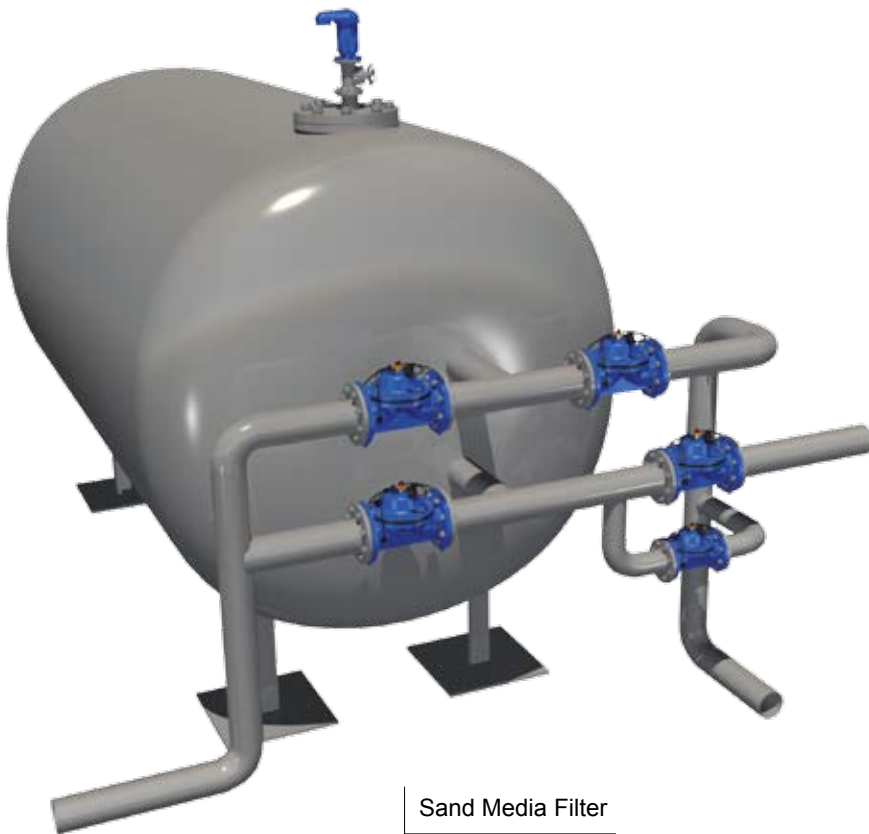
S-300



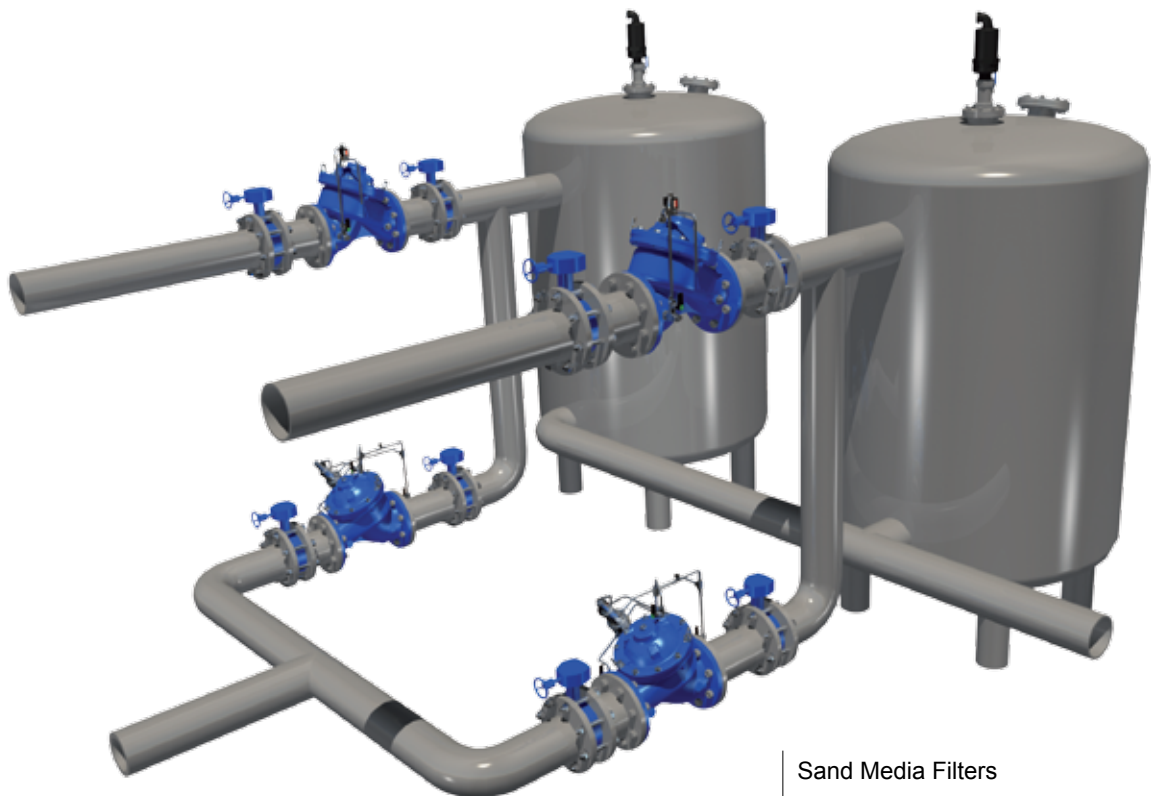
S-500



Filtration Disk System



Sand Media Filter

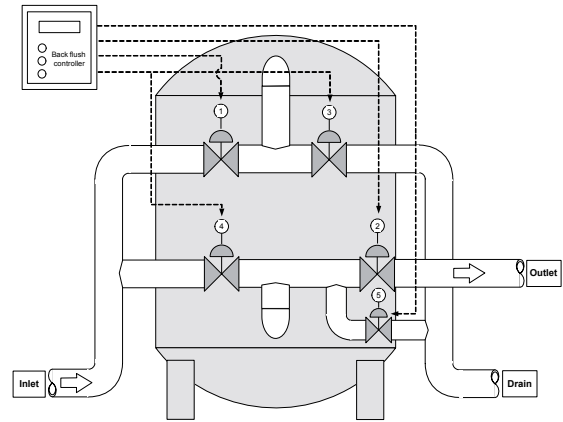


Sand Media Filters

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:



47-4-RC



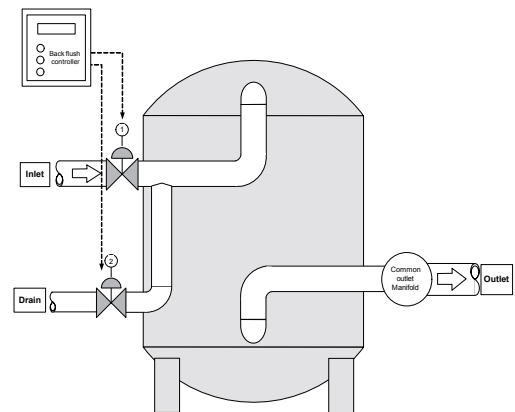
50-4-EL

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:



47-4-FR/EL



50-4-FR/EL

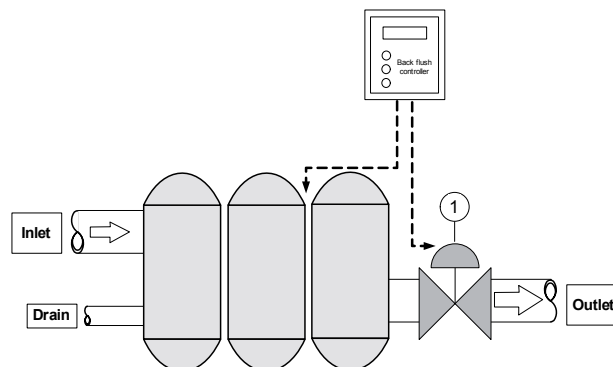
Regulation of flushing flow rate in Disc Filtration Batteries

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



96-6-PSNO

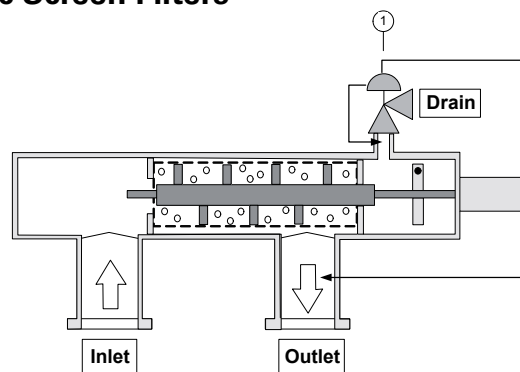
Flushing Pressure-Differential Control in Automatic Screen Filters

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



50A-2-PD



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Hundreds of companies in the industrial, civil engineering and agricultural sectors around the world have selected the innovative and field-proven technologies developed by Dorot. Public and private water utility companies, construction and engineering companies, fire-suppression integrators, farming enterprises, energy companies and other entities from various industries, all benefit from Dorot's expertise and professional services. Dorot is considered a true partner by its customers for overcoming challenges in R&D, design, implementation, and maintenance of water-control valve products. Since its establishment in 1946, Dorot drives the market with continued innovation, uncompromising excellence and firm commitment to its customers. Through its unique water-management solutions, the company also contributes to the global efforts for environment protection. Dorot invests in research and development of quality products and solutions.



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