



Precision
Agriculture



Ultimate control
ultimate
precision

Valves

Control Valves,
Manual Valves, Air Valves

May 2024 v4.0

/ Product Catalog



/ General Contents

→ Control Valves

Product Portfolio	8
Typical Applications	9
AquaNet™ Electric Valves.....	11
75 Series.....	14
80 Series.....	19
90 Series.....	27
100 Series	29
300 Series	33
Pilots, Solenoids	
& Hydraulic Relays.....	36
Description Guide	37
Additional Information.....	38

Spare Parts

Aquanet™	43
75 Series.....	45
80 Series.....	48
90 Series.....	50
100 Series	51
Diaphragms	53

Pilots, Relays & Floats 56

Solenoids 63

Complementary Accessories..... 76

DPR..... 82

→ Manual Valves

Plastic Valves

Ball Valves.....	86
Angle Seat Valves	95
Butterfly Valves	98
Throttle Valves	101
Check Valves	103

Metal Valves

Ball Valves.....	112
Angle Seat Valves	114
Butterfly Valves	116
Gate Valves.....	119
Check Valves	122
"Y" Strainers	127

→ Air Valves

Product Portfolio	131
-------------------------	-----

Plastic

Kinetic / Vacuum Breaking.....	134
Automatic.....	139
Combination.....	145
Dynamic	161

Metal

Kinetic / Vacuum Breaking.....	166
Automatic.....	171
Combination.....	173
Additional Information.....	192

→ Netafim Valves Application 194

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Netafim, Orbia's Precision Agriculture business, is the world's largest irrigation company and the global leader in precision agriculture solutions committed to fight scarcity of food, water and land, for a sustainable future.

Founded in 1965, Netafim pioneered the drip revolution, creating a paradigm shift toward precision irrigation. Today, specializing in end-to-end solutions from the water source to the root zone, Netafim delivers irrigation and greenhouse projects, as well as landscape and mining solutions supported by engineering, project management and financing services. Netafim is also leading the way in digital farming, integrating real-time monitoring, analysis and automated control into one state-of-the-art system.

With 33 subsidiaries, 19 manufacturing plants, 2 recycling plants and 5000 employees worldwide, Netafim delivers innovative, tailor-made irrigation and fertigation solutions to millions of farmers, allowing smallholders to large-scale agricultural producers, in over 110 countries, to grow more with less™.

See how Netafim's solutions are driving sustainable agriculture and a food secure future at www.netafim.com

About Orbia

Orbia is a company driven by a shared purpose: to advance life around the world. Orbia operates in the Polymer Solutions (Vestolit and Alphagary), Building and Infrastructure (Wavin), Precision Agriculture (Netafim), Connectivity Solutions (Dura-Line) and Fluorinated Solutions (Koura) sectors.

The five Orbia business groups have a collective focus on expanding access to health and wellness, reinventing the future of cities and homes, ensuring food and water security, connecting communities to information and accelerating a circular economy with basic and advanced materials, specialty products and innovative solutions. Orbia has commercial activities in more than 110 countries and operations in over 50, with global headquarters in Boston, Mexico City, Amsterdam and Tel Aviv.

To learn more, visit: www.orbia.com



/ Control Valves



Precision
Agriculture



/ Control Valves Contents

Product Portfolio	8
Typical Applications	9
AquaNet™ Electric Valves.....	11
75 Series ¾" - 4"R	14
75 Series 3"H - 8"R.....	16
80 Series.....	19
80 Series ¾" - 1"	21
80 QR	23
80 W	25
90 Series.....	27
100 Series	29
300 Series	33
Pilots, Solenoids & Hydraulic Relays.....	36
Description Guide	37
Flow- Rate Suitability	38
Catalog Numbers of Main Products	40

Spare Parts

AquaNet™

AquaNet™ ¾" - 1"	43
AquaNet™ 1½" - 2"	44

75 Series

1½" - 3"R	45
3" - 4"R.....	46
3H" - 6"R.....	47

80 Series

1½" - 2"	48
3" - 4"R.....	49

90 Series

3" - 6"	50
---------------	----

100 Series

1½" - 4"	51
6" - 10"	52

Diaphragms	53
-------------------------	-----------

Pilots, Relays & Floats

Pilots Standards Table.....	57
Plastic Pilots	58
Metal Pilots.....	60
Relays & Floats.....	62

Solenoids

Aquative™	64
G75 Solenoids	66
G75 Solenoid with Galit Relay	68
Solenoids Manifold	70
GEMSOL Solenoids	72
2-Way Solenoids	75

Complementary Accessories

Fittings.....	77
Pressure Gauges	78
3-Way Selectors	79
Additional Components.....	81
DPR.....	82

Product Portfolio

AquaNet™

Mechanism: Rigid Plug
Material: Reinforced Nylon
Diameters: ¾" – 2"



Series 75

Mechanism: Diaphragm
Material: Reinforced Nylon, Polypropylene
Diameters: ¾" – 8"R



Series 80

Mechanism: Rigid Plug
Material: Reinforced Nylon
Diameters: ¾" – 4"R



Series 90

Mechanism: Diaphragm
Material: PVC
Diameters: 3" - 6"



Series 100

Mechanism: Diaphragm
Material: Various Metals
Diameters: ¾" – 32"



Series 300

Mechanism: Rigid Plug
Material: Various Metals
Diameters: ¾" – 40"



Typical Applications

Manual Control On/Off



MAN

The valve is controlled manually by a three port selector that allows the user to select the closed, opened or remote-controlled position of the valve. Opening and closing the valve is quick and effortless, even under high pressure conditions.

Hydraulic Control On/Off



HYD

A 3-way relay valve, activated by hydraulic or pneumatic pressure command, opens or closes the main valve. The standard valve is supplied in the "normally closed" position. The "normally open" position is optional. Hydraulic activation can be added to other control applications on request.

Electric Control On/Off



ELE

A 3-way solenoid valve, activated by an electric current or an electric pulse, opens or closes the main valve. The standard valve is supplied in the "normally closed" position. The "normally open" position is optional. Electric activation can be added to other control applications on request.

Pressure Reducing



PRV

The valve maintains a preset downstream pressure, regardless of upstream pressure or flow rate fluctuation. The main valve is controlled by either a 3-way pilot valve (allowing full opening when upstream pressure drops below the pressure set-point), or by a 2-way pilot valve (creating a minimal differential in open position).

Pressure Sustaining (and Relief)



PSV

The valve maintains upstream pressure, regardless of flow rate variations. The valve will be in the "closed" position if the upstream pressure drops below the set-point and will fully open when the upstream pressure exceeds the set-point.

Quick Relief



QRV

The valve opens instantly when the pressure in the pipeline exceeds the safe level, thus relieving excessive pressure from the network. When the pressure returns to normal, the valve closes slowly, at an adjustable pace.

Flow Control



FLV

The valve limits the flow rate in the network to a preset value regardless of upstream pressure variations. The valve fully opens when the flow rate drops below the set point.

Level Control



LCV

The main valve is controlled by a float valve, located in the tank or reservoir and set at the required maximum water level. The valve maintains the maximum level continuously.

Surge Anticipating



SAV

The valve protects the pumping system from water hammer, caused by sudden pump shut-off (in the case of power failure, for example). The valve is assembled on a T-junction of the main pipeline, and instantly opens when the pump stops, relieving the returning high pressure wave. The valve slowly closes once the pressure returns to the static level. The valve also functions as a pressure relief valve.

Pump Control



PCV

The valve eliminates damaging surges caused by pump start-up and shut-off. The electrically activated valve gradually opens on pump start-up, and slowly closes before the pump is switched off. The valve will automatically close drip tight in case of power failure. Optional Additions: Flow Rate Limitation, Extended Closure, Two-Stage Operating, Pressure Reducing and Pressure Sustaining.

AquaNet™ Electric Valves

The professional electric/hydraulic valve line. Suitable for landscape and greenhouse applications.



1 1/2" - 2"
model



3/4" - 1"
model



Energy saving



Long distance
operation



3 position knob,
On/Off/Auto

/ Benefits & Features

- Great features
 - Patented hydraulic 3-way control
 - For all types of water
- All water types
 - Designed to operate with all types of water, including effluent (2mm command orifice)
- Outstanding
 - pressure and flow range
- Manual override
 - Close / Auto / Open
- Low energy consumption
 - for maximal wire distance
- Built-in
 - pressure regulator with adjustable knob 0.7 – 4.5bar (optional 1 1/2" & 2" Electrical models only)
- Flow control handle
 - Standard on all models
- EPDM diaphragm
 - Resistant against chemicals used in agriculture

/ Specifications & Recommendations

¾" & 1" Globe Models

- Working Pressure – 0.2 - 10 bar
- Ambient Temp. Max. – 60°C (140°F)
- Fluid Temp Max. – 60°C (140°F)
- Plastic Parts – Reinforced Nylon
- Diaphragms – EPDM
- Leads – 2 x AWG 22 (8cm)

1½" & 2" Globe & Angle Models

- Working Pressure – 0.3 - 10 bar
- Ambient Temp. Max. – 60°C (140°F)
- Fluid Temp Max. – 60°C (140°F)
- Plastic Parts – Reinforced Nylon
- Diaphragms – EPDM
- Leads – 2 x AWG 22 (120cm)

* Pressure Regulating Range: 0.7-4.5 bar (1½" & 2" only)

→ Packaging Data

Model	Quantity P/Box (Units)	Box Dimensions (cm x cm x cm)	Box Weight (Kg, average)
Aquanet Plus ¾", 1"	12	47.0 x 26.0 x 12.0	4.45
Aquanet Plus 1½" G	1	21.5 x 12.5 x 19	1.18
Aquanet Plus 1½" A			1.29
Aquanet Plus 2" G			1.16
Aquanet Plus 2" A			1.24
Pressure Regulator Kit		12.0 x 9.0 x 7.0	0.11

→ Electrical Specifications

24v AC

Voltage	18-28VAC
Inrush	90ma
Holding	75ma

In AC models, 2-5 seconds delay from command to activation

Cable Gauge (awg)	Diameter (mm)	Cross Section (mm²)	Max. Distance (m)
20	0.8	0.5	1250
18	1.0	0.8	2000
17	1.1	1.0	2500
16	1.3	1.3	3500
15	1.4	1.5	5000

Max. distance between Aquanet Plus AC and controllers

DC

Voltage	12-40 VDC
Min. Pulse Width	80ms

Recommended working condition capacitor mode

Voltage (VDC)	Capacitor (µf)	Min. Pulse (ms)
12-18	4700	80
18-28	3300	80
28-40	2200	80

Cable Gauge (awg)	Diameter (mm)	Cross Section (mm²)	Max. Distance (m)
20	0.8	0.5	150
17	1.1	1.0	240
15	1.4	1.5	380

→ Electrical Connections

¾" & 1" DC red + black common

¾" & 1" AC black/black

1½" & 2" DC red + black common

1½" & 2" AC black/black

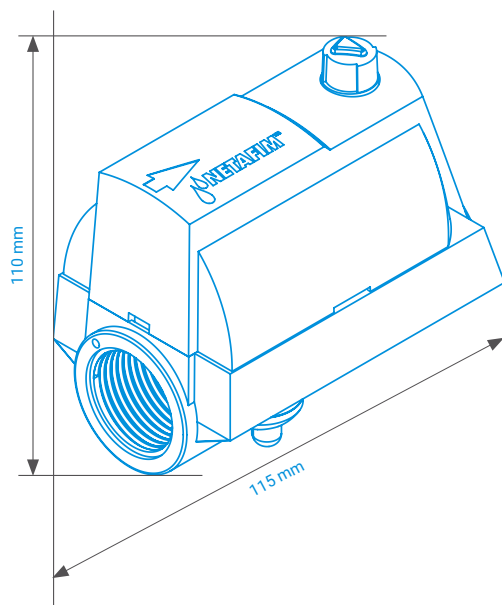
(Changing DC connection wire will change NC to no)

It is recommended to isolate wires connections from water to prevent corrosion.

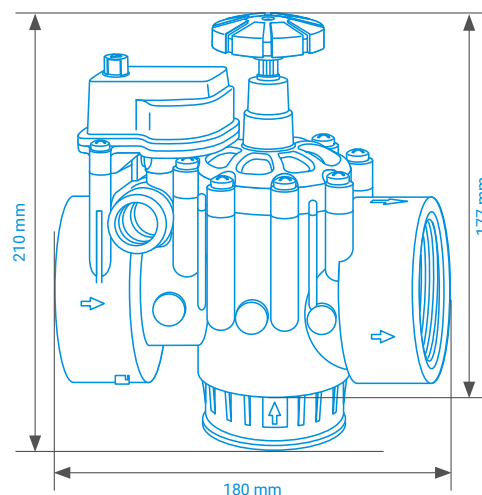
AquaNet™ is compatible with most DC latch controllers with two or three wire output. For specific models, please contact your Netafim representative.

→ Technical Dimensions

¾" & 1" Models



1½" & 2" Models



→ Catalog Numbers

Diameter	Connection Type	Input	Shape	Catalog Number without Regulator	Catalog Number with Regulator
¾"	BSP	AC	Straight	34000-001000*	
		DC	Straight	34500-001000*	
1"		AC	Straight	34000-001100*	
		DC	Straight	34500-001100*	
1½"		AC	Angle	34040-001000	34020-001000
			Globe	34040-001100	34020-001100
		DC	Angle	34540-001000	34520-001000
			Globe	34540-001100	34520-001100
2"		AC	Angle	34040-001200	34020-001200
			Globe	34040-001300	34020-001300
		DC	Angle	34540-001200	34520-001200
			Globe	34540-001300	34520-001300

* With flow control

→ Head Loss (m) Flow m³/h

		Flow																		
Model	Pattern	1	2	3	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34
¾"	G	1.00	1.30	2.00	2.50	4.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1"	G	1.00	1.30	2.00	2.40	4.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1½"	G	0.52	0.64	0.77	0.92	1.28	1.70	2.21	2.79	3.46	4.22	5.06	6.00	7.00	8.17	9.41	10.75	12.20	13.77	15.46
	A	0.90	0.93	0.98	1.05	1.23	1.48	1.80	2.18	2.64	3.18	3.79	4.49	5.26	6.12	7.06	8.08	9.20	10.40	11.70
	A-G	0.00	0.10	0.40	0.70	1.30	1.92	2.57	3.25	3.98	4.76	5.61	6.53	7.54	8.64	9.84	11.16	12.60	14.17	15.90
	HYG	0.36	0.36	0.42	0.43	0.72	1.06	1.49	2.04	2.68	3.44	4.30	5.26	6.33	7.50	8.77	10.15	11.63	13.22	14.90
	HYA	-	-	0.00	0.00	0.30	0.57	0.87	1.21	1.60	2.04	2.52	3.05	3.63	4.26	4.94	5.67	6.45	7.28	8.18
2"	G	0.63	0.74	0.86	1.00	1.33	1.71	2.16	2.69	3.28	3.96	4.72	5.56	6.50	7.54	8.67	9.91	11.26	12.72	14.30
	A	1.41	1.30	1.23	1.18	1.15	1.23	1.41	1.68	2.04	2.50	3.03	3.65	4.35	5.12	5.97	6.88	7.85	8.89	9.99
	A-G	1.40	1.69	1.97	2.25	2.80	3.35	3.92	4.50	5.12	5.77	6.48	7.24	8.00	8.99	9.98	11.09	12.30	13.60	15.06
	HYG	-	-	-	0.00	0.38	0.83	1.34	1.93	2.60	3.34	4.16	5.07	6.06	7.15	8.33	9.60	10.97	12.45	14.02
	HYA	-	0.02	0.06	0.12	0.27	0.47	0.73	1.04	1.40	1.81	2.28	2.80	3.36	3.98	4.65	5.37	6.14	6.96	7.84

* G = Globe =, A = Angle, A-G = Angle valve globe flow, HYG = Hydraulic globe valve, HYA = Hydraulic angle valve

75 Series

3/4" - 4"R

CONTROL VALVES

The strong and versatile reinforced nylon valves of the 75 Series exhibit exceptional hydraulic characteristics and provide optimal control of irrigation systems.



Outstanding
performance



Ultimate
durability



Extremely
versatile

/ Benefits & Features

- **Outstanding performance** High flow capacity and very low head losses achieved by a flexible diaphragm that provides a wide water passage throughout the valve's hydrodynamic body
- **Ultimate durability** Long life and easy inline maintenance accomplished by structural simplicity and high-quality corrosion-free materials
- **Extremely versatile** Gal plastic valves are available with full selection of control functions and various end connections

/ Specifications & Recommendations

- **Maximum Pressure** – 10 bar (145psi)
- **Minimum Recommended Flow** – 1m³/h (5gpm)
- **Minimum Operating Pressure** – 0.4 bar (6psi)*
- **Maximum Operating Temperature** – 60°C (140°F)

* Available with low pressure diaphragm

→ Hydraulic Performance

Diameter	inch	¾	1	1½	2	2½	3R	3	4R
	mm	20	25	35	50	65	80	80	100
Flow Rate Factor**	Kv (metric)	12	16	60	83	85	90	120	120
	Cv (US)	14	20	70	96	98	104	140	140

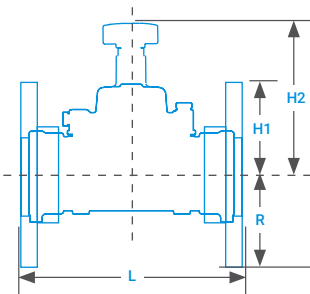
** In order to calculate the head loss at any desired flow rate, use the following equation: Head loss = (Flow rate/Flow rate factor)²

→ Technical Dimensions

Diameter		inch	¾	1	1½	2	2½	3R	3	3*	4R*
		mm	20	25	40	50	65	80	80	80	100
Height	h1	mm / inch	38 / 1½	38 / 1½	67 / 2⅝	67 / 2⅝	67 / 2⅝	67 / 2⅝	100 / 3⅝	100 / 3⅝	100 / 3⅝
	H2		100 / 4	100 / 4	112 / 4⅜	112 / 4⅜	112 / 4⅜	112 / 4⅜	180 / 7⅛	180 / 7⅛	180 / 7⅛
	r		18 / ⅞	22 / ⅞	30 / 1⅜	37 / 1½	47 / 1⅞	54 / 2⅛	60 / 2⅜	100 / 3⅝	110 / 4⅝
Length	L		113 / 4½	124 / 4⅞	188 / 7⅜	199 / 7⅞	228 / 9	236 / 9¼	260 / 10¼	290 / 11⅞	290 / 11⅞
Control chamber volume		cc / gal	36 / 0.01			180 / 0.04			250 / 0.05		
Weight		kg / lbs	0.2 / 0.44	0.2 / 0.44	0.9 / 2	0.9 / 2	1.2 / 2.6	1.4 / 3.1	1.8 / 4.4	3 / 6.8	4 / 8.8

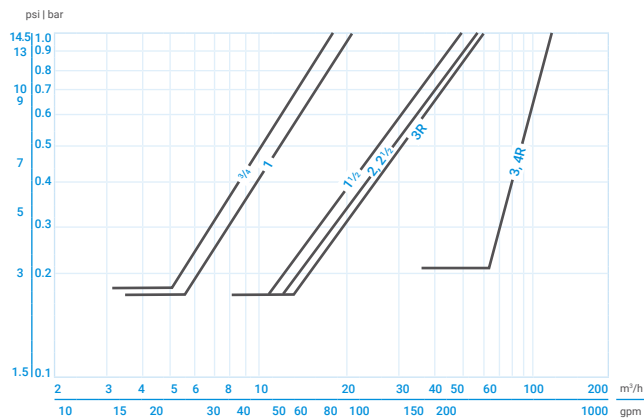
R: Reduced, 3R: 323", 4R: 434"

* Dimensions for these diameters include flanges

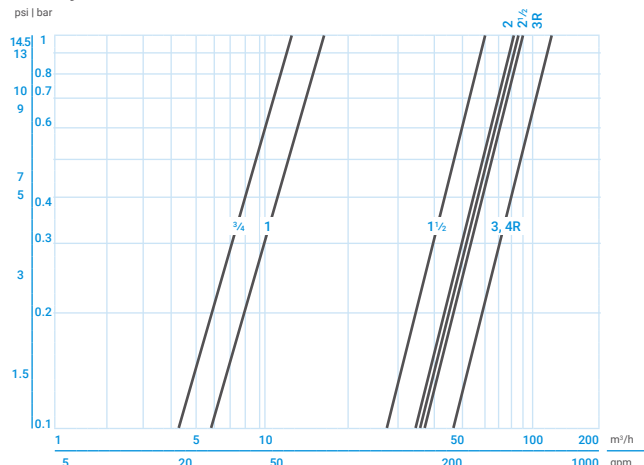


→ Head Loss

2-Way



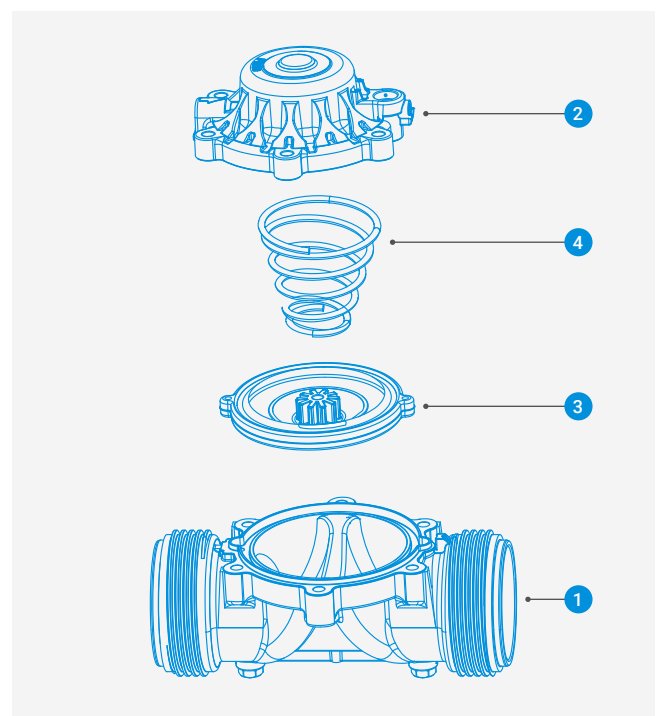
3-Way



→ Material Specification

#	Part	Material	Optional*
1	Body	Reinforced Nylon	Polypropylene
2	Bonnet	Reinforced Nylon	Polypropylene
3	Diaphragm	Natural Rubber	ALD70
4	Spring	SST 302	SST 316

* Optional parts for special chemical resistance



75 Series

3"H - 8"R

CONTROL VALVES

The strong and versatile reinforced nylon valves of the 75 Series exhibit exceptional hydraulic characteristics and provide optimal control of irrigation systems.



Outstanding
performance



Ultimate
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Extremely
versatile

/ Benefits & Features

- **Outstanding performance** High flow capacity and very low head losses achieved by a flexible diaphragm that provides a wide water passage throughout the valve's hydrodynamic body
- **Ultimate durability** Long life and easy inline maintenance accomplished by structural simplicity and high-quality corrosion-free materials
- **Extremely versatile** Gal plastic valves are available with full selection of control functions and various end connections

/ Specifications & Recommendations

- **Maximum Pressure** – 12 bar (175 psi)
- **Minimum Recommended Flow** – 1m³/h (5gpm)
- **Minimum Operating Pressure** – 0.4 bar (6psi)*
- **Maximum Operating Temperature** – 60°C (140°F)

* Available with low pressure diaphragm

→ Hydraulic Performance

Diameter	inch	3H	4	6R	6	8R
	mm	80	100	150	150	200
Flow Rate Factor**	Kv (metric)	250	350	350	580	580
	Cv (US)	290	405	405	670	670

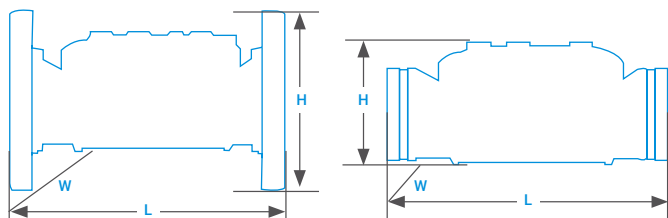
** In order to calculate the head loss at any desired flow rate, use the following equation: Head loss = (Flow rate/Flow rate factor)²

→ Technical Dimensions

Diameter		inch	3"H	3"H	4	4	6R	6*	8R
		mm	80	80	100	100	150	150	200
Connection Type			Thread	Flange	Groove	Flange			
Height	H	mm / inch	162 / 6 ³ / ₈	190 / 7 ¹ / ₂	160 / 7	230 / 9	285 / 11 ¹ / ₅	285 / 11 ¹ / ₅	307 / 12
	W		236 / 9 ² / ₇	236 / 9 ² / ₇	236 / 9 ² / ₇	236 / 9 ² / ₇	285 / 11 ¹ / ₅	285 / 11 ¹ / ₅	307 / 12
Length	L		452 / 17 ³ / ₄	485 / 19	350 / 13 ³ / ₄	373 / 14 ¹ / ₂	420 / 16 ¹ / ₂	420 / 16 ¹ / ₂	500 / 19 ² / ₃
Control chamber volume		cc / gal	500 / 0.13					1000 / 0.26	
Weight		kg / lbs	4.7 / 10.4	6 / 13.2	3.9 / 8.6	6 / 13.2	7.5 / 16.5	10.6 / 23.4	13.8 / 30.4

6R: 646" 8R: 868", H: High Flow, 3H: 343"

* Dimensions for these diameters include flanges

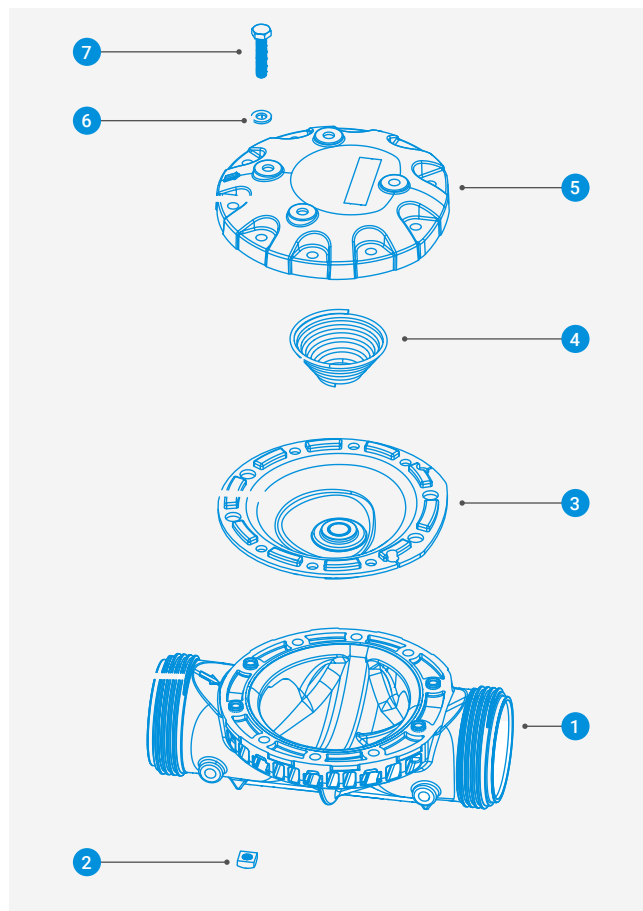
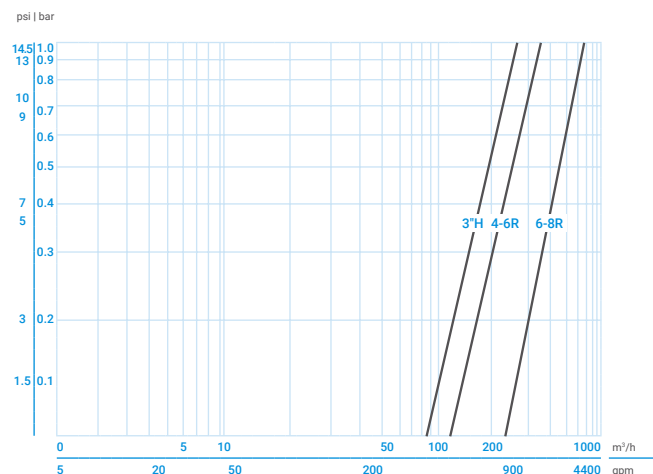


→ Material Specification

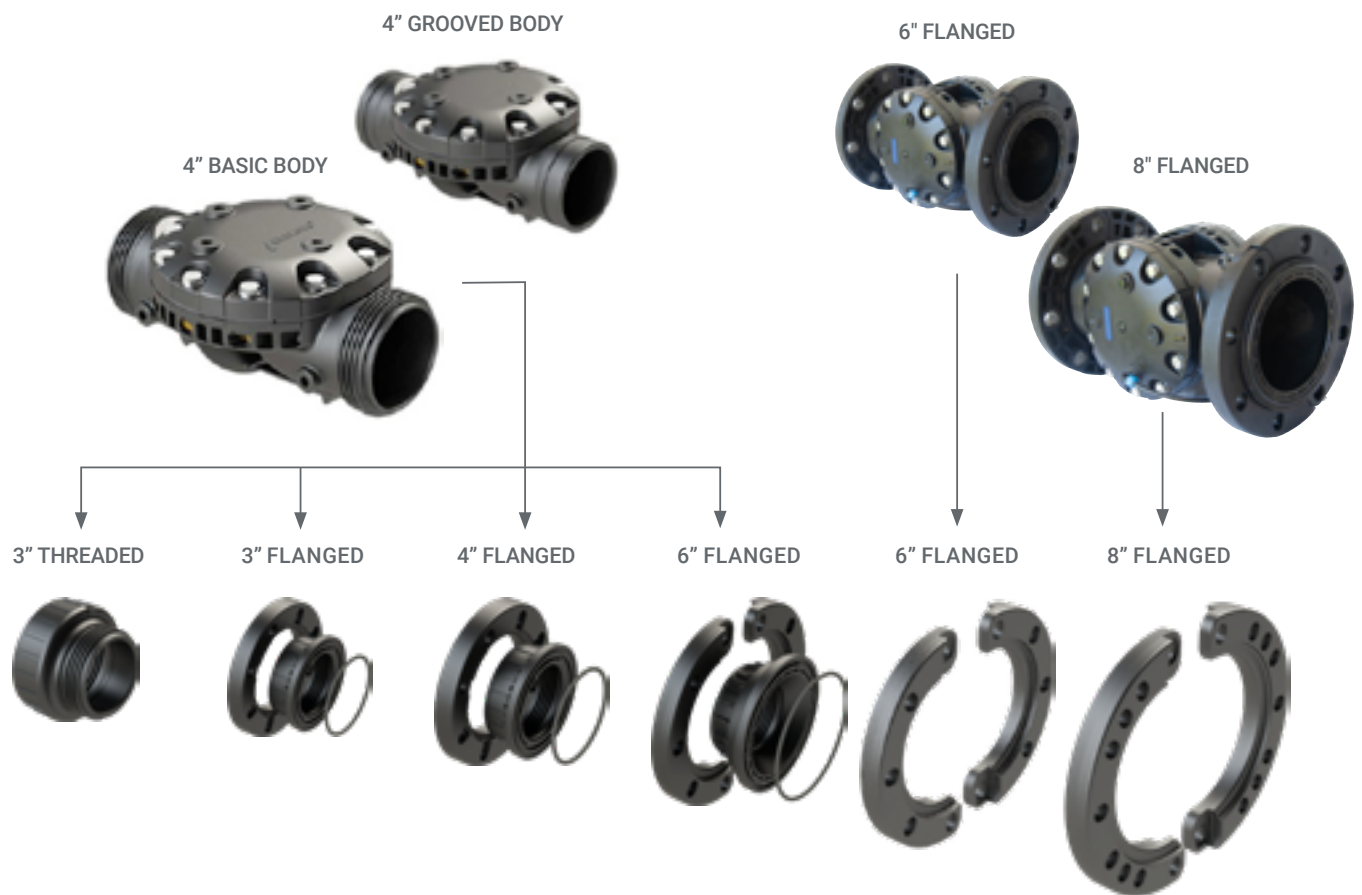
#	Part	Material	Optional*
1	Body	GPR	Polypropylene PP
2	Nut	Brass	SST 316
3	Diaphragm	NR	ALD, EPDM
4	Spring	SST 302	SST 316, Inconel
5	Bonnet	GRP	Polypropylene
6	Washer	SST 304	SST 316
7	Bolt	SST 304	SST 316

* Optional parts for special chemical resistance

→ Head Loss



→ Connection Types



Note: Available in an array of sizes from 3"H to 8"R

80 Series

REINFORCED NYLON CONTROL VALVES

Globe and angle plastic valves of the 80 Series, equipped with a fully supported diaphragm, guarantee rapid and precise control of irrigation systems.



Optimal
protection



Efficient
installation



Extensive
flexibility

/ Benefits & Features

- **Optimal protection** Tight closing & quick opening is achieved by a rigid plug mechanism that is suitable for high pressure applications and responds rapidly to water pressure fluctuations
- **Efficient installation** The valves are available in both globe and angle shapes and therefore eliminate the use of elbow joints and extending pipelines
- **Extensive flexibility** Available with full range of control functions, various end connections, and a selection of 2-way and 3-way bonnets with integral accessories

/ Specifications & Recommendations

- **Maximum Pressure** – 10 bar (145psi)
- **Minimum Recommended Flow** – 1m³/h (5gpm)
- **Minimum Operating Pressure** – 0.5 bar (7psi)
- **Maximum Operating Temperature** – 60°C (140°F)

→ Hydraulic Performance

Shape		Straight		Angle			
Diameter	inch	1½	2	1½	2	3	4R*
	mm	40	50	40	50	80	100
Flow Rate Factor**	Kv (metric)	35	45	45	60	180	
	Cv (US)	40	52	55	70	208	

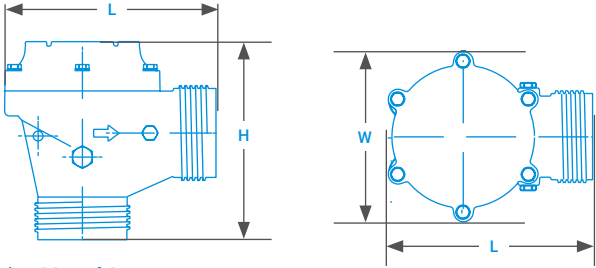
* R: Reduced, 4R: 434"

** In order to calculate the head loss at any desired flow rate, use the following equation: Head loss = (Flow rate/Flow rate factor)²

→ Technical Dimensions

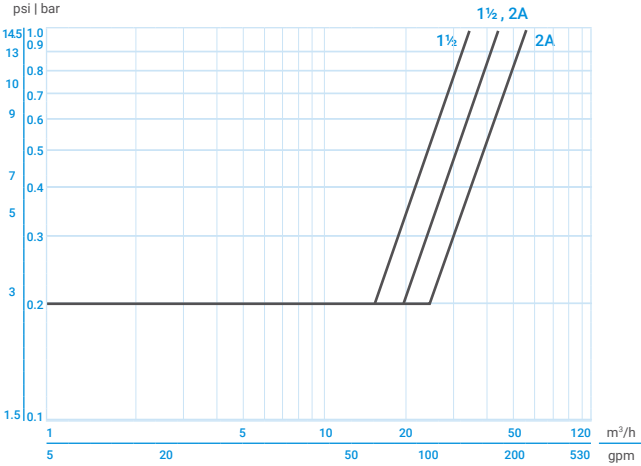
Shape			Straight		Angle			
Diameter		inch	1½	2	1½	2	3	4"R*
		mm	40	50	40	50	80	100
Height	H	mm / inch	159 / 6.23	166 / 6.54	171/6.73	171 / 6.73	175 / 6.9	175 / 6.9
Width	W	mm / inch	163 / 6.42	127 / 5.00	163 / 6.42	163 / 6.42	195 / 7.67	195 / 7.67
Length	L	mm / inch	165 / 6.49	165 / 6.49	88 / 3.46	88 / 3.46	354 / 14	390 / 15.3
Control chamber volume		cc / gal	100 / 0.02	100 / 0.02	100 / 0.02	100 / 0.02	400 / 0.10	400 / 0.10
Weight		kg / lbs	0.9 / 2	0.9 / 2	0.8 / 1.8	0.8 / 1.8	3.8 / 8.3	4.2 / 9.2

* Dimensions for these diameters include flanges

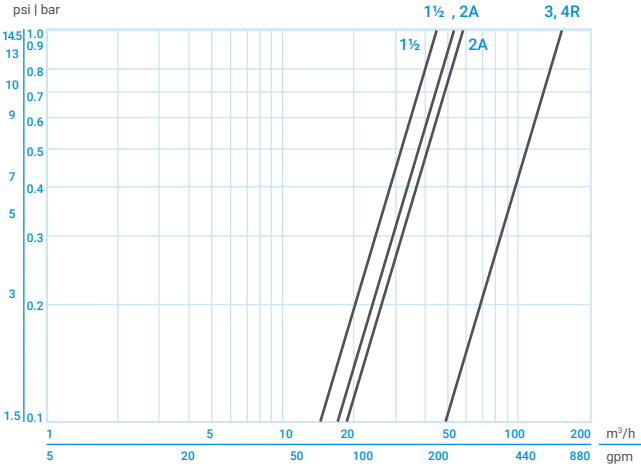


→ Head Loss

2-Way Valves



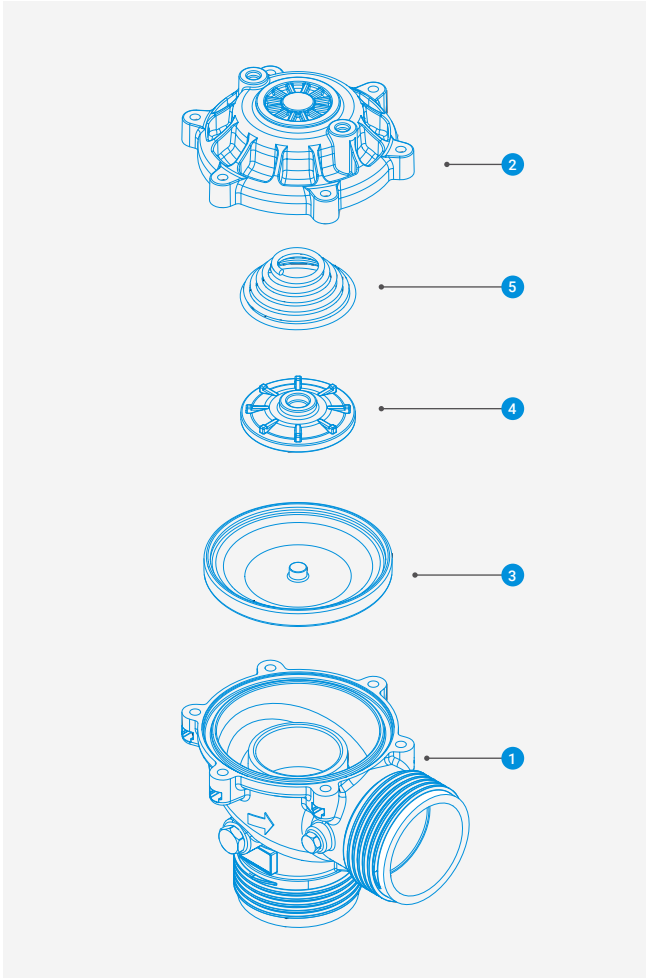
3-Way Valves



→ Material Specifications

#	Part	Material
1	Body	Reinforced nylon
2	Bonnet	Reinforced nylon
3	Diaphragm*	Natural rubber, EPDM
4	Spring seat	Nitrile rubber
5	Spring	SST 302

Optional parts for special chemical resistance



80 Series $\frac{3}{4}$ " - 1"

REINFORCED NYLON CONTROL VALVES

2-Way electric valve specially designed for landscape and greenhouses.



Outstanding performance



Ultimate durability



Extremely versatile

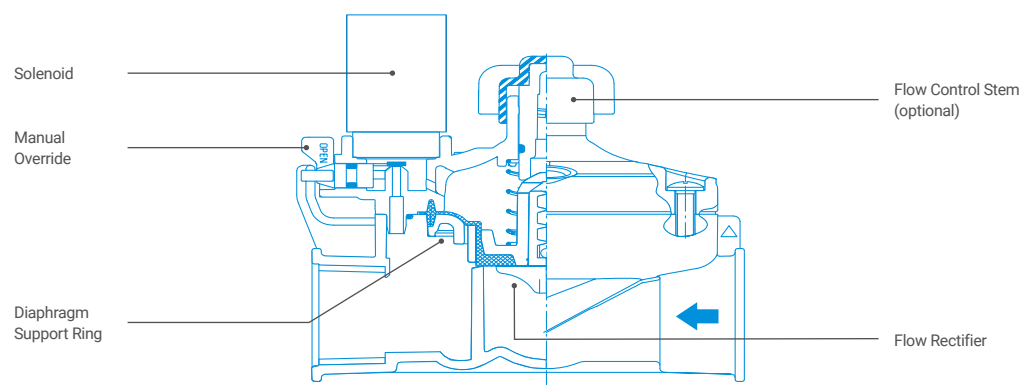
/ Benefits & Features

- **Cost effective** Simple reliable and economical
- **Durable** Corrosion-free materials
- **Global pattern valve** Activated by a fully-supported diaphragm
- **Opening** Internal bleed manual override
- **Operation at wide range of flow rates** From near zero to maximal flow
- **Optional** Removable flow control stem handle

/ Specifications & Recommendations

- **Maximum Pressure** – 10 bar (145psi)
- **Minimum Operating Pressure** – 0.5 bar (7psi)
- **Maximum Operating Temperature** – 60°C (140°F)
- **Standard** – 24 VAC 50/60 Hz. $\pm 10\%$ **Optional** – Other voltage rating or latching DC operators

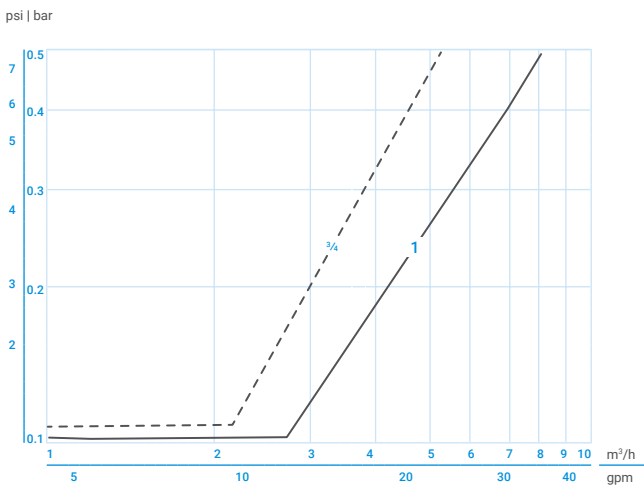
→ Components



→ Technical Dimensions

Diameter		inch	$\frac{3}{4}$	1
		mm	40	25
Height	H	mm / inch	109 / 4.3	112 / 4.4
Width	W	mm / inch	75 / 3	75 / 3
Length	L	mm / inch	98 / 3.9	103 / 4.1
Weight		kg / lbs	0.28 / 0.62	0.29 / 0.6

→ Head Loss



80 QR Series

REINFORCED NYLON CONTROL VALVES

The 80 QR Series is a pilot-operated, universal quick-relief valve, that is designed for the pressure-surge protection of pumps, filtration systems and pipelines.



Outstanding
performance



Ultimate
durability



Extremely
versatile

/ Benefits & Features

- Fast opening and slow, regulated closure
 - Prevents shuttering and secondary surges
- Extremely accurate
 - Will open and close at the same pressure setting
- Up to 10 bar
 - Wide operation pressure range, from as low as 0.5 bar and up to 10 bar
- High Flow/ Low Pressure
 - Designed for high flow rates while maintaining extremely low pressure losses

/ Specifications & Recommendations

- **Maximum Pressure** – 10 bar (145psi)
- **Maximum Operating Temperature** – 60°C (140°F)

→ Hydraulic Performance

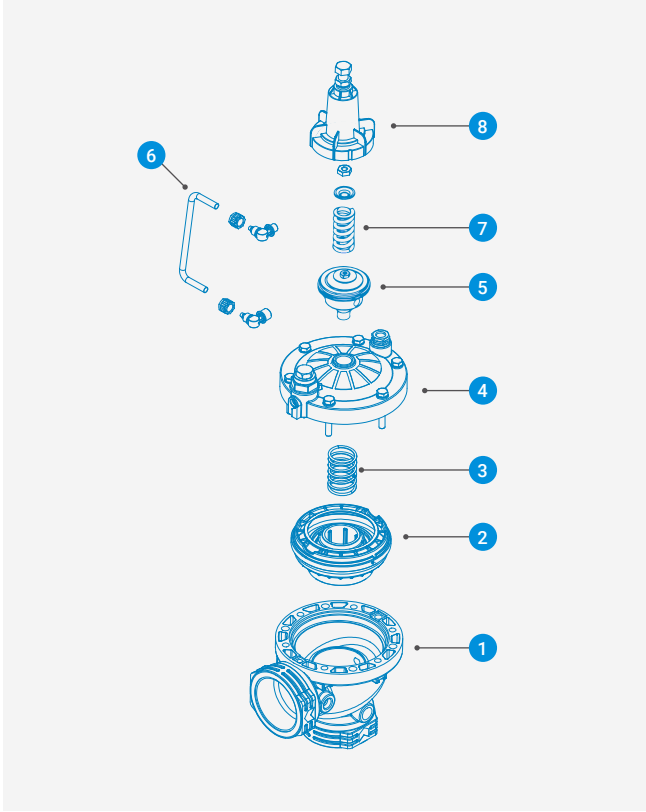
Based on Flow Rate (m³/h)

Diameter / bar	Set Point (bar)									
	1	2	3	4	5	6	7	8	9	10
1½"	37	52	64	74	82	90	97	104	110	130
2"	46	66	80	93	104	114	123	131	139	150
3"	120	170	208	240	268	294	317	339	360	385

→ Material Specifications

#	Part	Material*
1	Body	GRP
2	Diaphragm assembly	GRP, NR, EPDM
3	Main spring	SST
4	Bonnet	GRP
5	Pilot-valve base	GRP, SST, NR
6	Control tube	PP
7	Adj. spring	SST
8	Pilot-valve bonnet	GRP

* Optional parts for special chemical resistance



80 W Series

DUAL OUTLET CONTROL VALVES

Netafim presents the 80 W Series - high- quality dual valves, designed for agriculture applications. A gear combination of affordability, ease of use, and a durable construction.



Outstanding
performance



Ultimate
durability



Extremely
versatile

/ Benefits & Features

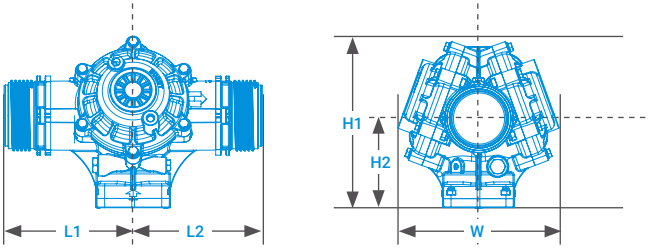
- **Clever design** Specially created for irrigation when one inlet and two independent outlets are required
- **Wide operation pressure range** As low as 0.5 bar up to 10 bar
- **Low pressure losses** Even in high flow rates
- **Versatile** Allows for a wide range of control applications

/ Specifications & Recommendations

- **Maximum Pressure** – 10 bar (145psi)
- **Minimum Recommended Flow** – 1m³/h (5gpm)
- **Minimum Operating Pressure** – 0.5 bar (7psi)
- **Maximum Operating Temperature** – 60°C (140°F)

→ Technical Dimensions

Dimensions	Metric / US	
H1	mm / inch	259 / 103/16
H2		139 / 51/2
L1	mm / inch	194 / 765/16
H2		202 / 791/2
W	mm / inch	250 / 97/8
Weight	kg / lbs	4.4 / 9.7



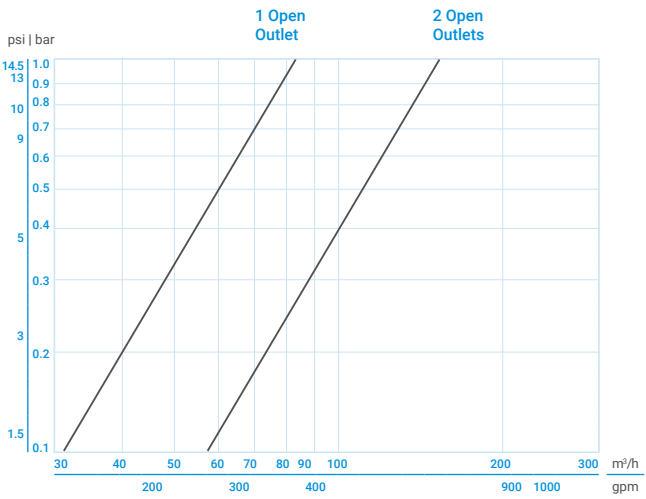
→ Hydraulic Performance

1 Open Outlet	Kv	m³/h@ 1bar	105
	Cv	gpm @ 1psi	121
2 Open Outlets	Kv	m³/h@ 1bar	210
	Cv	gpm @ 1psi	242

→ End Connections

Inlet: 3" / 80mm BSP/NPT Female-threaded Metric	
Outlets:	BSP/NPT Female-threaded
	3" and 4" Universal flanged
	3" Grooved (Optional)

→ Head Loss



90 Series

PVC CONTROL VALVES

Exclusive valves series (3" – 6") suitable for underground and above-ground installation in open fields and greenhouses.



Superior
performance



Exceptional
efficiency



Improved
resistance

/ Benefits & Features

- **Superior performance** Excellent regulation capabilities achieved by a flexible diaphragm mechanism that is designed to allow maximal to near zero flow while operating at very low head losses
- **Exceptional efficiency** Available with full selection of control functions and various end connections

The optional underground installation reduces both costs and friction losses by eliminating the use of elbow joints
- **Improved resistance** Resistance to corrosive fluids is accomplished by using high-quality corrosion-free materials, both externally and internally

Optional materials available for protection against highly concentrated chemicals

/ Specifications & Recommendations

- **Maximum Pressure** – for 3" & 4" valves: 8 bar (115psi), for 6" valves: 10 bar (145psi)
- **Minimum Recommended Flow** – 1m³/h (5gpm)
- **Minimum Operating Pressure** – 0.6 bar (9psi)
- **Maximum Operating Temperature** – 40°C (104°F)

NOTE: This model is available with low pressure diaphragm

→ Hydraulic Performance

Valve Size	inch	3	4	6
	mm	80-90	100-110	150-160
Flow rate factor*	Kv	155	215	480
	Cv	180	250	560

* In order to calculate the head loss at any desired flow rate, use the following equation: Head loss = (Flow rate/Flow rate factor)²

→ Technical Dimensions

Diameter *		inch	3	4	6
		mm	80-90	100-110	150-160
Height	H	mm / inch	208 / 8.06	208 / 8.06	382 / 15
Width	W	mm / inch	229 / 9.16	229 / 9.16	260 / 10.40
Length	L	mm / inch	258 / 10.18	278 / 10.93	360 / 14.18
Control chamber volume		cc / gal	681 / 0.18	681 / 0.18	2,575 / 0.68
Weight		kg / lbs	4 / 8.8	4.2 / 9.2	11.8 / 26

* PVC SW valves are 10mm larger than the pipe to allow solvent welding
Note: The selection of the valve's diameter depends on the diameter of the pipes in the field

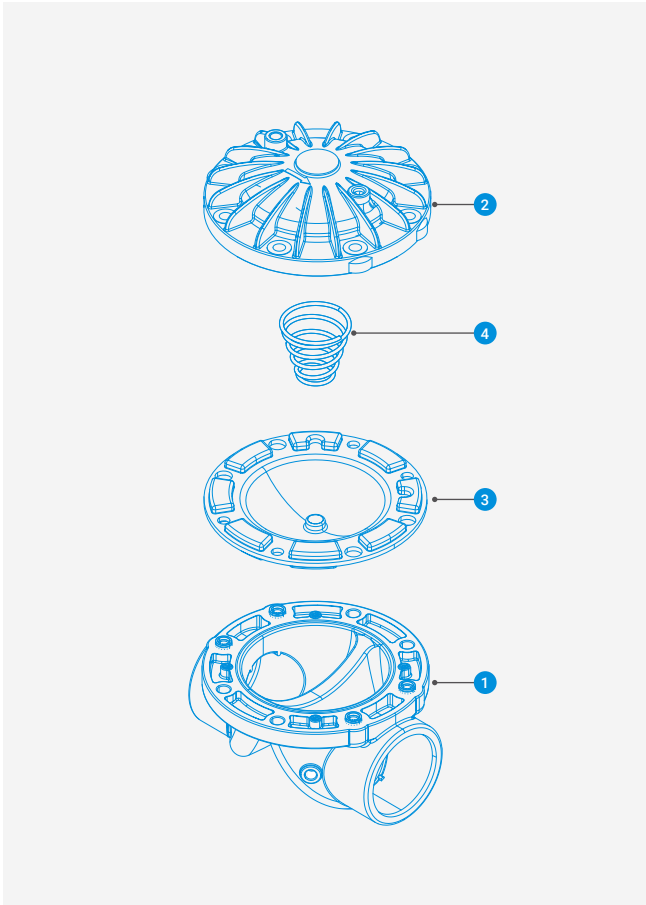
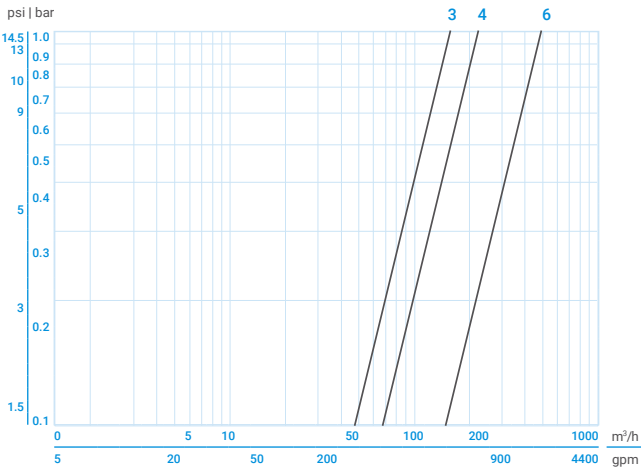
→ Material Specifications

#	Part	Material	*Optional
1	Body	uPVC	-
2	Bonnet	Glass reinforced Polyamide	PPS
3	Diaphragm**	Natural rubber	ALD, EPDM
4	Spring	SST 302	SST 316

* Optional parts for special chemical resistance
** Wide selection of pressure ranges

→ Head Loss

3-Way Valves



100 Series

METAL CONTROL VALVES

The powerful and reliable metal valves of the 100 Series display remarkable hydraulic performance and provide impeccable control of irrigation systems.



Outstanding
performance



Extremely
versatile



Ultimate
durability

/ Benefits & Features

- **Outstanding performance** High flow capacity and very low head losses achieved by a flexible diaphragm that provides a wide water passage throughout the valve's hydrodynamic body
- **Extremely versatile** The valves are available in globe and angle shapes, with an extensive selection of materials, a full range of control functions, and various end connections
- **Ultimate durability** Long life and easy inline maintenance accomplished by structural simplicity and the use of high-quality materials that can withstand the harshest conditions

/ Specifications & Recommendations

- **Maximum Pressure** – 16 bar (230psi) and 25 bar (365psi)
- **Minimum Recommended flow** – 1m³/h (5gpm)
- **Minimum Operating Pressure** – 0.4 bar (6psi)*

* Available with low pressure diaphragm

→ Hydraulic Performance

Shape		Straight																Angle					
Diameter	inch	¾	1	1½	2	2½	3R*	3	4	6	8R*	8	10	12	14	16	1½	2	3R*	3	4	6	
	mm	20	25	40	50	65	80	80	100	150	200	200	250	300	350	400	40	50	80	80	100	150	
Flow rate factor**	Kv	17	17	65	95	95	95	170	220	600	670	800	1250	1900	1900	2600	60	90	90	150	200	570	
	Cv	20	20	75	110	110	110	200	255	695	775	925	1445	2195	2195	3005	70	105	105	175	230	660	

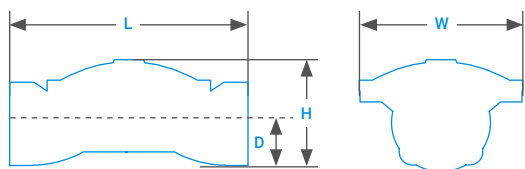
* R: Reduced, 3R: 323", 8R: 868" **.

Note: In order to calculate the head loss at any desired flow rate, use the following equation: Head loss = (Flow rate/Flow rate factor)²

→ Technical Dimensions

Straight Flow, Threaded Connection

Diameter		inch	¾	1	1½	2	2½	3R	3
		mm	20	25	40	50	65	80	80
Height	H	mm / inch	43 / 1.69	52 / 2.05	93 / 3.66	115 / 4.53	118 / 4.65	126 / 4.96	135 / 5.31
Width	W	mm / inch	68 / 2.68	68 / 2.68		112 / 4.41	112 / 4.41		200 / 7.87
Length	L	mm / inch	115 / 4.53	120 / 4.72	170 / 6.69	188 / 7.4	219 / 8.62	225 / 8.86	316 / 12.44
	D	mm / inch	20 / 0.79	24 / 0.94	33 / 1.3	42 / 1.65	46 / 1.81	54 / 2.13	53 / 2.09
Weight		kg / lbs	1 / 2.2		2.2 / 4.9	3.2 / 7	3.6 / 7.9	4.5 / 9.9	11 / 24

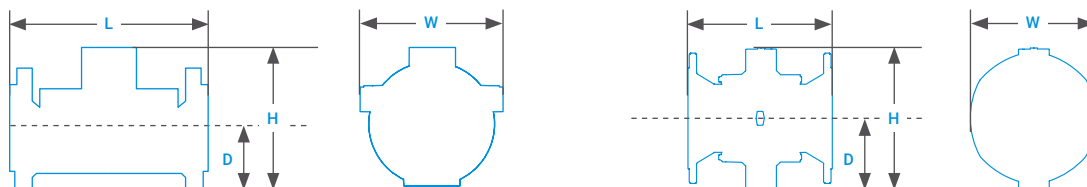


Straight Flow, Flanged Connection - Standard models 16 bar (250psi)

Diameter		inch	1½	2	2½	3R	3	4	6	8R	8	10	12	14
		mm	40	50	65	80	80	100	150	200	200	250	300	350
Height	H	mm/inch	153 / 6.02	166 / 6.54	185 / 7.28	202 / 7.95	200 / 7.87	230 / 9.06	314 / 12.36	350 / 13.78	400 / 15.75	445 / 17.52	495 / 19.49	495 / 19.49
Width	W	mm/inch	76.5 / 3.01	166 / 6.54	185 / 7.28	200 / 7.87	200 / 7.87	230 / 9.06	300 / 11.8	365 / 14.4	365 / 14.4	440 / 17.3	490 / 19.3	530 / 20.9
Length	L	mm/inch	186 / 7.32	200 / 7.87	214 / 8.43	200 / 7.87	285 / 11.22	305 / 12.01	390 / 15.35	385 / 15.16	460 / 18.11	535 / 21.06	580 / 22.83	580 / 22.83
	D	mm/inch	76.5 / 3.01	85 / 3.35	92.5 / 3.64	105 / 4.13	105 / 4.13	110 / 4.33	145 / 5.71	170 / 6.69	170 / 6.69	205 / 8.07	240 / 9.45	270 / 10.6
Weight	Cast Iron		5.8 / 13	7.2 / 15.8	10.3 / 22.7	11 / 24.3	17 / 37.5	22 / 48.5	46 / 101	50 / 110	80 / 176	117 / 258	156 / 344	182 / 401
	Duct. Iron	kg/lbs	6.2 / 14	7.7 / 17	10.3 / 22.7	11.8 / 26	18.2 / 40.1	24 / 53	49 / 108	54 / 119	86 / 190	125 / 276	167 / 368	172 / 379
	Bronze		6.5 / 14.3	8 / 17.6			19 / 42	24 / 53	51 / 112		89 / 196	131 / 289	147 / 324	180 / 397

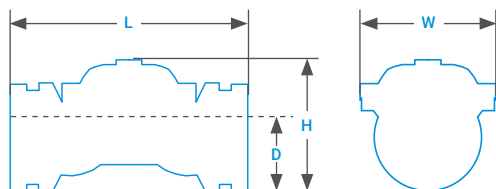
Straight Flow, Flanged Connection - High Pressure models 25 bar (360psi)

Diameter		inch	2	14.5 / 322 TH	2½	3	4	6	8	10	16	18	20	24
		mm	50	50	65	80	100	150	200	250	400	450	500	600
Height	H	mm/inch	169 / 6.65	120 / 6.65	185 / 7.28	237 / 9.33	263 / 10.35	378 / 14.88	481 / 18.94	546 / 21.5	830 / 32.68	830 / 32.68	970 / 38.19	970 / 38.19
Width	W	mm/inch	175 / 6.9	175 / 6.9	185 / 7.28	200 / 7.87	260 / 10.24	320 / 12.6	400 / 15.75	495 / 19.49	830 / 32.68	830 / 32.68	980 / 38.58	980 / 38.58
Length	L	mm/inch	228 / 8.98	250 / 8.98	233 / 9.18	310 / 12.2	356 / 14.02	436 / 17.17	530 / 20.87	636 / 25.04	709 / 27.91	715 / 28.15	900 / 35.43	900 / 35.43
	D	mm/inch	85 / 3.35	42 / 1.65	92.5 / 3.64	105 / 4.13	120 / 4.72	150 / 5.91	180 / 7.09	215 / 8.46	310 / 12.2	340 / 13.39	490 / 19.29	490 / 19.29
Weight		kg / lbs	10 / 22	6 / 13	14.5 / 32	30 / 66.1	38 / 83.8	75 / 165.3	123 / 271	190 / 419	433 / 955	460 / 1014	674 / 1486	696 / 1534



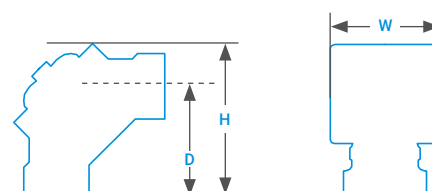
Straight Flow, Grooved Connection

Diameter		inch	1½	2	3R	3	4	6
		mm	40	50	80	80	100	150
Height	H	mm / inch	81 / 3.19	100 / 3.94	120 / 4.72	124 / 4.88	133 / 5.24	250 / 9.84
Width	W	mm / inch	93 / 3.66	112 / 4.41	112 / 4.41	200 / 7.87	194 / 7.64	300 / 11.81
Length	L	mm / inch	177 / 6.97	190 / 7.48	201 / 7.91	286 / 11.26	317 / 12.48	392 / 15.43
	D	mm / inch	26 / 1.02	33 / 1.3	47 / 1.85	47 / 1.85	60 / 2.36	82 / 3.23
Weight		kg / lbs	1.8 / 4	2.6 / 5.7	3 / 6.6	11 / 24.3	12 / 26.4	31 / 68.3



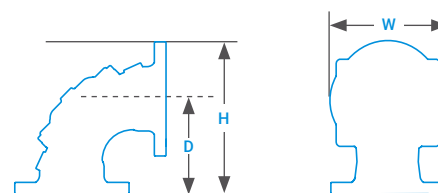
Angle Flow, Threaded Connection

Diameter		inch	1½	2	3R	3
		mm	40	50	80	80
Height	H	mm / inch	110 / 4.33	136 / 5.35	165 / 6.5	239 / 9.41
Width	W	mm / inch	93 / 3.66	112 / 4.41	112 / 4.41	200 / 7.87
	D	mm / inch	75 / 2.95	90 / 3.54	114 / 4.49	145 / 5.71
Weight		kg / lbs	1.7 / 3.7	2.4 / 5.3	3.6 / 7.9	10.8 / 23.8



Angle Flow, Flanged Connection

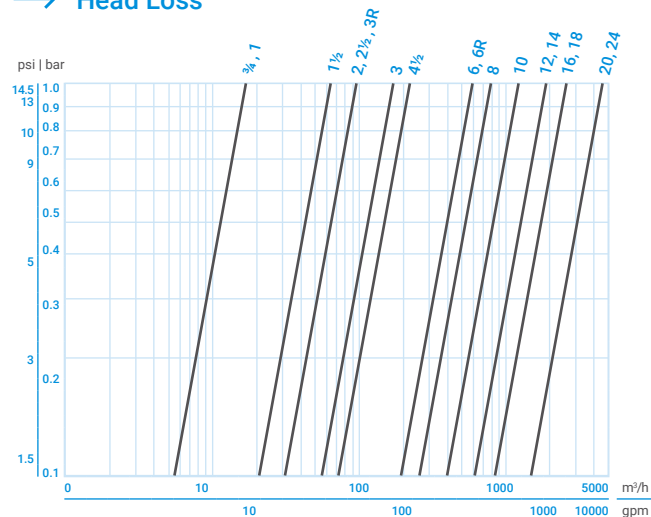
Diameter		inch	3	4	6
		mm	80	100	150
Height	H	mm / inch	278 / 10.9	300 / 11.8	380 / 15
Width	W	mm / inch	200 / 7.87	230 / 9.06	300 / 11.8
	D	mm / inch	174 / 6.85	185 / 7.28	230 / 9.06
Weight		kg / lbs	18 / 39.7	21 / 46.3	45 / 99.2



Angle Flow, Grooved Connection

Diameter		inch	3	4
		mm	80	100
Height	H	mm / inch	240 / 9.45	250 / 9.84
Width	W	mm / inch	200 / 7.87	200 / 7.87
	D	mm / inch	170 / 6.69	185 / 7.28
Weight		kg / lbs	10.5 / 23.1	11.5 / 25.4

→ Head Loss

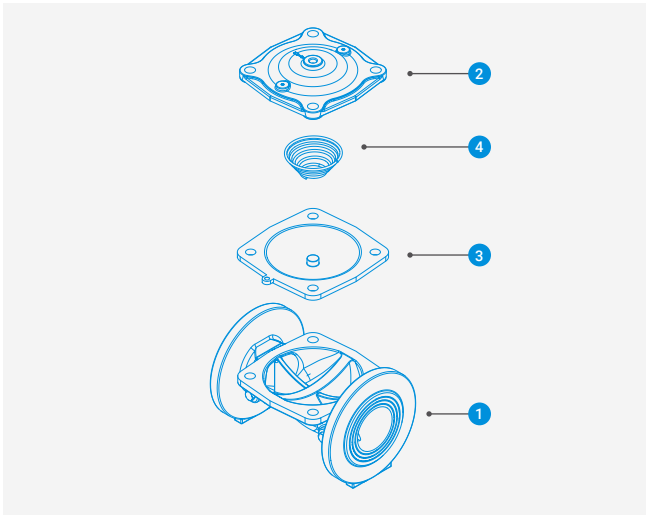


→ Material Specifications

#	Part	Material	*Optional
1	Body	Cast iron	Ductile iron, bronze, stainless steel
2	Bonnet	Cast iron	Ductile iron, bronze, stainless steel
3	Diaphragm**	Natural rubber	NBR, EPDM, neoprene
4	Spring	SST 302	SST 316

* Optional parts for special resistance

** Wide selection of pressure ranges



300 Series

METAL CONTROL VALVES

State-of-the-art automatic control valves are designed to withstand the most demanding requirements of water system control.



Outstanding
performance



Extremely
versatile



Ultimate
durability

/ Benefits & Features

- **Outstanding design** A unique rigid mechanism that provides ultimate hydraulic control in any given condition
- **Extremely versatile** The valves are available in globe and angle shapes with the widest range of accessories in the market
- **Superior performance** Available with an extended range of unique control functions that cater to both special and standard needs

/ Specifications & Recommendations

- **Maximum Pressure** – 16 bar (230psi) and 25 bar (365psi)
- **Minimum Recommended Flow** – 1m³/h (5gpm)
- **Minimum Operating Pressure** – 0.5bar (7psi)

→ Hydraulic Performance

Shape		Globe Type																Angle Type							
Diameter	inch	1½	2	2½	3	4	6	8	10	12	14	16	18	20	24	28	32	1½	2	3	4	6	8	10	
	mm	40	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	40	50	80	100	150	200	250	
Flow rate factor	Kv	43	43	43	115	167	407	676	1160	1600	1600	3000	3150	3300	6500	6500	6500	60	60	140	190	460	770	1310	
	Cv	50	50	50	133	195	475	790	1360	1900	1900	3500	3700	3860	7600	7600	7600	70	70	164	222	537	900	1533	

→ Technical Dimensions

for Globe Flanged Type

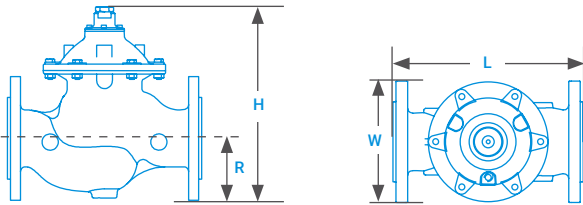
Diameter		1½	2	2½	3	4	6	8	10	12	14	16	18	20	24	28	32
		40	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800
L	mm/inch	230/9 ¹ / ₁₆	230/9 ¹ / ₁₆	290/11 ³ / ₈	310/12 ³ / ₁₆	350/13 ³ / ₄	480/18 ⁷ / ₈	600/23 ⁵ / ₈	730/28 ³ / ₄	850/33 ⁷ / ₁₆	980/38 ⁹ / ₁₆	1100/43 ⁵ / ₁₆	1200/47 ¹ / ₄	1250/49 ³ / ₁₆	1450/57 ¹ / ₁₆	1650/64 ¹⁵ / ₁₆	1850/72 ⁷ / ₈
H	mm/inch	185/7 ⁵ / ₁₆	185/7 ⁵ / ₁₆	185/7 ⁵ / ₁₆	230/9 ¹ / ₁₆	240/9 ¹ / ₁₆	330/13	390/15 ³ / ₈	520/20 ¹ / ₂	635/25	635/25	855/33 ⁵ / ₈	855/33 ⁵ / ₈	855/33 ⁵ / ₈	1574/61 ¹⁵ / ₁₆	1675/65 ⁵ / ₁₆	1675/65 ⁵ / ₁₆
W	mm/inch	153/6	170/6 ¹¹ / ₁₆	185/7 ³ / ₈	200/7 ⁷ / ₈	235/9 ¹ / ₄	330/13	415/16 ⁵ / ₁₆	525/20 ¹¹ / ₁₆	610/24	610/24	850/33 ⁷ / ₁₆	850/33 ⁷ / ₁₆	850/33 ⁷ / ₁₆	1100/43 ⁹ / ₁₆	1100/43 ⁹ / ₁₆	1090/42 ¹⁵ / ₁₆
R		82.5/3 ¹ / ₄	82.5/3 ¹ / ₄	92.5/3 ⁵ / ₈	100/3 ¹⁵ / ₁₆	110/4 ⁵ / ₁₆	142.5/5 ⁵ / ₈	172.5/6 ³ / ₄	205/8 ¹ / ₁₆	230/9	272/10 ¹¹ / ₁₆	290/11 ⁷ / ₁₆	310/12 ³ / ₁₆	357.5/14 ¹ / ₁₆	490/19 ⁵ / ₁₆	498/19 ⁵ / ₈	603/23 ³ / ₄
Weight (kg/lbs)		12/26	12/26	13/29	22/49	37/82	80/176	157/346	245/540	405/893	510/1124	822/1812	945/2083	980/2160	1950/4299	2070/4560	2600/5730
Control chamber volume		0.1/0.02	0.1/0.02	0.1/0.02	0.3/0.08	0.7/0.2	1.5/0.4	4.3/1.1	9.7/2.6	18.6/4.9	18.6/4.9	50/13.2	50/13.2	50/13.2	84/22.2	84/22.2	84/22.2

for Angle Type

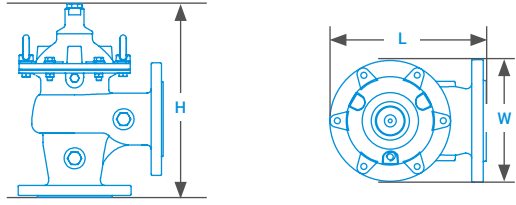
Diameter	inch	2"	3"	4"	6"	8"	10"
	mm	50	80	100	150	200	250
L	mm/inch	208 / 83/16	250 / 913/16	295 / 111/16	405 / 16	505 / 197/8	585 / 23
H	mm/inch	240 / 97/16	415 / 165/16	445 / 171/2	570 / 227/16	635 / 25	832 / 323/4
W	mm/inch	170 / 611/16	200 / 77/8	235 / 91/4	330 / 13	415 / 165/16	495 / 191/2
Weight (kg/lbs)		12 / 26	20 / 44	37 / 81	76 / 167	150 / 330	234 / 550

Note: Minimum quantities may apply for S-300 angle valves

Globe Flanged Type

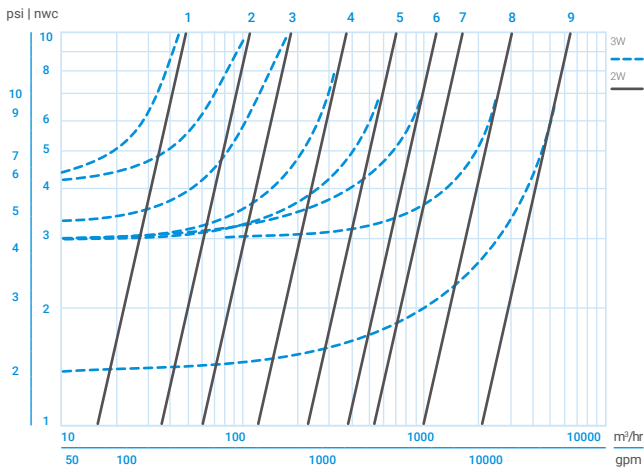


Angle Type



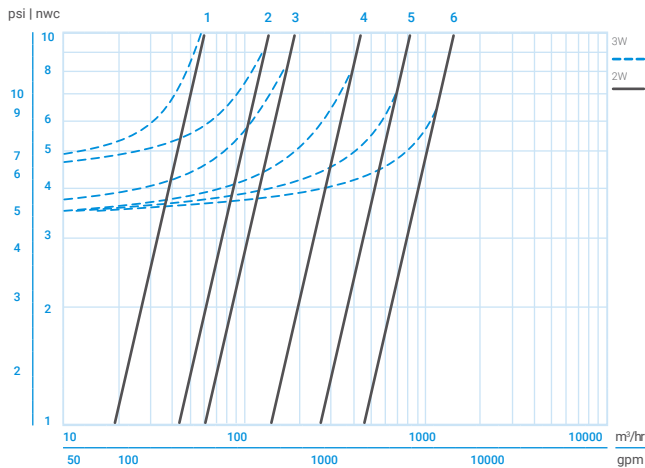
→ Head Loss

Globe Flanged Type



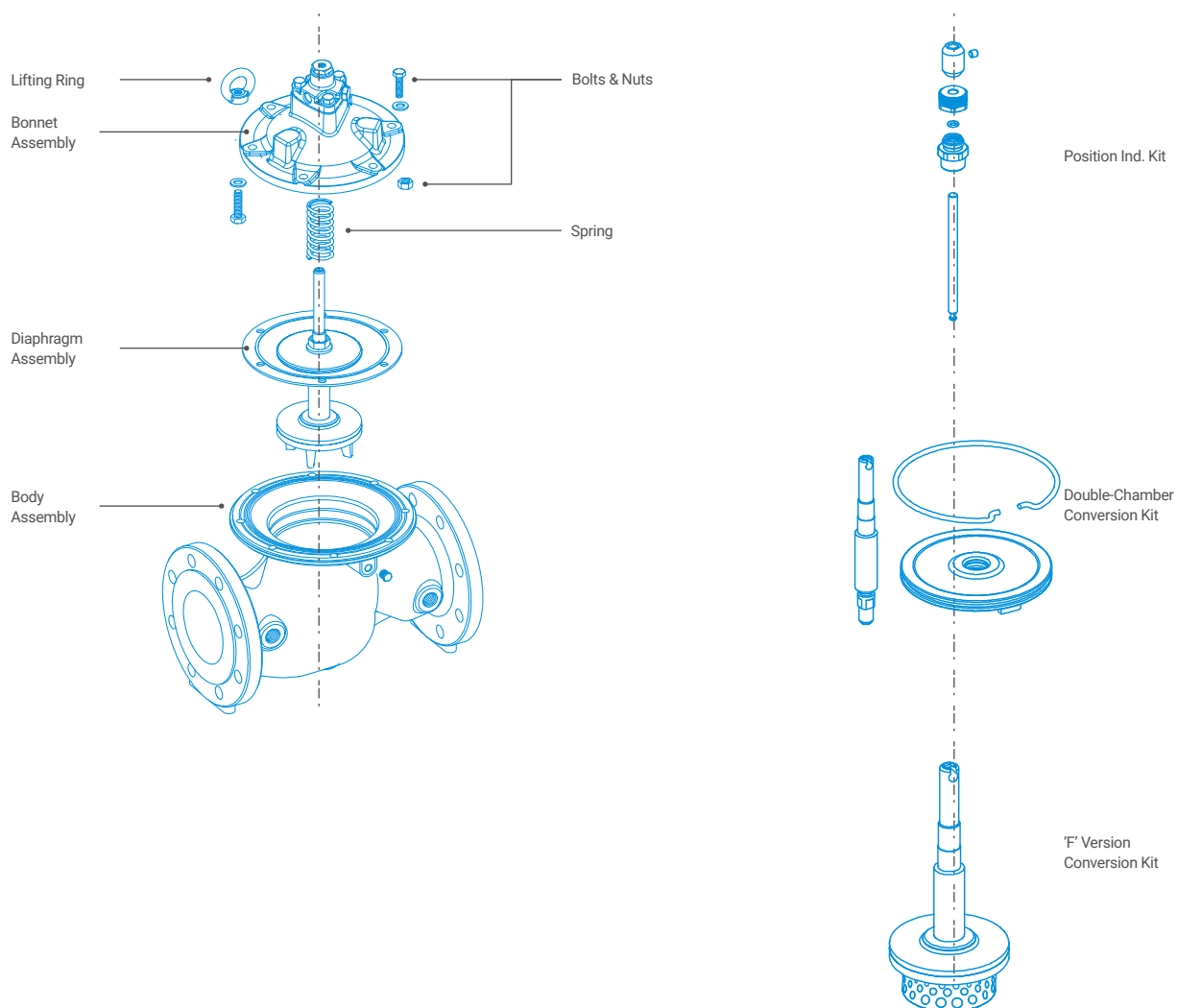
- 1= 1½", 2", 2½" / 40, 50, 65mm 4= 6" / 150mm 7= 14", 12" / 300, 350mm
2= 3" / 80mm 5= 8" / 200mm 8= 16" / 400mm
3= 4" / 100mm 6= 10" / 250mm 9= 32", 28", 24" / 600, 700, 800mm

Angle Type



- 1= 1½", 2" / 40, 50mm 4= 6" / 150mm
2= 3" / 80mm 5= 8" / 200mm
3= 4" / 100mm 6= 10" / 250mm

→ Components



→ Material Specifications

#	Part	Material	*Optional
1	Body & cover	Ductile iron GGG50 (ASTM A-536)	Cast steel A-216 WCB Cast SST CF8M (316) Ni aluminum bronze Others
2	Main valve internals	SST, bronze and coated steel	SST 316, hastelloy, duplex
3	Spring	SST 302	SST 316, inconel
4	Diaphragm	Nylon fabric reinforced EPDM (WRAS and NSF approved)	NBR, viton
5	Seals	EPDM	NBR, viton
6	Coating	Fusion bonded epoxy (FBE) RAL 5010	UV protected FBE RAL 5010 FBE RAL 3002 (fire red) UV protected FBE RAL 3002
7	Control trim: fittings and control devices	Brass	SST 316, duplex
8	Control trim: tubes	Reinforced, heavy-duty polypropylene	Copper, SST 316, duplex

* Optional parts for special resistance

Pilots, Solenoids & Hydraulic Relays

→ Plastic Pilots

Pressure Rating: 10 bar / 145psi

				29-50M	3-Way multi-purpose (Pressure reducing and sustaining)
				29-100	3-Way pressure reducing
				29-200	3-Way multi-purpose (Pressure reducing and sustaining)
				29-310	3-Way differential multi-purpose (Flow control, differential pressure reducing)

→ Metal Pilots

Pressure Rating: 25 bar / 360psi

				31-310	3-Way multi-purpose (pressure reducing and sustaining)
				31-100	3-Way multi-purpose (pressure reducing and sustaining)
				76-200	3-Way differential multi-purpose (flow control, differential pressure sustaining)
				68-410/510	2-Way (68-410 reducing/ 68-510 sustaining)

→ Solenoids

Pressure Rating: from 10 bar/145psi to 25 bar/360psi

Operating Voltage: AC: 24V, DC: 12V-24V, DC latch: 7.5V-30V

					D2	2-Way NC Solenoid
					D3	3-Way NC solenoid
					Aquative AC/DC	3-Way NC or NO Solenoid
					B2	2-Way NC or NO Solenoid
					B3	3-Way NC or NO Solenoid

→ Relays

Pressure Rating: from 10 bar/145psi to 25 bar/360psi

				25-300	3-Way / 2 positions NO w. 3/8"
				Galit	3-Way / 2 positions NC or NO
				66-210	3-Way / 2 positions NC or NO
				28-200	2-Way / 2 positions

Description Guide

Please follow the ordering guide below and contact a Netafim representative

1 Series

S75	75 Plastic
S75T	75PI + throttle
S80	80 Plastic
S80T	80PI + throttle
S80V	80 "T" one chamber
S80W	80 "T" dual chamber
S90	90 PVC
S100	100 Metal
S300	300 Metal
S500	500 Metal

2 Material

PL	Reinforced nylon
PP	Polypropylene
PV	PVC
CI	Cast iron
DI	Ductile iron
BR	Bronze
ST	Stainless steel

3 Nominal Diameter

¾"	¾" (20mm)
1"	1" (25mm)
1½"	1½" (40mm)
2"	2" (50mm)
2½"	2½" (65mm)
3"R	323" (80 x 50 x 80mm)
3"	3" (80mm)
3"H	343" (80 x 100 x 80mm)
4"R	434" (100 x 80 x 100mm)
4"	4" (100mm)
90	90mm (PVC)
110	110mm (PVC)
160	160mm (PVC)
6"R	6" (150 x 100 x 150mm)
6"	6" (150mm)
8"R	868" (200 x 150 x 200mm)
8"	8" (200mm)
10"	10" (250mm)
12"	12" (300mm)
14"	14" (350mm)
16"	16" (400mm)
18"	18" (450mm)
20"	20" (500mm)
24"	24" (600mm)
28"	28" (700mm)
32"	32" (800mm)

Example

S100¹ CI² 6"³ A⁴ DN16⁵ PRS⁶ MP⁷ GR⁸ AQAC⁹ 3WNC¹⁰ 2P¹¹

4 Configuration

H	Horizontal
A	Angle

5 Connection

NPT	NPT
BSP	BSP
UNF	Universal flange*
DN10	ISO PN10**
DN16	ISO PN16**
AN12	ANSI 125**
AN15	ANSI 150**
BSTD	BSTD**
BSTE	BSTE**
ABNT	ABNT**
VIC	Grooved
GLUE	PVC solvent welded

* Plastic only ** Metal only

6 Main Function

BAS	Basic
MAN	Manual control on/off
HYD	Hydraulic control on/off
ELE	Electric control on/off
PRV	Pressure reducing
PSV	Pressure sustaining (& relief)
PRS	Pressure reducing & sustaining
FLV	Flow control
QRV	Quick relief
LCV	Level control
SAV	Surge anticipating
TOV	Pressure reducing, two-stage opening
TSV	Pressure reducing, two sets of pressure
PCV	Pump control valve

* for PRS: 1st value for the PR and 2nd value for the PS

7 Pilot

PP	Plastic pilot
MP	Metal pilot*

* for metal valve only

8 Pilot Spring

Y	Yellow spring
G	Green spring
R	Red spring

9 Solenoid Type

AQAC	Solenoid aquative 24AC
AQDC	Solenoid aquative 12-40VDC latch
D24A	Dorot solenoid 24VAC
D24D	Dorot solenoid 24VDC
D12D	Dorot solenoid 12VDC
D12L	Dorot solenoid 12VDC latch
24AC	Other solenoid 24VAC
24DC	Other solenoid 24VDC
12DC	Other solenoid 12VDC
12DL	Other solenoid 12VDC latch

10 Valve's Mode

3WNC	3-Way N.C
2WNC	2-Way N.C
3WNO	3-Way N.O
2WNO	2-Way N.O
2W	2-Way*
3W	3-Way*

* Manual and hydraulic control only

11 Accessories

C/2C	Check point (1 unit, 2 unit)
P/2P	Pressure gauge (1 unit, 2 unit)
H	Hydraulic relay
F	Float
O	Orifice
T	Shuttle T
N	Non-return feature
S	3-Way manual valve
LP	Low-pressure diaphragm
HP	High-pressure diaphragm
MIN	Mining
SV	Shredder

Flow Rate Suitability

→ Flexible Seal
Series 75 3W

Recommended Flow rate		Diameter		Pattern	Flow Rate in 1 bar Head-loss (m³/h) Kv	Flow Rate in 1m Head-loss (m³/h)	Flow Rate in 2m Head-loss (m³/h)	Flow Rate in 3m Head-loss (m³/h)	Flow Rate in 1psi Head-loss (gpm) Cv	Flow Rate in 1.5psi Head-loss (gpm)	Flow Rate in 3psi Head-loss (gpm)	Flow Rate in 4.5psi Head-loss (gpm)
m³/h*	gpm	inch	mm									
7-14	30-61	1½"	40mm	Straight	60	19	27	33	69	85	120	147
15-22	62-97	2"	50mm		83	26	37	45	96	118	166	204
15-22	62-97	3"R	80 x 50 x 80mm		90	28	40	49	104	127	180	221
23-55	63-240	3"	80mm		120	38	54	66	139	170	240	294
23-55	63-240	4"R	100 x 80 x 100mm		120	38	54	66	139	170	240	294
56-90	241-395	3"H	80 x 100 x 80mm		250	79	112	137	289	354	501	613
56-90	241-395	4"	100mm		350	111	157	192	405	496	701	858
56-90	241-395	6"R	150 x 100 x 150mm		350	111	157	192	405	496	701	858
91-200	396-880	6"	150mm		350	111	157	192	405	496	701	858
91-200	396-880	8"R	200 x 150 x 200mm		580	183	259	318	671	821	1161	1422

Note: Based on velocity of 3m/s

→ Rigid Seal
Series 80 3W

Recommended Flow rate		Diameter		Pattern	Flow Rate in 1 bar Head-loss (m³/h) Kv	Flow Rate in 1m Head-loss (m³/h)	Flow Rate in 2m Head-loss (m³/h)	Flow Rate in 3m Head-loss (m³/h)	Flow Rate in 1psi Head-loss (gpm) Cv	Flow Rate in 1.5psi Head-loss (gpm)	Flow Rate in 3psi Head-loss (gpm)	Flow Rate in 4.5psi Head-loss (gpm)
m³/h*	gpm	inch	mm									
7-14	30-61	1½"	40mm	Straight	35	11	16	19	40	50	70	86
15-22	62-97	2"	50mm		45	14	20	25	52	64	90	110
7-14	30-61	1½"	40mm	Angle	45	45	14	20	25	52	64	90
15-22	62-97	2"	50mm		60	19	27	33	69	85	120	147
23-55	63-240	3"	80mm		180	57	80	99	208	255	360	441
23-55	63-240	4"R	100 x 80 x 100mm		180	57	80	99	208	255	360	441

Note: Based on velocity of 3m/s

→ Flexible Seal
Series 90 3W

Recommended Flow rate		Diameter		Pattern	Flow Rate in 1 bar Head-loss (m³/h) Kv	Flow Rate in 1m Head-loss (m³/h)	Flow Rate in 2m Head-loss (m³/h)	Flow Rate in 3m Head-loss (m³/h)	Flow Rate in 1psi Head-loss (gpm) Cv	Flow Rate in 1.5psi Head-loss (gpm)	Flow Rate in 3psi Head-loss (gpm)	Flow Rate in 4.5psi Head-loss (gpm)
m³/h*	gpm	inch	mm									
23-55	63-240	3"	80mm	Straight	152	48	68	83	176	215	304	373
56-90	241-395	4"	100mm		215	68	96	118	249	304	431	527
91-200	396-880	6"	150mm		480	152	215	263	555	680	961	1177

Note: Based on velocity of 3m/s

→ Flexible Seal

Series 100 3W

Recommended Flow rate		Diameter		Pattern	Flow Rate in 1 bar Head-loss (m³/h) Kv	Flow Rate in 1m Head-loss (m³/h)	Flow Rate in 2m Head-loss (m³/h)	Flow Rate in 3m Head-loss (m³/h)	Flow Rate in 1psi Head-loss (gpm) Cv	Flow Rate in 1.5psi Head-loss (gpm)	Flow Rate in 3psi Head-loss (gpm)	Flow Rate in 4.5psi Head-loss (gpm)
m³/h*	gpm	inch	mm									
7-14	30-61	1½"	40mm	Straight / Angle	64	20	29	35	74	91	128	157
15-22	62-97	2"	50mm		95	30	42	52	110	135	190	233
15-22	62-97	2½"	40mm		95	30	42	52	110	135	190	233
15-22	62-97	3"R	80 x 50 x 80mm		95	30	42	52	110	135	190	233
23-55	63-240	3"	80mm		170	54	76	93	197	241	340	417
56-90	241-395	4"	100mm		220	70	98	120	254	311	441	540
91-200	396-880	6"	150mm		600	190	268	329	694	850	1201	1471
91-200	396-880	8"R	150mm		670	212	300	367	775	949	1342	1643
201-340	881-1500	8"	200mm		800	253	358	438	925	1133	1602	1962
341-532	1501-2345	10"	250mm		1250	395	559	685	1445	1770	2503	3065
533-765	2346-3370	12"	300mm		1900	601	850	1041	2197	2690	3805	4660

Notes:

- Based on velocity of 3m/s
- Head loss calculation according to maximum required flow

→ Head Loss Calculations

$$\Delta P = \left(\frac{Q}{Kv} \right)^2$$

Q=m³/h
Kv - taken from the technical publications
Result given in Bar

$$\Delta P = \left(\frac{Q}{Cv} \right)^2$$

Q=gpm
Cv - taken from the technical publications
Result given in PSI

Catalog Numbers of Main Products

(Additional diameters, connection types and functions are available upon request)

75 Series

Diam.	Conn. Type	Functions						
		Electric AC	Electric DC	Pressure Reducing	Electric AC & Pressure Reducing	Electric DC & Pressure Reducing	Pressure Sustaining	Pressure Reducing & Sustaining
2"	Thr. BSP	71640-002115	71640-001582	71600-008795	71640-001581	71640-003411	71600-002292	71600-010610
3"R	Thr. BSP	71640-004430	71640-004181	71600-009150	71640-016505	71640-007175	71600-011000	71600-050654
3"	Thr. BSP	71640-002265	71640-005139	71600-003546	71640-002152	71640-002160	71640-002161	71600-010975
	Uni. FLN.	71640-002154	71640-002153	71600-003541	71640-002166	71640-002167	71600-035966	71600-003438
3" h	Thr. BSP	71600-003356	71600-003353	71600-003358	71600-003361	71600-003360		
	Thr. NPT	71600-003355	71600-003354	71600-003357	71600-003362	71600-003359		
4"R	Uni. FLN.	71640-005593	71640-005524	71600-004241	71640-016520	71640-005592	71600-035870	71600-051095
4"	Uni. FLN.	71640-002342	71640-005522	71600-051101	71640-007182	71640-007183	71600-051093	71600-051102
6"R	Uni. FLN.	71640-007086	71640-007085	71600-052606	71640-007094	71640-005835	71600-052600	71600-003712
6"	Uni. FLN.	71640-000008	71640-000007	71600-000025	71640-000003	71640-000004	71600-000026	
8"r	Uni. FLN.	71640-000010	71640-000009	71600-000018	71640-000006	71640-000005	71600-000027	

** Electric valves are in 3-Way mode. Standard valve are without throttling handles (unless specified)

80 Series

Diam.	Shape	Connection Type	Functions					
			Electric AC	Electric DC	Pressure Reducing	Electric AC & Pressure Reducing	Electric DC & Pressure Reducing	Quick Relief
3/4"	Straight	Threaded BSP	71640-007320	71640-007330				
1"	Straight	Threaded BSP	71640-007390	71640-007370				
1½"	Straight	Threaded BSP	71640-001150	71640-001131	71600-050153	71640-001151	71640-001152	71600-050154
	Angle		71640-001132	71640-007610	71600-050151	71640-001133	71640-001134	71600-000374
2"	Straight	Threaded BSP	71640-003455	71640-014420	71600-008812	71640-014427	71640-007681	71600-050701
	Angle		71640-003456	71640-014400	71600-050343	71640-003404	71640-014390	71600-000365
3"	Angle	Threaded BSP	71640-004990	71640-018221	71600-009475	71640-004810	71640-002145	71600-013442
		Universal flanged	71640-004992	71640-017034	71600-051015	71640-005176	71640-004991	71600-013443
4"R	Angle	Universal flanged	71640-018241	71640-018242	71600-051110	71640-018240	71640-005196	71600-051120

Notes:

- Electric valves of diameters below 2" are 2-Way
- Available also in 3-Way

90 Series

Diam.	Functions						
	Manual	Electric AC	Electric DC	Pressure Reducing	Electric AC & Pressure Reducing	Electric DC & Pressure Reducing	Pressure Sustaining
3"	71600-005400	71640-005060	71640-005065	71600-035990	71640-016530	71640-016530	71600-011250
4"	71610-018415	71640-005520	71640-005526	71600-006053	71640-016540	71640-005521	71600-035880
6"	71600-006150	71640-005961	71640-005950	71600-006193	71640-016550	71640-005771	71600-035890
90	71600-005500	71640-005055	71640-018108	71600-005745	71640-018102	71640-005074	71600-012485
110	71600-006000	71640-011070	71640-005516	71600-005790	71640-018103	71640-018101	71600-006052
160	71600-005870	71640-005910	71640-011080	71600-012475	71640-005094	71640-005915	71600-012479

* Data is referring to valves with solvent welded end-connections

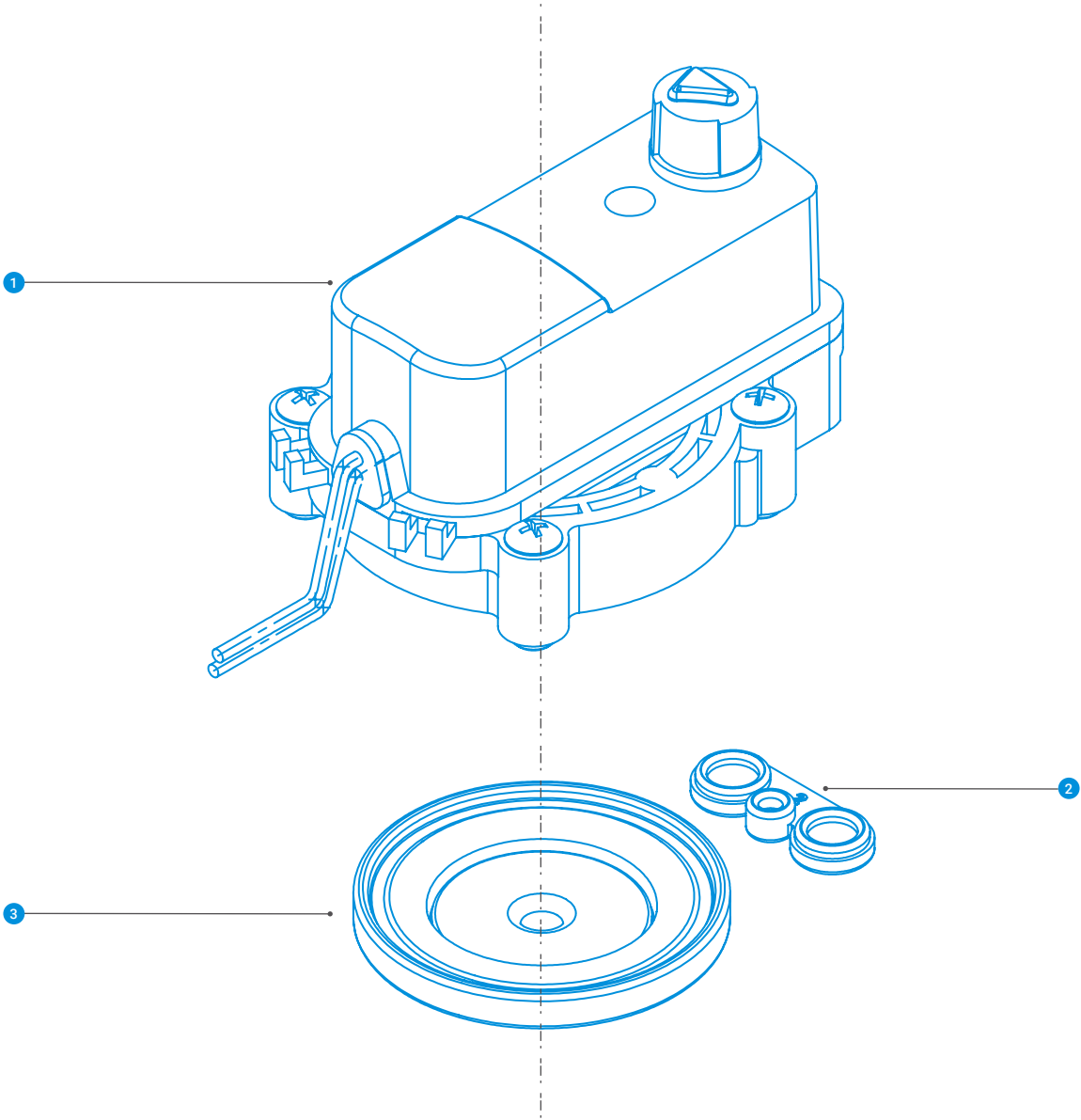
100 Series

Diam.	Connection Type	Functions					
		Pressure Reducing	Electric AC & Pressure Reducing	Electric DC & Pressure Reducing	Pressure Sustaining	Pressure Reducing & Sustaining	Quick Relief
3"	Flange ISO	71600-052310	71640-005009	71640-005025	71600-050265	71600-050270	71600-050354
	Flange BSTD	71600-009125	71640-005020	71640-016990	71600-011300	71600-009453	71600-014145
4"	Flange ISO	71600-050369	71640-005455	71640-006220	71600-050310	71600-050300	71600-014256
	Flange BSTD	71600-009590	71640-005210	71640-005225	71600-011540	71600-050302	71600-050301
6"	Flange ISO	71600-051511	71640-016671	71640-016672	71600-004421	71600-051510	71600-050372
	Flange BSTD	71600-004420	71640-005868	71640-016662	71600-051521	71600-011755	71600-004301
8"	Flange ISO	71600-009893	71640-017115	71640-006126	71600-051600	71600-004699	
	Flange BSTD	71600-051603	71640-006120	71640-006127	71600-011800	71600-011810	

/ Spare Parts

AquaNet™

3/4" - 1"

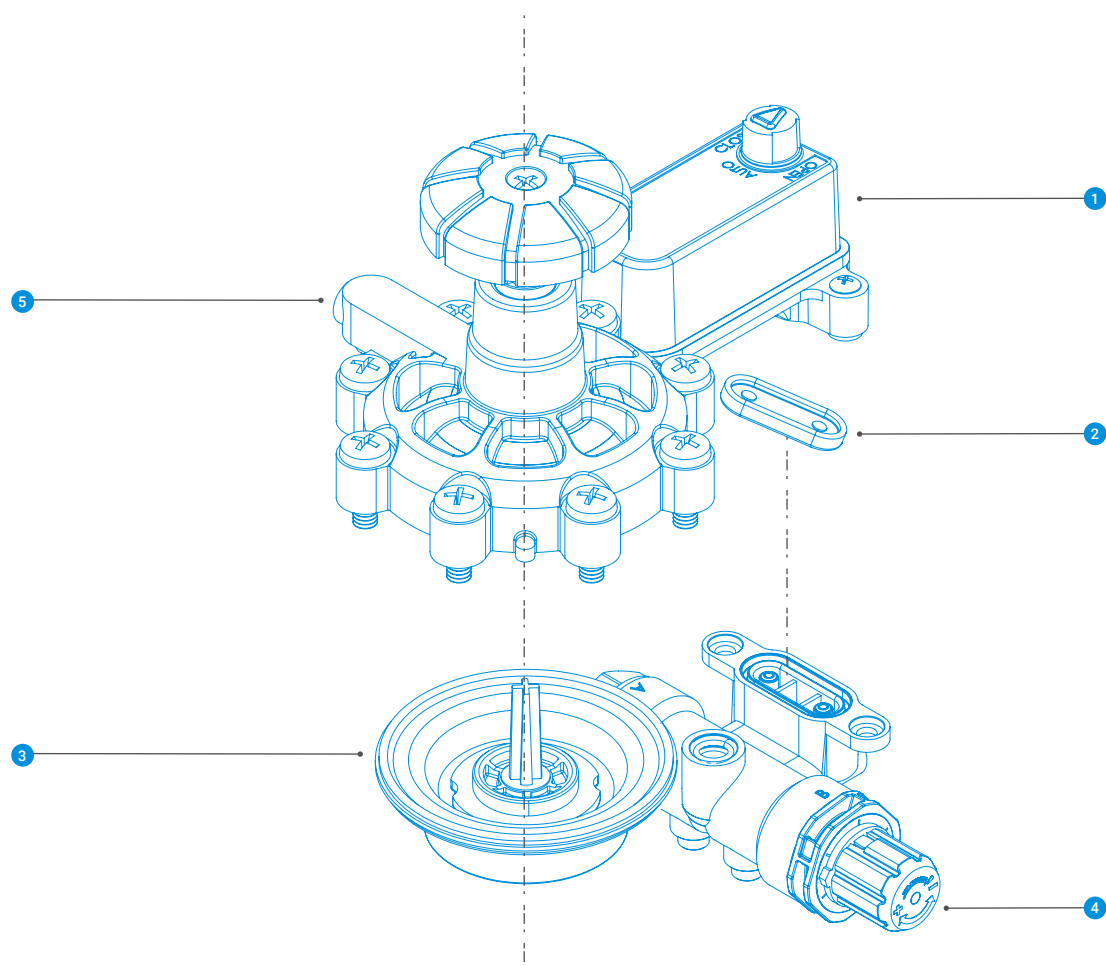


→ **Parts List & Catalog Numbers**

Part List #	Description	Catalog Number
1	AQUANET 1-3/4" OPERAT.MECHAN.AC-REPLACEM.	35500-006700
	AQUANET 1-3/4" OPERAT.MECHAN. DC REPLACEM.	35500-006800
2	AQUANET ELECTRIC VALVE DIAPHRAGM NT2	35500-004100
3	AQUANET 1-3/4" DIAPHRAGM KIT	35500-004350

AquaNet™

1½" - 2"

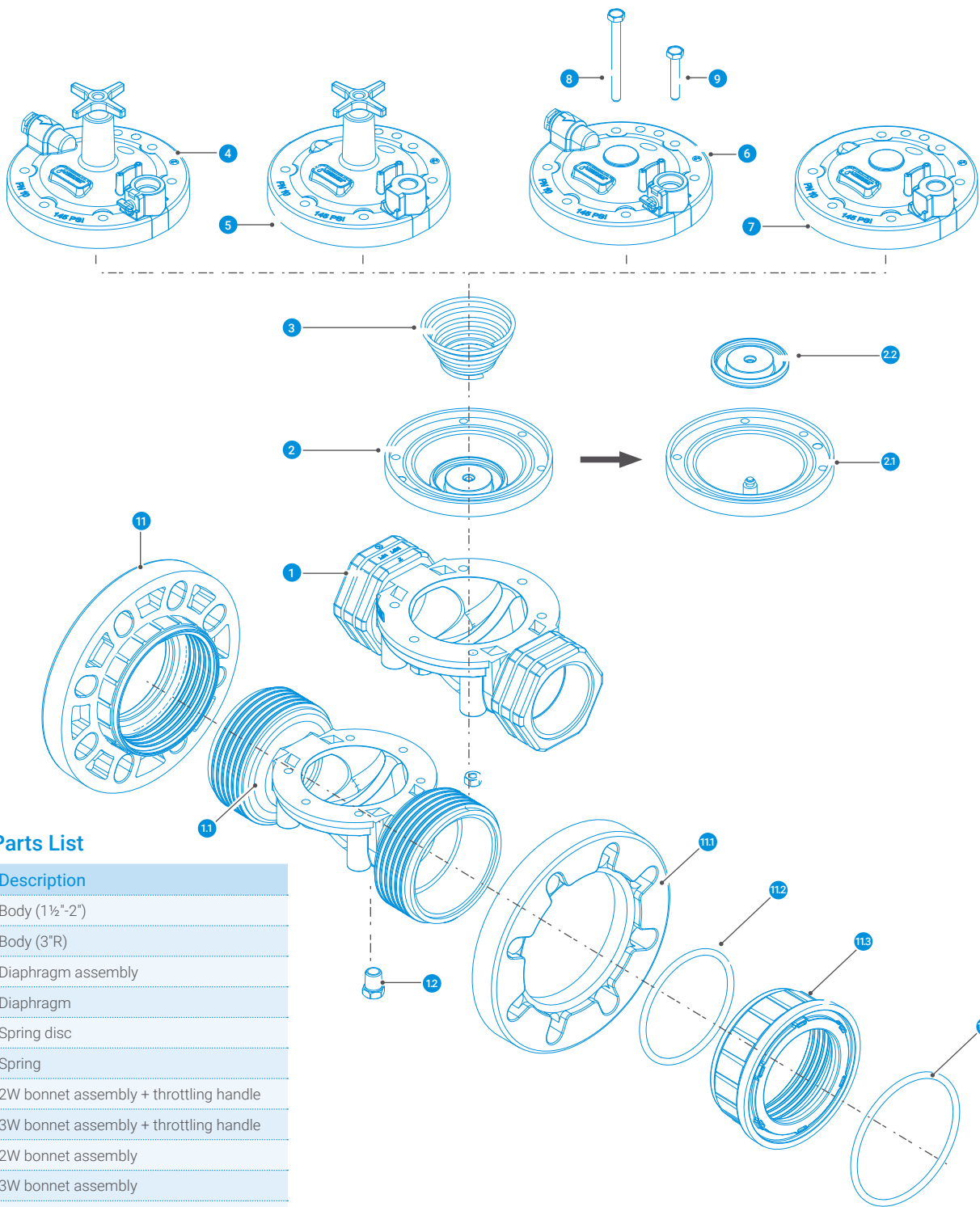


→ **Parts List & Catalog Numbers**

Part List #	Description	Catalog Number
1	AQUANET 1½-2" OPERAT.MECHAN.AC REPLACEM	35500-011100
	AQUANET 1½-2" OPERAT.MECHAN DC REPLACEM	35500-011200
2	AQUANET 1½-2" COMMAND DIAPHRAGM	35500-010800
3	AQUANET 1½-2" MAIN DIAPHRAGM KIT	35500-010200
4	AQUANET PILOT ASSY F/PRESSURE REGULATOR	35500-001100
5	COMBI-COVER ASSEMBLY FOR VLAVE	35500-015830

75 Series Plastic Valves

1½" - 3"R



→ Parts List

#	Description
1	Body (1½"-2")
1.1	Body (3"R)
2	Diaphragm assembly
2.1	Diaphragm
2.2	Spring disc
3	Spring
4	2W bonnet assembly + throttling handle
5	3W bonnet assembly + throttling handle
6	2W bonnet assembly
7	3W bonnet assembly
8	Bolt
9	Short bolt
10	Nut
11	Flange assembly
11.1	Flange
11.2	O-ring
11.3	Flange adapter
12	Plug

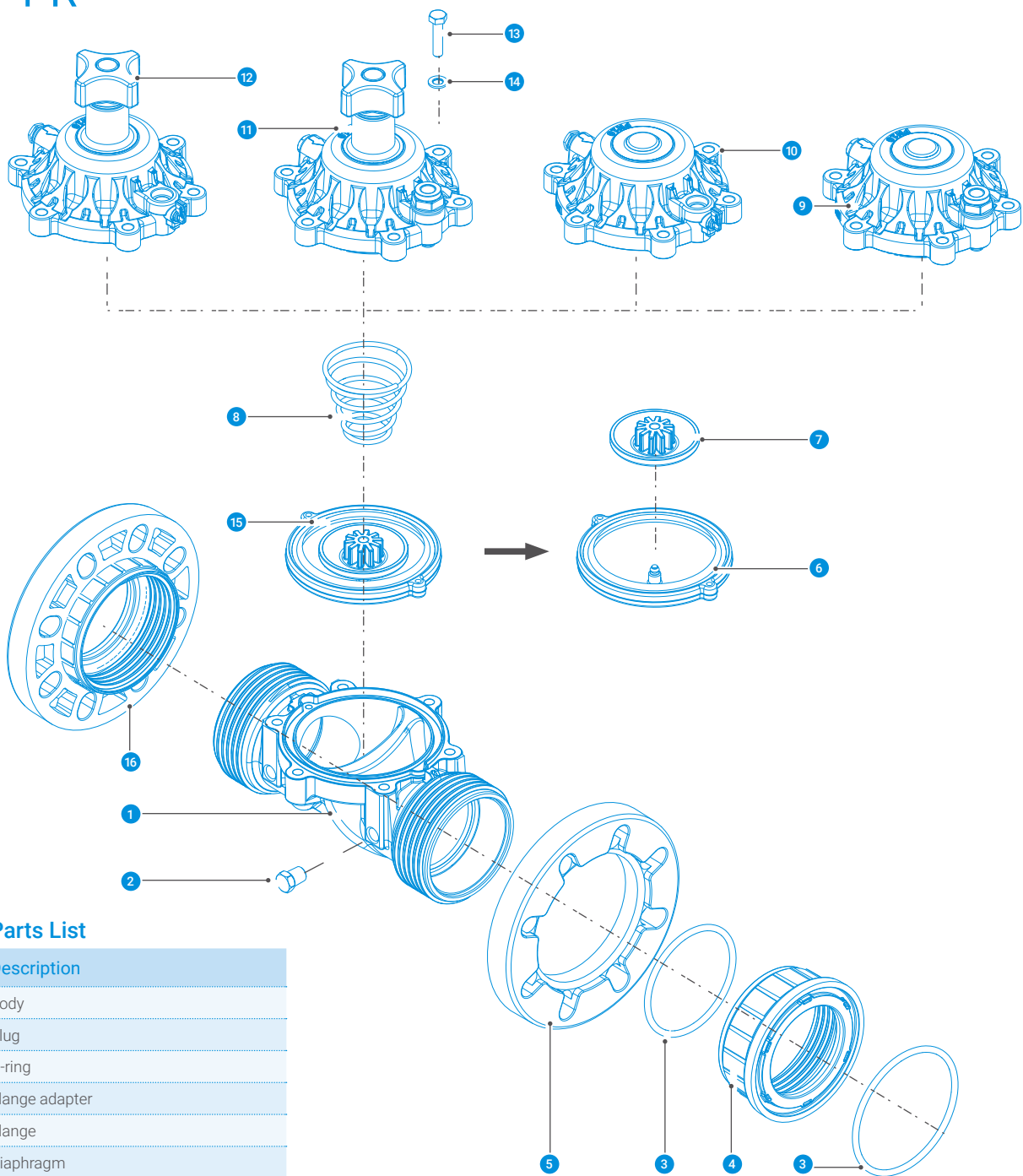
→ Catalog Numbers

Part List #	Description	Catalog Number
2 (2.1, 2.2)	2W, DIAPHRAGM KIT	71680-007250
	3W, DIAPHRAGM KIT	71680-006170
3	SPRING NO. 22	71680-008400
11 (11.1 - 11.3)	SET OF UNIVERSAL FLANGE 3" (1 SIDES) *	71680-000610

* Set of universal flange 2 sides is available upon request

75 Series Plastic Valves

3" - 4"R



→ Parts List

#	Description
1	Body
2	Plug
3	O-ring
4	Flange adapter
5	Flange
6	Diaphragm
7	Spring disc
8	Spring
9	3W bonnet assembly
10	2W bonnet assembly
11	3W bonnet assembly + throttling handle
12	2W bonnet assembly + throttling handle
13	Bolt
14	Washer
15	Diaphragm assembly
16	Flange assembly

Threaded body assembly parts: 1, 2
Two-sided flanged body assy parts: 1, 2, 17 (2 qty)

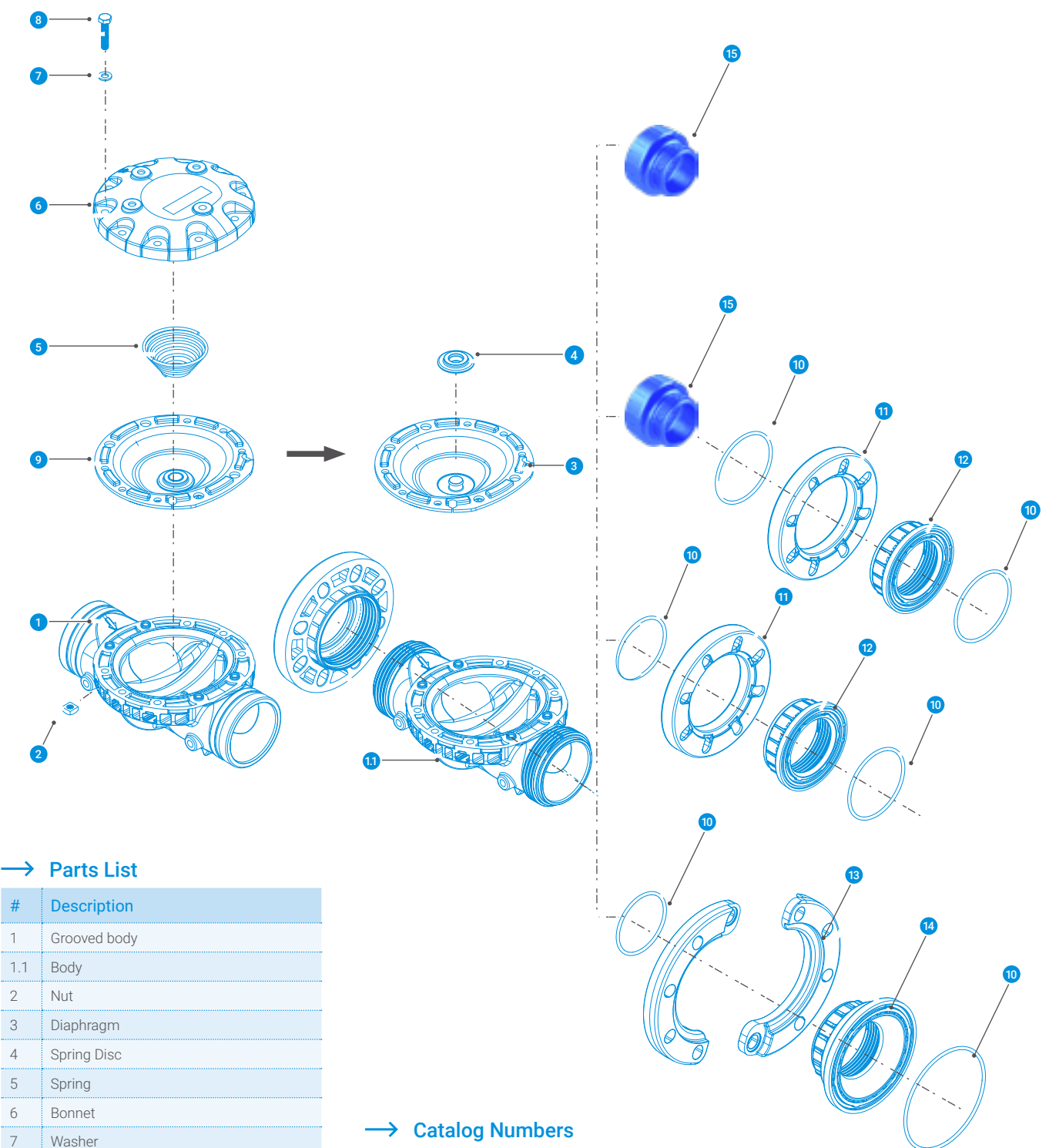
→ Catalog Numbers

Part List #	Description	Catalog Number
15 (6 & 7)	2W, DIAPHRAGM KIT	71680-006370
	3W, DIAPHRAGM KIT	71680-006380
8	SPRING NO. 6	71680-011022
16 (3 & 4 & 5)	SET OF UNIVERSAL FLANGE 3" (1 SIDES)	71680-000610
	SET OF UNIVERSAL FLANGE 4" (1 SIDES) *	71680-000620

* Set of universal flange 2 sides is available upun request

75 Series Plastic Valves

3H" - 6"R



→ Parts List

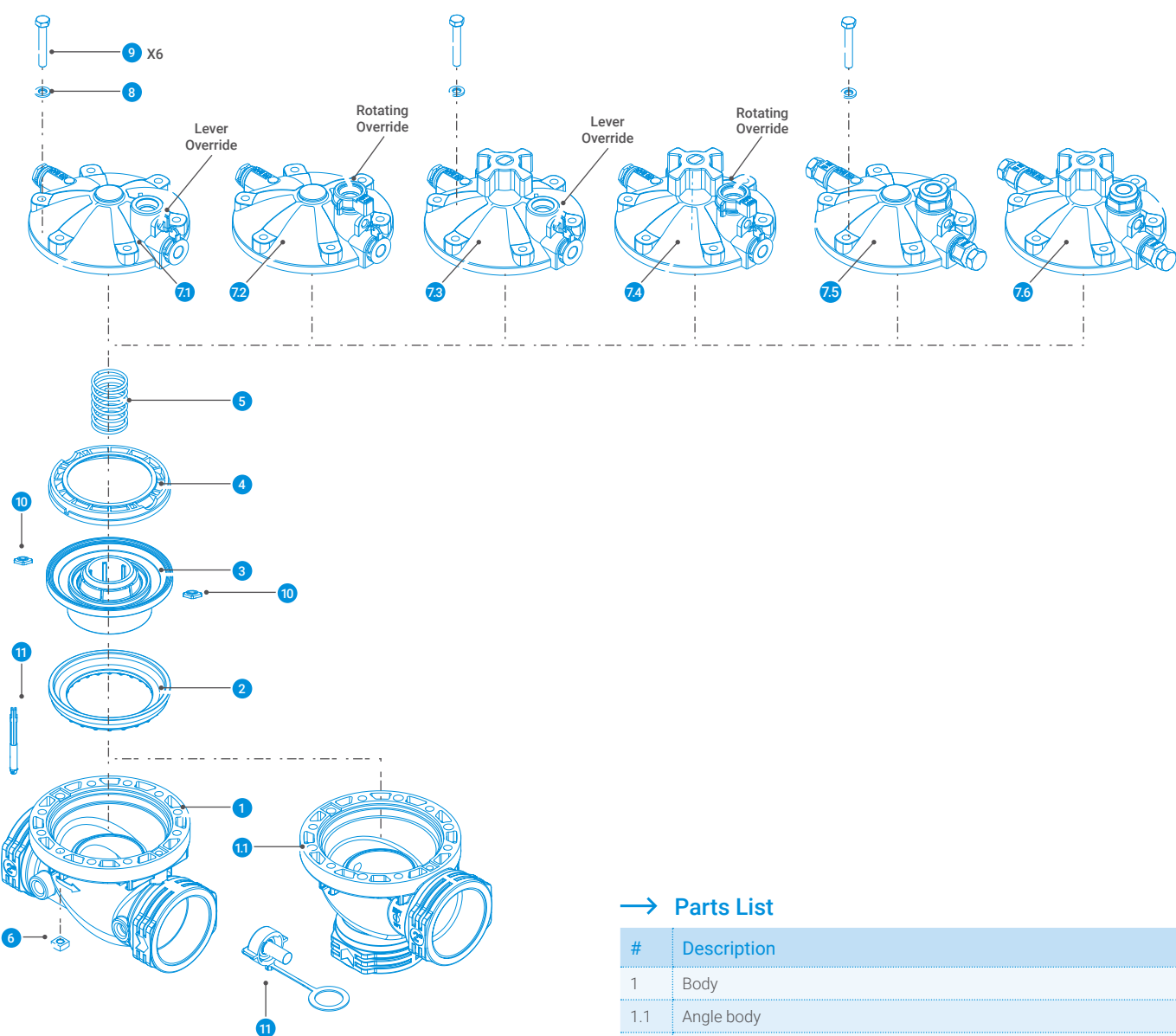
#	Description
1	Grooved body
1.1	Body
2	Nut
3	Diaphragm
4	Spring Disc
5	Spring
6	Bonnet
7	Washer
8	Bolt
9	Diaphragm kit
10	O-ring
11	Flange
12	Flange adapter
13	6" Flange (2 pcs)
14	Flange adapter 6"
15	3" thread adapter

→ Catalog Numbers

Part List #	Description	Catalog Number
3 & 4	3W, DIAPHRAGM	71680-000229
5	SPRING NO. 9	71680-008100
10 & 13 & 14	SET OF UNIVERSAL FLANGE 6" (2 SIDES)	71680-000145
10 & 11 & 12	SET OF UNIVERSAL FLANGE 4" (2 SIDES)	71680-051283
15	3"H THR. NPT (2 SIDES)	71680-051280
15	3"H THR. BSP (2 SIDES)	71680-051281
10 & 11 & 12	3"H FLANGE ASSY. (2 SIDES)	71680-051282

80 Series Plastic Valves

1½" - 2"



→ Catalog Numbers

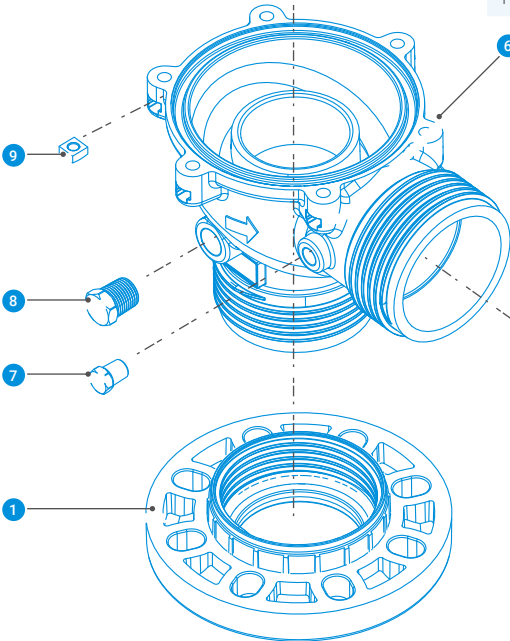
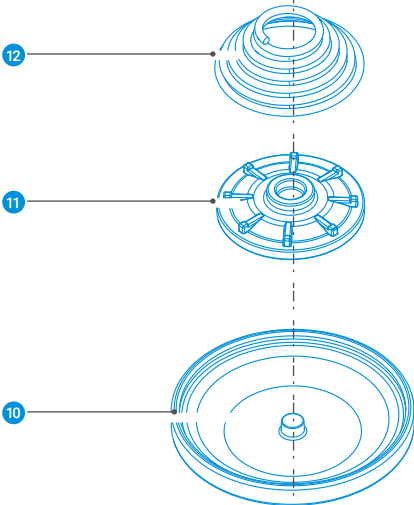
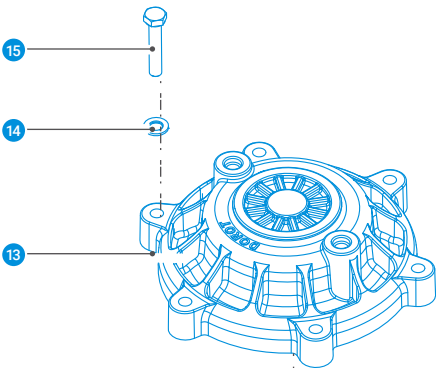
Part List #	Description	Catalog Number
3 (3 & 10)	DIAPHRAGM KIT	71680-006175
5	SPRING - NO. 116 FOR 2-WAY VALVES	71680-008150
	SPRING - NO. 117 FOR 3-WAY VALVES	71680-008155
11	STRAIGHT BODY FILTER KIT	71680-010430
	ANGLE BODY FILTER KIT	71680-010420
2	LOWER DIAPHRAGM SUPPORT	71680-018270
4	UPPER DIAPHRAGM SUPPORT	71680-018260

→ Parts List

#	Description
1	Body
1.1	Angle body
2	Lower diaphragm support
3	Diaphragm assembly
4	Upper diaphragm support
5	Spring
6	Nut
7.1	2W bonnet assembly + lever override
7.2	2W bonnet assembly + rotating override
7.3	2W bonnet assembly + throttling handle & lever override
7.4	Bonnet assembly + throttling handle & rotating override
7.5	3W bonnet assembly
7.6	3W bonnet assembly + throttling handle
8	Washer
9	Bolt
10	Diaphragm kit rings
11	Finger filter

80 Series Plastic Valves

3" - 4"R

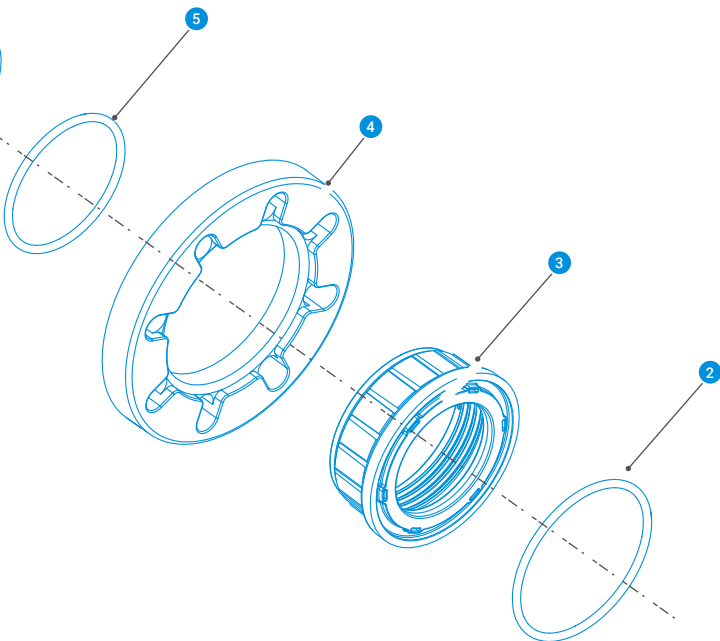


→ Catalog Numbers

Part List #	Description	Catalog Number
3 (3 & 10)	DIAPHRAGM	71680-007710
11	SPRING SEAT SELA	71680-009105
12	SPRING NO. 140	71680-000081
1 (2 & 3 & 4 & 5)	SET OF UNIVERSAL FLANGE 3" (1 SIDE)	71680-000610
	SET OF UNIVERSAL FLANGE 4" (1 SIDE)	71680-000620

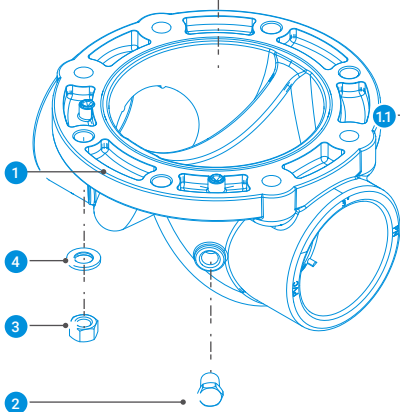
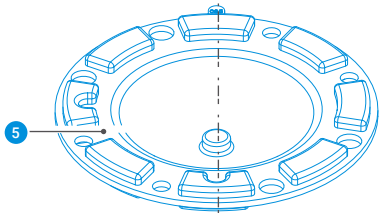
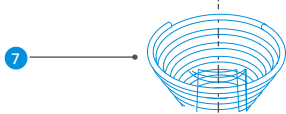
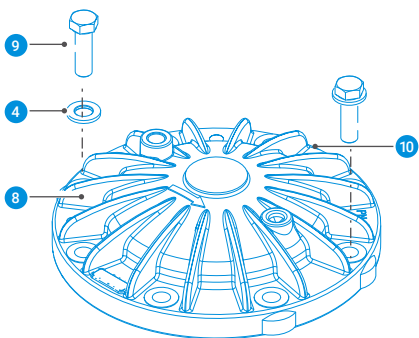
→ Parts List

#	Description
1	Flange assy.
2	O-ring
3	Threaded adaptor
4	Flange
5	O-ring
6	Body
7	Plug ¼
8	Plug ½
9	Nut
10	Diaphragm
11	Spring seat
12	Spring
13	Bonnet
14	Washer
15	Bolt



90 Series PVC Valves

3" - 6"



→ Diaphragm & Spring Selection

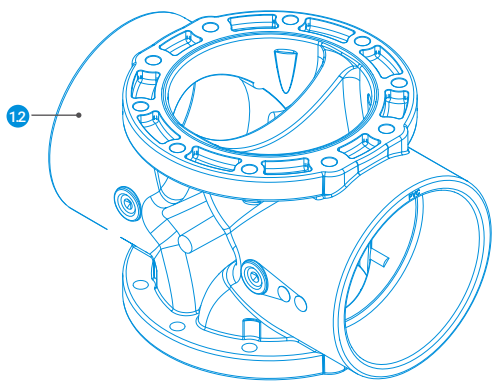
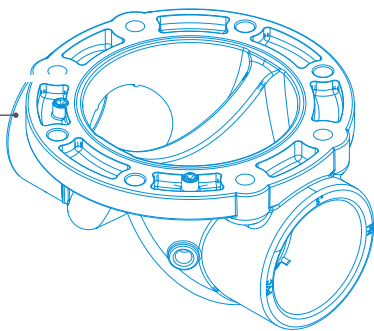
Diameter	Type	Diaphragm #	Spring #
3" / 90mm	Standard	#95	#9
	Low pressure	#179	#12
4" / 110mm	Standard	#95	#9
	Low pressure	#179	#12
6" / 160mm	Standard	#52	#6
	Low pressure	#264	#6

→ Parts List

#	Description
1	Solvent welded body (3", 4", 6", 80mm, 90mm, 100mm, 110mm, 160mm)
1.1	Threaded body (only in 3")
1.2	160mm/6" body
3	Nut
4	Washer
5	Diaphragm
6	Spring disc
7	Spring
8	Bonnet
9	Bolt
10	Short bolt

→ Catalog Numbers

#	Description	Catalog Number
5	DIAPHRAGM NO. 095	71680-007660
	DIAPHRAGM NO. 052	71680-007670
6	SPRING SEAT, PVC VALVE 3" - 4"	71680-008905
	SPRING SEAT, PVC VALVE 6"	71680-008990
7	SPRING NO. 9	71680-008100
	SPRING NO. 6	71680-008190



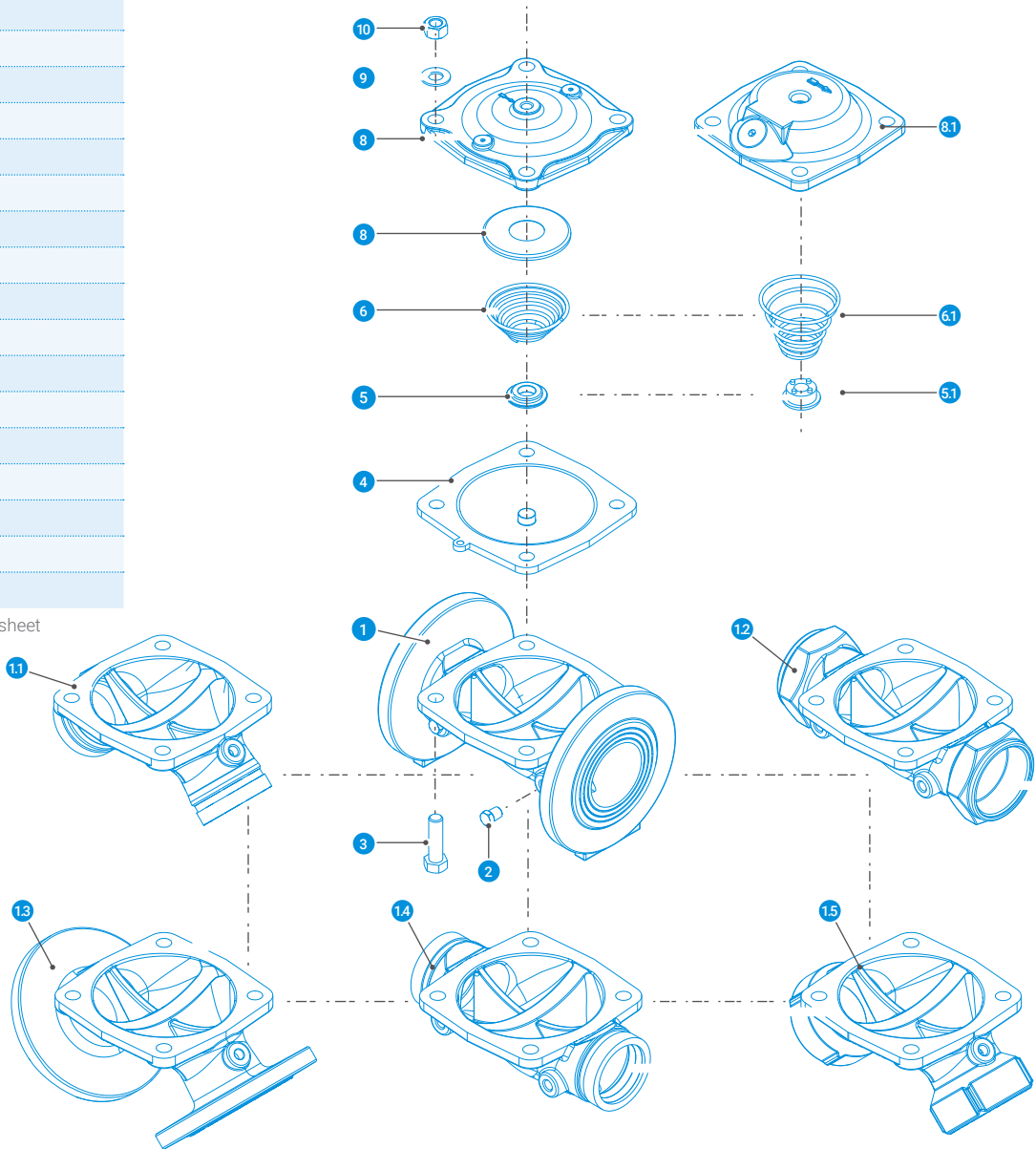
100 Series Metal Valves

1½" - 4"

→ Parts List

#	Description
1	Body
1.1	Angle grooved body
1.2	Threaded body
1.3	Angle body
1.4	Grooved body
1.5	Angle threaded body
2	Plug
3	Bolt
4	Diaphragm
5	Bottom spring disc
5.1	Bottom spring disc
6	Spring
6.1	Spring
7	Upper spring disc
8	Bonnet 1.5"-3"R
8.1	Bonnet 3"-4"
9	Washer
10	Nut

* Optional kit - refer to detailed data-sheet

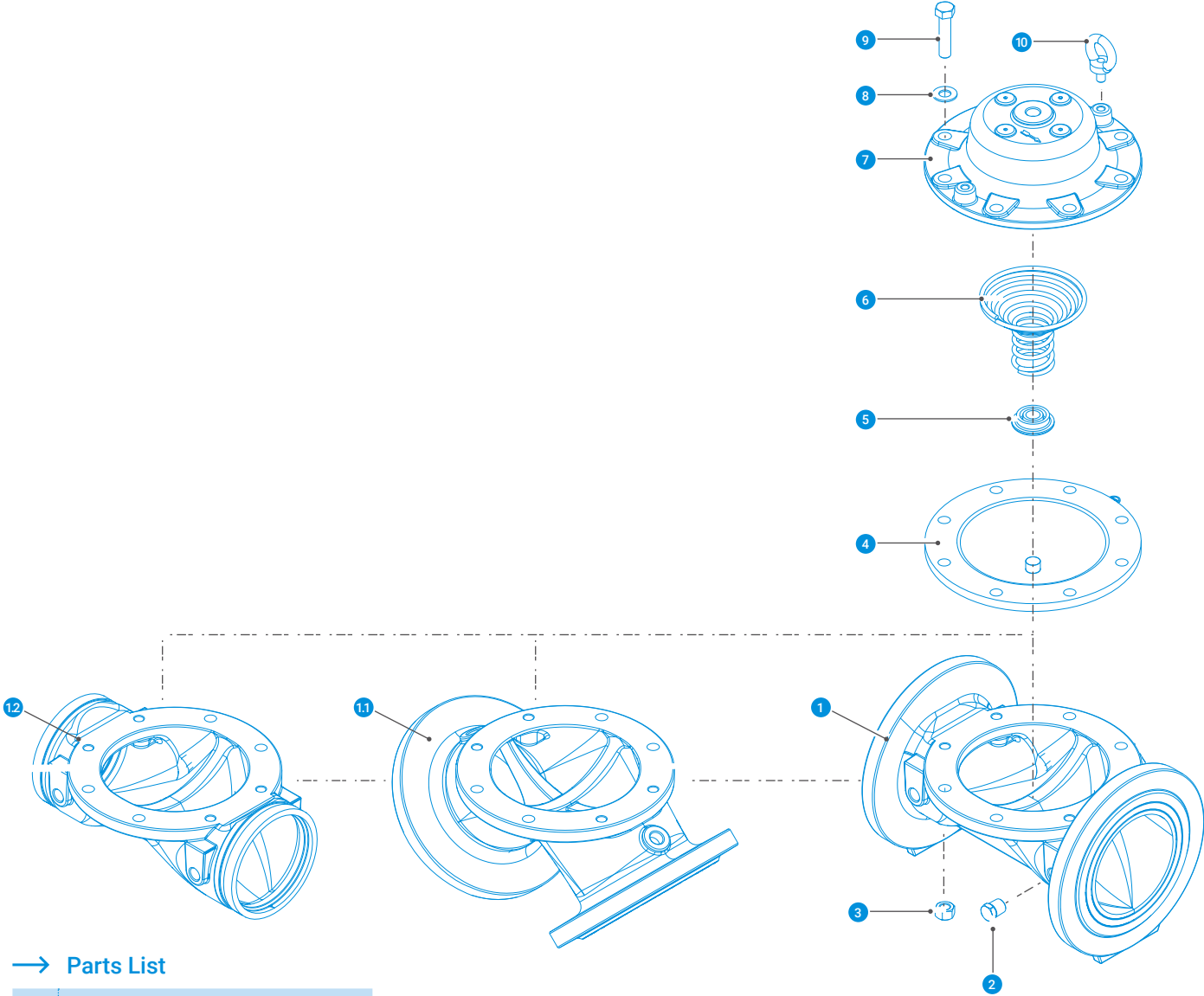


→ Catalog Numbers

Part List #	Description	Catalog Number
4	DIAPHRAGM - NO. 013	71680-007100
	DIAPHRAGM - NO. 003, S100, 2"	71680-007300
	L.P DIAPHRAGM - NO. 002, S100, 2"	71680-007400
	DIAPHRAGM - NO. 032, S100, 3"	71680-006300
	L.P DIAPHRAGM - NO. 005, S100 3"	71680-006400
5	SPRING SEAT, S100 1½" - 2"	71680-008905
	SPRING SEAT, S100 3" - 4"	71680-008900
6	SPRING - NO. 52, S100 1½" - 2"	71680-008000
	SPRING - NO. 9, S100 3"	71680-008100

100 Series Metal Valves

6" - 10"



→ Parts List

#	Description
1	Body
1.1	Angle body
1.2	Grooved body
2	Plug
3	Nut
4	Diaphragm
5	Spring disc
6	Spring
7	Bonnet
8	Washer
9	Bolt
10	Lifting ring

* Optional kit - refer to detailed data-sheet

→ Catalog Numbers

Part List #	Description	Catalog Number
4	DIAPHRAGM - NO. 062, S100 6" - 686	71680-006520
	L.P DIAPHRAGM - NO. 009, S100 6" - 686"	71680-006600
	DIAPHRAGM - NO. 036, S100 8"	71680-006850
	L.P DIAPHRAGM - NO. 037, S100 8"	71680-006860
	DIAPHRAGM - NO. 040, S100 10"	71680-006800
5	SPRING SEAT, S100 6"	71680-009000
	SPRING SEAT, S100 8" - 10"	71680-008995
6	SPRING - NO. 57, S100 6"	71680-008200
	SPRING - NO. 61, S100 8" - 10"	71680-008300

Diaphragms



→ Series 75

Diameter	Config.	Diaphragm Type	Diaph. Material	Diaph. Number	Pressure Range		Full Description	Catalog Number
					mwc	psi		
¾ in.-20mm 1 in.-25mm	2W	Standard	NR	025	9-100	15-115	DIAPH N°25 NR S75T ¾"-1" PN10 ⁽¹⁾	71680-006140
	3W	Standard	NR	001	9-100	15-115	DIAPH N°001 NR S75 ¾"-1" PN10	71680-006950
	3W	Standard	NR	164	6-100	9-115	DIAPH KIT N°164 NR S75-3W ¾"-1" PN10 ⁽²⁾	71680-007445
1.5 in.- 40mm 2 in.-50mm 323in.-80mm	2W	Standard	NR	021	5-100	7-140	DIAPH KIT N°021 NR S75-2W 1.5-323" PN10 ⁽³⁾	71680-007250
	3W	Standard	NR	022	5-100	7-140	DIAPH KIT N°022 NR S75-3W 1.5-323" PN10 ⁽³⁾	71680-006170
	3W	Low Pressure	NR	229	3.5-80	5-115	DIAPH N°229 NR S75-3W 1.5-323" PN05 LP	71680-006272
	3W	Special	EPDM	252	5-100	7-140	DIAPH KIT N°252 EPDM S75-3W 1.5-323" PN10 ⁽³⁾	71680-000234
		Special	ALD	255	5-100	7-140	DIAPH N°255 ALD S75-3W 1.5-323" PN10	71680-022160
3 in.-80mm 434 in.-100mm	2W	Standard	NR	331	5-100	7-140	DIAPH N°331 NR S75-2W 3"-434" PN10	71680-006370
	3W	Standard	NR	330	5-100	7-140	DIAPH KIT N°330 NR S75-3W 3"-434" PN10 ⁽³⁾	71680-006380
4 in.-100mm 3"H-100mm 6"R-100mm	3W	Standard	NR	370	5-120	7-175	DIAPH KIT N°370 NR S75-3W 4"-868" PN10 ⁽³⁾	71680-000229
6 in.-150mm	3W	Standard	NR	370	5-120	7-175	DIAPH KIT N°370 NR S75-3W 4"-868" PN10 ⁽³⁾	71680-000229
8 in.-200mm	3W	Standard	NR	370	5-120	7-175	DIAPH KIT N°370 NR S75-3W 4"-868" PN10 ⁽⁴⁾	71680-000229

- (1) Refers to S75-T model
(2) The Kit includes Spring + Spring Disc + Diaphragm
(3) The Kit includes Spring Disc + Diaphragm
(4) 6" and 8" Double chamber come with 2 diaphragms



→ Series 80

Diameter	Config.	Diaphragm Type	Diaph. Material	Diaph. Number	Pressure Range		Full Description	Catalog Number
					mwc	psi		
1.5-2 in.	2W/3W	Standard	NR	231	5-100	7-140	DIAPH KIT ASSEMBLY F/ S-801 1/2"-2	71680-006175
3 in.-80MM	3W	Standard	NR	345	7-100	10-140	DIAPH N°345 NR S80 3" PN10	71680-007710



→ Series 90

Diameter	Config.	Diaphragm Type	Diaph. Material	Diaph. Number	Pressure Range		Full Description	Catalog Number
					mwc	psi		
3-4 in. / 90-110mm	3W	Standard	NR	095	6-80	8-120	DIAPH N°95 NR S90 3" PN10	71680-007660
		Low Pressure	NR	179	4-80	6-120	DIAPH N°179 NR S90 3" PN05	43020-015980
		Special	ALD	187	6-80	8-120	DIAPH N°187 ALD N704 S90 3" PN10	71680-006660
6 in. / 160mm	3W	Standard	NR	052	5-100	7-140	DIAPH N°52 NR S90 6" PN10	71680-007670
		Low Pressure	NR	264	4-80	6-120	DIAPH N°264 NR S90 6" PN05	43020-016040

* Missing catalog numbers are available upon request



→ Series 100

Diameter	Config.	Diaphragm Type	Diaph. Material	Diaph. Number	Pressure Range		Full Description	Catalog Number
					mwc	psi		
1in.-25mm	3W	Standard	NR	018	12-160	17-250	DIAPH N°018 NR S100 1" PN16	71680-006900
		Low pressure	NR	085	5-100	7-140	DIAPH N°085 NR S100 1" PN05	71680-007050
		Special	EPDM	051	12-160	17-250	DIAPH N°051 EPDM S100 1" PN06	*
		Potable water	EPDM-E701A	307	12-160	17-250	DIAPH N°307 EPDM-E701A S100 1" PN16	*
1.5in.-40mm	3W	Standard	NR	013	12-160	17-250	DIAPH N°013 NR S100 1.5" PN16	71680-007100
		Super low pressure	NR	082	5-50	7-70	DIAPH N°082 NR S100 1.5" PN05	71680-007200
		Low pressure	NR	017	5-100	7-140	DIAPH N°017 NR S100 1.5" PN10	71680-007150
		Special	EPDM	055	12-160	17-250	DIAPH N°055 EPDM S100 1.5" PN16	71680-007205
		Potable water	EPDM-E701A	312	12-160	17-250	DIAPH N°312 EPDM-E701A S100 1.5" PN16	*
2in.-50mm	3W	Standard	NR	003	15-160	21-250	DIAPH N°003 NR S100 2" PN16	71680-007300
		Super low pressure	NR	012	4-50	6-70	DIAPH N°012 NR S100 2" PN05	71680-006271
		Low pressure	NR	002	7-100	10-140	DIAPH N°002 NR S100 2" PN10	71680-007400
		Special	ALD	334	12-160	17-250	DIAPH N°334 ALD N704 S100 2" PN16	*
		Special	EPDM	054	12-160	17-250	DIAPH N°054 EPDM S100 2" PN16	71680-007380
		Special	NBR	042	12-160	17-250	DIAPH N°042 NBR S100 2" PN16	71680-007420
		Lp / potable water	EPDM-E701A	053	5-100	7-140	DIAPH N°053 EPDM-E701A S100 2" PN10	71680-007350
		Potable water	EPDM-E701A	198	15-160	21-250	DIAPH N°198 EPDM-E701A S100 2" PN16	*
3in.-80mm	3W	Standard	NR	041	12-160	17-250	DIAPH N°041 3" ANGLE VLV	71680-006350
		Special	EPDM	056	12-160	17-250	DIAPH N°056 EPDM S100 3" PN16	71680-006430
		Potable water	EPDM-E701A	199	12-160	17-250	DIAPH N°199 EPDM-E701A S100 3" PN16	*
		Standard	NR	032	12-160	17-250	DIAPH N°032 NR S100 3" PN16	71680-006300
		Low pressure	NR	005	4-100	6-140	DIAPH N°005 NR S100 3" PN10	71680-006400
		Special	NBR	043	12-160	17-250	DIAPH N°043 NBR S100 3" PN16	71680-006420
		Potable water	EPDM-E701A	313	4-100	6-140	DIAPH N°313 EPDM-E701A S100 3" PN10	*
6in.-150mm	3W	Standard	NR	062	20-160	28-250	DIAPH N°062 NR S100 6" PN16	71680-006520
		Super low pressure	NR	091	2-60	3-85	DIAPH N°091 NR S100 6" PN05	71680-006620
		Low pressure	NR	009	5-100	7-140	DIAPH N°009 NR S100 6" PN10	71680-006600
		Special	EPDM	011	5-100	7-140	DIAPH N°011 EPDM S100 6" PN10	*
		High pressure	NR	035	20-160	28-250	DIAPH N°035 NR S100 6" PN16	71680-006500
		Special	ALD	327	12-160	17-250	DIAPH N°327 ALD N704 S100 6" PN16	*
		Potable water	EPDM-E701A	038	7-160	10-250	DIAPH N°038 EPDM-E701A S100 6" PN06	71680-006530
		Potable water	EPDM-E701A	200	20-160	28-250	DIAPH N°200 EPDM-E701A S100 6" PN16	*
8in.-200mm	3W	Standard	NR	036	7-160	10-250	DIAPH N°036 NR S100 8" PN16	71680-006850
		Low Pressure	NR	037	2-100	3-140	DIAPH N°037 NR S100 8" PN05	71680-006860
		High pressure	NR	063	20-160	28-250	DIAPH N°063 NR S100 8" PN16	71680-007010
		Special	ALD	332	7-160	10-250	DIAPH N°332 ALD N704 S100 8" PN16	*
		Special	EPDM	033	7-160	10-250	DIAPH N°033 EPDM S100 8" PN16	*
		Special	EPDM	240	5-100	7-140	DIAPH N°240 EPDM S100 8" PN10	*
		Special	NBR	045	7-160	10-250	DIAPH N°045 NBR S100 8" PN16	71680-006601
		Potable water	EPDM-E701A	326	7-160	10-250	DIAPH N°326 EPDM-E701A S100 8" PN16	*
10in.-250mm	3W	Standard	NR	040	7-160	10-250	DIAPH N°040 NR S100 10" PN16	71680-006800
		Low pressure	NR	050	2-50	3-70	DIAPH N°050 NR S100 10" PN05	71680-006820
		Special	EPDM	119	7-160	10-250	DIAPH N°119 EPDM S100 10" PN16	*
		Potable water	EPDM-E701A	360	7-160	10-250	DIAPH N°360 EPDM-E701A S100 10" PN16	*

* Missing catalog numbers are available upon request



→ Plastic BF Valves

Diaph.	Config.	Diaphragm Type	Diaph. Material	Diaph. Number	Pressure Range		Full Description	Catalog Number
					mwc	psi		
3in.-80mm	3W	Standard	NR	263	2-10	30-145	DIAP. ASSY. NO 263 C 3" PLASL.	71680-012890
		Standard	NR	263	2-10	30-145	DIAP. ASSY. NO 263 C 3" PLASL. SK	71680-013930
4in.-100mm	3W	Standard	NR	263	2-10	30-145	DIAP. ASSY. NO 263 C 4" PLASL.	71680-006250



→ Metal BF Valves

Diaph.	Config.	Diaphragm Type	Diaph. Material	Diaph. Number	Pressure Range		Full Description	Catalog Number
					mwc	psi		
2in.-50mm	3W	Low pressure	NR	337	0.7-10	10-150	DIAPHRAGM-NO.337 NR S51-S52 2in.-UP TO 10BAR	79900-007500
		Standard	NR	302	0.7-16	10-250	DIAPHRAGM-NO.302 NR GALIL 2in.-UP TO 16BAR	71680-007430
		Standard	NR	302	0.7-16	10-250	DOROT DIAPHRAGM NR KIT 51 F FLUSHGAL 2	71680-007480
3in.-80mm	3W	Low pressure	NR	005	4-100	6-140	DOROT DIAPHRAGM KIT 4"x3"GRAVEL LP	71680-007800
		Standard	NR	89	12-160	17-250	DOROT DIAPHRAGM FOR FLUSHGAL3*2"	71680-007500
		Standard	NR	005	4-100	6-140	DOROT DIAP.&SHAFT ASSY FOR 3*2VALVE	71680-007750
		Standard	NR	89	12-160	17-250	KIT DIAF. SK-HP	71680-006180



→ Galil Valves

Full Description	Catalog Number
DIAPHRAGM-NO.302 NR GALIL 2IN.-UP TO 16BAR	71680-007430

* Missing catalog numbers are available upon request

/ Pilots, Relays & Floats

Pilots Standards Table

Valve			Accessories				
Function	Type	Pressure Grade	Pilot *	Check Point		Pressure Guage	
				Upstream	Downstream	Upstream	Downstream
Pressure Reducing Valve	Plastic up to 8"R	PN-10	29-100 / 29-50M		✓		
	Metal up to 6"	PN-10	29-100 / 29-50M		✓		
		PN-16	31-100M (3W) 68-410 (2W)				✓
	Metal 8" & up	All standards	31-310				✓
Pressure Sustaining Valve	Plastic up to 8"R	PN-10	29-200 / 29-50M	✓			
	Metal up to 6"	PN-10	29-200 / 29-50M	✓			
		PN-16	31-100M (3W) 68-510 (2W)			✓	
	Metal 8" & up	All standards	31-310			✓	
Pressure Reducing & Sustaining Valve	Plastic up to 8"R	PN-10 *	29-100 / 29-200 / 29-50M	✓	✓		
	Metal up to 6"	PN-10 *	29-100 / 29-200 / 29-50M	✓	✓		
		PN-16	31-100M + 31-100M (3W) 68-410 (2W) 68-510 (2W)			✓	✓
	Metal 8" & up	All standards	31-310 / 31-310			✓	✓
Quick Relief Valve	Plastic up to 4"R	PN-10	29-500	✓			
	Metal up to 4"	PN-16	68-215	✓			
	Metal 6" & up	PN-16	68-510			✓	
Control Tubes	8mm PE Tube	All PN-10 Valves or valves with Plastic pilot supplied with 8mm PE tubes					
	Parker Tube	All PN-16 Valves or valves with Metal pilot supplied with High Pressure tubes (other tubings - optional upon request)					

* Available pilots in this configuration

→ Pilots

	29-100	29-10R	29-200	29-50M	29-500	68-215	31-100M	31-310
Pilot								
Pressure Range bar (psi)	0.3-3 / 4-40	0.4-3.5 / 6-50	0.3-3 / 5-45	0.3-3 / 4-40	1-8 / 15-115			0.3-6 / 4.5-90
	0.5-4.5 / 7-65	0.5-5.5 / 7-80	0.5-4.5 / 7-65	0.5-4.5 / 7-65	1-10 / 15-150	0.8-13 / 10-190	0.5-6 / 7-85	0.5-10 / 7-150
	1-7.5 / 15-110	1-8.5 / 15-125	1-7.5 / 15-110	1-7.5 / 15-110		2-16 / 30-230	1.5-12 / 22-175	0.6-15 / 9-220

Plastic Pilots

→ Catalog Numbers

29-100 / 3-Way Pressure Reducing						
	Spring Color	Range		Catalog Number		
				Pilot	Spring	Internal Parts
	#72	bar	0.3 - 3	71680-001183	71680-010800	71680-001027
		psi	4 - 40			
	#54	bar	0.5 - 4.5	71680-001182	71680-010850	
		psi	7 - 65			
	#65	bar	1 - 7.5	71680-001181	71680-010700	
psi		15 - 110				

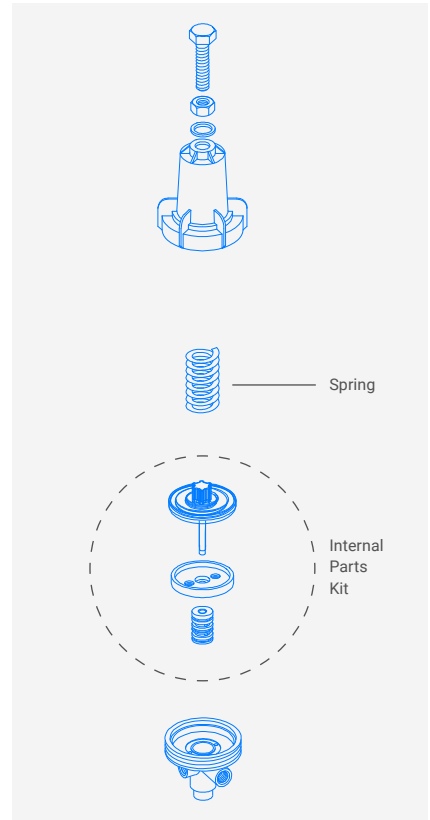
29-10R / 3-Way Pressure Reducing							
	Spring Color		Range		Catalog Number		
					Pilot	Spring	Internal Parts
	#72	bar	0.4 - 3.5	71680-001184	71680-010800	71680-000113	
		psi	6 - 50				
	#54	bar	0.5 - 5.5	71680-000975	71680-010850		
		psi	7 - 70				
	#65	bar	1 - 8.5	71680-001179	71680-010700		
psi		15 - 125					

29-500 / 2-Way Quick Relief						
	Spring Color	Range		Catalog Number		
				Pilot	Spring	Internal Parts
	#72	bar	1 - 8	71680-000109	71680-010800	Available upon request
		psi	15 - 115			
	#54	bar	1 - 10	71680-001228	71680-010850	
		psi	15 - 150			

29-200 / 3-Way Mutli-purpose (Pressure Sustaining / Reducing)							
	Spring Color		Range		Catalog Number		
					Pilot	Spring	Internal Parts
	#72	bar	0.3 - 3.5		71680-001115*	71680-010800	71680-001030
		psi	4.5 - 50				
	#54	bar	0.5 - 5		71680-001100*	71680-010850	
		psi	7 - 70				
	#65	bar	1 - 8		71680-001066*	71680-010700	
psi		15 - 115					

* Arrives with brackets

→ Spare Parts



29-50M / 3-Way Mutli-purpose (Pressure Sustaining / Reducing)

	Spring Color	Range		Catalog Number		
				Pilot	Spring + Label	Internal Parts
	#72	bar	0.3 - 3	71680-051268	71680-000119	71680-000113
		psi	4 - 40			
	#54	bar	0.5 - 4.5	71680-051269	71680-000117	
		psi	7 - 65			
#65	bar	1 - 7.5	71680-051270	71680-000118		
	psi	15 - 110				

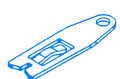
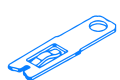
29-310 / 3-Way Flow Control (Differential PR)

	Spring Color	Range		Catalog Numbers	
				Pilot	Internal Parts
	#82	bar	0.2 - 0.5	71680-001175	Available upon request
		psi	3-7		

29-50F / 3-Way Flow Control (Differential PR)

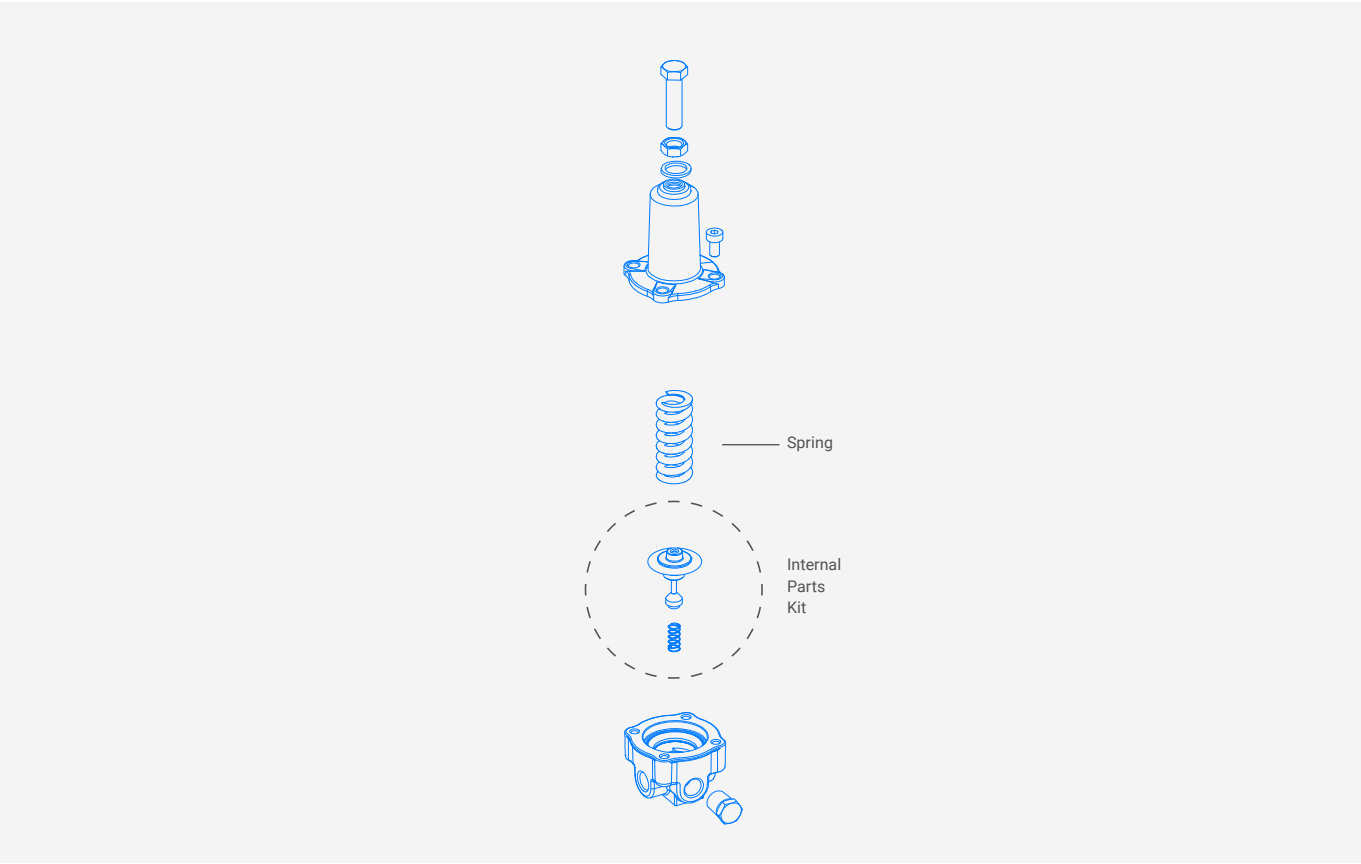
	Spring Color	Range		Catalog Numbers	
				Pilot	Internal Parts
	#82	bar	0.2 - 0.5	Available upon request	Available upon request
		psi	3-7		

→ Pilot Brackets

Bracket	Brackets / Pilot Type	29-100 / 200 / 310 / 10R	29-50M/F
	Bracket 7mm pilot 2950m SST304 for plastic valves up to 3"R		71680-000004
	3/8" for plastic valves 3" and above	71680-011120	71680-000005
	5/8" (for metal & PVC valves)	71680-011122	71680-000003

Metal Pilots

→ Spare Parts



→ Catalog Numbers

31-100 / 3-Way Mutli-purpose (Pressure Sustaining / Reducing)						
	Spring Color	Range		Catalog Number		
				Pilot	Spring	Internal Parts
	#130	bar	0.5 - 6	71680-000082	71680-010860	71680-000083
		psi	7 - 85			
	#124	bar	1.5- 12	71680-001730	71680-008510	
		psi	22-175			

* Up to 6" valves

31-310 / 3-Way Mutli-purpose (Pressure Sustaining / Reducing)*						
	Spring Color	Range		Catalog Number		
				Pilot	Spring	Internal Parts
	#42	bar	0.3 - 6	71680-001220	71680-010600	71680-001225
		psi	4 - 90			
	#47	bar	0.5 - 10	71680-001205	71680-010550	
		psi	7 - 150			
	#50	bar	0.6 - 15	71680-001210	71680-010500	
		psi	9 - 220			

* For 8" valves or up

68-410 / 2-Way Pressure Reducing

	Spring Color	Range		Catalog Number		
				Pilot	Spring	Internal Parts
	#78	bar	0.5 - 3	Available upon request	71680-010810	71680-001571
		psi	7 - 45			
	#66	bar	1 - 11	71680-041130	71680-010720	
		psi	15 - 160			
	#67	bar	2 - 25	Available upon request	71680-011020	
		psi	30 - 360			

68-510 / 2-Way Pressure Sustaining / Quick Relief

	Spring Color	Range		Catalog Number		
				Pilot	Spring	Internal Parts
	#66	bar	0.8 - 13	71680-001430	71680-010720	71680-051260
		psi	10 - 190			
	#67	bar	2 - 40	71680-041140	71680-011020	
		psi	30 - 580			

CXPR / 2-Way Pressure Reducing*

	Spring Color	Range		Catalog Number		
				Pilot	Spring	Internal Parts
	#53	bar	3 - 19	71680-001263	71680-008440	Available upon request
		psi	44 - 275			

* For 8" valves or up

CXPS / 2-Way Pressure Sustaining*

	Spring Color	Range		Catalog Number		
				Pilot	Spring	Internal Parts
	#53	bar	3 - 19	71680-001265	71680-008440	Available upon request
		psi	44 - 275			

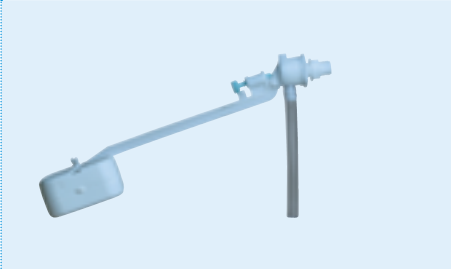
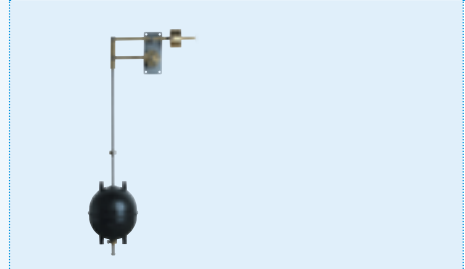
* For 8" valves or up

68-215 / 2-Way Quick Relief

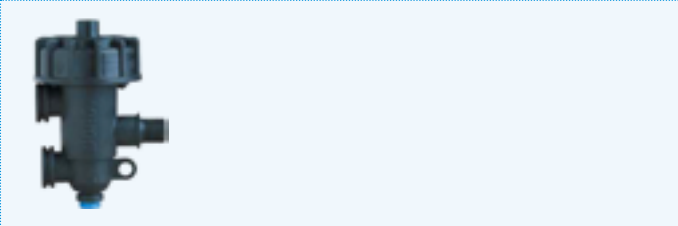
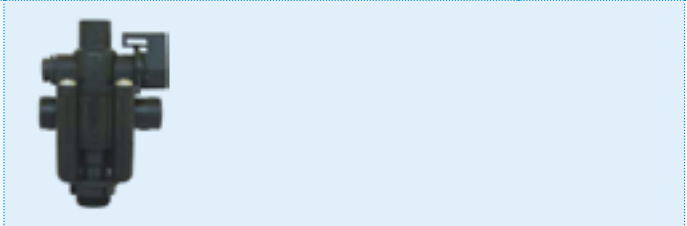
	Spring Color	Range		Catalog Number		
				Pilot	Spring	Internal Parts
	#66	bar	0.8 - 13	Available upon request	71680-010720	Available upon request
		psi	10 - 190			
	#67	bar	2 - 16	Available upon request	71680-011020	
		psi	30 - 230			

Relays & Floats

/ Floats

70-300 / 2-Way Modulating Plastic Float	70-400 / 2-Way Modulating Metal Float	70-550 / 3-Way Differential Vertical Metal Float
		
71680-001527	71680-013300	71680-001517

/ Plastic Relays

25-300 / 3-Way Hydraulic Relay	Galit / 3-Way Hydraulic Relay	
		
71680-000800	GALIT 3W HYDRAULIC RELAY	73220-001900
	GALIT 3W HYDRAULIC RELAY + WHITE SPRING	73220-002754
	GALIT 3W HYDRAULIC RELAY + YELLOW SPRING	73220-002752
	GALIT 3W HYDRAULIC RELAY + GREEN SPRING	73220-002751
	GALIT 3W HYDRAULIC RELAY + RED SPRING	73220-002753

/ Metal Relays

28-200 2-Way Hydraulic Relay	66-21X 3-Way Hydraulic Relay	76-200 3-Way Hydraulic Relay
		
71680-000960	71680-001370	71680-041150

/ Solenoids

Aquative™

Suitable for operation in all applications - agriculture, landscape and industry (water supply system).



Energy saving



Long distance operation



3 position knob, On/Off/Auto

/ Benefits & Features

- Large orifice Enables smooth operation in tough water conditions
- Manual override Close / Auto / Open
- Very low energy consumption For maximal wire distance
- Options Optional NC (Normally Closed) or NO (Normally Open) configuration

/ Specifications & Recommendations

	AC Model	DC Model
Voltage	24VAC	12-40VDC
Pressure Range (No, Nc)	0 - 10 bar 0-140psi	
Ambient Temp. Max	60°C (140°F)	
Fluid Temp. Max	60°C (140°F)	
Filtration Requirements	80 mesh	
Inrush	90mA	-
Holding	75mA	-
Plastic Parts Raw Material	Reinforced Nylon	
Command Diaphragm Raw Material	EPDM	
Hydraulic Ports	1/8" BSP	
Leads	2 X AWG22 (1.2m)	
Delay from Command to Activation	2-5sec.	

→ Recommended Working Conditions Capacitor Mode - for DC Models

Voltage (VDC)	Capacitor (μF)	Min. Pulse (ms)
12-18	4,700	80
18-28	3,300	80
28-40	2,200	80

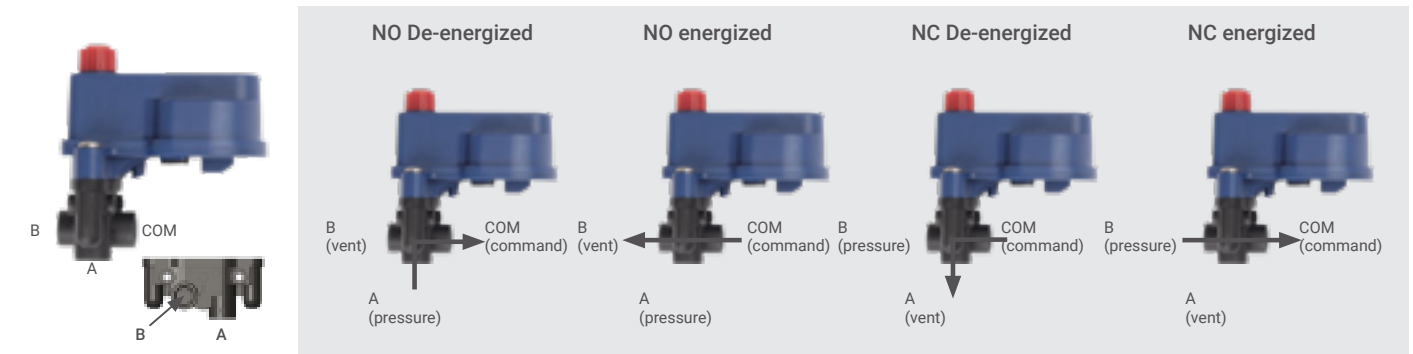
Two wires: red + / black - common, Changing wire connections will change NC to NO

→ Hydraulic Characteristics / Water Passage

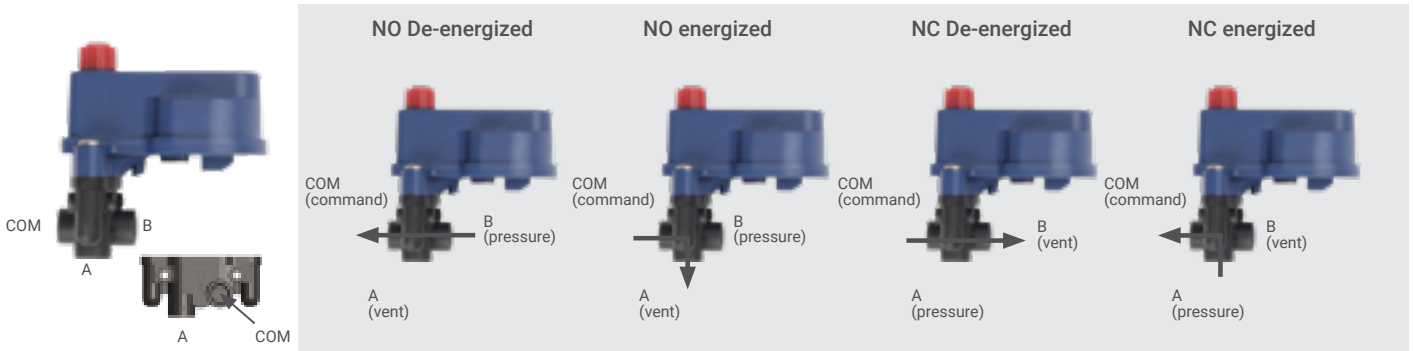
Model	Orifice (mm)
Aquative Plus™	2

→ Configuration

Configuration 1 - Standard



Configuration 2 - Non-Standard



→ Packaging Data

Model	Model Weight (gr)	Units per Carton	Carton Dimensions (cm x cm x cm)	Carton Weight (gr)
Aquative Plus (1 actuator)	147.5	50	28 x 28 x 56	7,375
Aquative Plus (2 actuator)	457.5	14		6,405
Aquative Plus (4 actuator)	783.5	8		6,268
Aquative Plus (6 actuator)	1,100	8		8,800

→ Maximum Distance from Controller to Aquative™

Cable Gauge (awg)	Diameter (mm)	Cross Section (mm²)	AC	DC
			Max. Distance (m)	Max. Distance (m)
24	0.5	0.2	600	-
20	0.8	0.5	1,250	150
18	1.0	0.8	2,000	-
17	1.1	1.0	2,500	240
16	1.3	1.3	3,500	-
15	1.4	1.5	5,000	380

→ Catalog Numbers

No. of Actuator(s)	Aquative Plus Config. 1		Aquative Plus Config. 2
	AC	DC	DC
1 w/o brackets	35500-001200	35500-001900	35500-001920
1 w/ brackets	35500-001300	35500-002000	-
2 w/ brackets	35500-001400	35500-002100	35500-000710
3 w/ brackets	35500-001500	35500-002200	35500-000711
4 w/ brackets	35500-001600	35500-002300	35500-000712
5 w/ brackets	35500-001700	35500-002400	35500-000713
6 w/ brackets	35500-001800	35500-002500	35500-000714
7 w/ brackets	35500-001360	35500-001361	35500-000715
8 w/ brackets	35500-001850	35500-002530	35500-000716
9 w/ brackets	35500-002531	35500-001860	35500-000717
10 w/ brackets	35500-001870	35500-002550	35500-000718

* Anchoring with 2 screws 10x1.5"

* Bracket material: Aluminum

G75 Solenoids

G75-A is suitable for operation in all applications - agriculture, landscape and industry (water supply system).

G75-A3P is specially designed for filtration systems and large-diameter control valves.



Non-corrosive



Large orifice



Multiple applications

/ Benefits & Features

- Large orifice G75-A – 1.2mm / G75-A3P – 2.6mm
- Multiple configurations AC/DC/DCL, NO/NC configurations
- Non-corrosive Made from robust polymers materials
- 3W manual override Close / Auto / Open



G75-A



G75-A3P

/ Specifications & Recommendations

	G Model 75-A	Model G75-A3P
Voltage	24 VAC	12-18 VDC (latch)
Pressure Range	0 - 12 bar	0 - 10 bar
Ambient Temp. Max	50°C (122°F)	
Fluid Temp. Max	50°C (122°F)	
Filtration Requirements	80 mesh	
Inrush	125mA	-
Holding	125mA	-
Plastic Parts Raw Material	Reinforced Nylon	
Command Diaphragm Raw Material	EPDM	NBR
Hydraulic Ports	1/8" BSP/NPT	
Leads	2 X AWG22 (0.4m)	2 X AWG22 (0.3m)
Pulse Width	-	50ms
Protection Class	IP66	

→ Recommended Working Conditions capacitor mode - for DC Models

Voltage (VDC)	Capacitor (μF)	Min. Pulse (ms)
12-18	4700	50
18-28	3300	50
28-40	2200	50

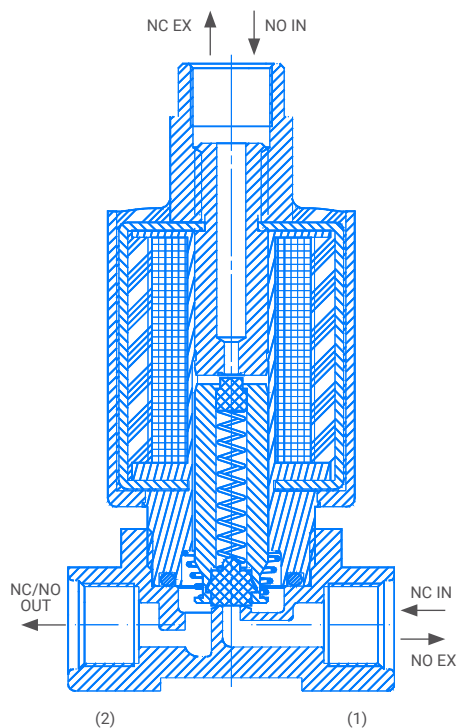
G75-A3P NC and NO has to have the same hydraulic connection ports

G75-A3P Two wires: red / black (Polarity is restricted)

G75-A NC and NO Ring: Black (Polarity is not restricted)

→ Configuration

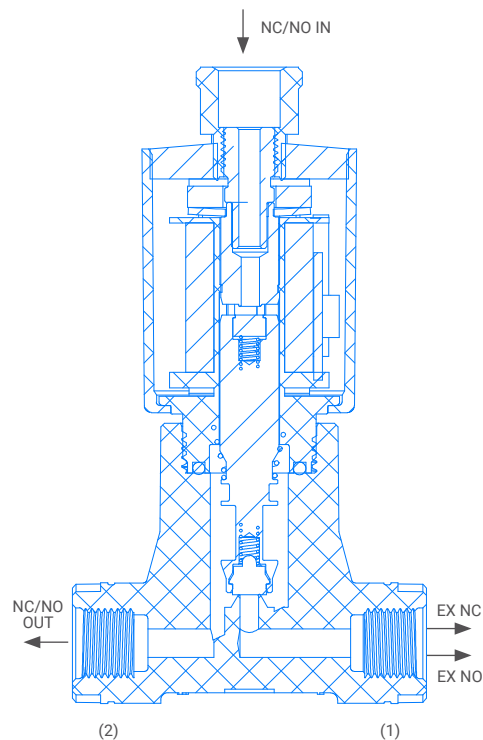
G75-A Model



→ Hydraulic Characteristics / Water Passage

Model	Orifice
G75-A	1.2
G75-A3P	2.6

G75-A3P Model



→ Max. Distance from Controller to G75 Solenoids

No. of Solenoids	1	2	3	4	Distance
Cross section (mm²)	0.5	0.5	0.75	1.0	100m
	0.5	1.0	1.5	2.5	200m
	0.75	1.5	2.5	2.5	300m
	1.0	2.5	2.5	4.0	400m
	1.5	2.5	4.0	6.0	500m
	1.5	4.0	4.0	6.0	600m
	2.5	4.0	6.0	6.0	700m
	2.5	4.0	6.0		800m
	2.5	4.5	6.0		900m
	2.5	6.0			1000m

Wires cross-section selection for distance installation of G75 solenoids

→ Catalog Numbers

No. of Acuator(s)	G75-A	G75-A3P	
	AC	DC Latch (N.O)	DC Latch (N.C)
1 w/ brackets	70800-006810	70800-006805	70800-006905
2 w/ brackets	70800-006820	70800-006815	70800-006910
3 w/ brackets	70800-006830	70800-006825	70800-006915
4 w/ brackets	70800-006840	70800-006835	70800-006920
5 w/ brackets	70800-006850	70800-006845	70800-006925
6 w/ brackets	70800-006860	70800-006855	70800-006930
7 w/ brackets	70800-006870	70800-006865	70800-006935
8 w/ brackets	70800-006880	70800-006875	70800-006940
9 w/ brackets	70800-006890	70800-006885	70800-006945
10 w/ brackets	70800-006900	70800-006895	70800-006950

* Anchoring with 2 screws 10x1.5"

* Bracket material: Aluminum

G75 Solenoid with Galit Relay

N.C solenoid specially designed for filtration systems and control valves of large diameters.



Non-corrosive



Large orifice



Multiple applications

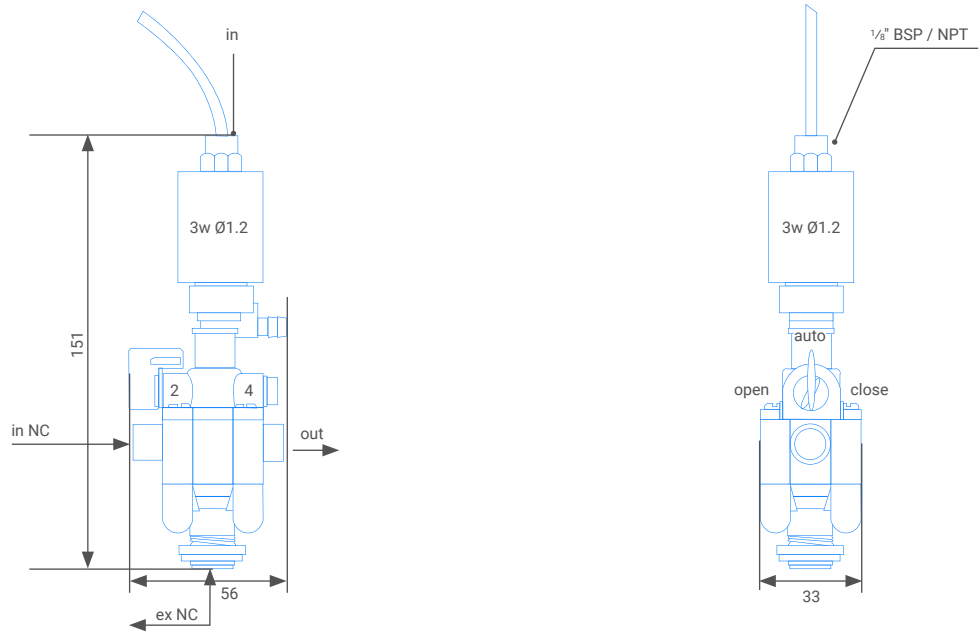
/ Benefits & Features

- Large orifice 5mm
- Multiple configurations AC/DC/DCL, NO/NC configurations
- Non-corrosive Made from robust polymers materials
- 3W manual override Close / Auto / Open

/ Specifications & Recommendations

Function	3 Way N.C
Ports Size	1/8" BSP & NPT
Orifice Size	5mm
Pressure Range	1 to 10 bar
Temperature Range	Fluid: 5°C to 50°C (no freezing) Ambient: -10°C to 50°C
Materials In Contact with Media	Solenoid Operator: Stainless Steel Seals: NBR Spring: Stainless Steel AISI 300 series
Manual Override	Manual override with 3 positions: • Auto - for automatic operation (valve is open when solenoid is energized) • Manual - valve is kept open • Close - valve is kept closed
Standard Protection Class	IP66
Resistance (Ω)	12 (other options available)
Input Current Range	14-16 (other options available)

→ Technical Dimensions & Ports



→ Catalog Numbers

Description	Catalog Numbers
GALIT SOL 1 UNIT 12DCL 12OHM W/O BRACKET	70800-000919
GALIT SOL 2 UNITS 12DCL 12OHM 2WIRES NC	70800-000910
GALIT SOL 3 UNITS 12DCL 12OHM 2WIRES NC	70800-000911
GALIT SOL 4 UNITS 12DCL 12OHM 2WIRES NC	70800-000912
GALIT SOL 5 UNITS 12DCL 12OHM 2WIRES NC	70800-000913
GALIT SOL 6 UNITS 12DCL 12OHM 2WIRES NC	70800-000914
GALIT SOL 7 UNITS 12DCL 12OHM 2WIRES NC	70800-000915
GALIT SOL 8 UNITS 12DCL 12OHM 2WIRES NC	70800-000916
GALIT SOL 9 UNITS 12DCL 12OHM 2WIRES NC	70800-000917
GALIT SOL 10 UNITS 12DCL 12OHM 2WIRES NC	70800-000918

Catalog numbers refer to DC Latch. Product available in AC mode as well.

Baccara™ Solenoids Manifold

G75-VM MODULAR MANIFOLD



Easy
installation



Large
orifice



Multiple
applications

/ Benefits & Features

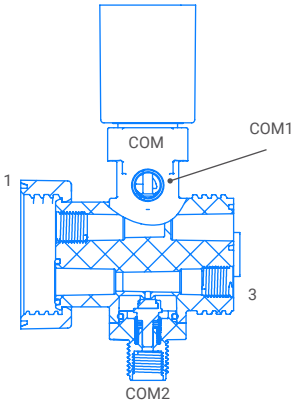
- Large orifice 1.8mm
- Easy of installation Modular units
- Multiple configurations NO/NC configurations

/ Specifications & Recommendations

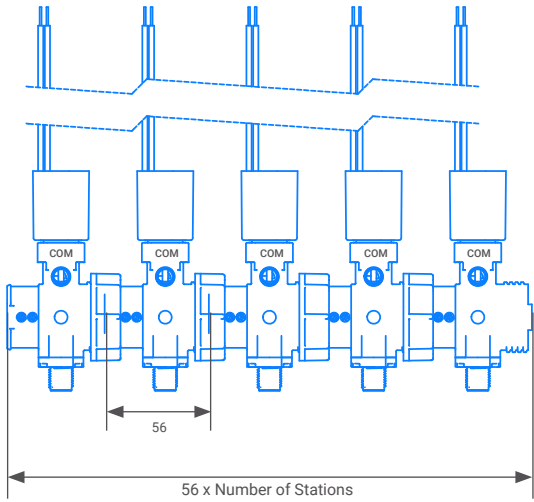
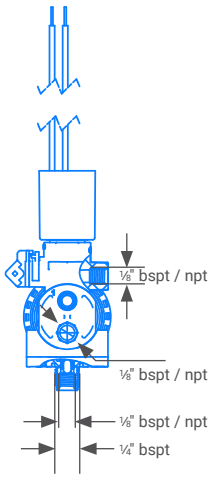
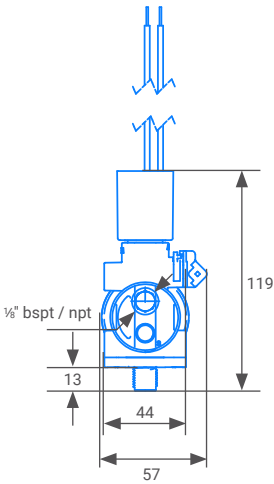
- **Function** – 3 Way NC, NO
- **Orifice Size** – 1.8mm
- **Pressure Range** – 0 - 8 bar
- **Temperature Range** – Fluid: 0°C to 50°C (no freezing), Ambient: -10°C to 50°C
- **Materials in Contact with Media – Manual Override:** Plastic (Reinforced Nylon)
Main Valve: Plastic (reinforced nylon & POM)
Solenoid Operator: Stainless steel AISI 300 & 400 series
Seals: EPDM
- **Mounting** – With bracket
- **Modular Connection Type** – Thread type connection
- **Modular Connection Assembly Recommendation** –
Manually tighten one station to another
Using tools and/or excessive torques may lead to irreversible damage
- **Manual Override 3 Positions Latch** – Auto, close, open
- **Media** – Air, water
- **Coil Voltage** – Latch
- **Standard Protection Class** – IP66

→ Ports Scheme

Port	NO	NC
1	Exhaust	Pressure
3	Pressure	Exhaust
COM	Out	Out



→ Technical Dimensions



GEM-SOL Solenoids

Recommended for heavy-duty applications where high performance is required. Can be used for industrial and irrigation control and automation systems. Suitable for working with air, water, and oil.



Heavy
duty



Large
orifice



Multiple
applications

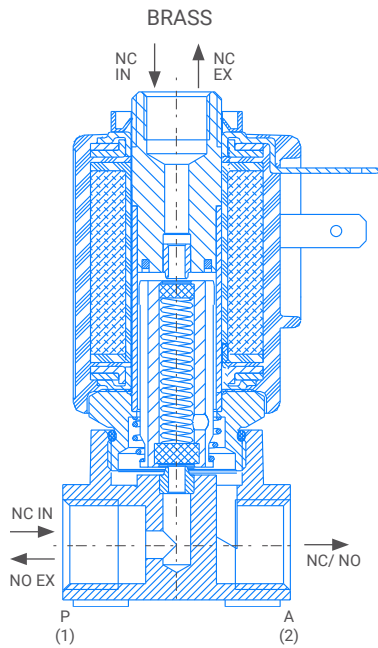
/ Benefits & Features

- Heavy duty Made of robust materials
- Large orifice Wide range of orifice sizes
- Multiple configurations AC/DC/DCL, NO/NC configurations

/ Specifications & Recommendations

- **Function** – 3/2 way NC & NO
- **Ports Size** – 1/8" and 1/4" BSP & NPT
- **Orifice** – See table
- **Kv** – See table
- **Pressure Range** – See table
- **Temperature Range (Fluid)** – max 80°C
- **Temperature Range (Ambient)** – -10°C - 50°C
- **Manual Override** – Plastic, brass screw or brass finger knob, st.st for st.st valves
- **Weight (with coil)** – 248gr for mazak valve
- **Media** – Air, water, oil
- **Coil Voltage** – All Baccara coils voltages 10% AC 8W, 5.5W and 2.5W & DC 10W, 5.5 and 3.5W

→ Configuration



→ Material Specifications

Main Valve	Mazak, brass or stainless steel 303
solenoid Operator	Stainless steel 300 & 400 series
seals	Nbr, viton, epdm or kalrez

→ Max. Pressure (bar)

3W NC

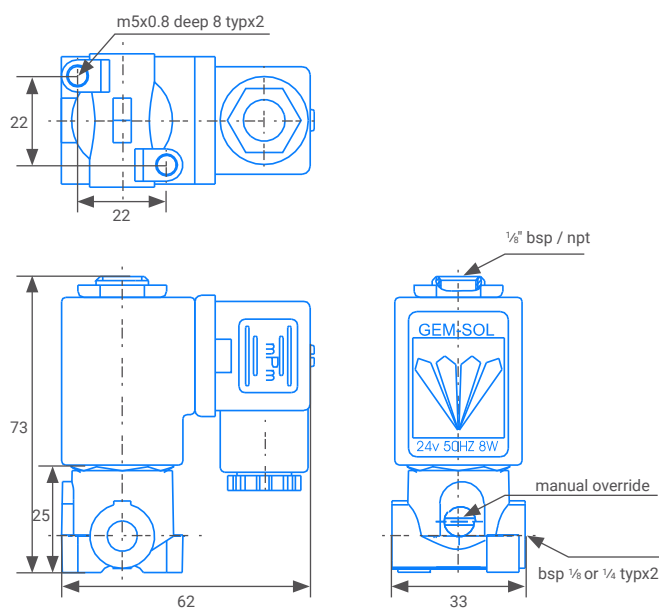
Coil Current / Power	Orifice					
	0.8	1.2	1.6	2.0	2.4	3.0
ADC	23	20	15	10	8	5.5
AC/8W DC/10W	35	30	17	14	10	6
AC/5.5W	23	20	15	10	8	5.5
AC/2.5W, DC/5.5W, DC/3.5W	20	16	10	9	5	4
Flow Factor Kv (Lmin)	0.6	1.1	1.7	2.5	3.5	4.5

3W NO

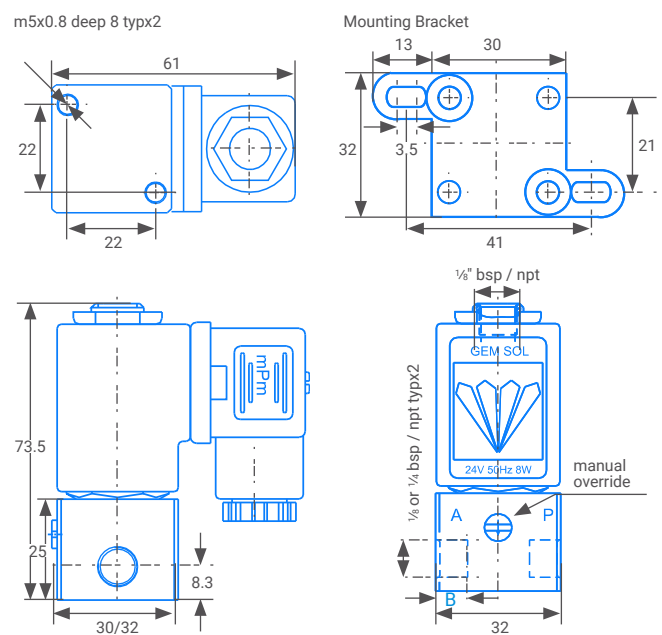
Coil Current / Power	Orifice					
	0.8	1.2	1.6	2.0	2.4	3.0
ADC	25	20	15	11	8	6
AC/8W, DC/10W	30	22	17	12	10	7
AC/5.5W FC/5.5W	25	20	15	11	8	6
AC/2.5W DC/3.5W	20	18	12	8	6	4
Flow Factor Kv (Lmin)	0.6	1	1.4	2.2	3.0	3.5

→ Technical Dimensions

Brass Model



Mazak / Stainless Steel Model



Stainless steel valves are made of □ 32

→ Catalog Numbers

Description	Catalog Number
BAC.GEM-A BR 1/4 3W NC 1.6 NBR 12VDC+CON	70800-002073
BAC.GEM-A BR 1/4N 3WNO 1.2 12VDC 10W+CON	70800-006579
BAC.GEM-A BR 1/4N 3WNO 1.6 12VDC 10W+COM	70800-006578
BAC.GEM-A BR.1/4 3W NC 1.6 110VAC8W+CON	70800-002055
BAC.GEM-A BR.1/4 3W NC 1.6 24VAC 8W+CON.	70800-002050
BAC.GEM-A BR.1/4 3W NO 1.6 110VAC8W+CON.	70800-002065
BAC.GEM-A BR.1/4 3W NO 1.6 12VDC 10W+CON	70800-002040
BAC.GEM-A BR.1/4 3W NO 1.6 24VAC 8W+CON.	70800-002060
BAC.GEM-A BR.1/4 3WNO 1.6 230VAC 8W+CON.	70800-002070
BACCARA GEM SERVO 2WNO 1" BSP 12V DC 10W	70800-001751
BACCARA GEMSOL 2.4MM 12VDC 3W NC 2WIRES	70800-006625
BACCARA GEMSOL 2.4MM 24V AC 8W NO	70800-003600
BACCARA GEMSOL 2.4MM NC 24VAC 8W	70800-003400
BACCARA GEMSOL 3W 0.8MM 24VAC 8W NO PN25	70800-003620
BACCARA SOLENOID BAR F/10 GEMSOL NC AC	70800-006420
BACCARA SOLENOID BAR F/3 GEMSOL NC AC	70800-006440
BACCARA SOLENOID BAR F/3 GEMSOL NC AC	70800-006445
BACCARA SOLENOID BAR F/4 GEMSOL NC AC	70800-006441
BACCARA SOLENOID BAR F/4 GEMSOL NC AC	70800-006446
BACCARA SOLENOID BAR F/5 GEMSOL NC AC	70800-006442
BACCARA SOLENOID BAR F/5 GEMSOL NC AC	70800-006447
BACCARA SOLENOID BAR F/6 GEMSOL NC AC	70800-006370
BACCARA SOLENOID BAR F/7 GEMSOL NC AC	70800-006443
BACCARA SOLENOID BAR F/8 GEMSOL NC AC	70800-006400
BACCARA SOLENOID BAR F/9 GEMSOL NC AC	70800-006410
GEM SOL COIL + CONN 415V AC 8W 50HZ	70800-002777
GEM SOL MZK 3WNO 1/8" BSP 1.6MM NBR	70800-002778
GEM SOL ST.ST 2WNO 1/4" BSP 2.4MM NBR	70800-002916
GEMA BRASS BSP 3WNC 1.6MM 24VAC 8W 60HZ	70800-006580
GEM-A-BR.1/4BSP 3WNO 1.6 48V/50HZ8W+CONN	70800-001222
GEMSOL BASE 3WNO 1/8" BSP 1.6 LOW POWER	70800-005601

2-Way Solenoids



Non
corrosive



Multiple
application



Easy
installation

→ Catalog Numbers

Product Name & Illustration	Configuration	Voltage	Catalog Number			
			Operator	Base	Base + Bracket	Operator + Base
S-80 2-Way						
	2-Way (NC)	24AC	71640-007140	-	-	-
		24DC	71680-031060			-
		12DC	71640-007020			-
		9-30DC LATCH	71680-018370			
S-80 3-Way						
	3-Way (NO)	24AC	71640-007120	71680-018350	71680-000240	71640-006980
		24DC	71680-018310			71640-006990
		12DC	71640-007021			-
	3-Way (NC)	24AC	71640-007130			71640-007090
S-92 3-Way Latch						
	3-Way (NO)	DC Latch	71680-000180	71680-000185	-	71640-006992

/ Complementary Accessories

Complementary Accessories

→ Fittings

Illustration	Description	Catalog Numbers
	ELBOW CONNECTOR 1/8" - 8MM	76400-003400
	ELBOW CONNECTOR 1/4" - 8MM	76400-003500
	STRAIGHT CONNECTOR 1/8" - 8MM	76400-002100
	STRAIGHT CONNECTOR 1/4" - 8MM	76400-002300
	T - CONNECTOR FOR TUBE 8MM - 1/8" - 8MM	76400-004450
	T - CONNECTOR FOR TUBE 8MM - 1/4" - 8MM	71680-018575
	MALE PLUG 1/4" NPT	71610-000800
	MALE PLUG 3/8" NPT	71610-000810
	1/4" SELF - FLUSHING, INLINE CONTROL - FILTER	76400-013755
	UNION CONNECTOR 8MM	76400-001300
	UNION TEE 8MM	76400-004000
	MALE RUN TEE 8 X 8 X 1/8	76400-004550
	PIPE REDUCING NIPPLE 1/4" - 1/8"	76400-006600
	PIPE REDUCING NIPPLE 1/2" - 1/4"	76400-006900
	KIT CHECK POINT TEE 8 X 1/8" X 1/4" (CP)	76400-015901
	KIT CHECK POINT TEE 1/8" X 8 X 1/4" (CP)	76400-015902
	KIT CHECK POINT TEE 1/4" X 1/8" X 1/8" (CP)	71680-000030
	SELF - FLUSHING, INLINE CONTROL FILTER 1/2"	71680-014100
	BUSHING MALE - FEMALE 1/2" - 1/4"	78301-003170

→ Pressure Gauges

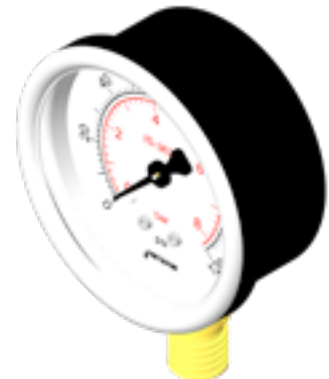
Description	Catalog Number
Bottom Inlet Glycerin Gauge	
NPG 2½" GLC 0-4 BAR ¼" BSP	77456-000222
NPG 2½" GLC 0-6 BAR ¼" BSP	77456-000223
NPG 2½" GLC 0-8 BAR ¼" BSP	77456-000224
NPG 2½" GLC 0-10 BAR ¼" BSP	77456-000225
NPG 2½" GLC 0-16 BAR ¼" BSP	77456-000226
NPG 2½" GLC 0-4 BAR ¼" NPT	77456-000227
NPG 2½" GLC 0-6 BAR ¼" NPT	77456-000228
NPG 2½" GLC 0-8 BAR ¼" NPT	77456-000229
NPG 2½" GLC 0-10 BAR ¼" NPT	77456-000230
NPG 2½" GLC 0-16 BAR ¼" NPT	77456-000231



Rear Inlet Glycerin Gauge	
NPG AX 2½" GLC 0-4 BAR ¼" BSP	77456-000232
NPG AX 2½" GLC 0-6 BAR ¼" BSP	77456-000233
NPG AX 2½" GLC 0-8 BAR ¼" BSP	77456-000234
NPG AX 2½" GLC 0-10 BAR ¼" BSP	77456-000235
NPG AX 2½" GLC 0-16 BAR ¼" BSP	77456-000236
NPG AX 2½" GLC 0-4 BAR ¼" NPT	77456-000237
NPG AX 2½" GLC 0-6 BAR ¼" NPT	77456-000238
NPG AX 2½" GLC 0-8 BAR ¼" NPT	77456-000239
NPG AX 2½" GLC 0-10 BAR ¼" NPT	77456-000240
Npg ax 2½" glc 0-16 bar ¼" npt	77456-000241



Bottom Inlet Dry Gauge	
NPG 2½" DRY 0-4 BAR ¼" BSP	77456-000100
NPG 2½" DRY 0-6 BAR ¼" BSP	77456-000101
NPG 2½" DRY 0-8 BAR ¼" BSP	77456-000210
NPG 2½" DRY 0-10 BAR ¼" BSP	77456-000103
NPG 2½" DRY 0-16 BAR ¼" BSP	77456-000104
NPG 2½" DRY 0-4 BAR ¼" NPT	77456-000120
NPG 2½" DRY 0-6 BAR ¼" NPT	77456-000121
NPG 2½" DRY 0-8 BAR ¼" NPT	77456-000211
NPG 2½" DRY 0-10 BAR ¼" NPT	77456-000123
NPG 2½" DRY 0-16 BAR ¼" NPT	77456-000124



Rear Inlet Dry Gauge	
NPG AX 2½" DRY 0-4 BAR ¼" BSP	77456-000212
NPG AX 2½" DRY 0-6 BAR ¼" BSP	77456-000213
NPG AX 2½" DRY 0-8 BAR ¼" BSP	77456-000214
NPG AX 2½" DRY 0-10 BAR ¼" BSP	77456-000215
NPG AX 2½" DRY 0-16 BAR ¼" BSP	77456-000216
NPG AX 2½" DRY 0-4 BAR ¼" NPT	77456-000217
NPG AX 2½" DRY 0-6 BAR ¼" NPT	77456-000218
NPG AX 2½" DRY 0-8 BAR ¼" NPT	77456-000219
NPG AX 2½" DRY 0-10 BAR ¼" NPT	77456-000220
NPG AX 2½" DRY 0-16 BAR ¼" NPT	77456-000221



3-Way Selectors

3-Way brass ball valve for hydraulic flow control. Automatic and computerized irrigation systems for agriculture and landscape gardening, filtering, industrial, and domestic water supply systems.



Reliable



Resistant



Ultimate
durability

/ Benefits & Features

- **Versatile connection** The valves have a common port at the base of the valve body. Any of the three peripheral ports can be connected to the common port – the other ports are totally sealed
- **3 control positions** Designed for three hydraulic control positions: Open, Closed, and Automatic
Valves are sealed when handle is in-between port position
- **User friendly** Design allows smooth operation of handle with position indicator
- **Easy viewing** of the operating position

/ Specifications & Recommendations

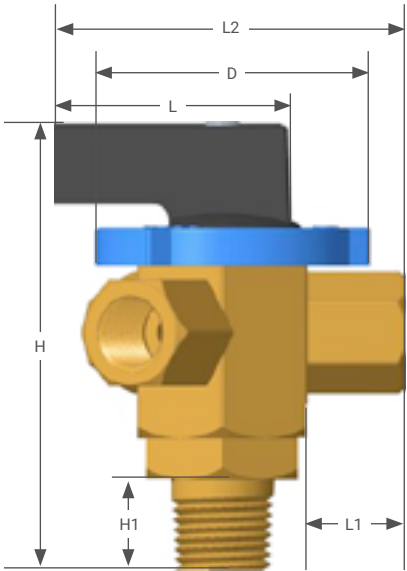
- **Common Port** – At base of the valve body
- **Base Port Thread** – Male threaded 1/4" BSP or NPT
- **Three Threaded Ports** – Female threaded 1/8" BSP or NPT or 1/4" BSP or NPT
- **Passage Size** – 3.5mm
- **Maximum Working Pressure** – 10 bar
- **One moving part only**

→ Packaging Data

Model	Qty. p/box unit	Box sizes (cm x cm x cm)	Box weight (kg)	Boxes p/pallet
¼" MTH - 3 x ⅛" FTH	100	41.0 x 26.5 x 12.0	14.4	64
¼" MTH - 3 x ¼" FTH	40	26.7 x 19.5 x 13.5	9.7	120

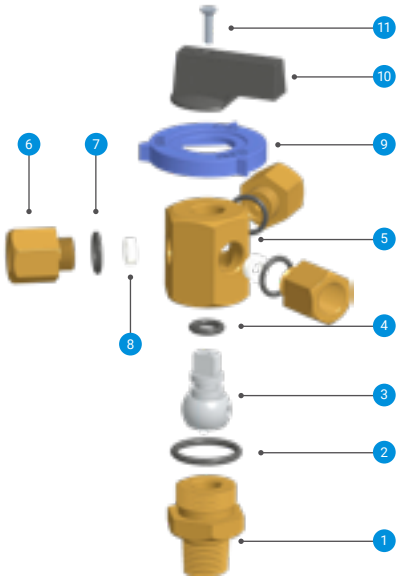
→ Technical Dimensions

size \ nom	D (mm)	L (mm)	L1 (mm)	L2 (mm)	H (mm)	H1 (mm)
¼" MTH - 3 x ⅛" FTH	33.0	43.5	13.0	58.0	53.2	12.0
¼" MTH - 3 x ¼" FTH	42.3	49.0	13.6	67.6	73.2	12.0



→ Material Specification

#	Part Name	Material	Quantity
1	Base	Brass	1
2	Base O-ring	EPDM	1
3	Ball	Nickel-plated brass	1
4	Ball O-ring	EPDM	1
5	Body	Brass	1
6	Nozzle	Brass	3
7	Nozzle O ring	EPDM	3
8	Seal	Teflon (PTFE)	3
9	Body Cover	ABS	1
10	Handle	ABS	1
11	Screw	Stainless steel	1



→ Catalog Numbers

Product Illustration	Product Description	Catalog Number
	NMV BR BALL VLV 3W ¼" MTH ⅛" FTH BSP	77455-000200
	NMV BR BALL VLV 3W ¼" MTH ⅛" FTH NPT	77455 000201
	NMV BR BALL VLV 3W ¼" MTH ¼" FTH BSP	77455 000202
	NMV BR BALL VLV 3W ¼" MTH ¼" FTH NPT	77455 000203
	S.Y-3 1/8F (⅛F X ⅛F X ⅛F)	76040-001650
	S.Y-3 1/8M (⅛F X ⅛F X ⅛F)	76040-001600

Additional Components

Product Illustration	Product Description	Catalog Number
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3-Way Brass Valves

	NMV BR BALL VLV 3W 1/4" MTH 1/8" FTH BSP	77455-000200
	NMV BR BALL VLV 3W 1/4" MTH 1/8" FTH NPT	77455-000201
	NMV BR BALL VLV 3W 1/4" MTH 1/4" FTH BSP	77455-000202
	NMV BR BALL VLV 3W 1/4" MTH 1/4" FTH NPT	77455-000203

Brass Model

	PRESSURE GAUGE VALVE 1/4 SM	76040-001100
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* 1/4" NPT male x female threaded connection

* Max. Working Pressure: 25 Bar

Plastic Model

	NPG 1/4" MTH - FTH BSP VALVE	77456-000180
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* System vibration does not affect the pressure gauge.

* 1/4" BSP or NPT male x female threaded connection

* Max. Working Pressure: 6 Bar

* All parts are chemical/corrosion resistant, color UV stabilized.

Pressure Gauge PITOT Needle

	NPG PITOT NEEDLE 1/4" BSP	77456-000200
	NPG PITOT NEEDLE 1/4" NPT	77456-000201

* 1/4" thread for direct connection to the pressure gauge

* Fits into dedicated measuring points (see below), allowing measuring pressure at any given point along the system.

Pressure Measuring Point

	PRESSURE MEASURING POINT - BARB	63000-002800
	PRESSURE MEASURING POINT - 1/8" BSP	63000-002750

DPR

DIRECT PRESSURE REDUCER



3/4" Angle

1" Straight



High
quality



Ultimate
durability

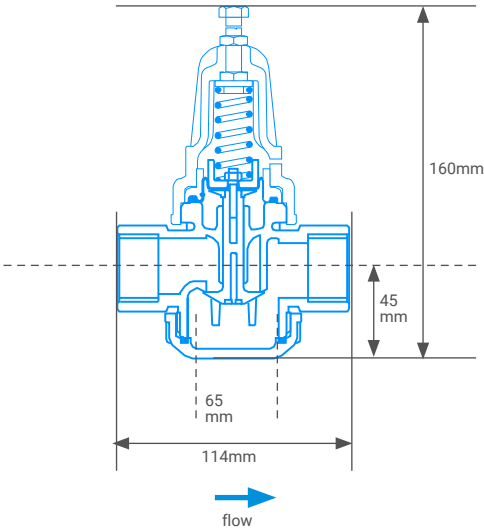
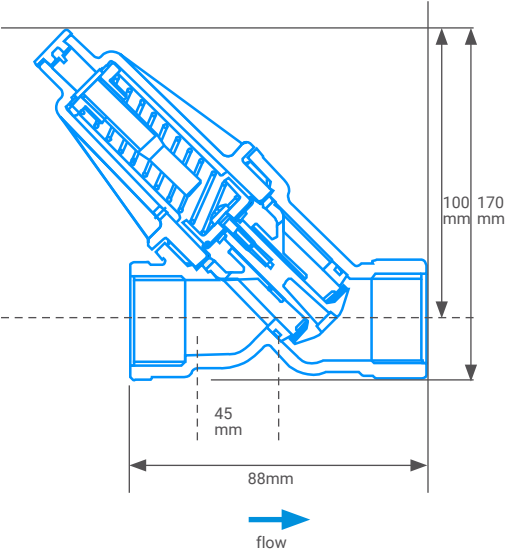


Reliable

/ Specifications & Recommendations

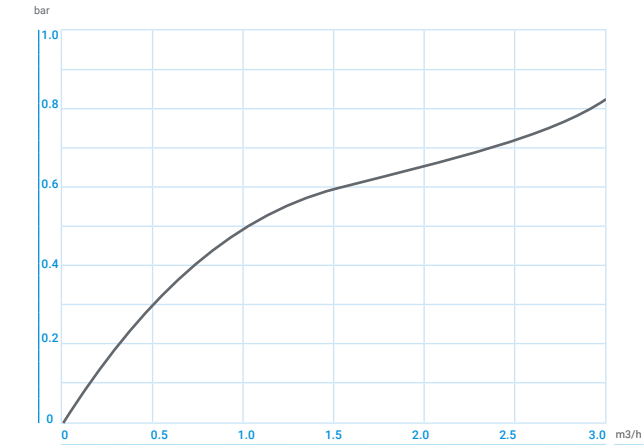
Function	3/4" Angle Model	1" Straight Model
Size	3/4" (DN20), 1" (DN25)	1" (DN25)
End Connections	Threaded Inlet: Female BSP Outlet: Female BSP / male BSP	Female threads, BSP
Flow Range	0.2 - 5m³/h (PRV model) 0.1 - 3m³/h (PRV-05 model)	0.45 - 7m³/h (PRV model) 0.1 - 7m³/h (PRV-05 model)
Pressure Rating	9bar	9bar
Opening Pressure Range	0.7 - 9 bar	0.7 - 9 bar
Weight	0.13kg	0.36kg

→ Technical Dimensions

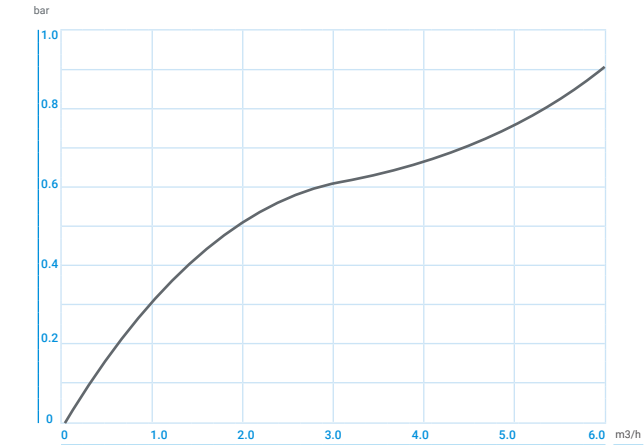


→ Head Loss

3/4" PRV



1" PRV



→ Catalog Numbers

Connection	Size	Flow Grade	Thread Type	Spring Color	Range	Catalog Number
BSP	3/4"	Low flow	Male / female	Yellow	0.5 - 1.2	71000-014650
				White	0.8 - 2.5	71000-014700
			Female / female	Red	2.0 - 3.5	71000-014800
				Yellow	0.5 - 1.2	71000-014850
		Regular flow	Male / female	White	0.8 - 2.5	71000-014900
				Red	2.0 - 3.5	71000-015700
				Black	1.5 - 3.5	71000-015750
				Yellow	0.5 - 1.2	71000-015400
			Female / female	Red	2.0 - 3.5	71000-015500
				White	0.8 - 2.5	71000-015600
				Black	1.5 - 3.5	71000-015650
				Red	2.0 - 3.5	71000-015300
	1"	Low flow		Black	1.5 - 3.5	71000-015320
				White	0.8 - 2.5	71000-015800
		Regular flow	Female / female	Yellow	0.5 - 1.2	71000-016380
				White	0.8 - 2.5	71000-016100
				Red	2.0 - 3.5	71000-016200
				Brown	3.0 - 5.5	71000-016350
				Black	1.5 - 3.5	71000-016000

/ Manual Valves



Precision
Agriculture



Manual Valves Contents

Plastic Valves

True Union Ball Valves.....	86
Dual Union Ball Valves.....	92
Angle Seat Valves.....	95
Butterfly Valves.....	98
Throttle Valves.....	101
Swing Check Valves.....	103
Ball Check Valves.....	105
NR10 Check Valves.....	107
NR10 Check Foot Valves.....	111

Metal Valves

Ball Valves.....	112
Angle Seat Valves.....	114
Butterfly Valves.....	116
Gate Valves.....	119
Check Valves.....	122
"Y" Strainers.....	127

True Union Ball Valves

Physical shut-off, manual restrictions, control or service needs in irrigation head controls, field plots, nurseries, greenhouses, Nutrigation™ systems, water conveyance systems.



High
quality



Ultimate
durability



Reliable

/ Benefits & Features

- **Saves operation costs**
 - A quarter turn shut-off valve, threaded or glued socket, user-friendly design allowing smooth handle operation
 - Corrosion-resistant and UV-stabilized
 - A true union ball valve, specifically designed for water application and for safe pipeline operation
- **Saves labor costs and multiple investments in maintenance**
 - In the closed position, the pipeline can be disconnected downstream from the valve without any leakage
 - The valve is removable from the pipeline, allowing quick maintenance
 - Highly reliable operation and durable over time

/ Specifications & Recommendations

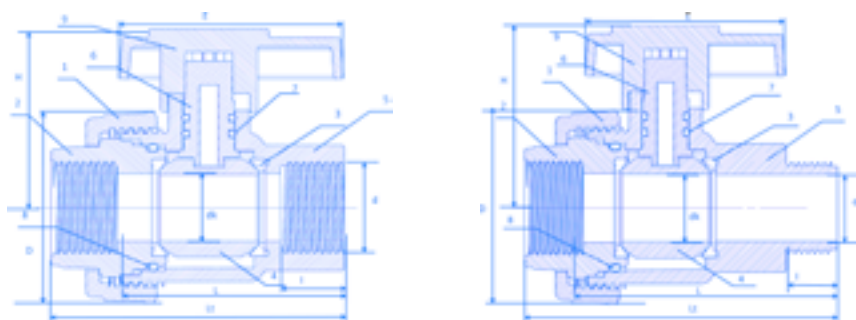
- Ideal for application in temperature range of -5°C and 50°C, guaranteeing optimal performance in terms of mechanical resistance, good rigidity, low coefficients of thermal expansion and optimal safety factors in service
- Operational up to 10 bar
- Low head losses
- Wide range of connections: threaded (BSP or NPT standards) or SG, socket glued (ISO/DIN, ASTM, BS)

→ Packaging Data

Model	Quantity P/Box (Unit)	Box Sizes (cm x cm x cm)	Female-Female Threaded Connection Box Weight (kg)	Male-Female Threaded Connection Box Weight (kg)	Socket Glued Connection Box Weight (kg)	Boxes P/Pallet
½" - 20mm	150	43.0 x 33.0 x 39.0	24.55	26.00	24.70	12
¾" - 25mm	150		22.11	23.83	22.33	
1" - 32mm	75		17.03	17.74	16.84	
1¼" - 40mm	50		17.54	18.09	17.34	
1½" - 50mm	16		10.91	10.58	10.53	
2" - 63mm	8		8.68	8.90	8.52	
2½" - 75 Mm	8		12.08	12.04	11.86	
3" - 90mm	4		15.93	13.09	12.85	
4" - 110mm	2		9.84	9.64	9.84	

→ Technical Dimensions

True Union Ball Valves ½", ¾", 1", 1¼"



Inlet Connector - Threaded Male / Outlet Connector - Threaded Female

size \ nom	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
½"	14.00	14.00	20.00	60.00	16.00	80.20	99.15	60.80	56.50
¾"	14.00	14.00	20.00	60.00	18.00	80.20	99.15	60.80	56.50
1"	11.00	11.50	24.50	69.00	17.70	89.00	110.40	71.00	66.45
1¼"	11.00	11.50	31.80	79.50	25.70	88.00	122.80	105.00	70.30

Inlet Connector - Threaded Female / Outlet Connector - Threaded Female

size \ nom	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
½"	14.00	14.00	20.00	60.00	16.00	63.50	82.60	60.80	56.50
¾"	14.00	14.00	20.00	60.00	18.00	63.50	82.60	60.80	55.50
1"	11.00	11.50	24.50	69.00	19.55	70.50	93.00	71.00	66.45
1¼"	11.00	11.50	31.80	79.50	27.40	88.00	122.80	105.00	70.30

Inlet Connector - Socket Glued / Outlet Connector - Socket Glued

size \ nom	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
20mm	20.20	20.20	20.00	60.00	16.00	63.50	82.60	60.80	56.60
25mm	25.00	25.00	20.00	60.00	18.00	63.50	82.60	60.80	55.60
32mm	32.00	32.00	24.50	69.00	19.55	70.50	93.00	71.00	66.45
40mm	40.00	40.00	31.80	79.50	27.40	88.00	122.80	105.00	70.30

Inlet Connector - Socket Glued / Outlet Connector - Socket Glued

size \ nom	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
½"	21.20	21.40	20.00	60.00	18.00	63.50	82.60	60.80	55.60
¾"	26.67	26.00	20.00	60.00	18.00	63.50	82.60	60.80	55.60
1"	33.40	34.00	24.50	69.00	19.55	70.50	93.00	71.00	66.45
1¼"	42.16	42.00	31.80	79.50	27.40	88.00	122.80	105.00	70.30

→ Material Specifications

PVC Ball Valves ½", ¾", 1", 1¼"

#	Part Name	Material	Qty.
1	Ring	UPVC	1
2	Bush**	UPVC	1
3	Seal	TPE	2
4	Ball	UPVC	1
5	Body	UPVC	1
6	Shaft	UPVC	1
7	Shaft o-ring	HNBR	2
8	Main o-ring**	HNBR	1
9	Handle	ABS	1
10	Threaded bush*	UPVC	1
11	Bush big o-ring*	HNBR	1
12	Bush small o-ring*	HNBR	1
13	Socket*	UPVC	1

* 1¼" Ball Valve

** ¾" Ball Valve

→ Material Specifications

Polypropylene Ball Valves ½", ¾", 1", 1¼"

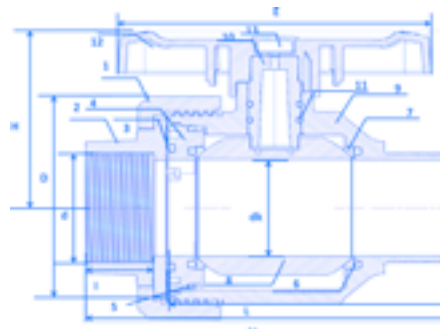
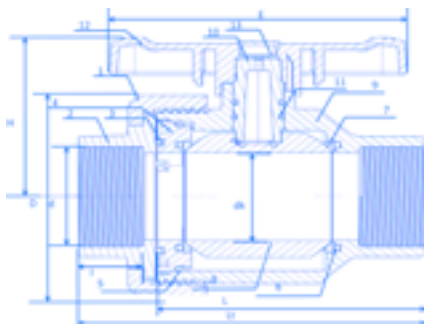
#	Part Name	Material	Qty.
1	Ring	UPVC	1
2	Bush**	UPVC	1
3	Seal	TPE	2
4	Ball	UPVC	1
5	Body	UPVC	1
6	Shaft	UPVC	1
7	Shaft o-ring	HNBR	2
8	Main o-ring**	HNBR	1
9	Handle	ABS	1

* 1¼" Ball valve

** ¾" Ball valve

→ Technical Dimensions

True Union Ball Valves 1½", 2", 2½", 3"



→ Material Specifications

PVC Ball Valves 1½", 2", 2½", 3"

Inlet - Threaded Male / Outlet Connector - Threaded Female

size \ nom	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
1½"	11.00	11.50	39.40	94.40	32.00	98.50	136.60	121.00	90.80
2"	11.00	11.50	49.50	116.00	35.40	119.00	164.80	150.00	97.00
2½"	11.00	8.00	59.00	131.60	45.50	139.50	197.20	162.00	110.00
3"	11.00	8.00	76.00	178.80	42.80	180.00	230.40	200.40	139.00

#	Part Name	Material	Qty.
1	Ring	UPVC	1
2	Socket	UPVC	1
3	Bush small o-ring	HNBR	1
4	Bush	UPVC	1
5	Bush big o-ring	HNBR	1
6	Seal washer*	HNBR	2
7	Seal	TPE	2
8	Ball	UPVC	1
9	Body	UPVC	1
10	Shaft	UPVC	1
11	Shaft o-ring**	HNBR	1
12	Handle	ABS	1
13	Handle logo	ABS	1

* 3" Ball valve

** 2" Model

→ Material Specifications

Polypropylene Ball Valves 1½", 2", 2½", 3"

Inlet Connector - Socket Glued / Outlet Connector - Socket Glued

size \ nom	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
50mm	50.00	50.00	39.40	94.40	32.00	76.60	148.80	121.00	88.30
63mm	63.00	63.00	49.50	116.00	35.40	88.00	175.40	150.00	97.00
75mm	75.00	75.00	59.00	131.60	45.50	140.85	195.40	162.00	110.00
90mm	90.00	90.00	76.00	178.80	42.80	178.10	250.00	200.40	139.00

#	Part Name	Material	Qty.
1	Ring	PPGF	1
2	Socket	***UPVC /PPGF	1
3	Bush small o-ring	HNBR	1
4	Bush	UPVC	1
5	Bush big o-ring	HNBR	1
6	*Seal washer	HNBR	2
7	Seal	TPE	2
8	Ball	UPVC	1
9	Body	PPGF	1
10	Shaft	UPVC	1
11	Shaft o-ring	HNBR	**2
12	Handle	PPGF	1
13	Handle logo	PPGF	1

* Only in 3" Ball valve, ** one in 2" Model

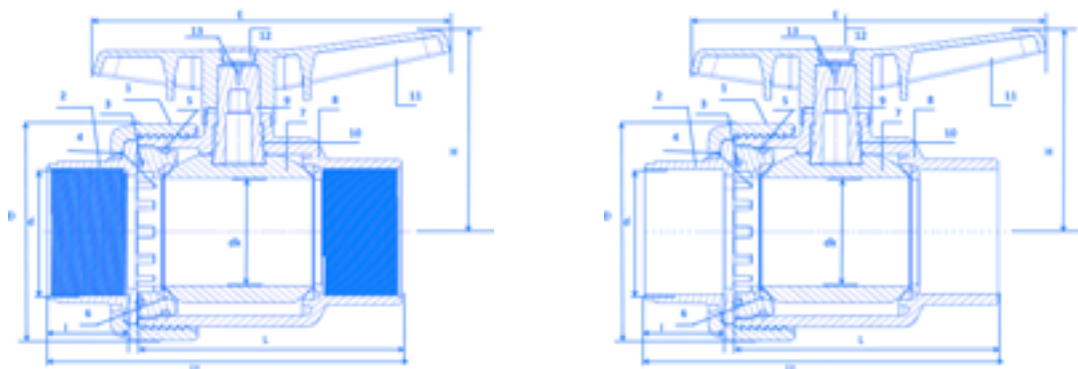
*** UPVC for solvent socket and PPGF for Threaded socket

Inlet Connector - Socket Glued / Outlet Connector - Socket Glued

size \ nom	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
1½"	48.26	48.00	39.40	94.40	32.00	76.60	148.80	121.00	88.30
2"	60.33	60.00	49.50	116.00	35.40	88.00	175.40	150.00	97.00
2½"	73.03	75.00	59.00	131.60	45.50	140.85	195.40	162.00	110.00
3"	88.90	89.00	76.00	178.80	42.80	178.10	250.00	200.40	139.00

→ Technical Dimensions

True Union Ball Valves 4"



Inlet Connector - Threaded Male / Outlet Connector - Threaded Female

nom size	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
4"	11.00	8.00	98.30	197.00	60.00	200.00	268.00	270.10	186.00

Inlet Connector - Threaded Female / Outlet Connector - Threaded Female

nom size	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
4"	11.00	8.00	98.30	197.00	60.00	200.00	268.00	270.10	186.00

Inlet Connector - Socket Glued / Outlet Connector - Socket Glued

nom size	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
110mm	110.00	110.00	98.30	196.50	60.00	200.00	268.00	270.10	186.00

Inlet Connector - Socket Glued / Outlet Connector - Socket Glued

nom size	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
4"	114.30	114.00	98.30	196.50	60.00	200.00	268.00	270.10	186.00

→ Material Specifications

PVC Ball Valves 4"

#	Part Name	Material	Qty.
1	Ring	UPVC	1
2	Socket	UPVC	1
3	Bush small o-ring	HNBR	1
4	Bush	UPVC	1
5	Bush big o-ring	HNBR	1
6	Seal	TPE	2
7	Ball	UPVC	1
8	Body	UPVC	1
9	Shaft	UPVC	1
10	Shaft o-ring	HNBR	3
11	Handle	ABS	1
12	Handle logo	ABS	1

→ Material Specifications

Polypropylene Ball Valves 4"

#	Part Name	Material	Qty.
1	Ring	PPGF	1
2	Socket	***UPVC /PPGF	1
3	Bush small o-ring	NBR	1
4	Bush	UPVC	1
5	Bush big o-ring	NBR	1
6	Seal	TPE	2
7	Ball	UPVC	1
8	Body	PPGF	1
9	Shaft	UPVC	1
10	Shaft o-ring	NBR	3
11	Handle	PPGF	1
12	Handle logo	PPGF	1
13	Handle screw	SS	1

*** UPVC for solvent socket and PPGF for Threaded socket

→ Catalog Numbers

True Union Ball Valves

Description	Cat. Number
NMV PVC BALL VLV 1 UNION ½" FFT BSP	77450-000216
NMV PVC BALL VLV 1 UNION ¾" FFT BSP	77450-000100
NMV PVC BALL VLV 1 UNION 1" FFT BSP	77450-000101
NMV PVC BALL VLV 1 UNION 1¼" FFT BSP	77450-000102
NMV PVC BALL VLV 1 UNION 1½" FFT BSP	77450-000103
NMV PVC BALL VLV 1 UNION 2" FFT BSP	77450-000104
NMV PVC BALL VLV 1 UNION 2½" FFT BSP	77450-000105
NMV PVC BALL VLV 1 UNION 3" FFT BSP	77450-000106
NMV PVC BALL VLV 1 UNION 4" FFT BSP	77450-000107
NMV PVC BALL VLV 1 UNION ½" FFT NPT	77450-000217
NMV PVC BALL VLV 1 UNION ¾" FFT NPT	77450-000208
NMV PVC BALL VLV 1 UNION 1" FFT NPT	77450-000209
NMV PVC BALL VLV 1 UNION 1¼" FFT NPT	77450-000210
NMV PVC BALL VLV 1 UNION 1½" FFT NPT	77450-000211
NMV PVC BALL VLV 1 UNION 2" FFT NPT	77450-000212
NMV PVC BALL VLV 1 UNION 2½" FFT NPT	77450-000213
NMV PVC BALL VLV 1 UNION 3" FFT NPT	77450-000214
NMV PVC BALL VLV 1 UNION 4" FFT NPT	77450-000215
NMV PVC BALL VLV 1 UNION ½" FMT BSP	77450-000218
NMV PVC BALL VLV 1 UNION ¾" FMT BSP	77450-000120
NMV PVC BALL VLV 1 UNION 1" FMT BSP	77450-000121
NMV PVC BALL VLV 1 UNION 1¼" FMT BSP	77450-000122
NMV PVC BALL VLV 1 UNION 1½" FMT BSP	77450-000123
NMV PVC BALL VLV 1 UNION 2" FMT BSP	77450-000124
NMV PVC BALL VLV 1 UNION 2½" FMT BSP	77450-000125
NMV PVC BALL VLV 1 UNION 3" FMT BSP	77450-000126
NMV PVC BALL VLV 1 UNION 4" FMT BSP	77450-000127
NMV PVC BALL VLV 1 UNION ½" FMT NPT	77450-000219
NMV PVC BALL VLV 1 UNION ¾" FMT NPT	77450-000149
NMV PVC BALL VLV 1 UNION 1" FMT NPT	77450-000150
NMV PVC BALL VLV 1 UNION 1¼" FMT NPT	77450-000152
NMV PVC BALL VLV 1 UNION 1½" FMT NPT	77450-000153
NMV PVC BALL VLV 1 UNION 2" FMT NPT	77450-000151
NMV PVC BALL VLV 1 UNION 2½" FMT NPT	77450-000154
NMV PVC BALL VLV 1 UNION 3" FMT NPT	77450-000155
NMV PVC BALL VLV 1 UNION 4" FMT NPT	77450-000156

Description	Cat. Number
NMV PVC BALL VLV 1 UNION 20MM SG ISO/D	77450-000220
NMV PVC BALL VLV 1 UNION 25MM SG ISO/D	77450-000200
NMV PVC BALL VLV 1 UNION 32MM SG ISO/D	77450-000201
NMV PVC BALL VLV 1 UNION 40MM SG ISO/D	77450-000202
NMV PVC BALL VLV 1 UNION 50MM SG ISO/D	77450-000203
NMV PVC BALL VLV 1 UNION 63MM SG ISO/D	77450-000204
NMV PVC BALL VLV 1 UNION 75MM SG ISO/D	77450-000205
NMV PVC BALL VLV 1 UNION 90MM SG ISO/D	77450-000206
NMV PVC BALL VLV 1 UNION 110MM SG ISO/D	77450-000207
NMV PVC BALL VLV 1 UNION ½" SG BS	77450-000221
NMV PVC BALL VLV 1 UNION ¾" SG BS	77450-000360
NMV PVC BALL VLV 1 UNION 1" SG BS	77450-000361
NMV PVC BALL VLV 1 UNION 1¼" SG BS	77450-000362
NMV PVC BALL VLV 1 UNION 1½" SG BS	77450-000108
NMV PVC BALL VLV 1 UNION 2" SG BS	77450-000350
NMV PVC BALL VLV 1 UNION 2½" SG BS	77450-000109
NMV PVC BALL VLV 1 UNION 3" SG BS	77450-000110
NMV PVC BALL VLV 1 UNION 4" SG BS	77450-000367
NMV PVC BALL VLV 1 UNION ½" SG ASTM	77450-000380
NMV PVC BALL VLV 1 UNION ¾" SG ASTM	77450-000381
NMV PVC BALL VLV 1 UNION 1" SG ASTM	77450-000382
NMV PVC BALL VLV 1 UNION 1¼" SG ASTM	77450-000383
NMV PVC BALL VLV 1 UNION 1½" SG ASTM	77450-000384
NMV PVC BALL VLV 1 UNION 2" SG ASTM	77450-000385
NMV PVC BALL VLV 1 UNION 2½" SG ASTM	77450-000386
NMV PVC BALL VLV 1 UNION 3" SG ASTM	77450-000387
NMV PVC BALL VLV 1 UNION 4" SG ASTM	77450-000388

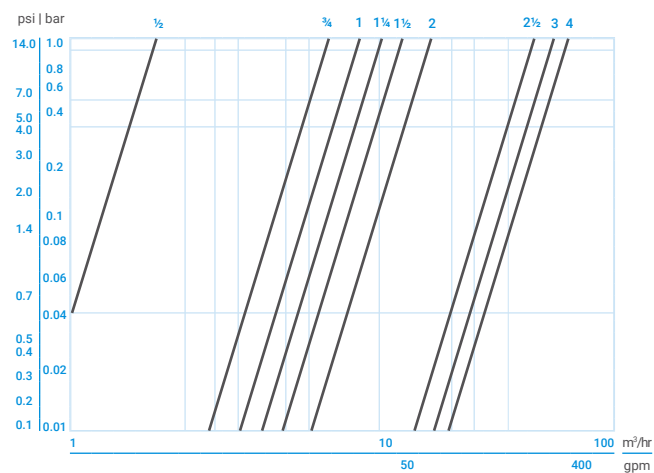
→ Catalog Numbers

Polypropylene True Union Ball Valves

Description	Cat. Number
NMV PP BALL VLV 1 UNION ¾" FFT BSP	77449-000101
NMV PP BALL VLV 1 UNION 1" FFT BSP	77449-000102
NMV PP BALL VLV 1 UNION 1¼" FFT BSP	77449-000103
NMV PP BALL VLV 1 UNION 1½" FFT BSP	77449-000104
NMV PP BALL VLV 1 UNION 2" FFT BSP	77449-000105
NMV PP BALL VLV 1 UNION 2½" FFT BSP	77449-000106
NMV PP BALL VLV 1 UNION 3" FFT BSP	77449-000107
NMV PP BALL VLV 1 UNION 4" FFT BSP	77449-000108
NMV PP BALL VLV 1 UNION ¾" FFT NPT	77449-000131
NMV PP BALL VLV 1 UNION 1" FFT NPT	77449-000132
NMV PP BALL VLV 1 UNION 1¼" FFT NPT	77449-000133
NMV PP BALL VLV 1 UNION 1½" FFT NPT	77449-000134
NMV PP BALL VLV 1 UNION 2" FFT NPT	77449-000135
NMV PP BALL VLV 1 UNION 2½" FFT NPT	77449-000136
NMV PP BALL VLV 1 UNION 3" FFT NPT	77449-000137
NMV PP BALL VLV 1 UNION 4" FFT NPT	77449-000138
NMV PP BALL VLV 1 UNION ¾" FMT BSP	77449-000151
NMV PP BALL VLV 1 UNION 1" FMT BSP	77449-000152
NMV PP BALL VLV 1 UNION 1¼" FMT BSP	77449-000153
NMV PP BALL VLV 1 UNION 1½" FMT BSP	77449-000154
NMV PP BALL VLV 1 UNION 2" FMT BSP	77449-000155
NMV PP BALL VLV 1 UNION 2½" FMT BSP	77449-000156
NMV PP BALL VLV 1 UNION 3" FMT BSP	77449-000157
NMV PP BALL VLV 1 UNION 4" FMT BSP	77449-000158
NMV PP BALL VLV 1 UNION ¾" FMT NPT	77449-000171
NMV PP BALL VLV 1 UNION 1" FMT NPT	77449-000172
NMV PP BALL VLV 1 UNION 1¼" FMT NPT	77449-000173
NMV PP BALL VLV 1 UNION 1½" FMT NPT	77449-000174
NMV PP BALL VLV 1 UNION 2" FMT NPT	77449-000175
NMV PP BALL VLV 1 UNION 2½" FMT NPT	77449-000176
NMV PP BALL VLV 1 UNION 3" FMT NPT	77449-000177
NMV PP BALL VLV 1 UNION 4" FMT NPT	77449-000178

Description	Cat. Number
NMV PP BALL VLV 1 UNION 25MM SG ISO/D	77449-000201
NMV PP BALL VLV 1 UNION 32MM SG ISO/D	77449-000202
NMV PP BALL VLV 1 UNION 40MM SG ISO/D	77449-000203
NMV PP BALL VLV 1 UNION 50MM SG ISO/D	77449-000204
NMV PP BALL VLV 1 UNION 63MM SG ISO/D	77449-000205
NMV PP BALL VLV 1 UNION 75MM SG ISO/D	77449-000206
NMV PP BALL VLV 1 UNION 90MM SG ISO/D	77449-000207
NMV PP BALL VLV 1 UNION 110MM SG ISO/D	77449-000208
NMV PP BALL VLV 1 UNION ¾" SG ASTM	77449-000221
NMV PP BALL VLV 1 UNION 1" SG ASTM	77449-000222
NMV PP BALL VLV 1 UNION 1¼" SG ASTM	77449-000223
NMV PP BALL VLV 1 UNION 1½" SG ASTM	77449-000224
NMV PP BALL VLV 1 UNION 2" SG ASTM	77449-000225
NMV PP BALL VLV 1 UNION 2½" SG ASTM	77449-000226
NMV PP BALL VLV 1 UNION 3" SG ASTM	77449-000227
NMV PP BALL VLV 1 UNION 4" SG ASTM	77449-000228
NMV PP BALL VLV 1 UNION ¾" SG BS	77449-000241
NMV PP BALL VLV 1 UNION 1" SG BS	77449-000242
NMV PP BALL VLV 1 UNION 1¼" SG BS	77449-000243
NMV PP BALL VLV 1 UNION 1½" SG BS	77449-000244
NMV PP BALL VLV 1 UNION 2" SG BS	77449-000245
NMV PP BALL VLV 1 UNION 2½" SG BS	77449-000246
NMV PP BALL VLV 1 UNION 3" SG BS	77449-000247
NMV PP BALL VLV 1 UNION 4" SG BS	77449-000248

→ Head Loss



Dual Union Ball Valves

Physical shut-off, manual restrictions, control or service needs in irrigation head controls, field plots, nurseries, greenhouses, Nutrigation™ systems, water conveyance systems.



High
quality



Ultimate
durability



Reliable

/ Benefits & Features

- **Saves operation costs**
 - A quarter turn shut-off valve, threaded or glued socket, user-friendly design allowing smooth handle operation
 - Corrosion-resistant and UV-stabilized
 - A true union ball valve, specifically designed for water application and for safe pipeline operation
- **Saves labor costs and multiple investments in maintenance**
 - In the closed position, the pipeline can be disconnected downstream from the valve without any leakage
 - The valve is removable from the pipeline, allowing quick maintenance
 - Highly reliable operation and durable over time

/ Specifications & Recommendations

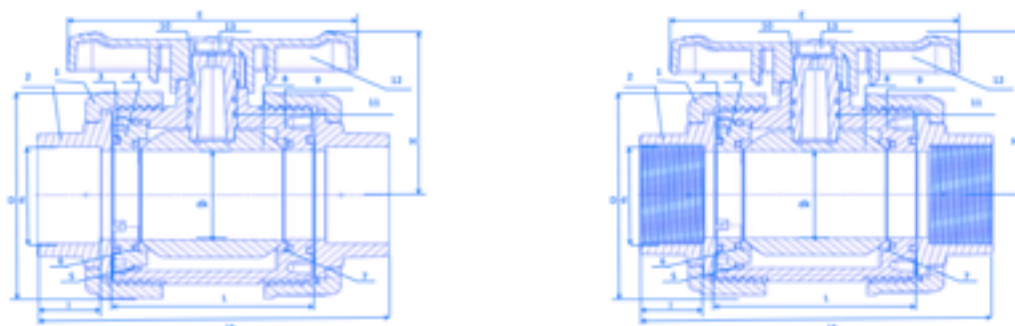
- Ideal for application in temperature range of -5°C and 50°C, guaranteeing optimal performance in terms of mechanical resistance, good rigidity, low coefficients of thermal expansion and optimal safety factors in service
- Operational up to 10bar
- Low head losses
- Wide range of connections: threaded (BSP or NPT standards) or SG, socket glued (ISO/DIN, ASTM, BS)

→ Packaging Data

Model	Quantity P/Box (unit)	Box Sizes (cm x cm x cm)	Female-Female Thd Conn. Box Weight (kg)	Socket Glued Conn. Box Weight (kg)	Boxes P/Pallet
1" - 32mm	75	43.0 x 33.0 x 39.0	21.98	21.49	12
1½" - 50mm	16	43.0 x 33.0 x 39.0	13.30	12.83	
2" - 63mm	8	43.0 x 33.0 x 39.0	10.93	10.62	
2½" - 75mm	8	43.0 x 33.0 x 44.5	14.84	14.60	
3" - 90mm	4	43.0 x 33.0 x 39.0	15.69	15.55	

→ Technical Dimensions

Dual Union Ball Valves 1", 1½", 2", 2½", 3"



→ Material Specifications

Dual Union Ball Valves 1", 1½", 2", 2½", 3"

#	Part Name	Material	Qty.
1	Ring	UPVC	2
2	Socket	UPVC	2
3	Bush small o-ring	HNBR	2
4	Bush	UPVC	1
5	Bush big o-ring	HNBR	1
6	Seal washer*	HNBR	2
7	Seal	TPE	2
8	Ball	UPVC	1
9	Body	UPVC	1
10	Shaft	UPVC	1
11	Shaft o-ring	HNBR	2**
12	Handle	ABS	1
13	Handle logo	ABS	1

* Only in 3" valve

** One in 2" valve

Inlet Connector - Female Threaded / Outlet Connector - Female Threaded

size \ nom	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
1"	11.00	11.50	24.50	69.00	20.20	55.50	112.60	71.00	66.50
1½"	11.00	11.50	39.50	94.40	32.00	73.25	149.60	121.00	88.30
2"	11.00	11.50	49.50	116.00	35.40	84.20	177.40	150.00	97.00
2½"	11.00	8.00	59.00	131.60	45.50	100.00	212.10	162.00	107.50
3"	11.00	8.00	76.00	178.80	42.80	138.10	241.10	200.40	140.00

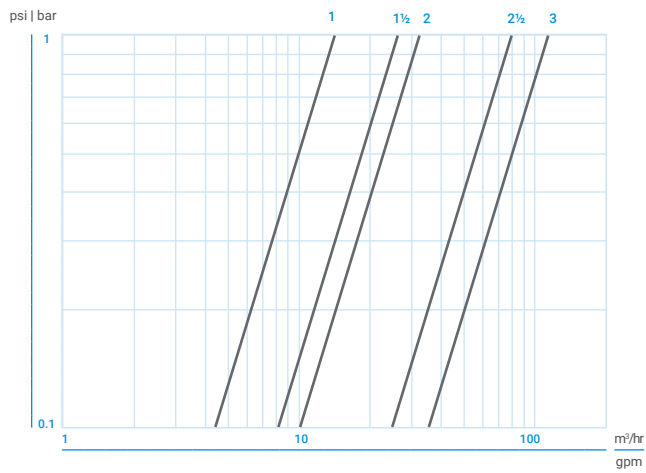
Inlet Connector - Socket Glued / Outlet Connector - Socket Glued

size \ nom	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
32mm	32.00	32.00	24.50	69.00	20.20	55.50	110.00	71.00	66.50
50mm	50.00	50.00	39.50	94.40	32.00	73.25	149.60	121.00	88.30
63mm	63.00	63.00	49.50	116.00	35.40	84.20	177.40	150.00	97.00
75mm	75.00	75.00	59.00	131.60	45.50	100.00	212.10	162.00	107.50
90mm	90.00	90.00	76.00	178.80	42.80	138.10	241.10	200.40	140.00

Inlet Connector - Socket Glued / Outlet Connector - Socket Glued

size \ nom	BSP (TPI)	NPT (TPI)	DK (mm)	D (mm)	I (mm)	L (mm)	LT (mm)	E (mm)	H (mm)
1"	33.40	34.00	24.50	69.00	20.20	55.50	110.00	71.00	66.50
1½"	48.26	48.00	39.50	94.40	32.00	73.25	149.60	121.00	88.30
2"	60.33	60.00	49.50	116.00	35.40	84.20	177.40	150.00	97.00
2½"	73.03	75.00	59.00	131.60	45.50	100.00	212.10	162.00	107.50
3"	88.90	89.00	76.00	178.80	42.80	138.10	241.10	200.40	140.00

→ Head Loss



→ Catalog Numbers

Description	Catalog Number
NMV PVC BALL VLV 2 UNION 1" FFT BSP	77451-000150
NMV PVC BALL VLV 2 UNION 1½" FFT BSP	77451-000152
NMV PVC BALL VLV 2 UNION 2" FFT BSP	77451-000153
NMV PVC BALL VLV 2 UNION 2½" FFT BSP	77451-000154
NMV PVC BALL VLV 2 UNION 3" FFT BSP	77451-000155
NMV PVC BALL VLV 2 UNION 32MM SG ISO/D	77451-000200
NMV PVC BALL VLV 2 UNION 50MM SG ISO/D	77451-000202
NMV PVC BALL VLV 2 UNION 63MM SG ISO/D	77451-000203
NMV PVC BALL VLV 2 UNION 75MM SG ISO/D	77451-000204
NMV PVC BALL VLV 2 UNION 90MM SG ISO/D	77451-000205
NMV PVC BALL VLV 2 UNION 1" FFT NPT	77451-000220
NMV PVC BALL VLV 2 UNION 1½" FFT NPT	77451-000221
NMV PVC BALL VLV 2 UNION 2" FFT NPT	77451-000222
NMV PVC BALL VLV 2 UNION 2½" FFT NPT	77451-000223
NMV PVC BALL VLV 2 UNION 3" FFT NPT	77451-000224
MV PVC BALL VLV 2 UNION 1" SG ASTM	77451-000250
NMV PVC BALL VLV 2 UNION 1½" SG ASTM	77451-000251
NMV PVC BALL VLV 2 UNION 2" SG ASTM	77451-000252
NMV PVC BALL VLV 2 UNION 2½" SG ASTM	77451-000253
NMV PVC BALL VLV 2 UNION 3" SG ASTM	77451-000254

Angle Seat Valves

ACTUATED PISTON VALVES

The piston actuator provides a linear motion to lift the seal off its seat.



High
quality



Ultimate
durability



Reliable

/ Benefits & Features

- **Excellent flow rate** The flow is minimally impeded in the open position, resulting in an excellent flow rate and a low pressure loss
- **Sturdy** Solid design
- **Multi-turn linear motion throttling valve**
- **Durable** Engineering plastic raw material used for strength and durability
- **Easy maintenance** Easy to open and clean when used in underground valve box
- **Smooth movement** using throttling wheel, makes the user operate the valve easily
- **No leakage** within operating pressure range, when valve completely shut off
Direction of flow mentioned
- **Versatile** Can be installed in horizontal and vertical lines
- **No vibration** Not water hammering when operated
- **Less turbulence** during throttling
- **Strong** Chemical / Corrosion-resistant and UV-protected

/ Specifications & Recommendations

- Operating Pressure Range – up to 10bars (PN10)
- High-strength polypropylene
- 2" BSP or NPT male threaded
- Manual, hand operated
- Recommended Flow – up to 50m³/h
- High-quality nitrile seal

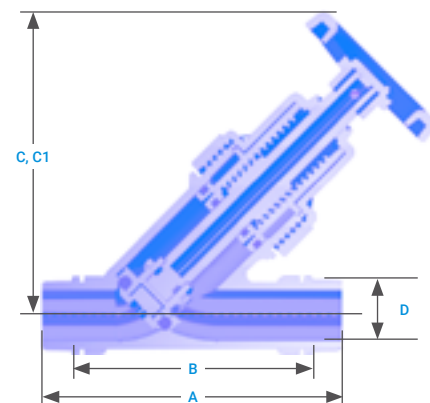
→ Technical Dimensions

Inlet - Threaded Male / Outlet Connector - Threaded Male

Size	Nom	BSP (TPI)	NPT (TPI)	A (mm)	B (mm)	C* (mm)	C1** (mm)
2"		11.00	11.50	252.0	200.0	254.0	292.0

* When valve is fully closed

** When valve is fully opened



→ Packaging Data

Model	Quantity Per Box (unit)	Box Sizes (cm x cm x cm)	Box Weight (kg)	Boxes Per Pallet
2"	2	39.5 x 36.5 x 14.5	2.8	63

→ Material Specifications

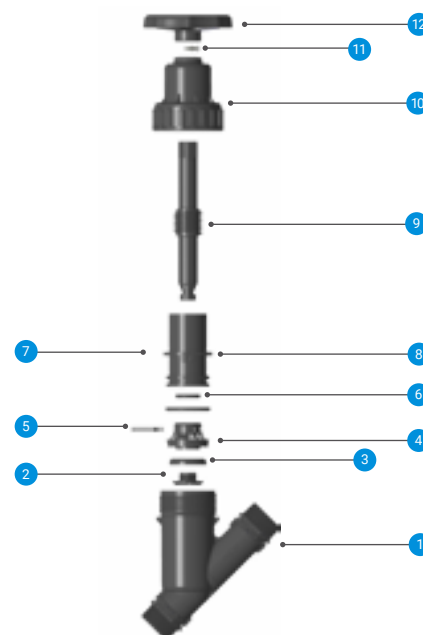
Standard Version

#	Part Name	Material	Qty.
1	Body	PP	1
2	Seal cup lock	PP	1
3	Seal	NBR	1
4	Seal cup	PP	1
5	Lock clip	PP	1
6	Stem housing O-ring (outer)	NBR	1
7	Stem housing O-ring (inner)	NBR	1
8	Stem housing	PP	1
9	Shaft	PP	1
10	Cap	PP	1
11	Lock pin	PP	1
12	Throttle wheel (purple color)	PP	1

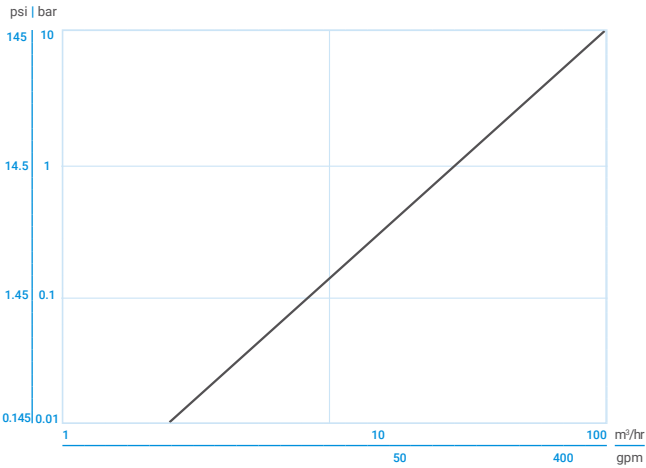
"Viton" Version

#	Part Name	Material	Qty.
1	Body	PP	1
2	Seal cup lock	PP	1
3	Seal	VITON	1
4	Seal cup	PP	1
5	Lock clip	PP	1
6	Stem housing O-ring (outer)	VITON	1
7	Stem housing O-ring (inner)	VITON	1
8	Stem housing	PP	1
9	Shaft	PP	1
10	Cap	PP	1
11	Lock pin	PP	1
12	Throttle wheel (purple color)	PP	1

PP = Polypropylene



→ Head Loss



→ Catalog Numbers

Product Illustration	Product Description	Catalog Number
	NMV PP ANGLE SEAT "Y" 2" BSP	77457-000100
	NMV PP ANGLE SEAT "Y" 2" NPT	77457-000101
	NMV PP ANGLE SEAT "Y" 2" BSP VITON	77457-000102
	NMV PP ANGLE SEAT "Y" 2" NPT VITON	77457-000103

Butterfly Valves

Physical shut-off, manual restrictions, control or service needs in irrigation head controls, field plots, nurseries, greenhouses, water conveyance systems.



Resistant



Ultimate
durability



Easy
installation

/ Benefits & Features

→ Saves operation costs

A quarter turn shut-off valve, user-friendly design allowing smooth handle operation

Corrosion-resistant and UV-stabilized

Lightweight and very easy to install between two flanges, at any position, saves labor costs and multiple investments in maintenance

Highly reliable operation and durable over time

/ Specifications & Recommendations

- For shutting off or manually regulating flow. Specifically designed for water and irrigation systems applications
- Ergonomic multifunctional handle enabling quick operation, with 15° adjustment graduations
- Drilling pattern with oval slots allowing coupling to flanges and complying with numerous international standards
- Can also be installed as an end line valve, bottom discharge valve or tank dump valve
- Operational up to 10bar

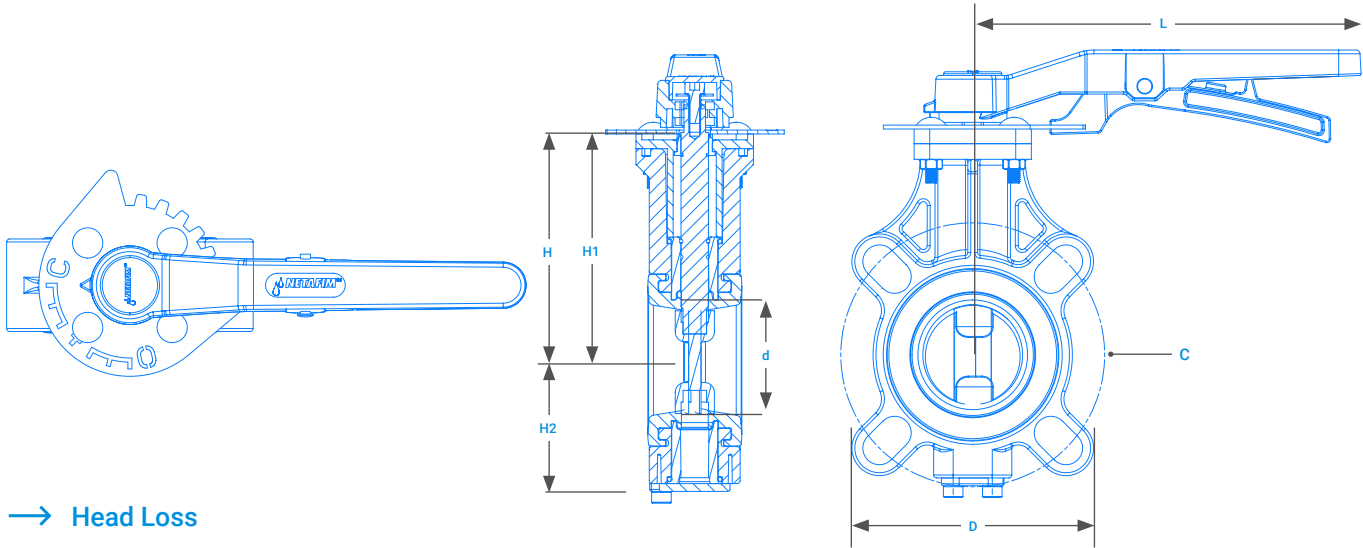
- Low torque required to activate the valve under pressure, due to low-friction stem bushing
- PVC resins feature high value material strength and extremely long lifetime
- Low head losses
- One-piece body made of PVC-U
- Disc is designed to ensure low torque and low head loss
- Suitable for piping in a limited space: 46mm (models 2", 2½", 3") and 56mm (model 4")

→ Packaging Data

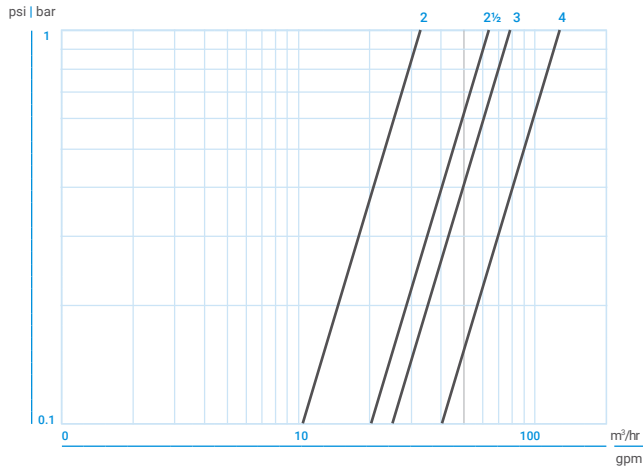
Model	QuantityP/Box (unit)	Box Sizes (cm x cm x cm)	Box Weight (kg)	Boxes P/Pallet
2"	2	39.5 x 28.5 x 13.0	2.98	48
2½"			3.40	
3"			3.73	
4"		40.0 x 37.5 x 13.5	5.79	30

→ Technical Dimensions

Mode Part	2"	2½"	3"	4"
d	50	65	80	100
D	117	112	128	162
H1	130	134	144	152
H2	71	88	91	106
H	165	174	182	197
L	198.5	198.5	198.5	279.0
C (POD)	120.8	137.5	155.5	183.0



→ Head Loss

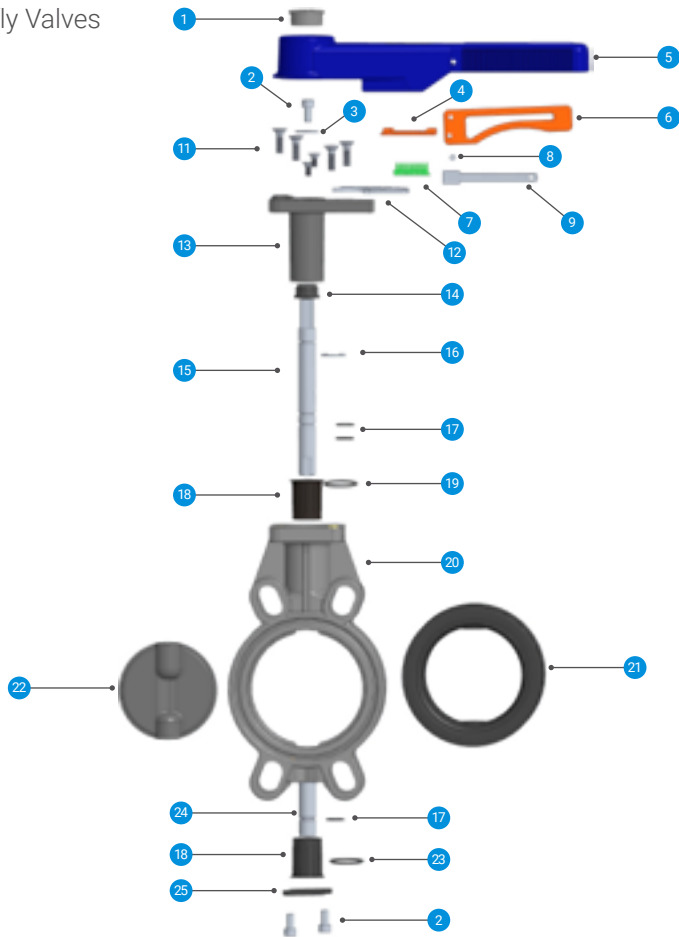


→ Catalog Numbers

Product Description	Catalog Number
NMV PVC B.FLY VLV 2" 4 S BTW FLNG	77452-000100
NMV PVC B.FLY VLV 2½" 4 S BTW FLNG	77452-000101
NMV PVC B.FLY VLV 3" 4 S BTW FLNG	77452-000102
NMV PVC B.FLY VLV 4" 4/8 S BTW FLNG	77452-000103

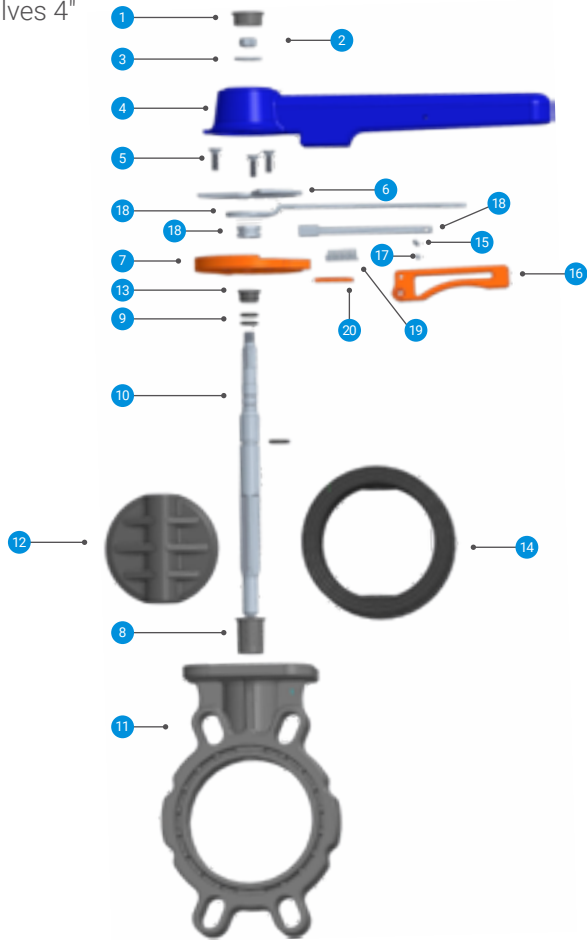
→ Material Specification

PVC Butterfly Valves
2", 2½", 3"



#	Part Name	Material
1	Logo cap	ABS
2	Allen screw	SS304
3	Handle washer	SS304
4	Handle dowel	SS304/316
5	Handle	PPGF
6	Lever	ABS
7	Spring	SS304/316
8	Lever pin	SS304/316
9	Lever patti	SS304/316
10	Spring cover	PPGF
11	Csk screw	SS304/316
12	Cutch plate	SS304/316
13	Sleeve	PVC
14	Locking bush	MOS2
15	Big shaft	SS304/316
16	E-ring	SS304/316
17	Shaft O-ring	NBR
18	Big bush	MOS2
19	Bush O-ring	NBR
20	Body	PVC
21	Seal	EPDM
22	Disc	SS304/316
23	Bush O-ring	NBR
24	Small shaft	SS304
25	Base plate	POM

PVC Butterfly Valves 4"



#	Part Name	Material
1	Logo cap	ABS
2	Hex bolt	SS304
3	Handle washer	SS304
4	Handle	ABS
5	Csk bolt	SS304/316
6	Clutch plate	SS304/316
7	Handle guider	ABS
8	Big bush	MOS2
9	Shaft O-ring	NBR
10	Shaft	SS304/316
11	Body	PVC
12	Disc	PVC
13	Locking bush	MOS2
14	Rubber seal	EPDM
15	Handle dowel	SS304/316
16	Lever	ABS
17	Lever dowel	SS304/316
18	Lever patti	SS304/316
19	Spring	SS304/316
20	Spring lock plate	ABS

Throttle Valves

Manual restrictions in irrigation head controls, field plots, Nutrigation™ systems, filtration heads systems.



Accurate



Resistant



Ultimate
durability

/ Benefits & Features

- Saves operation costs User-friendly design allows smooth handle operation
- Saves labor costs and multiple investments in maintenance
 - Highly reliable operation and durable over time
 - Chemical/corrosion resistant, UV stabilized

/ Specifications & Recommendations

- Multi-turn, vertical motion
- Straight throughflow with minimal head loss
- Visual float position indicator to show % throttle of piping system
- Slow operation pavement water hammer
- Maintaining seat leakage permissible limit as per Standard ANSI/FCI-70-2-2006 in class III (0.10%)
- Operational up to 6bar
- Threaded connections (BSP or NPT standards)

→ Packaging Data

Model	Quantity P/Box (unit)	Box Sizes (cm x cm x cm)	Box Weight (kg)	Boxes P/Pallet
2"	5	69.0 x 19.5 x 30.0	6.85	15
2½"		78.5 x 23.0 x 41.5	14.67	8
3"			13.82	

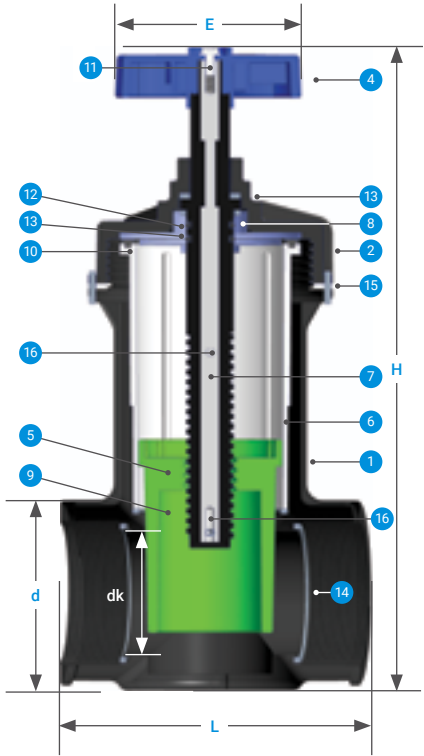
→ Technical Dimensions

Inlet Connector - Female Threaded / Outlet Connector - Female Threaded

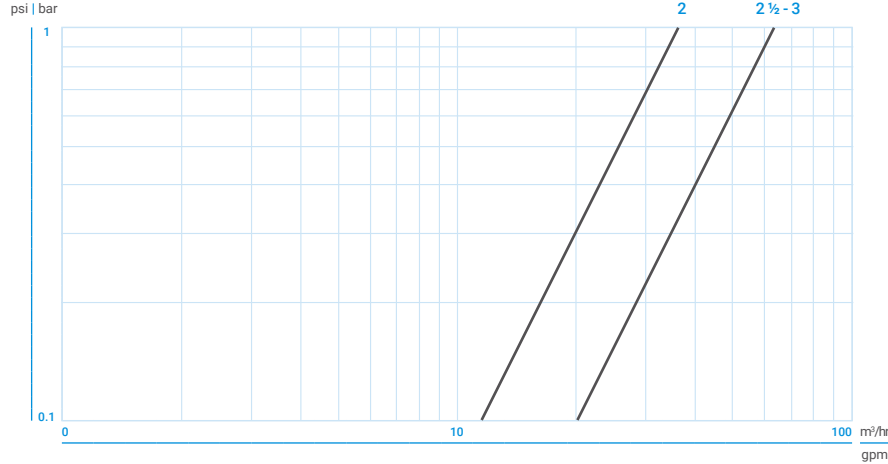
Size \ Nom	BSP (TPI)	NPT (TPI)	d (mm)	dk (mm)	E (mm)	L (mm)	H (mm)
2"	11.00	11.50	65.00	48.00	117.00	130.00	275.00
2½"	11.00	8.00	74.00	63.00	117.00	182.00	390.00
3"	11.00	8.00	93.00	74.00	117.00	182.00	390.00

→ Material Specifications

#	Part Name	Material	Qty.
1	Body	Reinforced PP	1
2	Flange	Reinforced PA	1
3	Disc	Reinforced PA	1
4	Handle	Reinforced PA	1
5	Cylinder	Reinforced PP	1
6	Pc housing	PP	1
7	Shaft	Reinforced PA+MS	1
8	Shaft O-ring	HNBR	2
9	Bottom gasket	HNBR	1
10	Sleeve gasket	HNBR	1
11	Handle screw	SS-304	1
12	Teflon seal big	Teflon	1
13	Teflon seal small	Teflon	1
14	Housing gasket	HNBR	2
15	Locking pin	SS-304	2
16	Dowel pin (4*30) ss	SS-304	2



→ Head Loss



* When valve is fully closed

→ Catalog Numbers

Product Description	Catalog Number
NMV PP THROTTLE VLV 2" FFT BSP	77453-000200
NMV PP THROTTLE VLV 2½" FFT BSP	77453-000201
NMV PP THROTTLE VLV 3" FFT BSP	77453-000202

* Can be also ordered in NPT standard if required

Swing Check Valves

In-line non return valve to stop fluids flowing back through the system.



Reliable



Resistant



Ultimate
durability

/ Benefits & Features

- Saves operation costs
 - The check valve is designed for free flow of water without interference and with minimal head loss
 - Made from PVC-U corrosive-resistant composite materials
- Saves labor costs and multiple investments in maintenance
 - The valve is made from composite materials to withstand highly abrasive conditions and to ensure long-term service also in corrosive liquid environments
 - The valve connects between flanges and is supplied with seals for flange to flange installation
 - Light weight

/ Specifications & Recommendations

- Straight throughflow with minimal head loss
- Slow operation pavement water hammer
- Operational up to 6bar
- Minimum return pressure: 0.2bar (to keep the valve closed)

→ Packaging Data

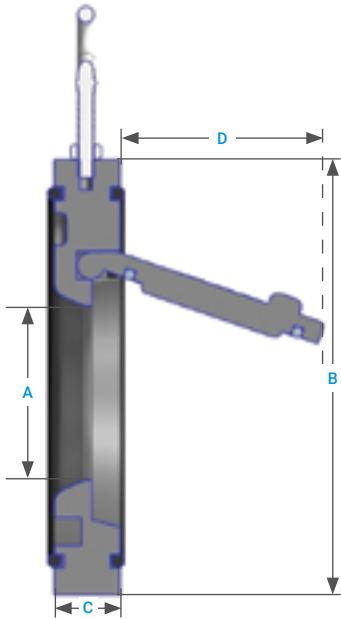
Model	Quantity P/Box (unit)	Box Sizes (cm x cm x cm)	Box Weight (kg)	Boxes P/Pallet
3"	40	30.0 x 30.0 x 31.5	17.2	27
4"	20	34.0 x 34.0 x 18.0	11.5	458

→ Material Specification

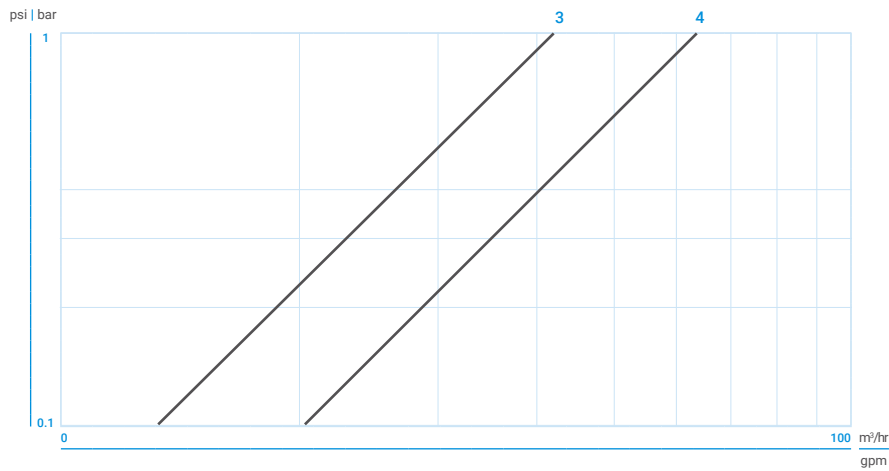
#	Part Name	Material	Qty.
1	Body	PVC-U	1
2	Flap	PVC-U	1
3	Cap	PVC-U	2
4	Body O-ring	EPDM	2
5	Flap O-ring	EPDM	1
6	H screw	Plated MS	1

→ Technical Dimensions

Nom Size	A (mm)	B (mm)	C (mm)	D (mm)
3"	54.3	129.0	21.0	68.0
4"	64.0	159.0	25.0	78.0



→ Head Loss

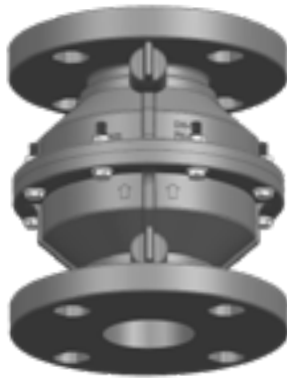


→ Catalog Numbers

Product Illustration	Product Description	Catalog Number
	NMV PVC S.CHECK VLV 3" BTW 2 FLNG	77454-000200
	NMV PVC S.CHECK VLV 4" BTW 2 FLNG	77454-000201

Ball Check Valves

In-line non return valve to stop fluids flowing back through the system. As a foot valve at a pump inlet.



Reliable



Resistant



Ultimate
durability

/ Benefits & Features

- Saves operation costs
 - The check valve is designed for free flow of water with minimal head loss
 - Made from PP corrosive-resistant composite materials
- Saves labor costs and multiple investments in maintenance
 - The valve is made from composite materials to withstand highly abrasive conditions and to ensure long-term service also in corrosive liquid environments
 - Light weight

/ Specifications & Recommendations

- Spring loaded ball check valve
- Flow with minimal head loss
- Slow operation pavement water hammer
- Operational up to 6bar
- Minimum return pressure: 0.1bar (to keep the valve closed)
- Horizontal or vertical installation
- Universal flanges, fits ISO, ANSI, BS10 standards

→ Packaging Data

Model	Quantity P/Box (unit)	Box Sizes (cm x cm x cm)	Box Weight (kg)	Boxes P/Pallet
2"	8	62.0 x 31.5 x 18.0	8.9	15
2½"	4	43.6 x 43.6 x 26.0	8.2	16
3"			9.1	

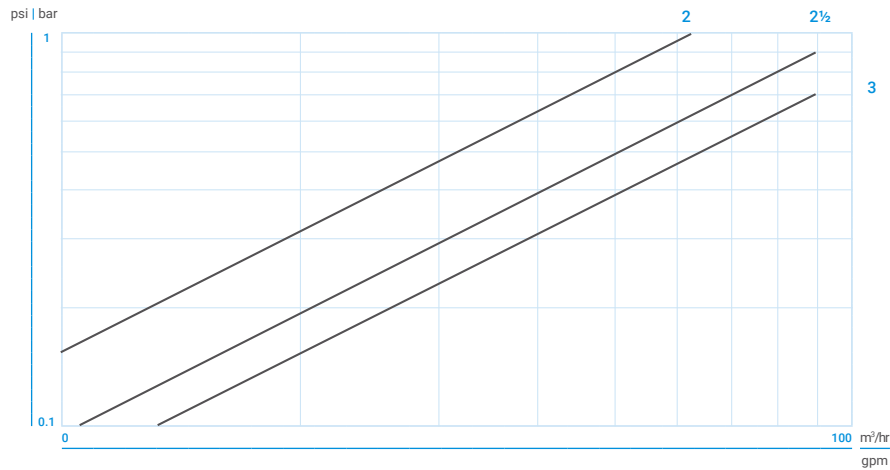
→ Technical Dimensions

Size \ Nom	Nominal Diameter (mm)	A (mm)	B (mm)	C (mm)	D (mm)
2"	50	150	164	50	18.5
2½"	65	188	235	65	20.5
3"	80	205	237	82	24.0

→ Material Specification

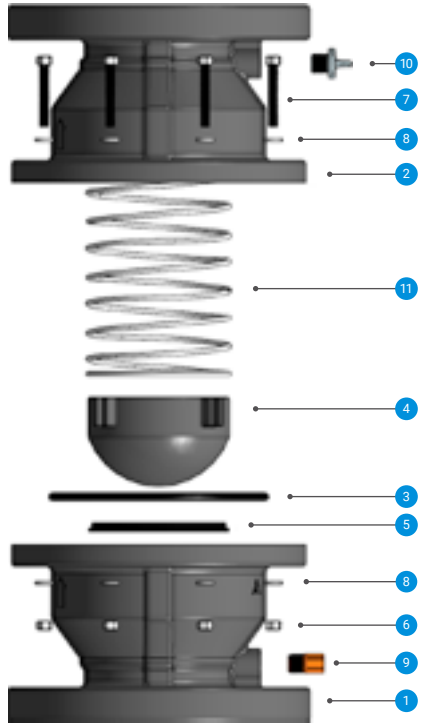
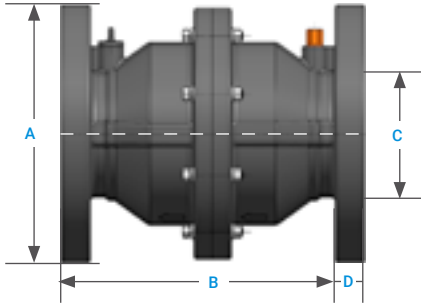
#	Part Name	Material	Qty.
1	Body (inlet)	PPGF	1
2	Body (outlet)	PPGF	1
3	Body O-ring	NBR	1
4	Ball	ABS	1
5	Ball seal	NBR	1
6	Nut	SS	8
7	Bolt	SS	8
8	Washer	SS	16
9	Vacuum breaker	BRASS	1
10	Plug	PPGF	1
11	Spring	SS	1

→ Head Loss



→ Catalog Numbers

Product Illustration	Product Description	Catalog Number
	NMV PP BALL CHECK VALVE 2"	77454-000200
	NMV PP BALL CHECK VALVE 2½"	77454-000221
	NMV PP BALL CHECK VALVE 3"	77454-000222



NR10 Check Valves

Prevents the return flow of water to its source and provides quiet closure and total sealing of the sealing face.



NR-010 1 1/2", 2"

NR-010 3", 4"

NR-010 6" - 10"



Tight
closing



Extremely
durable



Light
& compact

/ Benefits & Features

- Working pressures Up to 10bar, 16bar
- Minimum working pressure 0.2bar
- Max. working temperature 60°C
- Composite materials for body of the valve
- NR-010 1 1/2", 2"
 - Female threaded BSPT or NPT for easy and secure connection to the pipeline
 - Removable cover allows for easy cleaning, maintenance and seal replacement without removing the valve from the pipeline
- NR-010 3" - 10"
 - The valve connects between flanges
 - The valve is supplied together with seals for flanges
 - The spring assembly mechanism is outside of the flow cross-section and can be replaced without removing the valve from the line

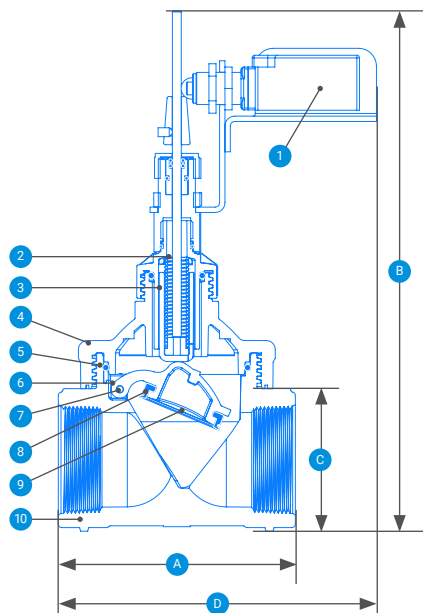
/ Applications

- After pumps/boosters
- Filtration systems
- Fertilizer system

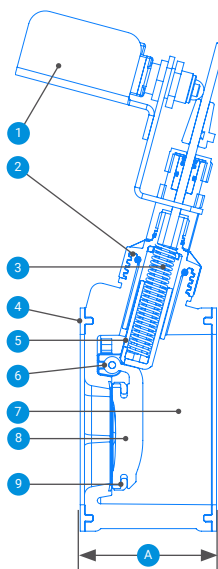
- Greenhouses
- Swimming pools (additional modifications are required for this application)

→ Technical Dimensions & Weights

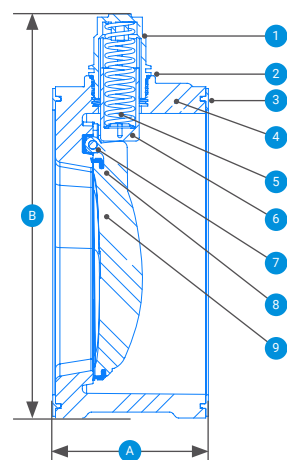
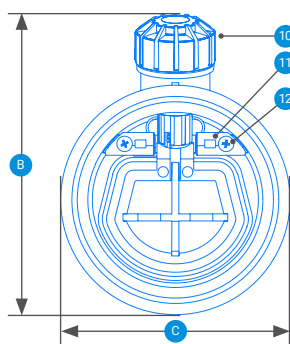
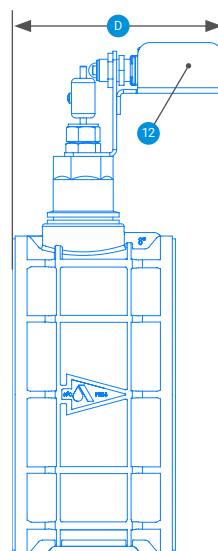
NR-010 1½", 2"



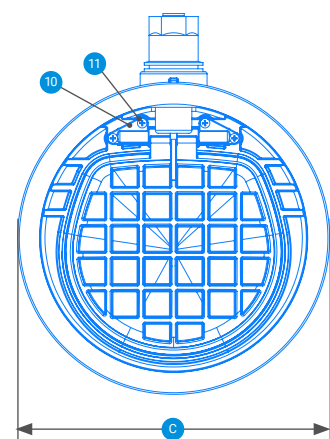
NR-010 3", 4"



NR-010 6" - 10"



Nominal Size	A	B	C	D	Weight (Gr)
NR10 1½"	133	149	65	180	605
NR10 LS 1½"	133	285	65	180	1050
NR10 2"	133	157	80	180	620
NR10 LS 2"	133	291	80	180	1070
NR10 3"	80	172	131	-	571
NR10 LS 3"	80	305	131	-	1070
NR10 4"	91	191	151	-	732
NR10 LS 4"	91	324	151	-	1250
NR10 6"	112	291	220	112	2600
NR10 LS 6"	112	380	220	162	3100
NR10 8"	132	323	259	132	3700
NR10 LS 8"	132	413	259	170	3800
NR10 10"	145	376	310	145	5200
NR10 LS 10"	145	465	310	145	5700



For determining the height of a check valve with a limit switch, add an additional space of 2 - 3 cm.

→ Parts List

NR-010 1½", 2"

#	Part Name	Material
1	Limit switch assy.	
2	Spring	Stainless steel 302
3	Spring housing	Acetal
4	Cover	Reinforced nylon
5	O-ring	Buna-n
6	Shaft housing	Acetal
7	Shaft	Stainless steel 316
8	Seal	EPDM
9	Disc	Reinforced nylon
10	Body	Reinforced nylon

NR-010 3", 4"

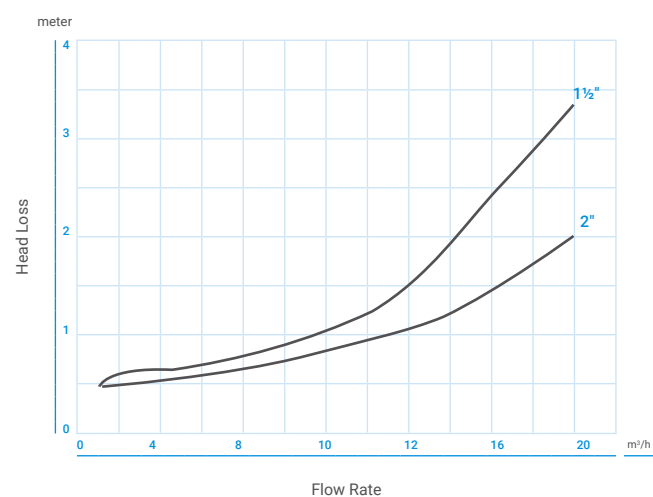
#	Part Name	Material
1	Limit switch assy.	
2	O-ring	Buna-n
3	Spring	Stainless steel 302
4	Flange seals	EPDM
5	Spring housing	Acetal
6	Shaft	Stainless steel 316
7	Body	Reinforced nylon
8	Disc	Reinforced nylon
9	Seal	EPDM
10	Spring cover	Reinforced nylon
11	Shaft housing	Acetal
12	Bolt (x2)	Stainless steel 316

NR-010 6" - 10"

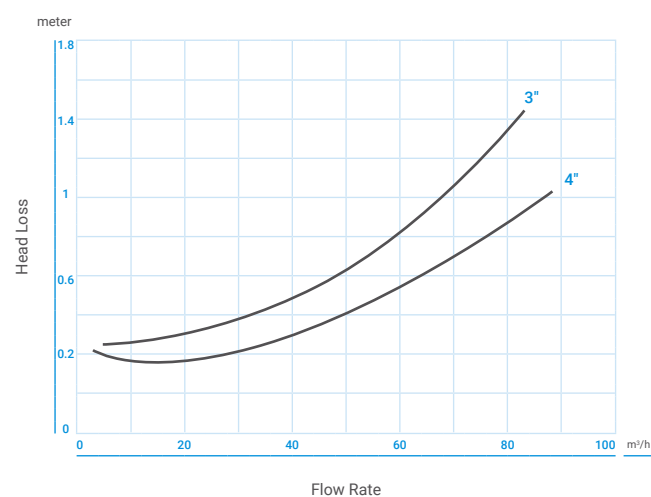
#	Part Name	Material
1	Spring cover	Reinforced nylon
2	O-ring	Buna-n
3	Flange seals	EPDM
4	Body	Reinforced nylon
5	Spring	Stainless steel 302
6	Spring housing	Acetal
7	Shaft	Stainless steel 316
8	Flap seal	EPDM
9	Flap	Reinforced nylon
10	Shaft housing	Acetal
11	Bolt (x2)	Stainless steel 316
12	Limit switch assy.	

→ Head Loss

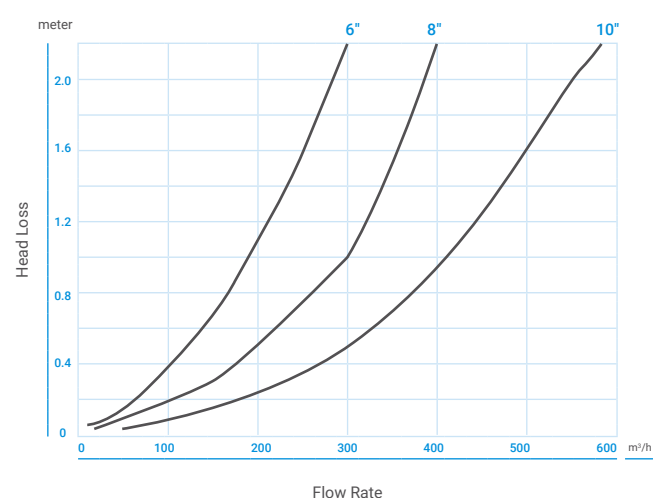
NR-010 1½", 2"



NR-010 3", 4"



NR-010 6" - 10"



→ Catalog Numbers

Diameter	Connection	Description	Catalog Numbers
1 1/2"	40mm	BSP	CHECK VALVE NR-010 1.5" PN10
		NPT	CHECK VALVE NR-010 1.5" PN10
	40mm (ls)	BSP	CHECK VA NR-010 1.5" W/LS PN10
		NPT	CHECK VAL NR-010 1.5" W/LS PN10
2"	50mm	BSP	CHECK VALVE NR-010 2" PN10 BSP
		NPT	CHECK VALVE NR-010 2" PN10 NPT
	50mm (ls)	BSP	CH. VAL NR-010 2" W/LS PN10 BSP
		NPT	CH. VAL NR-010 2" W/LS PN10 NPT
3"	PN-10 (80mm)		CHECK VALVE NR-010 3" PN10
			CHECK VALVE NR-010 3" W/LS PN10
	PN-16 (80mm)		CHECK VALVE NR-010 3" PN16
			CHECK VALVE NR-010 3" W/LS PN16
4"	PN-10 (100mm)		CHECK VALVE NR-010 4" PN10
			CHECK VALVE NR-010 4" W/LS PN10
	PN-16 (100mm)		CHECK VALVE NR-010 4" PN16
			CHECK VALVE NR-010 4" W/LS PN16
6"	PN-10 (150mm)		CHECK VALVE NR-010 6" PN10
			CHECK VALVE NR-010 6" W/LS PN10
	PN-16 (150mm)		CHECK VALVE NR-010 6" PN16
			CHECK VALVE NR-010 6" W/LS PN16
			CHECK VALVE NR-010 6" W/STEM PN16
8"	PN-10 (200mm)		CHECK VALVE NR-010 8" PN10
			CHECK VALVE NR-010 8" W/LS PN10
			CHECK VALVE NR-010 8" W/STEM PN10
	PN-16 (200mm)		CHECK VALVE NR-010 8" PN16
			CHECK VALVE NR-010 8" W/LS PN16
			CHECK VALVE NR-010 8" W/STEM PN16
10"	PN-10 (250mm)		CHECK VALVE NR-010 10" PN10
			CHECK VALVE NR-010 10" W/LS PN10
			CHECK VALVE NR-010 10" W/STEM PN10

* W/LS = With Limit Switch

NR-10 Check Foot Valves

A one-way or anti-siphon valve with a filtration net. The valve is installed on the pick-up end of the water pipe near the bottom of the well or at the bottom of a pump station suction pipe.



Tight
closing



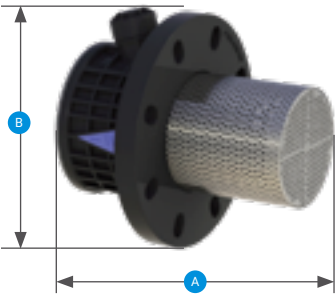
Extremely
durable



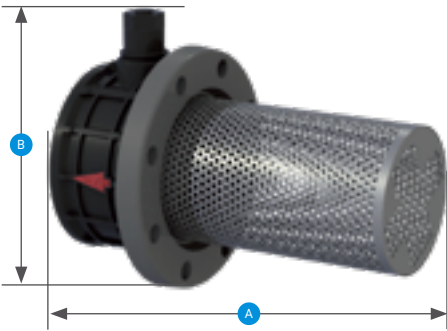
Light
& compact

→ Technical Dimensions

3" - 4"



6" - 10"



Nominal Size	A	B	Weight (gr)
NR10 foot valve 3"	204	226	1300
NR10 foot valve 4"	231	286	2000
NR10 foot valve 6"	414	324	5500
NR10 foot valve 8"	575	365	8000
NR10 foot valve 10"	688	427	11000

Nominal Size	3"	4"	6"	8"	8"	10"	10"
Screen Hole Diameter (mm)	3	3	3	3	6	3	6
Screen Area (mm ²)	41684	60936	118771	153311	153311	204905	204905
Screen Open Area (mm ²)	33%	33%	33%	33%	62%	35%	62%
	13756	20109	39194	50592	95053	71717	127041
Inlet Passage Area (mm ²)	3249	5315	13449	19410	19410	31934	31934
Ratio Screen Passage Area / Inlet Passage Area	4.2	3.8	2.9	2.6	4.9	2.2	4.0
Inlet Passage Area for Nominal Diameter (mm ²)	4416	7850	17663	31400	31400	49063	49063
Ratio Nominal Inlet Screen Passage / Area	3.1	2.6	2.2	1.6	3.0	1.5	2.6

Metal Ball Valves

A line of products designed for flow control systems: commercial, irrigation systems and agriculture. The white line is a line of ball valves and check valves made from lead-free brass.



Male to Female Connections



Female to Female Connections



Reliable



Robust



Durable

/ Benefits & Features

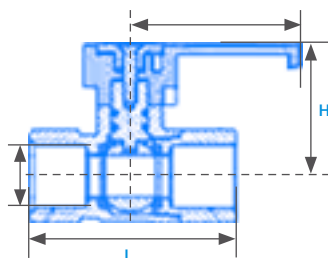
- **Connection** Male to female / female to female large bore ball valve
- **Standard brass** CW617N
- **Smart design** Long handle
- **Materials** Nickel or nickel-chrome plating

/ Specifications & Recommendations

- **Working Temperature Range** – -5°C - +100°C
- **Working Pressure** – up to 28ATM (400psi)
- **Possible Threads** – BSP

→ Technical Dimensions

Diameter	Height (H)	Length (L)	Short Handle (mm)	Long Handle (mm)
1/2"	48.0	57.5	51.0	96.0
3/4"	52.0	70.0	51.0	96.0
1"	55.0	79.5	51.0	96.0
1 1/4"	83.0	94.0	-	96.0
1 1/2"	83.0	99.0	-	147.0
1 3/4"	55.0	79.5	51.0	96.0
2"	86.0	111.0	-	147.0



→ Material Specifications

#	Part	Material
1	Main body	PAGF
2	Green line	Standard brass CW617N
3	White line & orange line	Standard lead-free brass CW510L
4	Ball gaskets	P.T.F.E

→ Catalog Numbers

Diameter	Thread	Connection Type	Handle	Catalog Number
1/2"	Male to female	BSP	Short	76000-000600
			Long	76000-000601
3/4"			Short	76000-000604
			Long	76000-000605
1"			Short	76000-000608
			Long	76000-000609
1 1/4"			Long	76000-000612
1 1/2"			Long	76000-000614
1 3/4"	Female to female	BSP	Long	76000-000618
2"			Long	76000-000616
1/2"			Short	76000-000602
			Long	76000-000603
3/4"			Short	76000-000606
			Long	76000-000607
1"			Short	76000-000610
			Long	76000-000611
1 1/4"			Long	76000-000613
1 1/2"			Long	76000-000615
1 3/4"			Long	76000-000619
2"			Long	76000-000617

Angle Seat Valves

A line of innovative angle seat valves, designed for potable water applications. The valves is based on gas valve mechanism for high reliability.



Prevents leakage



Long-lasting operation



Easy remote identification

/ Benefits & Features

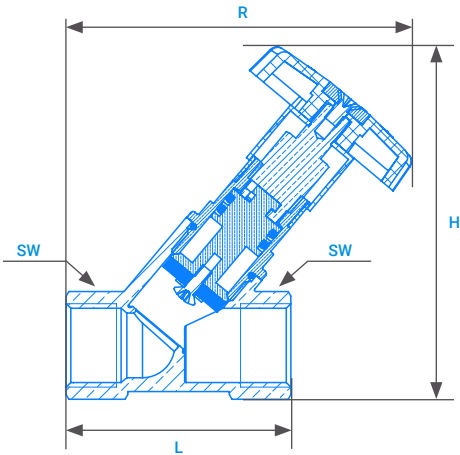
- Prevents leakage Unique and reliable stem sealing mechanism
- Long-lasting operation Manufactured using hot forging technology
- Easy remote identification Clear marking of the valve state (Open/Close)
- Resistant Perfect for Potable Water applications
- High reliability The mechanism is based on gas valves mechanism
- Prevents abrasion Closing and opening produces a continuous, non-spiral mechanism
- Prevents leaks Robust mechanism with wide seals
- Smooth operation A unique mechanism that is not based on tightening nut technique for the valve
- Prevents dirt entry Plastic cover for the mechanism
- Special mechanism All-the-way mechanical seal is in placed when open

/ Specifications & Recommendations

- **Working Pressure** – up to 16ATM (235psi)
- Made from lead-free brass
- Handle is made of glass-reinforced nylon

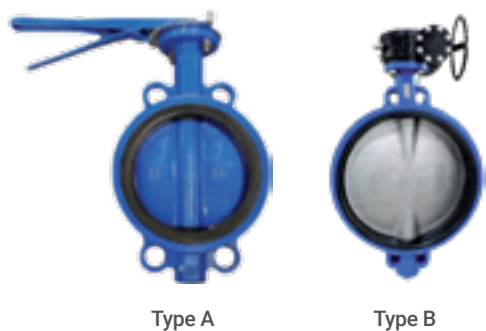
→ Technical Dimensions

SW hex	R	H	L
32	113	115	73
38	135	134	87.5
54	181	184	115
66	214	224	136



Butterfly Valves

Simple, light and reliable for installation wherever there is a need to cut the flow passage in pipes and equipment.



Type A

Type B



Outstanding performance



Ultimate durability



Extremely versatile

/ Benefits & Features

- **Outstanding performance** Netafim manual valves are manufactured using materials of the highest quality, always complying with the standards for hydraulically operated devices
- **Ultimate durability** The quality of the Netafim butterfly valve gives it great resistance over time. The replaceable seat guarantees bidirectional watertightness, easy maintenance due to its innovative design and longer life of the valve
- **Extremely versatile** Different disc material options: ductile iron, stainless steel or aluminum bronze

/ Specifications & Recommendations

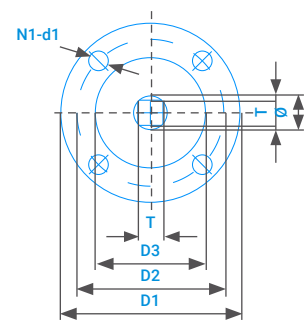
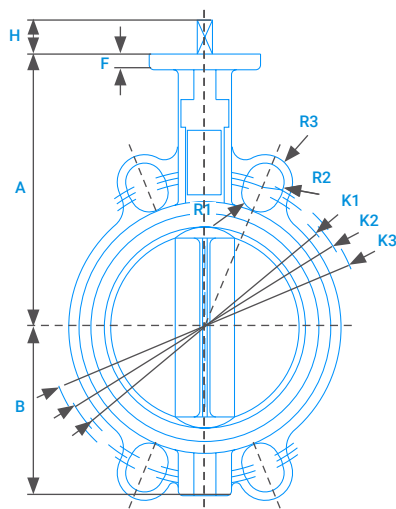
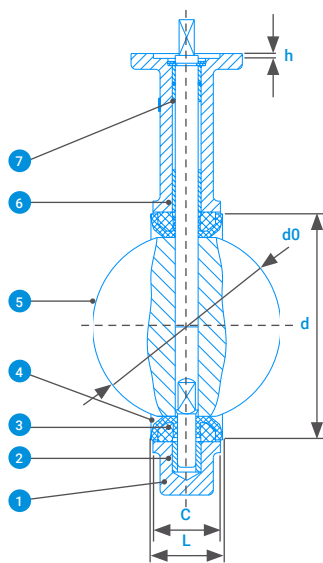
- **Type** – Concentric
- **Pressure Grade** – PN16
- **Working Pressure** – 16bar
- **Available Diameters** – DN50 to DN600
- **Working Temperature** – 0°C to 80°C
- **Connection** – Wafer
- **Coating** – Fusion bonded epoxy 250µm

* Other materials and specifications are available upon request.

→ Technical Dimensions

For Body

dn	A	B	h	d0	c	l	d	k1	k2	k3	r1	r2	r3	f	d1	d2	d3	h	4-d1	Ø	t
50	125	73	28	52.6	43	46	73.3	120.6	125	124	10.5	-	10.5	10	65	50	35	4	7	12.6	9
65	136	82	28	64.3	46	49	86.0	139.7	145	145	10.5	-	10.5	10	65	50	35	4	7	12.6	9
80	142	91	28	78.8	46	49	100.9	152.4	160	160	10.5	-	10.5	10	65	50	35	4	7	12.6	9
100	163	107	28	104	52	55	132	180	180	190.5	10.5	-	10.5	12	90	70	55	4	10	15.77	11
125	176	127	28	123.3	56	59	156	210	210	215.9	12.2	-	12.2	12	90	70	55	4	10	18.92	14
150	197	143	28	155.7	56	59	185.4	240	240	241.3	12.2	-	12.2	12	90	70	55	4	10	18.92	14
200	230	170	38	202.4	60	64	235.2	295	295	298.5	12.2	12.5	12.2	15	125	102	70	4	12	22.1	17
250	260	204	38	250.4	68	72	289.4	350	355	361.9	13.7	15	13.7	15	125	102	70	4	12	28.45	22
300	292	240	38	301.5	78	82	341.2	400	410	431.8	13.7	15	13.7	15	125	102	70	4	12	31.6	22



→ Material Specifications

For Body Type A*

#	Component	Material	Specification
1	Body	Ductile iron	GGG40
2	Shaft	Stainless steel	AISI 420
3	Disc	Ductile iron	AISI 316
4	Seat	EPDM	EN681
5	Bearing	PFTE	Commercial
6	Ring seal	EPDM	EN681
7	Indicator plate	Stainless steel	AISI 420

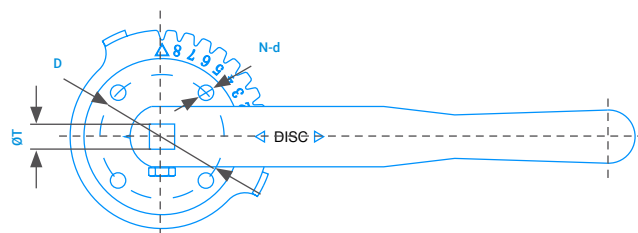
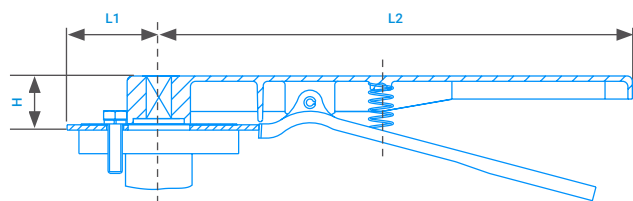
* For butterfly valves up to 300mm

For Body Type B*

#	Component	Material	Specification
1	Body	Ductile iron	GGG40
2	Shaft	Stainless steel	AISI 420
3	Disc	Stainless steel	AISI 316
4	Seat	EPDM	EN681
5	Bearing	PFTE	Commercial
6	Ring seal	EPDM	EN681
7	Indicator plate	Stainless steel	AISI 420

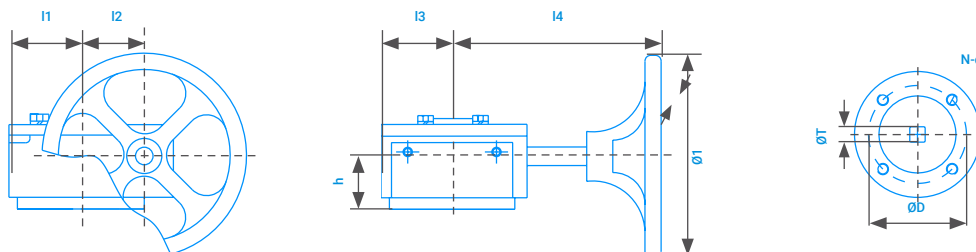
→ Technical Dimensions

For Lever



dn	h	l1	l2	d	N-d	ØT
50	28	52	267	50	4-7	9
65	28	52	267	50	4-7	9
80	28	52	267	50	4-7	9
100	28	52	267	70	4-10	11
125	28	52	267	70	4-10	14
150	28	52	267	70	4-10	14
200	38	75	359	102	4-12	17
250	38	75	359	102	4-12	22
300	38	75	359	102	4-12	22

For Gearbox



dn	h	l1	l2	l3	l4	Ø1	d1	N-d	ØT
50	35	51	43	51	151	154	50	4-m6	9
65	35	51	43	51	151	145	50	4-m6	9
80	35	51	43	51	151	145	50	4-m6	9
100	35	51	43	51	151	145	70	4-m8	11
125	35	51	43	51	151	145	70	4-m8	14
150	35	51	43	51	151	145	70	4-m8	14
200	42	72	65	72	210	285	102	4-m10	17
250	42	72	65	72	210	285	102	4-m10	22
300	45	94	79	94	190	285	102	4-m10	22

→ Catalog Numbers

For Type A

Description	Catalog Number
GAER BUTTERFLY VALVE 3" LEVER OPERATED	71660-000950
GAER BUTTERFLY VALVE 4" LEVER OPERATED	71660-000951
GAER BUTTERFLY VALVE 6" LEVER OPERATED	71660-000952
GAER BUTTERFLY VALVE 8" LEVER OPERATED	71660-000953
GAER BUTTERFLY VALVE 10" LEVER OPERATED	71660-000954
GAER BUTTERFLY VALVE 12" LEVER OPERATED	71660-007400
GAER BUTTERFLY VALVE 3" GEAR OPERATED	71660-000940
GAER BUTTERFLY VALVE 4" GEAR OPERATED	71660-000941
GAER BUTTERFLY VALVE 6" GEAR OPERATED	71660-000942
GAER BUTTERFLY VALVE 8" GEAR OPERATED	71660-000943
GAER BUTTERFLY VALVE 10" GEAR OPERATED	71660-000944
GAER BUTTERFLY VALVE 12" GEAR OPERATED	71660-000945

For Type B

Description	Catalog Number
GAER BUTTERFLY VALVE 2" LEVER - SST DISC	71660-000970
GAER BUTTERFLY VALVE 3" LEVER - SST DISC	71660-000971
GAER BUTTERFLY VALVE 4" LEVER - SST DISC	71660-000972
GAER BUTTERFLY VALVE 6" LEVER - SST DISC	71660-000973
GAER BUTTERFLY VALVE 8" LEVER - SST DISC	71660-000974
GAER BUTTERFLY VALVE 10" LEVER - SST DISC	71660-000975
GAER BUTTERFLY VALVE 12" LEVER - SST DISC	71660-000976
GAER BUTTERFLY VALVE 2" GEAR - SST DISC	71660-000980
GAER BUTTERFLY VALVE 3" GEAR - SST DISC	71660-000981
GAER BUTTERFLY VALVE 4" GEAR - SST DISC	71660-000982
GAER BUTTERFLY VALVE 6" GEAR - SST DISC	71660-000983
GAER BUTTERFLY VALVE 8" GEAR - SST DISC	71660-000984
GAER BUTTERFLY VALVE 10" GEAR - SST DISC	71660-000985

* Additional diameters, materials and specifications are available upon request.

Gate Valves

Designed for use in distribution of fluids such as water, and neutral fluids in a wide range of temperatures and working conditions.



Wheel
Type



Extension Shaft
for Square Key Type



Outstanding
performance



Ultimate
durability



Extremely
versatile

/ Benefits & Features

- **Outstanding performance** The pitch diameter of this type of valve is equal to the nominal diameter when the valve is in totally open position. In this way minimum load losses are obtained
- **Ultimate durability** Its configuration guarantees complete and directional tightness in its entire range of pressures, with smooth movement of the shaft during its entire travel
- **Extremely versatile** Resilient seat, operated by handwheel, square cap or extendable shaft according to the application

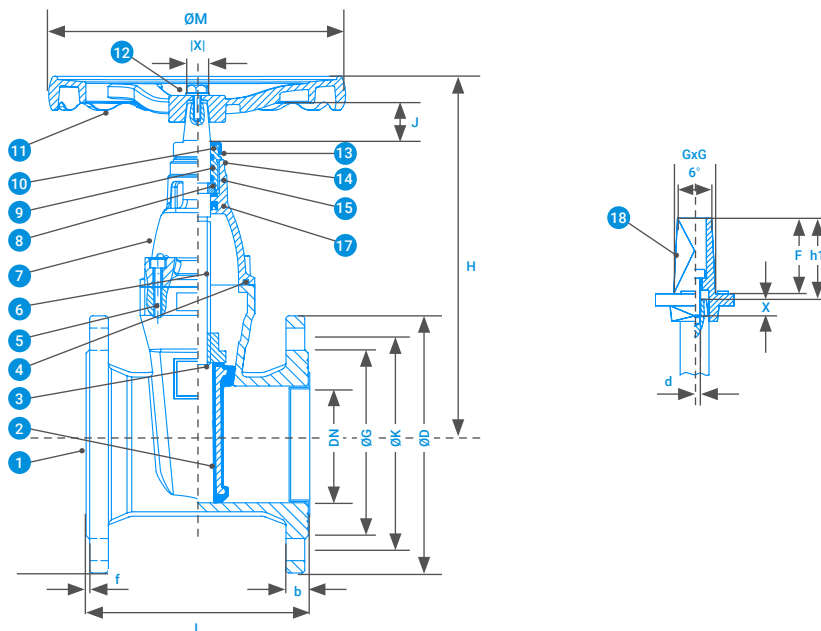
/ Specifications & Recommendations

- **Type** – Non-rising stem
- **Pressure Grade** – PN16
- **Working Pressure** – 16bar
- **Available Diameters** – DN50 to DN600
- **Working Temperature** – 0°C to 80°C
- **Connection** – Flange
- **Coating** – Fusion bonded epoxy 250µm

* Other materials and specifications are available upon request.

→ Technical Dimensions

For PN 16 Narrow Model



DN	Dimensions (mm)															
	Shape					Flanges PN16					Square stem					
	L(F4)	L(F5)	H	M	J	D	K	G	b	f	IXI	h1	GxG	F	d	X
50	150	250	215	200	30	165	125	99	19	3	14 x 14	285	35x35	63	M8	15
65	170	270	235	200	30	185	145	118	19	3	14 x 14	300	35x35	63	M8	15
80	180	280	265	254	30	200	160	132	19	3	17 x 17	320	35x35	63	M8	15
100	190	300	315	254	32	220	180	156	19	3	17 x 17	390	35x35	63	M8	15
125	200	325	350	315	32	250	210	184	19	3	19 x 19	430	35x35	63	M8	15
150	210	350	385	315	32	285	240	211	19	3	19 x 19	470	35x35	63	M8	15
200	230	400	485	315	35	340	295	266	20	3	19 x 19	560	35x35	63	M8	15
250	250	450	600	406	35	405	355	319	22	3	24 x 24	680	35x35	63	M10	15
300	270	500	680	406	35	460	410	370	24.5	4	24 x 24	770	35x35	63	M10	15
350	290	550	810	500	45	520	470	429	26.5	4	27 x 27	900	48x48	75	M10	20
400	310	600	890	500	45	580	525	480	28	4	27 x 27	1000	48x48	75	M10	20
450	330	650	1050	500	50	640	585	548	30	4	27 x 27	1150	48x48	75	M10	20
500	350	700	1230	650	55	715	650	609	31.5	4	30 x 30	1330	48x48	75	M12	20
600	390	800	1260	650	55	840	770	720	36	5	30 x 30	1500	48x48	75	M12	20

For Hole Size Assembly

		PN10		PN16		ANSI150		BSTD	
		K	n-d	K	n-d	K	n-d	K	n-d
2"	50	125	4 x 19	125	4 x 19	121	4 x 19	114	4 x 18
2-1/2"	65	145	4 x 19	145	4 x 19	140	4 x 19	127	4 x 18
3"	80	160	8 x 19	160	8 x 19	152	4 x 19	146	4 x 18
4"	100	180	8 x 19	180	8 x 19	191	8 x 19	178	4 x 18
5"	125	210	8 x 19	210	8 x 19	216	8 x 22	210	4 x 18
6"	150	240	8 x 23	240	8 x 23	241	8 x 22	235	8 x 18
8"	200	295	8 x 23	295	12 x 23	298	8 x 22	292	8 x 18
10"	250	350	12 x 23	355	12 x 28	362	12 x 25	356	8 x 22
12"	300	400	12 x 23	410	12 x 28	432	12 x 25	406	12 x 22
14"	350	460	16 x 23	470	16 x 28	476	12 x 29	470	12 x 26
16"	400	515	16 x 28	525	16 x 31	540	16 x 29	521	12 x 26
18"	450	565	20 x 28	585	20 x 31	578	16 x 32	584	12 x 26
20"	500	620	20 x 28	650	20 x 34	635	20 x 32	641	16 x 26
24"	600	725	20 x 31	770	20 x 37	749	20 x 35	756	16 x 30

→ Material Specification

For PN16 Narrow Model

	Component	Material	Specification
1	Body	Ductile iron	GGG50
2	Disc	Ductile iron + EPDM	GGG50
3	Shaft nut	Brass	CuZn39Pb2
4	Cover seal	NBR	UNE-EN 681-1
5	Cover screws	Stainless steel	A2(AISI 304)
6	Shaft	Stainless steel	AISI 420
7	Cover	Ductile iron	GGG50
8	Clamping ring	Brass	CuZn39Pb2
9	O-ring	NBR	UNE-EN 681-1
10	Thrust nut	Brass	CuZn39Pb2
11	Handwheel	Ductile iron	GGG50
12	Screw	Stainless steel	A2(AISI 304)
13	Dust protectors	NBR	UNE-EN 681-1
14	O-ring	NBR	UNE-EN 681-1
15	O-ring	NBR	UNE-EN 681-1
16	Units separated of nylon	Nylon 66	
17	Self-closing ring	NBR	UNE-EN 681-1
18	Square stem	Ductile iron	GGG50

→ Catalog Numbers

Description	Operation	Connection Type		
		ISO	BSTD	ANSI
2"	Wheel	71660-000870	71660-000871	71660-000872
	Square key **	71660-000873	71660-000874	71660-000875
3"	Wheel	71660-000880	71660-000881	71660-000882
	Square key **	71660-000883	71660-000884	71660-000885
4"	Wheel	71660-000890	71660-000891	71660-000892
	Square key **	71660-000893	71660-000894	71660-000895
6"	Wheel	71660-000900	71660-000901	71660-000902
	Square key **	71660-000903	71660-000904	71660-000905
8"	Wheel	71660-000910	71660-000911	71660-000912
	Square key **	71660-000913	71660-000914	71660-000915
10"	Wheel	71660-000920	71660-000921	71660-000922
	Square key **	71660-000923	71660-000924	71660-000925
12"	Wheel	71660-000930	71660-000931	71660-000932
	Square key **	71660-000933	71660-000934	71660-000935

* Additional diameters, materials and specifications available upon request

** Extension shaft is supplied upon request

Check Valves

Designed for use in distribution of fluids such as water, and neutral fluids in a wide range of temperatures and working conditions.



Reliable



Resilient



Durable



Swing



Double Flap



Foot

/ Benefits & Features

- **Double flap check valve**
The discs are opened by the pressure of the circulating fluid, and let the fluid pass in the required direction. When the flow is stopped, the valve shuts off rapidly thanks to a closing spring, thus preventing reverse flow
- **Swing check valve**
Suited for work with wastewater, dirty water or water with high concentrations of suspended solids. Its shut-off system is free of possible obstructions and requires minimum pressure both for opening and closing
- **Foot check valve**
The ideal solution to prevent emptying of the suction lines in pumps. Its design and manufacture guarantee hermetic closing. The stainless steel strainer prevents entry of solid particles into the pipe

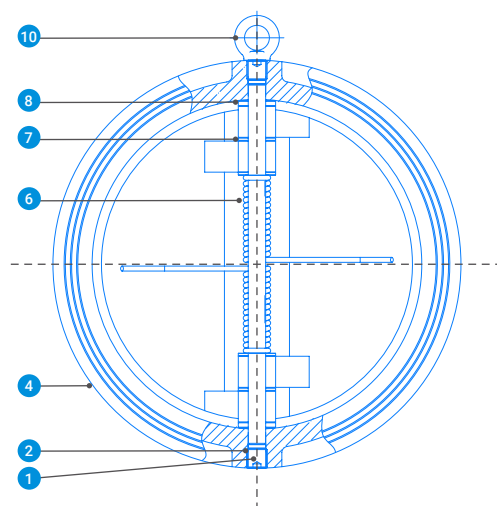
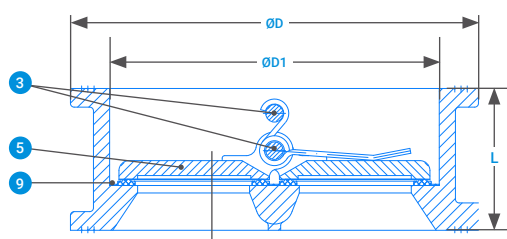
/ Specifications & Recommendations

- **Type** – Resilient swing
- **Pressure Grade** – PN16
- **Working Pressure** – 16 bar
- **Available Diameters** – DN50 to DN600
- **Working Temperature** – 0°C to 80°C
- **Min. Closing Pressure** – 1 bar
(for double flap & swing), 0.3 bar (for foot)
- **Coating** – Fusion bonded epoxy 250µm

* Other materials and specifications on request.

→ Technical Dimensions

For Double Flap



DN	L	ØD1	ØD
50 (2")	43	65	103
65 (2.5")	46	80	123
80 (3")	64	94	129
100 (4")	64	117	157
125 (5")	70	145	192
150 (6")	76	170	218
200 (8")	89	224	268
250 (10")	114	265	328
300 (12")	114	310	375
350 (14")	127	360	438
400 (16")	140	410	489
450 (18")	152	450	537
500 (20")	152	505	592
600 (24")	178	624	694

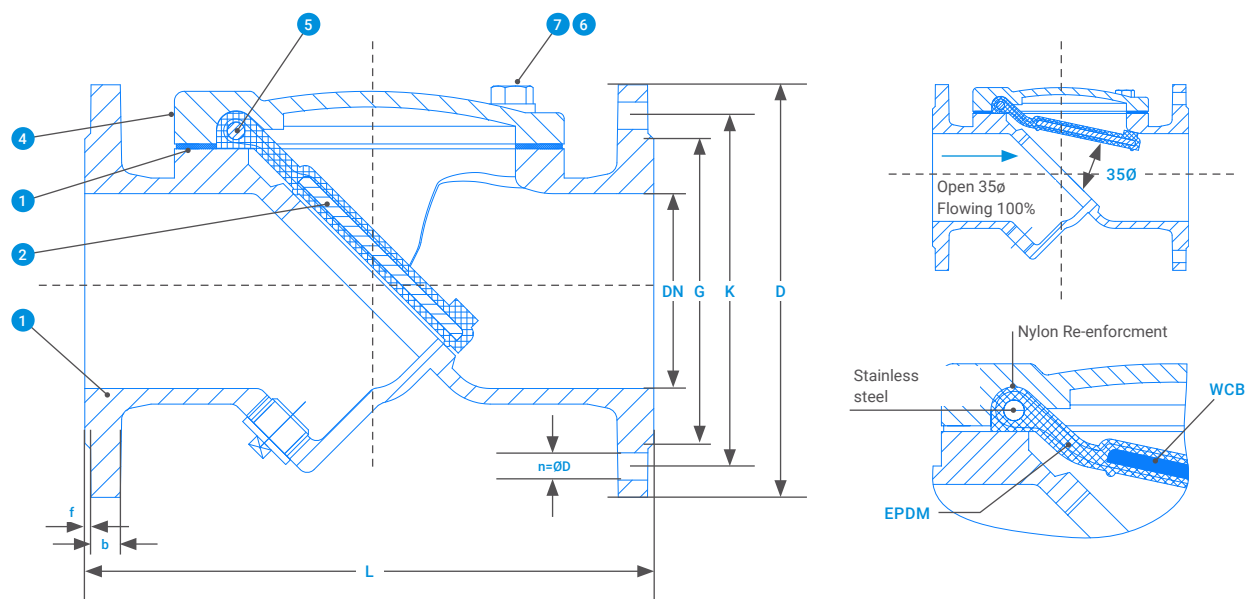
→ Material Specifications

For Double Flap

	Description	Material
1	Screw	Carbon steel
2	Sealing ring	EPDM
3	Shaft	SS316
4	Body	DI
5	Disc	CF8M
6	Spring	SS316
7	Gasket	PTFE
8	Gasket	PTFE
9	Seat	EPDM
10	Lifting ring	Carbon steel

→ Technical Dimensions

For Swing Check Valve



DN	L	D	G	B	F	kg	inch	PN10		PN16		ANSI150		BSTD	
	(mm)	(mm)	(mm)	(mm)	(mm)			K	n-d	K	n-d	K	n-d	K	n-d
50	203	165	99	19	3	10,45	2"	125	4x19	125	4x19	121	4x19	114	4x18
65	216	185	118	19	3	13,6	2-1/2"	145	4x19	145	4x19	140	4x19	127	4x18
80	241	200	132	19	3	16	3"	160	8x19	160	8x19	152	4x19	146	4x18
100	292	220	156	19	3	21	4"	180	8x19	180	8x19	191	8x19	178	4x18
125	330	250	184	19	3	26	5"	210	8x19	210	8x19	216	8x22	210	4x18
150	356	285	211	19	3	36	6"	240	8x23	240	8x23	241	8x22	235	8x18
200	495	340	266	20	3	73	8"	295	8x23	295	12x23	298	8x22	292	8x18
250	622	405	319	22	3	120	10"	350	12x23	355	12x28	362	12x25	356	8x22
300	698	460	370	24.5	4	215	12"	400	12x23	410	12x28	432	12x25	406	12x22
350	787	520	429	26.5	4	230	14"	460	16x23	470	16x28	476	12x29	470	12x26
400	914	580	480	28	4	335	16"	515	16x28	525	16x31	540	16x29	521	12x26
450	978	640	548	30	4	401	18"	565	20x28	585	20x31	578	16x32	584	12x26
500	978	715	609	31.5	4	502	20"	620	20x28	650	20x34	635	20x32	641	16x26
600	1295	840	720	36	5	818	24"	725	20x31	770	20x37	749	20x35	756	16x30

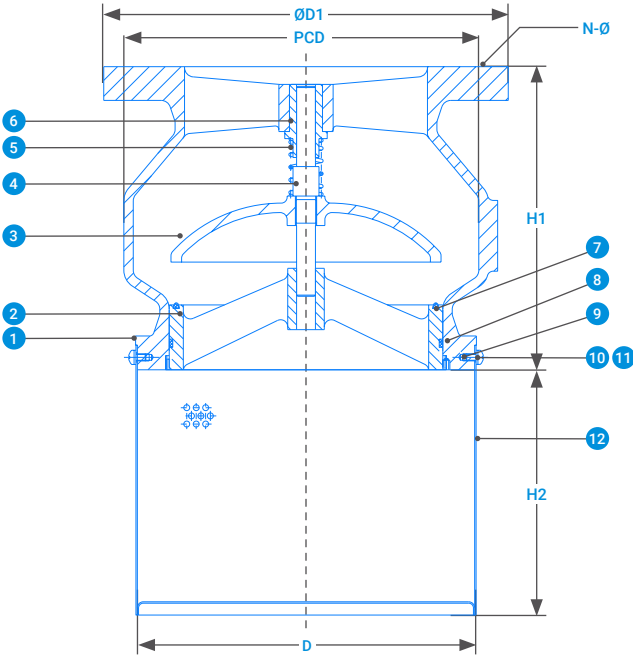
→ Material Specifications

For Swing Check Valve

#	Component	Material	Specification
1	Body	Ductile iron	GGG50
2	Seat	NBR	EN 681
3	Disc	WCB + NBR	WCB + NBR
4	Cover	Ductile iron	GGG50
5	Pin	Stainless steel	AISI 316
6	Screw	Stainless steel	AISI 316
7	Washer	Stainless steel	AISI 316
8	Nut	Ductile iron	GGG50

→ **Technical Dimensions**

For Foot Valve



Size	H1	H2	D	BS EN 1092-2 PN16		D1
				PCD	N-Ø	
2"	133	68	114	Ø125	4-Ø19	Ø165
2,5"	140	93	130	Ø145	4-Ø19	Ø185
3"	152	108	144	Ø160	8-Ø19	Ø200
4"	185	138	177	Ø180	8-Ø19	Ø220
5"	216	163	203	Ø210	8-Ø19	Ø250
6"	229	189	237	Ø240	8-Ø23	Ø285
8"	257	208	290	Ø295	12-Ø23	Ø340
10"	293	225	330	Ø355	12-Ø28	Ø405
12"	362	245	383	Ø410	12-Ø28	Ø460
14"	400	270	470	Ø470	16-Ø28	Ø520
16"	448	290	520	Ø525	16-Ø31	Ø580
18"	476	315	570	Ø585	20-Ø31	Ø640
20"	524	340	630	Ø650	20-Ø34	Ø715
24"	610	365	740	Ø770	20-Ø37	Ø840

→ **Material Specifications**

For Foot Valve

#	Description	Material
1	Body	DI
2	Seat	DI
3	Disc	DI
4	Stem	SS410
5	Spring	SS304
6	Bushing	ASTM B584
7	O-Ring	EPDM
8	O-Ring	EPDM
9	Screw	SS316
10	Screw	SS316
11	Washer	SS316
12	Screen	SS304

→ Catalog Numbers

for Check Valves

Description	Connection Type		
	ISO	ANSI	Wafer
CHECK VALVE 2" DOUBLE FLAP	-	-	71660-000800
CHECK VALVE 2" SWING	71660-000801	71660-000802	-
CHECK VALVE 2" FOOT	71660-000803	71660-000804	-
CHECK VALVE 3" DOUBLE FLAP	-	-	71660-000810
CHECK VALVE 3" SWING	71660-000811	71660-000812	-
CHECK VALVE 3" FOOT	71660-000813	71660-000814	-
CHECK VALVE 4" DOUBLE FLAP	-	-	71660-000820
CHECK VALVE 4" SWING	71660-000821	71660-000822	-
CHECK VALVE 4" FOOT	71660-000823	71660-000824	-
CHECK VALVE 6" DOUBLE FLAP	-	-	71660-000830
CHECK VALVE 6" SWING	71660-000831	71660-000832	-
CHECK VALVE 6" FOOT	71660-000833	71660-000834	-
CHECK VALVE 8" DOUBLE FLAP	-	-	71660-000840
CHECK VALVE 8" SWING	71660-000841	71660-000842	
CHECK VALVE 8" FOOT	71660-000843	71660-000844	
CHECK VALVE 10" DOUBLE FLAP			71660-000850
CHECK VALVE 10" SWING	71660-000851	71660-000852	
CHECK VALVE 10" FOOT	71660-000853	71660-000854	
CHECK VALVE 12" DOUBLE FLAP			71660-000860
CHECK VALVE 12" SWING	71660-000861	71660-000862	
CHECK VALVE 12" FOOT	71660-000863	71660-000864	

* Additional diameters, materials and specifications are available upon request

"Y" Strainers

Strainers, also known as stone trappers, are installed at the entrance of pumps, water meters, valves and control devices to protect them from solid remains that may cause damage to the installation.



Efficient



Design



Robust

/ Benefits & Features

- **Great efficiency** Very small head losses are achieved, a critical point in most installations
- **Smart design**
 - Perfect geometry to allow a laminar and constant flow
 - Very small head losses are achieved, that are a critical point in most installations
- **Robust materials**
 - The cover is completely sealed throughout the range of pressures and incorporates a threaded plug for easy and quick evacuation of retained solids
 - Screen is in stainless steel, allowing corrosive fluids to flow without difficulty

/ Specifications & Recommendations

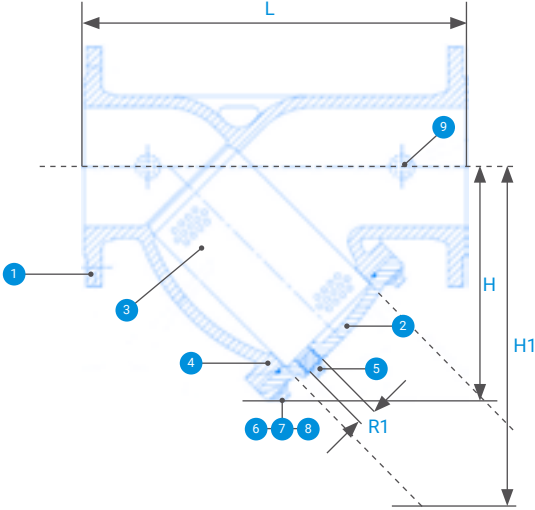
- **Working Pressure** – PN16
- **Dimensions Range** – DN50-DN600
- **Working Temperature** – 0°C – 80°C
- **Connection** – Flange
- **Coating** – Fusion bonded epoxy 250µm

→ Technical Data

DN	Cv Value	Weight (kg)	Standard Screens		
			Hole Diameter (mm)	Free Flow Area (%)	Total Area (mm ²)
50	16	10	1.5	33	4624
65	32	14.5			7709
80	47	19			9549
100	73	32			25485
125	108	40	3.0	40	37780
150	158	62			45065
200	278	109			85166
250	474	197			128827
300	632	253			161697
350	885	458			300324
400	1297	556			374732
450	1739	627			480342
500	2245	780			548323
600	-	1080			834423

→ Technical Dimensions

Dn		L	H	H1	R1	Mesh Dia.	Weight (kg)
2"	50	230	124	183	3/8"	1.5	8
2½"	65	290	137	205	3/8"	1.5	10
3"	80	310	152	238	3/8"	1.5	13
4"	100	350	205	318	3/8"	1.5	16
5"	125	400	244	358	3/8"	1.5	24
6"	150	480	269	380	3/8"	1.5	33
8"	200	600	341	508	½"	2.5	56
10"	250	730	455	700	½"	2.5	96
12"	300	850	476	730	½"	2.5	189
14"	350	980	625	940	¾"	2.5	320
16"	400	1.100	685	1.230	¾"	3.5	378
18"	450	1.200	746	1.110	¾"	3.5	600
20"	500	1.250	845	1.550	¾"	3.5	750
24"	600	1.450	984	1.560	1"	3,5	1150

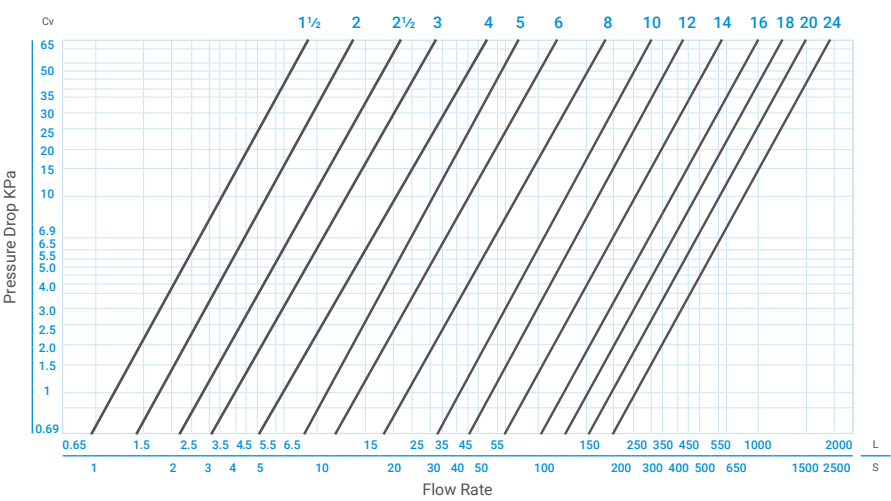


→ Material Specifications

#	Part	Material	Standard
1	Body	Ductile Iron	GGG40
2	Cover	Ductile Iron	GGG40
3	Screen	Stainless Steel	SS304
4	Packing	Rubber	EPDM 5
5	Drain Plug	Stainless Steel	SS304
6	Hex Bolt	Carbon Steel	Q235-A
7	Lock Washer	Carbon Steel	65Mn
8	Plain Washer	Carbon Steel	Q235-A
9	Test Point Plug	Stainless Steel	SS304

*Other materials available upon request

→ Head Loss



/ Air Valves

Air Valves Contents

→ Product Portfolio131

→ Plastic Air Valves

Kinetic / Vacuum Breaking

NAVk	134
AV10.....	137

Automatic

NAVa	139
SG10.....	141
S50	143

Combination

NAVc	145
DT40 (Mini)	148
DG10 / D40	150
D40L.....	153
D43 (Pro)	157

Dynamic

D70	161
D70PQ.....	163

→ Metal Air Valves

Kinetic / Vacuum Breaking

K10 / K60	166
-----------------	-----

Automatic

S15	171
-----------	-----

Combination

NAVmc	173
D43 / D46	177
D50	183
D60	187

→ Description Guide192

Product Portfolio - Plastic Air Valves

Kinetic / Vacuum

NAVk

Diameter: 3/4" - 2"
Max. Pres.: PN10



AV10

Diameter: 3/4" - 1"
Max. Pres.: PN10



Automatic

NAVa

Diameter: 1/2" - 1"
Max. Pres.: PN10, PN16



SG10

Diameter: 1/2" - 1"
Max. Pres.: PN10



S50

Diameter: 1/2" - 1"
Max. Pres.: PN16



Combination

NAVc

Diameter: 1/2" - 2"
Max. Pres.: PN10, PN16



DT40 (Mini)

Diameter: 1/2" - 3/4"
Max. Pres.: PN10, PN16



DG10 / D40

Diameter: 3/4" - 2"
Max. Pres.: PN10, PN16



D40L

Diameter: 1/2" - 2"
Max. Pres.: PN



D43 (Pro)

Diameter: 2" - 3"
Max. Pres.: PN10, PN16



Dynamic

D70

Diameter: 2" - 3"
Max. Pres.: PN10, PN16



D70PQ

Diameter: 2" - 3"
Max. Pres.: PN10, PN16



Product Portfilio - Metal Air Valves

Kinetic / Vacuum

K10, K60

Diameter: 2"
Max. Pres.: PN16



Automatic

S15

Diameter: 1"
Max. Pres.: PN16



Combination

NAVmc

Diameter: 2" - 6"
Max. Pres.: PN16



D43 / D46

Diameter: 2" - 6"
Max. Pres.: PN16



D50

Diameter: 2" - 6"
Max. Pres.: PN16



D60

Diameter: 1" - 6"
Max. Pres.: PN16



/ Plastic Air Valves

NAVk

KINETIC / VACUUM BREAKING VALVE

This valve has been designed for efficient discharge and intake of air in water transport systems, filtering systems, containers, and other locations where confined air could impair the system's operation.



Reliable



Superior
design



Easy
maintenance

/ Benefits & Features

- **Reliable** The valve offers leak-proof sealing even at a low system pressure
- **Superior design**
 - The aerodynamic design of the valve enables air flow at very high velocities
 - The outlet port directs the "blowout" flow away, protecting sensitive devices and the operators
- **Easy maintenance** The valve design contains a very limited number of parts, allowing easy dismantling for maintenance

/ Specifications & Recommendations

- **Operating Pressure** – 0.1 to 10bar / 1½ to 150psi
- **Maximal Operating Temperature** – 60°C / 140°F
- **2" BSP or NPT Threaded Base** – As per the customer's choice
- **Materials** – Corrosion-resistant reinforced plastic materials and synthetic rubber

→ Technical Dimensions

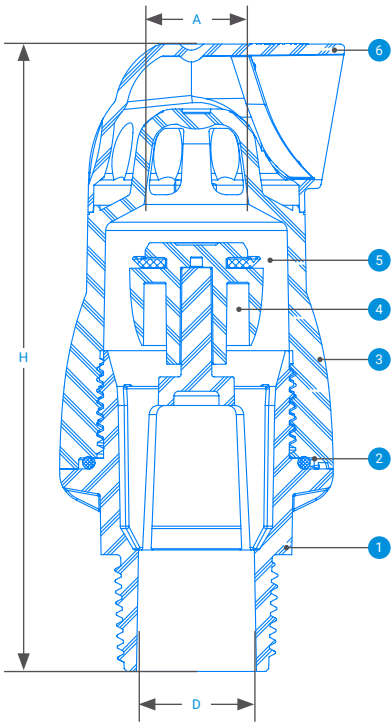
Valve	20 mm / 3/4"		25 mm / 1"		50 mm / 2"	
Dimension	SI	US	SI	US	SI	US
D - Thread	3/4" BSP	3/4" NPT	1" BSP	1" NPT	2" BSP	2" NPT
H - Height	132mm	5.2"	132mm	5.2"	132mm	5.2"
A - Nozzle Area	380mm ²	0.59 in ²	380mm ²	0.59in ²	804mm ²	1.25 in ²
Weight	125g	0.27lbs.	125g	0.27lbs.	200g	0.4lbs.

→ Material Specifications

3/4", 1"

#	Part Name	Material
1	Base	PA GF
2	O ring	NBR
3	Body	PA GF
4	Float	POM
5	Seal	EPDM
6	Cover	POM

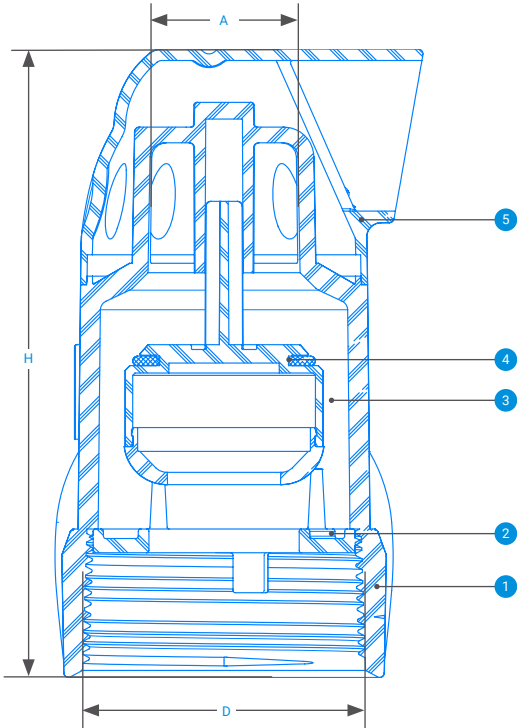
3/4", 1"



2"

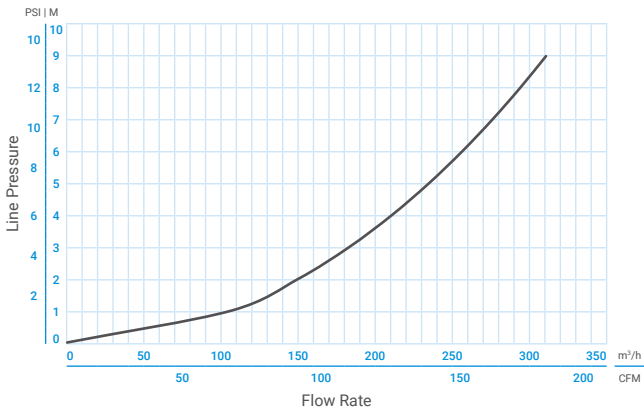
#	Part Name	Material
1	Body	PA GF
2	Ring	PA GF
3	Float	POM
4	Seal	EPDM
5	Cover	PA GF

2"

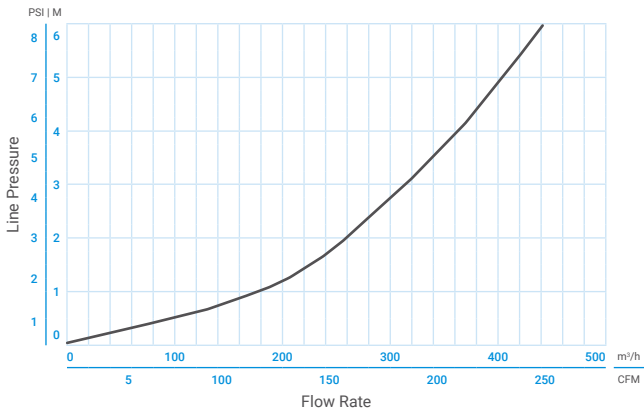


→ Head Loss

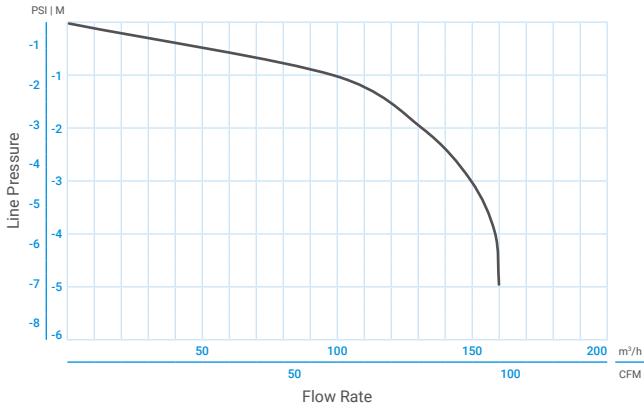
Discharge Data - Free Air Flow - 3/4", 1"



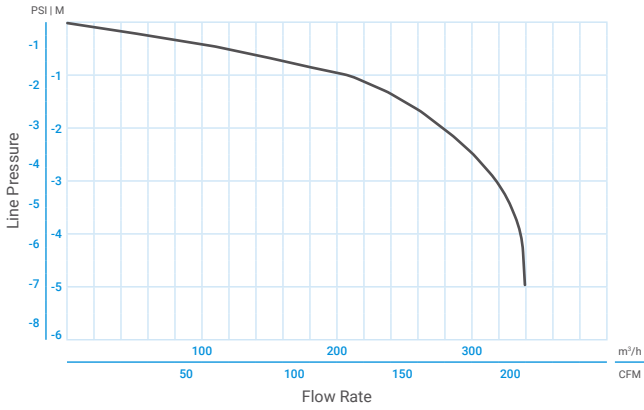
Discharge Data - Free Air Flow - 2"



Inflow Data - Free Air Flow - 3/4", 1"



Inflow Data - Free Air Flow - 2"



→ Catalog Numbers

Diameter	Connection	Catalog Number
3/4"	BSP	32600-005912
	NPT	32600-006000
1"	BSP	32600-006004
	NPT	32600-006001
2"	BSP	32600-006003
	NPT	32600-006002

AV10

KINETIC / VACUUM BREAKING AIR VALVE

The AV-010 Air & Vacuum Valve discharges air at high flow rates during the filling of the system and admits air at high flow rates during drainage, pump shut-off or at water column separation.



3/4", 1" model



2" model



Built to last



Simple



Reliable

/ Benefits & Features

- **Built to last** Made of high strength composite materials, and all operating parts are made of specially selected corrosion-resistant and UV resistant materials
- **Simple** Lightweight and small dimensions
- **Reliable** For all parts
- **Drip-tight** Sealing at low pressure

/ Specifications & Recommendations

- **Working Pressure Range** – 0.2 - 10bar
- **Testing Pressure** – 16bar
- **Working Temperature** – 60°C
- **Maximum Intermittent Temperature** – 90°C
- Available in 3/4" (20mm), 1" (25mm) male threaded, 2" (50mm), 3" (80mm) female threaded NPT/BSPT.
- **Optional Addition** – Shrader valve for measuring local line pressure (3/4", 1" only).

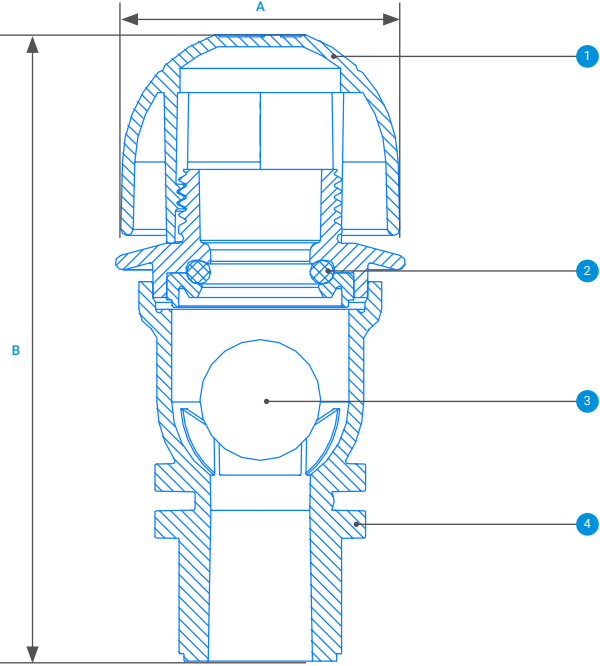
→ Technical Dimensions

Nominal Size	Dimensions (mm)		Weight (gr)	Orifice Area (mm ²)
	A	B		
3/4" (20mm)	60	124	0.1	314
1" (25mm)	60	124	0.1	314
2" (50mm)	73	122	0.2	800
3" (80mm)	104	165	0.6	2000

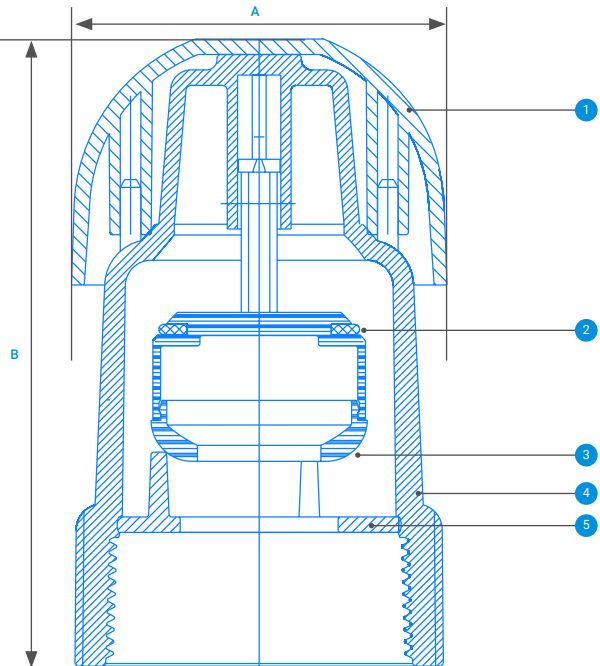
→ Material Specifications

#	Part Name	3/4", 1"	2"	3"
1	Cover	Polypropylene	Polypropylene	Polypropylene
2	Seal	BUNA-N	EPDM	EPDM
3	Float	Polypropylene	Reinforced nylon	Reinforced nylon
4	Body	Polypropylene	Reinforced nylon	Reinforced nylon
5	Disc	-	Reinforced nylon	Reinforced nylon

3/4", 1" Model

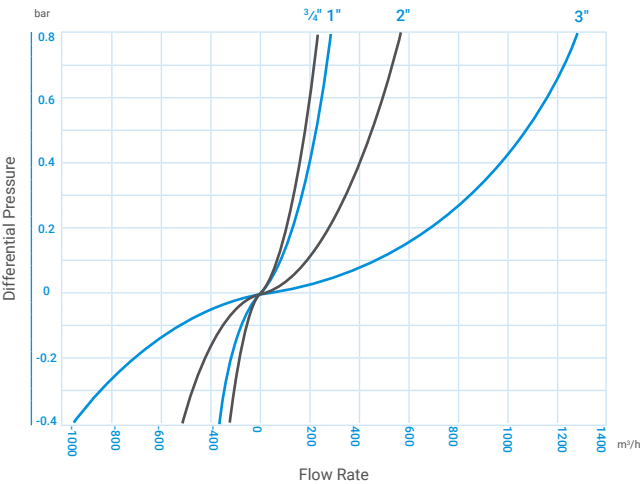


2" Model



→ Head Loss

Air & Vacuum Flow Rate



→ Catalog Numbers

Model	Diameter	Connection	Max. Pressure	Catalog Number
AV10	3/4"	BSP	PN10	70540-001300
		NPT	PN10	70561-002950
	1"	BSP	PN10	70540-001400
		NPT	PN10	70561-002610

NAVa

AUTOMATIC AIR VALVE

Designed for an efficient release of entrapped air from the pipeline, while the network is at normal working pressure. Due to the relatively large orifice, compared to other automatic valves in the market, it can also release the air through initial filling of a small-diameter pipe, or admit air into it while it is drained.



Reliable



Design



Robust

/ Benefits & Features

- **Reliable**
 - Automatic air valve enables the release of dissolved air that accumulates in the pipeline. The valve releases the air at normal operation pressures of the pipeline
 - Air outlet opening mechanism
 - The Hydraulic sealing of the orifice provides a drip-tight closure at a pressure of 2mwc (3psi)
- **Design**
 - Large orifice, compare to other automatic valves in the market
- **Robust**
 - Float material made of naturally buoyant material
 - Float mechanism activates a sealing stripe, that closes the outlet when the water will fill the valve body

/ Specifications & Recommendations

- **Operating Pressure –**
0.1bar / 1.5psi to 16bar / 230psi
- **Maximal Water Temp. for Continuous Operation –** 60°C / 140°F
- **Maximal Water Temp. for Intermittent Operation –** 80°C / 175°F
- **1/2", 3/4", 1" BSP or NPT threaded base - as per the customer's choice**
- **Structure Materials –**
Cover - GRP (UV resistant) / polypropylene
Base - GRP / polypropylene or brass
- **Internal Parts –** Corrosion-resistant, reinforced plastic materials and synthetic rubber
- **The valve allows the discharge of 40m³/h / 24CFM of air at pipe pressure of 6bar / 90 psi**

→ Technical Dimensions

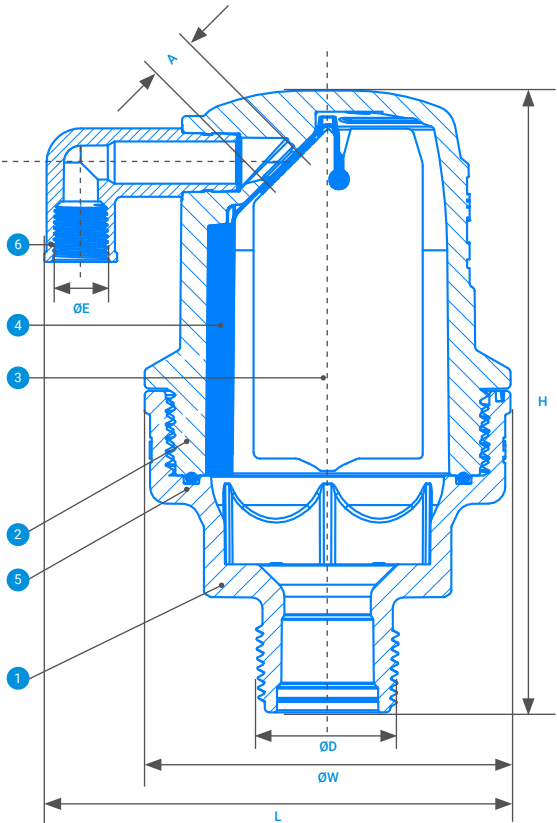
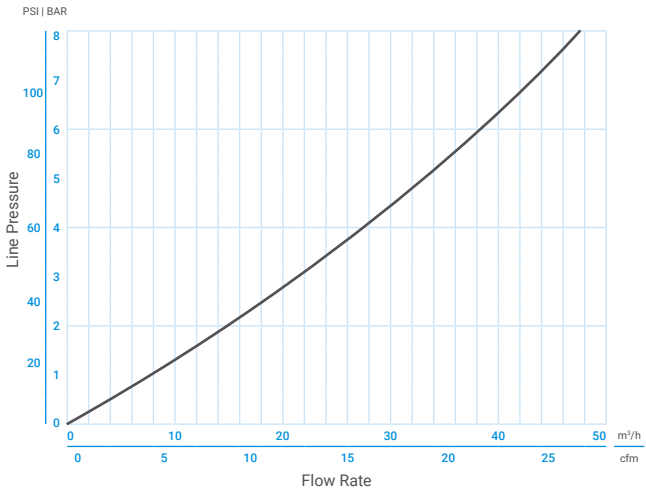
Valve	12mm / 1/2"		20mm / 3/4"		25mm / 1"	
Dimension	SI	US	SI	US	SI	US
H - Height	147mm	5 3/4"	147mm	5 3/4"	147mm	5 3/4"
W - Width	86mm	3 1/3"	86mm	3 1/3"	86mm	3 1/3"
D - Thread	1/2" BSP	1/2" NPT	3/4" BSP	3/4" NPT	1" BSP	1" NPT
A - Nozzle Area	12.85mm ²	0.02in ²	12.85mm ²	0.02in ²	12.85mm ²	0.02in ²
L - Total Width	110mm	4 1/3"	110 mm	4 1/3"	110 mm	4 1/3"
E - Drainage Diameter	1/4" BSP	1/4" BSP	1/4" BSP	1/4" BSP	1/4" BSP	1/4" BSP
Weight	400g	0.88lbs.	400g	0.88lbs.	400g	0.88lbs.

→ Material Specifications

#	Part Name	Material
1	Base	Glass reinforced nylon Optional: brass, polypropylene
2	Bonnet	Glass reinforced nylon Optional: polypropylene
3	Float	Foamed polypropylene
4	Seal	EPDM
5	O-ring	NBR
6	Drainage elbow	Polypropylene

→ Head Loss

Discharge data (Free air flow) Small Nozzle
1/2", 3/4", 1", 2"



→ Catalog Numbers

Model	Diameter	Connection	Max. Pressure	Catalog Number
NAVd	1/2"	BSP	PN10	32600-006010
	1/2"	NPT	PN10	32600-006020
	1/2"	BSP	PN16	32600-006030
	1/2"	NPT	PN16	32600-006040
	3/4"	BSP	PN10	32600-006011
	3/4"	NPT	PN10	32600-006021
	3/4"	BSP	PN16	32600-006031
	3/4"	NPT	PN16	32600-006041
	1"	BSP	PN10	32600-006012
	1"	NPT	PN10	32600-006022
	1"	BSP	PN16	32600-006013
	1"	NPT	PN16	32600-006023

SG10

AUTOMATIC AIR VALVE

The Automatic Air Release Valve releases accumulated air from the system while it is under pressure. The presence of air in a water system can reduce the effective cross sectional flow area resulting in increased head loss and decreased flow.



Robust



Design



Versatile

/ Benefits & Features

- **Robust** Body and parts made of specially selected corrosion- resistant and high-strength composite materials
- **Design**
 - Larger orifice to enable the release of air at higher flow rates than other valves of its kind
 - Rolling seal mechanism makes it less sensitive to different pressures than a direct float seal
 - Discharge outlet enables the connection of a vent pipe
- **Versatile** One size orifice for a wide pressure range (from 0.2 up to 10/16bar)
- **Self-cleaning mechanism** Dramatically reduces obstruction caused by debris
- **Durable** Lightweight, simple and reliable structure with body made of high strength composite materials

/ Specifications & Recommendations

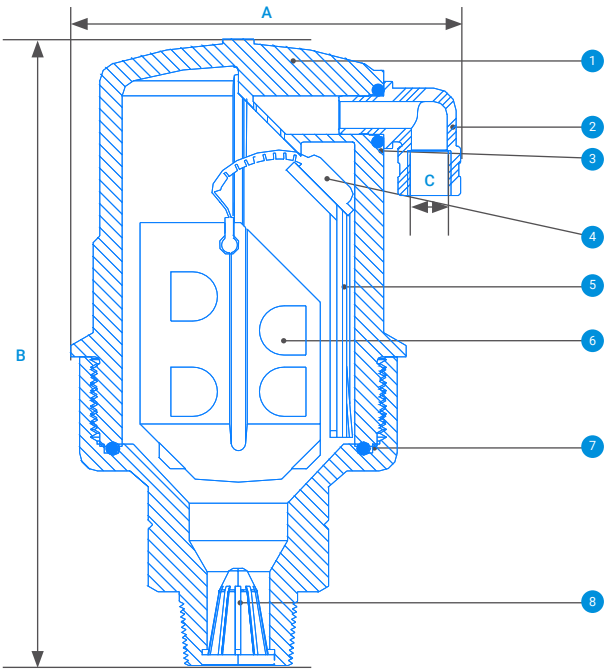
- **Working Pressure Range** – 0.1 - 10bar
- Test pressure for the air valve is 1.5 times its working pressure
- **Maximum Working Temperature** – 60°C
- **Maximum Intermittent Temperature** – 90°C

→ Technical Dimensions

Dimensions (mm)		Connection	Weight (gr.)	Orifice Area (mm ²)
A	B	C		
100	140	1/8" BSP female	0.3	12

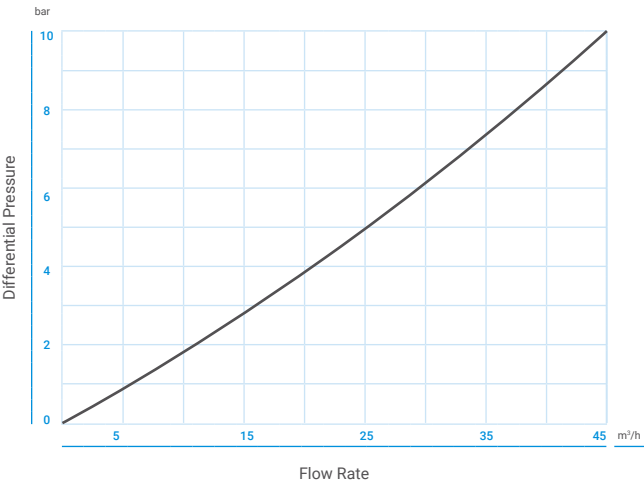
→ Material Specifications

#	Part Name	Material
1	Cover	Reinforced nylon
2	Air release outlet	Polypropylene
3	O-ring	BUNA-N
4	Rolling seal	EPDM
5	Clamping stem	Reinforced nylon
6	Float	Foamed polypropylene
7	O-ring	BUNA-N
8	Base	Reinforced nylon / brass
9	Strainer	Nylon

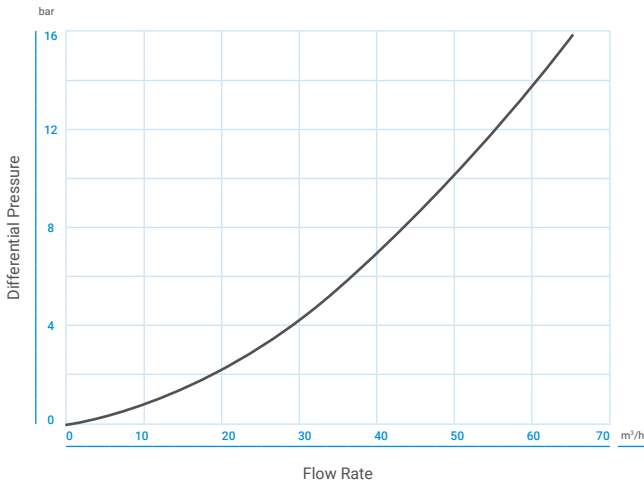


→ Head Loss

Air & Vacuum Flow Rate



Automatic Air Release Flow Rate



→ Catalog Numbers

Model	Diameter	Connection	Max. Pressure	Catalog Number
SG10	1/2"	BSP	PN10	70440-001350
	3/4"	BSP	PN10	70440-001450
	1"	BSP	PN10	70440-001550

S50

AUTOMATIC AIR VALVE

Automatic air release valve releases accumulated air from the system while it is under pressurized. The presence of air in a water system can reduce the effective cross-sectional flow area resulting in increased head loss and decreased flow.



Robust



Design



Versatile

/ Benefits & Features

- **Robust** Body and parts made of specially selected corrosion-resistant and high-strength composite materials
- **Design**
 - Larger orifice to enable the release of air at higher flow rates than other valves of its kind
 - Rolling seal mechanism makes it less sensitive to different pressures than a direct float seal
 - Discharge outlet enables the connection of a vent pipe
- **Versatile** One size orifice for a wide pressure range (from 0.2 up to 10/16bar)
- **Self-cleaning mechanism** Dramatically reduces obstruction caused by debris
- **Durable** Lightweight, simple and reliable structure with body made of high strength composite materials

/ Specifications & Recommendations

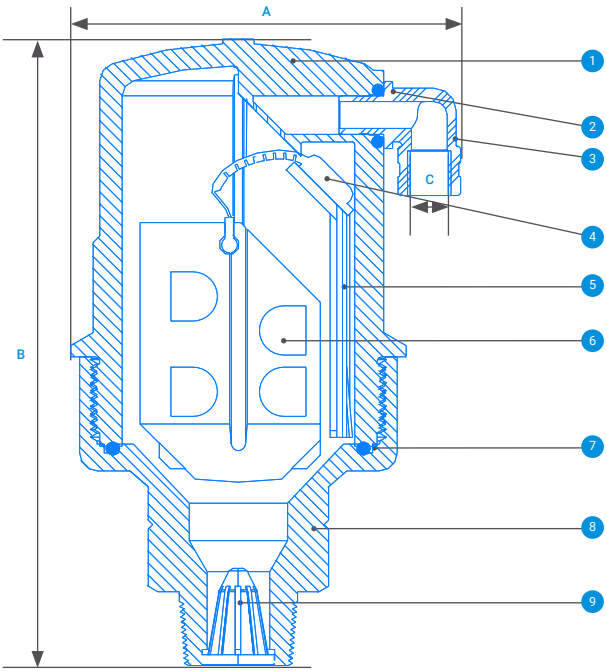
- **Working Pressure Range** – 0.2 - 16bar
- Test pressure for the air valve is 1.5 times its working pressure
- **Maximum Working Temperature** – 60°C
- **Maximum Intermittent Temperature** – 90°C

→ Technical Dimensions

Dimensions (mm)		Connection	Weight (gr)	Orifice Area (mm ²)
A	B	C		
87	143	1/8" BSP female	0.3	12

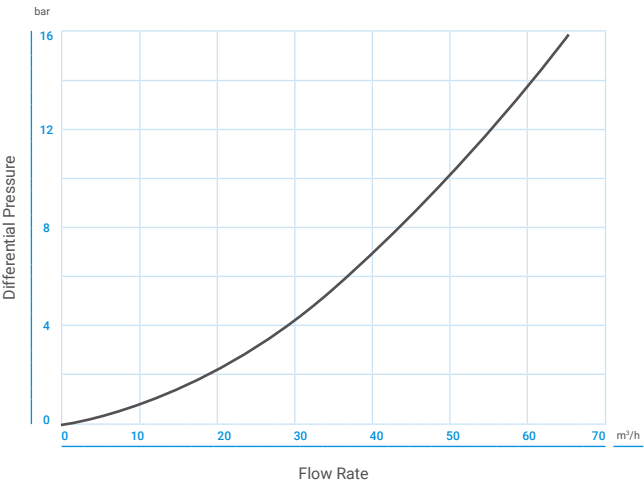
→ Material Specifications

#	Part Name	Material
1	Body	Reinforced nylon
2	Air release outlet	Polypropylene
3	O-ring	BUNA-N
4	Rolling seal	EPDM
5	Clamping stem	Reinforced nylon
6	Float	Foamed polypropylene
7	O-ring	BUNA-N
8	Base	Reinforced nylon / brass
9	Strainer	Nylon

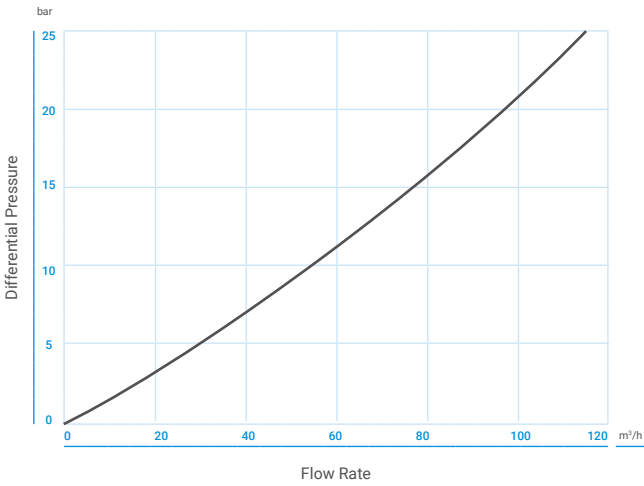


→ Head Loss

PN 16 Automatic Air Release Flow Rate



PN 25 Automatic Air Release Flow Rate



→ Catalog Numbers

Model	Diameter	Connection	Max. Pressure	Catalog Number
S50	1/2"	BSP	PN16	70440-001300
	3/4"	BSP	PN16	70440-001400
		NPT	PN16	70561-003610
	1"	BSP	PN16	70440-001500
		NPT	PN16	70561-003900

NAVc

COMBINATION AIR VALVE

This valve has been designed for efficient discharge and intake of air in water transport systems, filtering systems, containers, and other places where confined air could impair the system's operation.



PN-10

PN-16



Reliable



Design



Efficient air relief

/ Benefits & Features

- **Reliable** Leak-proof sealing at all conditions, including low system pressure
- **Superior design**
 - The aerodynamic design of the float provides air flow at a very high velocity
 - Threaded outlet elbow allows various possibilities of drain connection
- **Easy maintenance** The valve design contains a very limited number of parts, allowing easy dismantling for maintenance

/ Specifications & Recommendations

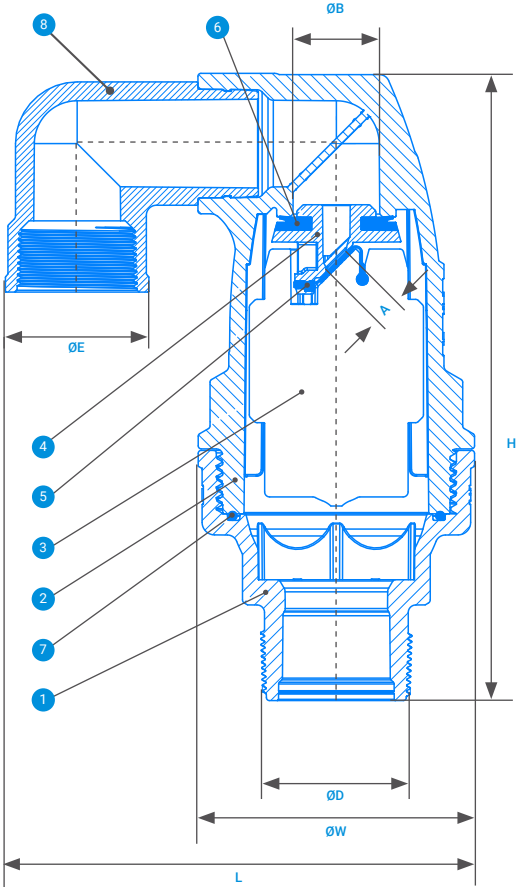
- **Operating Pressure –**
0.1bar / 1.5psi to 16bar / 230psi
- **Maximal Water Temp. for Continuous Operation –** 60°C / 140°F
- **Maximal Water Temp. for Intermittent Operation –** 80°C / 175°F
- **1/2", 3/4", 1", 2" BSP or NPT threaded base - as per the customer's choice**
- **Structure Materials –**
Cover - GRP (UV resistant) / polypropylene
Base - GRP / polypropylene or brass
- **Internal Parts –** Corrosion-resistant, plastic materials and synthetic rubber
- **At Pipe Pressure of 0.5bar / 7psi –**
 - The 2"/50mm valve allows the discharge of 260m³/h / 153CFM of air
 - The 1"/25mm valve allows the discharge of 60m³/h / 35CFM of air

→ Technical Dimensions

Valve	12 mm / ½"		20 mm / ¾"		25 mm / 1"		50 mm / 2"	
Dimension	SI	US	SI	US	SI	US	SI	US
H - Height	183mm	7¼"	183mm	7¼"	183mm	7¼"	249mm	9⅞"
W - Width	86mm	3⅓"	86mm	3⅓"	86mm	3⅓"	110mm	4⅓"
D - Thread	½" BSP	½" NPT	¾" BSP	¾" NPT	1" BSP	1" NPT	2" BSP	2" NPT
A - Nozzle Area	12.85mm²	0.02in²	12.85mm²	0.02in²	12.85mm²	0.02in²	12.85mm²	0.02in²
K - Kinetic Nozzle Area	314mm²	0.49in²	314mm²	0.49in²	314mm²	0.49in²	908mm²	1.41in²
L - Total Width	134mm	5¼"	134mm	5¼"	134mm	5¼"	187mm	7⅜"
E - Drainage Diameter	¾" BSP	¾" BSP	¾" BSP	¾" BSP	¾" BSP	¾" BSP	1½" BSP	1½" BSP
Weight	470g	1.04lbs.	470g	1.04lbs.	470g	1.04lbs.	1052g	2.32lbs.

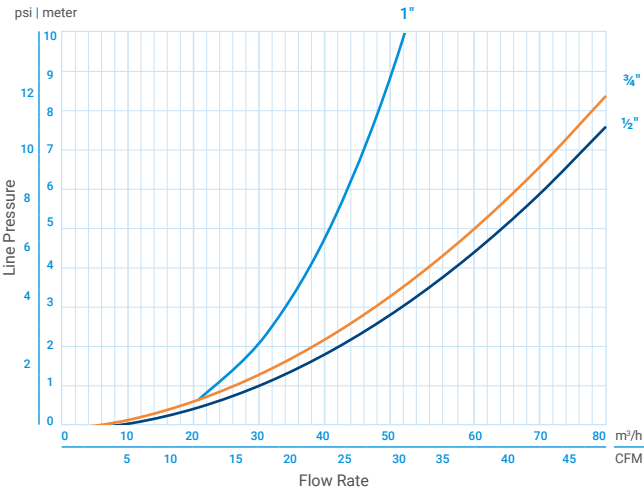
→ Material Specifications

#	Part Name	Material
1	Body	Glass reinforced nylon Optional: brass, polypropylene
2	Bonnet	Glass reinforced nylon Optional: polypropylene
3	Float	Foamed polypropylene
4	Slider	Glass reinforced nylon
5	Automatic seal	EPDM
6	Kinetic seal	EPDM
7	O-ring	NBR
8	Drainage elbow	Polypropylene

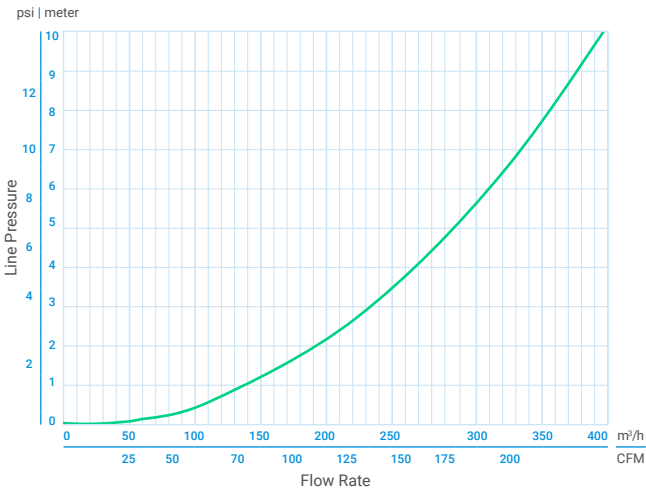


→ Head Loss

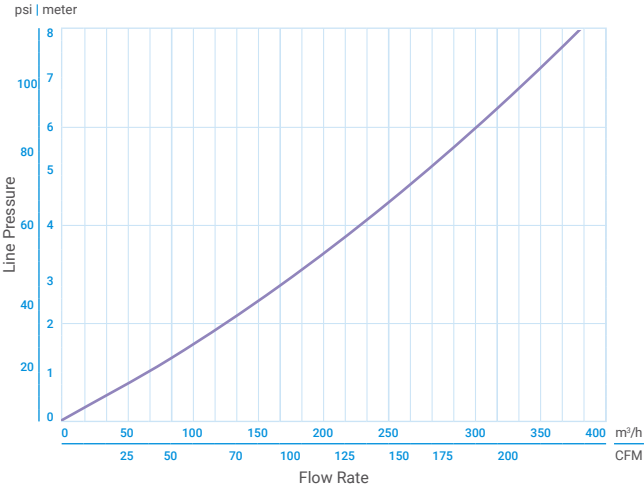
Discharge Data (Free Air Flow) - ½", ¾", 1"



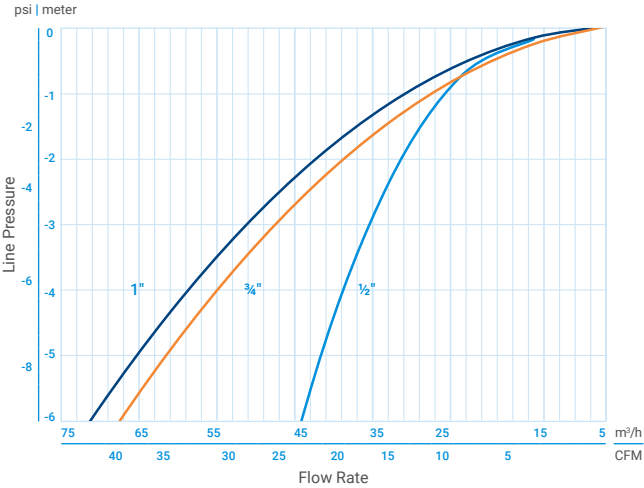
Discharge Data (Free Air Flow) - 2"



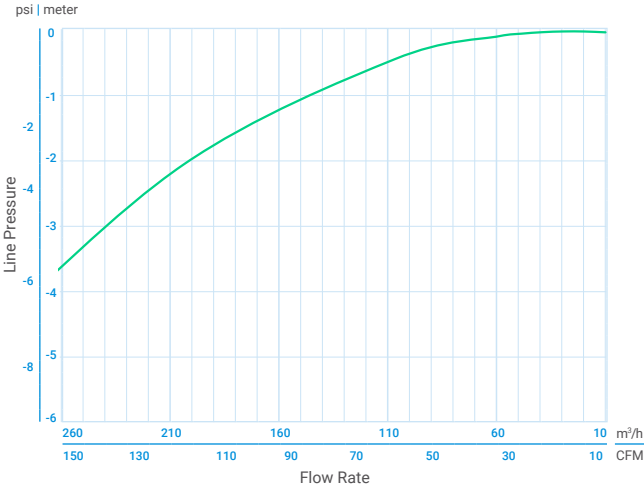
Discharge Data
(Free Air Flow) Small Nozzle - 1/2", 3/4", 1", 2"



Inflow Data
(Free Air Flow) - 1/2", 3/4", 1"



Inflow Data (Free Air Flow) - 2"



→ Catalog Numbers

Model	Diameter	Connection	Max. Pressure	Catalog Number
NAVd	1/2"	BSP	PN10	32600-006060
	1/2"	NPT	PN10	32600-006070
	1/2"	BSP	PN16	32600-006065
	1/2"	NPT	PN16	32600-006080
	3/4"	BSP	PN10	32600-006061
	3/4"	NPT	PN10	32600-006071
	3/4"	BSP	PN16	32600-006063
	3/4"	NPT	PN16	32600-006081
	1"	BSP	PN10	32600-006062
	1"	NPT	PN10	32600-006072
	1"	BSP	PN16	32600-006066
	1"	NPT	PN16	32600-006082
	2"	BSP	PN10	32600-006064
	2"	NPT	PN10	32600-006074
	2"	BSP	PN16	32600-006067
	2"	NPT	PN16	32600-006075

DT40 (Mini)

COMBINATION AIR VALVE WITH ORIFICE SHUT-OFF

Designed to prevent disturbances caused by presence or absence of air in small water supply systems. Combines an air & vacuum large orifice and an automatic small orifice in a single body.



DT040
Regular



DT040
Low Pressure



Design



Self-cleaning
mechanism



Compact

/ Benefits & Features

- **Design**
 - Innovative integral orifice shut-off valve enables the closure of the air valve orifices with no interference to water flow in the pipe
 - Allows high-velocity air discharge and preventing premature closure
 - Discharge outlet enables for the connection of a 10mm polyethylene discharge tube
- **Self-cleaning mechanism**
 - Dramatically reduces obstruction due to debris
- **Compact**
 - Small structure. Weights only 144gr.
- **Flow option**
 - One-way

/ Specifications & Recommendations

- **Working Pressure Range** – 0.2 - 10bar / 0.05 - 6bar (LP model)
- **Testing Pressure** – 16bar
- **Working Temperature** – 60°C
- **Connections** – Threaded 1/2", 3/4", 1" BSPT / NPT

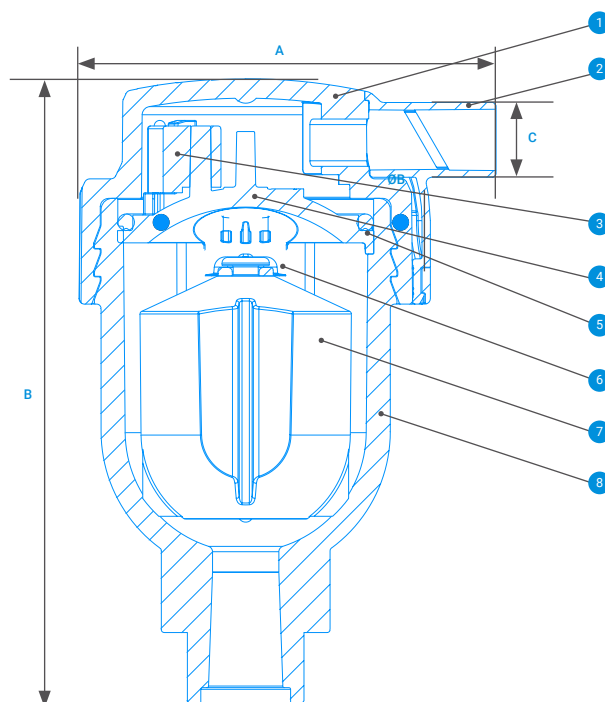
- Optional model DT-040 (max. working pressure 10bar)
- Optional barbed and threaded connection for low pressure systems: model DT-040 LP (max. working pressure 6 bar)

→ Technical Dimensions

Dimensions (mm)			Weight Gr.	Orifice Area (mm ²)	
A	B	C		Auto.	a/v
60	115	11	144	5.6	4.2

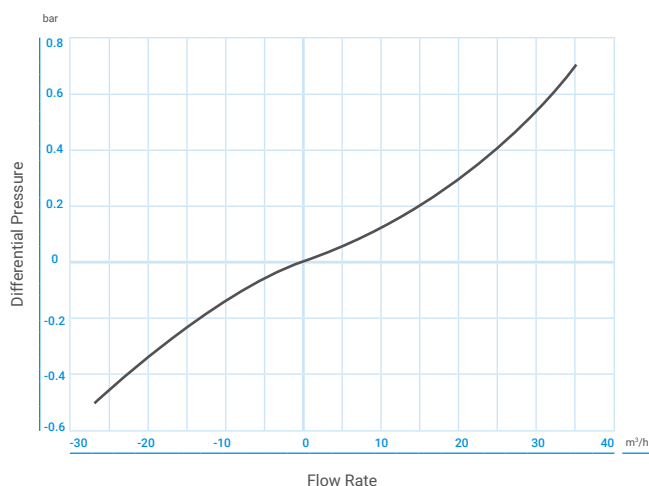
→ Material Specifications

#	Part Name	Material
1	Cover & shut-off valve	Acetal
2	Discharge outlet	Acetal
3	Flat plug	EPDM
4	Seat	Polypropylene
5	O-ring	BUNA-N
6	Seal	EPDM
7	Float	Foamed polypropylene
8	Body	Polypropylene

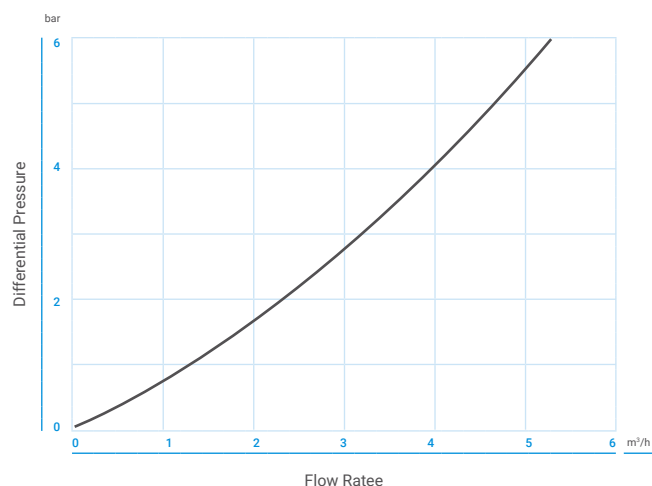


→ Head Loss

Air & Vacuum Flow Rate



Automatic Air Release Flow Rate



→ Catalog Numbers

Model	Diameter	Connection	Max. Pressure	Catalog Number
DT40	1/2"	BSP	PN10	70500-001255
	1/2"	NPT	PN10	70561-000800
	3/4"	BSP	PN10	70500-001260
DT40LP	1/2"	BSP	PN6	70500-001270
	3/4"	BSP	PN6	70500-001272

DG10 / D40

COMBINATION AIR VALVE

The Combination Air Valve has the features of both an air release valve and an air & vacuum valve. The air release component is designed to automatically release small pockets of air to the atmosphere as they accumulate at peaks or along a pipeline or piping system when it is full and operating under pressure.



DG 10 (PN10)



D40 (PN16)



Reliable



Design



Easy to use

/ Benefits & Features

- **Reliable** Reduces water hammer incidents
- **Superior design** Allows for high velocity air discharge while preventing premature closure
- **Easy to use** Lightweight, simple and reliable structure
- **Discharge outlet** The discharge outlet enables removal of excess fluids
- **Automatic air release**
 - The large size of the automatic air release orifice relative to the air valve body:**
 - Discharges air at high flow rates
 - Lessens the danger of its obstruction by debris
 - Enables the usage of the patented rolling seal mechanism, making it less sensitive to pressure differential than a direct float seal
 - The body is made of high-strength composite materials and all operating parts are made of specially selected, corrosion-resistant materials
 - Due to its light weight, the valve may be installed on plastic piping systems, as well as other lightweight piping systems

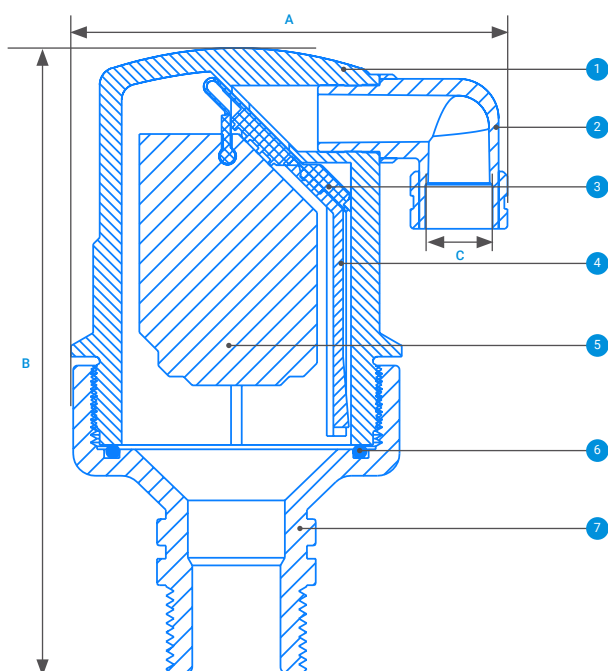
/ Specifications & Recommendations

- **Working Pressure Range** – DG10: 0.1-10bar / D40: 0.2-16bar
- **Testing Pressure** – DG10: 16bar / D40: 25bar
- **Maximum Working Temperature** – 60°C
- **Maximum Intermittent Temperature** – 90°C

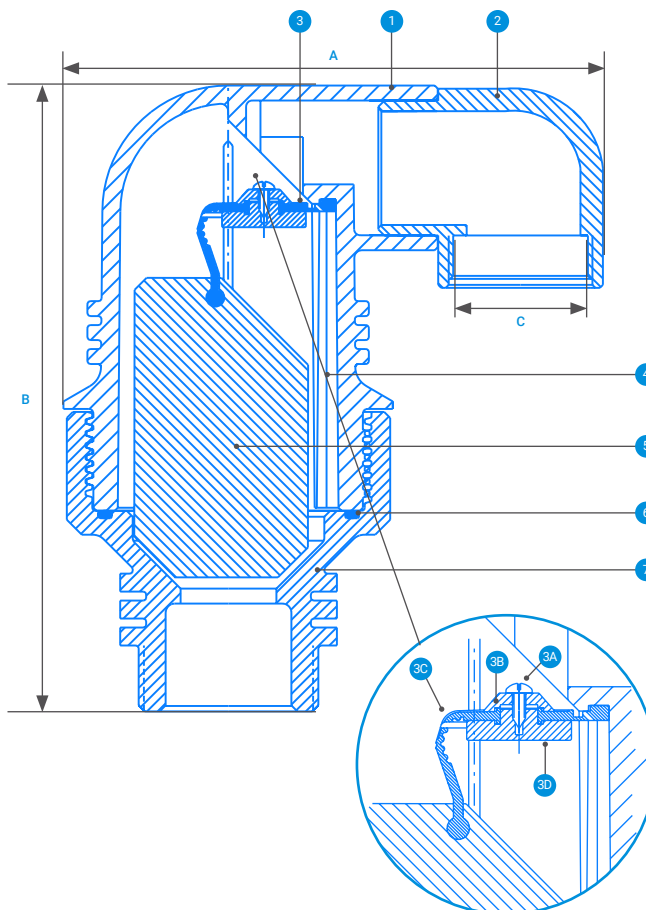
→ Technical Dimensions

Nominal Size	Dimensions (mm)		Connections (mm)	Weight (kg)	Orifice Area (mm ²)	
	A	B			auto.	a/v
1/2", 3/4", 1"	100	143	3/8" BSP female	0.33	7.8	100
2"	183	215	1 1/2" BSP female	1.10	12	804

1/2", 3/4", 1" Model



2" Model

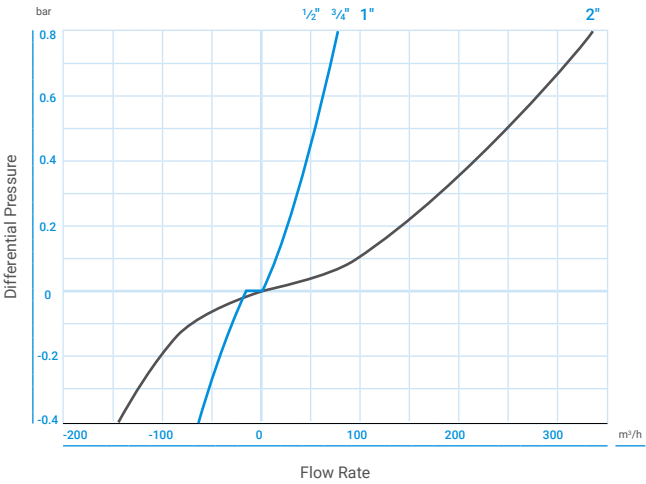


→ Material Specifications

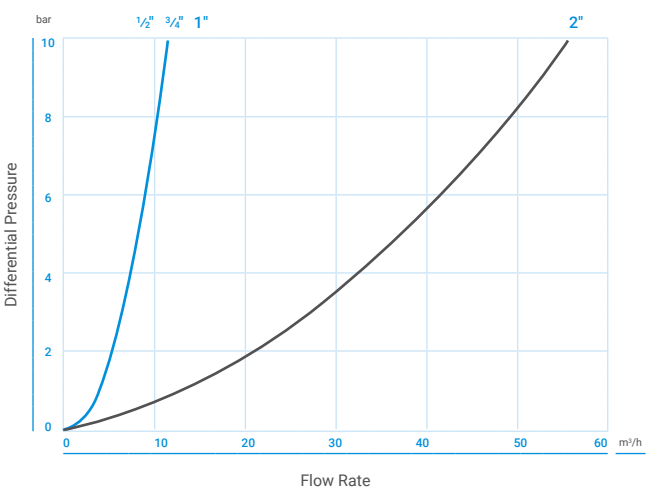
#	Part Name	Material
1	Body	Reinforced nylon
2	Discharge outlet	Polypropylene
3	1/2", 3/4", 1" Rolling seal	EPDM
2" rolling seal assembly:		
3a	Screws	Stainless steel 304
3b	Plug cover	Reinforced nylon
3c	Rolling seal	EPDM
3d	Plug	Reinforced nylon
4	Clamping stem	Reinforced nylon
5	Float	Foamed polypropylene
6	O-ring	BUNA-N
7	Base	Reinforced nylon / brass / stainless steel 316
8	Optional: ball valves	Brass nickel plated

→ Head Loss

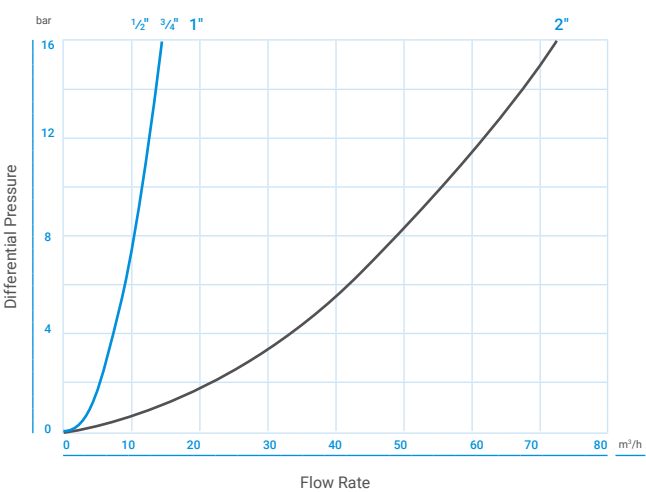
Air & Vacuum Flow Rate



GD10 / PN 10 Automatic Air Release Flow Rate



D40 / PN 16 Automatic Air Release Flow Rate



→ Catalog Numbers

Model	Diameter	Connection	Max. Pressure	Catalog Number
DG10	3/4"	BSP	PN10	70500-000520
		NPT	PN10	70561-001050
	1"	BSP	PN10	70500-000650
		NPT	PN10	70561-001200
		NPT	PN10	70561-001660
		BSP	PN10	70500-001170
D40	3/4"	BSP	PN16	70500-000500
		NPT	PN16	70561-000850
	1"	BSP	PN16	70500-000600
		NPT	PN16	70561-001240
	2"	BSP	PN16	70500-001100
		NPT	PN16	70561-001400

D40L

COMBINATION AIR VALVE FOR SMALL SUSPENDED SOLIDS

Features of both an air release valve and an air & vacuum valve in a single body. This air valve is specifically designed to operate with liquids containing small suspended solids.



D-040L PP
Model



D-040L 2"
Model



Durable



Lightweight



Design

/ Benefits & Features

→ Durable

- Lightweight, simple, and reliable structure
- Body and all operating parts are made of specially selected, corrosion-resistant materials

→ Lightweight

Enables valve to be installed on plastic piping systems or other lightweight piping systems

→ Dynamic design

- Allows for high-capacity air discharge while preventing premature closure
- Discharge outlet enables the connection of a vent pipe
- The large size of the automatic air release orifice relative to the air valve body releases air at high flow rates, lessens the danger of its obstruction by debris, and the valve's rolling seal mechanism design is less sensitive to different pressures than a direct float seal
- Air gap building separates the liquids with suspended particles from the sealing mechanism

/ Specifications & Recommendations

→ **Working Pressure Range** – Polypropylene:
0.02 - 10bar, St.St. 316 / duplex / reinforced
nylon / PVDF: 0.05 - 16bar

→ **Testing Pressure** – 1.5 times the maximum
working pressure
→ **Maximum Working Temperature** – 60°C
→ **Maximum Intermittent Temperature** – 90°C

→ Technical Dimensions

PP / Nylon / PVDF

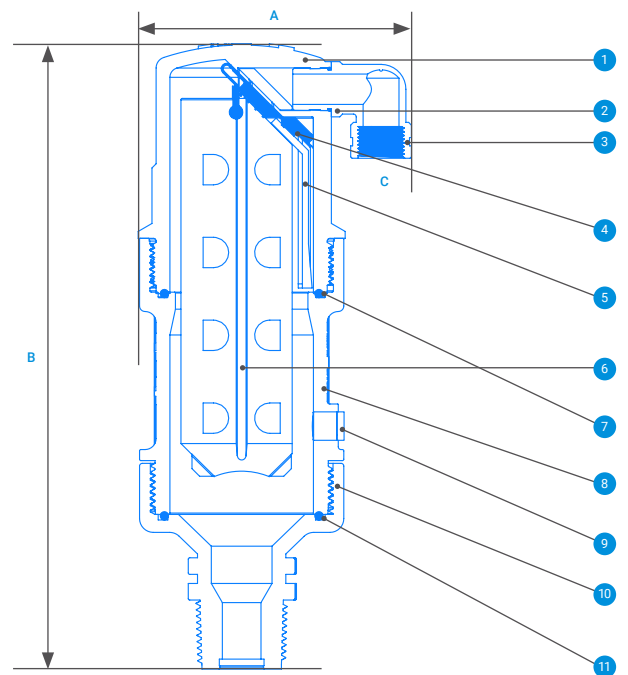
Model 1/2", 3/4", 1"	Dimensions (mm)		Connection	Weight (gr)	Orifice Area (mm²)	
	A	B			auto	a/v
pp / NYLON / PVDF	99	227	3/8" BSP female	0.6	100	7.8
STST / duplex	94	216	3/8" BSPT female	1.7	100	7.8

→ Material Specifications

PP / Nylon / PVDF

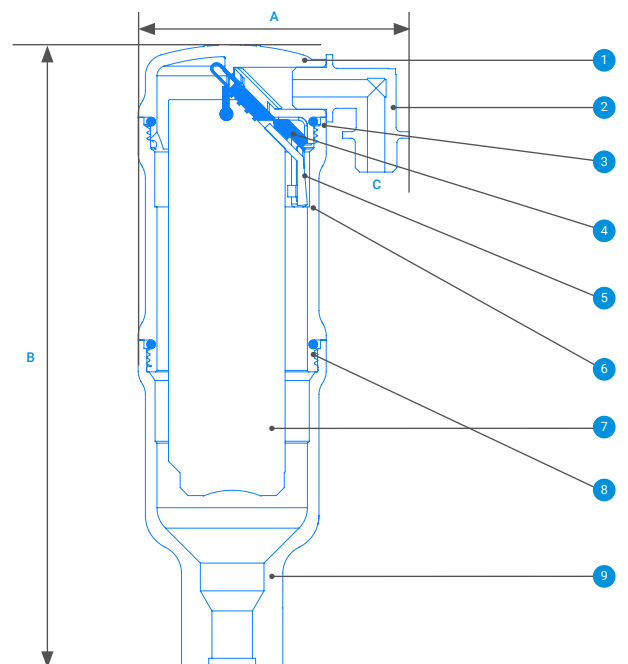
#	Part Name	Material
1	Body	Polypropylene / reinforced nylon / PVDF
2	O-ring	BUNA-N / viton / EPDM
3	Discharge outlet	Polypropylene
4	Rolling seal	EPDM / viton
5	Clamping stem	Polypropylene
6	Float	Foamed polypropylene
7	O-ring	BUNA-N / viton / EPDM
8	Extension	Polypropylene / reinforced nylon / pvdf
9	Closed port* (default)	
10	Base	Polypropylene / reinforced nylon / PVDF
11	O-ring	Buna-n / viton

* Optional: Open Port / Schrader Valve / Plug



STST / Duplex

#	Part Name	Material
1	Cover	Stainless steel 316 / duplex
2	Air release outlet	Polypropylene
3	O-ring	Buna-n / viton / EPDM
4	Rolling seal	EPDM / viton
5	Clamping stem	Reinforced nylon
6	Extension	Stainless steel 316 / duplex
7	Float	Foamed polypropylene
8	O-ring	Buna-n / viton / EPDM
9	Body	Stainless steel 316 / duplex



→ Technical Dimensions

2"

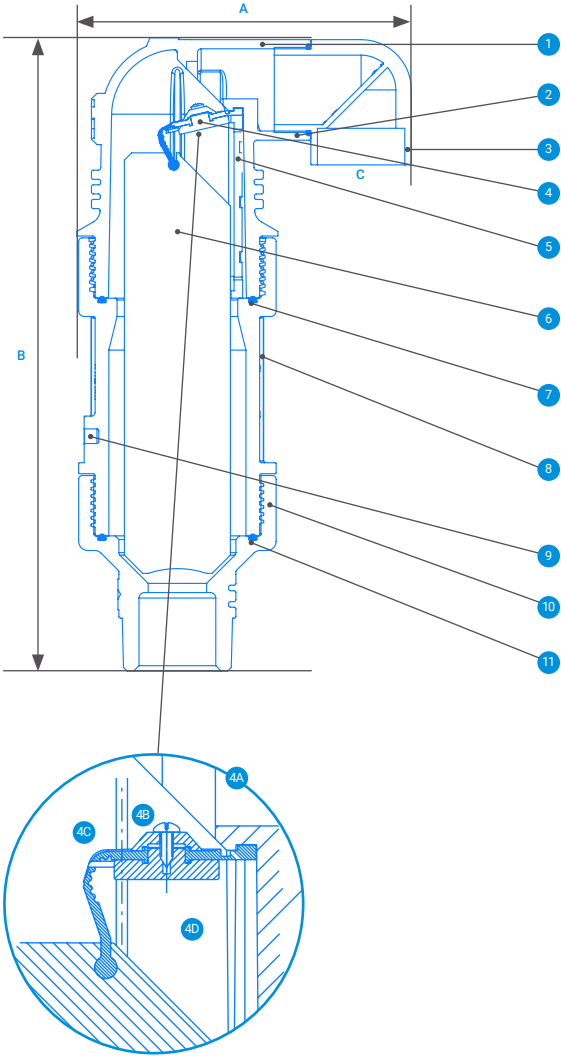
Size	Dimensions (mm)		Connection	Weight (gr)	Orifice Area (mm ²)	
	A	B	C		auto	a/v
2"	99	227	3/8" bsp female	0.6	100	7.8

→ Material Specifications

2"

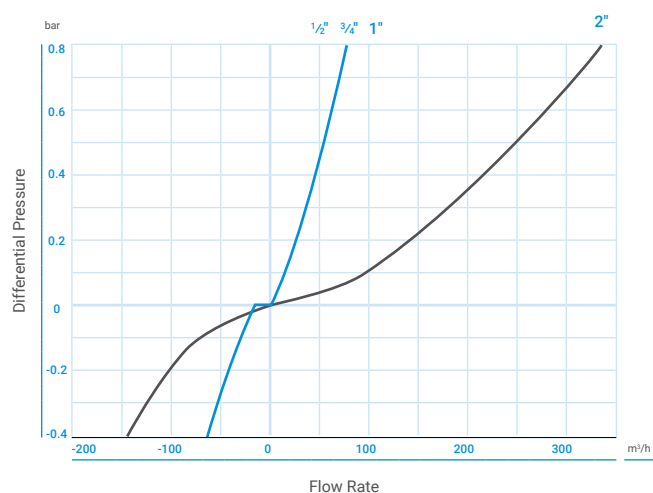
#	Part Name	Material
1	Body	Polypropylene / reinforced nylon / stainless steel 316 / PVDF
2	O-ring	BUNA-N / viton
3	Discharge outlet	Polypropylene
4	Rolling seal assembly	
4a	Screws	Stainless steel
4b	Plug cover	Reinforced nylon
4c	Rolling seal	EPDM
4d	Plug	Reinforced nylon
5	Clamping stem	Polypropylene
6	Float	Foamed polypropylene
7	O-ring	BUNA-N / viton
8	Extension	Polypropylene / reinforced nylon / stainless steel 316 / PVDF
9	Closed port* (default)	
10	Base	Polypropylene / reinforced nylon / stainless steel 316 / PVDF
11	O-ring	BUNA-N / viton

* Optional: open port / Schrader valve / plug

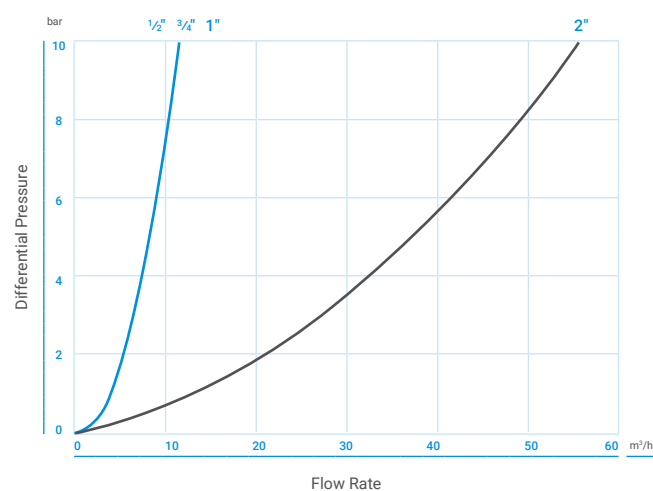


→ Head Loss

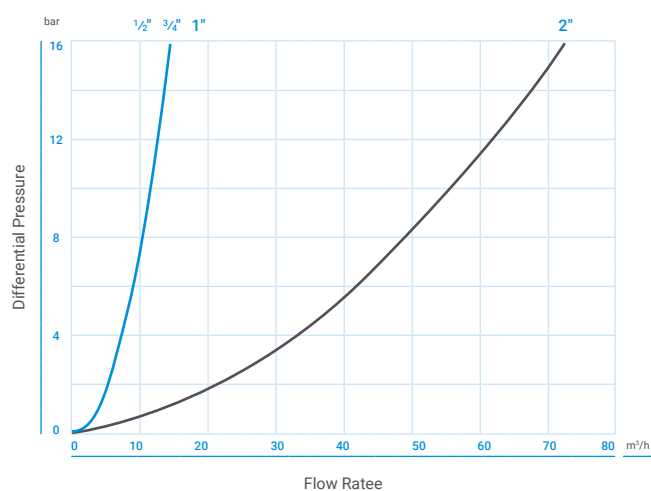
Air & Vacuum Flow Rate



Automatic Air Release Flow Rate



Automatic Air Release Flow Rate



→ Catalog Numbers

Model	Diameter	Connection	Max. Pressure	Catalog Number
D40L	1/2"	NPT	PN10	70561-000815
	3/4"	NPT	PN10	70561-000050
	1"	NPT	PN10	70561-000060
	2"	NPT	PN10	70561-000100
D40LP	1"	BSP	PN10	70500-000590

D43 (Pro)

COMBINATION AIR VALVE

The Combination Air Valve has the features of both an air release valve and an air & vacuum valve. The air release component is designed to automatically release small pockets of air to the atmosphere as they accumulate along a pipeline or piping system when it is full and operating under pressure.



Reliable



Design



Easy
maintenance

/ Benefits & Features

- **Reliable operation** Reduces water hammer incidents
- **Superior design** Allows for high-capacity air discharge while preventing premature closure
- **Maintenance** Minimum down-time– all operating parts are consolidated into one replaceable cartridge
- **Durable** Lightweight, simple and reliable structure
- **Discharge outlet** Enables the connection of a vent hose/pipe
- **Automatic air release**

The large size of the automatic air release orifice relative to the air valve body:

 - Discharges air at high flow rates
 - Lessens the danger of its obstruction by debris
 - Enables the usage of the rolling seal mechanism, making it less sensitive to pressure differential than a direct float seal
- **Durable material** Body made of high-strength UV-protected composite and all operating parts of specially selected, corrosion-resistant materials
- **Versatile installation** Due to its light weight, the valve may be installed on plastic piping systems, as well as other lightweight piping systems

Specifications & Recommendations

- **Working Pressure Range** – 1 - 10bar
- **Testing pressure** – 1.5 times the maximum working pressure of the air valve
- **Working Temperature** – 60°C
- **Maximum Intermittent Temperature** – 90°C

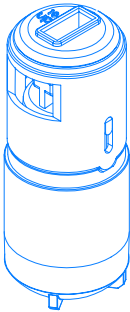
→ Technical Dimensions

Model	Dimensions (mm)		Connections	Weight (kg)		Orifice Area (mm ²)	
	A	B		Standard	NS Model	auto	a/v
2"	85	245	1½" bsp female	0.4	0.5	908	11.7

→ Material Specifications

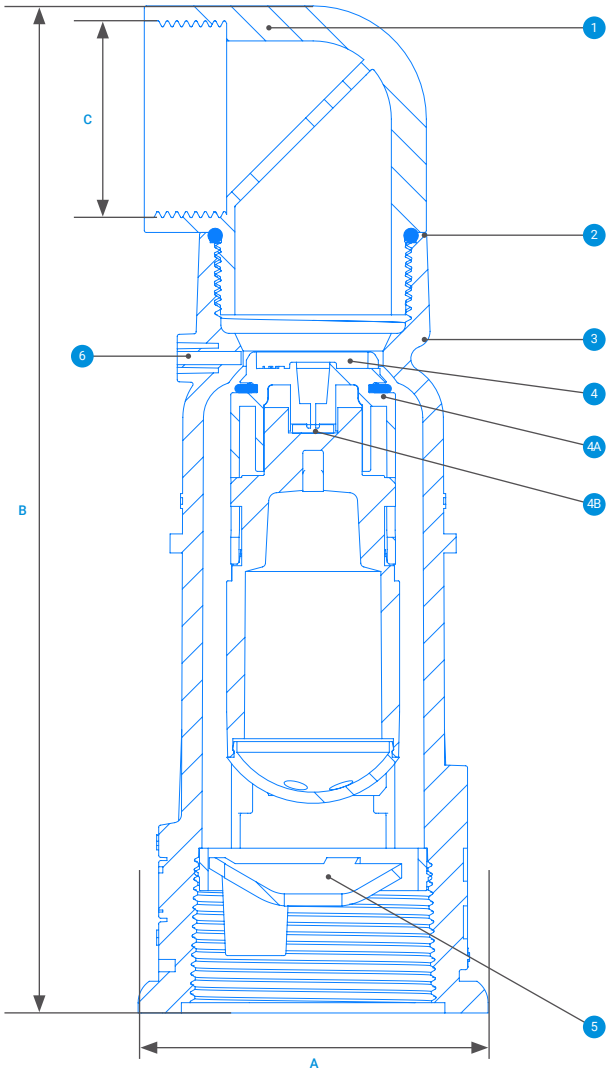
#	Part Name	Material
1	Discharge outlet	Polypropylene
2	O-ring	BUNA-N
3	Body	Polypropylene
4	Float & seal assembly	Polypropylene + acetal + EPDM
4a	Air vacuum seal	EPDM
4b	Air release rolling seal	EPDM
5	Float lock	Polypropylene
6	Upper drain outlet	

Float & Seal Assembly



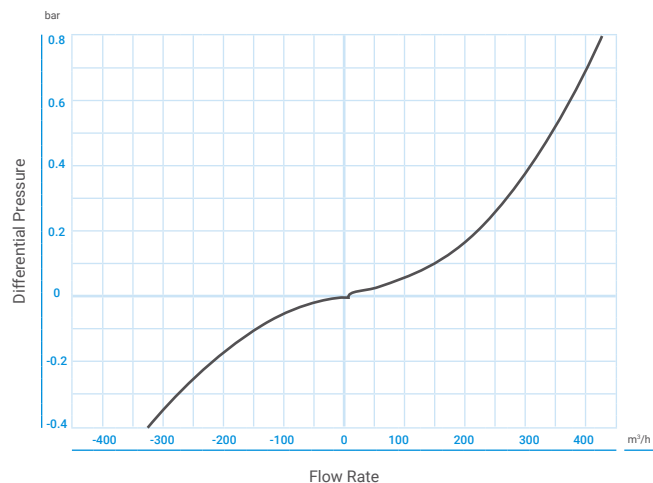
Upper component

Lower component

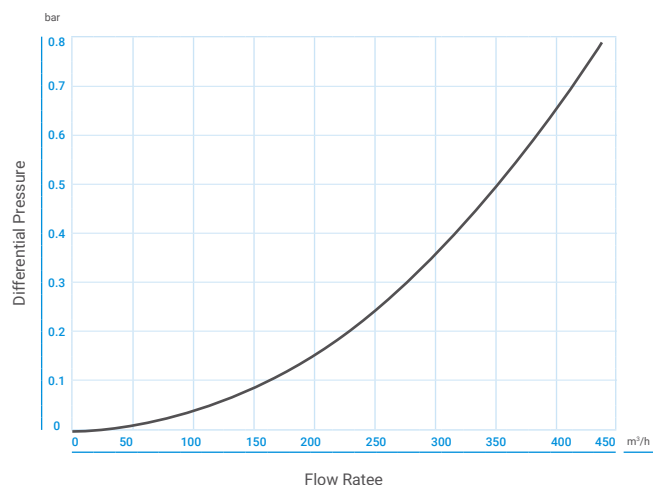


→ Head Loss

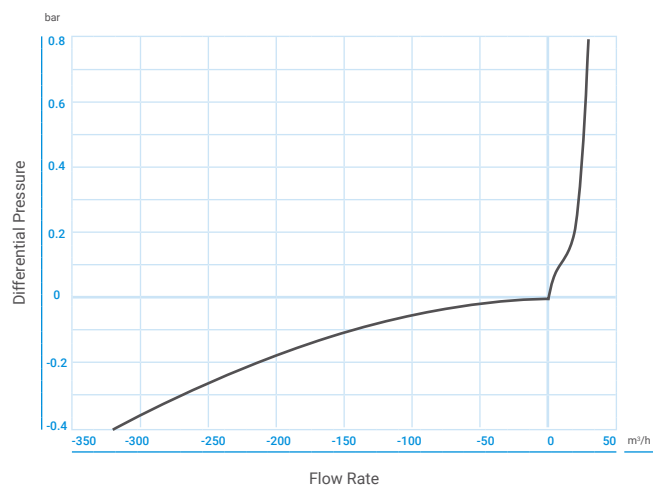
Air & Vacuum Flow Rate



D43 V Air & Vacuum Flow Rate

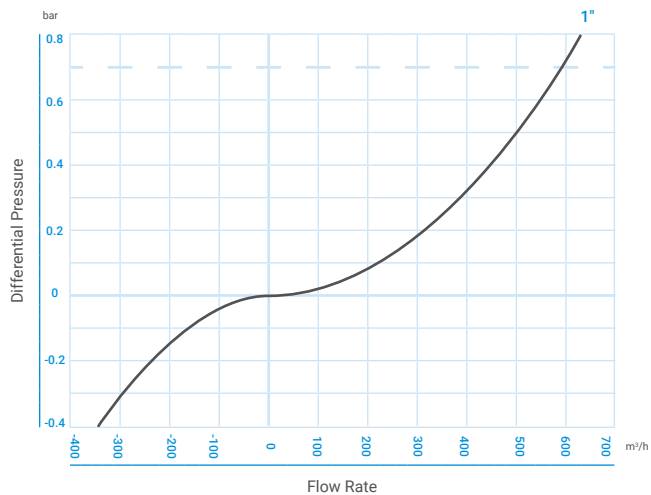


D43 NS Air & Vacuum Flow Rate

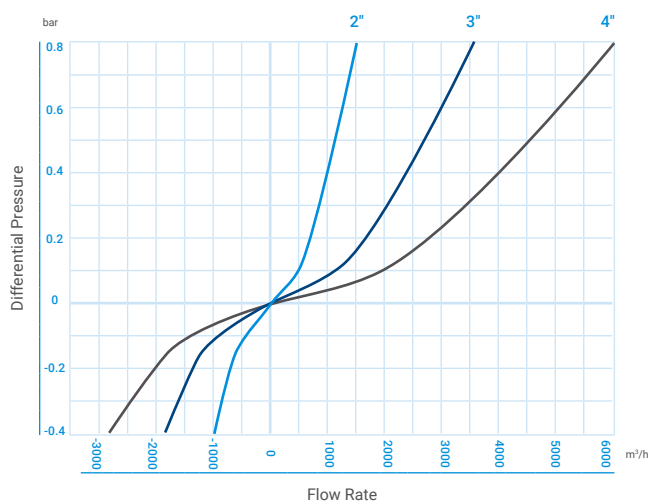
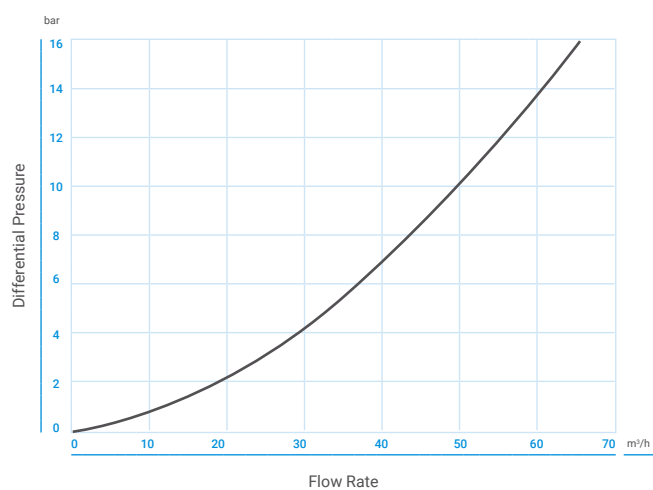


→ Head Loss

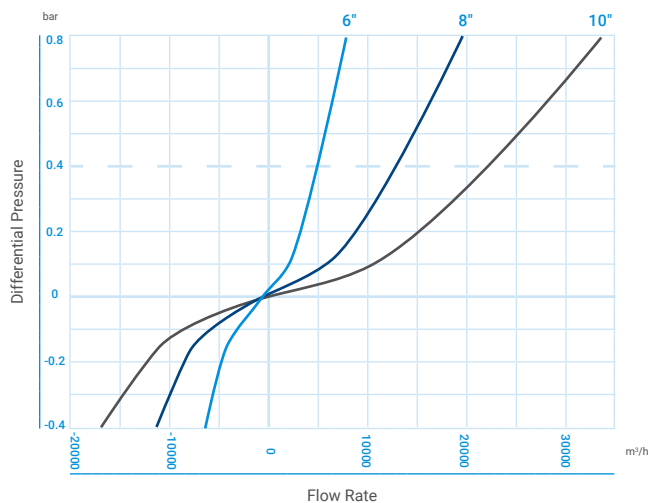
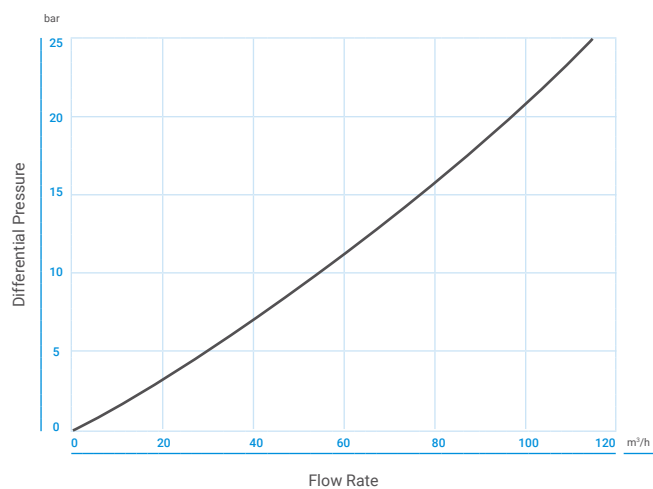
Air & Vacuum Flow Rate



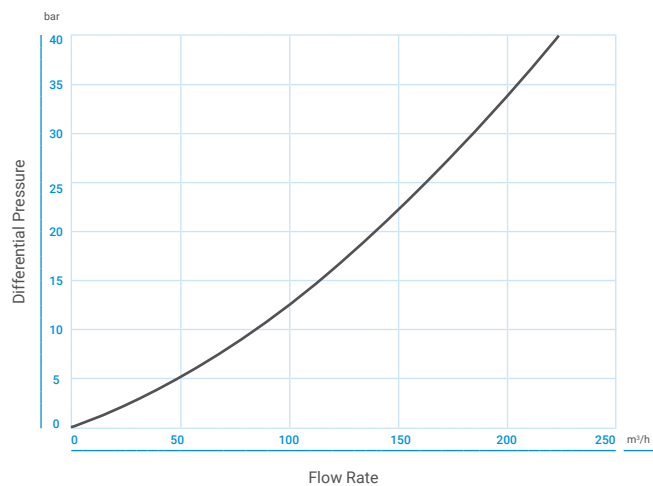
PN 16 Automatic Air Release Flow Rate



PN 25 Automatic Air Release Flow Rate



PN 40 Automatic Air Release Flow Rate



--- Max recommended design air discharge

→ Catalog Numbers

Model	Diameter	Connection	Max. Pressure	Catalog Number
D43	2"	BSP	PN10	70500-002810
		BSP	PN16	70500-002820
		BSP	PN10	70500-002825
		NPT	PN10	70500-005710
	3"	ANSI	pn10	70500-001615

D70

DYNAMIC COMBINATION AIR VALVE

A unique valve, operating without a float and utilizing the rolling diaphragm principle. This unique structure allows the dynamic air valve to discharge air from the water system in a controlled and gradual manner, thus preventing slam and local up-surges.



Robust



Design



Durable

/ Benefits & Features

→ Robust

- Valve, body, and interior components are made from composite corrosion-resistant materials
- Prevents intrusion of debris and contaminants into the system

→ Design

- Built-in connection at the outlet for surplus water drainage
- Extremely quiet closing, smooth and gradual unaffected by water flow
- Prevents slam and reduces water surges in the air valve and the pipeline
- Automatic air release component releases large quantities of air without obstruction

→ Durable

Lightweight, simple and reliable structure

/ Specifications & Recommendations

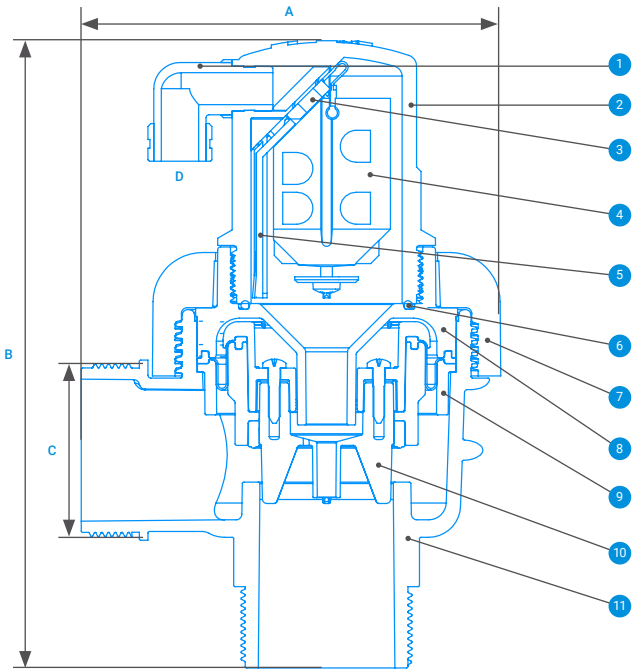
- **Working Pressure Range** – 0.2 - 10bar
- **Testing Pressure** – 16bar
- **Maximum Working Temperature** – 60°C
- **Maximum Maximum Intermittent Temperature** – 90°C
- **Optional Bug Screen** – Attached to the valve outlet, prevents the penetration of debris or insects into the air valve

→ Technical Dimensions

Nominal Size	Dimensions (mm)		Connections (mm)		Weight (kg)	Orifice Area (mm ²)	
	A	B	C	D		Auto.	a/v
D70 2" (50mm) Threaded	144	216	2" BSP male	¾" BSP female	1.040	7.8	1963
D70 2" (50mm) Flanged	165	224	2" BSP male	¾" BSP female	1.440	7.8	1963
D70 M1 3" (80mm) Threaded	144	217	2" BSP male	¾" BSP female	1.075	7.8	1963
D70 M1 3" (80mm) Flanged	200	228	2" BSP male	¾" BSP female	1.665	7.8	1963
D70 M2 4" (100mm) Flanged	228	217	2" BSP male	¾" BSP female	1.860	7.8	1963

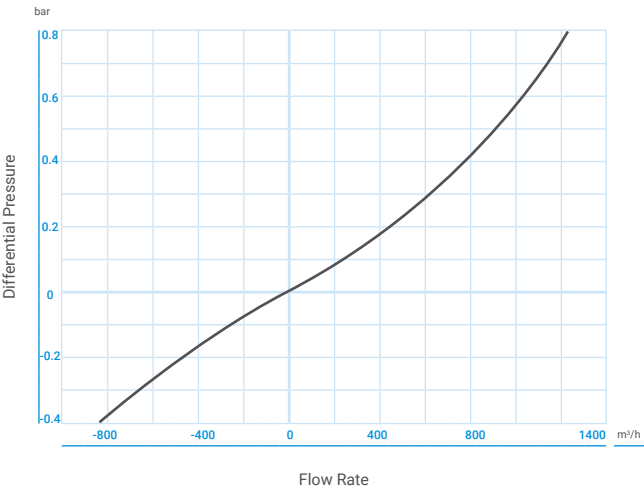
→ Material Specifications

#	Part Name	Material
1	Discharge outlet	Polypropylene
2	Operating valve body	Reinforced nylon
3	Rolling seal	EPDM
4	Operating assembly	Foamed polypropylene +acetal +ST ST 316
5	Clamping stem	Reinforced nylon
6	O-ring	BUNA-N
7	Locking ring	Reinforced nylon
8	Base adaptor	Reinforced nylon
9	Support ring	Reinforced nylon
10	Rolling diaphragm sealing assembly	Reinforced nylon + EPDM + ST ST 316 / ST ST 316 + cataphoretic coating
11	Body	Reinforced nylon

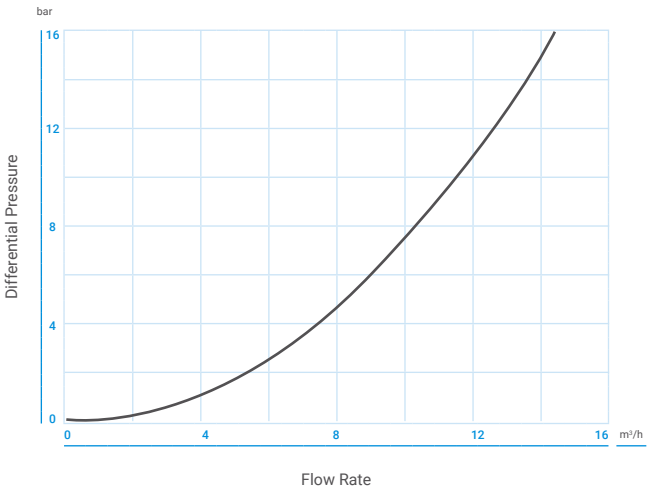


→ Head Loss

Air & Vacuum Flow Rate



Automatic Air Release Flow Rate



→ Catalog Numbers

Model	Diameter	Connection	Max. Pressure	Catalog Number
D70	2"	BSP	PN10	70440-005730
		BSP	PN16	70440-005130
		NPT	PN10	70561-001735
	3"	BSP	PN10	70440-005600
		NPT	PN10	70561-001760

D70PQ

DYNAMIC COMBINATION & PRESSURE RELIEF

Protects the pipeline from excessive pressure, eliminates bursts and water loss. It prevents up-surges by discharging initial pressure in a controlled and gradual manner. It prevents the energy loss caused by air pockets, by discharging air from pressurized water lines.



Durable



User friendly



Design

/ Benefits & Features

- **Durable** Corrosion-resistant valve, body, and interior components are made from composite materials
- **User friendly** Valve is lightweight and small for easy installation
- **Dynamic design**
 - Prevents slam and reduces water surges in the air valve and the pipeline
 - Prevents intrusion of debris and contaminants into the system
 - Built-in connection at the outlet for surplus
 - Smooth and gradual closing unaffected by water flow
 - Extremely quiet closing
 - Automatic air release component releases large quantities of air without obstruction

/ Specifications & Recommendations

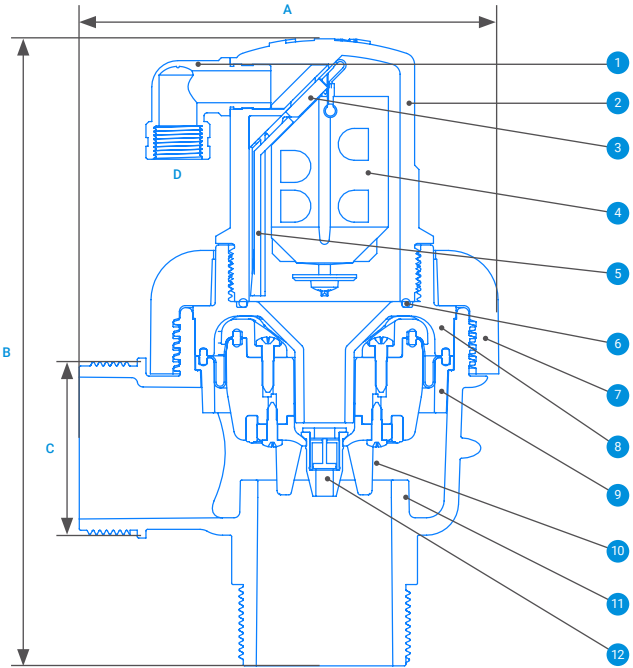
- **Working Pressure Range** – 0.2 - 16bar
- **Testing Pressure** – 25bar
- **Maximum Working Temperature** – 60°C
- **Maximum Intermittent Temperature** – 90°C

→ Technical Dimensions

Nominal Size	Dimensions (mm)		Connections (mm)		Weight (kg)	Orifice Area (mm ²)	
	A	B	C	D		Auto.	a/v
D70-p 2" (50mm) Threaded	144	216	2" BSP male	¾" BSP female	1.040	7.8	1963
D70-p 2" (50mm) Flanged	165	224	2" BSP male	¾" BSP female	1.440	7.8	1963
D70-p M1 3" (80mm) Threaded	144	217	2" BSP male	¾" BSP female	1.075	7.8	1963
D70-p M1 3" (80mm) Flanged	200	228	2" BSP male	¾" BSP female	1.665	7.8	1963
D70-p M2 4" (100mm)	228	217	2" BSP male	¾" BSP female	1.860	7.8	1963

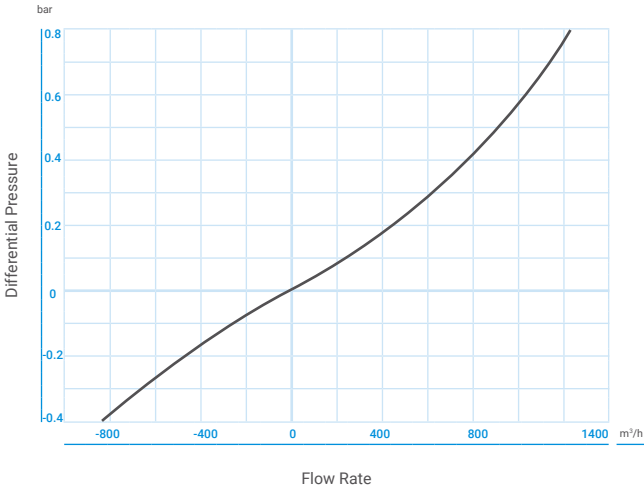
→ Material Specifications

#	Part Name	Material
1	Discharge outlet	Polypropylene
2	Operating valve body	Reinforced nylon
3	Rolling seal	EPDM
4	Operating assembly	Foamed polypropylene +acetal + ST ST 316
5	Clamping stem	Reinforced nylon
6	O-ring	BUNA-N
7	Locking ring	Reinforced nylon
8	Base adaptor	Reinforced nylon
9	Support ring	Reinforced nylon
10	Rolling diaphragm sealing assembly	Reinforced nylon + EPDM + ST ST 316 / ST ST 316 + cataphoretic coating
11	Body	Reinforced nylon
12	Option: one way out	

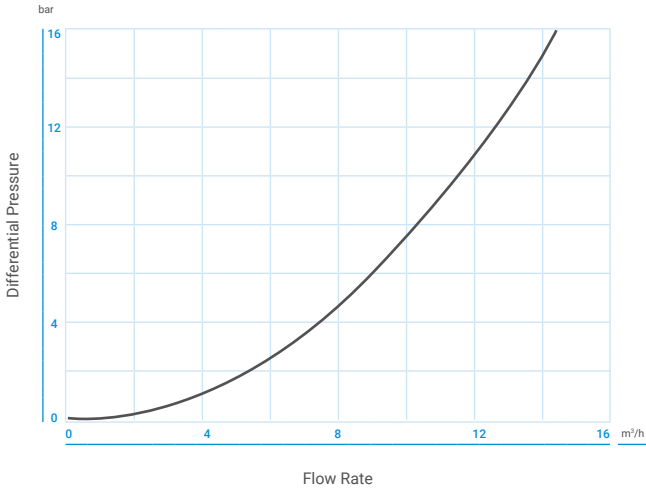


→ Head Loss

Air & Vacuum Flow Rate



Automatic Air Release Flow Rate



→ Catalog Numbers

Model	Diameter	Connection	Max. Pressure	Catalog Number
D70PQ				

/ Metal Air Valves

orbia



Precision
Agriculture



K10 / K60

KINETIC AIR VALVE

The air & vacuum valves are designed to automatically discharge or admit large volumes of air during the filling or draining of a pipeline or piping system. This valve will open to relieve negative pressures valve at pump shut-off and at water column separation.



K10

K60



Reliable



Dynamic design



Durable

/ Benefits & Features

K10 Model

- **Reliable operation** Reduces water hammer incidents
- **Dynamic design** Allows for high-capacity air discharge while preventing premature closure
- **Durable** Lightweight, simple and reliable structure
- **Special orifice seat design** Combination of bronze and e.P.D.M. Rubber assures long-term, maintenance-free operation
- **Discharge outlet** Enables attachment of a vent/drainpipe (2" - 8")

K60 Model

- **Main flow cross-sections** Equal or greater than the nominal port area
- **Aero - dynamic design** Enables high flow rates of air both at intake and at discharge
- **Reliable operation** Reduces water hammer incidents
- **Dynamic design** Allows for high-capacity air discharge while preventing premature closure
- **Special orifice design** Bronze & EPDM. rubber, assures long-term maintenance-free operation
- **Screen protected outlet** The upper screen is protected with a protective cover
- **FBE coating** Interior & exterior, in accordance with the international standard DIN 30677-2

/ Specifications & Recommendations

- **Working Pressure Range** – K10: 0.2 - 100bar / K60: 0.2 - 16bar
- **Testing Pressure** – 1.5 times the maximum working pressure of the air valve
- **Maximum Working Temperature** – 60°C
- **Maximum Intermittent Temperature** – 90°C

→ Technical Dimensions

K10

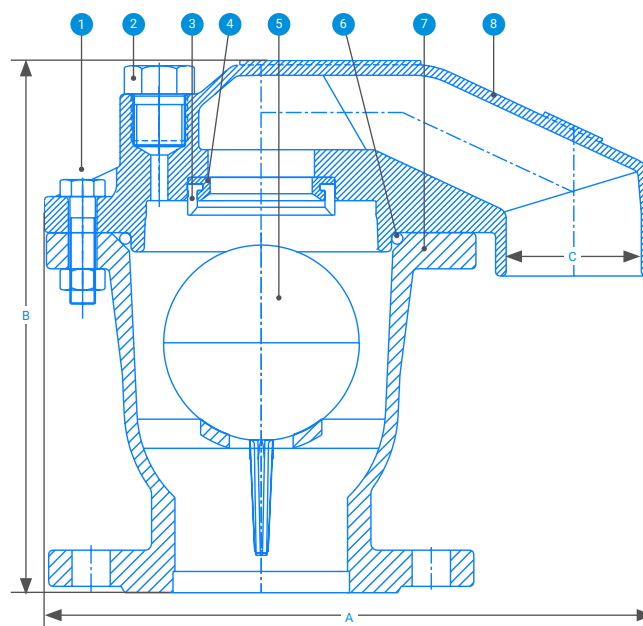
Nominal Size	Dimensions (mm)		Connection	Weight (kg)	Orifice Area (mm ²)
	A	B	C		
2" (50mm) Threaded	149	217	1½" BSP female	4.0	794
2" (50mm) Flanged	149	229	1½" BSP female	6.1	794
3" (80mm) Threaded	160	266	2" BSP female	9.6	1809
3" (80mm) Flanged	160	264	2" BSP female	12.6	1809

Nominal Size	Dimensions (mm)		Connection C		Weight (kg)	Orifice Area (mm ²)
	A	B	Internal	External		
4" (100mm)	342	285	80	96	27	3317
6" (150mm)	400	334	90	124	43	7850
8" (200mm)	553	530	124	140	116	17671
10" (250mm)	463	642	NA	NA	149	31415
12" (300mm)	586	789	NA	NA	163	49087

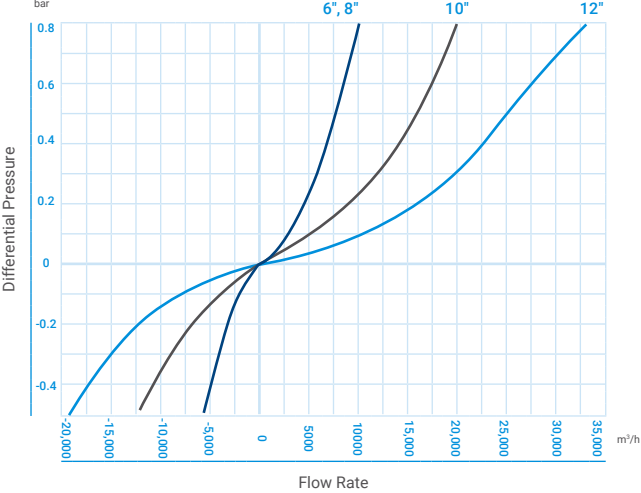
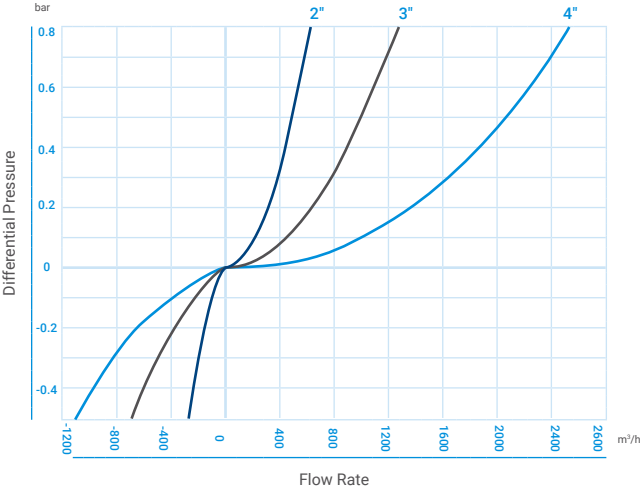
→ Material Specifications

K10

#	Part Name	Material
1	Bolt, nut & washer	Steel zinc cobalt plated
2	Plug	Brass ASTM B124
3	Orifice seal	EPDM
4	Orifice seat	Bronze ASTM B-62 B271 C83600
5	Float	Polycarbonate / stainless steel
6	O-ring	BUNA-N
7	Body 16, 25, 40bar	Ductile iron ASTM A-536-60-40-18
	40, 64, 100bar	Cast steel ASTM A-216 WCB
8	Cover 16, 25, 50bar	Ductile iron ASTM A-536-60-40-18
	40, 64, 100bar	2", 3", 4" Cast steel DIN ST. 37
	6" 8" Cast steel	A148-115-95
	*Screen cover 10"-12"	Polyethylene
		Cast iron ASTM A-28 CL35B
		Ductile iron ASTM A-536-60-40-18



→ Head Loss



→ Catalog Numbers

Model	Diameter	Connection	Material	Catalog Number
K10	2"	NPT	SST	70561-001290

→ Technical Dimensions

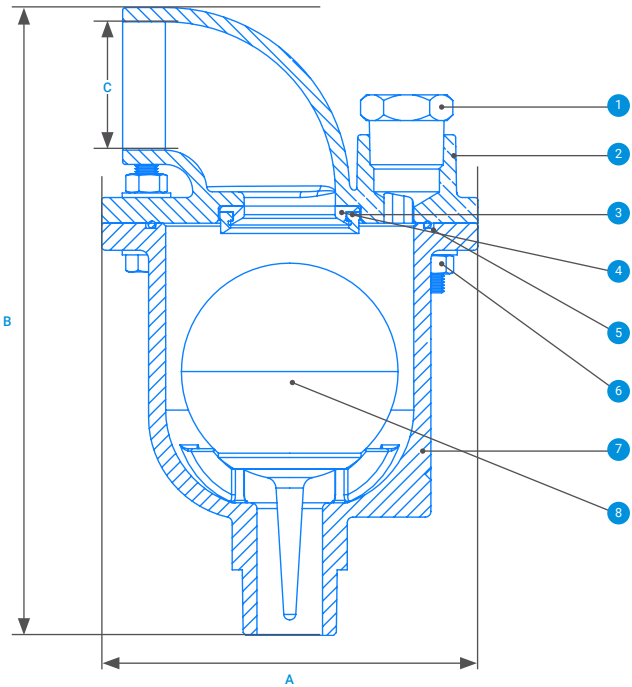
K60

Nominal Size	Dimensions (mm)		Connection	Weight (kg)	Orifice Area (mm ²)
	A	B	C		
1" (25mm) threaded	132	220	1½" female	3.8	506.7
1" (25mm) flanged	132	220	1½" female	4.8	506.7
2" (50mm) threaded	185	231	NA	9.7 - 10	1960
2" (50mm) flanged	185	218	NA	9.7 - 10	1960
3" (80mm)	219	286	NA	17 - 18	5030
4" (100mm)	262	346	NA	25.5 - 27	7850
6" (200mm)	375	507	NA	72.5 - 77	17662
8" (200mm)	463	641	NA	107.7 - 116	31400
10" (300mm)	586	788	NA	231.7 - 244	49087

→ Material Specifications

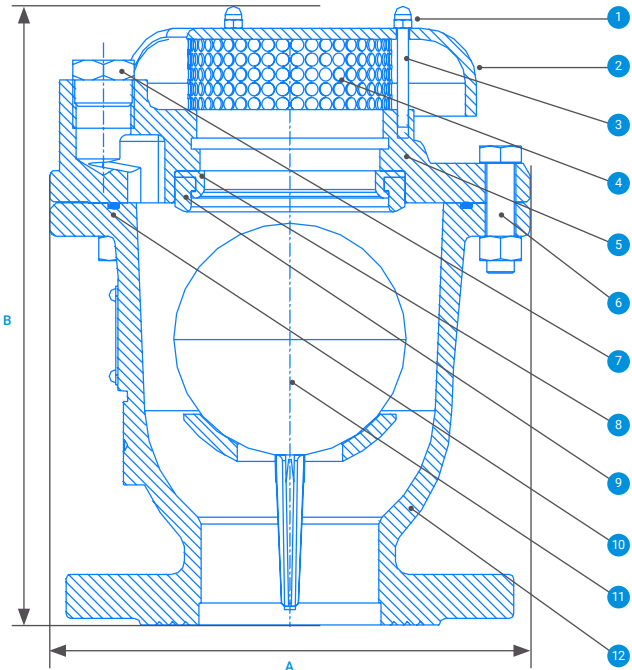
K60 1"

#	Part Name	Material
1	Plug	Brass
2	Cover	Ductile iron
3	Orifice seat	Bronze
4	Orifice seal	EPDM
5	O-ring	BUNA-N
6	Bolt, nut & washer	Steel, zinc cobalt plated
7	Body	Ductile iron
8	Float	Polycarbonate / stainless steel 304



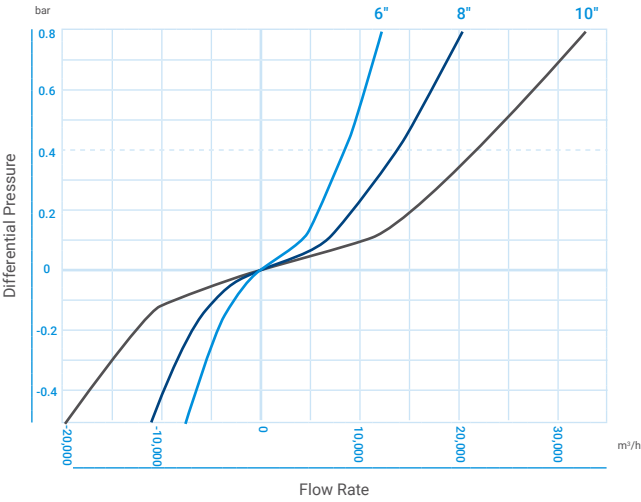
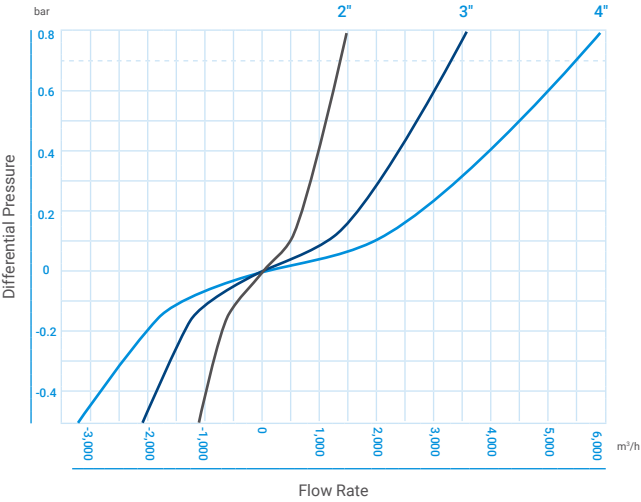
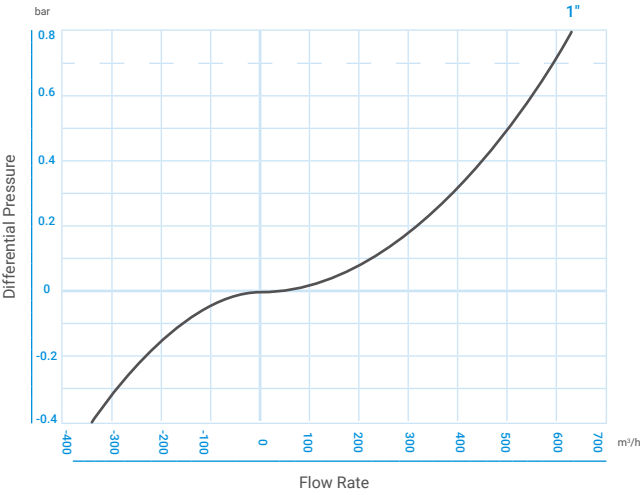
K60 2"-10"

#	Part Name	Material
1	Domed nut & washer	Stainless steel 304
2	Screen cover 2"-4"	Ductile iron
	6"-10"	Polyethylene / sphero nodular
3	Threaded rod	Stainless steel 304
4	Screen	Stainless steel 304
5	Cover	Ductile iron
6	Bolt, nut & washer	Steel, zinc cobalt coated
7	Plug	Brass
8	Orifice seat	Bronze
9	Orifice seal	EPDM
10	O-ring	BUNA-N
11	Float PN16, PN25	Polycarbonate / stainless steel 304
	PN 40 2"-4"	Polycarbonate / stainless steel 304
	PN 40 6"-10"	Stainless steel
12	Body	Ductile iron



→ Head Loss

K60



→ Catalog Numbers

Model	Diameter	Connection	Material	Catalog Number
K60	2"	NPT	SST	70561-000040

S15

AUTOMATIC AIR VALVE

The automatic air release valves release accumulated air from the system while it is under pressure. The presence of air in a water system can reduce the effective cross-sectional flow area resulting in increased head loss and decreased flow. Unwanted air may also cause water hammer and metering inaccuracies, while hastening corrosion.



Durable



Dynamic
design



Easy
maintenance

/ Benefits & Features

- **Durable** Operating parts are made of specially selected corrosion-resistant materials
- **Dynamic design**
 - Unique rolling seal mechanism dramatically reduces the possibility of obstruction by debris
 - One size orifice for a wide pressure-range up to 64bar
- **Easy maintenance**
 - Self-cleaning
 - Lightweight, small dimensions, simple and reliable structure

/ Specifications & Recommendations

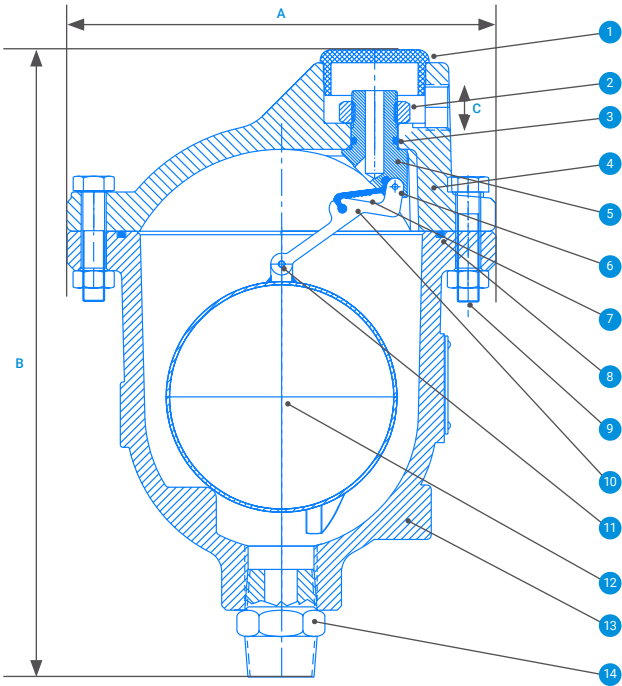
- **Working Pressure Range** – 0.2 - 64bar
- **Testing Pressure** – 1.5 times the maximum working pressure of the air valve
- **Maximum Working Temperature** – 60°C
- **Maximum Intermittent Temperature** – 90°C

→ Technical Dimensions

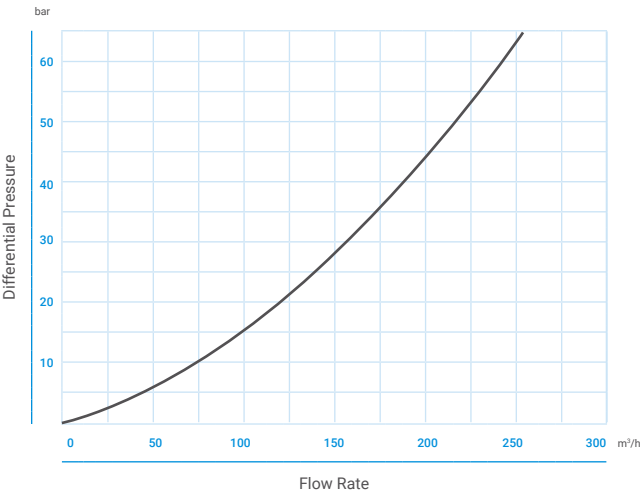
Dimensions (mm)		Connection	Weight (kg)	Orifice Area (mm ²)
A	B	C		
197	295	1½" BSP female	13	15

→ Material Specifications

#	Part Name	Material
1	Orifice cover	Polypropylene
2	Nut	Brass
3	O-ring	BUNA-N
4	Cover	Cast steel
5	Orifice	Reinforced nylon
6	Rollpin	Stainless steel 304
7	Rolling swal	EPDM
8	O-ring	BUNA-N
9	Bolt and nut	Steel zinc cobalt plated
10	Lever	Reinforced nylon
11	Rollpin	Stainless steel 304
12	Float	Polycarbonate / stainless steel SAE 316L
13	Body	Cast steel
14	Adapter	Brass



→ Head Loss



→ Catalog Numbers

Model	Diameter	Connection	Material	Catalog Number
S15	1"	NPT	SST	70561-003714

NAVmc

COMBINATION AIR VALVE

The valve allows discharge of trapped air while the system is being filled with liquid. The valve will remain open, even at very high air flow velocity until the liquid has reached the float and lifted it to its closed position.



Reliable



Superior
design



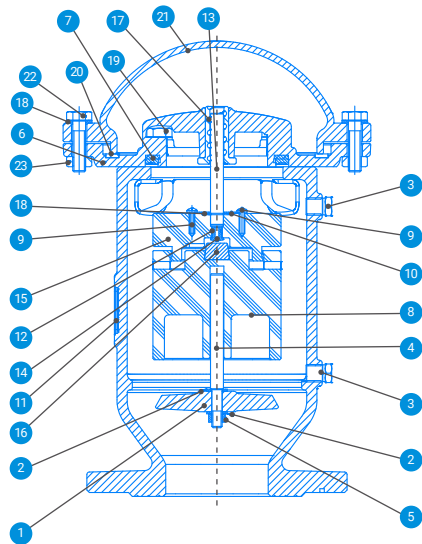
Easy
maintenance

/ Benefits & Features

- **Reliable** Leak-proof sealing at all conditions, including low system pressure
- **Superior design** The aerodynamic design of the float provides air flow at a very high velocity
- **Easy maintenance** The valve design contains a very limited number of parts, allowing easy dismantling for maintenance

/ Specifications & Recommendations

- **Nominal Sizes** – 2" / 50mm to 10" / 250mm, 3" / 80mm to 12" / 300mm
- **Pressure Rating** – PN16 (250psi), PN25 (350psi) and PN40 (580psi)
- **Minimal Pressure for Drip-Tight Sealing** – 0.1bar
- **Temp. Range Operating** – 0-60°C / 32-140°F, Storage: -10-70°C / 15-160°F

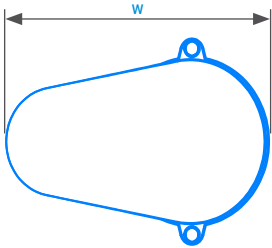
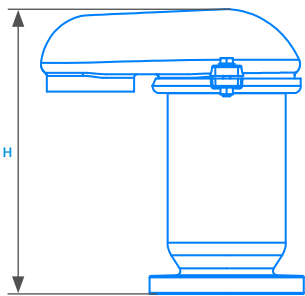


#	Part Name	Material	Optional
1	Body	D.I.	Steel A-216 WCB, SST CF8M, NI aluminium bronze, s.duplex
2	Washer	SST	SST 316, s.duplex
3	Plug	BRS	SST 316, s.duplex
4	Bottom guiding shaft	SST	SST 316, s.duplex
5	Nut	SST	SST 316, s.duplex
6	Plate	D.I.	Steel A-216 WCB, SST CF8M, NI aluminium bronze, s.duplex
7	Seal	EPDM	NBR, viton
8	Float body	PE-H.D.	
9	Bolt	SST	SST 316, s.duplex
10	Disc	SST	SST 316, s.duplex
11	I.D. Plate	AL	SST 316
12	O-ring 2-009	NBR	EPDM, viton
13	Top guiding shaft	SST	SST 316, s.duplex
14	Nozzle	SST	SST 316, s.duplex
15	Float cover	PE-H.D.	
16	Nozzle seal	EPDM	NBR, viton
17	Guiding insert	POM	
18	Washer	SST	SST 316, s.duplex
19	Bolt	SST	SST 316, s.duplex
20	Cover seal	EPDM	NBR, viton
21	Cover	D.I.	Steel A-216 WCB, SST CF8M, NI aluminium bronze, s.duplex
22	Bolt	SST	SST 316, s.duplex
23	Nut	SST	SST 316, s.duplex

→ Technical Dimensions High Capacity

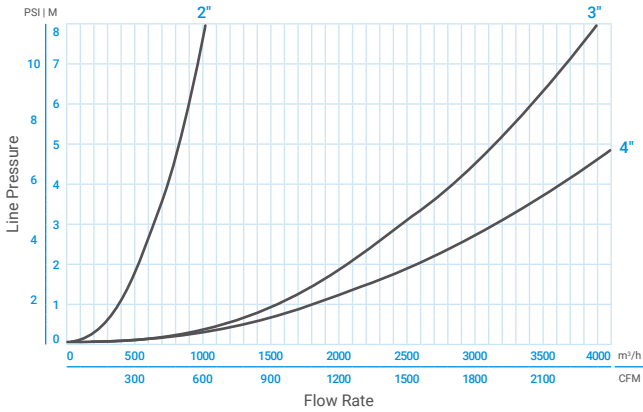
Nom. Diameter		Height - H		Width - W		D-Kinetic Orifice Area		Approx. Shipping Weight	
inch	mm	inch	mm	inch	mm	inch ²	mm ²	kg	lbs.
2	50	10.7	273.5	9.2	236	3.0	1960	11	24.2
3	80	14	355	12.8	326	7.7	5000	18	39.6
4	100	15.5	395	15.4	393	12.2	7855	30	66.1
6	150	19.1	586.5	24.4	621	27.4	17670	60	132.2
8	200	22.3	567	19.8	503	48.7	31415	100	220.5
10	250	29.6	752	27.8	707.5	76	49090	200	441

Connections: ISO, ANSI, BS, JIS flanges, BSP, NPT threads (50mm valves only)

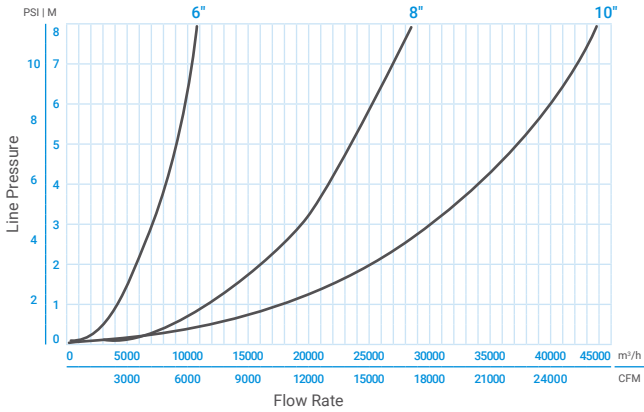


→ Head Loss

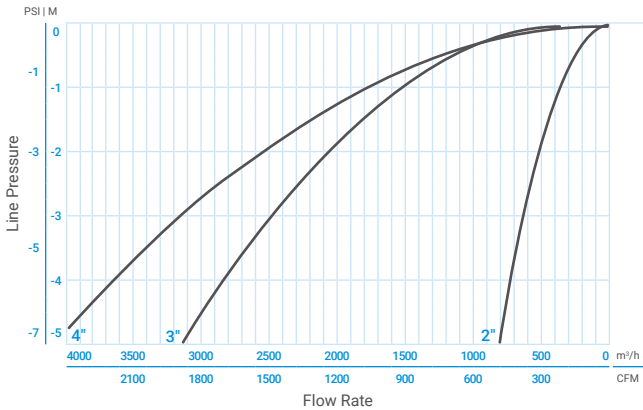
Discharge Data (Free Air Flow) - 2", 3", 4"



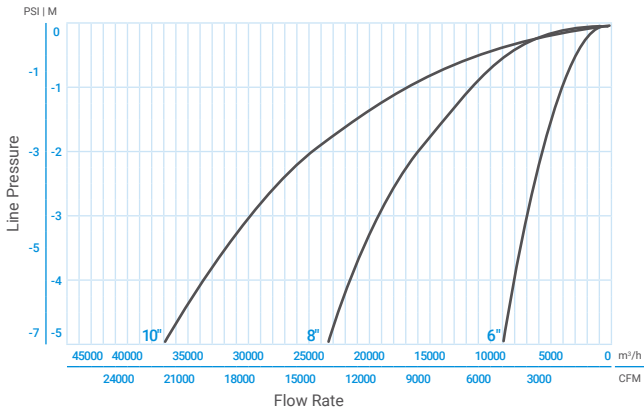
Discharge Data (Free Air Flow) 6", 8", 10"



Inflow Data (Free Air Flow) 2", 3", 4"



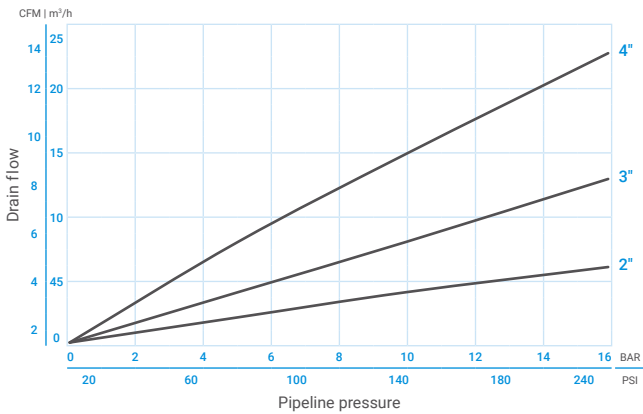
Inflow Data (Free Air Flow) 6", 8", 10"



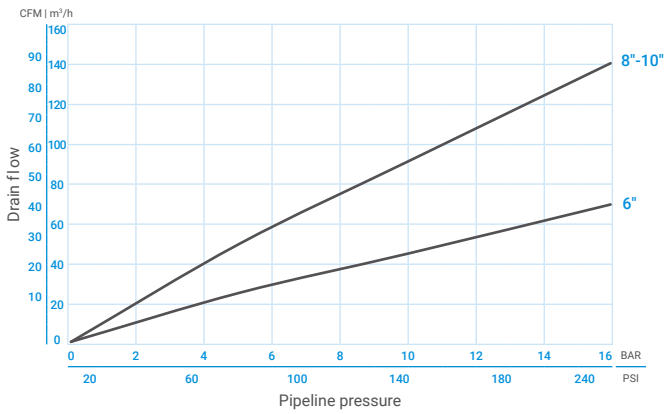
→ Head Loss

Small-Orifice ('Automatic') Discharge Flow

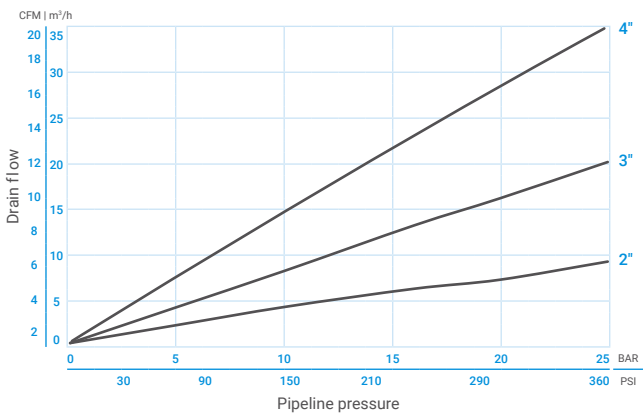
Small Orifice Discharge PN16 - 2", 3", 4"



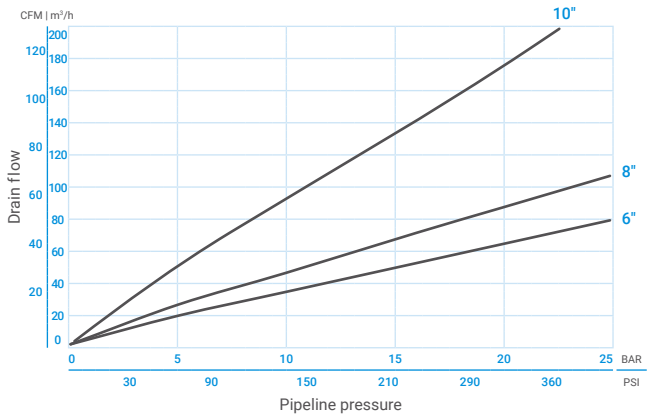
Small Orifice Discharge PN16 - 6", 8", 10"



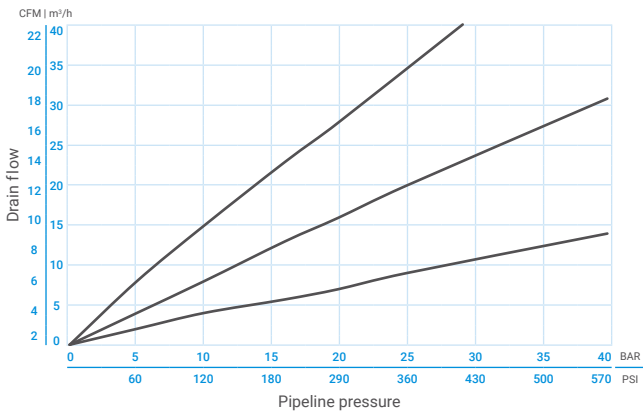
Small Orifice Discharge PN16 - 2", 3", 4"



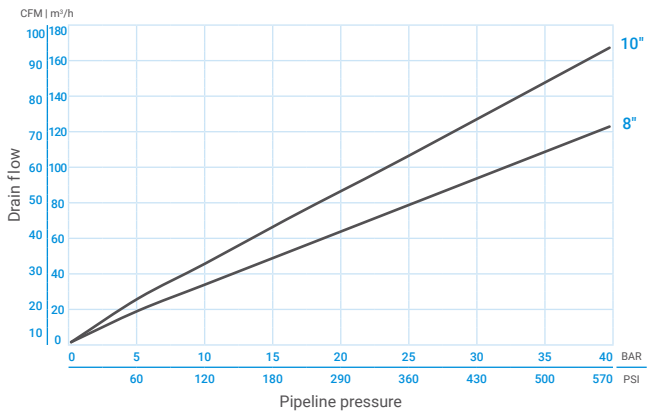
Small Orifice Discharge PN25 - 6", 8", 10"



Small Orifice Discharge PN40 - 2", 3", 4", 6"



Small Orifice Discharge PN40 - 8", 10"



→ Catalog Numbers

Model	Diameter	Connection	Max. Pressure	Catalog Number
DAV MH, MS	2"	ISO16	PN16	71600-012915
		BSP	PN16	71680-020920
		AN30	PN16	71680-020929
	3"R	ISO16	PN16	71600-012920
	3"	ISO16	PN16	71600-012919
		ABNT	PN16	71680-020935
	4"	ISO16	PN16	71680-020380
	6"	ISO16	PN16	71680-040300

D43 / D46

COMBINATION AIR VALVE

Combines both an air release valve and air & vacuum valve features. The air release component is designed to automatically release small pockets of air to the atmosphere as they accumulate along a pipeline or piping system when it is full and operating under pressure.



Reliable



Dynamic
design



Easy
maintenance

/ Benefits & Features

- **Reliable operation** Reduces water hammer incidents
- **Dynamic design** Allows for high-capacity air discharge while preventing premature closure
- **Easy maintenance**
 - 2"- 3" - All operating parts are consolidated into one replaceable cartridge
 - 4"- 6" - Air release component can be maintained without dismantling the air valve
- **Durable** Lightweight, simple and reliable structure
- **Unique one-piece body** Lessens the chance of leaks and vandalism
- **Discharge outlet** Enables the connection of a vent pipe
- **Air release**

The large size of the automatic air release orifice relative to the air valve body:

 - Releases air at high flow rates. Lessens the danger of its obstruction by debris
 - Enables the usage of the rolling seal, making it less sensitive to pressure differential than a direct float seal

Specifications & Recommendations

- **Working Pressure Range** – D43: 2" - 0.1 - 10bar, 3" - 6" - 0.1 -16bar / D46: 0.1 -16bar
- **Testing Pressure** – D43: 1.5 times the working pressure of the air valve / D46: 25bar
- **Maximum Working Temperature** – 60°C
- **Maximum Intermittent Temperature** – 90°C

→ Technical Dimensions

D43 2"

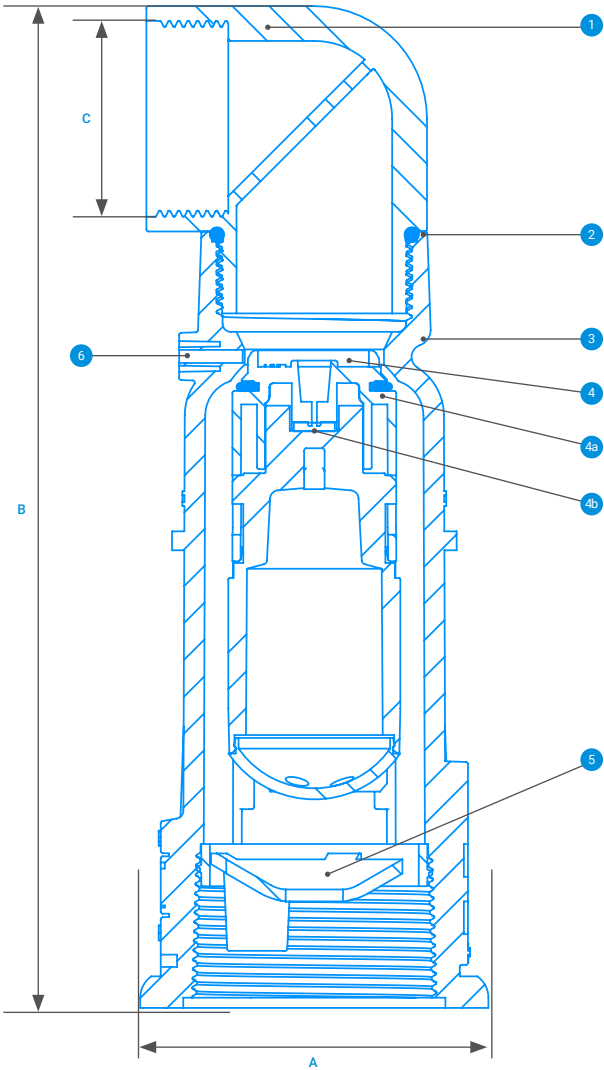
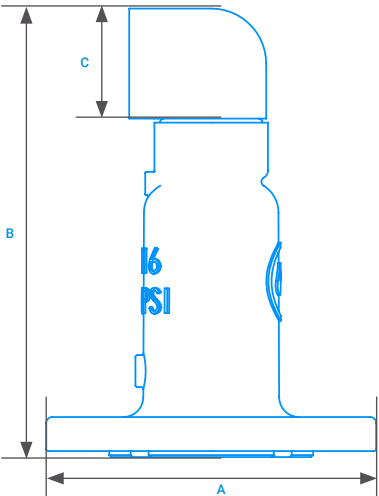
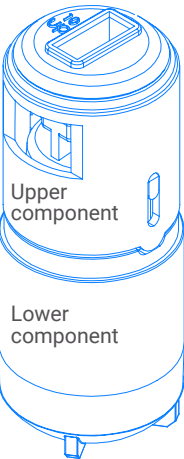
Model	Dimensions (mm)		Connection	Weight (kg.)		Orifice Area (mm ²)	
	A	B		Standard	NS Model	a/v	Auto.
2" (50mm) Nylon Threaded	85	245	1½" BSP female	0.4	0.5	908	11.7
2" (50 mm) D.I Threaded	85	245	1½" BSP Fem.	1.7	1.8	908	11.7
2" (50mm) D.I Flanged	165	222	1½" BSP Fem.	3.9	4	908	11.7
2" (50mm) S.S Threaded	85	245	1½" BSP Fem.	1.8	1.9	908	11.7

→ Material Specifications

D43 2"

#	Part Name	Material
1	Discharge outlet	Polypropylene
2	O-ring	BUNA-N
3	Body	Reinforced nylon
		Ductile iron
		Stainless steel 316
4	Float & seal assembly	Polypropylene + acetal + EPDM
4a	Air vacuum seal	EPDM
4b	Air release rolling seal	EPDM
5	Float lock	Polypropylene
6	Upper drain outlet	

Float & Seal Assembly



→ **Technical Dimensions**

D43 3"-6", D46

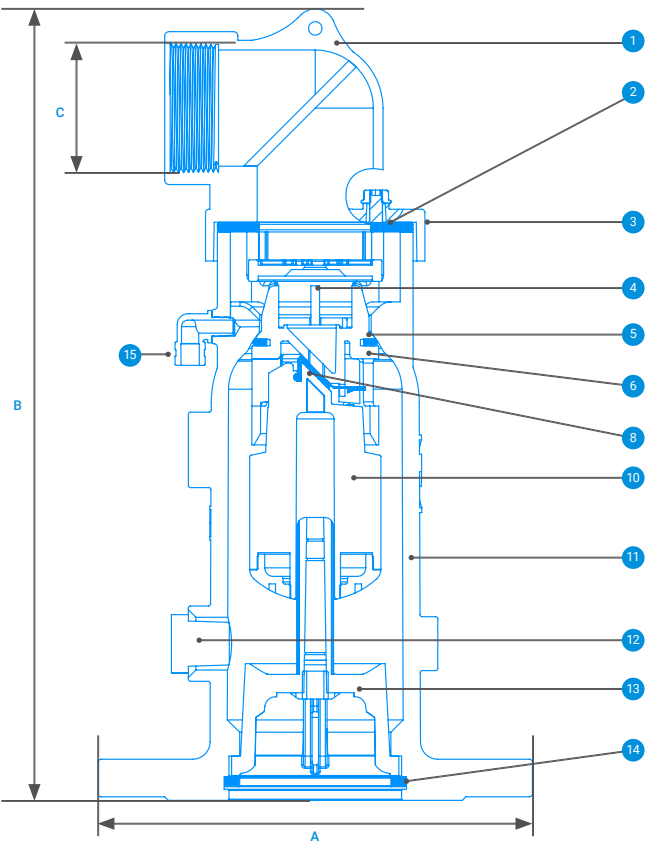
Model		Dimensions (mm)		Connection	Weight (kg)	Orifice Area (mm ²)	
		A	B	C		a/v	Auto.
D43	3" (80mm)	200	336	2" BSP female	8.4	1963	13.8
	4" (100mm)	220	467	3" BSP female	14.0	5027	13.8
	6" (150mm)	285	537	4" BSP female	22.	7854	13.8
D46	2" (50mm)	165	336	2" BSP female	7.3	1963	13.8
	3" (80mm)	200	467	3" BSP female	13.0	5027	13.8
	4" (100mm)	220	537	4" BSP female	18.2	7854	13.8

→ **Material Specifications**

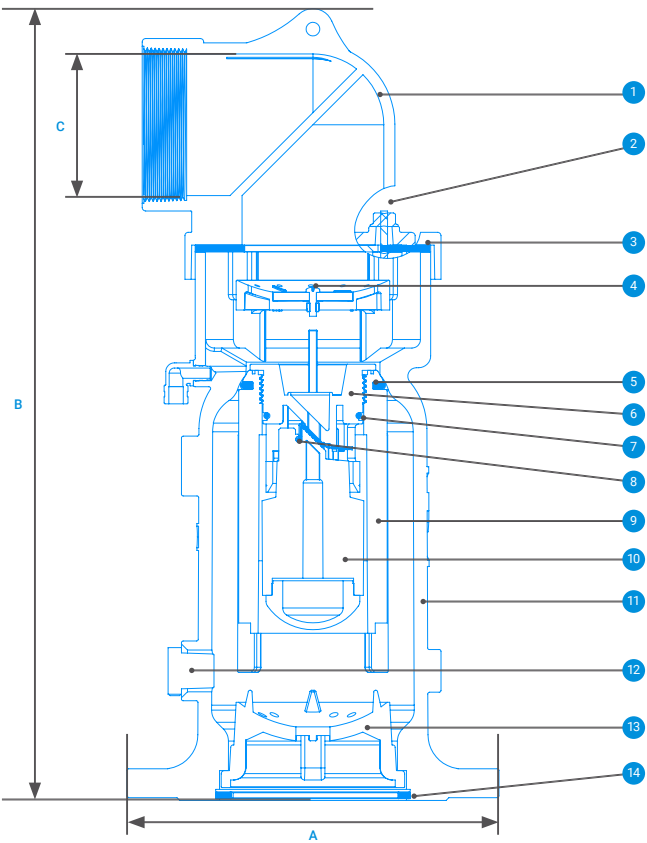
D43 3"-6", D46

#	Part Name	Material
1	Discharge outlet	Polypropylene
2	Threaded rod	Stainless steel 304
3	Discharge outlet seal	BUNA-N
4	Ns disc (optional)	Reinfoced nylon
5	Air & vacuum seal	EPDM
6	Automatic float cover	Acetal
7	O-ring	EPDM
8	Rolling seal	EPDM
9	Air & vacuum float	Reinforced polypropylene D43 4", D46 3"
		Polypropylene D43 6", D46 4"
10	Automatic float	Polypropylene
11	Body	Ductile iron
12	Pressure release plug	Stainless steel 316
13	Float lock	Acetal
14	Snap ring	Reinforced nylon
15	Drain outlet	Polypropylene

D43 3", D46 2"



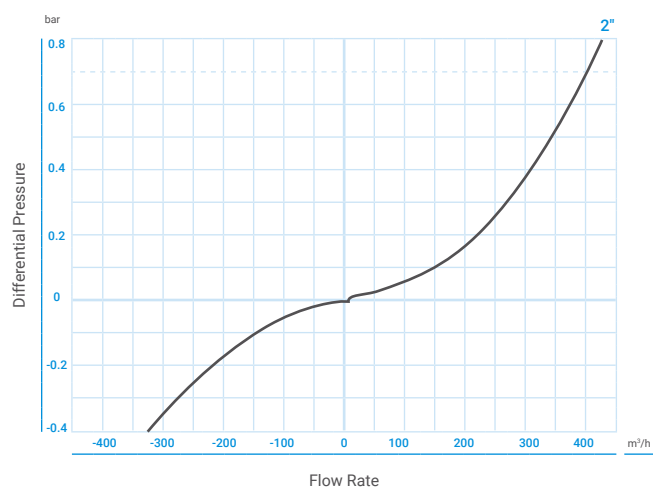
D43 4", 6", D46 3", 4"



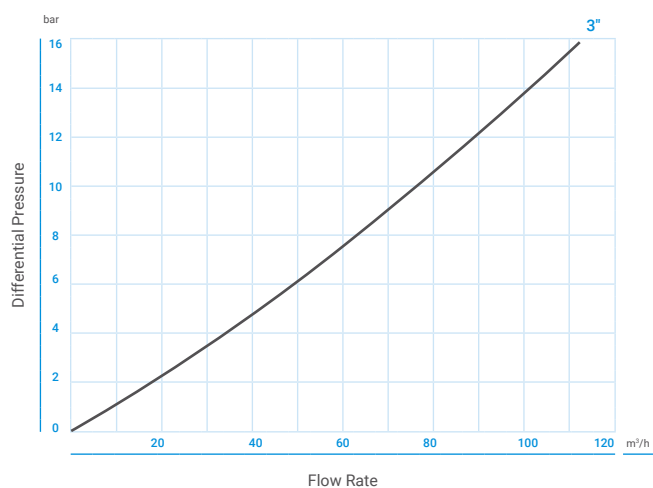
→ Head Loss

D43

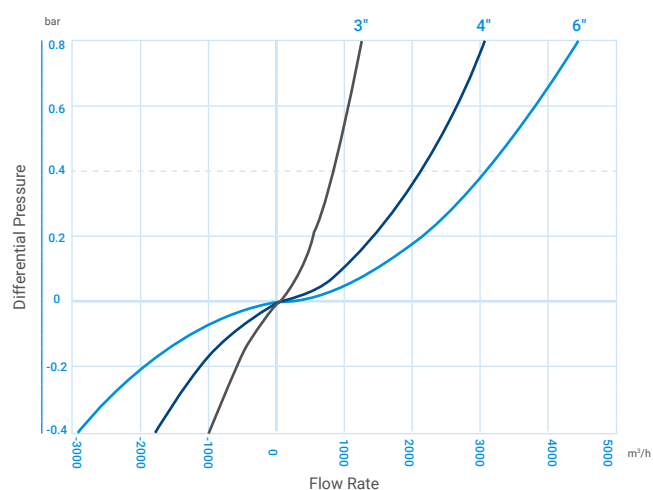
Air & Vacuum Flow Rate 2"



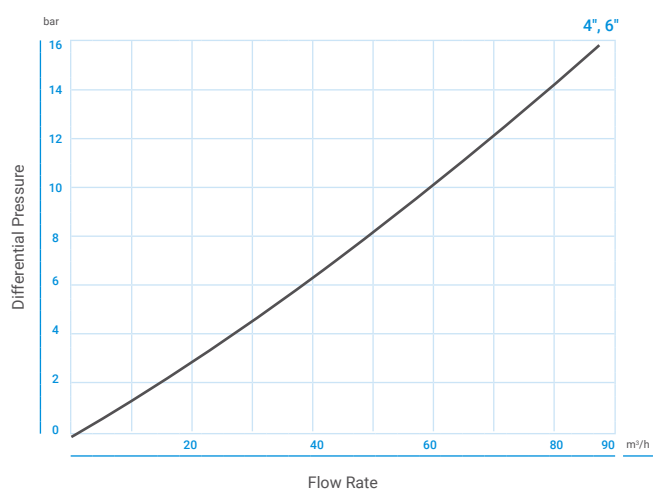
PN16 Automatic Air Release Flow Rate 3"



Air & Vacuum Flow Rate 3", 4", 6"



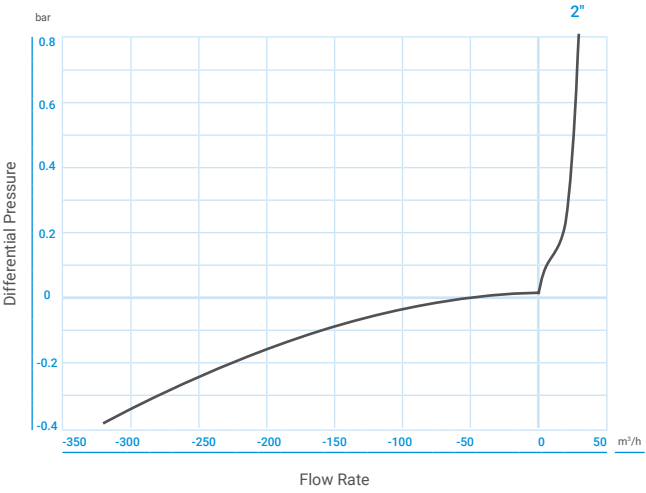
PN16 Automatic Air Release Flow Rate 4", 6"



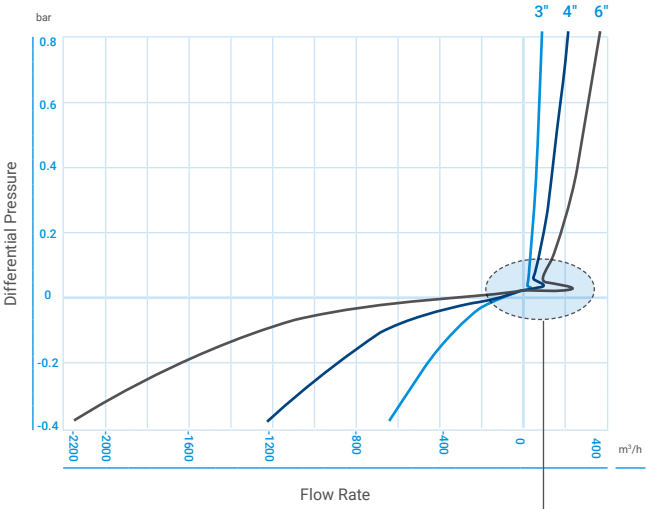
--- Max recommended design air discharge

D43NS

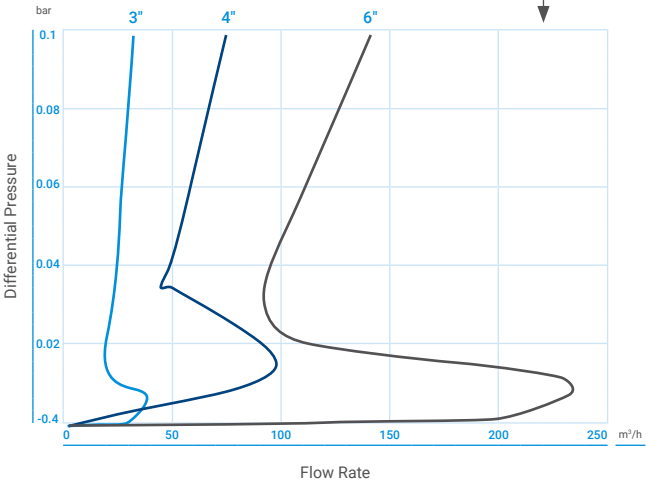
Air & Vacuum Flow Rate 2"



Air & Vacuum Flow Rate 3", 4", 6"



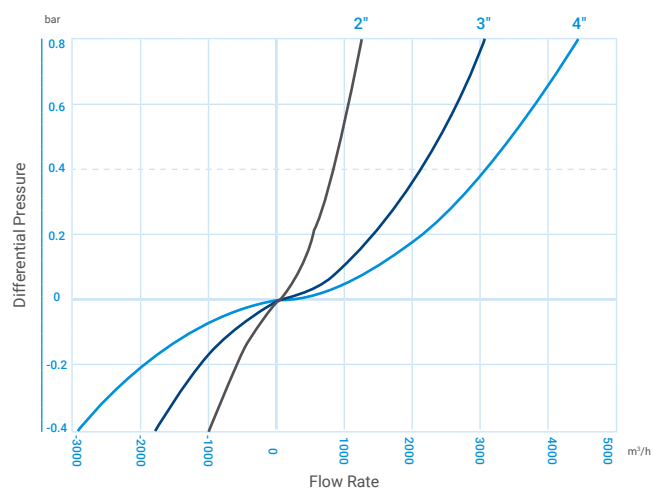
Air Discharge Switching Region



→ Head Loss

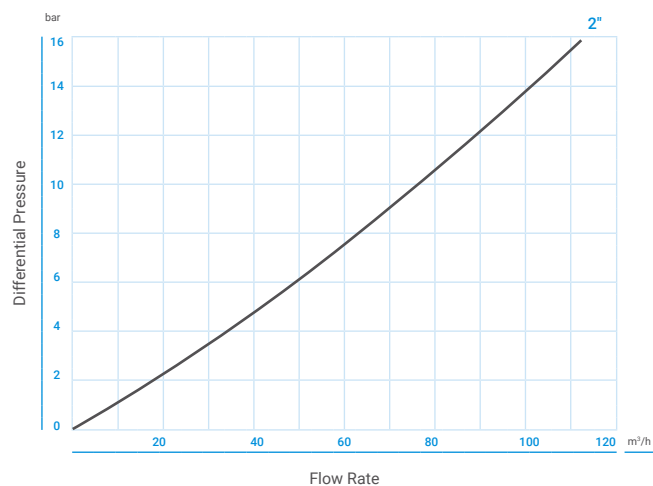
D46

Air & Vacuum Flow Rate 2", 3", 4"

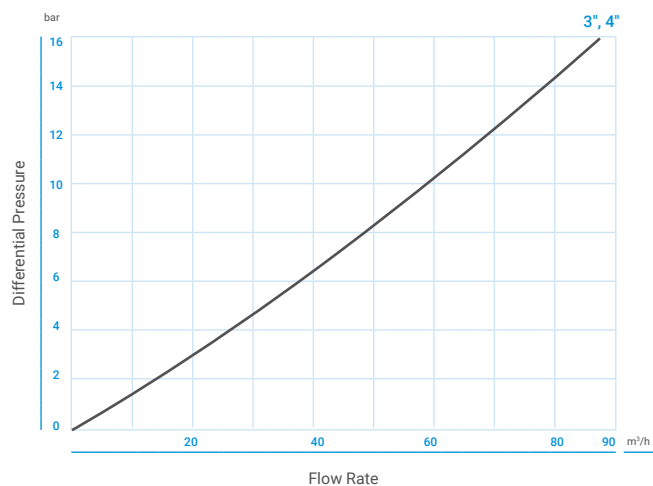


--- Max recommended design air discharge

Automatic Air Release Flow Rate 2"

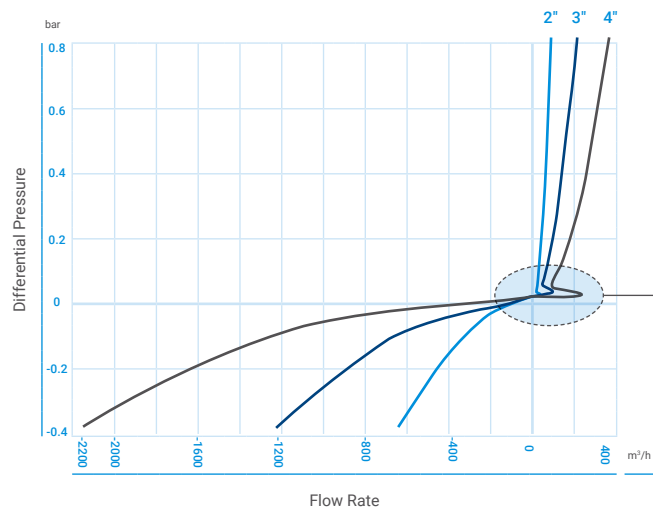


PN16 Automatic Air Release Flow Rate 4", 6"

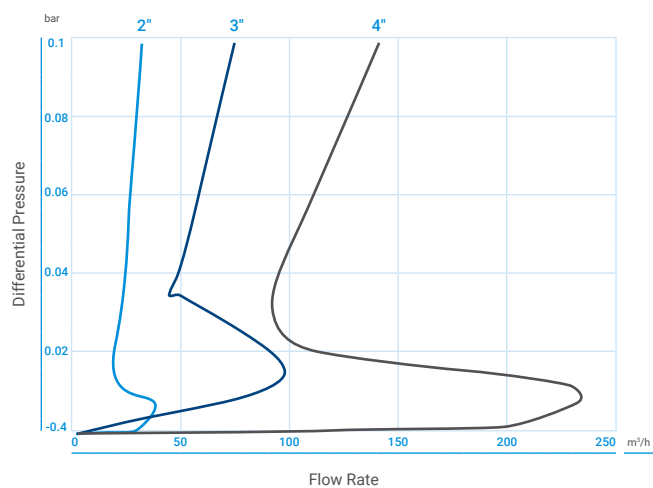


D46NS

Air & Vacuum Flow Rate 2", 3", 4"



Air Discharge Switching Region



D50

COMBINATION AIR VALVE

Combines both an air release valve and air & vacuum valve features. The air release component is designed to automatically release small pockets of air to the atmosphere as they accumulate along a pipeline or piping system when it is full and operating under pressure.



Reliable



Superior
design



Durable

/ Benefits & Features

- **Reliable operation** Reduces water hammer incidents
- **Dynamic design** Allows for high-capacity air discharge while preventing premature closure
- **Durable** Lightweight, simple and reliable structure
- **Special orifice seat design** Combination of bronze and EPDM rubber assures long-term maintenance-free operation
- **Discharge outlet** Enables the connection of a vent pipe
- **Air release component**
 - Body made of high-strength materials
 - All operating parts are made of specially selected corrosion-resistant polymer materials
 - **Large-sized air release orifice:**
 - Dramatically reduces the possibility of obstruction by debris
 - Discharges high air flow rates
 - One size orifice for a wide pressure range (up to 25 bar), achieved by the rolling seal mechanism

/ Specifications & Recommendations

- **Working Pressure Range** – D-050, D-050-C – 0.2 - 16bar | D-052: 0.2 - 25bar
- **Testing Pressure** – 1.5 times the working pressure of the air valve
- **Maximum Working Temperature** – 60°C
- **Maximum Intermittent Temperature** – 90°C

→ Technical Dimensions

D50

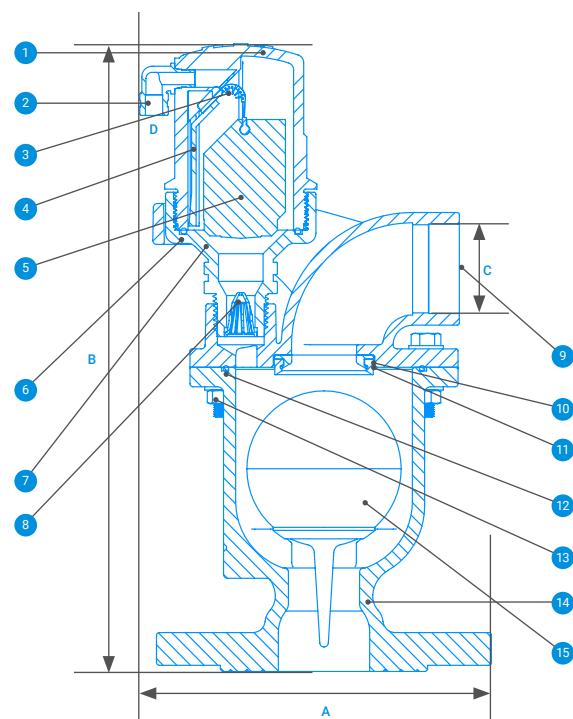
Nominal Size	Dimensions (mm)		Connections		Weight (kg)	Orifice Area (mm ²)	
	A	B	C	D		a/v	Auto
2" (50mm) threaded	173	293	1½" BSP female	1/8" BSP female	4.3	794	12
2" (50mm) flanged	173	306	1½" BSP female	1/8" BSP female	6.4	794	12
3" (80mm) threaded	184.3	329	2" BSP female	1/8" BSP female	10	1809	12
3" (80mm) flanged	211	328	2" BSP female	1/8" BSP female	13	1809	12

Nominal Size	Dimensions (mm)				Connection	Weight (kg)	Orifice Area (mm ²)	
	A	B	C Internal	External			a/v	Auto
4" (100mm)	342	382	80.0	96.0	1/8" BSP female	26.4	3317	12
6" (150mm)	399	432	90	106	1/8" BSP female	43.5	7850	12
8" (200mm)	553	554	124.0	140.0	1/8" BSP female	117	17662	12

→ Material Specifications

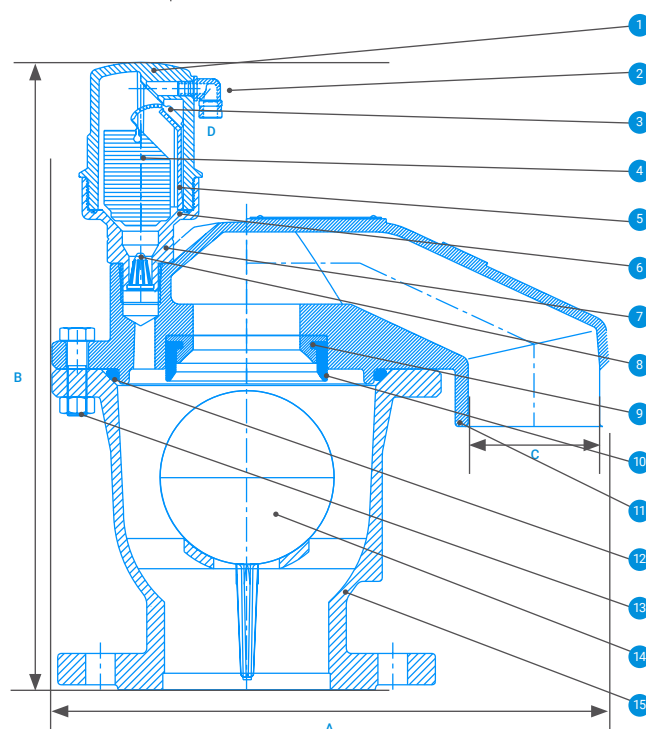
2", 3"

#	Part Name	Material
1	Body	Reinforced nylon
2	Air release outlet	Polypropylene
3	Rolling seal	EPDM
4	Clamping stem	Reinforced nylon
5	Float	Foamed polypropylene
6	O-ring	BUNA-N
7	Base	Reinforced nylon
8	Strainer	Nylon
9	Cover	Ductile iron
10	Orifice seat	Bronze
11	Orifice seal	EPDM
12	O-ring	BUNA-N
13	Bolt, nut & washer	Steel, zinc cobalt coated
14	Body	Ductile iron
15	Float	Polycarbonate / stainless steel 316



4", 6", 8"

#	Part Name	Material
1	Body	Reinforced nylon
2	Air release outlet	Polypropylene
3	Rolling seal	EPDM
4	Float	Foamed polypropylene
5	Clamping stem	Reinforced nylon
6	O-ring	BUNA-N
7	Base	Brass
8	Strainer	Nylon
9	Orifice seat	Bronze
10	Orifice seal	EPDM
11	Cover	Ductile iron
12	O-ring	BUNA-N
13	Blot, nut & washer	Steel, zinc cobalt plated
14	Float	Polycarbonate / stainless steel
15	Body	Ductile iron



* Screen cover 10"-12" polyethylene / ductile iron

→ Technical Dimensions

D50C, D52

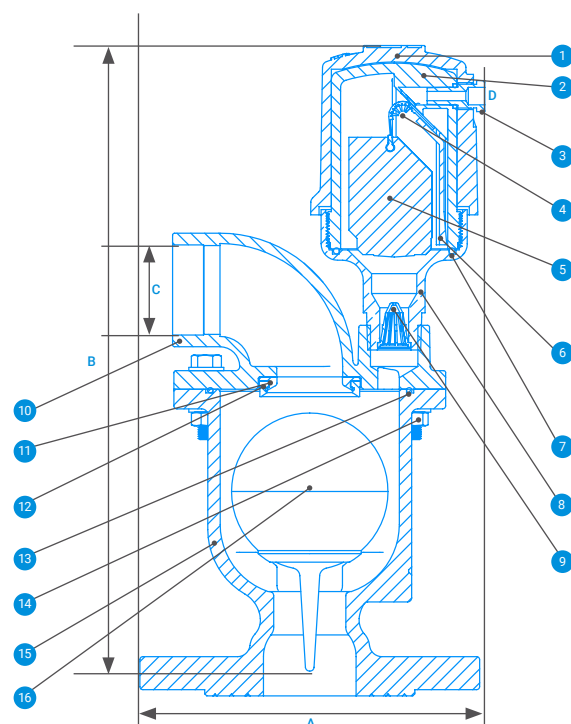
Nominal Size	Dimensions (mm)		Connections		Weight (kg)	Orifice Area (mm ²)		
	A	B	C	D		A/V	Auto D-050-C	Auto D-052
2" (50mm) threaded	168	302	1½" BSP Female	1/8" BSP Female	5.7	794	12	9
2" (50mm) flanged	168	315	1½" BSP Female	1/8" BSP Female	7.8	794	12	9
3" (80mm) threaded	182	336.5	2" BSP Female	1/8" BSP Female	11.5	1809	12	9
3" (80mm) flanged	205	339	2" BSP Female	1/8" BSP Female	14.4	1809	12	9

Nominal Size	Dimensions (mm)				Connection	Weight (kg)	Orifice Area (mm ²)		
	A	B	C Internal	External			A/V	Auto D-050-C	Auto D-052
4" (100mm)	342	393	80.0	96.0	1/8" BSP Female	27.4	3317	12	9
6" (150mm)	399	439	90	106	1/8" BSP Female	44.9	7850	12	9
8" (200mm)	553	560	124.0	140.0	1/8" BSP Female	118	17662	12	9

→ Material Specifications

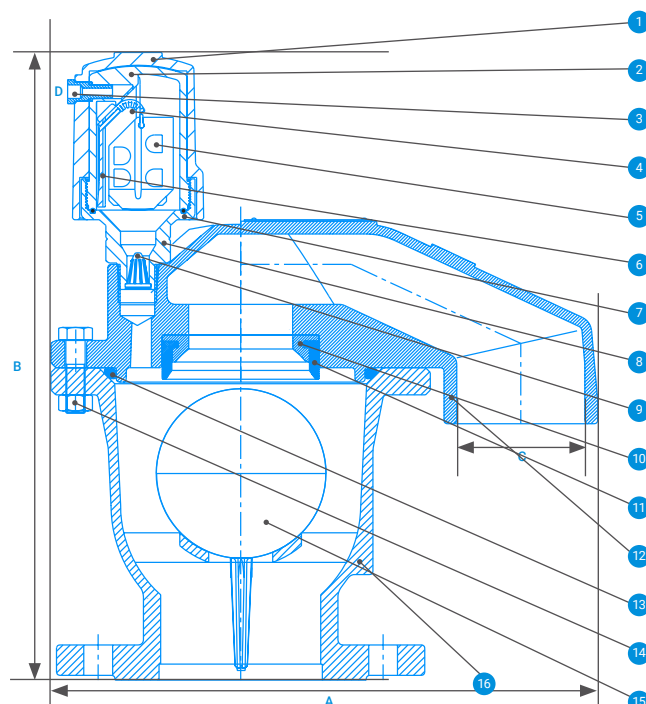
2", 3"

#	Part Name	Material
1	Shell	Ductile iron
2	Body	Reinforced nylon
3	Air release outlet	Brass
4	Rolling seal	EPDM
5	Float	Foamed polypropylene
6	Clamping stem	Reinforced nylon
7	O-ring	BUNA-N
8	Base	Brass
9	Strainer	Nylon
10	Cover	Ductile iron
11	Orifice seat	Bronze
12	Orifice seal	EPDM
13	O-ring	BUNA-N
14	Bolt, nut & washer	Steel, zinc cobalt coated
15	Body	Ductile iron
16	Float	Polycarbonate / stainless steel 316



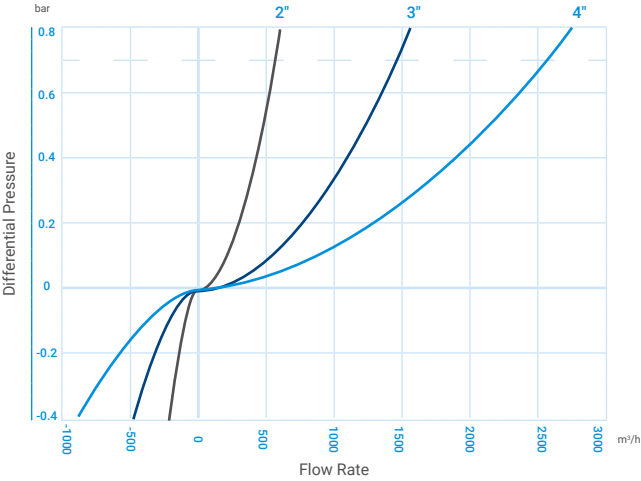
4", 6", 8"

#	Part Name	Material
1	Shell	Ductile iron
2	Body	Reinforced nylon
3	Air release outlet	Brass
4	Rolling seal	EPDM
5	Float	Foamed polypropylene
6	Clamping stem	Reinforced nylon
7	O-ring	BUNA-N
8	Base	Brass
9	Strainer	Nylon
10	Cover	Bronze
11	Orifice seat	EPDM
12	Orifice seal	Ductile iron
13	O-ring	BUNA-N
14	Bolt, nut & washer	Steel, zinc cobalt coated
15	Body	Polycarbonate / stainless steel 304L
16	Float	Ductile iron

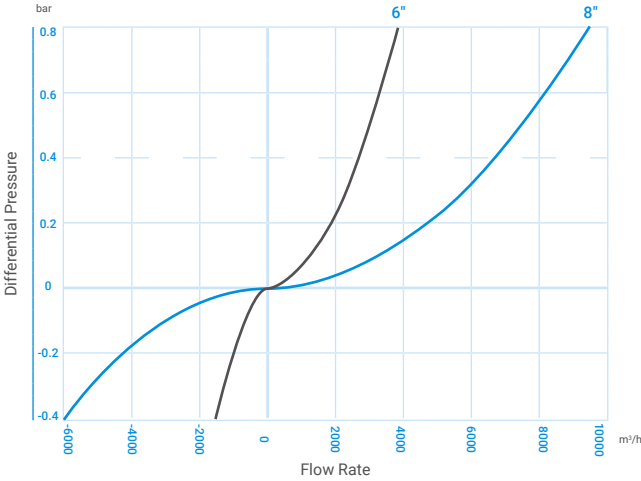


→ Head Loss

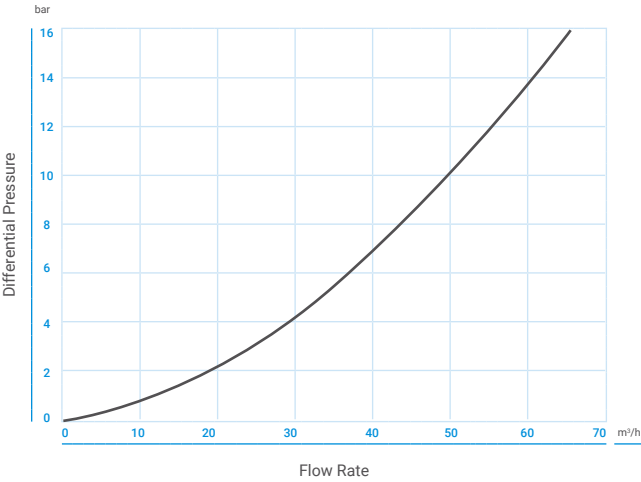
Air & Vacuum Flow Rate



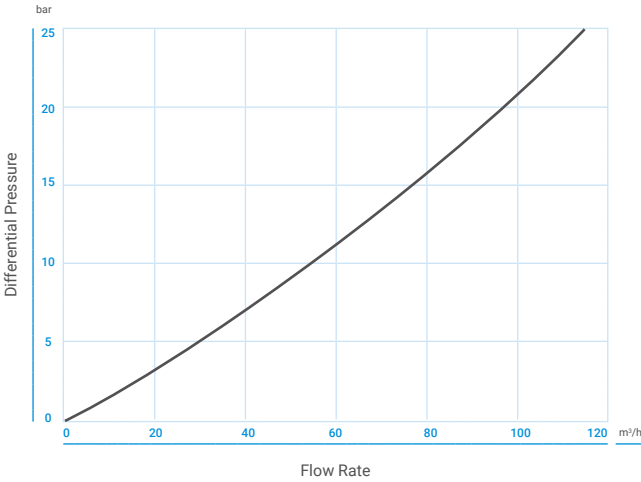
--- Max recommended design air discharge



PN16 Automatic Air Release Flow Rate



PN25 Automatic Air Release Flow Rate



→ Catalog Numbers

Model	Diameter	Connection	Material	Catalog Number
D50	2"	BSP	di	70500-001220
	3"	ISO16	brpl	70500-000265
	3"	BSP	di	70500-001230
	3"	ISO16	di	70460-001020
	4"	ISO16	di	70440-005950
	6"	ISO16	di	70440-005960

D60

COMBINATION AIR VALVE FOR HIGH FLOW SYSTEMS

Combines both air release valve and air & vacuum valve features. The air release component is designed to automatically release small pockets of air to the atmosphere as they accumulate along a pipeline or piping system when it is full and operating under pressure.



Reliable



Superior
design



Easy
maintenance

/ Benefits & Features

→ Dynamic design

- All main flow cross-sections are equal or greater than the nominal port area
- Aerodynamic design enables high flow rates of air both at intake and at discharge
- Allows for high-capacity air discharge while preventing premature closure
- Upper screen is protected with a protective cover

→ Reliable operation

Reduces water hammer incidents

→ Low maintenance

Special orifice seat design, a combination of bronze and EPDM rubber, assures long-term maintenance-free operation

/ Specifications & Recommendations

- **Working Pressure Range** – D-060: 0.2 - 16 bar, D-060-C: 0.2 - 16bar, D-062: 0.2 - 25bar, D-065: 0.2 - 40bar
- **Testing Pressure** – for the air valve is 1.5 times its working pressure
- **Maximum Working Temperature** – 60°C
- **Maximum Intermittent Temperature** – 90°C

→ Technical Dimensions

D60

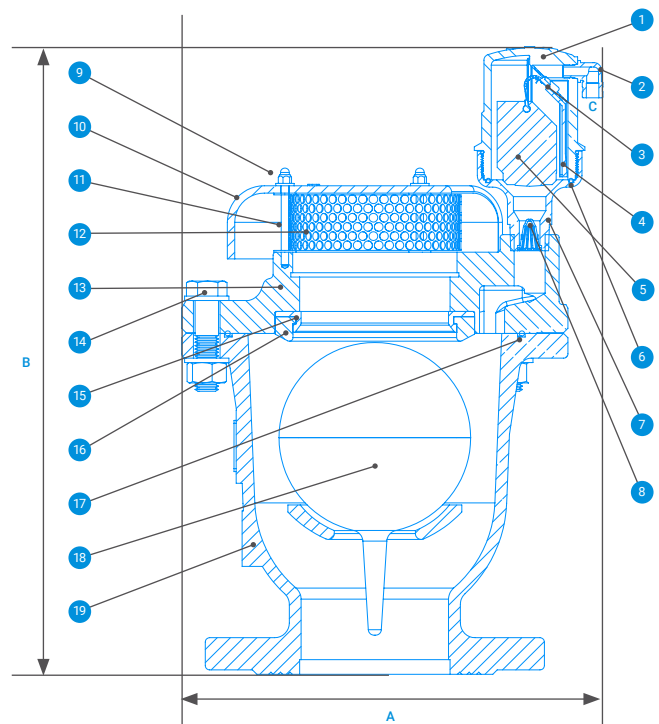
Nominal Size	Dimensions (mm)		Connections		Weight (kg)	Orifice Area (mm ²)	
	A	B	C	D		a/v	Auto
1" (25mm) threaded	158	303	1½" female	⅜" female	4.4	506.7	12
1" (25mm) flanged	158	303	1½" female	⅜" female	5.4	506.7	12

Nominal Size	Dimensions (mm)		Connection	Weight (Kg.)	Orifice Area (mm ²)	
	A	B			a/v	Auto
2" (50mm) threaded	215	323	⅜" female	9.7-10	1960	12
2" (50mm) flanged	215	336	⅜" female	10.7-11	1960	12
3" (80mm)	249	387	⅜" female	17-18	5030	12
4" (100mm)	286	431	⅜" female	23.6-25	7850	12
6" (150mm)	375	588	⅜" female	73.5-78	17662	12
8" (200mm)	463	630	⅜" female	108.6-117	31400	12
10" (250mm)	586	788	⅜" female	137.7-150	49087	12

→ Material Specifications

2" - 10"

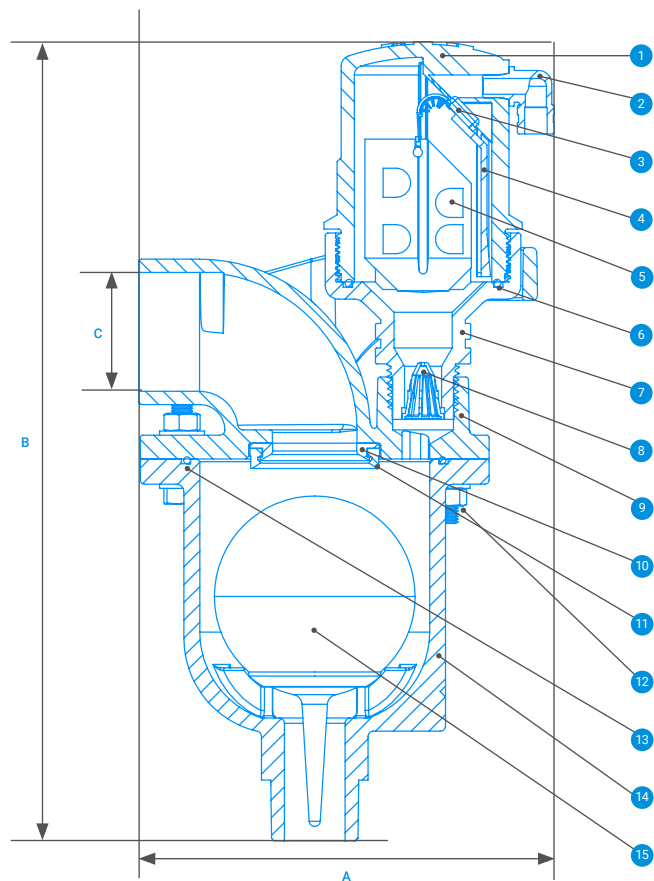
#	Part Name	Material
1	Body	Reinforced nylon
2	Air release outlet	Polypropylene
3	Rolling seal	EPDM
4	Clamping stem	Reinforced nylon
5	Float	Foamed polypropylene
6	O-ring	BUNA-N
7	Base	Brass
8	Strainer	Nylon
9	Domed nut & washer	Stainless steel 304
10	Screen cover 2"-4"	Ductile iron
	6"-10"	Polyethylene / ductile iron
11	Threaded rod	Stainless steel 304
12	Screen	Stainless steel 304
13	Cover	Ductile iron
14	Bolt, nut & washer	Steel, zinc cobalt coated
15	Orifice seat	Bronze
16	Orifice seal	EPDM
17	O-ring	BUNA-N
18	Float	Polycarbonate / stainless steel
19	Body	Ductile iron



→ Material Specifications

2" - 10"

#	Part Name	Material
1	Body	Reinforced nylon
2	Discharge outlet	Polypropylene
3	Rolling seal	EPDM
4	Clamping stem	Reinforced nylon
5	Float	Foamed polypropylene
6	O-ring	BUNA-N
7	Base	Reinforced nylon
8	Strainer	Nylon
9	Cover	Ductile iron
10	Orifice seat	Bronze
11	Orifice seal	EPDM
12	Bolt, nut & washer	Steel, zinc cobalt coated
13	O-ring	BUNA-N
14	Body	Ductile iron
15	Float	Polycarbonate / stainless steel



→ Technical Dimensions

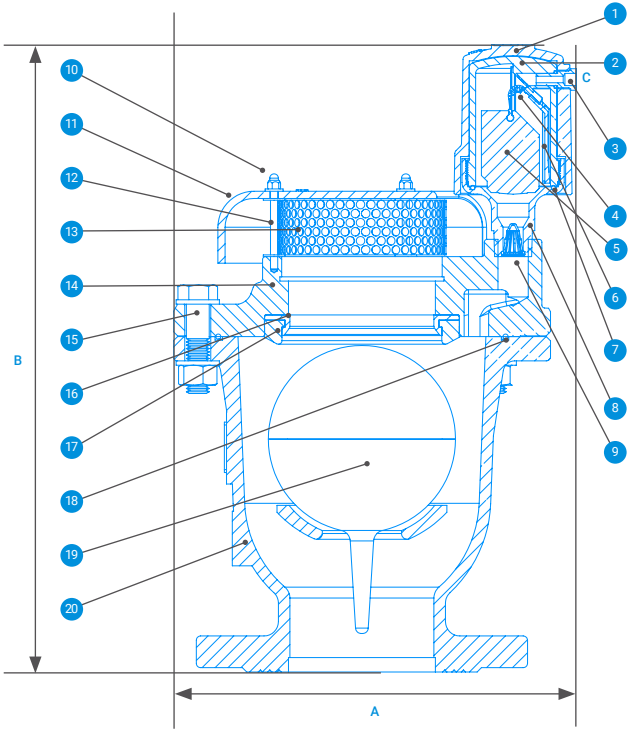
D60C, D62

Nominal Size	Dimensions (mm)		Connections		Weight (kg)	Orifice Area (mm ²)		
	A	B	C	D		a/v	Auto D-060-C	Auto D-062
1" (25mm) threaded	152	291	1½" female	⅜" female	5.3	506.7	12	9
1" (25mm) flanged	152	311	1½" female	⅜" female	6.3	506.7	12	9

Nominal Size	Dimensions (mm)		Connection	Weight (kg)	Orifice Area (mm ²)		
	A	B			A/V	Auto D-050-C	Auto D-052
2" (50mm) threaded	210	357	⅜" female	9.7-10	1960	12	9
2" (50mm) flanged	210	325	⅜" female	11.7-12	1960	12	9
3" (80mm)	243	393	⅜" female	18-19	5030	12	9
4" (100mm)	280	438	⅜" female	24.6-26	7850	12	9
6" (150mm)	375	596	⅜" female	74.5-79	17662	12	9
8" (200mm)	463	638	⅜" female	109.6-118	31400	12	9
10" (250mm)	586	788	⅜" Female	138.7-151	49087	12	9

→ Material Specifications

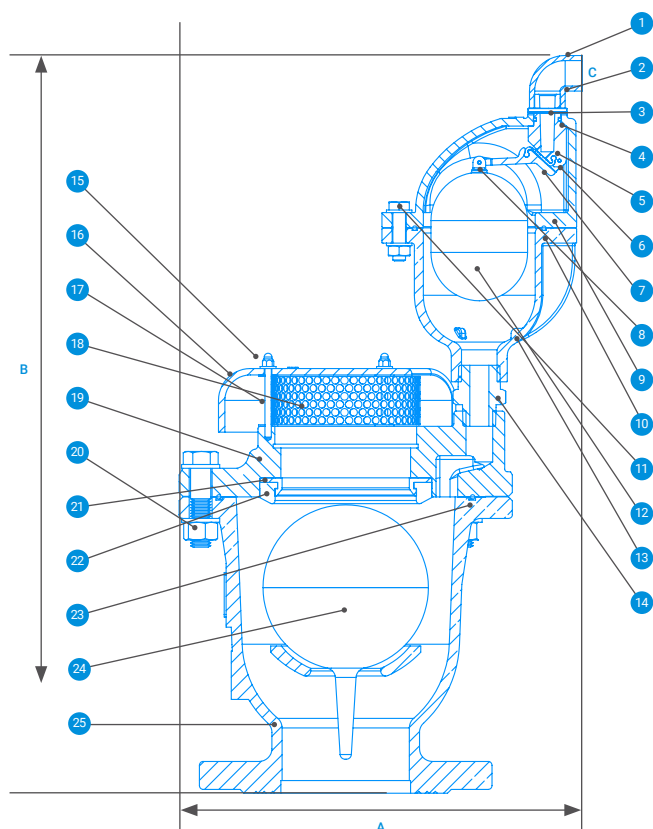
#	Part Name	Material
1	Shell	Ductile iron
2	Body	Reinforced nylon
3	Air release outlet	Brass
4	Rolling seal	EPDM
5	Float	Foamed polypropylene
6	Clamping stem	Reinforced nylon
7	O-ring	BUNA-N
8	Base	Brass
9	Strainer	Nylon
10	Domed nut & washer	Stainless steel 304
11	Screen cover 2"-4"	Ductile iron
	6"-10"	Polyethylene / ductile iron
12	Threaded rod	Stainless steel 304
13	Screen	Stainless steel 304
14	Cover	Ductile iron
15	Bolt, nut & washer	Steel, zinc cobalt coated
16	Orifice seat	Bronze
17	Orifice seal	EPDM
18	O-ring	BUNA-N
19	Float	Polycarbonate / stainless steel
20	Body	Ductile iron



→ Technical Dimensions

D65

Nominal Size	Dimensions (mm)		Connection	Weight (kg)	Orifice Area (mm ²)	
	A	B			A/V	Auto
2" (50mm) threaded	246	500	1/2" BSP female	13.4-13.7	1960	15
2" (50mm) flanged	246	487	1/2" BSP female	15.4-15.7	1960	15
3" (80mm)	280	536	1/2" BSP female	21.8-22.8	5030	15
4" (100mm)	317	580	1/2" BSP female	28.2-32.7	7850	15
6" (150mm)	382	775	1/2" BSP female	28.2-32.7	17662	15
8" (200mm)	472	813	1/2" BSP female	109.4-121.7	31400	15



→ Material Specifications

#	Part Name	Material
1	Air release outlet	PVC
2	Orifice	Reinforced nylon
3	Rollpin	Stainless steel 304
4	O-ring	BUNA-N
5	Rolling seal	EPDM
6	Rollpin	Stainless steel 304
7	Lever	Reinforced nylon
8	Rollpin cover	Stainless steel SAE 304
9	Cover	Ductile iron
10	O-ring	BUNA-N
11	Bolt nut & washer	Steel, zinc cobalt coated
12	Float	Polycarbonate / stainless steel
13	Body	Ductile iron
14	Adaptor	Brass
15	Domed nut & washer	Stainless steel 304
16	Screen cover 2"-4"	Ductile iron
	6"-8"	Polyethylene / ductile iron
17	Threaded rod	Stainless steel 304
18	Screen	Stainless steel 304
19	Cover	Ductile iron
20	Bolt nut & washer	Steel, zinc cobalt coated
21	Orifice seat	Bronze
22	Orifice seal	EPDM
23	O-ring	BUNA-N
24	Float 2"-4"	Polycarbonate / stainless steel
	6"-8"	Stainless steel
25	Body	Ductile iron

→ Catalog Numbers

Model	Diameter	Connection	Material	Catalog Number
D60	3"	ANSI	SST	70561-000047
	4"	ANSI	SST	70561-016218
	6"	ANSI	SST	70561-007905

AIR VALVES

DESCRIPTION GUIDE

D40¹ PP² COMB³ 2"⁴ BSP⁵ PN10⁶ MN⁷

Sample description

1 Model	
NAVK	Nav kinetic (plastic)
NAVA	Nav automatic (plastic)
NAVC	Nav combination (plastic)
NAVMC	Nav combination (metal)
AV10	ARI AV10
D40	ARI D40
D40L	ARI D40L
D43	ARI D43
D46	ARI D46
D50	ARI D50

D60	ARI D60
D70	ARI D70
D70PQ	ARI D70PQ
DG10	ARI DG10
DT40	ARI DT40
DT40LP	ARI DT40LP
K10	ARI K10
K60	ARI K60
S50	ARI S50
SG10	ARI SG10

2 Material	
PL	Reinforced nylon
PP	Polypropylene
DI	Ductile iron
SST	Stainless steel
BZPL	Bronze base, reinforced nylon body
BRPL	Brass base, reinforced nylon body

3 Function	
KINT	Kinetic & vacuum
AUTO	Automatic
COMB	Combination
DYN	Dynamic

4 Diameter	
1/2"	1/2" (15mm)
3/4"	3/4" (20mm)
1"	1" (25mm)
1.5"	1.5" (40mm)
2"	2" (50mm)
2.5"	2.5" (65mm)
3"R	3" (80x50x80mm)
3"	3" (80mm)
4"R	4" (100x80x100mm)
4"	4" (100mm)
6"	6" (150mm)
8"	8" (200mm)

5 Connection	
NPT	NPT
BSP	BSP
DN10	ISO PN10
DN16	ISO PN16
AN12	ANSI 125
AN15	ANSI 150
AN30	ANSI 300
BSTD	BSTD
BSTE	BSTE
ABNT	ABNT

6 Max. Pressure	
PN6	6bar / 90psi
PN10	10bar / 145psi
PN16	16bar / 250psi
PN25	25bar / 380psi
PN40	40bar / 600psi

7 Unique Features	
AS	Non flow return
CP	Check point
MN	Mining
GAS	Gas application
MTN	Male thread nozzle
FCO	Female connection
HW	Hot water
NS	Non slam
STF	S. steel float

/ Control Valves Application



Precision
Agriculture



Netafim Valves App

A one -of-a-kind tool for designers,
dealers & end-users!



Easy to use



Smart



Reliable

/ Benefits & Features

→ Easy to use

- Find everything you need under the same roof: digital product catalog that contains various product sheets
- Any technical material that can assist to select, install and maintain a valve

→ Smart

Simply calculate the valves head loss, recommended flow rates, etc

→ Reliable

Find a list of standard products extremely easy to select from as well as a quick guide for selecting unique products

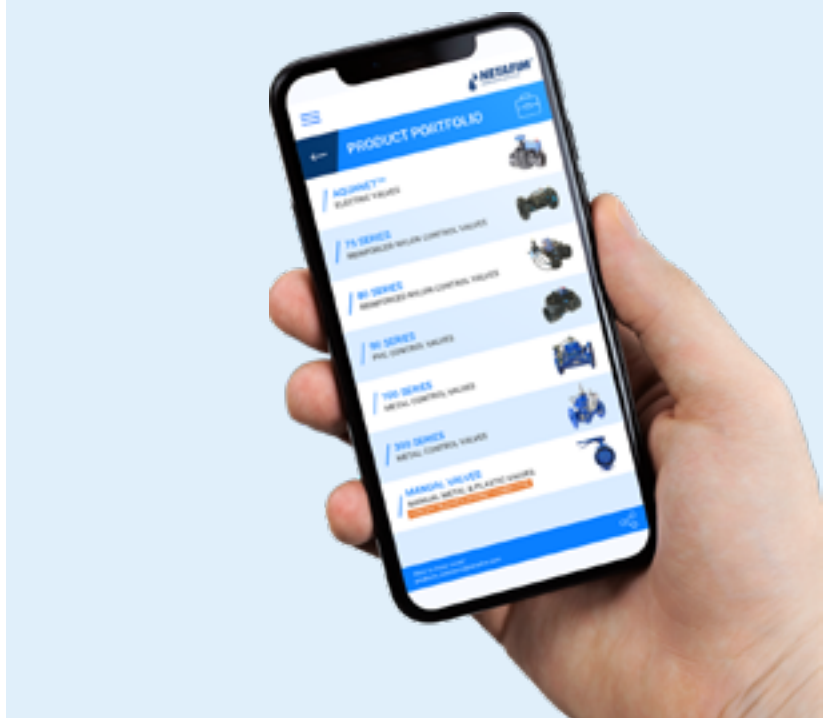
Simply look for Netafim Valves
app. on:



→ Homescreen



→ Product Sheets



→ Hydraulic Calculations



→ Smart Alerts





04-0624-VLV-CAT-0104-EN



www.netafim.com