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.

1½" - 2" model

¾" - 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 1½" & 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 (mm^2)	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

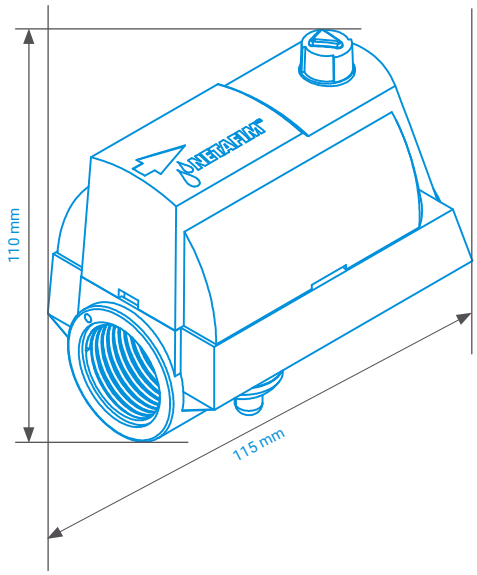
Cable Gauge (awg)	Diameter (mm)	Cross Section (mm^2)	Max. Distance (m)
20	0.8	0.5	150
17	1.1	1.0	240
15	1.4	1.5	380

Electrical Connections

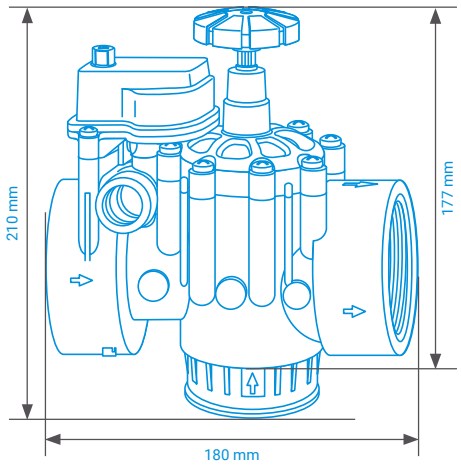
¾" & 1" DC red + black common
¾" & 1" AC black/black
1 ½" & 2" DC red + black common
1 ½" & 2" AC black/black
(Changing DC connection wire will change NC to no)
It is recommended to isolate wires connections from water to prevent corrosion.
AquaNet™ is compatible with most DC latch controllers with two 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
¾" - 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.

Long-lasting performance

High durability

Versatility

Benefits & Features

Long-lasting 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

High durability – Long life and easy inline maintenance accomplished by structural simplicity and high-quality corrosion-free materials

Versatility – 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

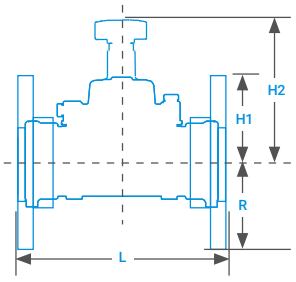
Diameter	inch	¾	1	1½	2	2½	3R	3	4R
	mm	20	25	35	50	65	80	80	100
Flow Rate Factor**	Kv (metric)	12	16	60	83	85	90	120	120
	Cv (US)	14	20	70	96	98	104	140	140

** 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

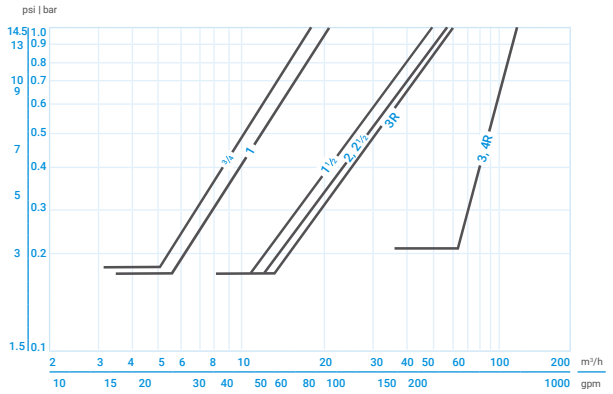
Diameter		inch	¾	1	1½	2	2½	3R	3	3*	4R*
		mm	20	25	40	50	65	80	80	80	100
Height	h1	mm / inch	38 / 1 1/2	38 / 1 1/2	67 / 2 5/8	67 / 2 5/8	67 / 2 5/8	67 / 2 5/8	100 / 3 15/16	100 / 3 15/16	100 / 3 15/16
	H2		100 / 4	100 / 4	112 / 4 3/8	112 / 4 3/8	112 / 4 3/8	112 / 4 3/8	180 / 7 1/8	180 / 7 1/8	180 / 7 1/8
	r		18 / 11/16	22 / 13/16	30 / 1 3/16	37 / 1 1/2	47 / 1 7/8	54 / 2 1/8	60 / 2 3/8	100 / 3 15/16	110 / 4 5/16
Length	L		113 / 4 1/2	124 / 4 7/8	188 / 7 3/8	199 / 7 7/8	228 / 9	236 / 9 1/4	260 / 10 1/4	290 / 11 7/16	290 / 11 7/16
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

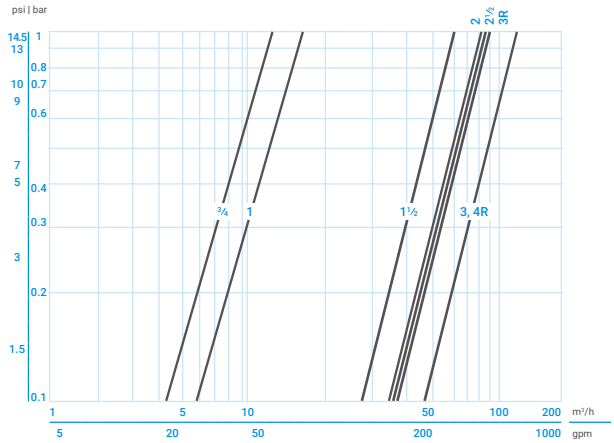


Head Loss

2-Way



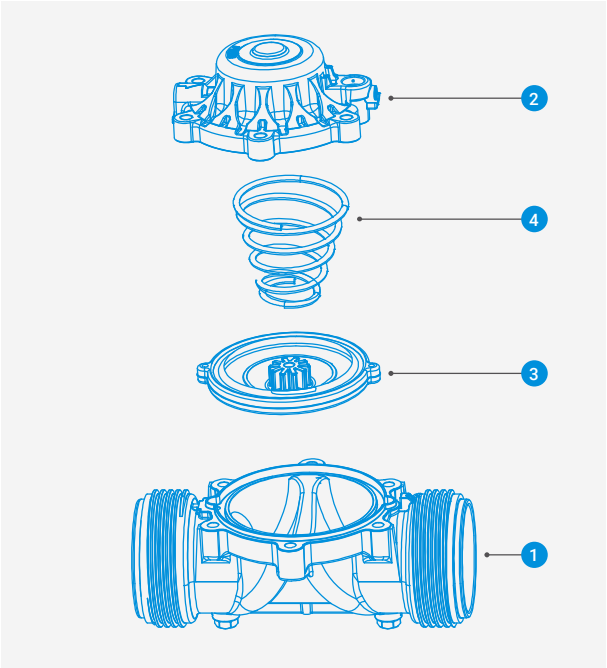
3-Way



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.

Long-lasting performance

High durability

Versatility

Benefits & Features

Long-lasting 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

High durability

Long life and easy inline maintenance accomplished by structural simplicity and high-quality corrosion-free materials

Versatility

Gal plastic valves are available with full selection of control functions and various end connections

Specifications & Recommendations

- **Maximum Pressure –** 12 bar (175psi)
- **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

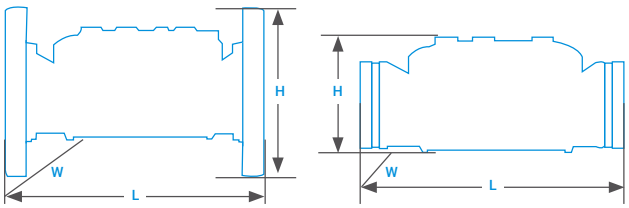
Diameter	inch	3H	4	6R	6	8R
	mm	80	100	150	150	200
Flow Rate Factor**	Kv (metric)	250	350	350	580	580
	Cv (US)	290	405	405	670	670

** 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

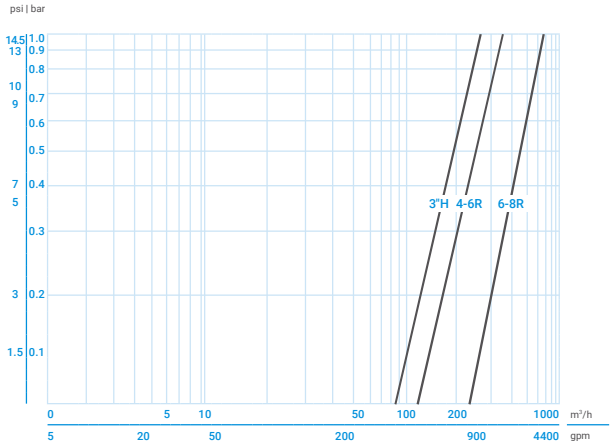


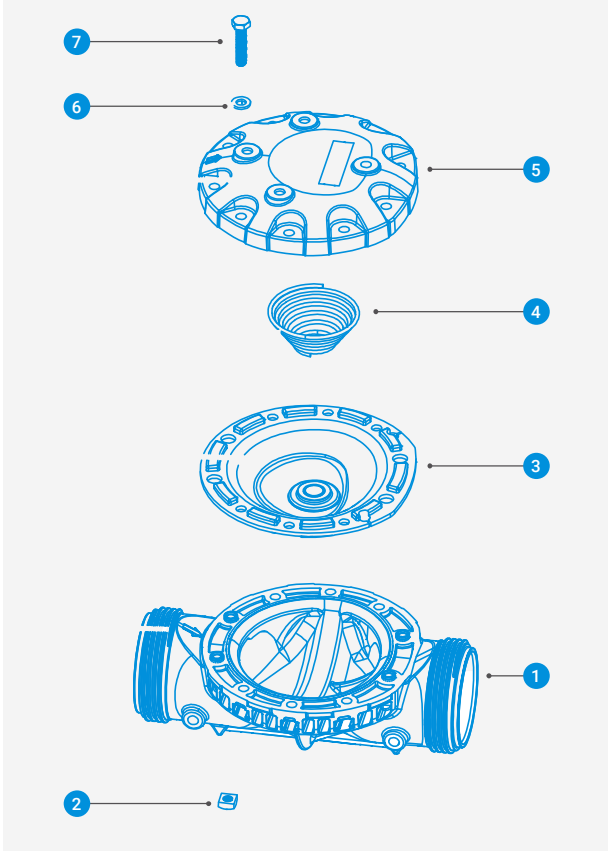
Material Specification

#	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

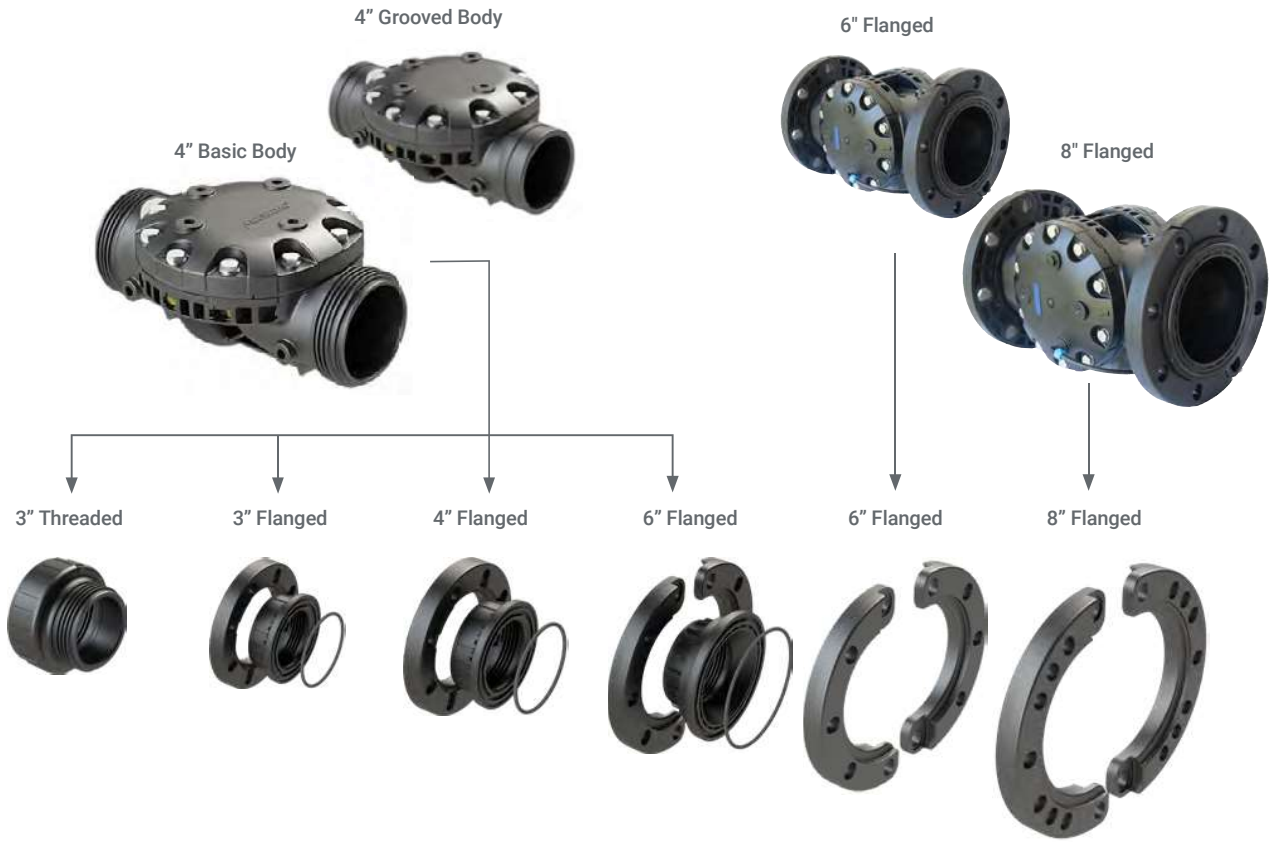
* Optional parts for special chemical resistance

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

Flexible

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

Flexible

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

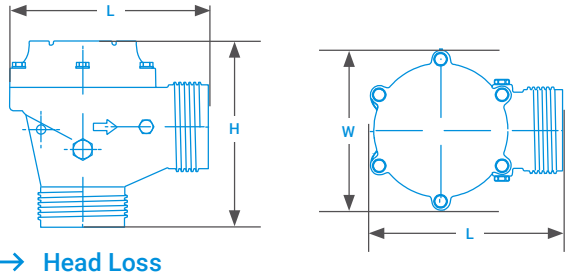
Shape		Straight		Angle			
Diameter	inch	1½	2	1½	2	3	4R*
	mm	40	50	40	50	80	100
Flow Rate Factor**	Kv (metric)	35	45	45	60	180	
	Cv (US)	40	52	55	70	208	

* **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



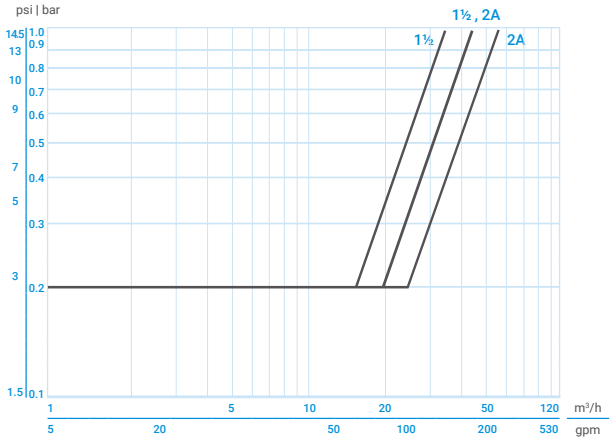
Material Specifications

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

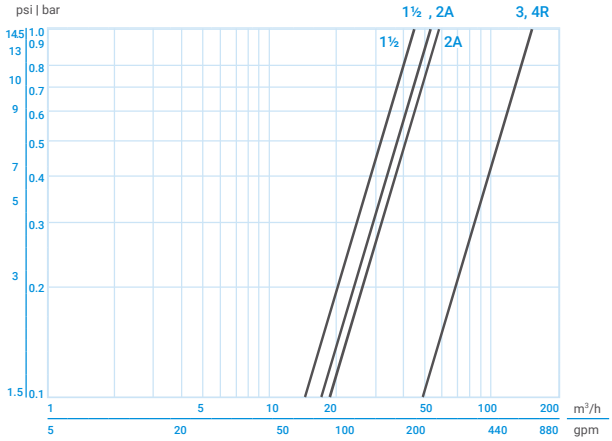
Optional parts for special chemical resistance

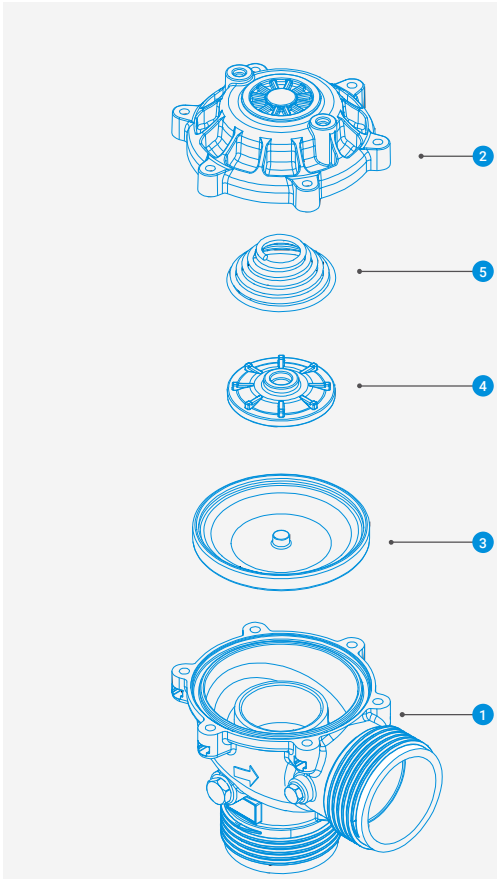
Head Loss

2-Way Valves



3-Way Valves





80 Series ¾" - 1"

REINFORCED NYLON CONTROL VALVES

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

Long-lasting performance

High durability

Versatility

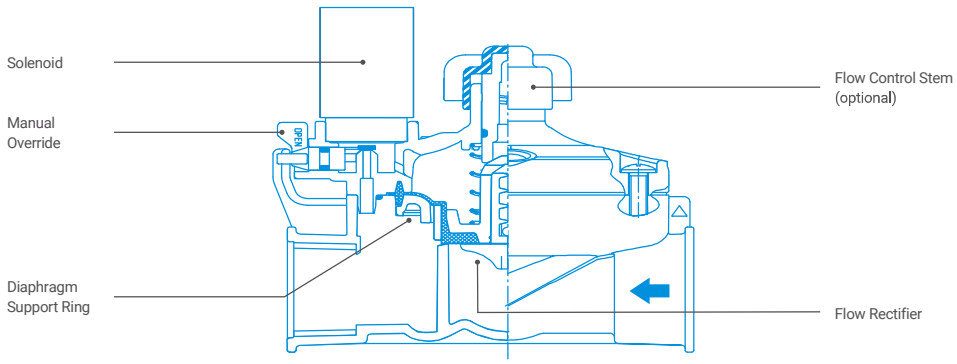
Benefits & Features

→ Cost effective	Simple reliable and economical
→ High durability	Corrosion-free materials
→ Versatility	Operation at wide range of flow rates from near zero to maximal flow
→ Global pattern valve	Activated by a fully-supported diaphragm
→ Opening	Internal bleed manual override
→ 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. ±10%
  Optional – Other voltage rating or latching DC operators

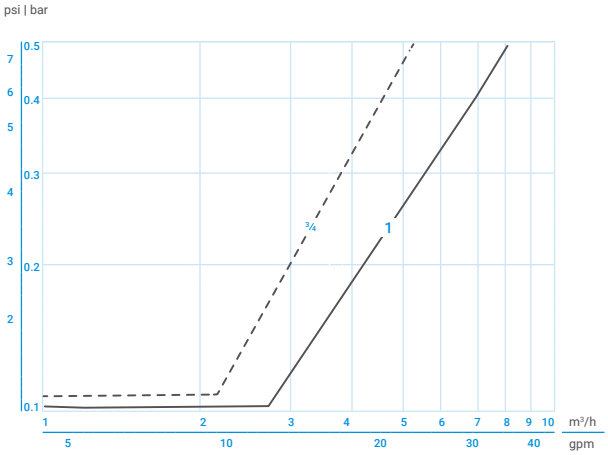
Components



Technical Dimensions

Diameter		inch	¾	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.

Long-lasting performance

High durability

Versatility

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

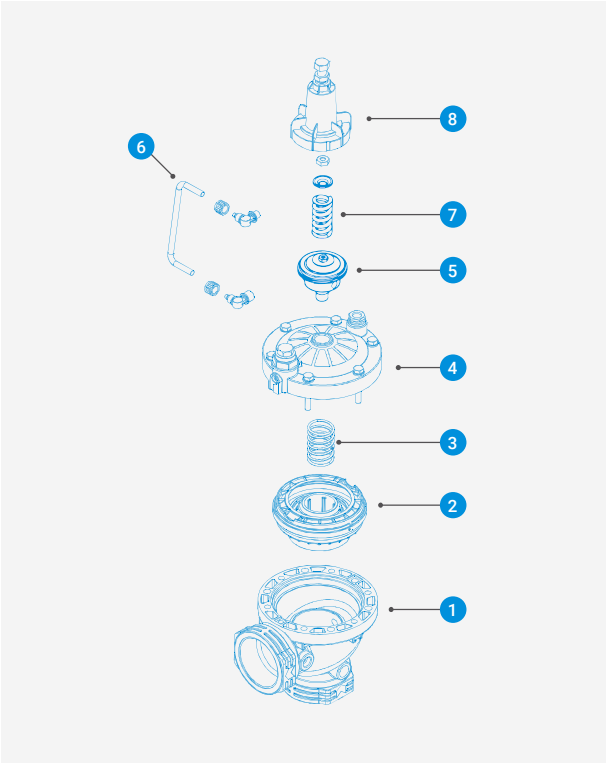
Based on Flow Rate (m^3/h)

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 geart combination of affordability, ease of use, and a durable construction.

Long-lasting performance

High durability

Versatility

Benefits & Features

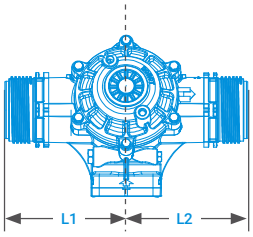
→ Clever design	Specially created for irrigation when one inlet and two independent outlets are required
→ Wide operation pressure range	As low as 0.5 bar up to 10 bar
→ Low pressure losses	Even in high flow rates
→ Versatility	Allows for a wide range of control applications

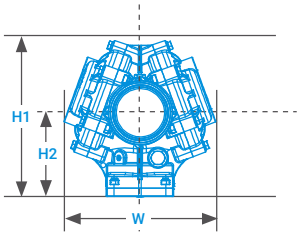
Specifications & Recommendations

- **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)

Techical Dimensions

Dimentions	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





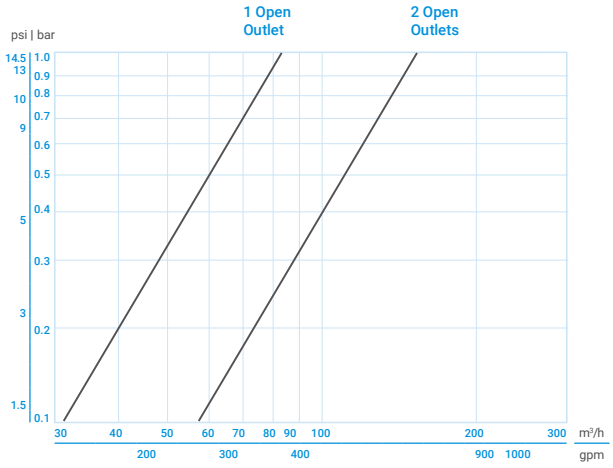
Hydraulic Performance

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.

Long-lasting performance

Very high efficiency

High corrosion & UV resistance

Benefits & Features

→ Long-lasting 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

→ Very high 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

→ High corrosion & UV 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

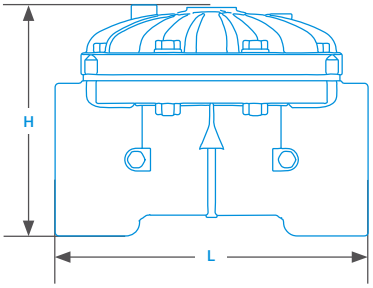
Valve Size	inch	3	4	6
	mm	80-90	100-110	150-160
Flow rate factor*	Kv	155	215	480
	Cv	180	250	560

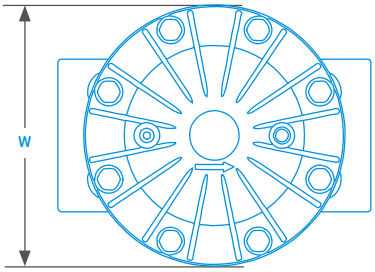
* In order to calculate the head loss at any desired flow rate, use the following equation: Head loss = (Flow rate/Flow rate factor)^2

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





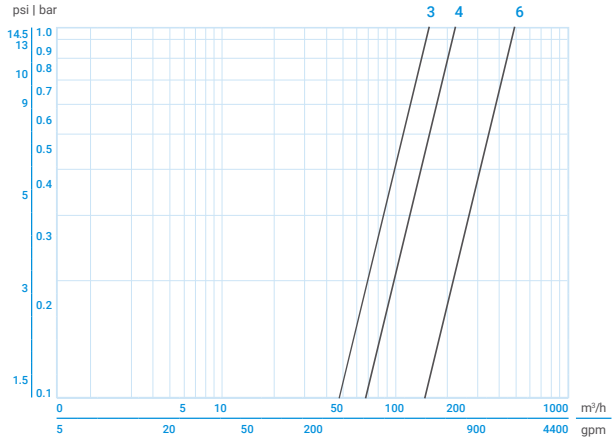
Material Specifications

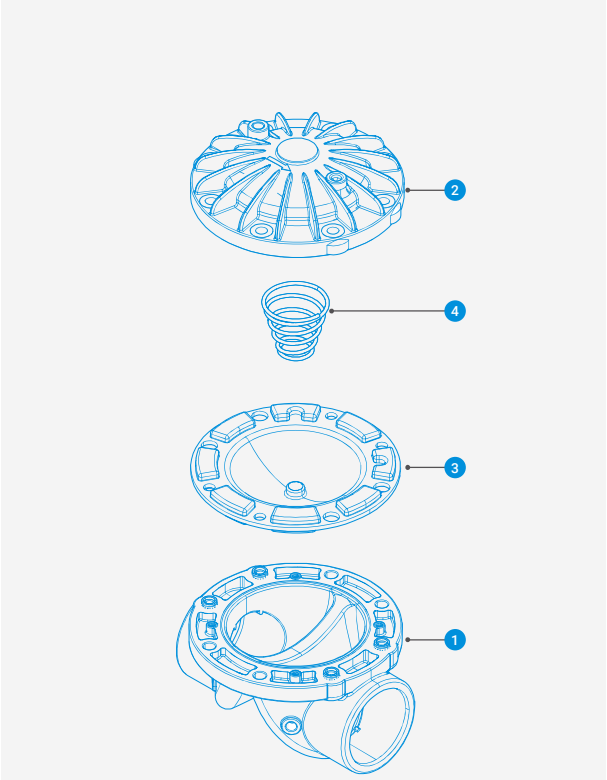
#	Part	Material	*Optional
1	Body	uPVC	-
2	Bonnet	Glass reinforced Polyamide	PPS
3	Diaphragm**	Natural rubber	ALD, EPDM
4	Spring	SST 302	SST 316

* 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.

Long-lasting performance

Versatility

High durability

Benefits & Features

Long-lasting 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

Versatility

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

High 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 –** 1m^3/h (5gpm)
- **Minimum Operating Pressure –** 0.4 bar (6psi)*

* Available with low pressure diaphragm

→ Hydraulic Performance

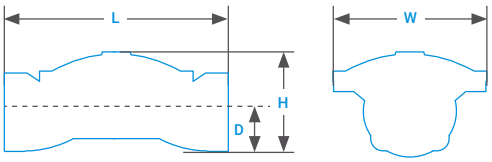
Shape		Straight															Angle					
Diameter	inch	¾	1	1½	2	2½	3R*	3	4	6	8R*	8	10	12	14	16	1½	2	3R*	3	4	6
	mm	20	25	40	50	65	80	80	100	150	200	200	250	300	350	400	40	50	80	80	100	150
Flow rate factor**	Kv	17	17	65	95	95	95	170	220	600	670	800	1250	1900	1900	2600	60	90	90	150	200	570
	Cv	20	20	75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

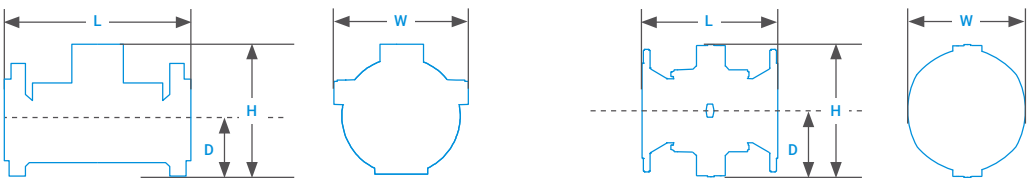


Straight Flow, Flanged Connection - Standard models 16 bar (250psi)

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	kg/lbs	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		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

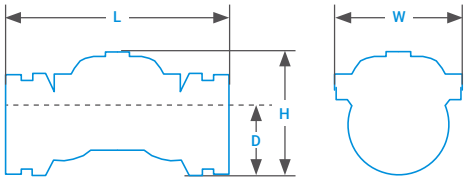
Straight Flow, Flanged Connection - High Pressure models 25 bar (360psi)

Diameter		inch	2	14.5 / 322TH	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	2.37 / 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



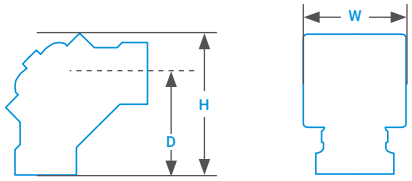
Straight Flow, Grooved Connection

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



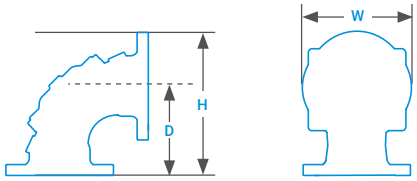
Angle Flow, Threaded Connection

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

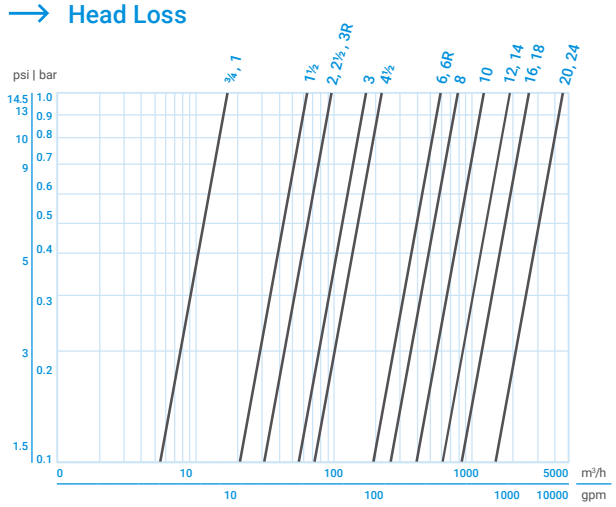
Diameter		inch	3	4	6
		mm	80	100	150
Height	H	mm / inch	278 / 10.9	300 / 11.8	380 / 15
Width	W	mm / inch	200 / 7.87	230 / 9.06	300 / 11.8
	D	mm / inch	174 / 6.85	185 / 7.28	230 / 9.06
Weight		kg / lbs	18 / 39.7	21 / 46.3	45 / 99.2



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

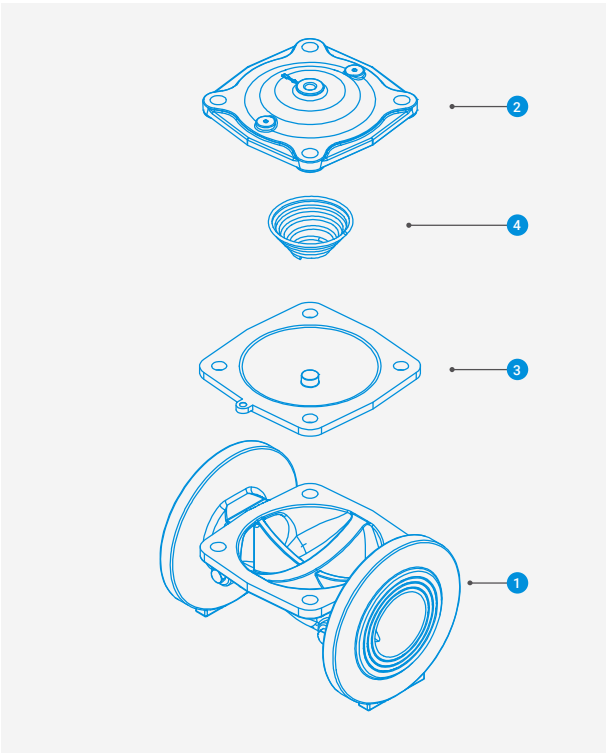
→ Head Loss



→ Material Specifications

#	Part	Material	*Optional
1	Body	Cast iron	Ductile iron, bronze, stainless steel
2	Bonnet	Cast iron	Ductile iron, bronze, stainless steel
3	Dia-phragm**	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.

Long-lasting performance

Versatility

High durability

Benefits & Features

→ Long-lasting performance

Available with an extended range of unique control functions that cater to both special and standard needs

→ Versatililty

The valves are available in globe and angle shapes with the widest range of accessories in the market

→ Outstanding design

A unique rigid mechanism that provides ultimate hydraulic control in any given condition

Specifications & Recommendations

- **Maximum Pressure –** 16 bar (230psi) and 25 bar (365psi)
- **Minimum Recommended flow –** 1m^3/h (5gpm)
- **Minimum Operating Pressure –** 0.5 bar (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

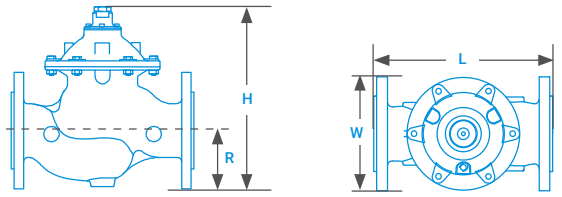
Diameter		1½	2	2½	3	4	6	8	10	12	14	16	18	20	24	28	32
		40	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800
L	mm/inch	230/9 1/16	230/9 1/16	290/11 3/8	310/12 3/16	350/13 3/4	480/18 7/8	600/23 5/8	730/28 3/4	850/33 7/16	980/38 9/16	1100/43 5/16	1200/47 1/4	1250/49 3/16	1450/57 1/16	1650/64 15/16	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 7/16	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 15/16	1675/65 15/16
W	mm/inch	153/6	170/6 11/16	185/7 3/16	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 5/16	1100/43 5/16	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

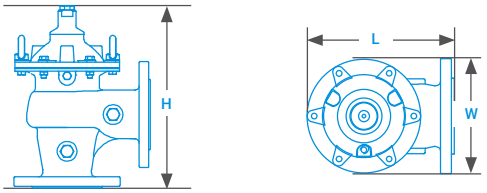
Diameter	inch	2"	3"	4"	6"	8"	10"
	mm	50	80	100	150	200	250
L	mm/inch	208 / 83/16	250 / 913/16	295 / 111/16	405 / 16	505 / 197/8	585 / 23
H	mm/inch	240 / 97/16	415 / 165/16	445 / 171/2	570 / 227/16	635 / 25	832 / 323/4
W	mm/inch	170 / 611/16	200 / 77/8	235 / 91/4	330 / 13	415 / 165/16	495 / 191/2
Weight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

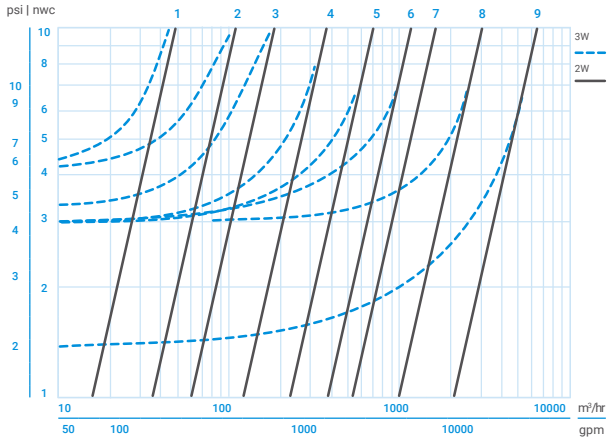


Angle Type



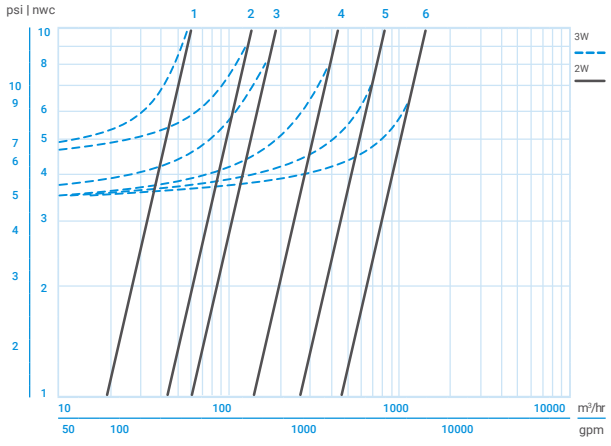
Head Loss

Globe Flanged Type



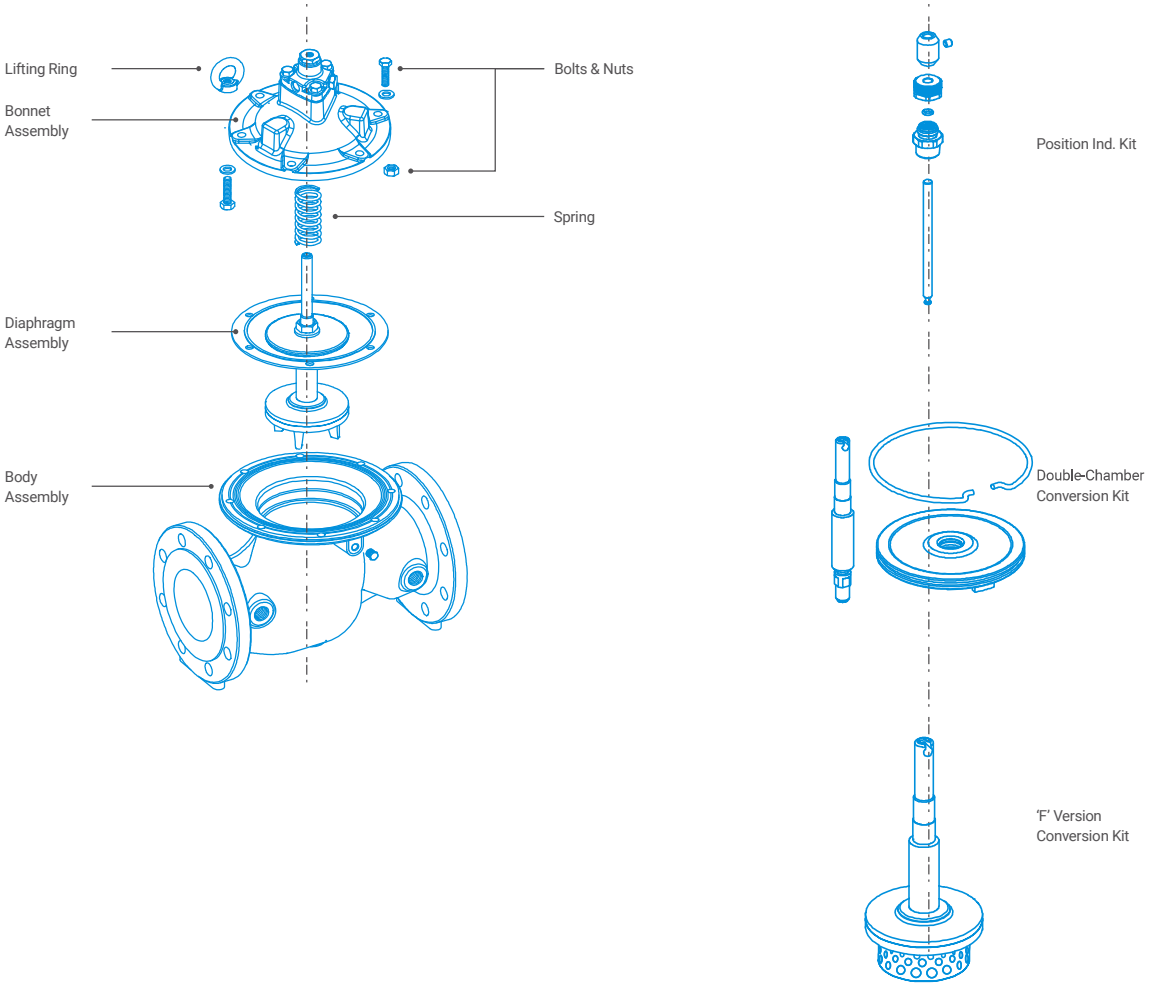
1= 1½", 2" ,2½" / 40, 50, 65mm
2= 3" / 80mm
3= 4" / 100mm
4= 6" / 150mm
5= 8" / 200mm
6= 10" / 250mm
7= 14", 12" / 300, 350mm
8= 16" / 400mm
9= 32", 28", 24" / 600, 700, 800mm

Angle Type



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

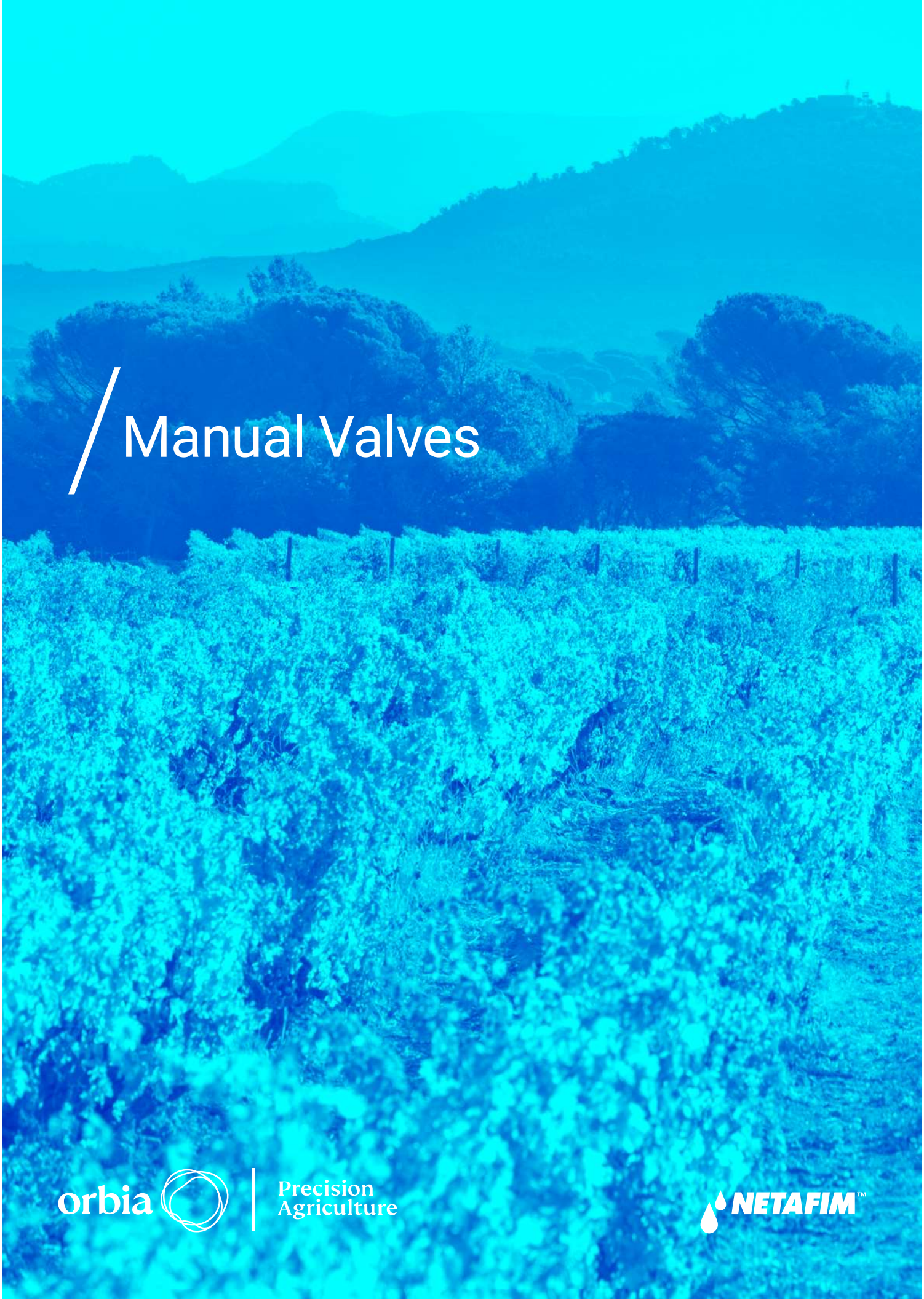
Components



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, inconnel
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



Manual Valves

orbia | Precision Agriculture

NETAFIM™

Manual Valves Contents

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.

100%
Superb quality

High durability

Maximum reliability

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

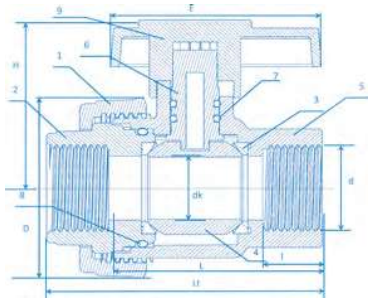
- Ideal for application in temperature range of -5°C and 50°C, guaranteeing optimal performance in terms of mechanical resistance, good rigidity, low coefficients of thermal expansion and optimal safety factors in service
- Operational up to 10 bar
- Low head losses
- Wide range of connections: threaded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

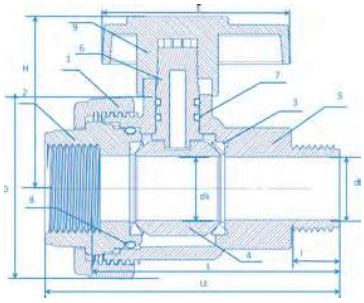
→ Packaging Data

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

nom size	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

nom size	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

nom size	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

nom size	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

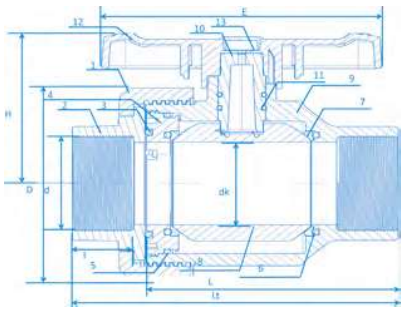
Polypropylene Ball Valves ½", ¾", 1", 1¼"

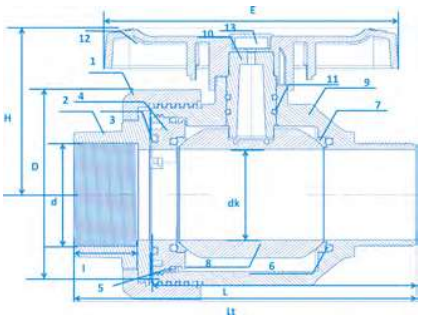
#	Part Name	Material	Qty.
1	Ring	UPVC	1
2	Bush**	UPVC	1
3	Seal	TPE	2
4	Ball	UPVC	1
5	Body	UPVC	1
6	Shaft	UPVC	1
7	Shaft o-ring	HNBR	2
8	Main o-ring**	HNBR	1
9	Handle	ABS	1

* 1¼" Ball valve
** ¾" Ball valve

→ Technical Dimensions

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





Inlet - 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)
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

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)
1½"	11.00	11.50	39.40	94.40	32.00	76.60	148.80	121.00	88.30
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	140.85	195.40	162.00	110.00
3"	11.00	8.00	76.00	178.80	42.80	178.10	250.00	200.40	139.00

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)
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

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)
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

→ Material Specifications

PVC Ball Valves 1½", 2", 2½", 3"

#	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

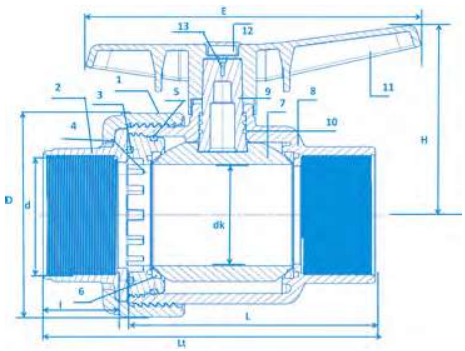
Polypropylene Ball Valves 1½", 2", 2½", 3

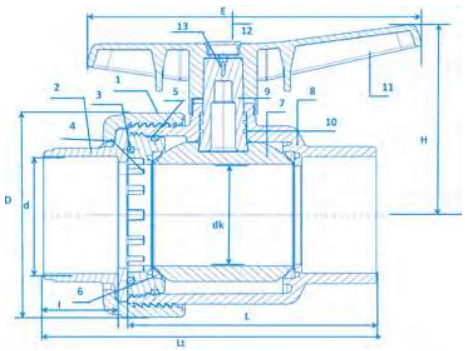
#	Part Name	Material	Qty.
1	Ring	PPGF	1
2	Socket	***UPVC /PPGF	1
3	Bush small o-ring	HNBR	1
4	Bush	UPVC	1
5	Bush big o-ring	HNBR	1
6	*Seal washer	HNBR	2
7	Seal	TPE	2
8	Ball	UPVC	1
9	Body	PPGF	1
10	Shaft	UPVC	1
11	Shaft o-ring	HNBR	**2
12	Handle	PPGF	1
13	Handle logo	PPGF	1

* Only in 3" Ball valve, ** one in 2" Model
*** UPVC for solvent socket and PPGF for Threaded socket

→ 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

Plypropylene 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

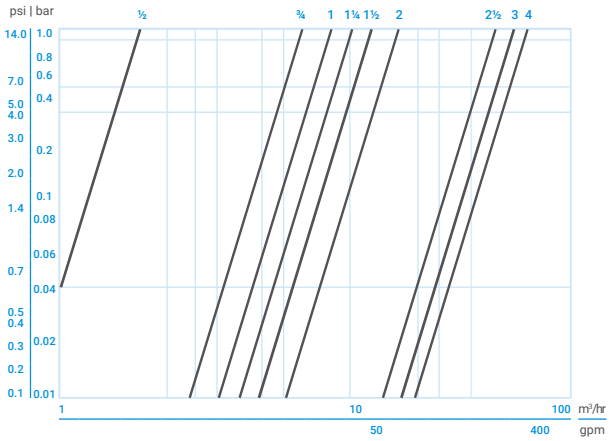
→ Catalog Numbers

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.

Superb quality

High durability

Maximum reliability

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

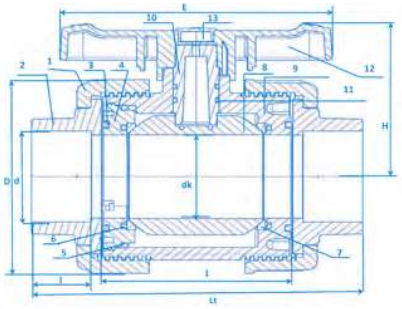
- Ideal for application in temperature range of -5°C and 50°C, guaranteeing optimal performance in terms of mechanical resistance, good rigidity, low coefficients of thermal expansion and optimal safety factors in service
- Operational up to 10bar
- Low head losses
- Wide range of connections: threaded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

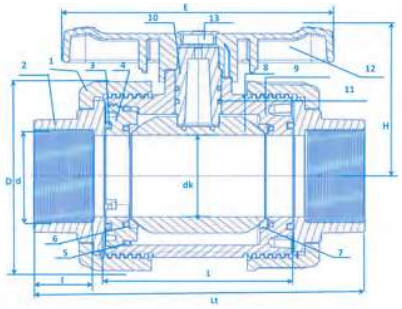
→ Packaging Data

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"





Inlet Connector - Female Threaded / Outlet Connector - Female Threaded

nom size	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

nom size	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

nom size	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

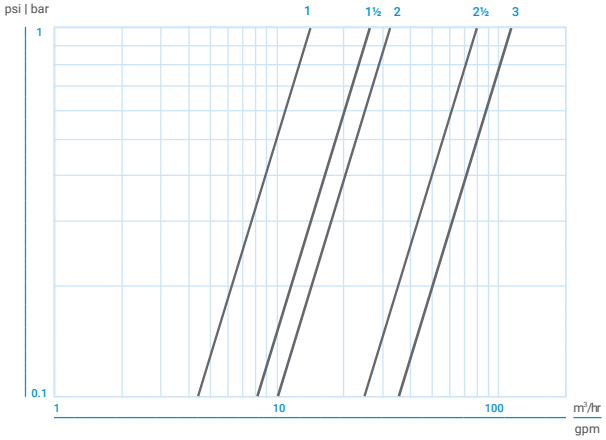
→ Material Specifications

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

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.

100%

Superb quality

High durability

Maximum reliability

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	
→ High durability	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
→ Versatility	Can be installed in horizontal and vertical lines
→ No vibration	Not water hammering when operated
→ Less turbulence	during throttling
→ High durability	Chemical / Corrosion-resistant and UV-protected

Specifications & Recommendations

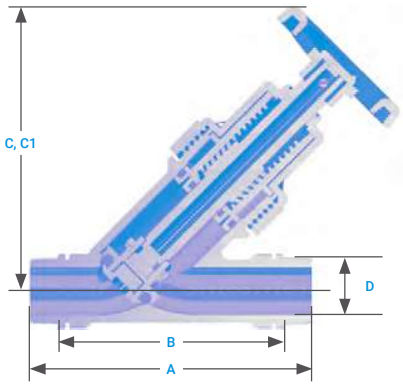
- Operating Pressure Range – up to 10bars (PN10)
- High-strength polypropylene
- 2" BSP or NPT male threaded
- Manual, hand operated
- Recommended Flow – up to 50m³/h
- High-quality nitrile seal

Technical Dimensions

Inlet - Threaded Male / Outlet Connector - Threaded Male

Nom Size	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

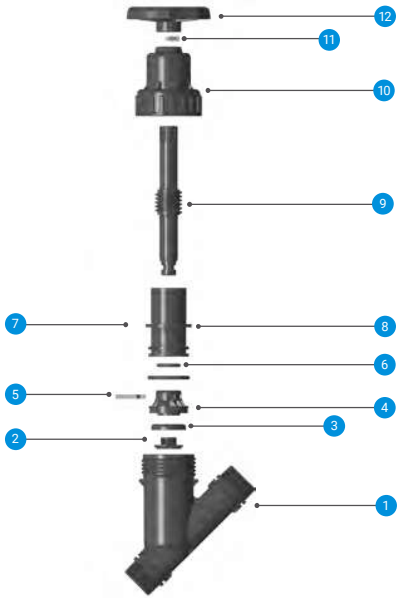
Standard Version

#	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

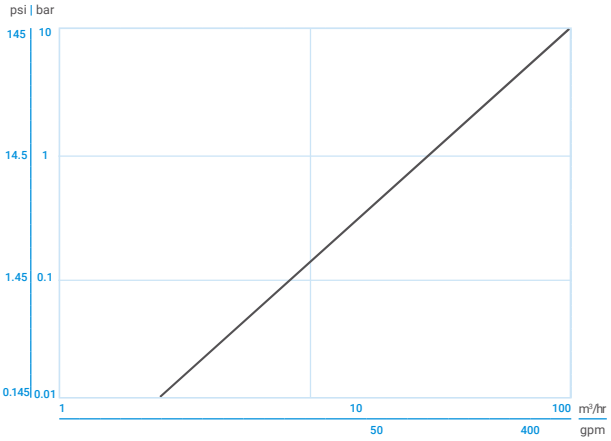
"Viton" Version

#	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

* Additional diameters are available upon request

Butterfly Valves

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

High corrosion & UV resistance

High 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

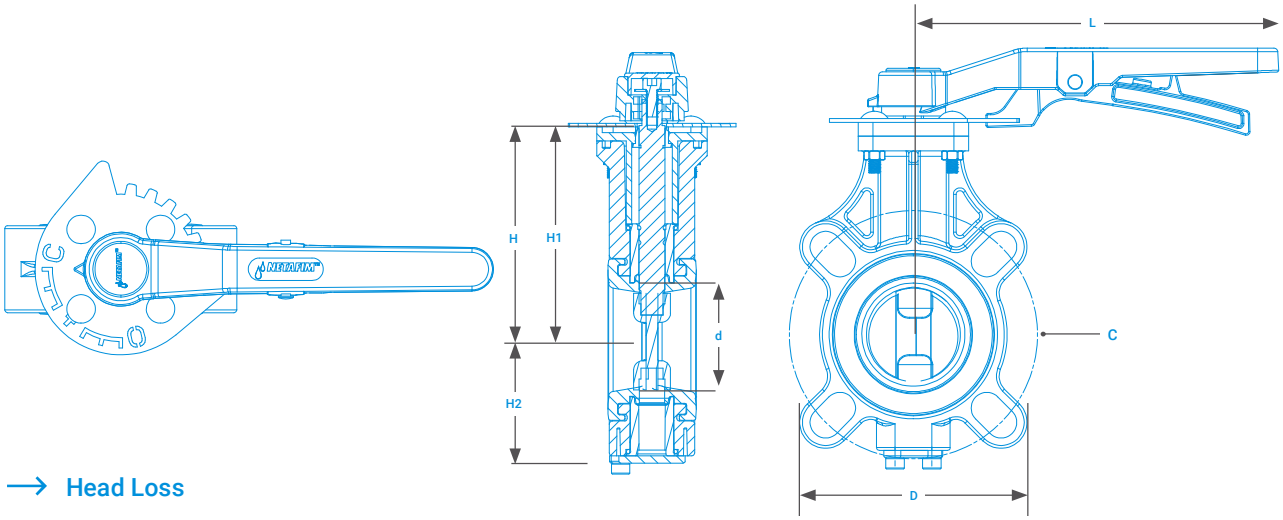
- For shutting off or manually regulating flow. Specifically designed for water and irrigation systems applications
- Ergonomic multifunctional handle enabling quick operation, with 15° adjustment graduations
- Drilling pattern with oval slots allowing coupling to flanges and complying with numerous 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

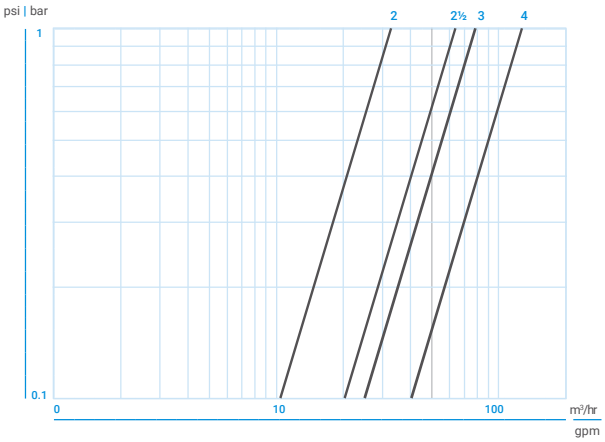
Model	QuantityP/Box (unit)	Box Sizes (cm x cm x cm)	Box Weight (kg)	Boxes P/Pallet
2"	2	39.5 x 28.5 x 13.0	2.98	48
2½"			3.40	
3"			3.73	
4"		40.0 x 37.5 x 13.5	5.79	30

→ Technical Dimensions

Part \ Mode	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

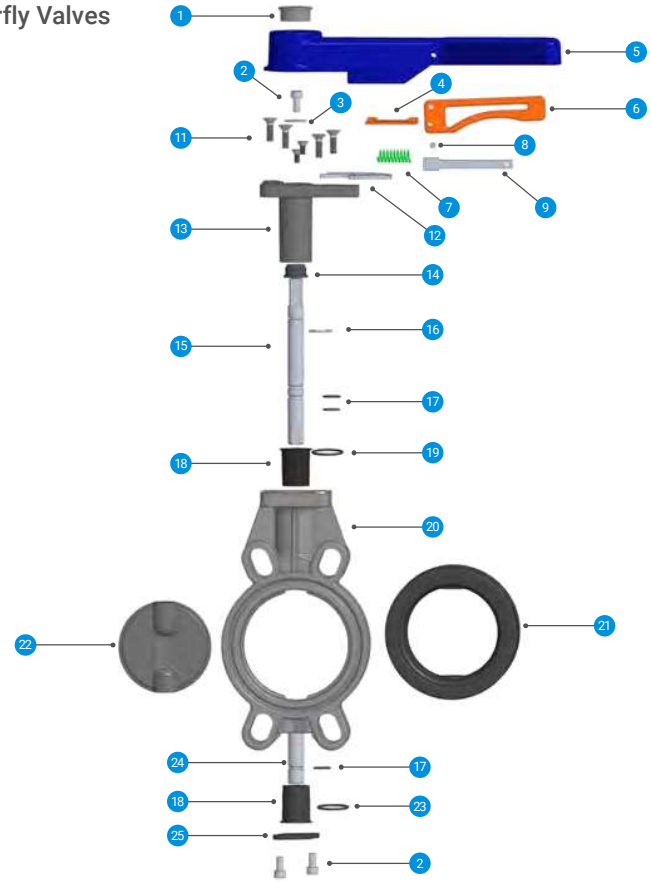


→ Catalog Numbers

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

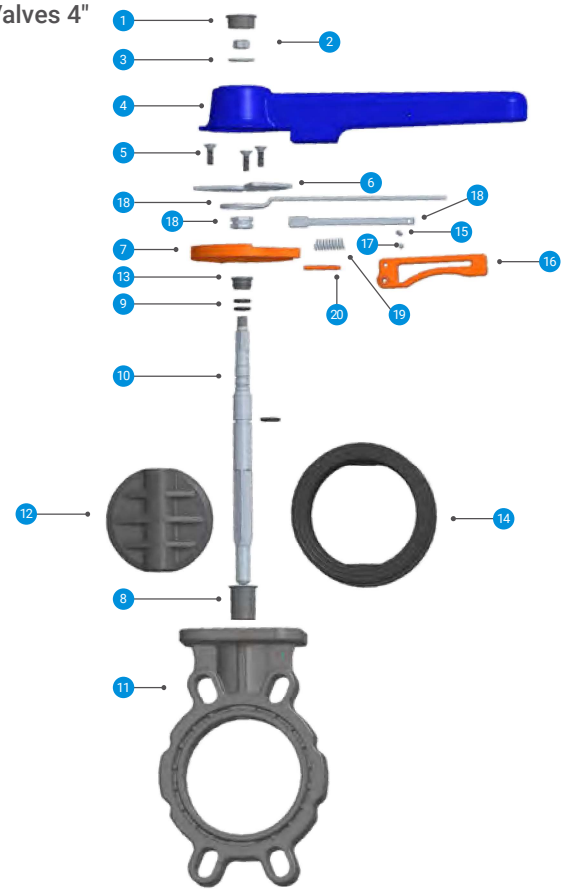
→ Material Specification

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

High corrosion & UV resistance

High 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)

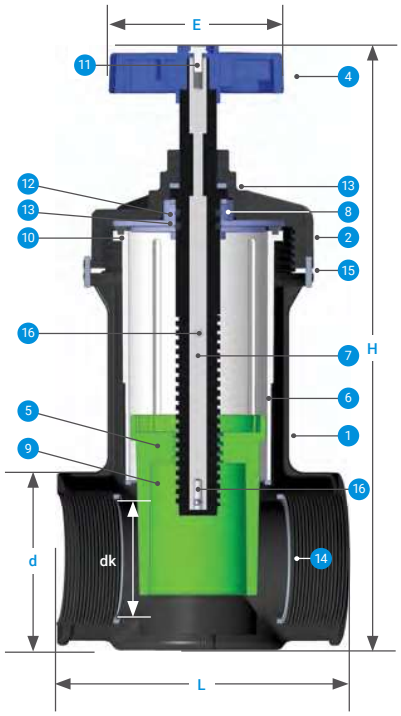
Packaging Data

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

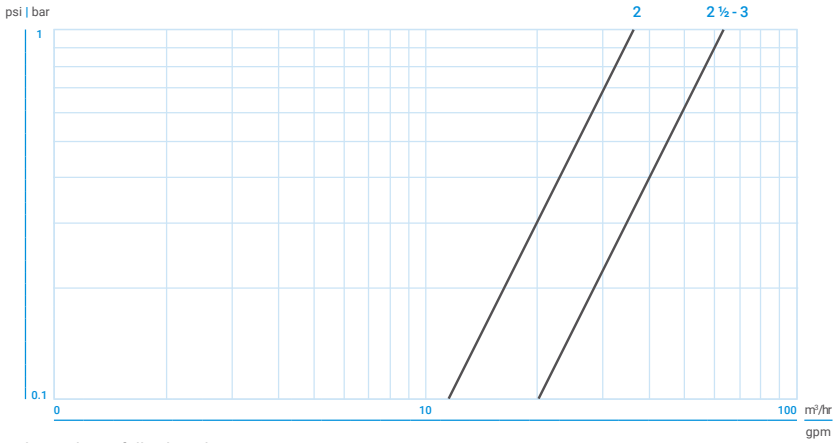
Nom Size	BSP (TPI)	NPT (TPI)	d (mm)	dk (mm)	E (mm)	L (mm)	H (mm)
2"	11.00	11.50	65.00	48.00	117.00	130.00	275.00
2½"	11.00	8.00	74.00	63.00	117.00	182.00	390.00
3"	11.00	8.00	93.00	74.00	117.00	182.00	390.00



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	Tefflon seal big	Teflon	1
13	Tefflon 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.

Maximum reliability

High corrosion & UV resistance

High 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

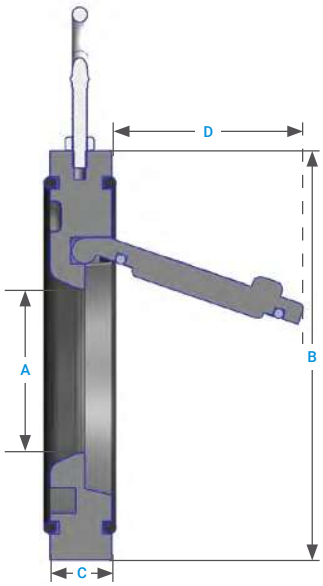
- Straight throughflow with minimal head loss
- Slow operation pavement water hammer
- Operational up to 6bar
- Minimum return pressure: 0.2bar (to keep the valve closed)

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

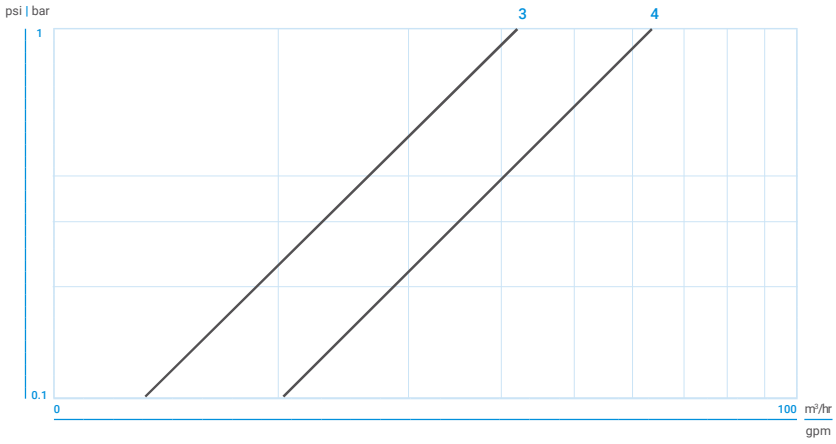
#	Part Name	Material	Qty.
1	Body	PVC-U	1
2	Flap	PVC-U	1
3	Cap	PVC-U	2
4	Body O-ring	EPDM	2
5	Flap O-ring	EPDM	1
6	H screw	Plated MS	1



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.

Maximum reliability

High corrosion & UV resistance

High 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

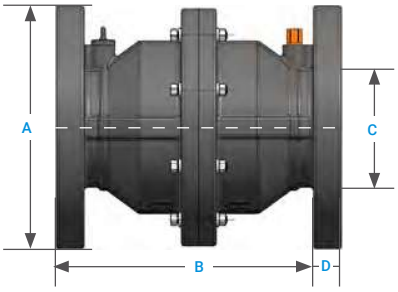
- Spring loaded ball check valve
- Flow with minimal head loss
- Slow operation pavement water hammer
- Operational up to 6bar
- Minimum return pressure: 0.1bar (to keep the valve closed)
- Horizontal or vertical installation
- Universal flanges, fits ISO, ANSI, BS10 standards

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	

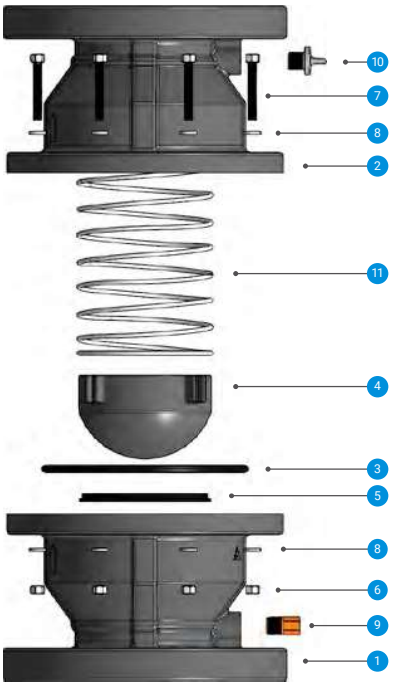
Technical Dimensions

Nom / Size	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

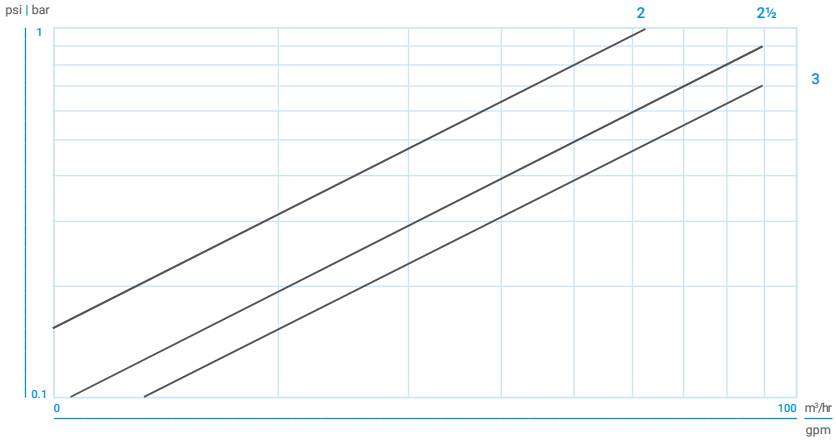


Material Specification

#	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 1½", 2"

NR-010 3", 4"

NR-010 6" - 10"

Tight closing

High durability

Compact size

Benefits & Features

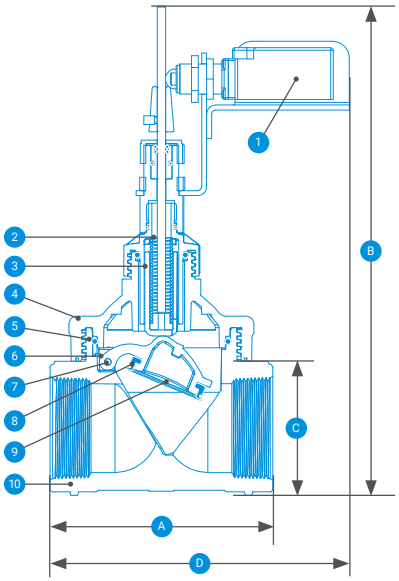
→ Working pressures	Up to 10bar, 16bar
→ Minimum working pressure	0.2bar
→ Max. working temperature	60°C
→ Composite materials	for body of the valve
→ NR-010 1½", 2"	- Female threaded BSPT of NPT for easy and secure connection to the pipeline - Removable cover allows for easy cleaning, maintenance and 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

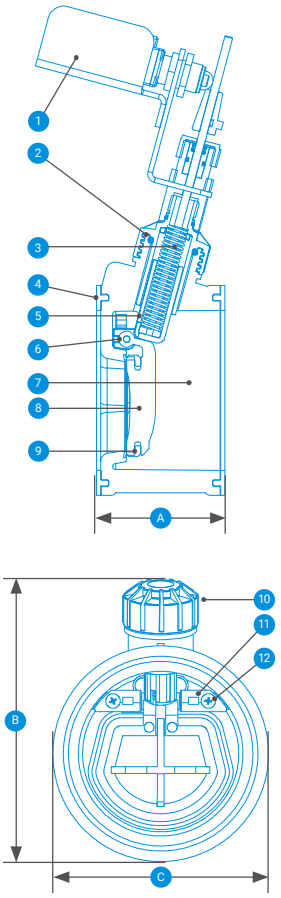
- After pumps/boosters
- Filtration systems
- Fertilizer system
- Greenhouses
- Swimming pools (additional modifications are required for this application)

→ Technical Dimensions & Weights

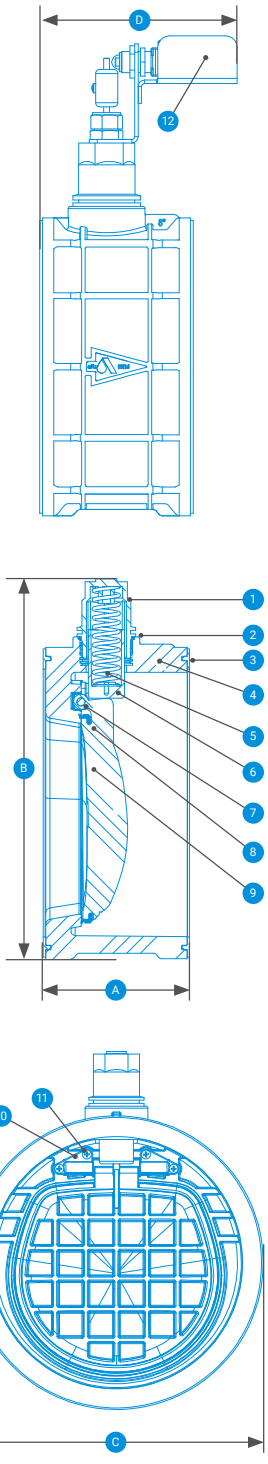
NR-010 1½", 2"



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"

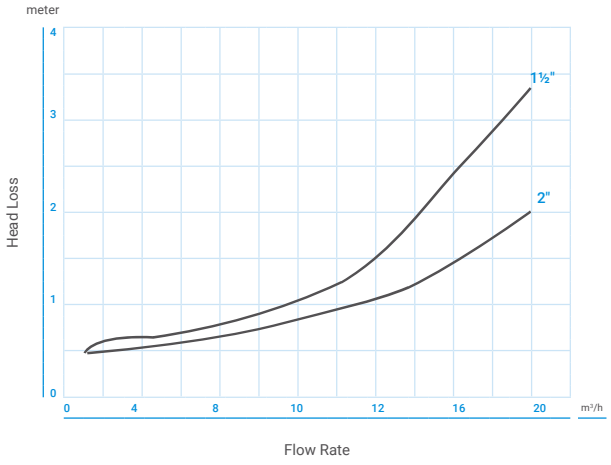
#	Part Name	Material
1	Limit switch assy.	
2	O-ring	Buna-n
3	Spring	Stainless steel 302
4	Flange seals	EPDM
5	Spring housing	Acetal
6	Shaft	Stainless steel 316
7	Body	Reinforced nylon
8	Disc	Reinforced nylon
9	Seal	EPDM
10	Spring cover	Reinforced nylon
11	Shaft housing	Acetal
12	Bolt (x2)	Stainless steel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

NR-010 6" - 10"

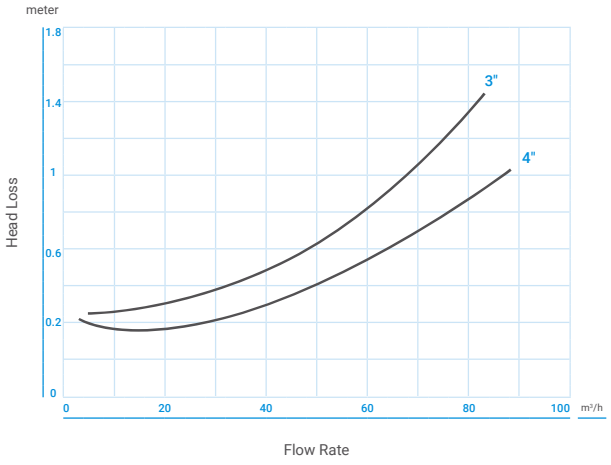
#	Part Name	Material
1	Spring cover	Reinforced nylon
2	O-ring	Buna-n
3	Flange seals	EPDM
4	Body	Reinforced nylon
5	Spring	Stainless steel 302
6	Spring housing	Acetal
7	Shaft	Stainless steel 316
8	Flap seal	EPDM
9	Flap	Reinforced nylon
10	Shaft housing	Acetal
11	Bolt (x2)	Stainless steel 316
12	Limit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

→ Head Loss

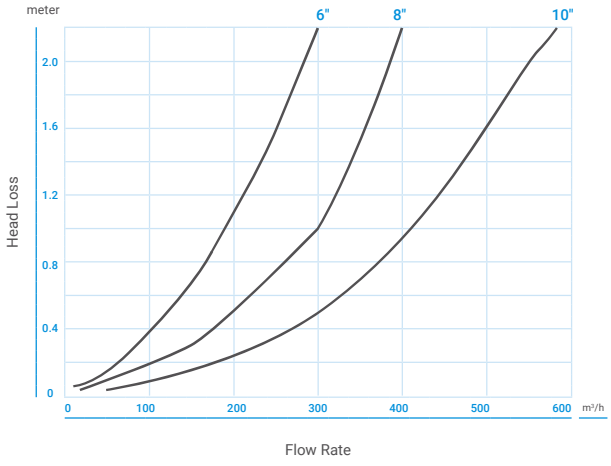
NR-010 1½", 2"



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	70420-000600
		NPT	CHECK VALVE NR-010 1.5" PN10	70420-006000
	40mm (ls)	BSP	CHECK VA NR-010 1.5" W/LS PN10	70420-006010
		NPT	CHECK VAL NR-010 1.5" W/LS PN10	70420-005500
2"	50mm	BSP	CHECK VALVE NR-010 2" PN10 BSP	70420-000700
		NPT	CHECK VALVE NR-010 2" PN10 NPT	70420-006020
	50mm (ls)	BSP	CH. VAL NR-010 2" W/LS PN10 BSP	70420-005550
		NPT	CH. VAL NR-010 2" W/LS PN10 NPT	70420-006030
3"	PN-10 (80mm)		CHECK VALVE NR-010 3" PN10	70420-000800
			CHECK VALVE NR-010 3" W/LS PN10	70420-005600
	PN-16 (80mm)		CHECK VALVE NR-010 3" PN16	70420-006040
			CHECK VALVE NR-010 3" W/LS PN16	70420-006041
4"	PN-10 (100mm)		CHECK VALVE NR-010 4" PN10	70420-001180
			CHECK VALVE NR-010 4" W/LS PN10	70420-005650
	PN-16 (100mm		CHECK VALVE NR-010 4" PN16	70420-006050
			CHECK VALVE NR-010 4" W/LS PN16	70420-006051
6"	PN-10 (150mm)		CHECK VALVE NR-010 6" PN10	70420-005660
			CHECK VALVE NR-010 6" W/LS PN10	70420-006070
	PN-16 (150mm)		CHECK VALVE NR-010 6" PN16	70420-006081
			CHECK VALVE NR-010 6" W/LS PN16	70420-006083
			CHECK VALVE NR-010 6" W/STEM PN16	70420-006082
8"	PN-10 (200mm)		CHECK VALVE NR-010 8" PN10	70420-005670
			CHECK VALVE NR-010 8" W/LS PN10	70420-006100
			CHECK VALVE NR-010 8" W/STEM PN10	70420-006090
	PN-16 (200mm)		CHECK VALVE NR-010 8" PN16	70420-006101
			CHECK VALVE NR-010 8" W/LS PN16	70420-006103
			CHECK VALVE NR-010 8" W/STEM PN16	70420-006102
10"	PN-10 (250mm)		CHECK VALVE NR-010 10" PN10	70420-006110
			CHECK VALVE NR-010 10" W/LS PN10	70420-006130
			CHECK VALVE NR-010 10" W/STEM PN10	70420-006120

* 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.

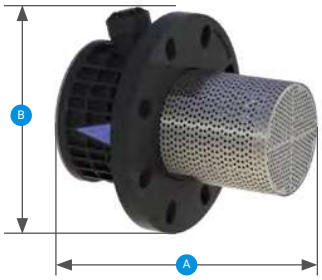
Tight closing

High durability

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

Robust

Maximum reliability

High durability

Benefits & Features

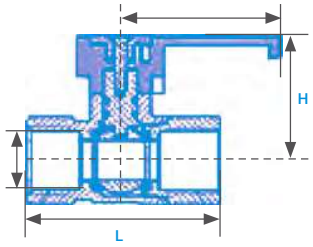
→ Connection	Male to female / female to female large bore ball valve
→ Standard brass	CW617N
→ Smart design	Long handle
→ Materials	Nickel or nickel-chrome plating

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"			Long	76000-000618
2"			Long	76000-000616
1/2"	Female to female	BSP	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.

Leak free

Long-lasting operation

Easy remote identification

Benefits & Features

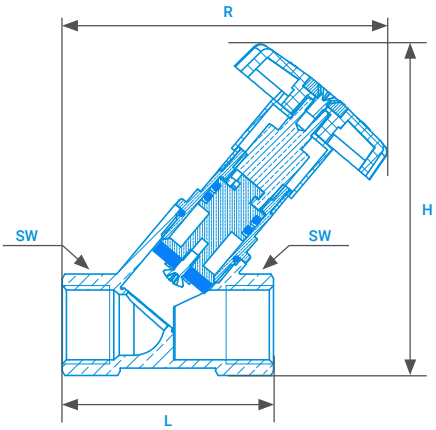
→ Leak free	Unique and reliable stem sealing mechanism
→ Long-lasting operation	Manufactured using hot forging technology
→ Easy remote identification	Clear marking of the valve state (Open/Close)
→ Resistant	Perfect for Potable Water applications
→ High reliability	The mechanism is based on gas valves 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

Long-lasting performance

High durability

Versatility

Benefits & Features

Long-lasting performance

Netafim manual valves are manufactured using materials of the highest quality, always complying with the standards for hydraulically operated devices

High 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

Versatility

Different disc material options: ductile iron, stainless steel or aluminum bronze

Specifications & Recommendations

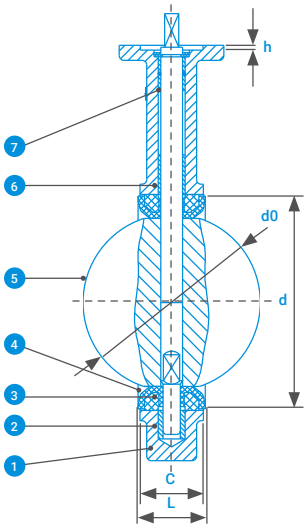
- **Type** – Concentric
- **Pressure Grade** – PN16
- **Working Pressure** – 16bar
- **Available Diameters** – DN50 to DN600
- **Working Temperature** – 0°C to 80°C
- **Connection** – Wafer
- **Coating** – Fusion bonded epoxy 250μm

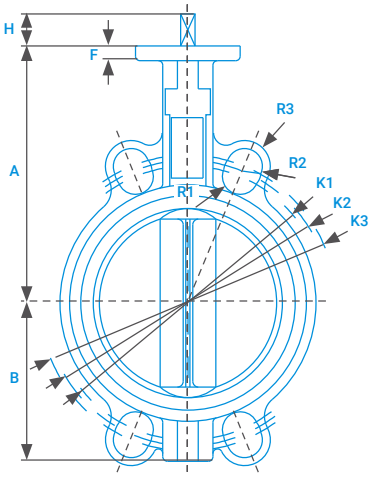
* Other materials and specifications are available upon request.

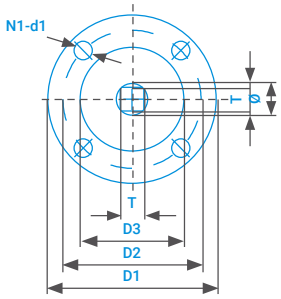
→ Technical Dimensions

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

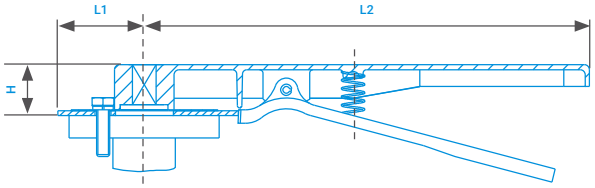
For Body Type B*

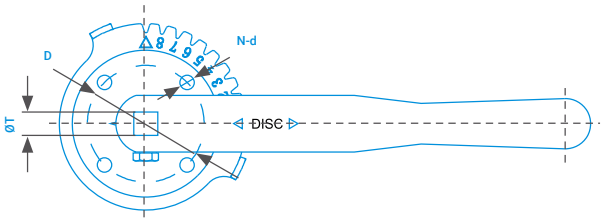
#	Component	Material	Specification
1	Body	Ductile iron	GGG40
2	Shaft	Stainless steel	AISI 420
3	Disc	Stainless steel	AISI 316
4	Seat	EPDM	EN681
5	Bearing	PFTE	Commercial
6	Ring seal	EPDM	EN681
7	Indicator plate	Stainless steel	AISI 420

* For butterfly valves up to 300mm

Technical Dimensions

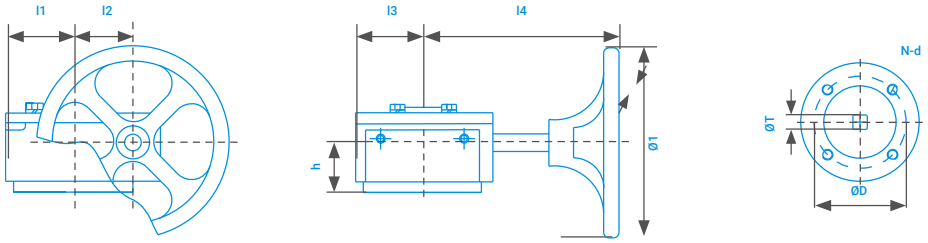
For Lever





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

Long-lasting performance

High durability

Versatility

Benefits & Features

→ Long-lasting 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

→ High durability

Its configuration guarantees complete and directional tightness in its entire range of pressures, with smooth movement of the shaft during its entire travel

→ Versatility

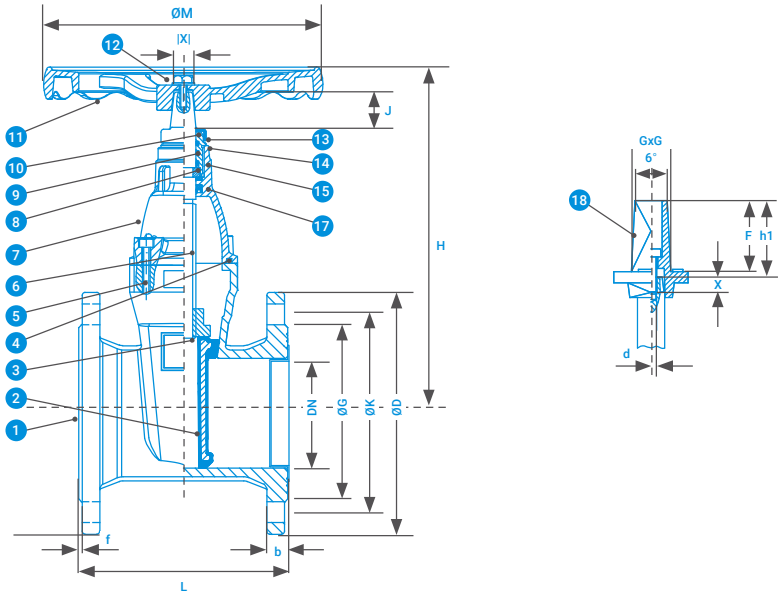
Resilient seat, operated by handwheel, square cap or extendable shaft according to the application

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 PN16 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.

Maximum reliability

Resilient

High durability

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

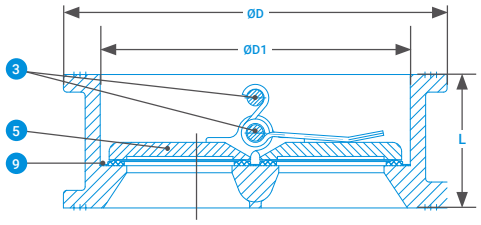
Specifications & Recommendations

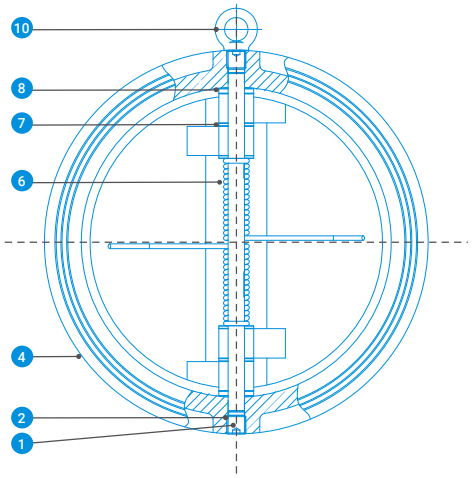
- **Type** – Resilient swing
- **Pressure Grade** – PN16
- **Working Pressure** – 16 bar
- **Available Diameters** – DN50 to DN600
- **Working Temperature** – 0°C to 80°C
- **Min. Closing Pressure** – 1 bar (for double flap & swing), 0.3 bar (for foot)
- **Coating** – Fusion bonded epoxy 250μm

* 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

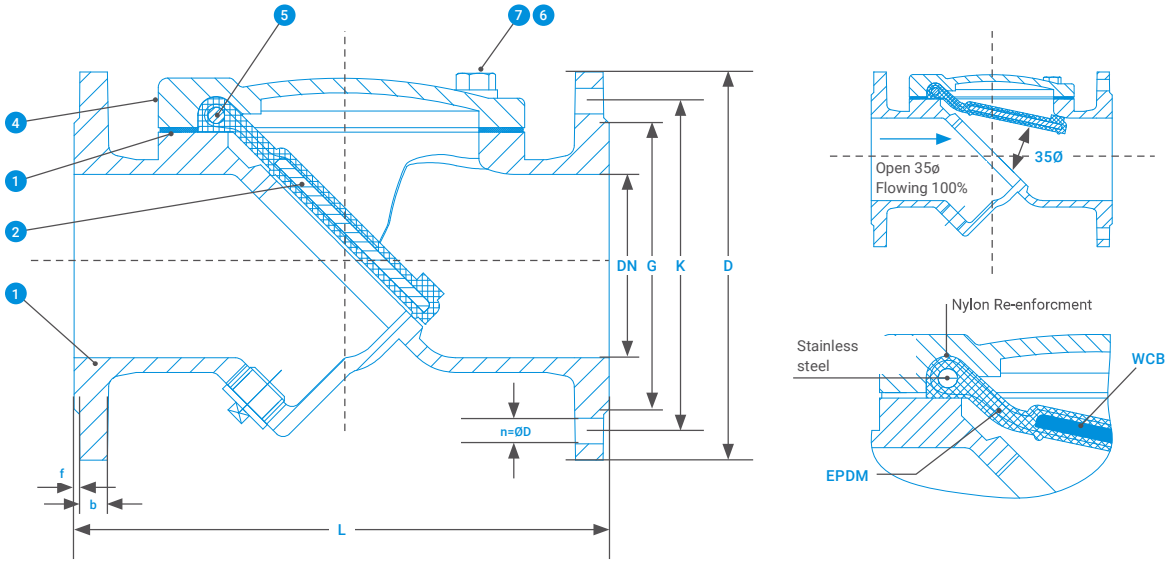
→ Material Specifications

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

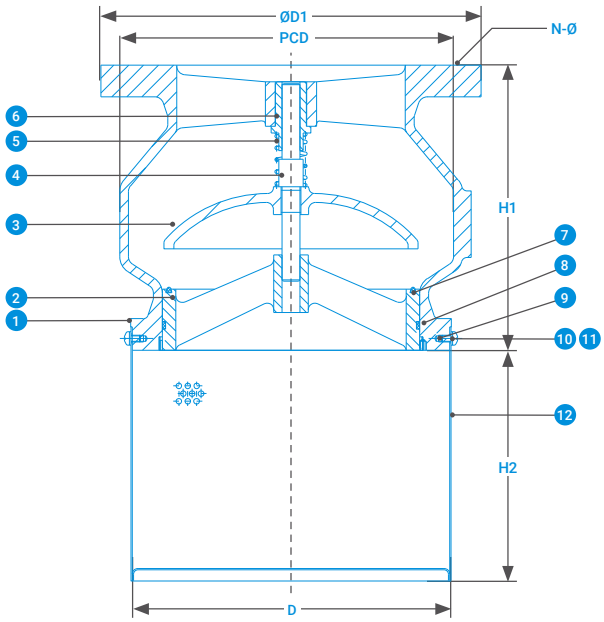
→ Material Specifications

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.

Very high efficiency

Superior design

High durability

Benefits & Features

→ Very high efficiency

Very small head losses are achieved, a critical point in most installations

→ Superior design

- Perfect geometry to allow a laminar and constant flow
- Very small head losses are achieved, that are a critical point in most installations

→ High durability

- 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

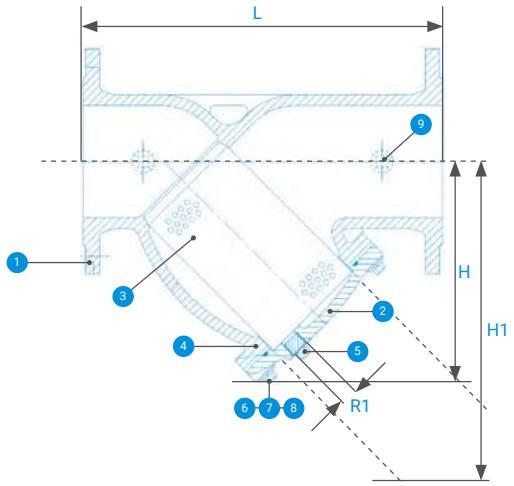
- **Working Pressure** – PN16
- **Dimensions Range** – DN50-DN600
- **Working Temperature** – 0°C – 80°C
- **Connection** – Flange
- **Coating** – Fusion bonded epoxy 250μm

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	3.0	40	25485
125	108	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	1/2"	2.5	56
10"	250	730	455	700	1/2"	2.5	96
12"	300	850	476	730	1/2"	2.5	189
14"	350	980	625	940	3/4"	2.5	320
16"	400	1.100	685	1.230	3/4"	3.5	378
18"	450	1.200	746	1.110	3/4"	3.5	600
20"	500	1.250	845	1.550	3/4"	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