

# High Flow Series Control Valves

**4Matic**<sup>®</sup>  
Industrial Valves and Valve Automation



Catalogue No.  
**4GVA / 1041**

Pressure Reducing Valve Pilot Operated

**4Matic**<sup>®</sup>  
Industrial Valves and Valve Automation

4Matic Offer High Flow Series Pressure Reducing Valves Suitable for Air, Water, Steam, Gas & Oil ect.

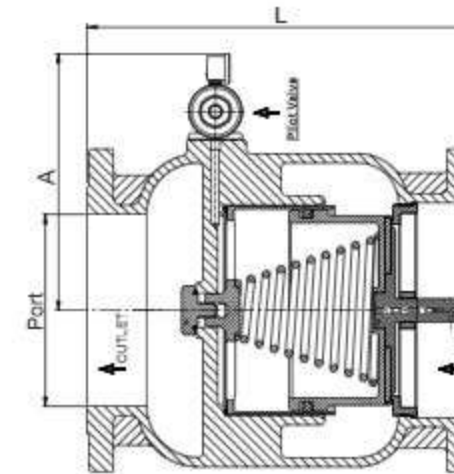
**Size Range : 2" to 24" Flanged**

**Relevant Standard :**

Face To Face Of Valve As Per Manufacturing Standard  
Flanges of Valve As Per ASME B 16.5 RF

**Features :**

- Smart Design with High Flow Characteristics
- Pressure reducing valve can be installed in water supply, air conditioning and fire control systems to maintain the Constant outlet pressure.
- The pressure reducing valve used a sub-valve (pilot valve) to control the main valve. When the outlet pressure reaches the setting range of pressure reducing pilot valve, the pilot valve will automatically sense the outlet pressure and adjusting the pressure of the back pressure chamber in the main valve, so the valve gate can be opened and consequently maintains the outlet pressure.
- The pressure gauge on the pilot valve shows the outlet pressure. When the outlet opens, the valve of the pressure gauge will decrease.



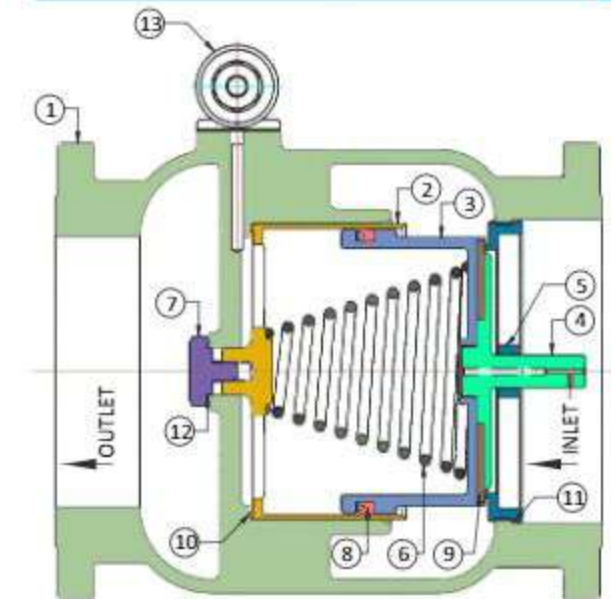
Dimensions : (All Dimensions are in mm)

Valve Model	Valve Size	Port	A	L	CV	Weight (Approx.)
	MM Inch					
4MHPF - 50	50 2"	60	186	190	75	9.180
4MHPF - 65	65 2.1/2"	69	196	210	105	11.960
4MHPF - 80	80 3"	84	211	225	140	17.580
4MHPF - 100	100 4"	110	223.5	250	260	23.340
4MHPF - 125	125 5"	131.5	242	280	390	49.560
4MHPF - 150	150 6"	158.5	256.5	309.5	550	49.560
4MHPF - 200	200 8"	208.5	303	419	1000	92.300
4MHPF - 250	250 10"	257	336	473	1699	124.320
4MHPF - 300	300 12"	302	370	532	2200	196.840
4MHPF - 350	350 14"	324	415	598.4	3000	265.000
4MHPF - 400	400 16"	345	413	634	4000	278.600
4MHPF - 450	450 18"	472	407	766	5300	457.000
4MHPF - 500	500 20"	472	493	772.7	6100	491.450
4MHPF - 600	600 24"	589	533	900	9200	—



**Pressure / Temperature**

Temperature Range 80 °C ( For Water ) / 180 °C ( For Steam )  
Maximum Inlet Pressure Cast Iron Body - 14 Kg/cm<sup>2</sup>  
WCB / S. S. Body - 21 Kg/cm<sup>2</sup>  
Pressure Adjusting Range 1 - 7 Kg/cm<sup>2</sup> / 4 - 12 Kg/cm<sup>2</sup>  
( 1 Kg/cm<sup>2</sup> = 14.2 PSI )



No.	Description	Material	Qty.
1	Body	WCB / C.I. / D.L. / CF8 / CF8M	01
2	Cover	Stainless Steel 304 / 316	01
3	Plug	Stainless Steel 304 / 316	01
4	Piston	Stainless Steel 304 / 316	01
5	Piston Guide	Stainless Steel 304 / 316	01
6	Spring For Piston	S. S. 304	01
7	Piston Cover Lock Bolt	S. S.	01
8	V - Seal For Piston	NBR / Viton / EPDM	01
9	Piston Seal Ring	NBR / Viton / EPDM	01
10	Flat Ring	NBR / Viton / EPDM	01
11	O - Ring For Piston Guide	NBR / Viton / EPDM	01
12	O - Ring For Piston Lock Bolt	NBR / Viton / EPDM	01
13	Pilot PRV Valve	STD.	01

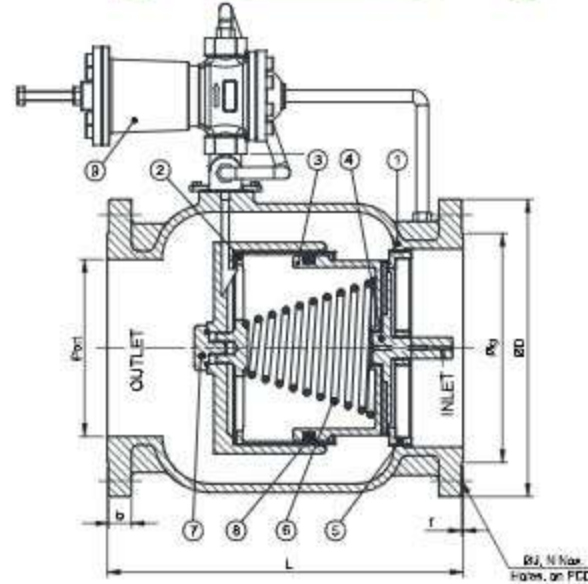
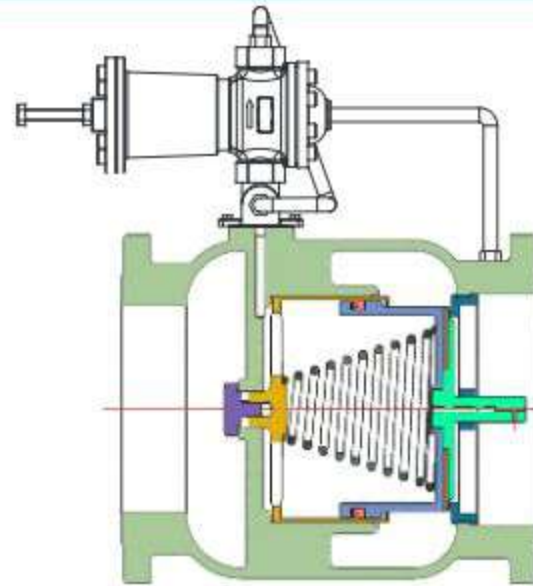




**Size Range : 2" to 24" Flanged**

**Features :**

- Pressure relief valve is installed on the outlet pipe of water supply pipeline. It can maintain safe water supply pressure inside the pipe and prevent pipeline and equipment damage caused by accidental escalation of water pressure.
- When water pump stops functioning or pipeline gate suddenly closes, abnormal pressure forms inside the pipe. As the pressure gets over a certain the water high pressure. When pressure returns to safety value, pressure relief valve will auto-matically close to ensure the safety of equipment.
- Pressure Adjusting Range : 0.5 kgf/cm<sup>2</sup> ~ 10 kgf/cm<sup>2</sup> 7 kgf/cm<sup>2</sup> ~ 20 kgf/cm<sup>2</sup>
- Applied Temperature : -15 ~ 100 °C 100 ~ 180 °C ( For Steam )
- Valve Body Testing Pressure : 35 kgf/cm<sup>2</sup> ( 1 kgf/cm<sup>2</sup> = 14.2 psi )
- Maximum Applied Pressure : 25 kgf/cm<sup>2</sup> the outlet opens, the valve of the pressure gauge will decrease.



No.	Description	Material	Qty.
1	Body	WCB / C.I. / D.I. / CF8 / CF8M	01
2	Cover	Stainless Steel 304 / 316	01
3	Plug	Stainless Steel 304 / 316	01
4	Piston	Stainless Steel 304 / 316	01
5	Piston Guide	Stainless Steel 304 / 316	01
6	Spring For Piston	S. S. 304	01
7	Piston Cover Lock Bolt	S. S.	01
8	V - Seal For Piston	NBR / Viton / EPDM	01
9	Pressure Relief Valve	ASTM A351 Gr. CF8	01

**Dimensions :** (All Dimensions are in mm)

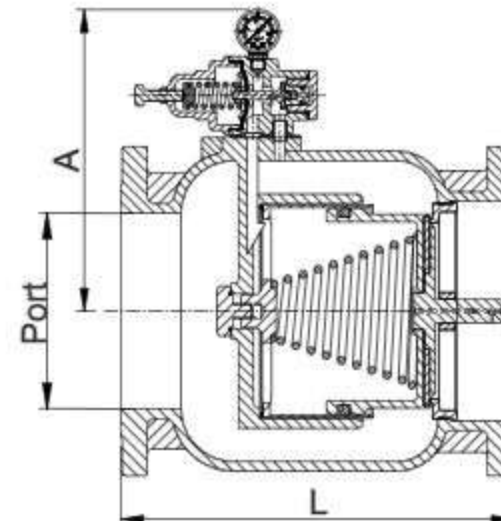
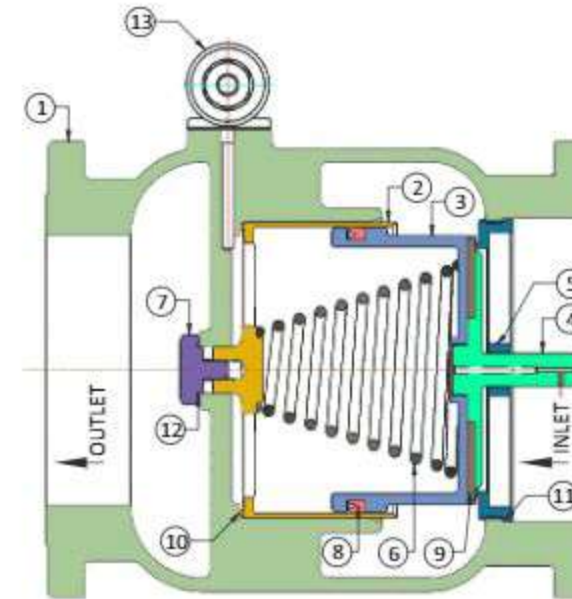
Valve Model	Valve Size		Port	A	L	CV	Weight (Approx.)
	MM	Inch					
4MHRF - 50	50	2"	60	186	190	75	12
4MHRF - 65	65	2.1/2"	69	196	210	105	15
4MHRF - 80	80	3"	84	211	225	140	18
4MHRF - 100	100	4"	110	223.5	250	260	24
4MHRF - 125	125	5"	134.5	242	280	390	32
4MHRF - 150	150	6"	158.5	256.5	309.5	550	44
4MHRF - 200	200	8"	208.5	303	419	1000	87
4MHRF - 250	250	10"	257	336	473	1699	152
4MHRF - 300	300	12"	302	370	532	2200	202
4MHRF - 350	350	14"	324	415	598.4	3000	265
4MHRF - 400	400	16"	345	413	634	4000	279
4MHRF - 450	450	18"	472	497	766	5300	457
4MHRF - 500	500	20"	472	493	772.7	6100	492
4MHRF - 600	600	24"	589	533	900	9200	—



**Size Range : 2" to 24" Flanged**

**Features :**

- Pressure sustaining valve is utilized when installing pipes for users. It primarily matches up with the minimum working pressure inside the tap water pipe, balancing up-stream and down-stream pressure during normalcy and emergency, and maintains constant pressure inside the pipe.
- Pressure sustaining valve can sustain the maximum working pressure inside the pipe when installed in water supply areas.
- Pressure adjusting range : 0.2 ~ 4 kgf/cm<sup>2</sup>, 3 ~ 10 kgf/cm<sup>2</sup>, (1 kgf/cm<sup>2</sup> = 14.2 psi)
- The working pressure should be greater than 0.3 kgf/cm<sup>2</sup> and gate fully open with 1.5 kgf/cm<sup>2</sup>, please check the pressure before installation.



No.	Description	Material	Qty.
1	Body	WCB / C.I. / D.I. / CF8 / CF8M	01
2	Cover	Stainless Steel 304 / 316	01
3	Plug	Stainless Steel 304 / 316	01
4	Piston	Stainless Steel 304 / 316	01
5	Piston Guide	Stainless Steel 304 / 316	01
6	Spring For Piston	S. S. 304	01
7	Piston Cover Lock Bolt	S. S.	01
8	V - Seal For Piston	NBR / Viton / EPDM	01
9	Piston Seal Ring	NBR / Viton / EPDM	01
10	Flat Ring	NBR / Viton / EPDM	01
11	O - Ring For Piston Guide	NBR / Viton / EPDM	01
12	O - Ring For Piston Lock Bolt	NBR / Viton / EPDM	01
13	Pilot Sustaining Valve	STD.	01

**Dimensions :** (All Dimensions are in mm)

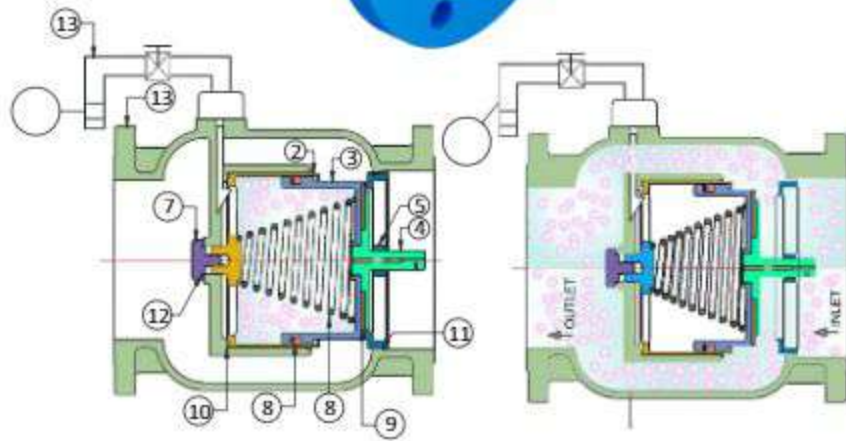
Valve Model	Valve Size		Port	A	L	CV	Weight (Approx.)
	MM	Inch					
4MHSF - 50	50	2"	60	186	190	75	9.180
4MHSF - 65	65	2.1/2"	69	196	210	105	11.960
4MHSF - 80	80	3"	84	211	225	140	17.580
4MHSF - 100	100	4"	110	223.5	250	260	23.340
4MHSF - 125	125	5"	134.5	242	280	390	49.560
4MHSF - 150	150	6"	158.5	256.5	309.5	550	49.560
4MHSF - 200	200	8"	208.5	303	419	1000	92.300
4MHSF - 250	250	10"	257	336	473	1699	124.320
4MHSF - 300	300	12"	302	370	532	2200	196.840
4MHSF - 350	350	14"	324	415	598.4	3000	264.900
4MHSF - 400	400	16"	345	413	634	4000	278.600
4MHSF - 450	450	18"	472	497	766	5300	457.000
4MHSF - 500	500	20"	472	493	772.7	6100	491.450
4MHSF - 600	600	24"	589	533	900	9200	—



**Size Range : 2" to 24" Flanged**

**Features :**

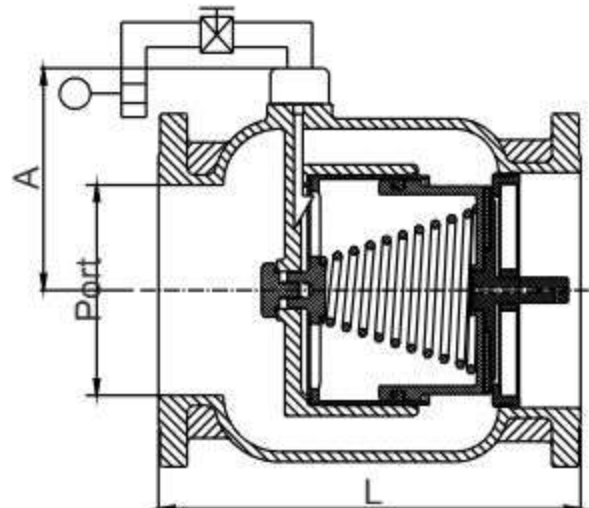
- Float valve uses a sub-valve (floating ball switch) to control the main valve. When the water level elevates to the full water level set by sub-valve (floating ball switch), the sub-valve (floating ball switch) closes and the back pressure chamber inside the main valve accumulates pressure rapidly, which reversely pushes the piston valve to close. By this mechanism, the float valve can thus control the water level. In order to save space inside the pool and for easy maintenance, it is recommended to install the float valve outside the pool.
- The working pressure should be greater than 0.3 kgf/cm<sup>2</sup> and gate fully open with 1.5 kgf/cm<sup>2</sup>, please check the pressure before installation.
- Please remove impurities or metal dusts inside the pipe throughly. If possible, please add filter to prevent pipe blocking.
- Vertical and horizontal installation is acceptable. Avoid upside-down installation under insufficient flow.
- Please uses high pressure float ball switch.



No.	Description	Material	Qty.
1	Body	WCB / C.I. / D.I. / CF8 / CF8M	01
2	Cover	Stainless Steel 304 / 316	01
3	Plug	Stainless Steel 304 / 316	01
4	Piston	Stainless Steel 304 / 316	01
5	Piston Guide	Stainless Steel 304 / 316	01
6	Spring For Piston	S. S. 304	01
7	Piston Cover Lock Bolt	S. S.	01
8	V - Seal For Piston	NBR / Viton / EPDM	01
9	Piston Seat Ring	NBR / Viton / EPDM	01
10	Flat Ring	NBR / Viton / EPDM	01
11	O - Ring For Piston Guide	NBR / Viton / EPDM	01
12	O - Ring For Piston Lock Bolt	NBR / Viton / EPDM	01
13	Float Valve	STD.	01

**Dimensions :** (All Dimensions are in mm)

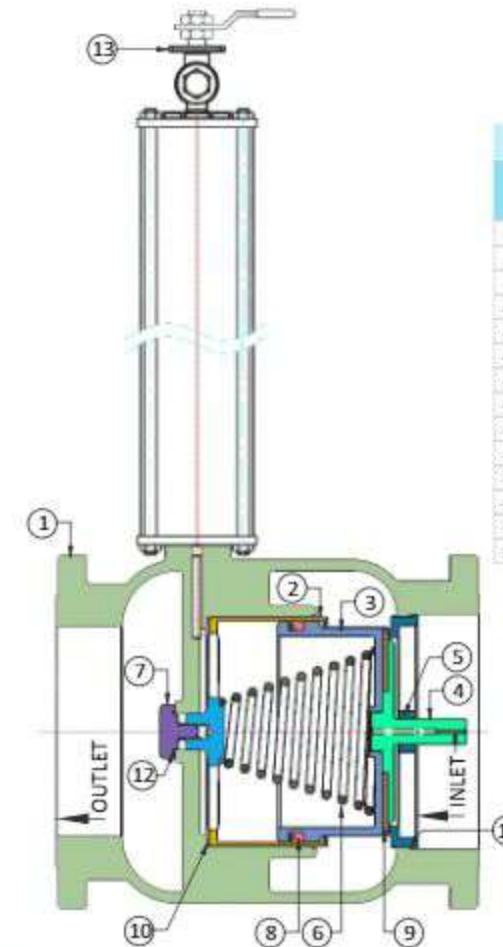
Valve Model	Valve Size		Port	A	L	CV	Weight (Approx.)
	MM	Inch					
4MHFF - 50	50	2"	60	162.5	190	75	9.880
4MHFF - 65	65	2.1/2"	69	172.5	210	105	12.660
4MHFF - 80	80	3"	84	187.5	225	140	18.280
4MHFF - 100	100	4"	110	200	250	260	24.040
4MHFF - 125	125	5"	134.5	218.5	280	390	50.260
4MHFF - 150	150	6"	158.5	241.5	309.5	550	50.260
4MHFF - 200	200	8"	208.5	279.5	419	1000	93.000
4MHFF - 250	250	10"	257	312.5	473	1699	125.020
4MHFF - 300	300	12"	302	346.5	532	2200	197.540
4MHFF - 350	350	14"	324	390	598.4	3000	265.600
4MHFF - 400	400	16"	345	390	634	4000	279.300
4MHFF - 450	450	18"	472	473	766	5300	458.000
4MHFF - 500	500	20"	472	473	772.7	6100	492.150
4MHFF - 600	600	24"	589	565	900	9200	—



**Size Range : 2" to 24" Flanged**

**Features :**

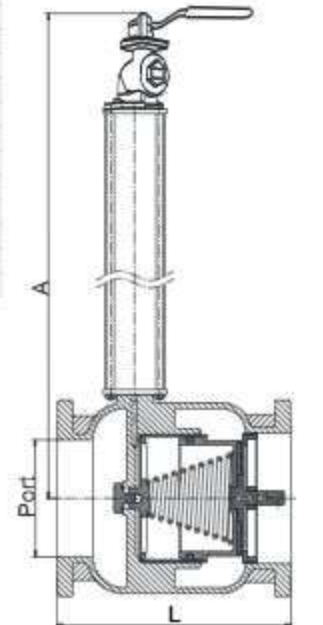
- "4Matic" Extended Stem Multi function Actuator Control Valve is ultimate solution for Under Ground & Over head Pipe Line used in Water Supply Boards. Main Valve to be mounted at its original place, keeping its controlling valve (Actuator) on ground level for convenient operation. Special Design Namur style Ball Valve mounted on main valve, couple with Pneumatic or Electric Actuator for operation. It's simple Technique stands against other Control Valve. High Flow factor and simple Pilot Control makes its very user friendly.
- Advance option for extended stem Globe & Gate valve used for Water supply Boards & Other process control application.
- Main Valve Body can be mounted at depth or excessive height by keeping its Controlling unit on ground level for convenient operation.
- High Cv Value, with Low Pressure Hammering
- Choice of operating Control available in Manual / Pneumatic / Electric Actuators.
- On-Off & Proportionate (Modulating) control having Input Single of 4-20mA available in Pneumatic / Electric Actuator
- Precise Pressure control and repeatability can be achieved for Proportionate Control Application.
- Low Noise & Friction at the time of Controlling.
- Cost affective and long working life.
- Vertical & Horizontal installation can be done.



**Dimensions :** (All Dimensions are in mm)

Valve Model	Valve Size		Port	A	L	CV	Weight (Approx.)
	MM	Inch					
4MHXF - 50	50	2"	60	On Request	190	75	8.380
4MHXF - 65	65	2.1/2"	69		210	105	11.160
4MHXF - 80	80	3"	84		225	140	16.780
4MHXF - 100	100	4"	110		250	260	22.540
4MHXF - 125	125	5"	134.5		280	390	48.760
4MHXF - 150	150	6"	158.5		309.5	550	48.760
4MHXF - 200	200	8"	208.5		419	1000	91.500
4MHXF - 250	250	10"	257		473	1699	123.520
4MHXF - 300	300	12"	302		532	2200	196.040
4MHXF - 350	350	14"	324		598.4	3000	264.100
4MHXF - 400	400	16"	345		634	4000	277.800
4MHXF - 450	450	18"	472		766	5300	456.500
4MHXF - 500	500	20"	472		772.7	6100	490.650
4MHXF - 600	600	24"	589	900	9200	—	

No.	Description	Material	Qty.
1	Body	WCB / C.I. / D.I. / CF8 / CF8M	01
2	Cover	Stainless Steel 304 / 316	01
3	Plug	Stainless Steel 304 / 316	01
4	Piston	Stainless Steel 304 / 316	01
5	Piston Guide	Stainless Steel 304 / 316	01
6	Spring For Piston	S. S. 304	01
7	Piston Cover Lock Bolt	S. S.	01
8	V - Seal For Piston	NBR / Viton / EPDM	01
9	Piston Seat Ring	NBR / Viton / EPDM	01
10	Flat Ring	NBR / Viton / EPDM	01
11	O - Ring For Piston Guide	NBR / Viton / EPDM	01
12	O - Ring For Piston Lock Bolt	NBR / Viton / EPDM	01
13	Extended Shaft Valve	STD.	01

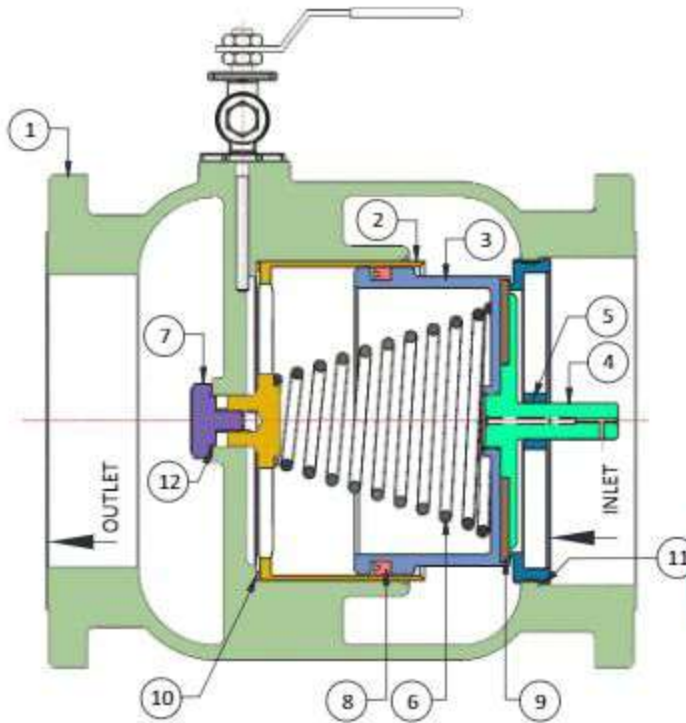
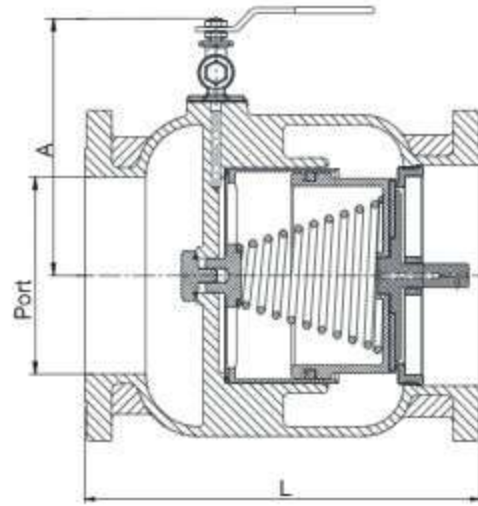




**Size Range : 2" to 24" Flanged**

**Features :**

- "4Matic" Multi function High Flow Series Control Valve with Manual Controller can be used as isolating valve and also for flow controlling application. Special Design Namur style Level Operated Ball Valve mounted on main valve for operation. Its simple Technical and heavy duty design impact a unique stands against other Control Valve. High Flow factor and simple Pilot Control makes its very user friendly.
- Exclusive design having for bigger sizes Municipal Water Supply Boards & cross country Pipe line Projects.
- High Cv Value, with Low Pressure Hammering via smooth operation in Actuator
- Lever Operated Low Torque PTFE Seated Ball Valve for smooth and trouble free operation
- Low Noise & Friction at the time of Controlling.
- Vertical & Horizontal installation can be done.



No.	Description	Material	Qty.
1	Body	WCB / C.I. / DL / CF8 / CF8M	01
2	Cover	Stainless Steel 304 / 316	01
3	Plug	Stainless Steel 304 / 316	01
4	Piston	Stainless Steel 304 / 316	01
5	Piston Guide	Stainless Steel 304 / 316	01
6	Spring For Piston	S. S. 304	01
7	Piston Cover Lock Bolt	S. S.	01
8	V - Seal For Piston	NBR / Viton / EPDM	01
9	Piston Seal Ring	NBR / Viton / EPDM	01
10	Flat Ring	NBR / Viton / EPDM	01
11	O - Ring For Piston Guide	NBR / Viton / EPDM	01
12	O - Ring For Piston Lock Bolt	NBR / Viton / EPDM	01

**Dimensions :** (All Dimensions are in mm)

Valve Model	Valve Size		Port	A	L	CV	Weight (Approx.)
	MM	Inch					
4MHHF - 50	50	2"	60	152	190	75	8.580
4MHHF - 65	65	2.1/2"	69	162	210	105	11.660
4MHHF - 80	80	3"	84	177	225	140	17.280
4MHHF - 100	100	4"	110	189	250	260	23.040
4MHHF - 125	125	5"	134.5	208	280	390	49.260
4MHHF - 150	150	6"	158.5	269	309.5	550	49.260
4MHHF - 200	200	8"	208.5	269	419	1000	92.000
4MHHF - 250	250	10"	257	352	473	1699	124.020
4MHHF - 300	300	12"	302	336	532	2200	196.540
4MHHF - 350	350	14"	345	381	598.4	3000	264.600
4MHHF - 400	400	16"	345	379	634	4000	278.300
4MHHF - 450	450	18"	472	469	766	5300	457.000
4MHHF - 500	500	20"	472	459	772.7	6100	491.150
4MHHF - 600	600	24"	589	499	900	9200	—



**Application**



- Process & Chemical
- Refineries & Petrochemicals
- Drugs & Pharmaceuticals
- Thermal Power Stations
- Dyes & Intermediates
- Breweries & Distilleries
- Steel Plants
- Solvent Extraction Plants
- Sewage
- Cooling Water
- Ship Yards and Marine Management
- LPG Bottling Plants
- Fertilizers
- Textiles
- Sugar
- Nuclear & Atomic Power Stations
- Paints & Varnishes
- Soaps & Detergents
- Slurry & Ash handling
- Food & Oil Industry
- Effluent & Water Treatment
- Water Works
- Pulp & Paper
- Onshore & Offshore platforms

This Products is Generally made to use on the High Pressure Piping system, It is Widely Applied for Major Industrial Sector

