

MANNUALY CONTROLLED VALVE

# CATALOG



 **tayfur**  
su sistemleri

**TYPHOON®**



**TYPHOON<sup>®</sup>**



# ABOUT US

Tayfur Water Systems, which was established by Tayfun Yazaroğlu in 2004 in Izmir. We continue our activities as "Tayfur Water Systems Machinery Engineering Industry and Trade Inc." since 2017.

Our company offers its products and experiences to the local market and international market. Tayfur Water Systems, while strengthening its recognition abroad, continues to expand its production, sales and marketing activities every day.

Our engineers and technical staff, technological infrastructure, manufacturing, sales, project-consulting, contracting and service planning meets the requirements of the sector.

Our company manufactures "TYPHOON" brand, hydraulic control valves, plastic hydraulic control valves, backwash valves, plastic backwash valves, impact-free dynamic suction cups, plastic suction cups, bottom clamps, filter reverse flushing control devices. It is progressing towards becoming a strong brand in both domestic and foreign markets by meeting the special demands of its domestic and foreign customers.

## Our Quality Policy

In order to be a leader in quality in the sales, marketing and service sector by complying with legal conditions and to comply with the requirements of Quality Management System in order to meet the needs and expectations of our customers, to continuously improve the efficiency and to not compromise the quality under any circumstances.

## Our Mission

To be a company aiming to present its synergy in the national and international market which has always taken its responsibilities, desires and expectations of our customers in a correct, reliable and timely manner, within the framework of high quality standards, transforming efficiency and competition into an advantage...

## Our Vision

To be a leading, innovative, powerful and reputable enterprise in its sector.

# Manualy Controlled Valve

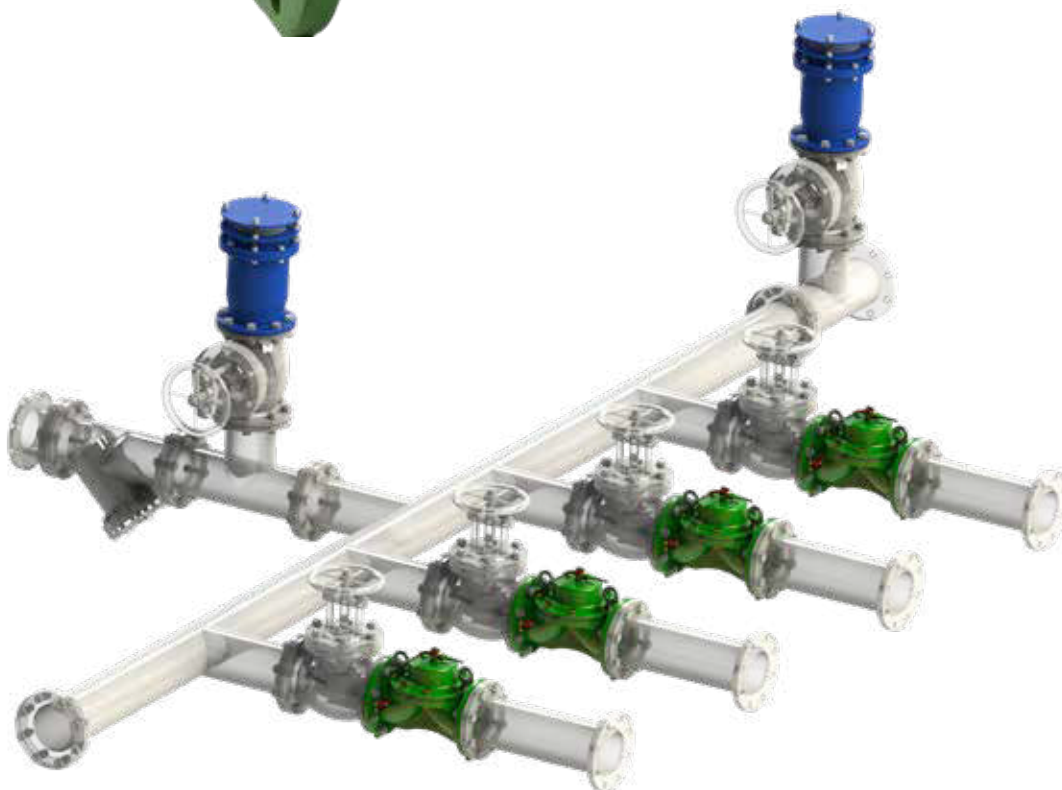
## Hydraulic Control Valves

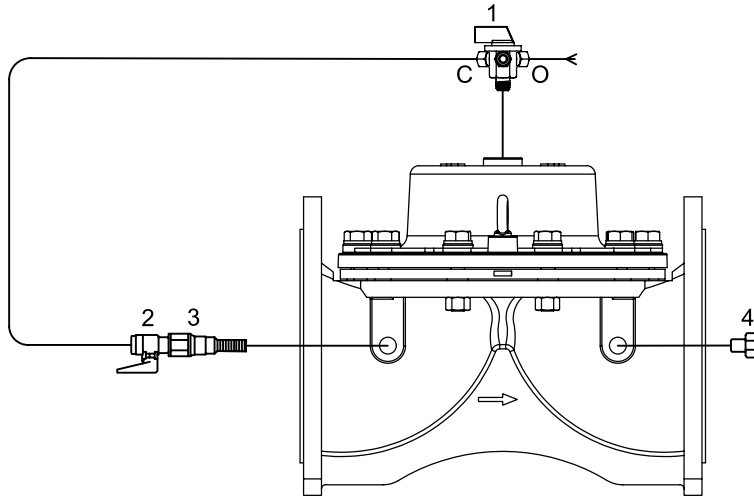
Manualy Controlled Valves are hydraulic control valves which are operated by line pressure and provide 3-way mini valves for on-off operation. The valve has a minimum opening pressure of 0.7 bar. Thanks to its flexible diaphragm, it performs an easy and quick check operation in high pressure applications and is shut off without impact.

### Order Information

Please provide the following information in order

- Maximum flow rate ..... m<sup>3</sup>/h
- Maximum mains / operating pressure ..... bar
- Main pipeline diameter ..... mm
- Valve connection type





- 1 Three Way Mini Ball Valve
- 2 Mini Ball Valves
- 3 Finger Filter
- 4 End Caps

### Assemble

- After connect the mini ball valve that is numbered "2" and the inline finger filter that is numbered "3" to the inlet of valve , the connection is provided to the closed outlet "C" of the 3way valve with copper and plastic pipe.
- Valve nominal diameter has to be same as the diameter of line or less one size than line diameter.
- Mount the valve in the direction of the arrow which is shown onto the valve.
- Usage of the isolation valves ( butterfly valves and gate valves etc) , air release valve , quick pressure relief control valves and strainers is recommended at assemble of the valve onto the pipeline.
- In the period of pressure reducing , the cavitation risk is dangerous for the body of valve. Adjust the requested outlet pressure value according to the cavitation schema and apply to our company.

### Adjust

- Select the adjust position with the 3 way selector valve which is placed on the valve and shown as numbered "1"
- On the position of "open" , the valve is opened and on the position of "close" the valve is closed .

# HYDRAULIC CONTROL VALVES

## Flanged - Threaded - Angled - Victaulic

Typhoon hydraulic control valves are automatic valves with direct diaphragm shut-off working with line pressure. It is a comfortable, smooth flow in the minimum pressure loss of the body and diaphragm, which is kept in the foreground in its design.

In hydraulic control valves, worn parts such as shafts, bearings and bushings are longevity. The single moving part of valves is the diaphragm.

TYPHOON hydraulic control valves, in-line drinking water pump, agricultural irrigation, fire systems, filtration, industrial, etc. designed for use in areas.

M	Manually Controlled Valve
PR	Pressure Reducing Control Valve
PRPS	Pressure Reducing + Pressure Sustaining Control Valve
PS	Pressure Sustaining Control Valve
PREL	Pressure Reducing + Solenoid Controlled Valve
EL	Solenoid Controlled Valve
QR	Quick Relief Control Valve
FL	Float Level Control Valve
FLEL	Electric Float Level Control Valve
DIFL	Differential Float Level Control Valve
PC	Pump (Booster) Control Valve
DPC	Deep Well (Submersible) Pump Control Valve
SA	Surge Anticipating Control Valve
HD	Hydraulic Check Valve

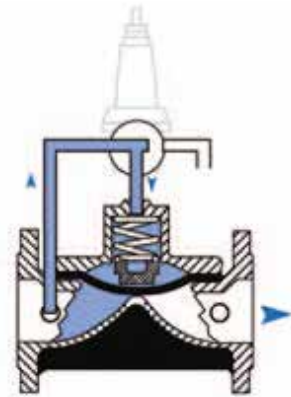




They are automatic control valves which are used hydraulically to perform the desired operations with line pressure without the need of energy sources in the mains line.

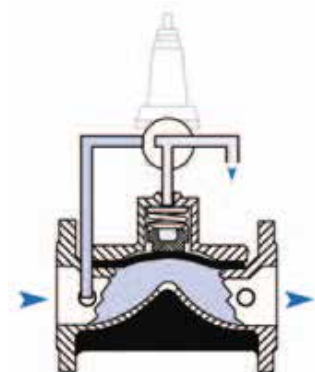
### Valve Closing Mode

When the pilot discharge position on the main control valve in the closed position is reached, the pressurized water on the diaphragm of the main control valve is drained. When the line pressure reaches the position of spring force, hydraulic force is applied to the diaphragm of the control valve under water, so that the valve is in full open position.



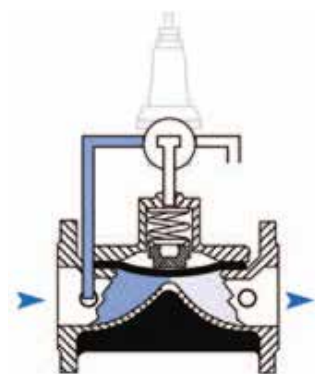
### Valve Opening Mode

When the pilots on the main control valve reach the water pressure diaphragm, the water creates a hydraulic force. The resulting hydraulic force combines the diaphragm with the force applied by the spring to create a complete seal and close.



### Modulation Mode

These are the pilot valves which are connected to the control valve which allows the main valve to operate in this position. According to the amount of flow and pressure to be adjusted, the water pressure on the diaphragm is controlled constantly, allowing it to operate in a modulated position.



# HYDRAULIC CONTROL VALVES

## Models

### Flanged

Connection		Material		Body		Transmission Pressure			
Flanged		GGG40		Globe		PN10 - PN16 - PN25			
Available Diameters									
mm	50	65	80	100	125	150	200	250	300
inch	2	2½	3	4	5	6	8	10	12



### Threaded

Connection		Material		Body		Transmission Pressure		
Threaded		GGG40		Globe		PN10 - PN16 - PN25		
Available Diameters								
mm	20	25	32	40	50	65	80	
inch	¾	1	1¼	1½	2	2½	3	



### Victaulic

Connection		Material		Body		Transmission Pressure	
Victaulic		GGG40		Globe			PN10 - PN16 - PN25
Available Diameters							
mm	50	65	80	100	150	200	
inch	2	2½	3	4	6	8	



### Angled

Connection		Material		Body		Transmission Pressure	
Flanged Threaded		GGG40		Globe		PN10 - PN16 - PN25	
Available Diameters							
mm	50	80	100	150			
inch	2	3	4	6			



### Hydraulic Performance

	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
Valve Diameter	2	50	2½	65	3	80	4	100	5	125	6	150	8	200	10	250	12	300
Kv m³/h @ 1bar	88		88		174		187		187		419		1139		1698		2276	
Cv gmp @ 1psi	102		102		201		216		216		484		1316		1961		2629	

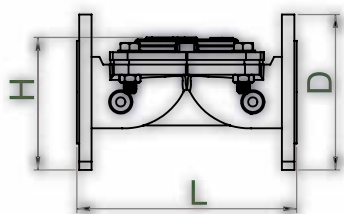
$$Kv(Cv) = Q \cdot \sqrt{G/\Delta P}$$

**Kv** : Valve flow coefficient ( flow rate at 1 bar pressure loss m³/h @ 1 bar)  
**Cv** : Valve flow coefficient (flow in pressure loss of 1 psi GPM @ 1 psi)  
**Q** : Flow (m³/h, gpm)

**Cv** = 1,155Kv  
**ΔP** : Pressure Loss (bar, psi)  
**G** : The specific gravity of water(Water=1.0)

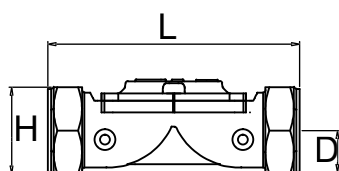


### Flanged



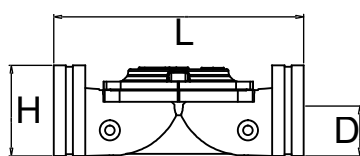
DN		D		L		H		Weight	
inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
2	50	6,50	165	8,66	220	5,87	149	17,60	8,00
2½	65	7,28	185	8,66	220	6,06	154	21,60	9,80
3	80	7,87	200	11,26	286	6,81	173	38,80	17,46
4	100	8,66	220	12,99	330	6,81	173	46,47	29,08
5	125	9,84	250	14,49	368	8,35	212	62,30	28,25
6	150	11,22	285	15,51	394	12,80	325	114,40	51,90
8	200	13,38	340	18,19	462	14,96	380	200,80	91,10
10	250	15,94	405	21,46	545	19,09	458	332,90	151,00
12	300	18,11	460	22,19	582	19,69	500	392,90	178,20

### Threaded

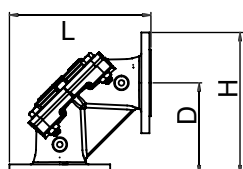
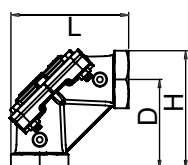


DN		D		L		H		Weight	
inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
3/4	20	0,9	23	5,2	132	2	50	2,2	1
1	25	0,9	23	5,2	132	2	50	2,2	1
1¼	32	1,35	34	6,8	173	3,6	92,3	6,3	2,85
1½	40	1,35	34	6,8	173	3,6	92,3	5,8	2,65
2	50	1,65	41,5	7,3	186	4,4	112	9	4,1
2½	65	1,8	46	8,9	226	4,6	118	11,7	5,3
3	80	2,05	52,5	12,5	318	5	127	26,4	12

### Victaulic



DN		D		L		H		Weight	
inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
2	50	1,18	30	7,24	184	3,11	79	8,6	3,9
2½	65	1,46	37	8,9	226	3,74	95	9,92	4,5
3	80	1,77	45	11,42	290	3,7	94	13	5,9
4	100	2,26	57,5	12,48	317	4,19	106,5	13,6	6,2
6	150	3,3	84	17,87	454	5,24	133	66	30
8	200	4,53	115	21,40	544	13,10	332	143,3	



### Angled

Threaded  
Flanged

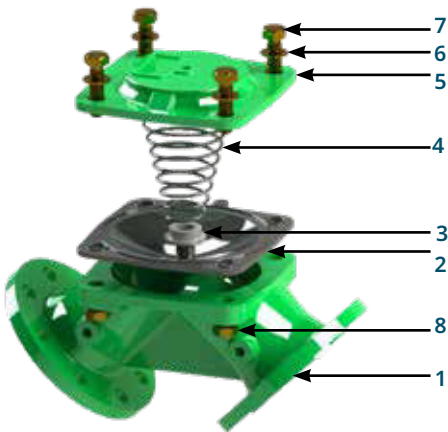
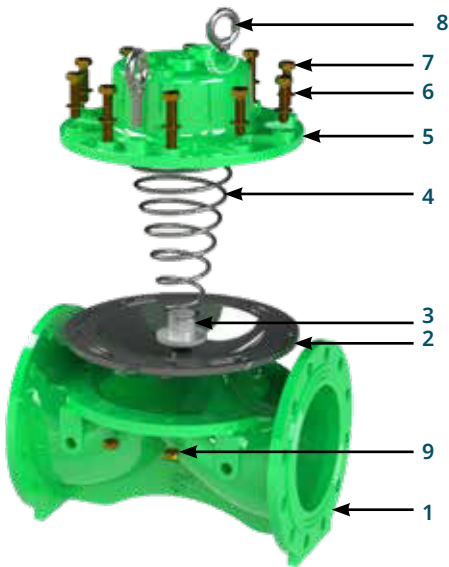
DN		D		L		H		Weight	
inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
2	50	4,4	112	6,05	154	6,05	154	9,47	4,3
3	80	7,1	180	9,45	240	9,45	240	29,3	13,3
2	50	4,4	112	7,44	189	7,44	189	19,07	8,65
3	80	7,1	180	10,95	278	10,95	278	39,02	17,7
4	100	7,48	190	12	305	12	305	60,19	27,3
6	150	9,05	230	14,92	379	14,92	379	106,26	48,2

# HYDRAULIC CONTROL VALVES

## Main Parts

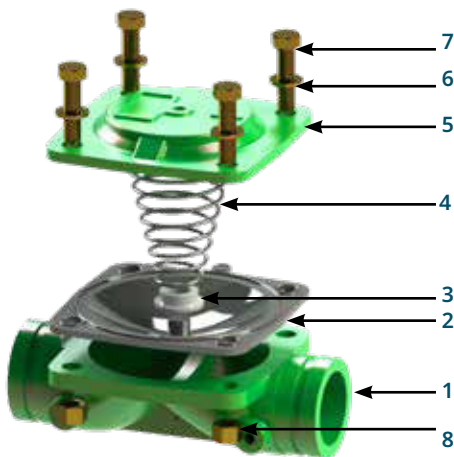
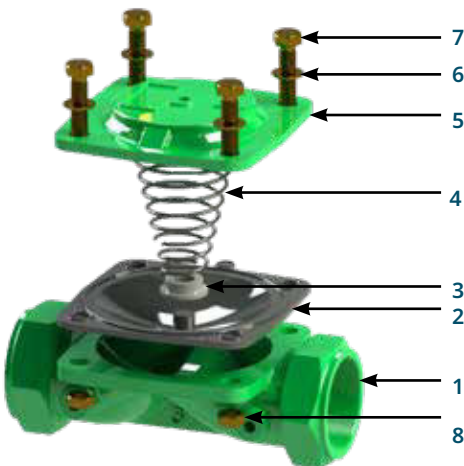
### Flanged

Nr.	Material Name	Type Of Material
1	Body	GGG40
2	Diaphragm	Natural Rubber
3	Spring Seat	Polyamide
4	Spring	SST 302
5	Cover	GGG40
6	Washer	8.8 Coated Steel
7	Bolt	8.8 Coated Steel
8	Lifting Eyebolts	8.8 Coated Steel
9	Nut	8.8 Coated Steel



### Threaded - Victaulic - Angled

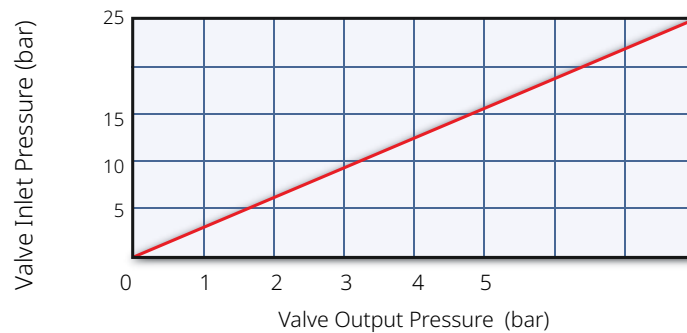
Nr.	Material Name	Type Of Material
1	Body	GGG40
2	Diaphragm	Natural Rubber
3	Spring Seat	Polyamide
4	Spring	SST 302
5	Cover	GGG40
6	Washer	8.8 Coated Steel
7	Bolt	8.8 Coated Steel
8	Nut	8.8 Coated Steel



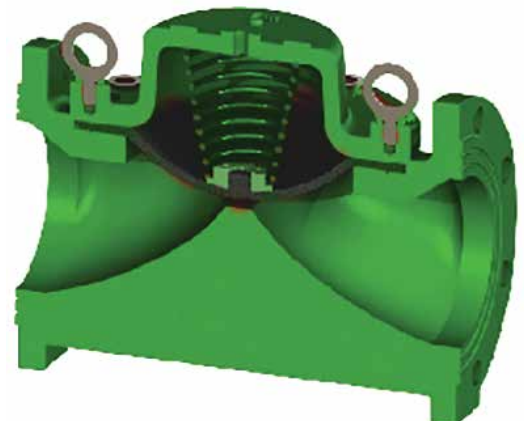
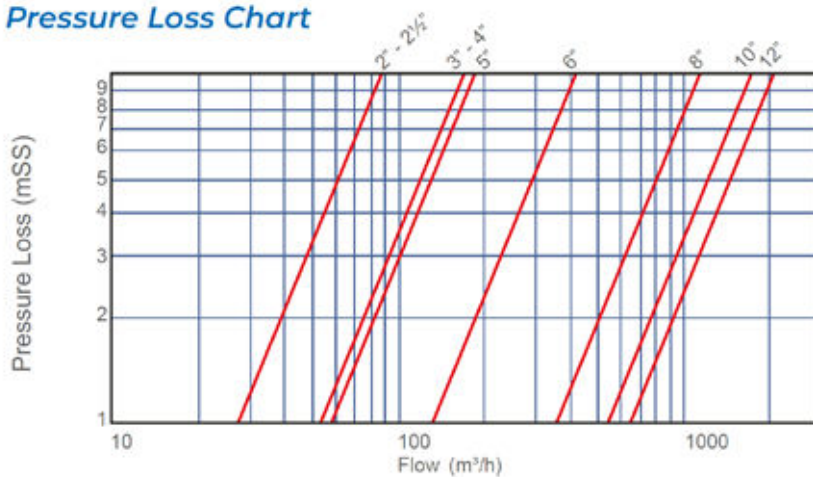
### Technical Specifications

<b>Operating Pressure</b>	Standard	0,7 - 16 bar (10 - 240 psi)
	Low Pressure Range	0,5 - 10 bar (7,5 - 160 psi)
	High Pressure Range	0,7 - 25 bar (10 - 360 psi)
<b>Temperature</b>	Minimum Operating Temp.	- 10 °C (14 °F) DIN 2401/2
	Maximum Operating Temp.	80 °C (176 °F) DIN 2401/2
<b>Connection</b>	Flanged	DIN 2501, ISO 7005 - 2
	Threaded	ISO (BSP) , ANSI (NPT)
<b>Covering</b>	Standard	Epoxy
	Optional	Polyester
<b>Hydraulic Connections</b>	Standard	Reinforced Nylon (Air Brake) Hydraulic Tube SAE J 844
	Optional	Copper DIN1057
<b>Actuator Type</b>	With Single Control Chamber   Aperture With Diaphragm	

### Cavitation Chart



### Pressure Loss Chart











**Her  
Fabrika** Bir  
Kaledir\*

*K. Atatürk*



\*Every factory is a fortress

Karacaoğlan Mah. 6172 Sok. No:19/A Işkent - Bornova - İzmir

+90 232 458 49 99 / +90 232 458 57 67

[www.tayfursu.com.tr](http://www.tayfursu.com.tr) | [info@tayfursu.com.tr](mailto:info@tayfursu.com.tr)