PRESSURE REDUCING CONTROL VALVE

CATALOG

tayfur su sistemleri

TYPHOON®

tayfur
su sistemleri

TYPHOON®

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.

Pressure Reducing Control Valve

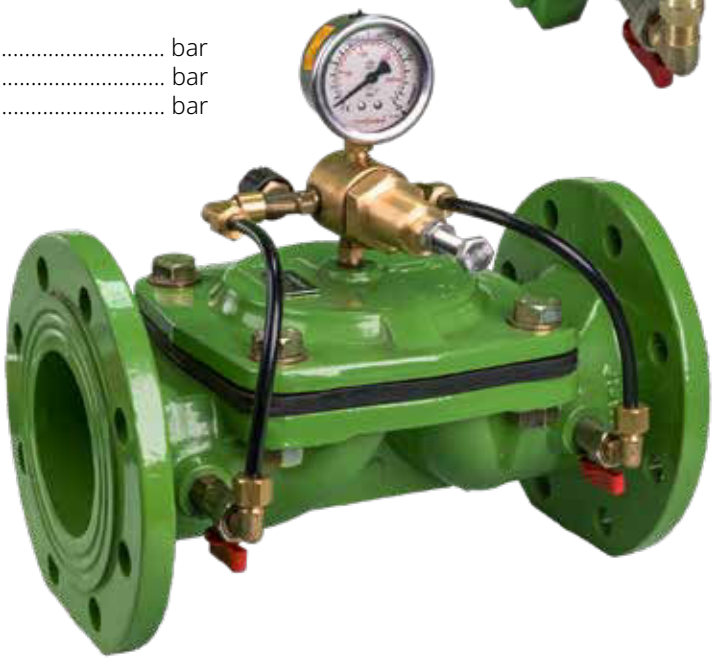
Hydraulic Control Valves

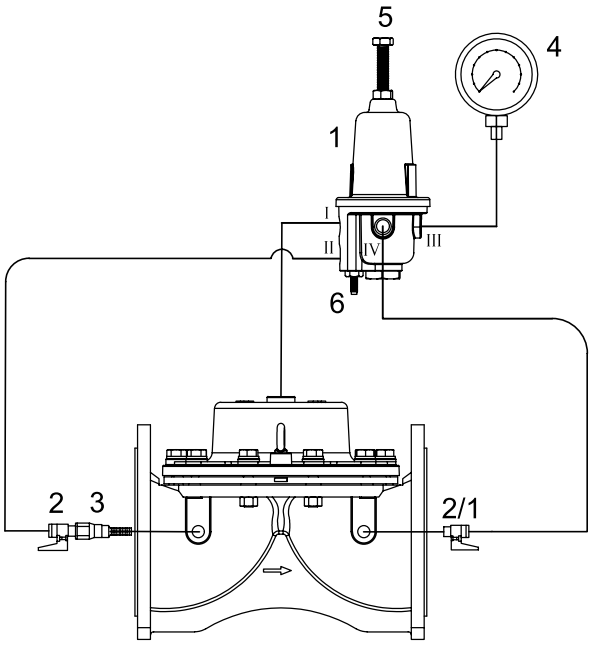
Pressure Reducing Control Valves are hydraulic control valves that reduce the input pressure value to the desired pressure value by means of a pressure reducer pilot mounted on it. The pressure reducer control valve constantly controls the output pressure value to be set without being influenced by the flow rate and inlet pressure values. When there is no flow in the system, the valve closes itself. When the valve inlet pressure value in the system falls below the set outlet pressure value, the valve opens itself. The valve can be used in horizontal or vertical position on the system.

Order Information

Please provide the following information in order

- Maximum flow rate ..... m^3/h
- Maximum mains / operating pressure ..... bar
- Main pipeline diameter ..... mm
- Valve connection type
- Maximum valve inlet pressure ..... bar
- Minimum valve inlet pressure..... bar
- Desired outlet pressure value..... bar





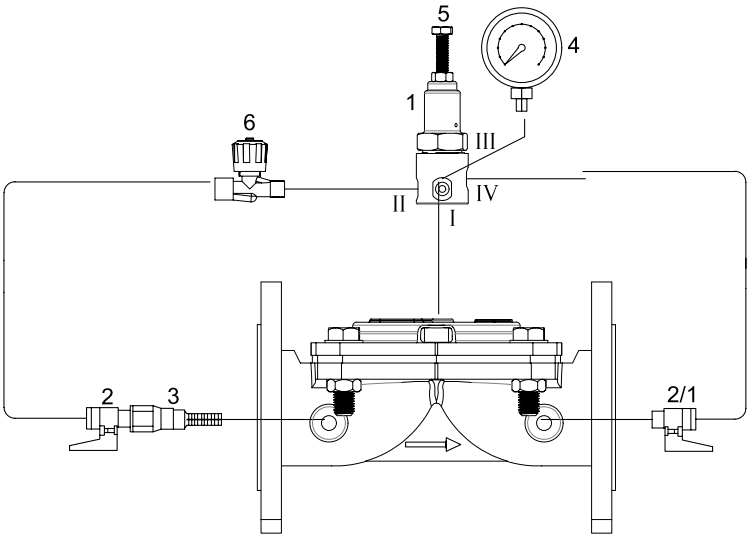
1 Pressure Reducing Pilot
2 Mini Ball Valves
3 Finger Filter
4 Manometer
5 Pressure Adjustment Bolts
6 Needle Valve

Assemble

- • After connecting the finger filter number 3 and the mini ball valve number 2 to the valve inlet, a connection is made to the "II" outlet of the pressure reducing pilot with the help of copper or plastic pipes.
- • Metal pilot's "I" outlet is entered into the valve cover with the necessary fittings.
- • A mini ball valve numbered 2/1 is connected to the valve outlet. From here, the connection to the "IV" output of the metal pilot is provided. Finally, a manometer is connected to the "III" output of the metal pilot.
- • Valve nominal diameter must be the same as line diameter or one nominal diameter smaller.
- • Mount the valve in the direction of the arrow indicated on it.
- • It is recommended to use isolation valves (butterfly or gate valves etc.), air relief valve, quick pressure relief control valve (QR) and strainer valves in line-mounting of the valve.
- • The risk of cavitation during pressure drop is dangerous for the valve body. Adjust the outlet pressure value you want to adjust by referring to the cavitation chart or contact our company.

Adjust

• Start the pump or deliver water to the system by opening the main valve on the network.
• Open ball valve indicated with "2" and close ball valve indicated with "2/1".
• Wait for a while for water to reach the valve control chamber. When water reaches the control chamber, the manometer needle will show a certain pressure value.
• Adjust the desired output pressure value by looking at the pressure gauge with the adjustment bolt indicated with "5" on the pilot valve indicated with "1".
• When you turn the adjustment screw clockwise, the output pressure value will increase in the opposite direction.
When you turn the outlet pressure value}.
• After adjusting the desired output pressure value, tighten the contra nut under the adjustment bolt. Open the ball valve indicated with "2" and deliver water to the system. After opening the "2/1" valve, the manometer will show the zero value.
• Check the downstream pressure value continuously. If the valve does not regulate, contact our company.



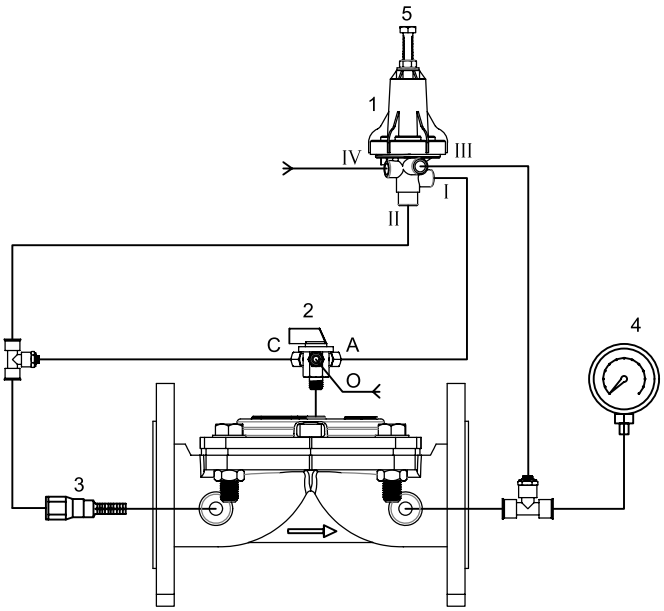
1 Pressure Reducing Pilot
2 Mini Ball Valve
3 Finger Filter
4 Gauge
5 Pressure Adjustment Bolt
6Needle Valve

Assemble

• After connecting the finger filter number 3 and the mini ball valve number 2 to the valve inlet, a connection is made to the "II" outlet of the pressure reducing pilot with the help of copper or plastic pipes.
• Metal pilot's "I" outlet is entered into the valve cover with the necessary fittings.
• A mini ball valve numbered 2/1 is connected to the valve outlet. From here, the connection to the "IV" output of the metal pilot is provided. Finally, a manometer is connected to the "III" output of the metal pilot.
• Valve nominal diameter must be the same as line diameter or one nominal diameter smaller.
• Mount the valve in the direction of the arrow indicated on it.
• It is recommended to use isolation valves (butterfly or gate valves etc.), air relief valve, quick pressure relief control valve (QR) and strainer valves in line-mounting of the valve.
• The risk of cavitation during pressure drop is dangerous for the valve body. Adjust the outlet pressure value you want to adjust by referring to the cavitation chart or contact our company.

Adjust

• Start the pump or deliver water to the system by opening the main valve on the network.
• Open ball valve indicated with "2" and close ball valve indicated with "2/1".
• Wait for a while for water to reach the valve control chamber. When water reaches the control chamber, the manometer needle will show a certain pressure value.
• Adjust the desired output pressure value by looking at the pressure gauge with the adjustment bolt indicated with "5" on the pilot valve indicated with "1".
• When you turn the adjustment screw clockwise, the output pressure value will increase in the opposite direction.
When you turn it, the outlet pressure value will decrease.
• After adjusting the desired output pressure value, tighten the contra nut under the adjustment bolt. Open the ball valve indicated with "2" and deliver water to the system. After opening the "2/1" valve, the manometer will show the zero value.
• Check the downstream pressure value continuously. If the valve does not regulate, contact our company.



1 Pressure Reducing Pilot
2 Three Way Valve
3 Finger Filter
4 Manometer
5 Pressure Adjustment Bolts

Assemble

• After connecting the finger filter number 3 to the valve inlet, a connection is provided to the "II" outlet of the pressure reducing pilot and the closed "C" outlet of the 3-way valve by means of plastic pipe.
• "I" output of the plastic pilot is connected to the auto "A" output of the 3-way valve with the necessary fittings.
• T connection element is connected to the valve outlet. One output of the tee connection element is connected to the "III" output of the pilot and the manometer is connected to the other output.
• Valve nominal diameter must be the same as line diameter or one nominal diameter smaller.
• Mount the valve in the direction of the arrow indicated on it.
• It is recommended to use isolation valves (butterfly or gate valves etc.), air relief valve, quick pressure relief control valve (QR) and strainer valves in line-mounting of the valve.
• The risk of cavitation during pressure drop is dangerous for the valve body. Adjust the outlet pressure value you want to adjust by referring to the cavitation chart or contact our company.

Adjust

• Start the pump or open the main valve on the network and deliver water to the system.
• Keep the ball valve indicated with "2" in auto position.
• Adjust the adjustment bolt of the pressure reducing pilot valve indicated with "1" according to the desired output pressure value by looking at the "5" pressure gauge "4". When you turn the adjustment bolt clockwise, the output pressure value increases and decreases in the opposite direction.
• After determining the set point, tighten the contra nut under the adjustment bolt.

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.

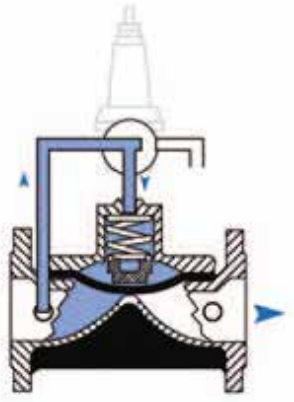
TYPHOON hydraulic control valves, in-line drinking water pump, agricultural irrigation, fire systems, filtration, industrial, etc. designed for use in areas.

M	Manually Controlled Valve
PR	Pressure Reducing Control Valve
PRPS	PressureReducing + 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.

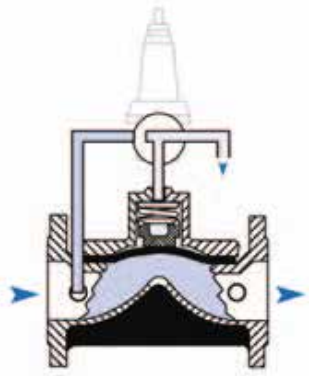
Valve Closing Mode

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.



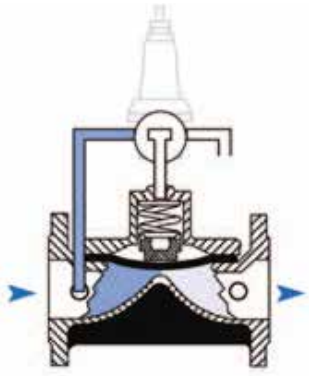
Valve Opening Mode

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.



Models

Flanged

Connection	Material	Body	Transmition 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	Transmition 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	Transmition 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	Transmition Pressure
Flanged Threaded	GGG40	Globe	PN10 - PN16 - PN25

Available Diameters

mm	50	80	100	150
inch	2	3	4	6

Hydraulic Performance

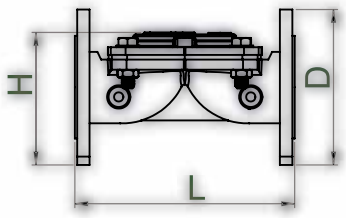
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
Valve Diameter	2	50	2½	65	3	80	4	100	5	125	6	150	8	200	10	250	12	300
Kv m³/h @ 1bar	88		88		174		187		187		419		1139		1698		2276	
Cv gmp @ 1psi	102		102		201		216		216		484		1316		1961		2629	

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

Kv : Valve flow coefficient (flow rate at 1 bar pressure loss m^3/h @ 1 bar)
Cv : Valve flow coefficient (flow in pressure loss of 1 psi GPM @ 1 psi)
Q : Flow (m^3/h, gpm)

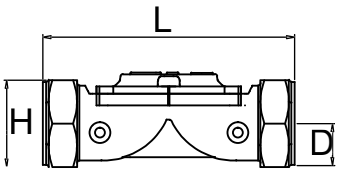
Cv = 1,155Kv
ΔP : Pressure Loss (bar, psi)
G : The specific gravity of water(Water=1.0)

Flanged



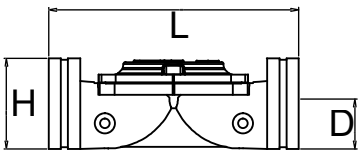
DN		D		L		H		Weight	
inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
2	50	6,50	165	8,66	220	5,87	149	17,60	8,00
2½	65	7,28	185	8,66	220	6,06	154	21,60	9,80
3	80	7,87	200	11,26	286	6,81	173	38,80	17,46
4	100	8,66	220	12,99	330	6,81	173	46,47	29,08
5	125	9,84	250	14,49	368	8,35	212	62,30	28,25
6	150	11,22	285	15,51	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



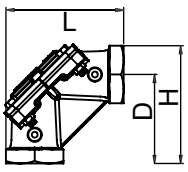
DN		D		L		H		Weight	
inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
3/4	20	0,9	23	5,2	132	2	50	2,2	1
1	25	0,9	23	5,2	132	2	50	2,2	1
1¼	32	1,35	34	6,8	173	3,6	92,3	6,3	2,85
1½	40	1,35	34	6,8	173	3,6	92,3	5,8	2,65
2	50	1,65	41,5	7,3	186	4,4	112	9	4,1
2½	65	1,8	46	8,9	226	4,6	118	11,7	5,3
3	80	2,05	52,5	12,5	318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

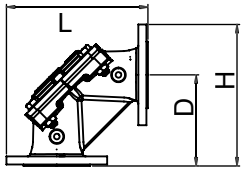
Victaulic



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



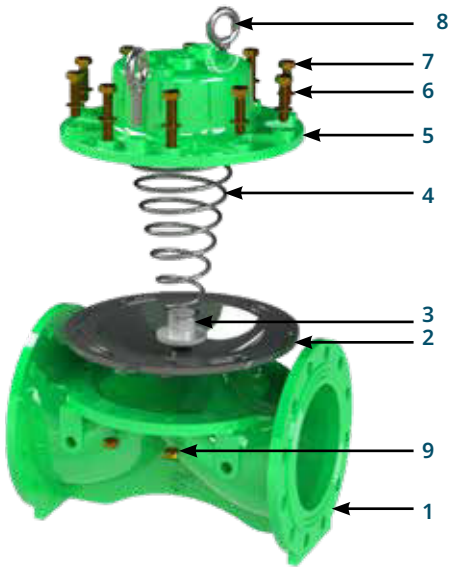


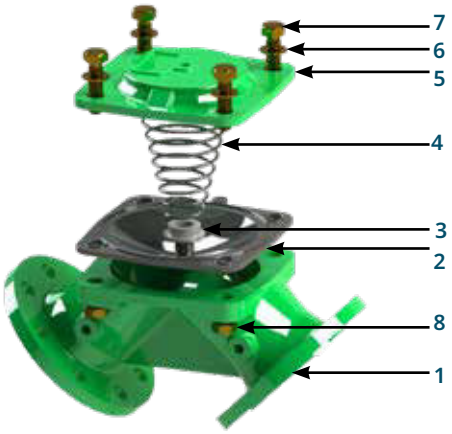
	DN		D		L		H		Weight	
	inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
Threaded	2	50	4,4	112	6,05	154	6,05	154	9,47	4,3
	3	80	7,1	180	9,45	240	9,45	240	29,3	13,3
Flanged	2	50	4,4	112	7,44	189	7,44	189	19,07	8,65
	3	80	7,1	180	10,95	278	10,95	278	39,02	17,7
	4	100	7,48	190	12	305	12	305	60,19	27,3
	6	150	9,05	230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

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
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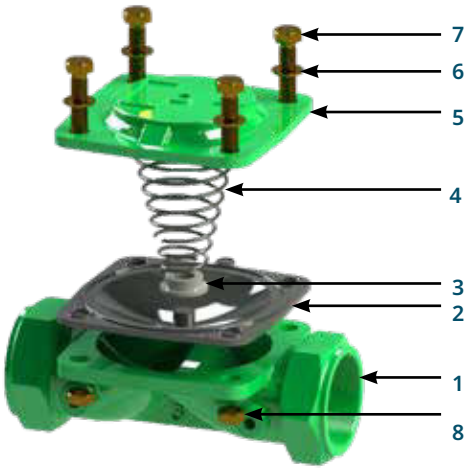
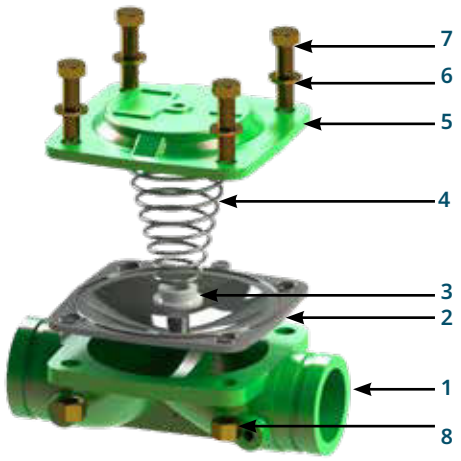
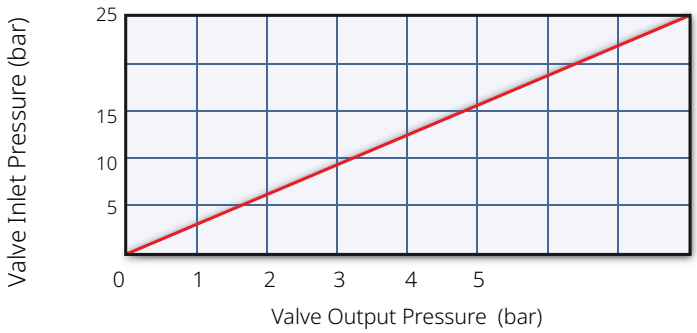




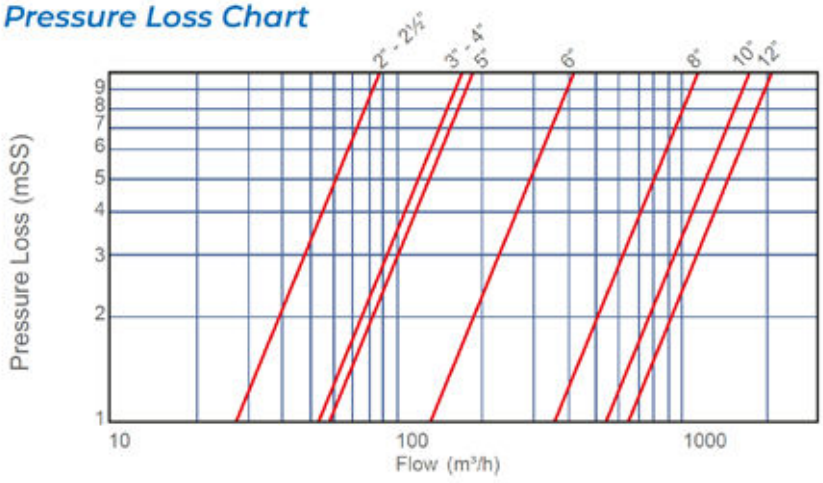
Technical Specifications

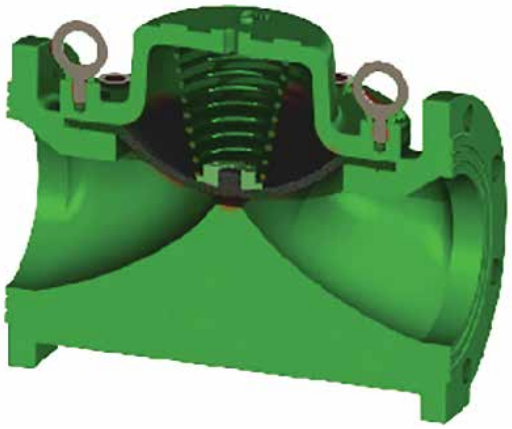
Operating Pressure	Standard	0,7 - 16 bar (10 - 240 psi)
	Low Pressure Range	0,5 - 10 bar (7,5 - 160 psi)
	High Pressure Range	0,7 - 25 bar (10 - 360 psi)
Temperature	Minimum Operating Temp.	- 10 °C (14 °F) DIN 2401/2
	Maximum Operating Temp.	80 °C (176 °F) DIN 2401/2
Connection	Flanged	DIN 2501, ISO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

Cavitation Chart



Pressure Loss Chart





CERTIFICATE

CERTIFICATE OF CONFORMITY

Manufacturer / Üretici
TAYFUR SU SİSTEMLERİ MAKİNE MÜHENDİSLİK SANAYİ VE TİCARET ANONİM ŞİRKETİ
Address / Adres
KARACAOĞLAN MAHALLESİ 6172 SOKAK NO:19 A BORNOVA / İZMİR / TÜRKİYE

Product Description / Ürün Tanımı
HYDRAULIC CONTROL VALVES / HİDROLİK KONTROL VANALARI

Product Types / Ürün Tipleri
TYPHOON SERIES
MANUAL HYDRAULIC CONTROL VALVE / PRESSURE REDUCING CONTROL VALVE
PRESSURE REDUCING AND PRESSURE SUSTAINING CONTROL VALVE
PRESSURE SUSTAINING CONTROL VALVE / PRESSURE REDUCING AND SOLENOID CONTROL VALVE
SOLENOID CONTROL VALVE / QUICK RELIEF CONTROL VALVE / FLOAT LEVEL CONTROL VALVE
ELECTRIC FLOAT LEVEL CONTROL VALVE / DIFFERENTIAL FLOAT LEVEL CONTROL VALVE
PUMP CONTROL VALVE / DEEP WELL PUMP CONTROL VALVE / SURGE ANTICIPATING VALVE
HYDRAULIC CHECK VALVE / Y TYPE HYDRAULIC CONTROL VALVE
QUICK PRESSURE RELIEF CONTROL VALVE
BACKFLUSHING CONTROL VALVES; VICTAULIC 3x2 -VICTAULIC 4x3 -FLANGE 3x2 – FLANGE 4x3- VICTAULIC & THREADED 2x2

Product Features / Ürün Özellikleri
Basınçlar / Pressures: PN10-PN16 -PN25
Max.Çalışma sıcaklığı / Max.Operating Temperature: 60°C-80°C
Çaplar / Diameters : DN20(3/4") den DN300(12") e kadar
Üretim Standartları / Production Standards : TS EN 558-1 Esas Seriler 48 FTF-CTF
Vana Boyu / Valve Length : TS ISO 7005-2 , TS EN 558-1
Flanş Ölçüleri / Flange Dimensions: TS ISO 5208 – ISO 7005/2 – EN 1092/2 – BS 40504 -BS 10E- ANSI
Basınç Testleri: Gövde Test Basıncı / Pressure Tests : Body Test Pressure : 1,5 x PN
Sızdırmazlık Test Basıncı / Sealing Test Pressure: 1,1 x PN
Genel Tasarımlar / General Designs: TSEN 1074-1-2-5

Product Brand / Ürünün Markası
TYPHOON

Directives and Regulations / Direktif ve Yönetmelikler
2014/68/EU Pressure Equipment Directive / 2014/68/EU Basınçlı Ekipmanlar Direktifi

It has been accepted by the company that the applicable requirements of the 2014/68 / EU Pressure Equipment Directive have been fulfilled and its responsibility has been taken for the products defined above. The products defined above have been checked by internal production controls carried out by the organization. If there is a change in the product, this declaration will not be accepted and will lose its validity.

Yukarıda tanımları verilmiş olan ürünlerin için 2014/68/EU Basınçlı Ekipmanlar Yönetmeliğinin uygulanabilen gerekliliklerinin yerine getirildiği ve sorumluluğunun alınmış olduğu firma tarafından kabul edilmiştir. Yukarıda tanımları verilmiş olan ürünler, iç üretim kontrollerinin kuruluş tarafından yapıldığı kontrol edilmiştir. Üründe bir değişiklik olduğu takdirde bu beyan kabul edilmeyecek ve geçerliliğini yitirecektir.

CERTIFICATE NUMBER: IDS.CE.2024.19095.1

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CERTIFICATE

CERTIFICATE OF CONFORMITY

Manufacturer / Üretici
TAYFUR SU SİSTEMLERİ MAKİNE MÜHENDİSLİK SANAYİ VE TİCARET ANONİM ŞİRKETİ

Address / Adres
KARACAOĞLAN MAHALLESİ 6172 SOKAK NO:19 A BORNOVA / İZMİR / TÜRKİYE

Product Description / Ürün Tanımı
FILTER BACKWASH CONTROL DEVICES / FİLTRE TERS YIKAMA KONTROL CİHAZLARI

Product Types / Ürün Tipleri
AC Tip – 1-2-3 Dahili DP
DC Tipi – 1-2-3 Dahili DP
AC Tipi – 2-4-6 DP Hariç
DC Tipi – 2-4-6 DP Hariç
AC Tipi – 2/10 DP Hariç
DC Tipi – 2/10 DP Hariç (2 Kablolu)
Basınç Fark Cihazı (DP)

Product Brand / Ürünün Markası
FLUSHCON

Directives and Regulations / Direktif ve Yönetmelikler
2006/42/EC Machinery Safety Directive / 2006/42/AT Makine Emniyet Direktifi
2014/35/EC Low Voltage Directive / 2014/35/AT Alçak Gerilim Yönetmeliği

Harmonized Standards / Harmonize Standartlar
EN ISO 120100:2010, EN 60204-1:2018

It has been accepted by the company that the applicable requirements of the 2006/42/EC Machinery Safety Directive have been fulfilled and its responsibility has been taken for the products defined above. The products defined above have been checked by internal production controls carried out by the organization. If there is a change in the product, this declaration will not be accepted and will lose its validity.

Yukarıda tanımları verilmiş olan ürünlerin için Makine Emniyet Direktifinin uygulanabilen gerekliliklerinin yerine getirildiği ve sorumluluğunun alınmış olduğu firma tarafından kabul edilmiştir. Yukarıda tanımları verilmiş olan ürünler, iç üretim kontrollerinin kuruluş tarafından yapıldığı kontrol edilmiştir. Üründe bir değişiklik olduğu takdirde bu beyan kabul edilmeyecek ve geçerliliğini yitirecektir.

CERTIFICATE NUMBER: IDS.CE.2024.19094.1

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SERTİFİKA
(CERTIFICATE)
TAYFUR SU SİSTEMLERİ MAKİNE MÜHENDİSLİK SANAYİ VE TİCARET ANONİM ŞİRKETİ
ISO 9001:2015
FIRST QUALITY CERTIFICATION


FQC
SERTİFİKA
(CERTIFICATE)
TAYFUR SU SİSTEMLERİ MAKİNE MÜHENDİSLİK SANAYİ VE TİCARET ANONİM ŞİRKETİ
ISO 14001:2015
FIRST QUALITY CERTIFICATION


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ISO 45001:2018
FIRST QUALITY CERTIFICATION


FQC
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ISO 10002:2018
FIRST QUALITY CERTIFICATION

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