PRESSURE SUSTAINING 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 Sustaining Control Valve

Hydraulic Control Valves

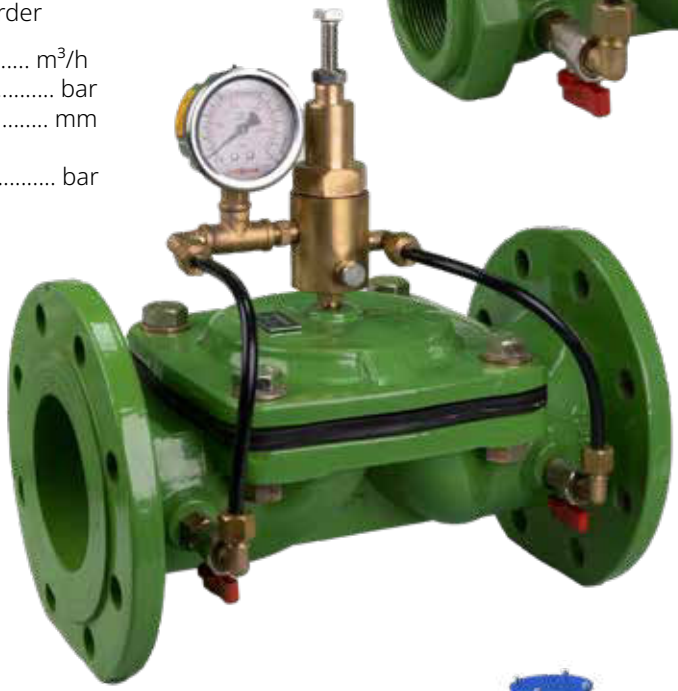
Pressure Sustaining Control Valve is a hydraulic control valve designed to protect the system by rapidly discharging the high pressure wave by sudden opening movement in water systems with excessive pressure increase. With the pilot on the valve, the input pressure is adjusted with the desired pressure. If for any reason the inlet pressure in the system rises above the set value, the valve is opened quickly to release the excess pressure to the outside and the system is protected.

Despite its sudden opening, due to the hydraulic principle of operation, the closing of the valve is slowed down so as not to create a ripple. It provides a completely leak-tight seal. It can also be used as a safety and warning valve at the exit points of the pressure reducing control valves alone at critical points in the water system.

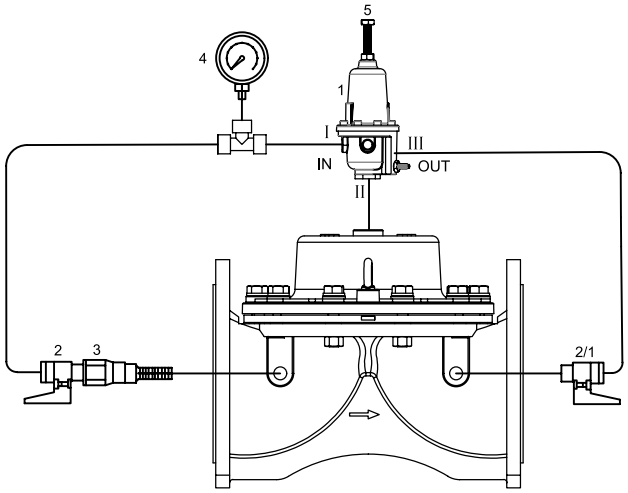
Order Information

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
- Desired valve inlet pressure ..... bar



Big Metal Pilot Assemble / Adjust



1 Pressure Sustaining Pilot Valve
2 Mini Ball Valve
3 In-Line Finger Filter
4 Gauge
5 Adjust Bolt

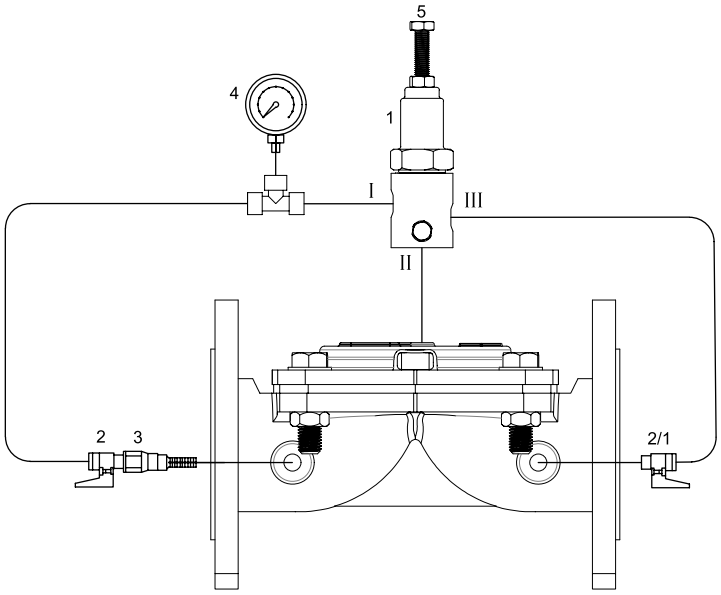
Assemble

• 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 connect with Te fitting parts at the of the pressure sustaining pilot's outlet "I" with copper and plastic pipe.
• The outlet of metal pilot "II" is mounted with required connection parts onto the cover of valve.
• Numbered as "2/1" the mini ball valve is connected to the outlet of valve.From this point , a connection is provided to the outlet "III" of the metal pilot. At last the gauge is connected onto the other side of te fitting parts.
• 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

• Run the pump or open the main valve in the network of line and give the water to the system.
• Wait a few seconds for the water's entering to the control reservoir of the valve.
• When you turn the adjust bolt"5" in the direction of the clockwise , the adjusting of pressure value will be increased and when turn the adjust bolt in the opposite direction of the clockwise , the outlet's presure value will be reduced.
• After adjust the desired outlet's pressure value , tighten the nut which is under of the adjust bolt.
• Check the inline finger filter that is shown as "2" according to the quality of water and please clean. If Water is not too much dirty, dont clean the filter in a few months more than one time.
• In winter season , please release the water into the pilot valves and actuators for the non-used valves..

Small Metal Pilot Assemble / Adjust



1 Pressure Sustaining Pilot
2 Mini Ball
3 In Line Finger Filter
4 Gauge
5 Adjust Bolt

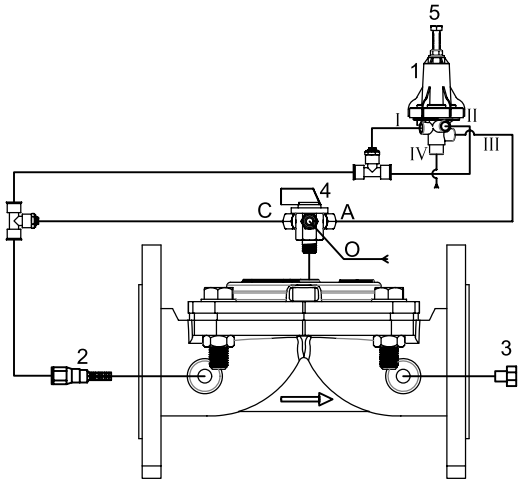
Assemble

• 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 connect with Te fitting parts at the of the pressure sustaining pilot's outlet "I" with copper and plastic pipe.
• The outlet of metal pilot "II" is mounted with required connection parts onto the cover of valve.
• Numbered as "2/1" the mini ball valve is connected to the outlet of valve.From this point , a connection is provided to the outlet "III" of the metal pilot. At last the gauge is connected onto the other side of te fitting parts.
• 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

• Run the pump or open the main valve in the network of line and give the water to the system.
• Wait a few seconds for the water's entering to the control reservoir of the valve.
• When you turn the adjust bolt"5" in the direction of the clockwise , the adjusting of pressure value will be increased and when turn the adjust bolt in the opposite direction of the clockwise , the outlet's presure value will be reduced.
• After adjust the desired outlet's pressure value , tighten the nut which is under of the adjust bolt.
• Check the inline finger filter that is shown as "2" according to the quality of water and please clean. If Water is not too much dirty, dont clean the filter in a few months more than one time.
• In winter season , please release the water into the pilot valves and actuators for the non-used valves..

Plastic Pilot Assemble / Adjust



1 Pressure Sustaining Pilot
2 In-Line Finger Filter
3 End Cap
4 3 Way Selector Valve
5 Adjust Bolt

Assemble

• After connect the inline finger filter that is numbered "2" to the inlet of valve , the connection is provided with plastic pipe to the outlet " I " of plastic pressure sustaining pilot and with the TE fitting parts to the closed outlet "C" of the mini ball valve .
• The outlet of plastic pilot "II" is mounted with required connection parts to outlet "I" of the plastic pilot.
• The outlet "III" of the plastic pilot is connected to the auto outlet "A" of the 3way valve and the end-cap "3" which is numbered is connected to the outlet of the valve
• 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

• Run the pump or open the main valve in the network of line and give the water to the system.
• Turn the 3 way valve as auto "A" position.
• Wait a few seconds for the water's entering to the control reservoir of the valve.
• When you turn the adjust bolt"5" in the direction of the clockwise , the adjusting of pressure value will be increased and when turn the adjust bolt in the opposite direction of the clockwise , the outlet's presure value will be reduced.
• After adjust the desired outlet's pressure value , tighten the nut which is under of the adjust bolt.
• Check the inline finger filter that is shown as "2" according to the quality of water and please clean. If Water is not too much dirty, dont clean the filter in a few months more than one time.
• In winter season , please release the water into the pilot valves and actuators for the non-used valves..

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.

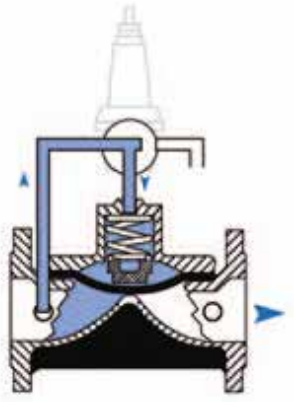
TYPHOON hydraulic control valves, in-line drinking water pump, agricultural irrigation, fire systems, filtration, industrial, etc. designed for use in areas.

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.

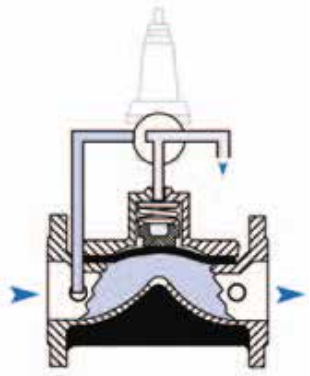
Valve Closing Mode

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.



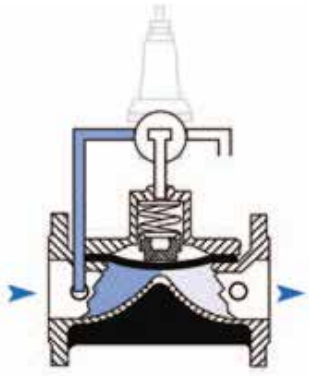
Valve Opening Mode

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

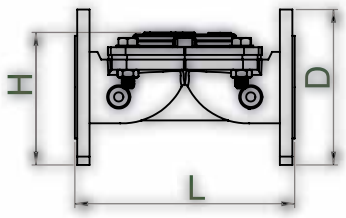
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
Valve Diameter	2	50	2½	65	3	80	4	100	5	125	6	150	8	200	10	250	12	300
Kv m³/h @ 1bar	88		88		174		187		187		419		1139		1698		2276	
Cv gmp @ 1psi	102		102		201		216		216		484		1316		1961		2629	

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

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)

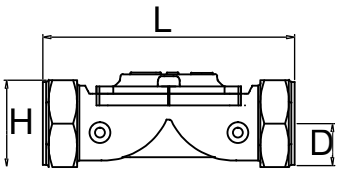
Cv = 1,155Kv
ΔP : Pressure Loss (bar, psi)
G : The specific gravity of water(Water=1.0)

Flanged



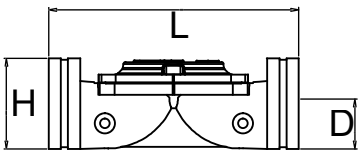
DN		D		L		H		Weight	
inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
2	50	6,50	165	8,66	220	5,87	149	17,60	8,00
2½	65	7,28	185	8,66	220	6,06	154	21,60	9,80
3	80	7,87	200	11,26	286	6,81	173	38,80	17,46
4	100	8,66	220	12,99	330	6,81	173	46,47	29,08
5	125	9,84	250	14,49	368	8,35	212	62,30	28,25
6	150	11,22	285	15,51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



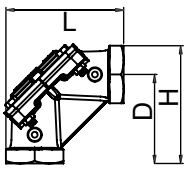
DN		D		L		H		Weight	
inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
3/4	20	0,9	23	5,2	132	2	50	2,2	1
1	25	0,9	23	5,2	132	2	50	2,2	1
1¼	32	1,35	34	6,8	173	3,6	92,3	6,3	2,85
1½	40	1,35	34	6,8	173	3,6	92,3	5,8	2,65
2	50	1,65	41,5	7,3	186	4,4	112	9	4,1
2½	65	1,8	46	8,9	226	4,6	118	11,7	5,3
3	80	2,05	52,5	12,5	318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

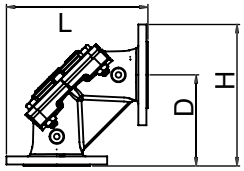
Victaulic



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



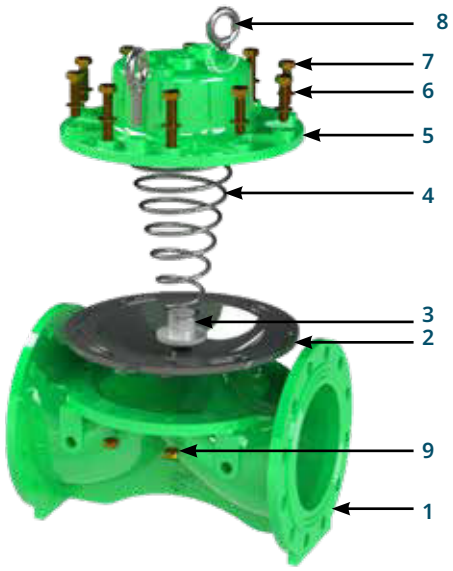


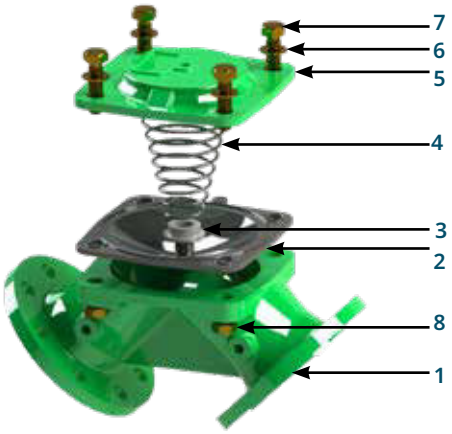
	DN		D		L		H		Weight	
	inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
Threaded	2	50	4,4	112	6,05	154	6,05	154	9,47	4,3
	3	80	7,1	180	9,45	240	9,45	240	29,3	13,3
Flanged	2	50	4,4	112	7,44	189	7,44	189	19,07	8,65
	3	80	7,1	180	10,95	278	10,95	278	39,02	17,7
	4	100	7,48	190	12	305	12	305	60,19	27,3
	6	150	9,05	230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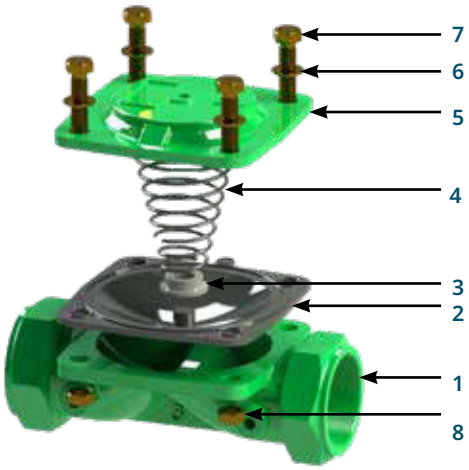
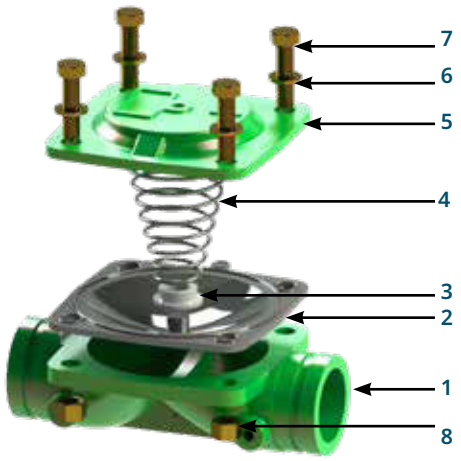
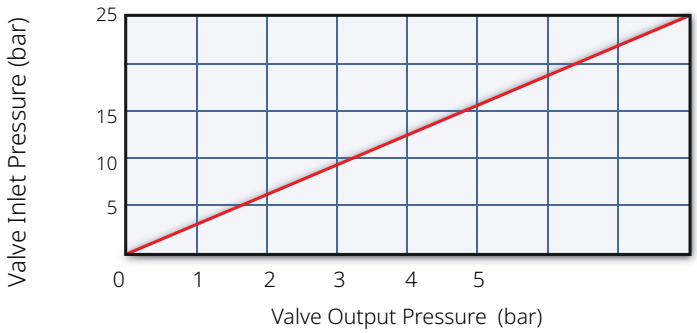




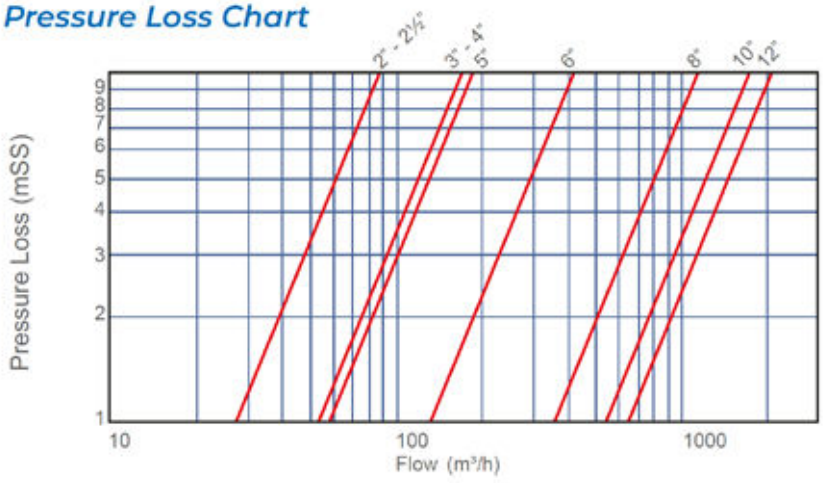
Technical Specifications

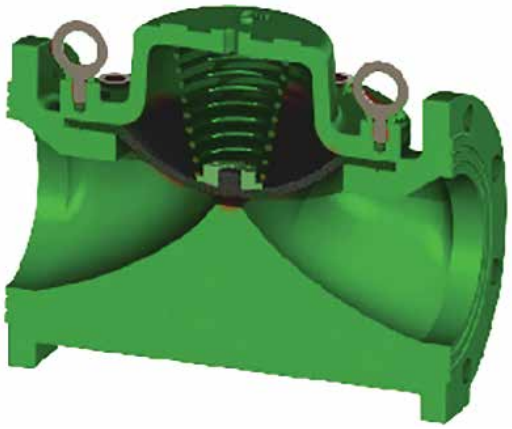
Operating Pressure	Standard	0,7 - 16 bar (10 - 240 psi)
	Low Pressure Range	0,5 - 10 bar (7,5 - 160 psi)
	High Pressure Range	0,7 - 25 bar (10 - 360 psi)
Temperature	Minimum Operating Temp.	- 10 °C (14 °F) DIN 2401/2
	Maximum Operating Temp.	80 °C (176 °F) DIN 2401/2
Connection	Flanged	DIN 2501, ISO 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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Validity Date : 16.02.2025

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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


FQC
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(CERTIFICATE)
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ISO 45001:2018
FIRST QUALITY CERTIFICATION


FQC
SERTİFİKA
(CERTIFICATE)
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ISO 10002:2018
FIRST QUALITY CERTIFICATION

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