tayfur su sistemleri

PRESSURE REDUCING SOLENOID CONTROL VALVE

TAYFUR WATER SYSTEMS

TYPHOON®

We **Care** About Every Drop of **Water**

STORY OF 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 SOLENOID CONTROLLED VALVE

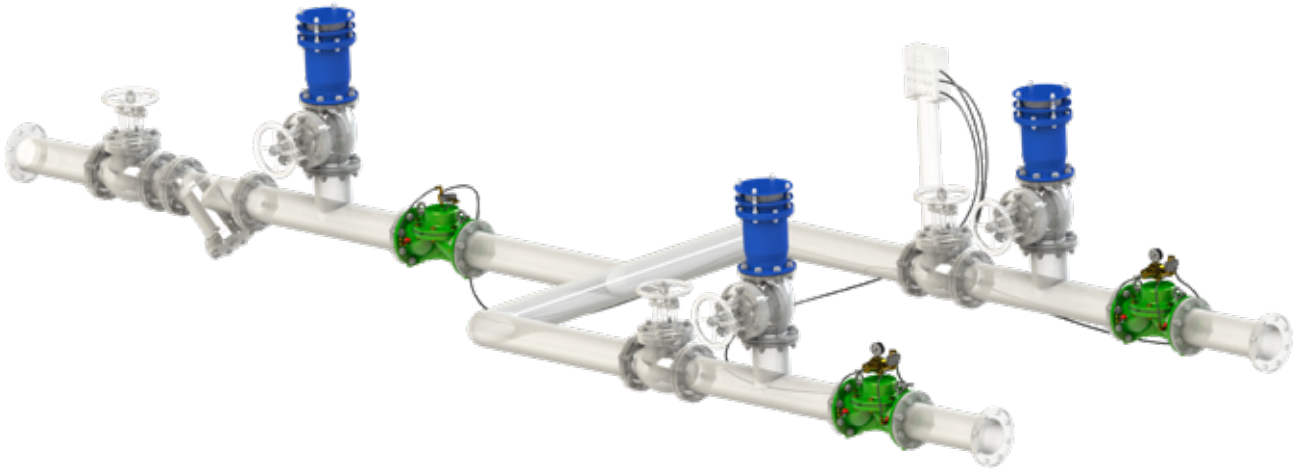
Solenoid Controlled Pressure Reducing Control Valve is a hydraulic control valve that reduces the input pressure value to the desired pressure value. The control of the main valve is effected by solenoid coils mounted on it.

The solenoid valve is provided with an electrical signal, a control device, a time relay, a switch, a PLC control unit, and control equipment. Thus, automation and control in application systems are easily achieved.

Order Information

Please provide the following information in order

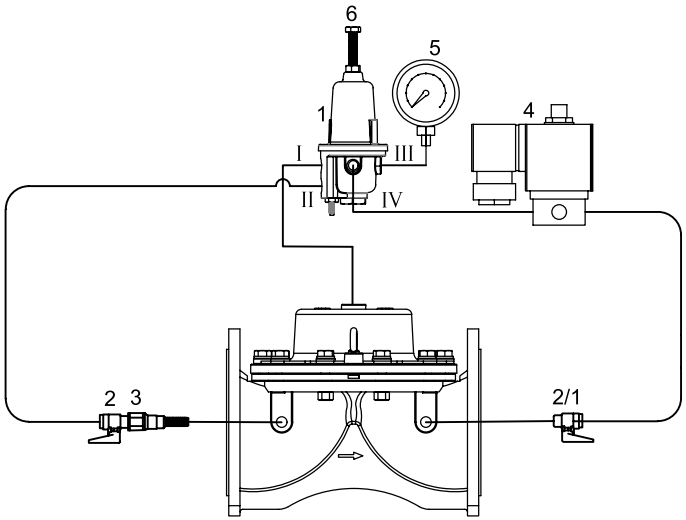
- Maximum flow rate ..... m^3/h
- Maximum mains / operating pressure ..... bar
- Main pipeline diameter ..... mm
- Valve connection type
- Maximum valve inlet pressure ..... bar
- Minimum valve inlet pressure..... bar
- Desired outlet pressure value..... bar
- Electric voltage value to be used .....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



PRESSURE REDUCING SOLENOID CONTROL VALVE

Assemble

- After connect the in-line finger filter that is numbered “3” and the mini ball valve that is numbered “2” to the inlet of the valve , which the connection is provided to the pressure reducing pilot’s outlet numbered “II” with copper and plastic pipe.
- With required fitting parts , the outlet of metal pilot as shown “I” , is entered in to the cover of valve.
- The mini ball valve which is shown as numbered “2/1” is connected to the outlet of valve. From this point , a connection is provided to the outlet of metal pilot that is numbered “IV”. At last the gauge is connected to the outlet of metal pilot which is shown as “III”.
- Valve’s nominal diameter has to be as same as the diameter of line or has to be less one size than line diameter.
- Assemble the valve in accordance with the direction of arrow which is shown onto the valve.
- Usage of the isolation valves (butterfly valves , gate valves etc) , air release valves ,
- Quick pressure relief valve (QR) and strainers is recommended at the assemble in the pipe line.
- In the period of pressure reducing , the cavitation risk is dangerous for the body of valve. Adjust the outlet pressure value according to the cavitation schema and apply to our Company.



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

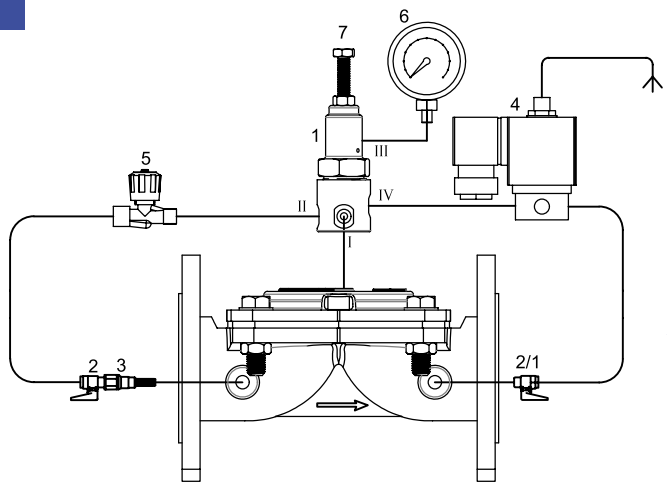
Adjust

- Run the pump or give the water to system as opening the main valve.
- Open the mini ball valve as shown number “2” and close the mini ball valve as shown number “2/1”.
- Wait a bit period fort he water’s entering to the reservoir of the valve. When the Water reached to the control reservoir , the gauge’s pointer will show the certain value of pressure.
- Adjust the desired value of the outlet’s pressure with the adjusting bolt which is shown as “6” onto the pilot of valve that is shown as “1” while looking at the gauge.
- When you turn the adjust bolt in the direction of the clockwise , the outlet’s 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.
- Open the mini ball as shown as “2” and give the Water to the system. After open the valve as showm as “2/1” , the gauge will show the value as zero “0”.
- Regularly check the outlet’s pressure . If the valve dont make the regulation and apply to our compqny.

PRESSURE REDUCING SOLENOID CONTROLLED VALVE

Assemble

- After connect the in-line finger filter that is numbered “3” into the imput of valve , which the connection is provided to the outlet “V” of solenoid valve and pressure reducing pilot’s outlet numbered “II” with plastic pipe.
- The outlet numbered “4” of solenoid valve is connected to the outlet as auto “A” of the 3way mini ball valve and to the outlet “I” of plastic pilot as shown “VII”
- The outlet “II” of the plastic pilot is connected to the outlet “C” position as closed of 3way mini ball valve with the required fitting parts.
- TE fitting part is connected to the output of the valve. One outlet of TE part is connected to the outlet “III” of plastic pilot and the gauge is connected to the other outler position of TE.
- Valve’s nominal diameter has to be as same as the diameter of line or has to be less one size than line diameter.
- Assemble the valve in accordance with the direction of arrow which is shown onto the valve.
- Usage of the isolation valves (butterfly valves , gate valves etc) , air release valves ,
- Quick pressure relief valve (QR) and strainers is recommended at the assemble in the pipe line.
- In the period of pressure reducing , the cavitation risk is dangerous for the body of valve. Adjust the outlet pressure value according to the cavitation schema and apply to our Company.



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

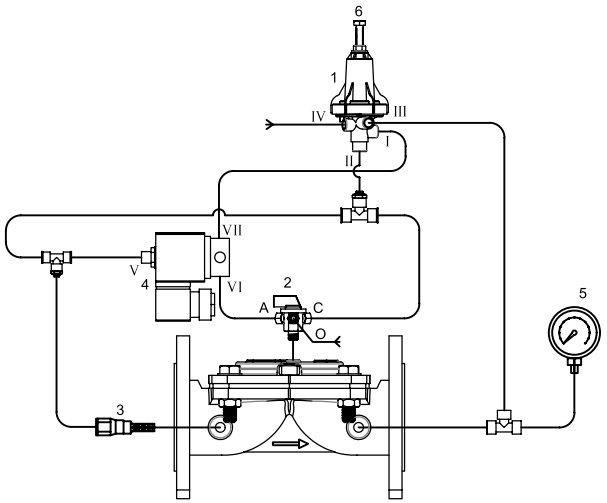
Adjust

- Run the pump or give the water to system as opening the main valve.
- Keep the mini ball valve as shown number “2” as auto position
- Adjust the adjusting bolt “5” of pressure reducing pilot as shown “1” according to the desired output pressure value while lookimg at the gauge “4”
- When you turn the adjust bolt in the direction of the clockwise , the outlet’s 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 specified the adjust bolt , tighten the nut which is under of the adjust bolt.

PRESSURE REDUCING SOLENOID CONTROL VALVE

Assemble

- After connecting the finger filter number 3 to the valve inlet, a connection is made to the “V” outlet of the solenoid valve and to the “II” outlet of the plastic pilot by means of a plastic pipe.
- “VI” output of solenoid valve number “4” is connected to auto “A” output of 3-way valve, “VII” output is connected to “I” output of plastic pilot.
- The “II” output of the plastic pilot is connected to the closed “C” outlet 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.



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

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

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.

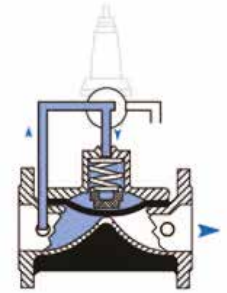
In hydraulic control valves, worn parts such as shafts, bearings and bushings are longevity. The single moving part of valves is the diaphragm.

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

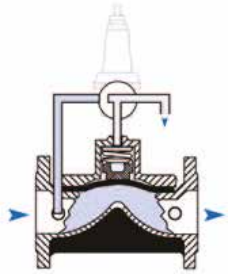
Working Principles

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.



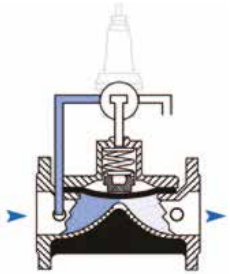
Valve Closing Mode

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	$2^{1/2}$	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	3/4	1	$1^{1/4}$	$1^{1/2}$	2	$2^{1/2}$	3

Victaulic

Connection	Material	Body	Transmition Pressure
Victaulic	GGG40	Globe	PN10 - PN16 - PN25

Available Diameters

mm	50	65	80	100	150	200
inch	2	$2^{1/2}$	3	4	6	8

Angled

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

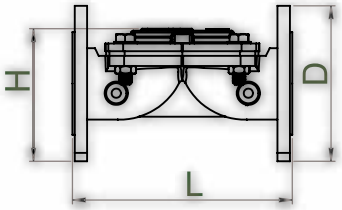
Available Diameters

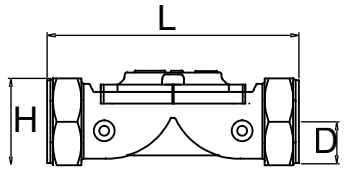
mm	50	80	100	150
inch	2	3	4	6

TYPHOON

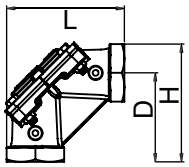
Sizes and Weights

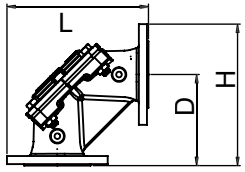
	DN		D		L		H		Weight	
	inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
Flanged	2	50	6,50	165	8,66	220	5,87	149	17,60	8,00
	2 1/2	65	7,28	185	8,66	220	6,06	154	21,60	9,80
	3	80	7,87	200	11,26	286	6,81	173	38,80	17,46
	4	100	8,66	220	12,99	330	6,81	173	46,47	29,08
	5	125	9,84	250	14,49	368	8,35	212	62,30	28,25
	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



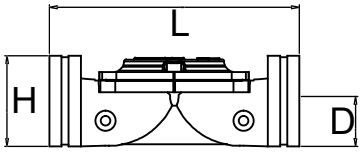


	DN		D		L		H		Weight	
	inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
Threaded	3/4	20	0,90	23,0	5,2	132	2,0	50,0	2,2	1,00
	1	25	0,90	23,0	5,2	132	2,0	50,0	2,2	1,00
	1 1/4	32	1,35	34,0	6,8	173	3,6	92,3	6,3	2,85
	1 1/2	40	1,35	34,0	6,8	173	3,6	92,3	5,8	2,65
	2	50	1,65	41,5	7,3	186	4,4	112,0	9,0	4,10
	2 1/2	65	1,80	46,0	8,9	226	4,6	118,0	11,7	5,30
	3	80	2,05	52,5	12,5	318	5,0	127,0	26,4	12,00





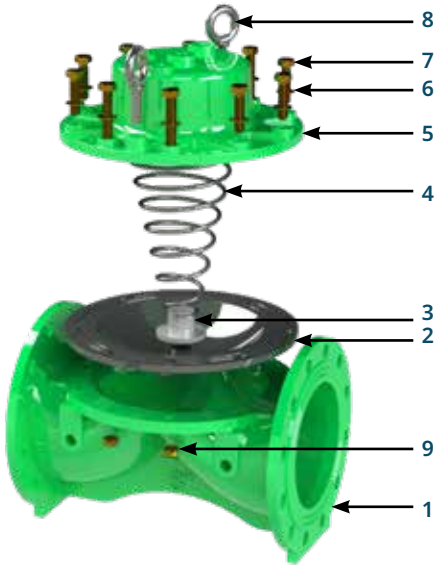
Angled	DN		D		L		H		Weight	
	inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
Threaded	2	50	4,4	112	6,05	154	6,05	154	9,47	4,3
	3	80	7,1	180	9,45	240	9,45	240	29,30	13,3
Flanged	2	50	4,40	112	7,44	189	7,44	189	19,07	8,65
	3	80	7,10	180	10,95	278	10,95	278	39,02	17,7
	4	100	7,48	190	12,00	305	12	305	60,19	27,3
	6	150	9,05	230	14,92	379	14,92	379	106,26	48,2

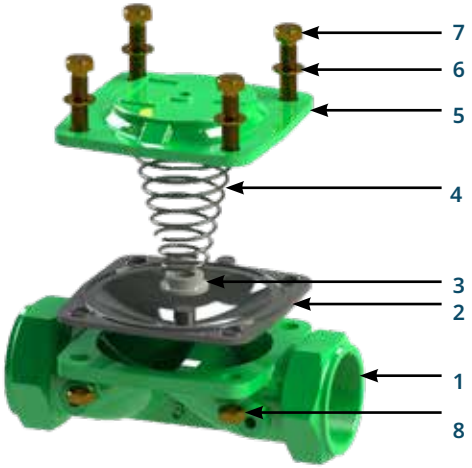


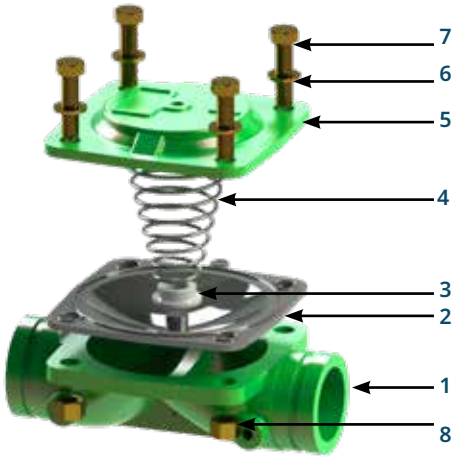
	DN		D		L		H		Weight	
	inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
Victaulic	2	50	1,18	30	7,24	190	3,11	79,0	8,60	3,9
	2 1/2	65	1,46	37	8,90	218	3,74	95,0	9,92	4,5
	3	80	1,77	45	11,42	290	3,70	94,0	13,00	5,9
	4	100	2,26	57,5	12,48	317	4,19	106,5	13,6	6,2
	6	150	3,30	84	17,87	392	5,24	133,0	66,00	30
	8	200	4,53	115	21,40	544	13,10	332,0	143,30	65

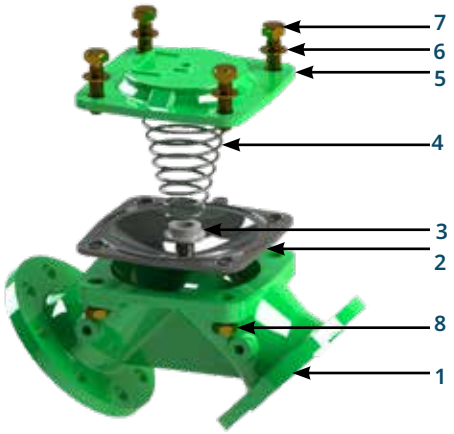
Flanged

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

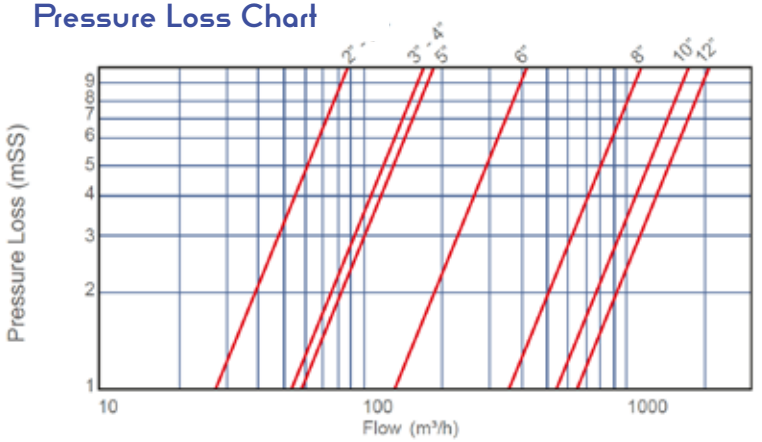
Nr.	Material Name	Type Of Material
1	Body	GGG40
2	Diaphragm	Natural Rubber
3	Spring Seat	Polyamide
4	Spring	SST 302
5	Cover	GGG40
6	Washer	8.8 Coated Steel
7	Bolt	8.8 Coated Steel
8	Nut	8.8 Coated Steel

HYDRAULIC CONTROL VALVES

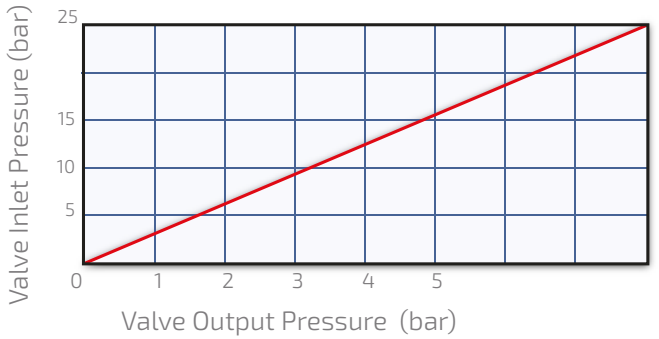
Technical Specifications

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	

Pressure Loss Chart

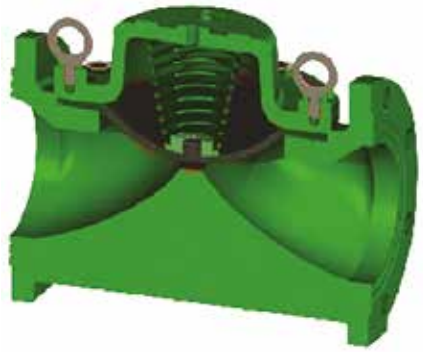


Cavitation Chart



Hydraulic Performance

	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
Valve Diameter	2	50	2 1/2	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)

TYPHOON®

CERTIFICATES

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

Certificate Date : 16.02.2024
Validity Date : 16.02.2025

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Authorised by
Vladimir Vučić SEKULIC

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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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