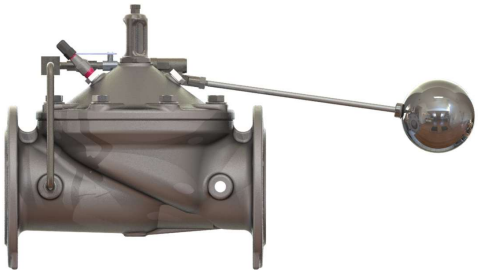
New Generation Hydraulic control valve



ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.ти-системс.рф
Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

Design and Technical Data

Medium: Water or Fueling Temperature: 0 - 70°C(Water) Or -40~70°C (Fueling)	Products Standard EN 1074-5	Face to Face EN558-1 Series 1
Pressure Range: ISO EN PN10, PN16, PN25 ANSI CL125/150/300 JIS 10K/16K AS Table D/E, AS4087 PN16	Test Standard ISO 5208 & EN12266-1	Flange Drilling EN 1092-2 ISO 7005-2 ANSI or JIS AS2129 or AS 4087

Main valve material option

1. **Ductile iron (DI): DN40-1200**
2. **SUS304 (S3) or SUS316 (S6) or Duplex (SD): Carbon Steel (CS) : DN40-400**
3. **Aluminum (AL) or Bronze (BR): DN40-200**

Pilot circuit material option

Brass or SUS304 (S3) or SUS316 (S6)

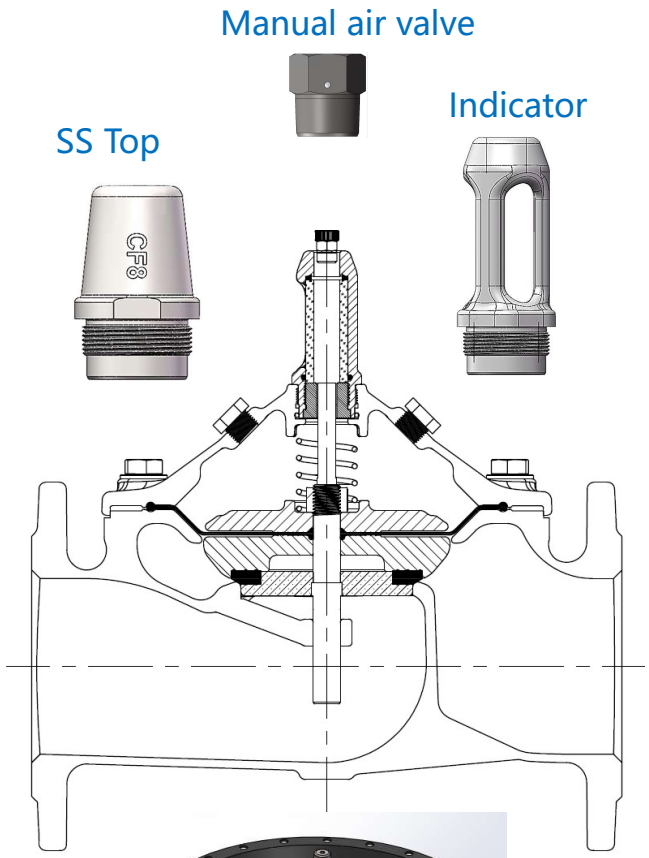
Highlights

1. Fully Bore with seat diameter as DN+2 mm
2. Stable working even if the flow close to Zero
3. High performance and strength Nylon enforce diaphragm
4. One Million cycle test and 64 bar burst test
5. Fully bore (FB), Reduce bore (RB) and Anti-Cavitation Device(ACD)
6. Higher than standard product test,
   - 6.1 Seat test : 1.1 * PN + 1 Bar
   - 6.2 Strength test : 1.5 * PN + 1 Bar
   - 6.3 Low pressure sealing test: 0.2 Bar
7. Automatic computer test with 1000 Hz Sensor
8. Smart control valve and Solution system
9. Special solution for technical support

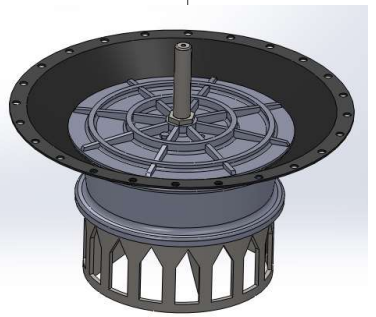
ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.ти-системс.рф
Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

Structure for Main valve

1. Indictor post: Lost wax stainless steel
2. Bush: Bronze
3. Bonnet: Pagoda shape for highest strength
4. Spring: SS material and best working zone under fully open and close
5. Diaphragm: Bowl shape, Sealing rings for both Bonnet and shaft
6. Seat and sealing ring: Quickly open and Anti-cavitation design
7. Shaft: Bigger diameter for Stronger rigidity
9. Disc guide: No shaking even for small opening
10. Seat: Fully bore as DN+2mm
11. No rust water in seat ring
12. Stainless steel air valve for additional value

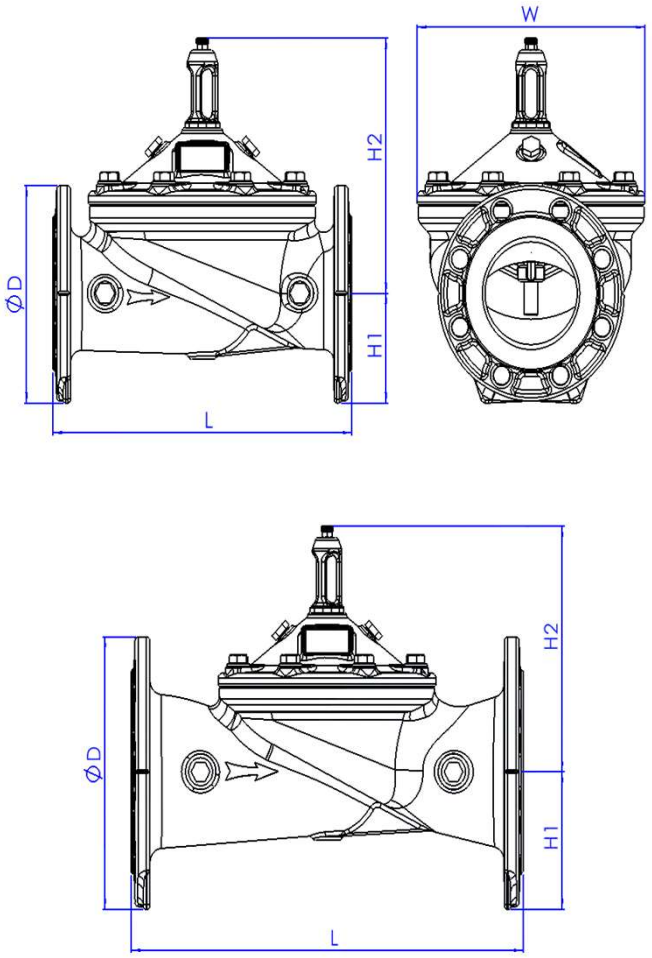


Anti-Cavitation Device (ACD)



ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.ти-системс.рф
Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

Dimension of Main Valve

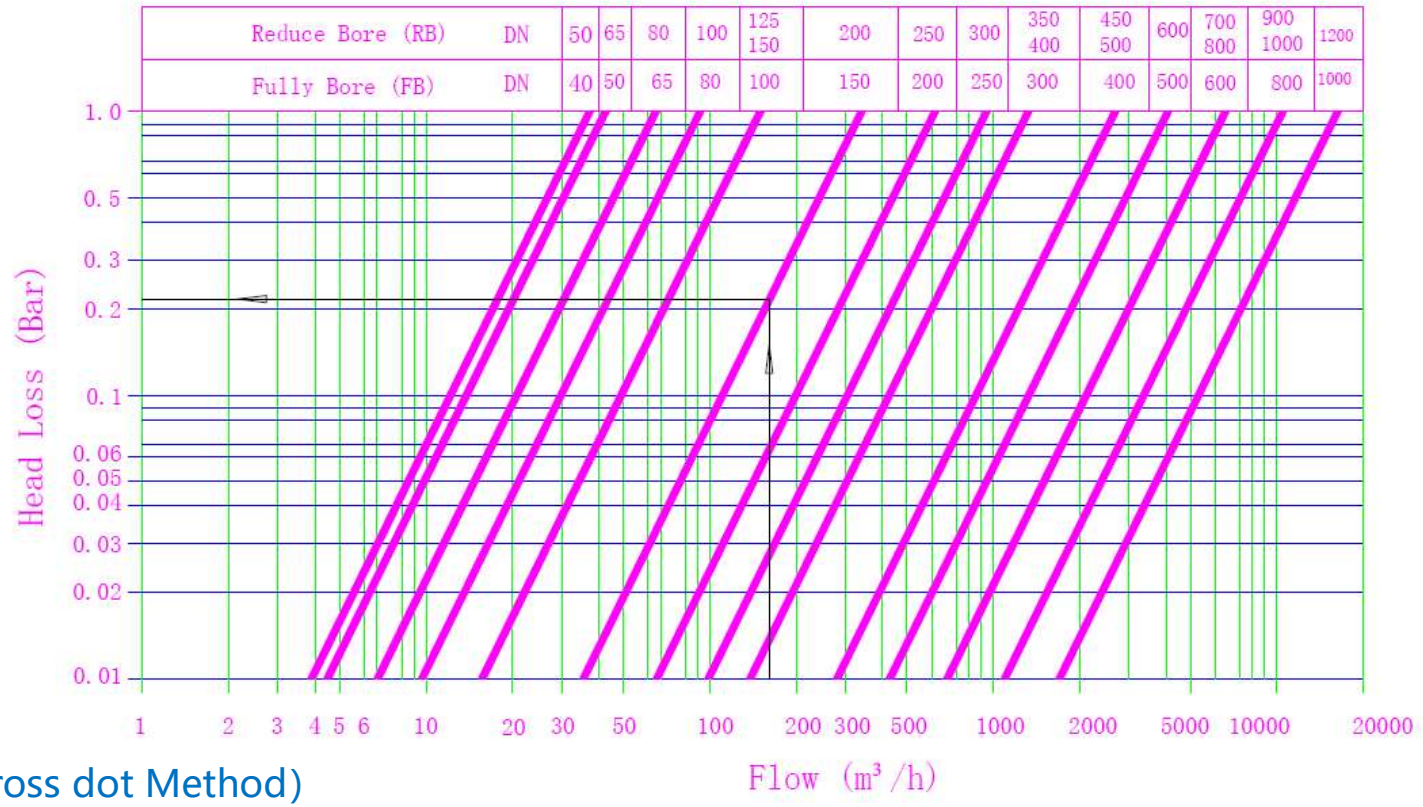


Mian Valve-Fully Bore (FB)						
DN	L	H2	H1	W	Port	Weight(Kg)
40	230	139	85	173	3/8″	14
50	230	139	85	173	3/8″	14
65	290	159	95	198	3/8″	19
80	310	179	102	226	3/8″	23
100	350	214	112	265	1/2″	32
125	400	278	127	307	1/2″	48
150	480	333	145	351	1/2″	68
200	600	407	172	436	3/4″	125
250	730	476	205	524	1″	200
300	850	526	232	606	1″	260
350	980	585	262	673	1″	405
400	1100	624	292	741	1″	560
500	1250	720	360	1002	1″	880
600	1450	835	425	1308	1″	1300
800	1850	1110	515	1755	1″	1950
1000	2250	1350	630	2231	1″	2456

Main Valve-Reduce Bore (RB)						
DN	L	H2	H1	W	Port	Weight (Kg)
65	290	139	95	173	3/8″	15
80	310	159	102	198	3/8″	21
100	350	179	112	226	3/8″	27
125	400	214	127	265	1/2″	34
150	480	214	145	265	1/2″	37
200	600	333	172	351	1/2″	88
250	730	407	205	436	3/4″	144
300	850	476	232	524	1″	231
350	980	526	262	606	1″	281
400	1100	526	292	606	1″	370
450	1200	624	325	741	1″	595
500	1250	624	360	741	1″	750
600	1450	720	425	1002	1″	1150
700	1650	835	460	1308	1″	1420
800	1850	835	515	1308	1″	1510
900	2050	1110	570	1755	1″	2185
1000	2250	1110	630	1755	1″	2568
1200	2450	1350	750	2231	1″	3155

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.ти-системс.рф
Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

Head Lost based on Main valve is Fully Open

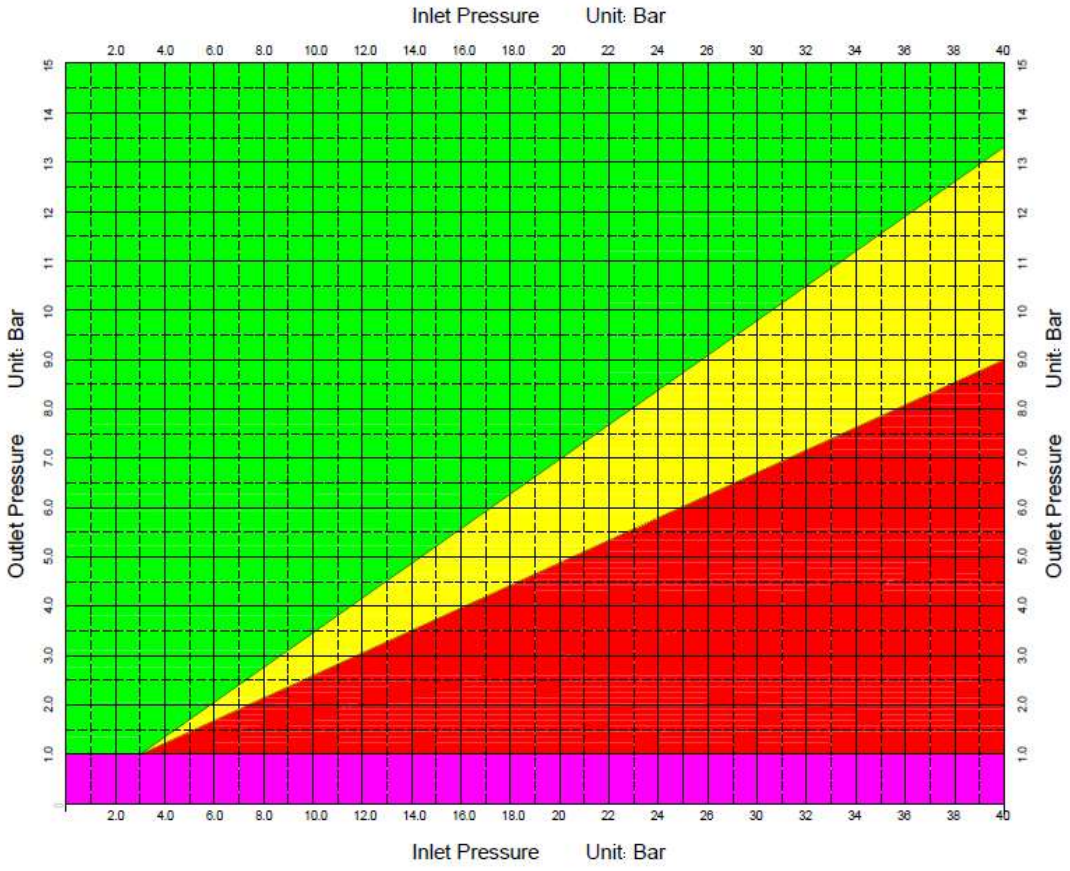


How to Use (Cross dot Method)

Step 1 First draw the abscissa vertical straight line with the pipeline Flow and the intersection of the straight line with DN

Step 2 Draw a horizontal straight line to the left according to the intersection and find the intersection with the ordinate. The position of the intersection is the Head Loss when the valve is Fully Open

Cavitation Zone



Notes: If the outlet pressure is less than 1 Bar, please inform manufacture !

Method 1 (Inlet and outlet pressure tracing):

Step 1 Draw the vertical line of the ordinate with the inlet pressure first, and then draw the horizontal line of the abscissa with the outlet pressure, and the intersection of the two lines

Step 2 Select the valve type according to the dot position:

2.1 Dot in green area: Fully Bore (FB)

2.2 Dot in yellow area: Reduce Bore (RB)

2.3 Dot in the brown area: RB + Anti cavitation device (ACD or U / V Port)

Method 2 (Times of Inlet / Outlet pressure):

Step 1 Inlet pressure / Outlet pressure = ? Times

Step 2 Select the valves:

2.1 Times ≤4: Fully Bore (FB)

2.2 Times 4~6: Reduce Bore (RB)

2.3 Times > 6: RB + ACD or U / V Port)

Method 3 (Flow Velocity):

Step 1 Flow velocity V =? m/s

Step 2 Select the valve :

2.1 V≥1m/s: FB

2.2 V = 0.3~1 m/s: RB

2.3 V ≤ 0.3 m/s: RB + ACD or U / V Port

8 Bar to 1 Bar

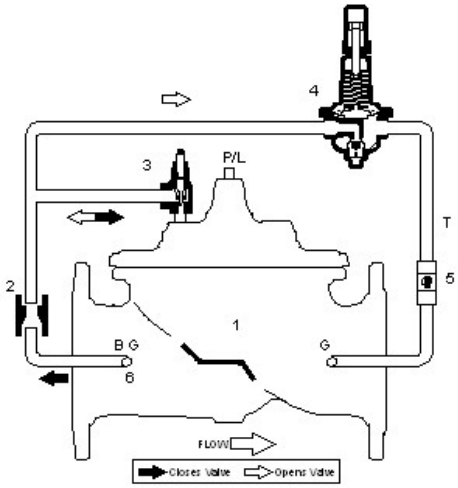
8 Bar to 2 Bar

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.ти-системс.рф
Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

K200 Pressure Reducing Valve (PRV)

Standard supply

1. Main valve
2. Orifice
3. Needle valve
4. Reducing pilot
5. Ball valve
6. Inner strainer



Feature

Keeping the outlet pressure as setting requirement

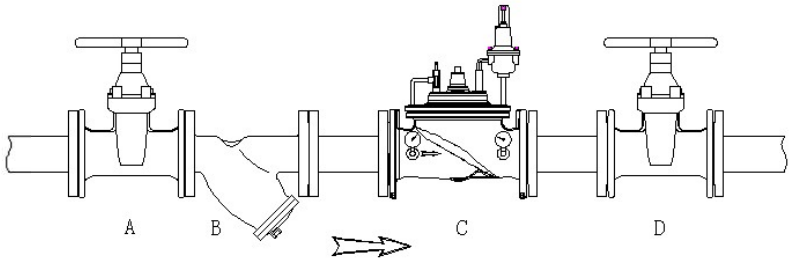
Using flow is go up or down, Inlet pressure is go up or go down, the outlet pressure is stable;

Static pressure reducing: Flow is Zero and no user is using. Less than 10% for one year acc. UL static test

UL static pressure reducing test 365 days

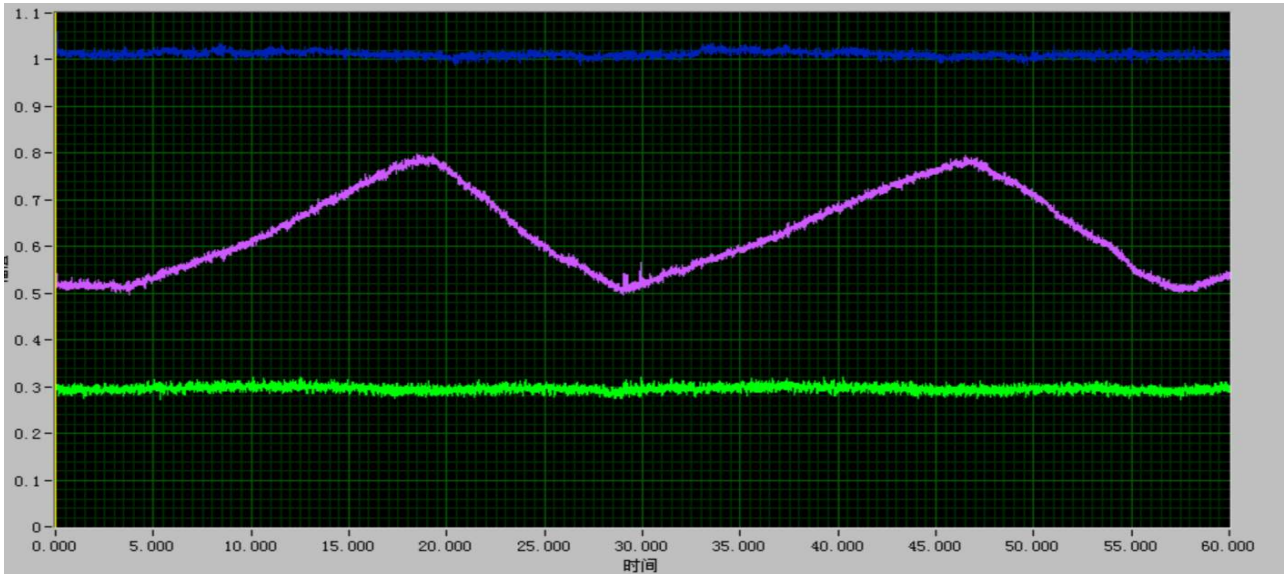
Installation Scheme

A. Shutoff valve
B. Strainer
C. PRV
D. Shutoff valve



ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.ти-системс.рф
Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

PRV Performance test



Blue curve：Flow is 1000L/min

Purple curve：Inlet pressure 5Bar-8Bar

Green curve：Outlet pressure as 3Bar

Sampling frequency:

Pressure is 1000Hz
Flow is 100Hz

Remarking：

1. From 4s-19s，Inlet pressure from 5Bar go up 8Bar, Outlet pressure is 2.9Bar-3.1Bar.

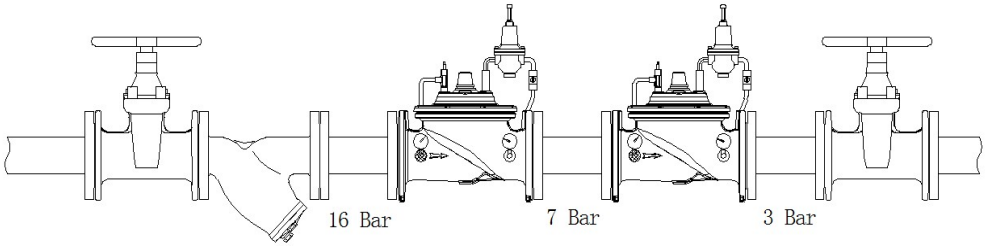
2. From 19s-29s，Inlet pressure from 8Bar go down 5Bar, Outlet pressure is 2.9Bar-3.1Bar.

3. From 29s-47s，Inlet pressure from 5Bar go up 8Bar, Outlet pressure is 2.9Bar-3.1Bar.

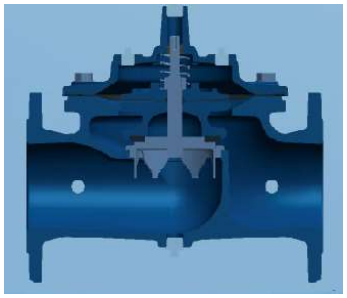
4. From 47s-58s，Inlet pressure from 8Bar go down 5Bar, Outlet pressure is 2.9Bar-3.1Bar.

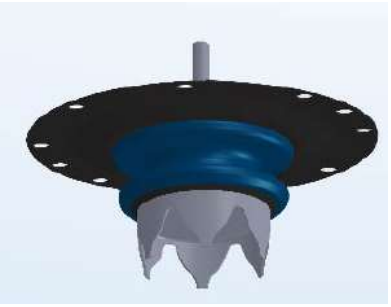
High times pressure reducing valve

Solution 1: two pcs pressure reducing valve inline



Solution 2: Reduce Bore+ U/V port according to Inlet pressure, Outlet pressure, Max. Flow and Min. Flow



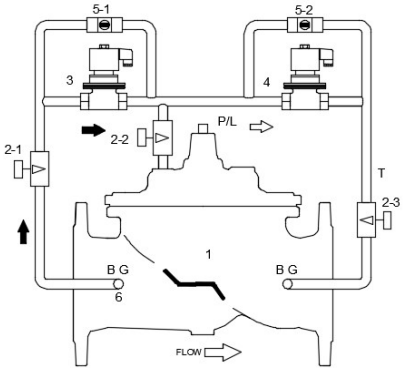


Notes:

Inlet pressure of the 1st PRV / Outlet pressure of the 1st PRV
= Outlet pressure of the 1st PRV / Outlet pressure of the 2nd PRV

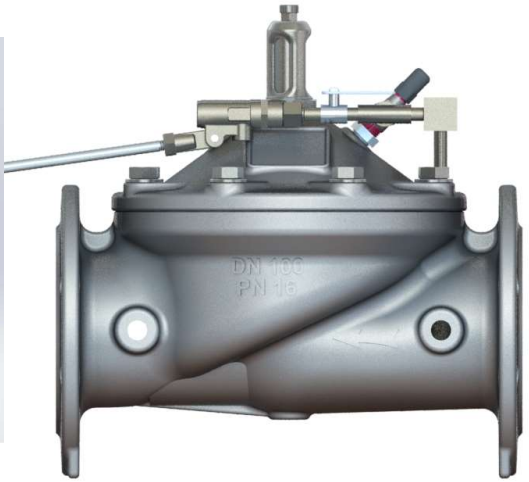
Dual stage pressure reducing valve

Pressure management valve



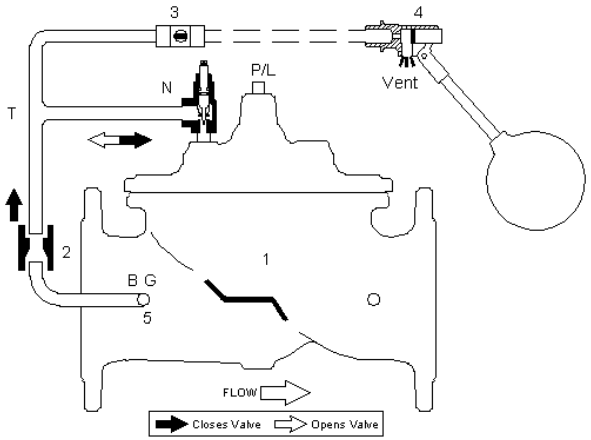
ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.ти-системс.рф
Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

K100 Float control valve



Standard supply

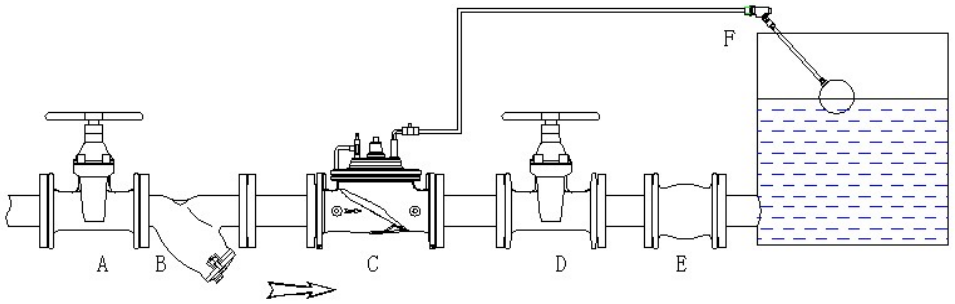
1. Main valve
2. Orifice
3. Ball valve
4. Float pilot
5. Inner strainer
6. Accelerator (DN250 and a

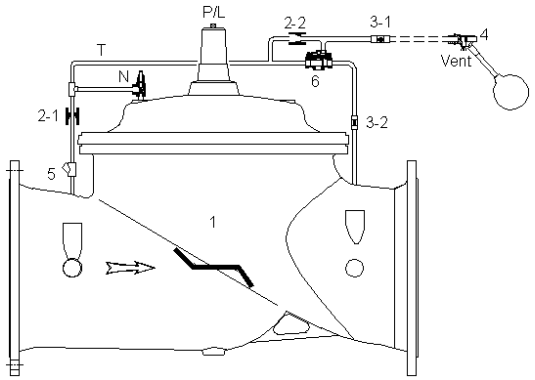


Control water level
Modulating or Non-Modulating
Bi-Level control

Installation

A. Shut off valve
B. Y strainer
C. Float control valve
D. Shut off valve
E. Soft joint
F. Float pilot



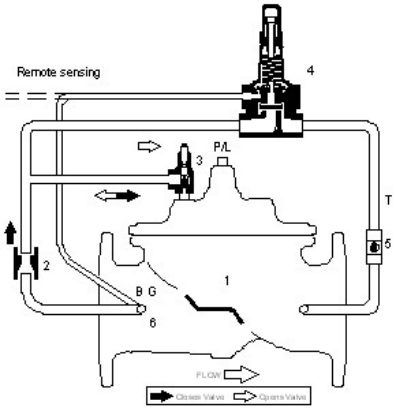


ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.ти-системс.рф
Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

K500 Pressure Release /Relief/ Sustaining valve(PSV)

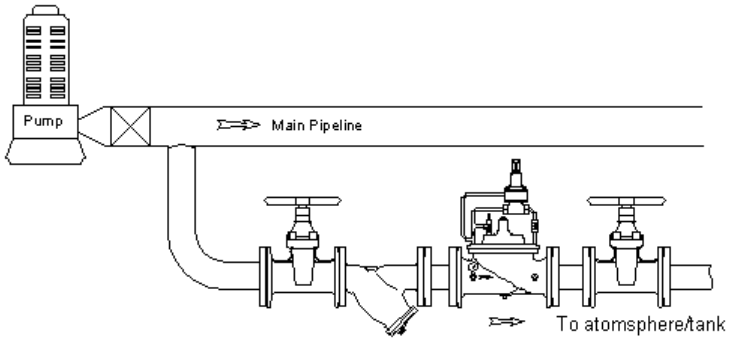
Standard Supply

1. Main valve
2. Orifice
3. Needle valve
4. Pilot
5. Ball valve
6. Inner strainer

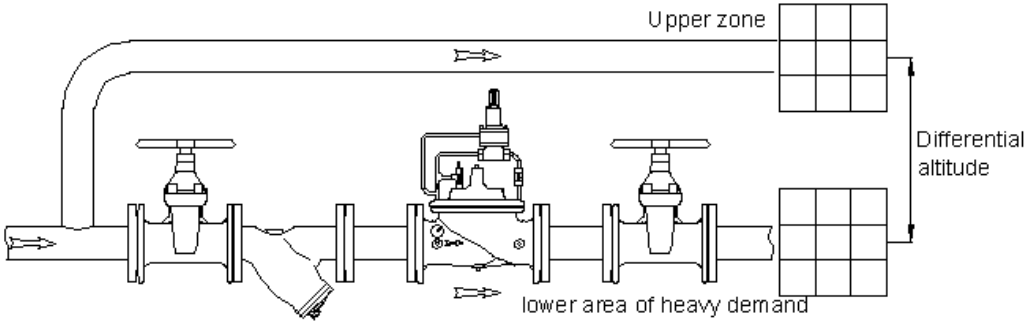


Keep the pressure as setting requirement in upstream

Pressure Release /Relief valve

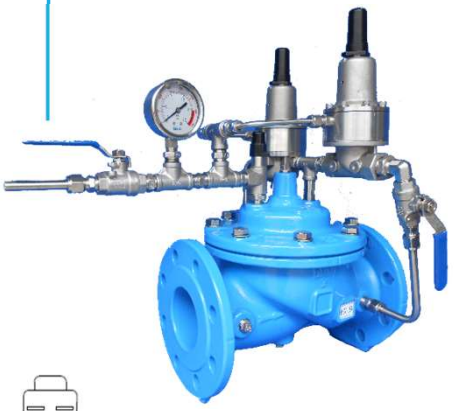


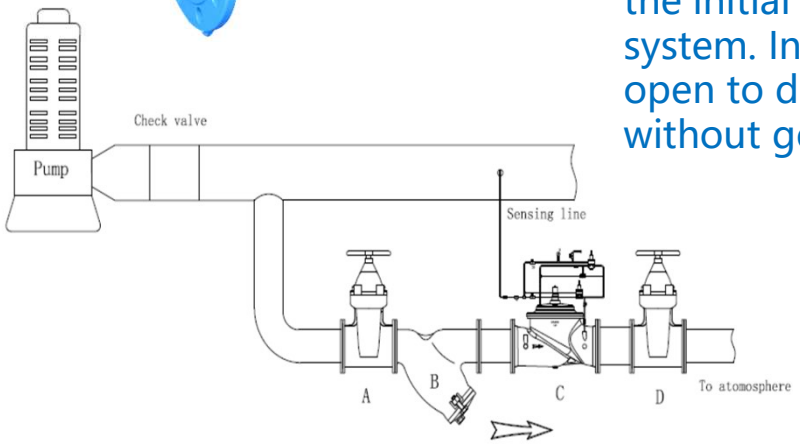
Pressure Sustaining valve



ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.ти-системс.рф
Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

K550 Surge Anticipation Valve



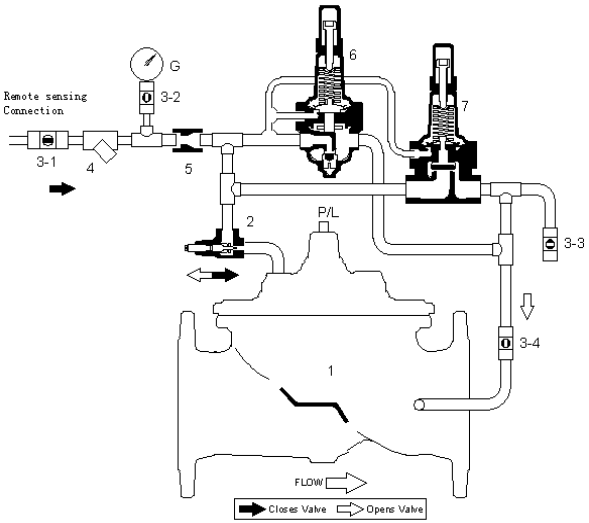


K550 Surge Anticipator Valve is indispensable for protecting pumps, pumping equipment and all applicable pipelines from dangerous pressure surges caused by rapid changes of flow velocity within a pipeline.

When pumping systems are started and stopped gradually, harmful surges do not occur. However, should a power failure take place, the abrupt stopping of the pump can cause dangerous surges in the system which could result in severe equipment damage. Power failure to a pump will usually result in a down surge in pressure, followed by an up surge in pressure. The surge control valve opens on the initial low pressure wave, diverting the returning high pressure wave from the system. In effect, the valve has anticipated the returning high pressure wave and is open to dissipate the damage causing surge. The valve will then close slowly without generating any further pressure surges.

A. Shut off valve
B. Strainer
C. Surge anticipation valve
D. Shut off valve

1. Main valve
2. Needle valve
3. High pressure relief pilot
4. Low pressure reducing pilot
5. Ball valve
6. Strainer



ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.ти-системс.рф
Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

Other control valve-Welcome your additional or new function requirement

Series Code	On-Off	Code	K100	K10B	K160	K1K0	K300	K600	K700		
		Products	Float control valve	Bi-Level float control valve	Float control valve + Solenoid	Altitude control valve	Check valve	Solenoid control valve	Pump control valve		
	Pressure control	Code	D200	K200	K260	K226	K500	K520	K550	K80B	
		Products	Direct pressure reducing valve	Pressure reducing valve	Pressure reducing valve + Solenoid	Dual stage pressure reducing valve	Pressure release/sustaining valve	Pressure sustaining and reducing valve	Surge anticipation valve	Different pressure valve	
	Flow control	Code	K400	K420	K90B						
		Products	Flow control valve	Flow and pressure reducing valve	Burst control valve						
	Code	K/F	1	2	3	4	5	6	7	P	SM
	Means	Water/ Fueling	Level control	Reducing	Check	Flow	Release	Solenoid	Pump control	Pilot	Smart
	Code	8	R	M	D	V/U	S3/S6	SD	AL	F	BR
	Means	Pressure different	Remote control	Manual	Deadman	V/U Port	304/316	Duplex	Aluminum	Fueling	Bronze

D200 Direct Acting Pressure Reducing Valve

Specification:
Size: 3/8″ --2″
Type: Direct Acting
Connection: NP/NPT
Material: SUS 304/316
Media: Pure water
Working temperature: 0-80 ºC
Pressure range: PN25

Design and test standard:
ASSE 3001 Water Pressure Reducing Valves for Domestic Water Distribution Systems
EN1567 Water pressure reducing valves and combination water reducing valves-Requirements and tests

Features:
•Balanced Design
•Bigger diaphragm and react more sensitive
•Special design “yoke” stem, avoiding block
•Install and operation in any position
•Easy installation and maintenance

Feature

The Model D200 Pressure Reducing Valve automatically reduces a higher inlet pressure to a steady lower downstream pressure, regardless of changing flow rate and/or varying inlet pressure.

This valve is an accurate regulator capable of holding downstream pressure to a re-determined limit. When downstream pressure exceeds the pressure setting , the valve close drip-tight.

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.ти-системс.рф
Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

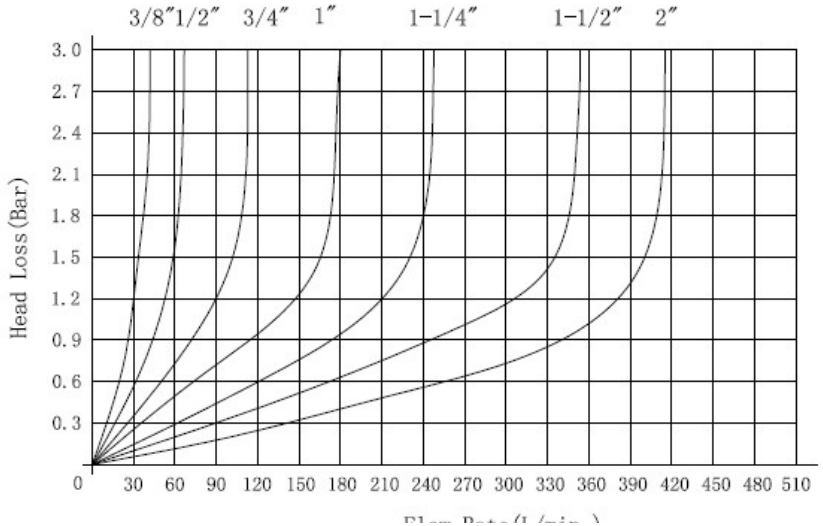
Why use a Direct Acting Pressure Reducing Valve D200

Because of growth, we are faced, more and more, with the challenge to protect our environment. Conserving our energy and water supply is one of the most important aspects of this global challenge. Since we can not increase our supply, we must re duce our consumption. After years of carelessness, we have finally recognized the need for a more responsible pattern of water use. Fortunately there is a simple solution to reducing consumption without changing our lifestyles.

D200 is an automatic control which is in stalled at the water meter in homes to reduce the city main pressure to a lower, more functional pres sure. When the water pressure is reduced, less water is used . If these saving were applied to a million homes, consider the impact this would have on our consumption goals.
D200 is equally effective for use in commercial buildings and irrigation systems.

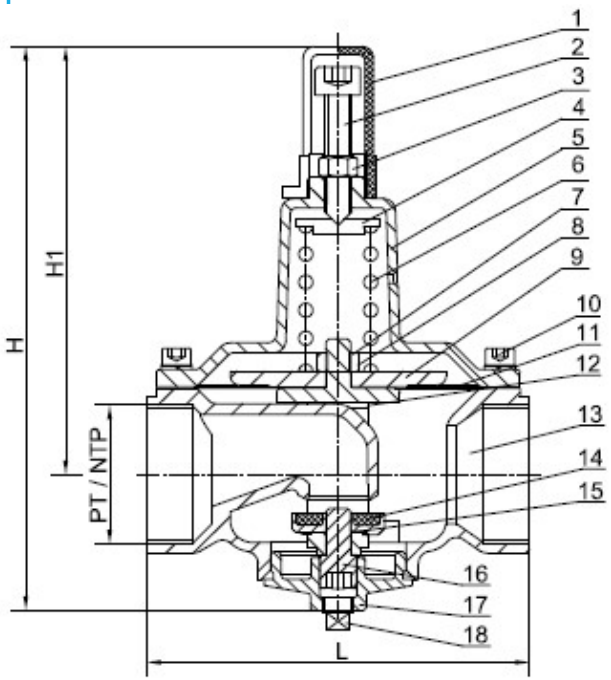
Not only is installing a D200 valve good for the environment, it saves money as well. Excessive water pressure can be harmful to a home plumbing system, causing damage to pipes, faucets, and appliances. Regulators increase the life span of dish washers and water heaters and reduce the noise of banging pipes caused by the “water hammer” effect.

Flow cure and Size selection



ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.ти-системс.рф
Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
Эл. почта: info@tisys.ru info@tisys.kz info@tisys.by

Structure



Dimension				
Inch	DN	L	H	H1
3//8	10	80	175	133
1//2	15	97	168	128
3//4	20	100	178	135
1	25	106	183	139
1 1//4	32	112	188	143
1 1//2	40	124	190	144
2	50	170	216	164

		Material		
NO.	Part Name	□Standard	□Option 1	□Option 2
1	Cap	ABS		
2	Adjusting Screw	SUS304	SUS316	SUS316L
3	Jam Nut	A2	A4	
4	Spring guide	SUS304	SUS316	SUS316L
5	Bonnet	SUS304	SUS316	SUS316L
6	Spring	Cr-VA		
7	Nut	A2	A4	
8	Washer	A2	A4	
9	Fixing Holder	SUS304	SUS316	SUS316L
10	Screw	A2	A4	
11	Diaphragm	NBR+Nylon		
12	Yoke	SUS304	SUS316	SUS316L
13	Body	SUS304	SUS316	SUS316L
14	Disc	SUS304+EPDM	SUS316+EPDM	SUS316L+EPDM
15	O-Ring	NBR		
16	Spindle	SUS304	SUS316	SUS316L
17	Cover	SUS304	SUS316	SUS316L
18	Plug	SUS304	SUS316	SUS316L

Notice:
If want flange connection, then the flanges will be weld to both inlet and outlet of body