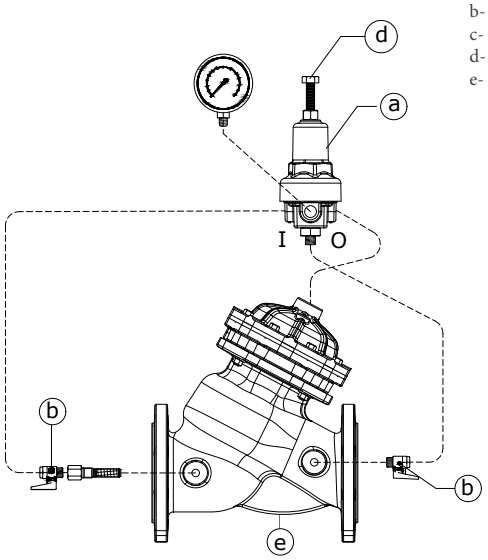
Pressure Stabilization Control Valve



Technical Drawing



a- Pressure Stabilization Pilot
b- Mini Ball Valve
c- Finger Filter
d- Adjustment Screw
e- Main Body

Product Description

BKV 116 Series pressure stabilizing control valves are designed to maintain a constant inlet pressure. When the system pressure exceeds the valve's set pressure, the valve opens, ensuring the inlet pressure remains constant. This prevents the pump motor from being overloaded and thus avoids pressure fluctuations during pump start-up. The valve continuously monitors and maintains the inlet pressure value without being affected by changes in flow rate. When there is no flow, the valve closes completely and leak-proof.

PRODUCTION STANDARDS

DN40 ⟹ DN500	
Pressure Range	1 bar ⟹ 16 bar
Connection	Flanged EN1092-2
Paint	Electrostatic Powder Coating
Temperature	-10 °C +80 °C

Features

- Preventing pump overload
- Cavitation protection.
- Classifying pressure zones according to their importance.
- Preventing pipeline emptying.
- Maintaining minimum pump flow rate
- Low cavitation risk.

Application Areas

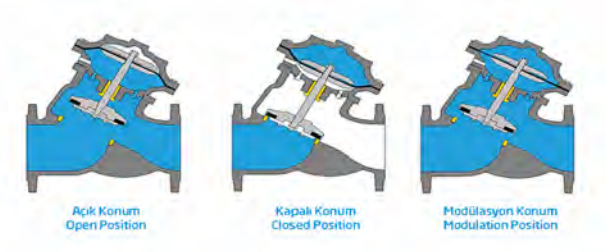
- Agricultural irrigation
- Fire extinguishing
- Industrial Applications
- Irrigation and Drinking Water Systems

Adjustment

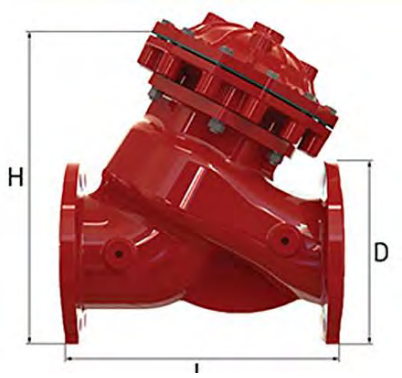
- Loosen the adjustment screw (d) on the pilot valve (a) completely.
- Flow water into the system.
- Adjust the inlet pressure using the adjustment screw (d) on the pilot valve until the desired pressure is reached.
- Tighten the adjustment screw until the valve opens.
- Tightening the adjustment screw increases the inlet pressure; turning it in the opposite direction decreases it.

Working Principle

- Closed position: The valve is closed by applying pressure to the diaphragm with fluid pressure.
- Open position: Internal line pressure moves the diaphragm upwards, allowing flow.
- Modulation position: The diaphragm remains in a fixed position by balancing the internal and external line pressures.



Nominal Diameter	1 1/2" DN40	2" DN50	2 1/2" DN65	3" DN80	4" DN100	5" DN125	6" DN150	8" DN200	10" DN250	12" DN300	14" DN350	16" DN400	18" DN450	20" DN500
Product Code	YF16BSV 40	YF16BSV 50	YF16BSV 65	YF16BSV 80	YF16BSV 100	YF16BSV 125	YF16BSV 150	YF16BSV 200	YF16BSV 250	YF16BSV 300	YF16BSV 350	YF16BSV 400	YF16BSV 450	YF16BSV 500



Recommended Work Values

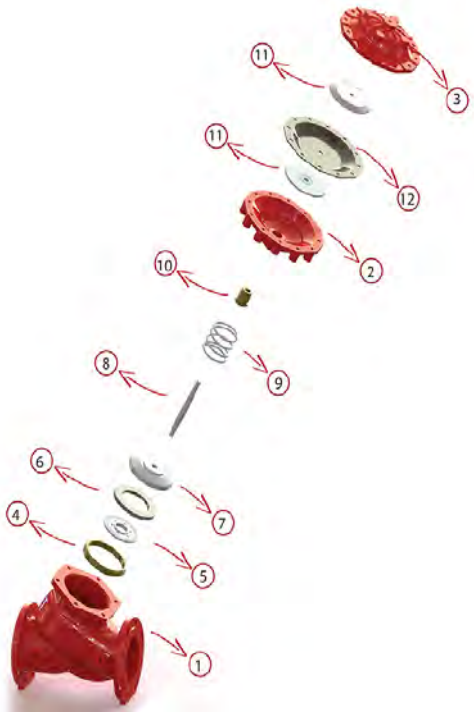
Working Pressure	Standart	1-16 bar (10-240 psi)
Temperature	Min.Operating Temperature	-10°C
	Max.Operating Temperature	+80°C
Connection	Flanged	EN 1092-2 ISO 7005-2
	Threaded	ISO (BSP) – ANSI (NPT)
Paint Coating	Standard	Polyester
	Optional	Epoxy

Y-Type Control Valve Size and Weight Chart

DN		L		D		H		WEIGHT	
inch	mm	inch	mm	inch	mm	inch	mm	lbs	kg
1 ½"	40	8,5	215	5,9	150	10,6	270	33	15
2"	50	8,7	220	6,5	165	10,6	270	35	16
2 ½"	65	8,7	220	7,3	185	11,2	285	39	18
3"	80	10,60	270	7,9	200	13,4	340	59	27
4"	100	12,80	325	8,7	220	15,4	390	85	39
5"	125	13,20	335	9,8	250	16,5	420	97	44
6"	150	16,93	430	11,2	285	20,5	520	200	91
8"	200	21,26	540	13,4	340	26,0	660	399	181
10"	250	24,60	625	15,9	405	30,5	775	590	268
12"	300	26,97	685	18,3	465	31,9	810	661	300
14"	350	34,3	870	20,5	520	41,9	1065	1569	712
16"	400	34,3	870	23,0	585	43,1	1095	1598	725
18"	450	43,9	1115	56,3	1430	53,7	1365	3042	1380
20"	500	43,9	1115	56,3	1430	53,7	1365	3086	1400

NOTE: Weight and valve height (h) do not include accessories.

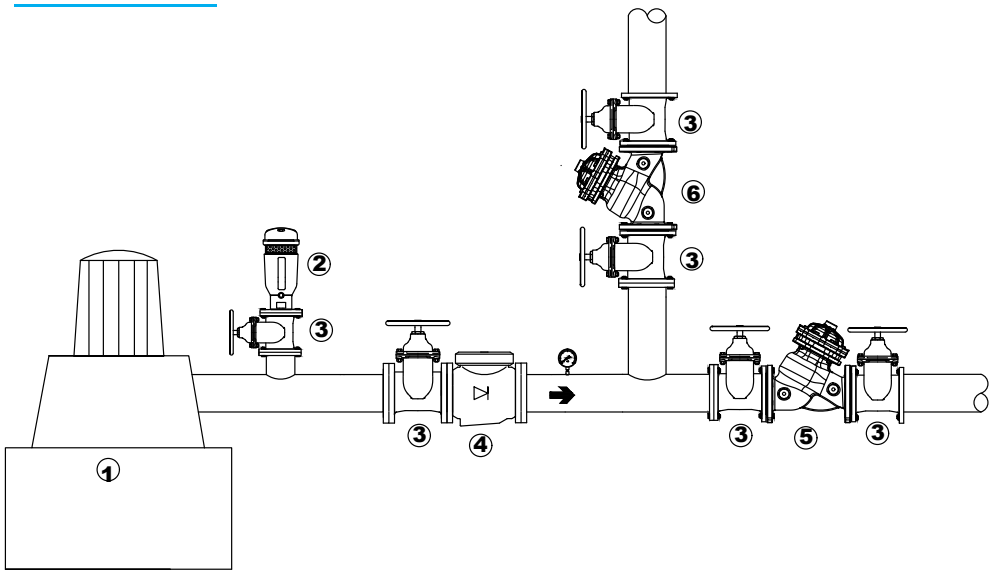
Main Parts



1	Body	GGG40 (EN-GJS 400-15) cast iron
2	Intermediate Body	GGG40 (EN-GJS 400-15) cast iron
3	Lid	GGG40 (EN-GJS 400-15) cast iron
4	Leakproof	Brass/bronze
5	Flap press	Stainless
6	Flap seal	Buna-N
7	Flap	Stainless
8	Shaft	Stainless
9	Spring	Stainless
10	Intermediate Body Shaft	Brass/bronze
11	Diaphragm press disc	Stainless
12	Diafragm	Nopren (Nylon based

Maximum Working Pressure		Leakage Test Pressure		Body Test Pressure	
BAR	PSI	BAR	PSI	BAR	PSI
10	145	11	160	15	217
16	232	17,6	255	24	348
25	363	27,5	399	37,5	544

Example Application

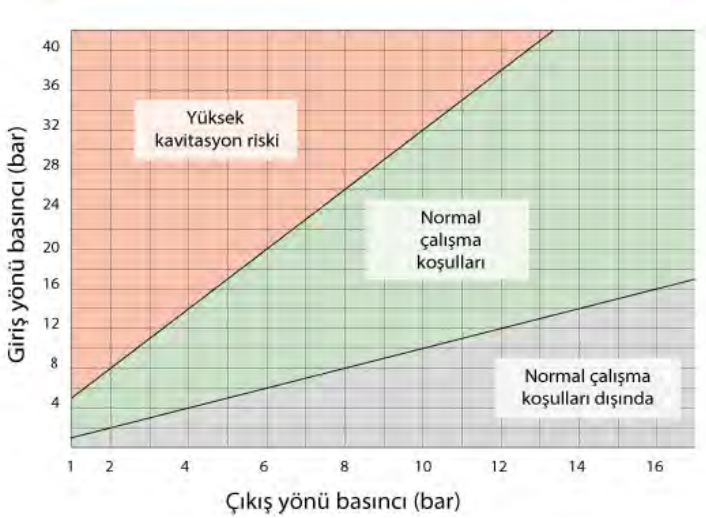


1- Pump
2- Air Vent
3- Isolation Valve
4- Check Valve
5- Pressure Stabilization Control Valve

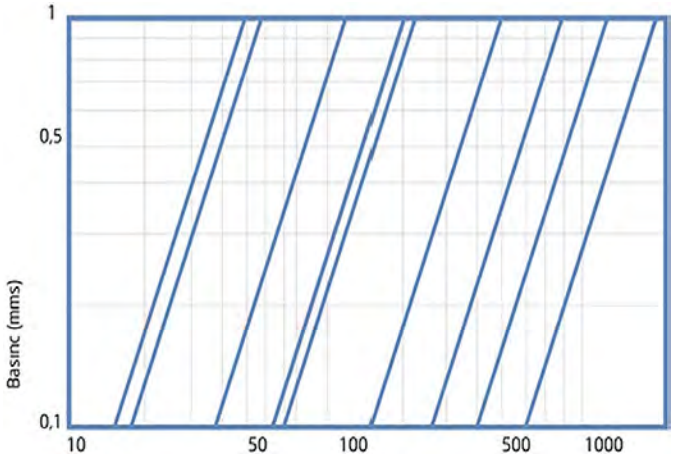
Flow Analysis Table

Nominal Diameter	mm	50	65	80	100	125	150	200	250	300	350	400	450	500
	İnch	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"
kv	m³/h- 1 ar	70	73	167	215	224	503	830	1300	1800				
		44	46	96	168	171	388	685	1054	1565				

Cavitation Graph



Pressure Loss Graph



Flow
(m3/h)