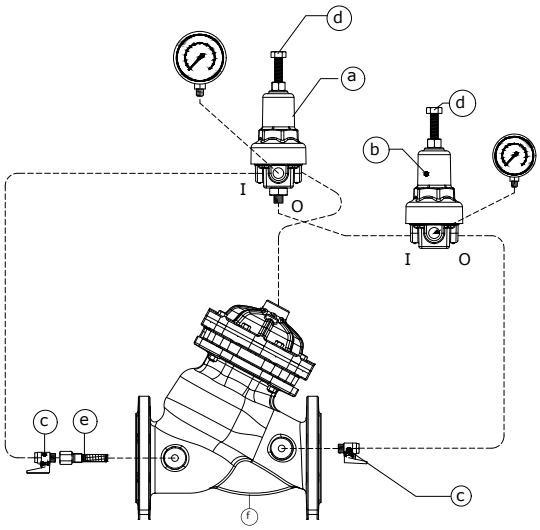
Pressure Stabilization Pressure Reducing Control Valve



Technical Drawing



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

Product Description

The BKV 116 Series pressure stabilizing and pressure reducing control valves are control valves that stabilize the inlet pressure and reduce the outlet pressure to the desired value. The valve has two pilot mechanisms. The first pilot mechanism is the pressure stabilizing mechanism, which stabilizes the valve inlet pressure, while the other pilot mechanism is the pressure reducing pilot mechanism, which reduces the outlet pressure to the desired value and keeps it constant. Pressure stabilizing and pressure reducing control valves regulate excessive flow and high pressure in pumping systems that pump from top to bottom or bottom to top, ensuring the system operates at normal values. The valve continuously monitors and maintains the inlet and outlet pressure values regardless of fluctuating flow or variable fluid pressure.

Production Standards

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

Features

- Operates over a wide flow range.
- Low pressure losses thanks to its Y-type body.
- The valve can be connected symmetrically thanks to the connection holes on the body.
- Maintenance can be performed without removing it from the pipeline.
- Paint: Epoxy Oven Paint
- Low cavitation risk.

Application Areas

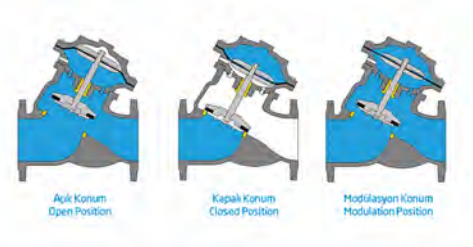
- Agricultural irrigation
- Fire extinguishing
- Industrial applications
- Irrigation and drinking water systems

Adjustment

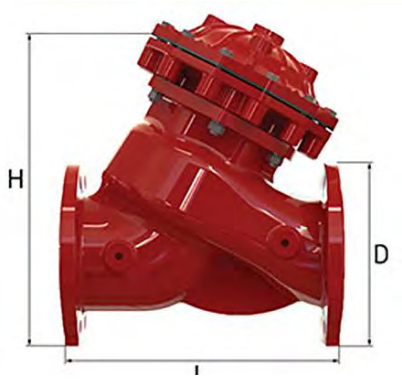
- Start the pump or open the main valve on the network to supply water to the system.
- Adjust the inlet pressure by checking the pressure gauge and using the adjustment bolt on the pressure stabilizing pilot valve indicated by "a".
- After determining the adjustment point, tighten the lock nut.
- Adjust the outlet pressure by checking the pressure gauge and using the adjustment bolt on the pressure reducing pilot valve indicated by "b".
- Close the ball valve "c" at the outlet to see the outlet pressure value.

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.



Anma Çapı	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
Ürün Kodu	YF16BSBD 40	YF16BSBD 50	YF16BSBD 65	YF16BSBD 80	YF16BSBD 100	YF16BSBD 125	YF16BSBD 150	YF16BSBD 200	YF16BSBD 250	YF16BSBD 300	YF16BSBD 350	YF16BSBD 400	YF16BSBD 450	YF16BSBD 500



Recommended Work Values

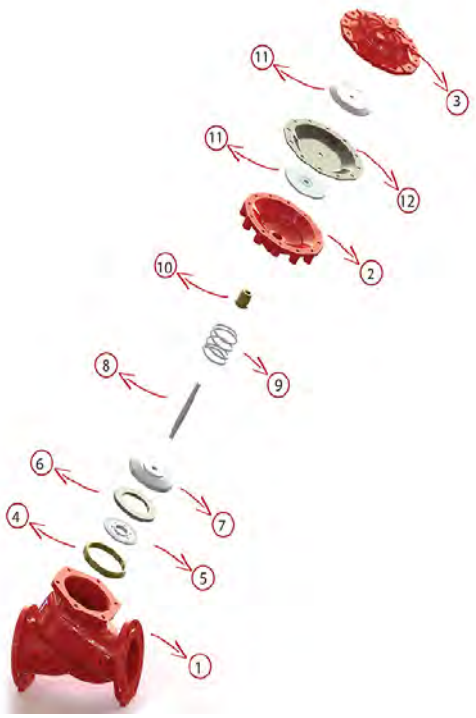
Working Pressure	Standard	1-16 bar (10-240 psi)
Temperature	Min.Working temperature	-10°C
	Max.Working temperature	+80°C
Connection	Flanged	EN 1092-2 ISO 7005-2
	Threaded	ISO (BSP) – ANSI (NPT)
Paint Coating	Standard	Polyester
	Optional	Epoxy

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.

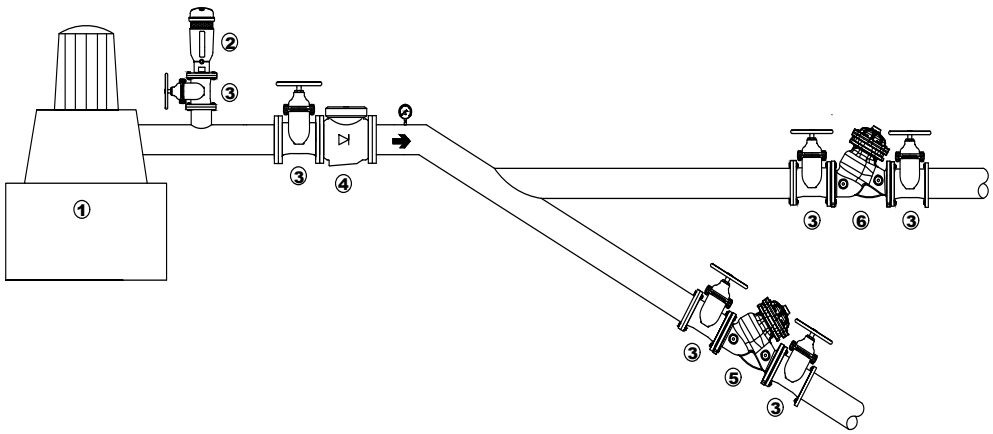
Main Parts



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	Klape Contası	Buna-N
7	Flap seal	Stainless
8	Shaft	Stainless
9	Spring	Stainless
10	Intermediate Body Shaft	Brass/Bronze
11	Diaphragm Pressing Disc	Stainless
12	Diaphragm	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

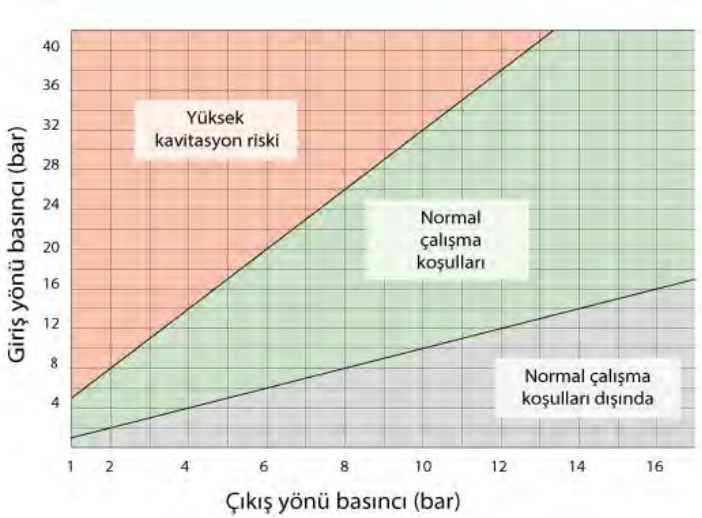


1- Pump
2- Air Vent
3- Isolation Valve
4- Check Valve
5- Pressure Stabilization Pressure Reducer
6- Pressure Reducing Control Valve

Flow Analysis Table

Anma Çapı	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

