



Product Description

The BKV 116 Series Pressure Reducing Valve is designed to adjust the inlet pressure to the desired outlet pressure. Y-type pressure reducing valves offer a wide flow range while minimizing pressure loss. The valve's pressure regulator reduces the pressure to the desired level, ensuring smooth fluid transfer. Pressure adjustment in Y-type valves is done with a single adjustment screw.

When the outlet pressure exceeds the set pressure, the control valve closes drip-tight. The control system is highly sensitive to slight pressure changes and instantly controls the main valve to maintain the desired outlet pressure.

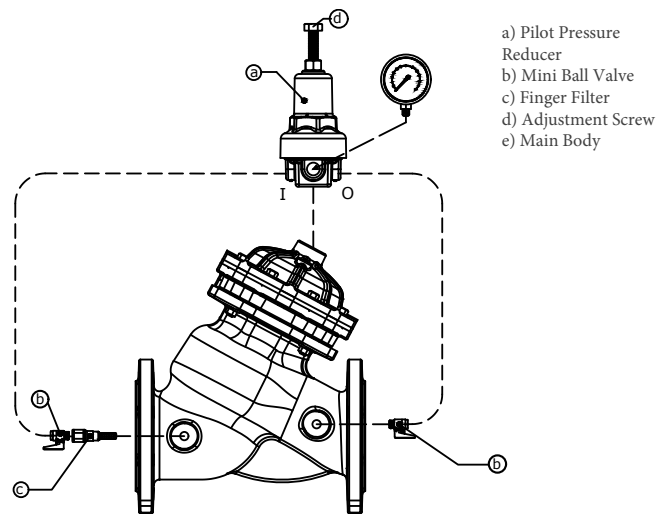
Features

- The diameter of the pressure reducing valve must be the same as the line diameter.
- During product ordering, information regarding maximum flow rate, operating pressure, line diameter, connection type, maximum inlet pressure, and desired outlet pressure value should be provided.
- Horizontal and vertical mounting is possible.
- The outlet pressure is kept constant at the desired value without being affected by inlet pressure fluctuations.
- Provides low pressure loss and regular flow.
- Operates with the pressure in the network or line and does not require extra energy.
- It is not affected by pressure and flow rate changes in the system.
- Low cavitation risk.

Adjustment

- The mini ball valve at the outlet is closed, and the pilot valve bolt is turned clockwise.
- Once the desired pressure value is reached, the lock nut is tightened to secure it, and the mini valve is opened.

Technical Drawing



Production Standards

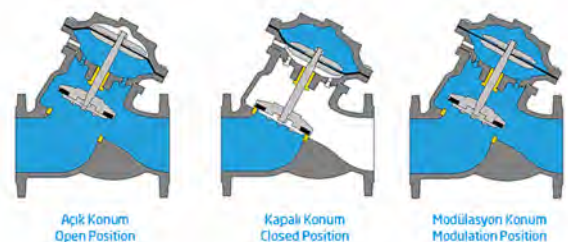
Production Standards DN40 $\Rightarrow$ DN500	
Pressure Range	0,7 bar $\Rightarrow$ 16 bar
Connection	Flanged EN1092-2
Colour	Electrostatic Powder Coating
Temperature	-10 °C +80 °C

Application Areas

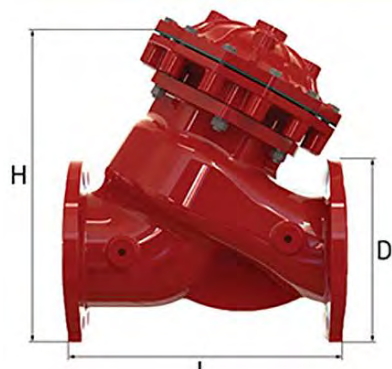
- Agricultural irrigation
- Fire extinguishing
- Industrial applications
- Irrigation and drinking water systems

Working Principle

- **Closed position:** The valve is closed by applying pressure to the diaphragm with fluid pressure.
- **Open position:** Flow is provided by the internal line pressure moving the diaphragm upwards.
- **Modulation position:** The diaphragm remains in a fixed position by balancing the internal and external line pressures.

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Pressure Reducing Control Valve



Recommended Work Values

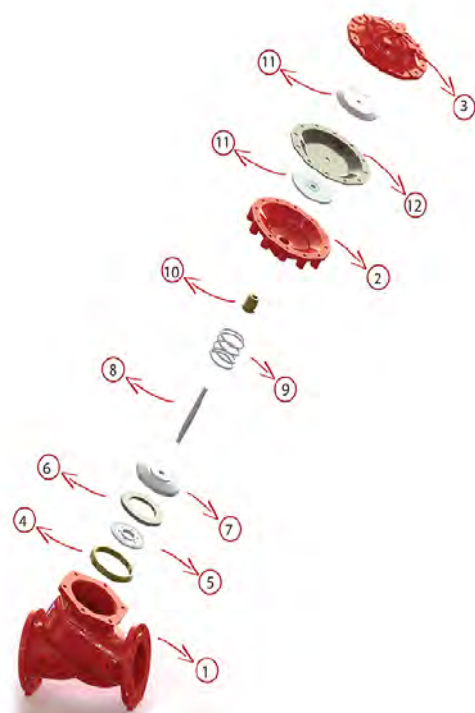
Working Pressure	Standard	1-16 bar (10-240 psi)
Temperature	Min. Operating Temperature	-10°C
	Max. Operating Temperature	+80°C
Connections	Flanged	EN 1092-2 ISO 7005-2
	Threaded	ISO (BSP) - ANSI (NPT)
Paint Coating	Standard	Polyester
	Opsiyonel	Epoksi

Y-Type Control Valve Size and Weight Chart

DN		L		D		H		WEIGHT	
inch	mm	inch	mm	inch	mm	inch	mm	lbs	kg
1 1/2"	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 1/2"	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.

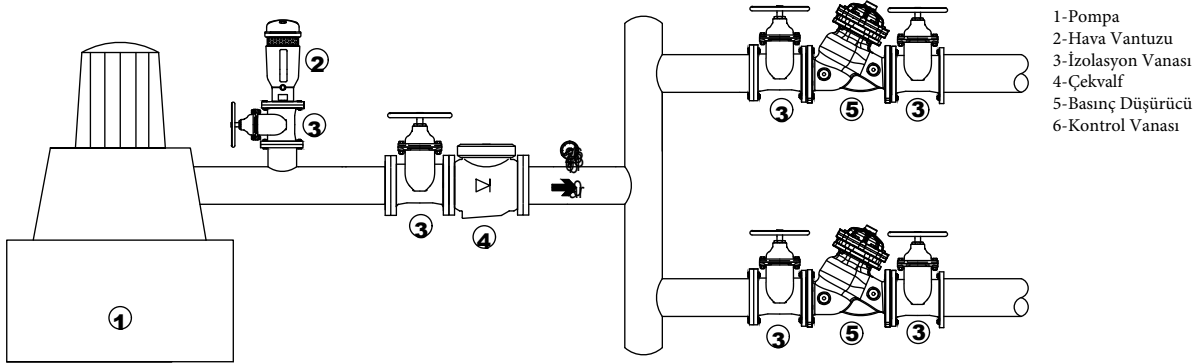
Main Parts



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	Pressing the flap	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	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

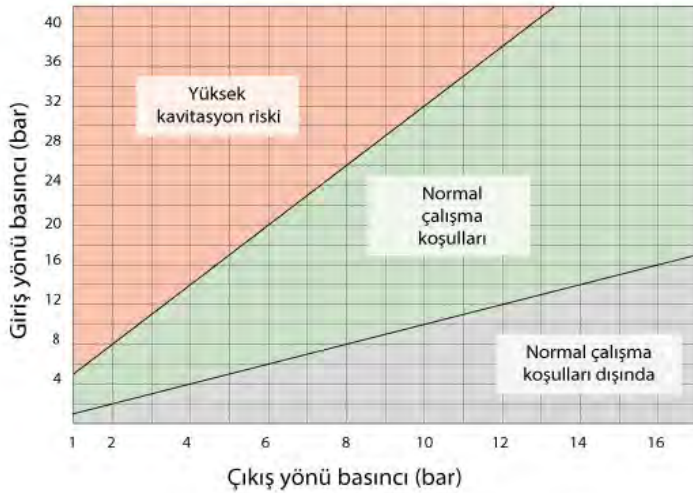
Example Application



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	m ³ /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

