

Design Attributes

The Butterfly Check Valves are double centric disc valves designed for extremely smooth operation in sewage and water distribution networks. Valves are of single flow path design to prevent back flow. The disc is freely oscillating (tilting type) and incorporates a rubber seal to ensure a full tightness. The body seat ring is made of stainless steel with a resilient insert. Valves are easy to operate and commission thanks to its light construction design of short length and can be installed either horizontally or vertically with down upwards or downwards flow direction (see Operating and Maintenance Manual for proper advice).

Operation Performance

Thanks to the counter weight, the valves are very reliable and can perform a smooth closing of the valve. The purpose of the counter weight is minimizing the eventual water hammer phenomena thanks to a slow closing, which is even increased by the assistance of the oil hydraulic damper. The hydraulic damping device is of very compact design and well proven in terms of ease of maintenance, adjustability, and functionality. The damper regulates the slow closure of the valve in avoidance of noise and other undesirable hydraulic phenomena. On valves DN 900 and larger a dual assisted operating device is foreseen thus two counter weight levers and hydraulic dampers are assembled.



Construction Design

Double offset with double flange ends EN 1092-1, PN 10/ PN16/PN25; Face to face length EN 558-1 Series 14 (old DIN 3202 F4), Pressure Rating: PN 10-PN 16 (other upon request), Temperature Limits: -20°C .. +70°C, Maximal Allowable Working Pressure: 16 bar, Valves approved by 2014/68/EU Module A under Category I

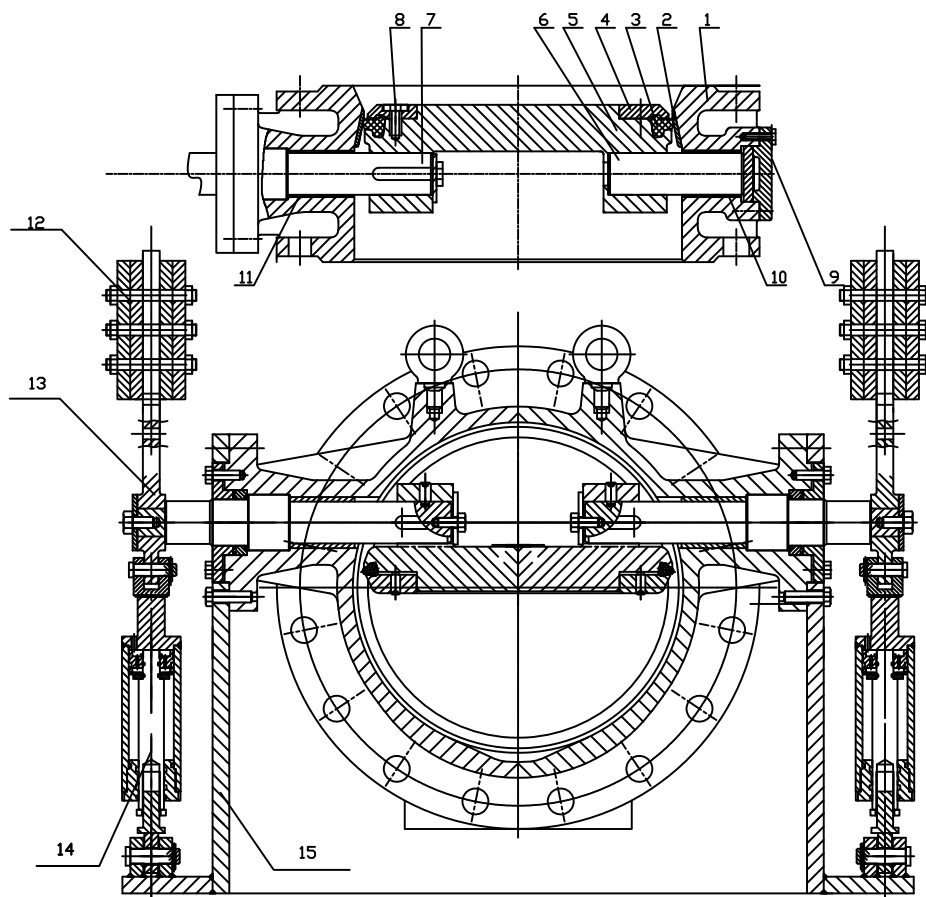
Application

Water Works: Dams, Irrigation Plants, Sewage and Drinking Water
Consult our engineering department for specific usage of the valves.

Attributes

- Double offset, smooth operation
- Non Slam and silent operation
- Anti-hammer device
- Full tightness thanks to resilient seating
- Internal and external FBE
- Any installation position
- Modular assisted closure device (counter weight and / or hydraulic damper)
- Proven flow performance, low pressure drop

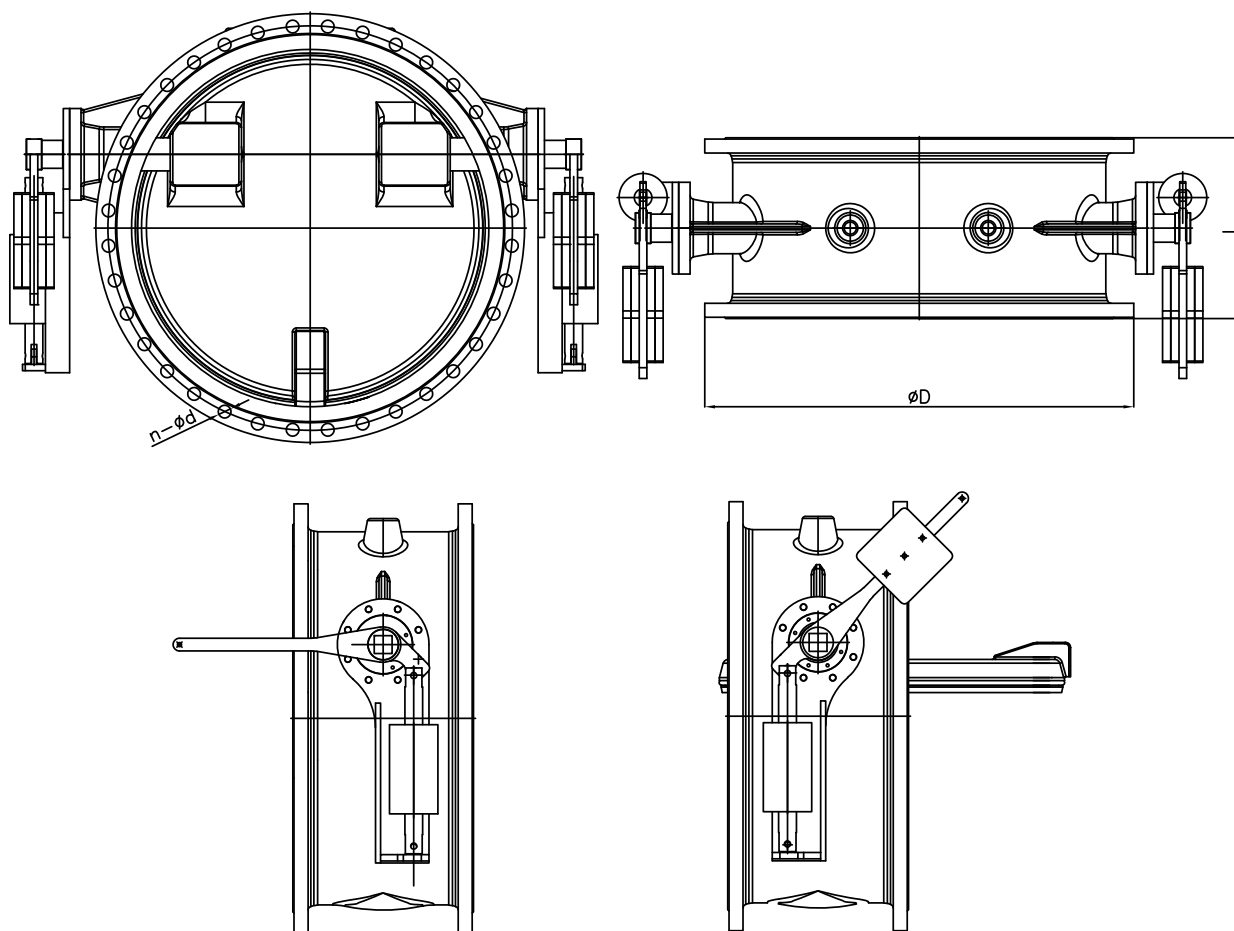
Main Valve Parts and Materials



Double counter weight levers and hydraulic dampers are assembled for DN900 and upwards

NO.	PART	MATERIAL
1	Body	Ductile iron EN-JS1050
2	Seat	Brass
3	Disc seat ring	7C_E EPDM
		7C_N NBR
4	Disc seat ring cover	SS304
5	Disc	Ductile iron EN-JS1050
6	Down shaft	SS410
7	Up shaft	SS410
8	Bolt	SS304
9	Shaft end cover	Ductile iron EN-JS1050
10	Down shaft bearing	Stainless steel with PTFE lining
11	Up shaft bearing	Stainless steel with PTFE lining
12	Balance weight	Cast iron EN-JL1040
13	Arm	Ductile iron EN-JS1050
14	Cylinder	Carbon steel
15	Yoke	Ductile iron EN-JS1050

Main Valve Dimensions



Double counter weight levers and hydraulic dampers are assembled for DN900 and upwards

DN	200	250	300	350	400	450	500	600
L	230	250	270	290	310	330	350	390
D	PN10	340	395	445	505	565	615	780
	PN16	340	405	460	520	580	640	840
	PN25	360	425	485	555	620	670	845
Weight	71	96	106	146	196.5	210	310	360

DN	700	800	900	1000	1200	1400	1600	1800
L	430	470	510	550	630	710	790	870
D	PN10	895	1015	1115	1230	1455	1675	2115
	PN16	910	1025	1125	1255	1485	1685	2130
	PN25	960	1085	1185	1320	1530	1755	2195
Weight	PN10-16	520	650	910	1200	2000	4820	7000
	PN25						5302	7700

Dimensions in mm subject to manufacturing tolerance / Weights in kg

Options

Double counter weight and hydraulic damper arrangement, higher ratings, prefabricated valve materials, other resilient sealing, stainless steel disc.