

C18 Quick Closing Check Valve

Product Description

DENZ C18 Quick Closing Check Valves main function is to protect the pumps against flow inversion. In case of sudden pump emergency stops, DENZ Quick Closing Check Valves reduces the pressure surges in the pipeline.

Check valves located on expansive supply networks and in the delivery lines of pumping stations must be frequently operated. According to statistics, when a significant pressure surge occurs, the installation of the wrong kind of valve is frequently to blame.

In the event of reversed flow, the valve will abruptly close if it does not react promptly, leading to:

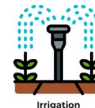
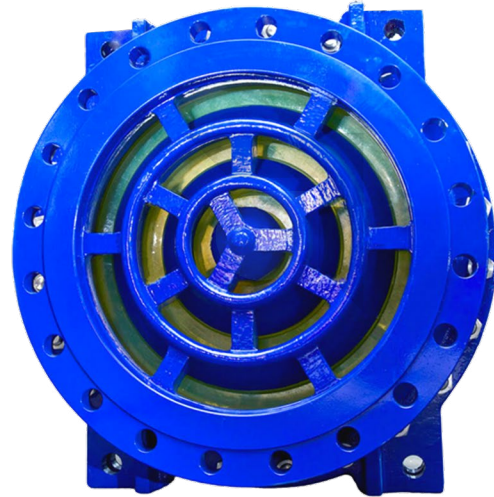
- A loud shock wave is when the disc slams into the seats.
- Pressure increases due to the formation of water hammer.

Shock waves and pressure surges put installation under stress, which could lead to mechanical breakdown of the pipeline and valve parts.

If a water tank that is pressured by air is added to the system, these issues are highlighted even more. In this instance, the flow in this small line that connects the tank and the pump reverses quite quickly. Therefore, to prevent severe damage, the valve must work even more quickly. To avoid all such cases DENZ C18 Quick Closing Check Valves specially designed to become a single solution to protect the systems.

Application Areas

- Sea Water Networks
- Water Treatment and Distribution System
- Desalination Plants
- General Industry
- Water Pumping Stations
- Chemical Industry
- HVAC applications



Production References

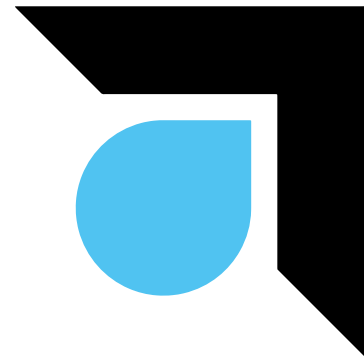
Size Range	DN200 - DN1600
Pressure Range	PN10/16/25/40
Temperature	EPDM: +80°C NBR: 60°C VITON: 120°C
Face to face	EN558 Series 14 / DIN 3202 F4
Design	EN12334
Connection	Flanged - EN1092-2
Coating	Electrostatic or thermoplastic powder coating
Testing	EN 12266-1
Marking	EN 19

Versions

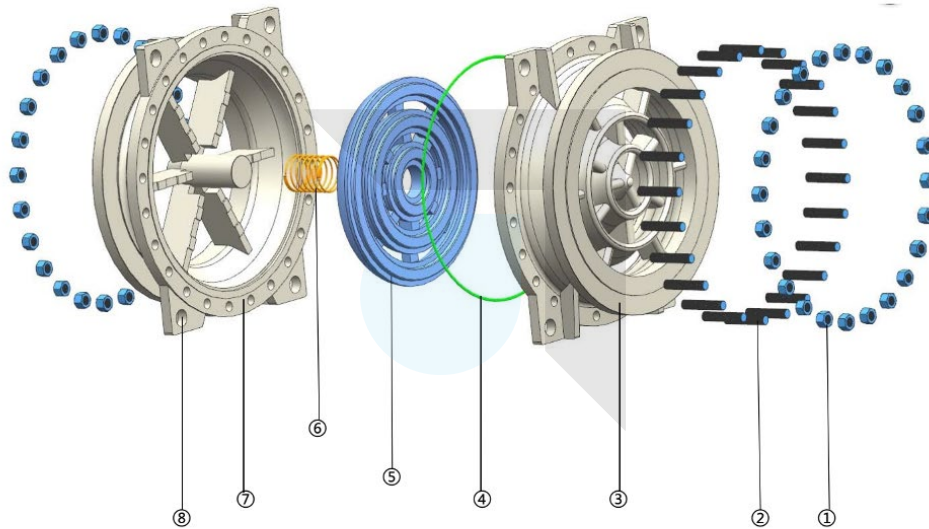
- Polyurethane disc chemically customizable
- Flanged as standard
- Wafer type is optional
- 2-piece body is optional

Product Features

- ENGJS500-7 Ductile iron body and bonnet for high strength and impact resistance.
- Partial opening is possible
- When a pump suddenly ceases operating, DENZ C18 Quick Closing Check Valve lessens pressure peaks in the pipe line.
- Silent Operation
- Non-Slam Check Valve
- Easy installation and maintenance
- Can be installed both vertical, horizontal and diagonal
- Very quick flow recovery
- Fraction of a second closing time (Dynamic Response)
- Avoids pressure Surges
- Perfect Disc sealing
- Excellent axial disc erosion resistance
- Corrosion free Axial Disc Material (Polyurethane)
- No upkeep necessary.
- No obturator wear (Automatic)
- No Grinding Surface
- No vibrations
- Stainless Steel Counter Spring
- Low opening pressure
- A sturdy and resilient body
- 100% of the valves are subjected to Hydrostatic tests according to EN 12266-1. Pressure for seat: PN x 1.1 , for shell: PN x 1.5



Material List



#	Part	Material
1	Bolts	Stainless Steel A2 / A4
2	Nuts	Stainless Steel A2 / A4
3	Upstream Body	Ductile Iron EN-GJS-400/500 (GGG40/50)
4	O-Rings	EPDM / NBR / VITON
5	Axial Disc	Polyurethane
6	Spring	Stainless Steel AISI 304
7	Backing Plate	Ductile Iron EN-GJS-400/500 (GGG40/50)
8	Lifting Lug	Ductile Iron EN-GJS-400/500 (GGG40/50)

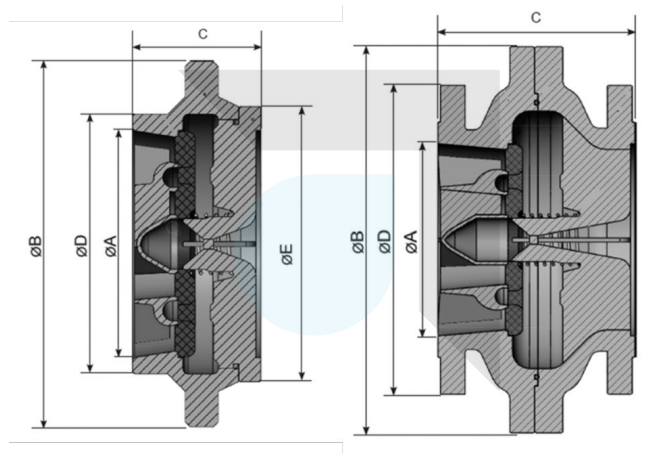
Dimensions

Flow coefficients (Kv, Cv)

Kv is the flow in m³/h of water, at an average temperature of 20 C Degrees, crossing the valve creating a headless of 1 bar.

DN	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
Kv	171	266	417	602	762	1186	1704	2312	3067	4003	4830	6937	13091	12171	21378	19319	38431

(Cv = 1,16 Kv)



DN	A	B	C	D	KG
600	615	920	435	930	550
700	715	1120	500	1130	875
800	820	1180	515	1190	1100
900	930	1480	710	1490	1600
1000	1030	1500	730	1510	2050
1200	1230	1890	900	1900	3400
1400	1430	2265	1120	2275	5400

Units: mm / indicative dimensions & weights

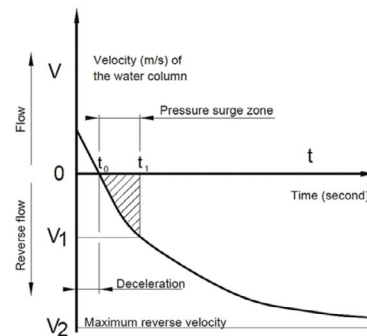


Figure 1 Fluid velocity towards time

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