



DUAL PLATE
CHECK VALVES





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2.5.1. Outer diameter: for flanges acc. UNE-EN 1092-1

2.5.2. Outer diameter: for flanges acc. ASME B16.5



1. General features

The main function of a check valve is to prevent fluids from flowing in the opposite direction to that required. When the flow direction is correct, the check valve stays open and when the fluid loses speed or pressure, the valve closes, thus preventing counter flow. The difference in pressure between the inlet and outlet is what makes the valve stay open or closed.

The DC valve is a wafer dual plate check valve who has to be mounted between flanges DIN, ANSI, JIS...

The gradual pressure of the springs into the plates is beneficial for a gradual opening of plates reducing at the same tin water hammer. This type of valve is not able to graduate its opening action by springs. We must considered always section 2.1 “springs” as reference values.

The DC-type valve plates are fully vulcanised on the side on which the fluid goes in, which ensures they are completely sealed and last longer.

Two types of mechanical stops are used in the construction of these valves, at their opening, which increase the duration of the plates and prevents either of them from passing over to the other side when the fluid flows back.

These mechanical stops can be cast into the body itself, depending on the materials and measurements, or they can be made using stainless steel rods. (See point 2.2.).

1.1. EC Directives

The DC-type check valves comply with the following Directives:

1. Machines Directive: DIR 2006/42/CE

2. Pressure Equipment Directive (PED): DIR 2014/68/EU

The DC-type check valve for standard materials and pressures, meet the requirements of the European Directive 2014/68/EU on Pressure Equipment.

It is customer’s responsibility to inform about maximum working conditions and type of fluid.

For further information please contact our technical department.

3. Directive concerning Equipment and Protective Systems intended for Use in Potentially Explosive Atmospheres (ATEX): DIR 2014/34/EU

The DC-type check valve have been submitted to an evaluation procedure according to the requirements of the Directive 2014/34/EU for use in potentially explosive atmospheres, been outside of the scope of the Directive.

So that, these valves are suitable for ATEX zones.



1.2. Applications

The DC valve is a non-return valve.

Pumping of fluids in general.

In low pressure compressors.

In fire prevention networks.

In pumping stations and clean water distribution networks, irrigation systems (filtered water), etc...

Warning. Is user responsibility to verify the compatibility of the fluid in the service conditions with the valve construction materials.

1.3. Installation and service instructions

1.3.1. Storage and handling

The valves must be stored at a temperature of between 0°C and 30°C in a clean, dry place to prevent any possible deterioration of the vulcanised plates.

Try to avoid using the valve's central shaft when handling. If this is the only way, hang the valve by the ends of the shaft, never by the centre. For measurements above DN 150 the valve is supplied with a lifting eyebolt to facilitate handling.

1.3.2. Flow direction and position

Given its versatility, the DC-type valve can be perfectly applied in most installations, both in vertical and horizontal piping, with rising or falling flows. (1.2.4.).

In the case of vertical piping and falling flow, please check with manufacturer.

As manufacturers, we recommend you always take into account the level of pressure, flow direction and appropriate placement of the valve to ensure optimum performance. For this reason, the HERBE S.L. technical department will study any particular features of the installation in question to, as far as possible, advise on the suitability of the valve in certain conditions.

1.3.3. Assembly

Preparation

Before mounting the valve on to the pipe, check to make sure that it has not suffered any damage during transport or storage. Also make sure that the interior of the body is clean, particularly in the seat area.

Check that both the flanges and the flange seals are the most suitable in each case. Incorrect positioning can cause deformations, making it difficult to work properly or even stopping it altogether. Check that the pipe's inner diameter is not lower than the valve's DN.

Fixing to the pipe

Clean any remains of dust, rust or dirt that may have accumulated in the connections between the valve and the pipe.

Check the flow direction. The valve must be installed with the flow arrow (marked on the body) pointing in the direction of the flow.

The flange screws should be tightened crosswise and gradually. We recommend you check and retighten after the valve has been in operation for a short period of time.

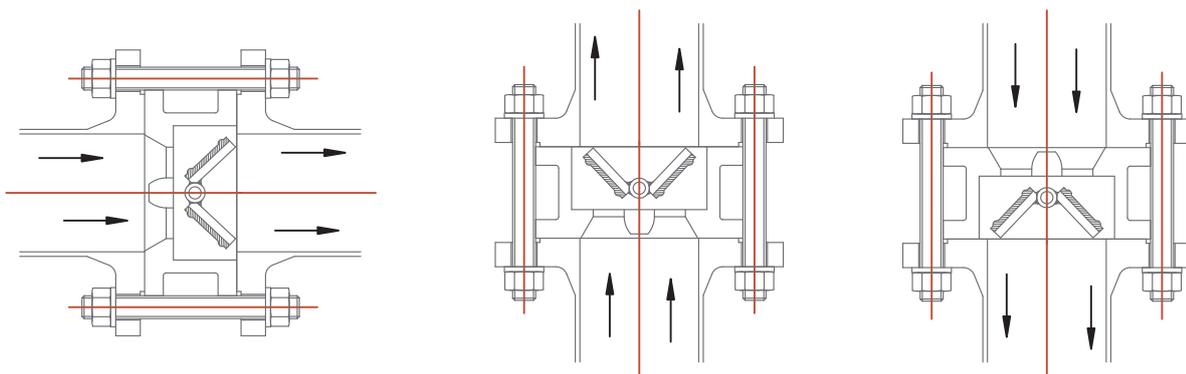
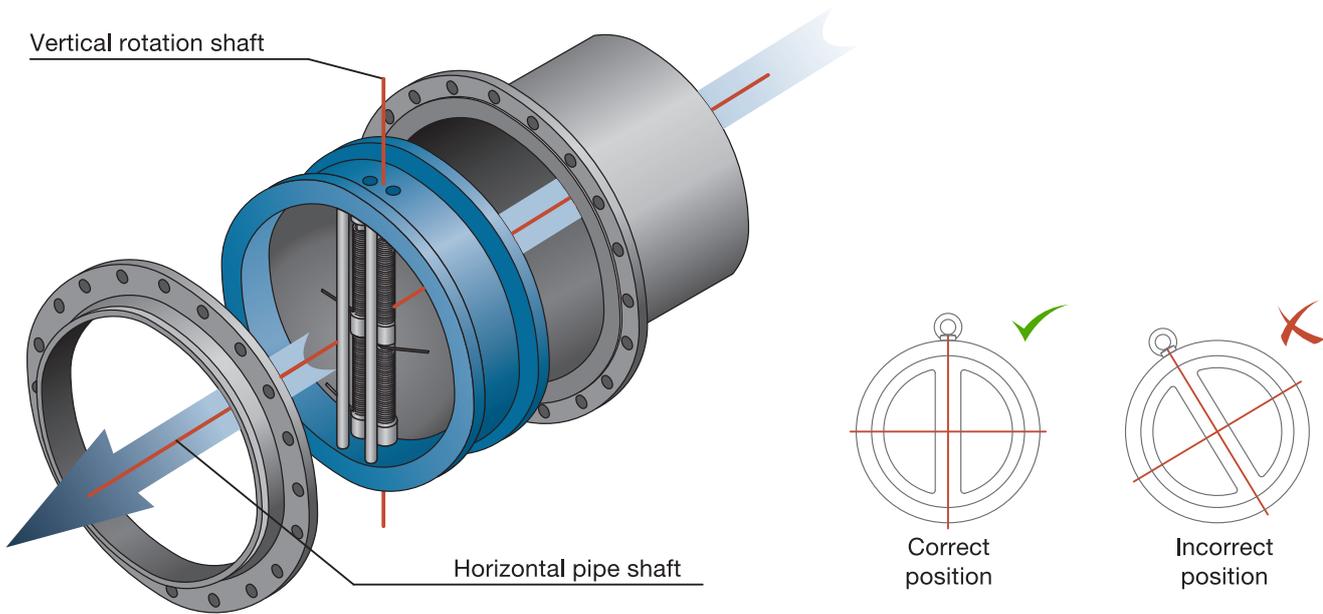


DUAL PLATE CHECK VALVES

1.3. Installation and service instructions

1.3.4. Installation positions

The valve can be installed in horizontal or vertical piping. In the case of a horizontal pipe, the valve shaft should be perpendicular to the horizontal plane.



*In vertical pipes, the flow direction should be upwards. For assembly in a downwards direction or in other positions, please check with our technical department first.

The manufacturer reserves the right to make modifications without prior notice.

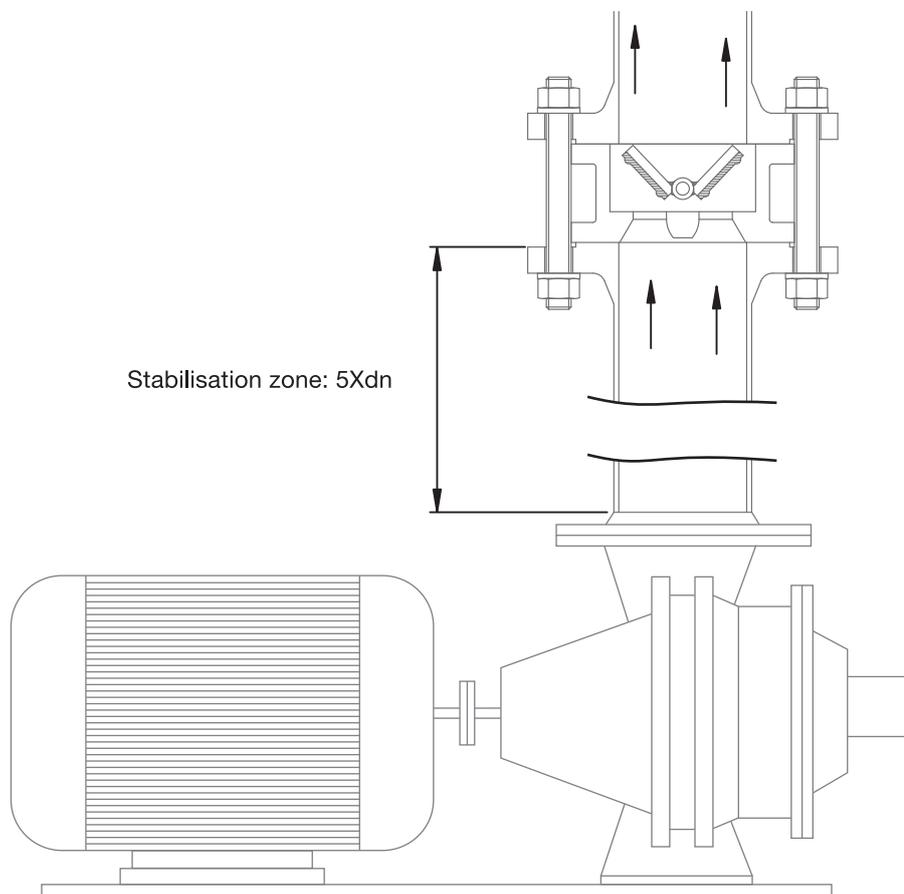
1.3. Installation and service instructions

1.3.4. Installation positions

The installation of the check valves at the elbows, reductions and pumps outlet, etc, means that the fluid entering the valve generates turbulence, causing possible damage to the valve's internal elements. The phenomenon of cavitation can also be caused, accelerating the corrosion or damages in the affected zones.

To prevent these problems, the valves must be installed as shown in the figure, ensuring a laminar flow and avoiding turbulences and cavitation.

If it is not possible to follow these recommendations, make sure that the fluid is stable on entering the valve. This will lead to the valve's improved performance and longer life.



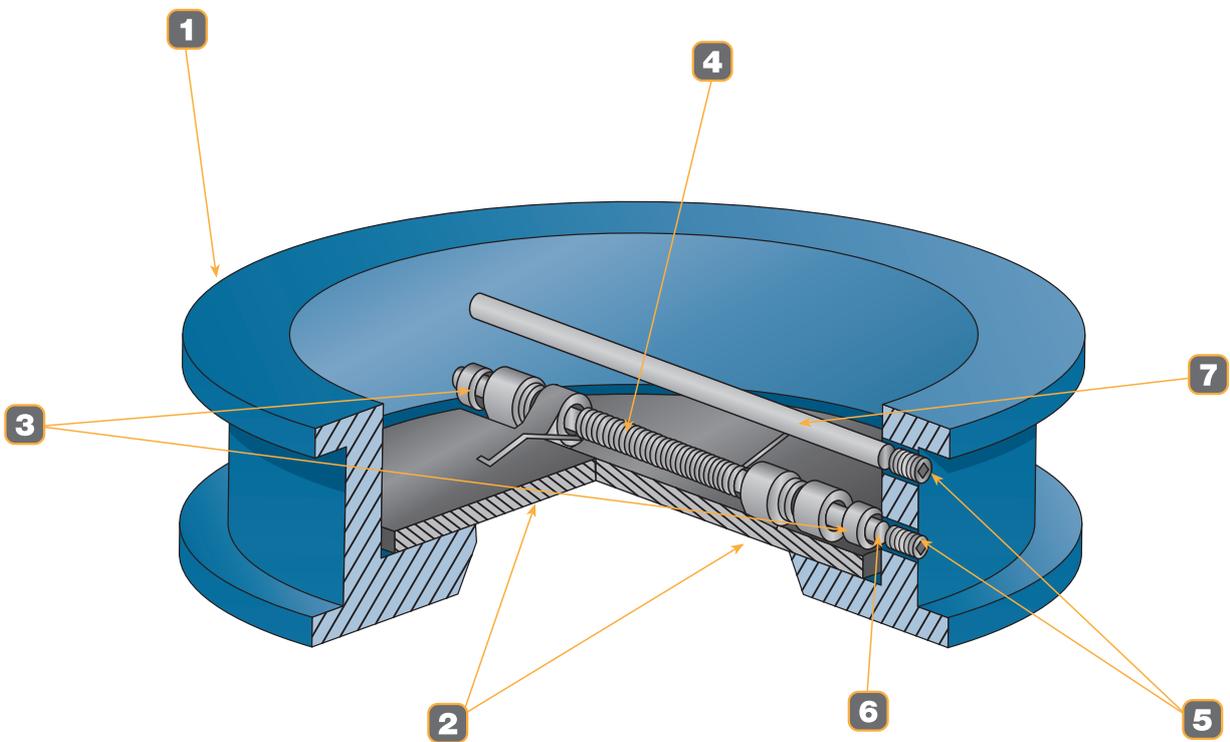
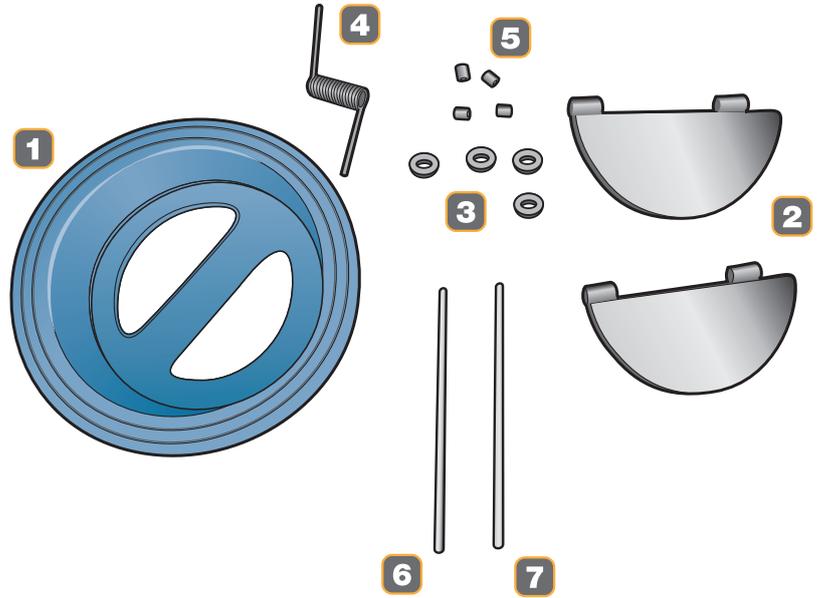
When a butterfly valve is fitted close to a dual plate check valve, make sure that the distance between the two valves is sufficient to prevent the check valve plates from getting in the way of the butterfly valve disc when open.

Do not place these valves in installations where there is pumping with pulses. These pumping systems lead to early deterioration of the valve's internal elements and to poor performance.

1.4. Maintenance

1.4.1. Dismantling and re-assembly of the valve to replace spare parts

- 1** Body
- 2** Plates
- 3** Washers
- 4** Spring
- 5** Set screw
- 6** Shaft
- 7** Stop/stop rod

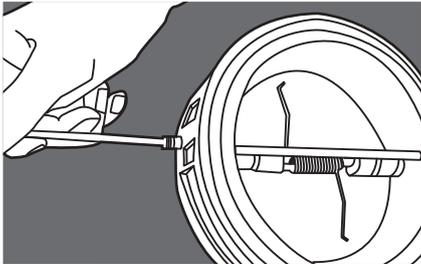


The manufacturer reserves the right to make modifications without prior notice.

Warning 

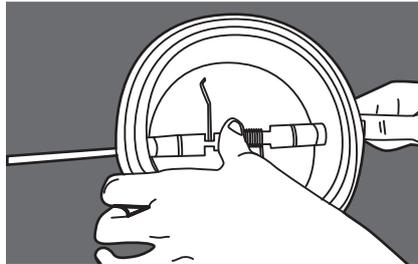
Required use of working safety items specially gloves and glasses

Dismantling



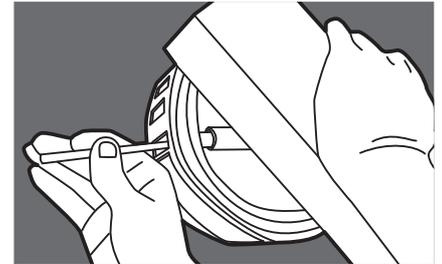
A

Dismantling the valve.
Loosen the set screws (5) to be able to remove the stop rod (7)* and the shafts (6).
*On certain models only.



B

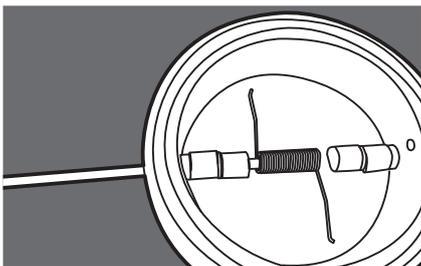
Insert a rod or screwdriver to move the shaft (6) enough to be able to remove it from the other side, but without passing entirely through the spring (4).



C

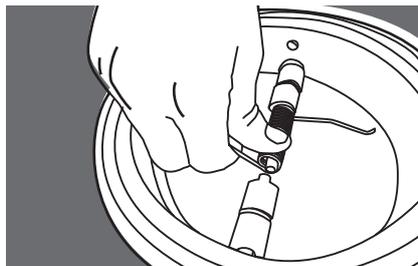
At this point it is **VERY IMPORTANT** that you protect yourself against the spring recoiling (4), placing the part that covers the valve face as shown in the figure.

Assembly



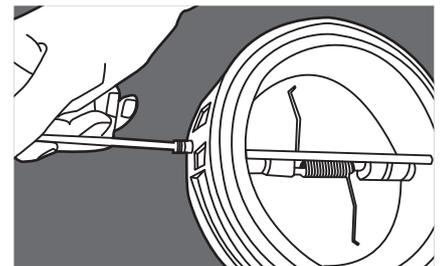
D

Once you have dismantled the valve, replace the deteriorated parts and place the plates (2), washers (3), spring(s) (4) and shaft (6) inside the body (1) of the valve.



E

After inserting the shaft (6) in the plates (2) and the washer (3), and before inserting it into the spring(s)(4), turn one of the legs 360° or each of the two legs 180° in the direction the spring rotates, and continue passing the shaft (6) through the other washer (3) and the rest of the plate flaps (2) until you reach the other side of the body (1).



F

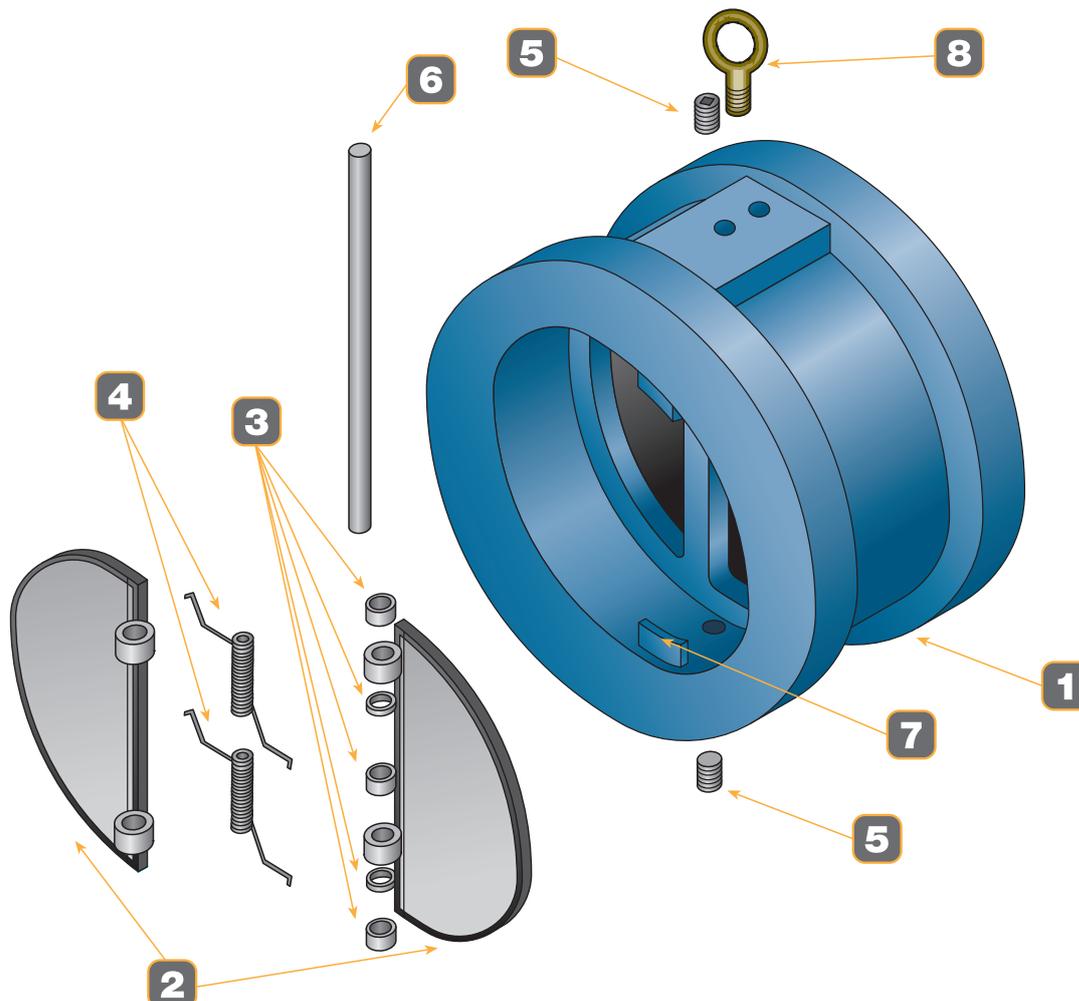
Once all the parts are correctly in place, insert the set screws (5) along with a thread sealant (we recommend Loctite 577).

2. Technical features

2.1. Construction and material

1	Body	EN-GJS-400 / CF8M / Carbon steel / Bronze / Aluminium bronze / Duplex / AISI 904L / Super duplex / other
2	Plates	AISI 316L / Bronze / Aluminium bronze / Duplex / AISI 904L / Super duplex / other
3	Washers	Nylon / Delrin / PTFE / Bronze / other
4	Spring	AISI 302 / AISI 316 / Inconel X750 / Hastelloy / other
5	Set screw	Steel / Stainless steel A2 / Stainless steel A4 / Duplex / AISI 904L / Super duplex / other
6	Shaft	AISI 316L / Duplex / AISI 904L / Super duplex / other
7	Stop/stop rod	EN-GJS-400 / AISI 316L / Duplex / AISI 904L / Super duplex / other
8	Eye bolt	Steel

Please ask our technical department about any combinations of material.



The manufacturer reserves the right to make modifications without prior notice.



DUAL PLATE CHECK VALVES

1 Body

The body is made in cast iron EN-GJS-400 painted with 80/120 micron epoxy protection in RAL 5017 or STAINLESS STEEL CF8M.

Also there is the option to apply different primers and colors. Under request to our technical department it is possible to supply bodies in a range of materials and alloys as, c. steel, bronze, aluminium bronze, AISI 904L different duplex and Superduplex.

In the nodular bodies appear two protections inside that makes the function of mechanical stops to protect and prevent springs, and avoid plates opening on more than 90°.

2 Plates

Manufactured in stainless steel 316L as a standard, the parts may be cast or machine welded, and if you check with our technical department, they may be able to be supplied in the same material as the body or in combinations of different materials.

The main feature of the DC plates is that one of the sides is fully vulcanised with an elastomer in order to improve and lengthen its useful life and ensure it is closed properly, consequently ensuring the valve is sealed tight against the wear and tear of the plates.

TABLE OF TEMPERATURES AND APPLICATIONS FOR EACH TYPE OF ELASTOMER

Elastomer	Min. temp.	Max. temp.
NBR	-20	100
EPDM	-25	120
Viton	-5	220
Silicone	-40	250

T. Temperatures in °C.

NBR

Suitable for fluids containing grease or oil at temperatures no higher than 100°C.

EPDM

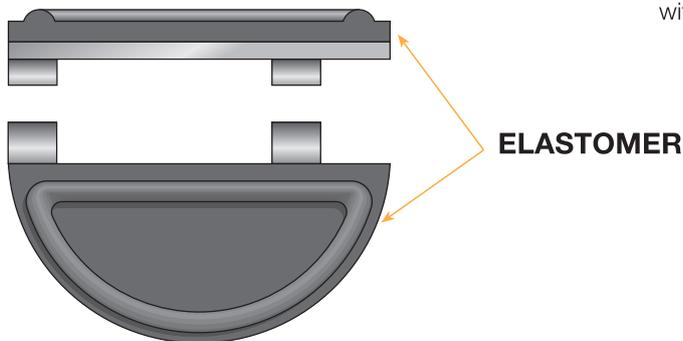
Generally used for water and products diluted in water. It can also be used with abrasive products.

VITON

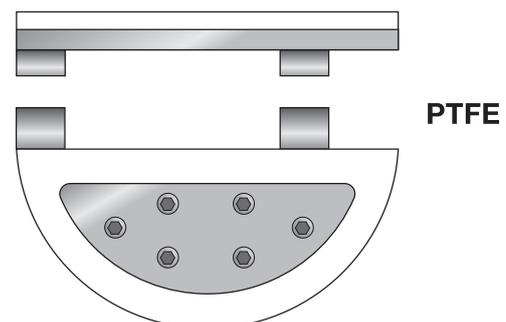
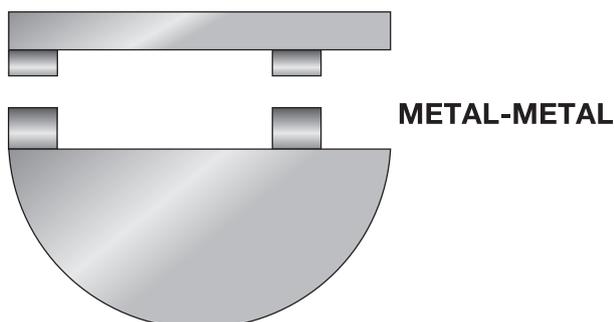
Suitable for corrosive applications and for high temperatures up to 190°C continually and for peaks up to 220°C.

SILICONE

Mainly used in the food industry and for pharmaceutical products with temperatures no higher than 250°C.



If you check with our technical department first, they may be able to supply the DC valve with other types of closure on the plates: METAL-METAL / PTFE / OTHER.



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DUAL PLATE CHECK VALVES

3 Washers

Manufactured in nylon and in Delrin, they protect against wear and tear due to rubbing with the plates.

Prior consultation with our technical department and for special applications, they may be supplied in other materials, such as PTFE, bronze, etc...

4 Springs

They are manufactured in stainless steel 302 and enable the plates to return to their original position when there is no backpressure in the installation.

Springs can be supplied in different materials, such as stainless steel 316, Inconel X750, Hastelloy, etc. prior consultation with our technical department.

The following table sets the approximate opening values for valves placed in vertical position in horizontal pipes.

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Mbar	42	42	38	30	25	25	20	18	16	15	13	13	10	9

DN Nominal Diameter / mbar

5 Set screws

Made of stainless steel, they fix the shafts to the body of the valve. For bodies made in special materials such as 904L, Duplex, Super duplex, etc., and prior consultation with our technical department,

the set screws may be supplied in the same materials or in combinations of material.

6 Shaft

The shafts are made of stainless steel 316L and enable the plates to rotate when the valve opens and closes.

As with the set screws, and prior consultation with our technical department, they may be supplied in special materials such as 904L, Duplex, Super duplex, etc...

7 Stop/stop rod

The mechanical stops are elements that help the DC valve to work properly, preventing the plates from knocking into each other or from either of them passing through to the other side and leaving the valve open at the backpressure moment.

The construction of the DC valve enables us to use two types of mechanical stops, depending on the valve's dimensions and materials, both providing optimum results. Stainless steel 316L rods (or any other special material prior consultation), or cast stops as part of the body help to increase the life of the plates and consequently keep the valve in good conditions.

8 Eyebolt

The DC-type valves are supplied with a eyebolt from DN 200 onwards in order to facilitate handling and installation.

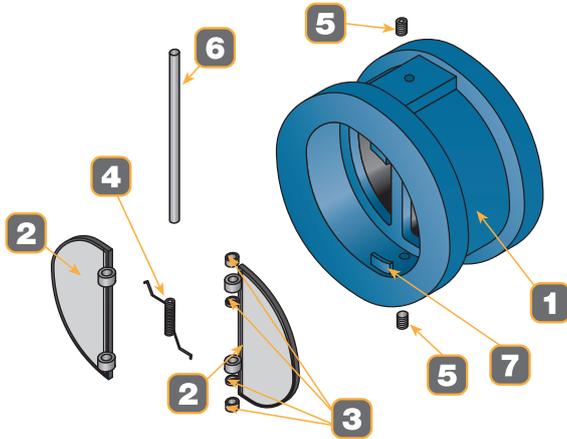
The eyebolt is considered part of the valve is therefore not advisable to remove it under any circumstances.

The manufacturer reserves the right to make modifications without prior notice.

2.2. Standard construction

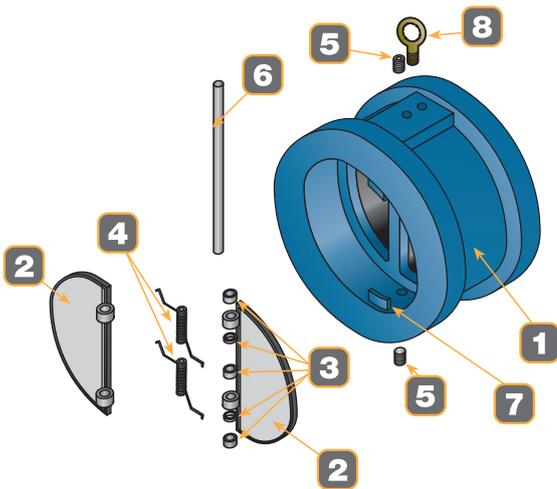
2.2.1 Body EN-GJS-400

DN50 to DN150



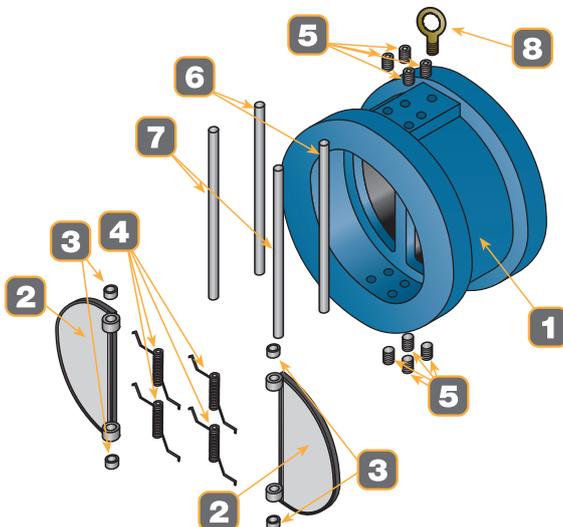
DESCRIPTION	MATERIAL	Units.
1 Body	EN-GJS-400	1
2 Plates	STAINLESS STEEL 316L+NBR	2
3 Washers	NYLON	4
4 Spring	STAINLESS STEEL 302	1
5 Set screw	STAINLESS STEEL A2	2
6 Shaft	STAINLESS STEEL 316L	1
7 Stop	EN-GJS-400	2

DN200 to DN500



DESCRIPTION	MATERIAL	Units.
1 Body	EN-GJS-400	1
2 Plates	STAINLESS STEEL 316L+NBR	2
3 Washers	NYLON	5
4 Spring	STAINLESS STEEL 302	2
5 Set screw	STAINLESS STEEL A2	2
6 Shaft	STAINLESS STEEL 316L	1
7 Stop	EN-GJS-400	2
8 Eye bolt	STEEL	1

DN600 to DN1,200



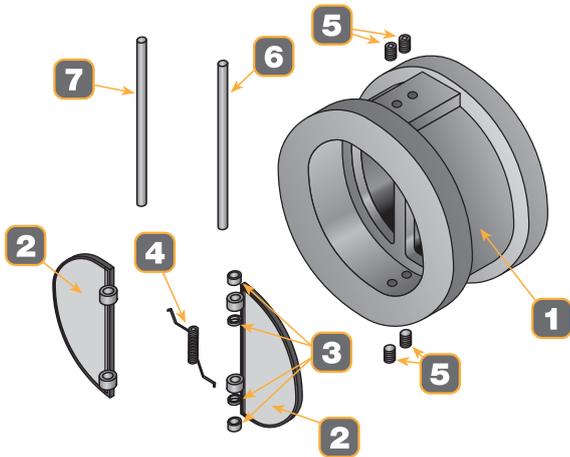
DESCRIPTION	MATERIAL	Units.
1 Body	EN-GJS-400	1
2 Plates	STAINLESS STEEL 316L+NBR	2
3 Washers	DELFIN	4
4 Spring	STAINLESS STEEL 302	4
5 Set screw	STAINLESS STEEL A2	8
6 Shaft	STAINLESS STEEL 316L	2
7 Stop	EN-GJS-400	2
8 Eye bolt	STEEL	1

The manufacturer reserves the right to make modifications without prior notice.

2.2. Standard construction

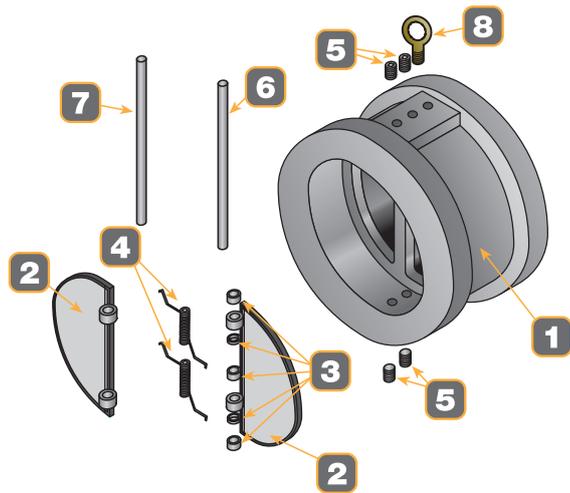
2.2.2 Body CF8M

DN50 to DN150



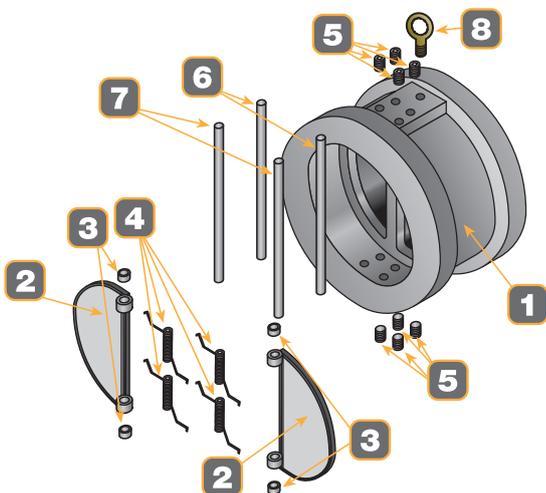
DESCRIPTION	MATERIAL	Units.
1 Body	CF8M	1
2 Plates	STAINLESS STEEL 316L+NBR	2
3 Washers	NYLON	4
4 Spring	STAINLESS STEEL 302	1
5 Set screw	STAINLESS STEEL A2	4
6 Shaft	STAINLESS STEEL 316L	1
7 Stop	STAINLESS STEEL 316L	1

DN200 to DN500



DESCRIPTION	MATERIAL	Units.
1 Body	CF8M	1
2 Plates	STAINLESS STEEL 316L+NBR	2
3 Washers	NYLON	5
4 Spring	STAINLESS STEEL 302	2
5 Set screw	STAINLESS STEEL A2	4
6 Shaft	STAINLESS STEEL 316L	1
7 Stop	STAINLESS STEEL 316L	1
8 Eye bolt	STEEL	1

DN600 to DN1,200



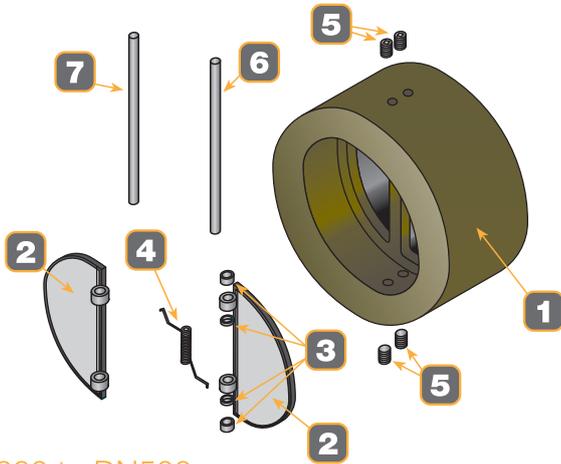
DESCRIPTION	MATERIAL	Units.
1 Body	CF8M	1
2 Plates	STAINLESS STEEL 316L+NBR	2
3 Washers	DELRIN	4
4 Spring	STAINLESS STEEL 302	4
5 Set screw	STAINLESS STEEL A2	8
6 Shaft	STAINLESS STEEL 316L	2
7 Stop	STAINLESS STEEL 316L	2
8 Eye bolt	STEEL	1

The manufacturer reserves the right to make modifications without prior notice.

2.2. Standard construction

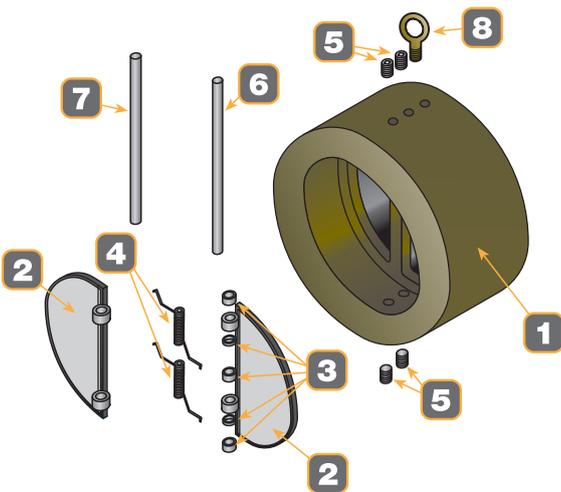
2.2.3 Carbon steel body

DN50 to DN150



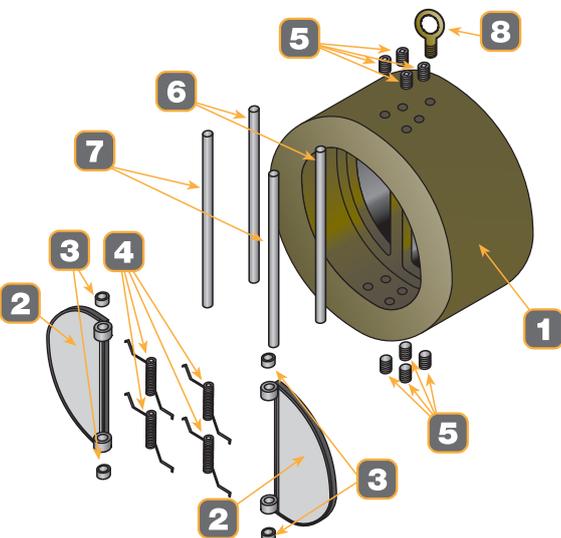
DESCRIPTION	MATERIAL	Units.
1 Body	Carbon steel	1
2 Plates	STAINLESS STEEL 316L+NBR	2
3 Washers	NYLON	4
4 Spring	STAINLESS STEEL 302	1
5 Set screw	STAINLESS STEEL	4
6 Shaft	STAINLESS STEEL 316L	1
7 Stop	STAINLESS STEEL 316L	1

DN200 to DN500



DESCRIPTION	MATERIAL	Units.
1 Body	Carbon steel	1
2 Plates	STAINLESS STEEL 316L+NBR	2
3 Washers	NYLON	5
4 Spring	STAINLESS STEEL 302	2
5 Set screw	STAINLESS STEEL	4
6 Shaft	STAINLESS STEEL 316L	1
7 Stop	STAINLESS STEEL 316L	1
8 Eye bolt	STEEL	1

DN600 to DN1,200



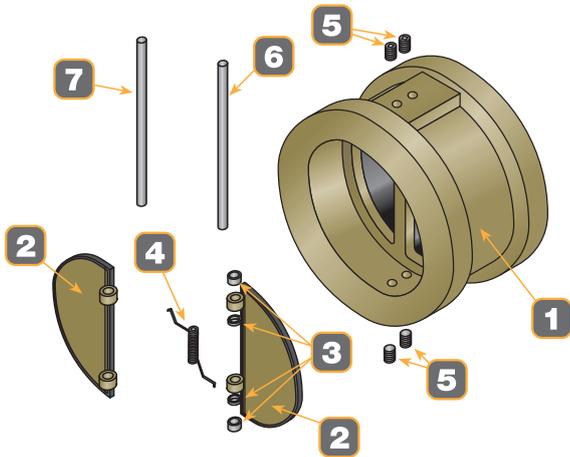
DESCRIPTION	MATERIAL	Units.
1 Body	Carbon steel	1
2 Plates	STAINLESS STEEL 316L+NBR	2
3 Washers	DELFIN	4
4 Spring	STAINLESS STEEL 302	4
5 Set screw	STAINLESS STEEL	8
6 Shaft	STAINLESS STEEL 316L	2
7 Stop	STAINLESS STEEL 316L	2
8 Eye bolt	STEEL	1

The manufacturer reserves the right to make modifications without prior notice.

2.2. Standard construction

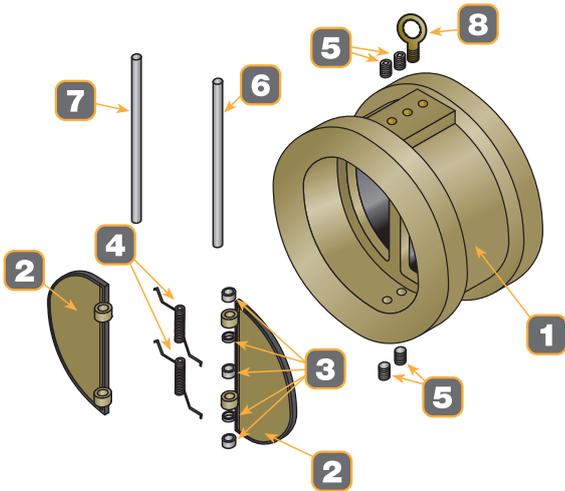
2.2.4 Bronze body

DN50 to DN150



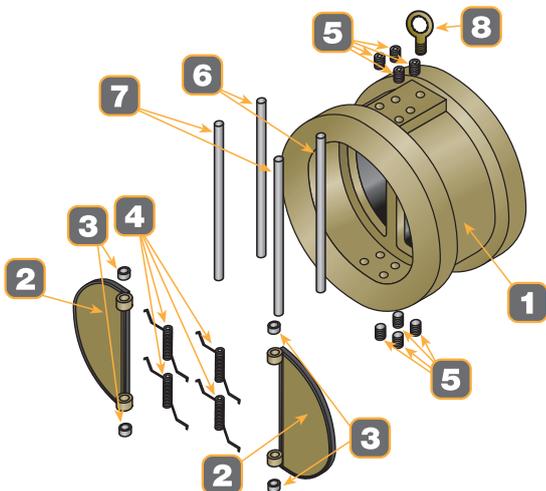
DESCRIPTION	MATERIAL	Units.	
1	Body	Bronze RG5	1
2	Plates	Bronze RG5+NBR	2
3	Washers	NYLON	4
4	Spring	STAINLESS STEEL 302	1
5	Set screw	STAINLESS STEEL A2	4
6	Shaft	STAINLESS STEEL 316L	1
7	Stop	STAINLESS STEEL 316L	1

DN200 to DN500



DESCRIPTION	MATERIAL	Units.	
1	Body	Bronze RG5	1
2	Plates	Bronze RG5+NBR	2
3	Washers	NYLON	5
4	Spring	STAINLESS STEEL 302	2
5	Set screw	STAINLESS STEEL A2	4
6	Shaft	STAINLESS STEEL 316L	1
7	Stop	STAINLESS STEEL 316L	1
8	Eye bolt	STEEL	1

DN600 to DN1,200



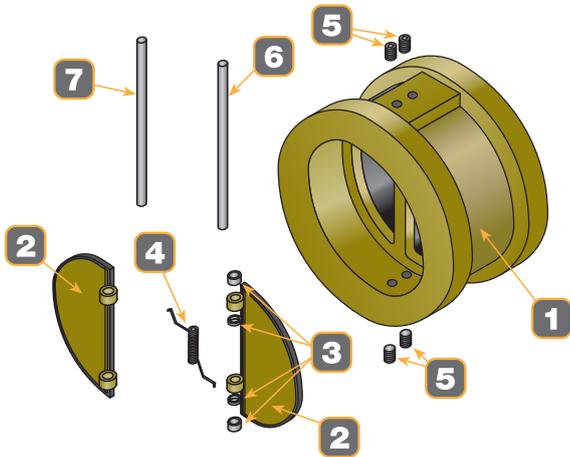
DESCRIPTION	MATERIAL	Units.	
1	Body	Bronze RG5	1
2	Plates	Bronze RG5+NBR	2
3	Washers	DELFIN	4
4	Spring	STAINLESS STEEL 302	4
5	Set screw	STAINLESS STEEL A2	8
6	Shaft	STAINLESS STEEL 316L	2
7	Stop	STAINLESS STEEL 316L	2
8	Eye bolt	STEEL	1

The manufacturer reserves the right to make modifications without prior notice.

2.2. Standard construction

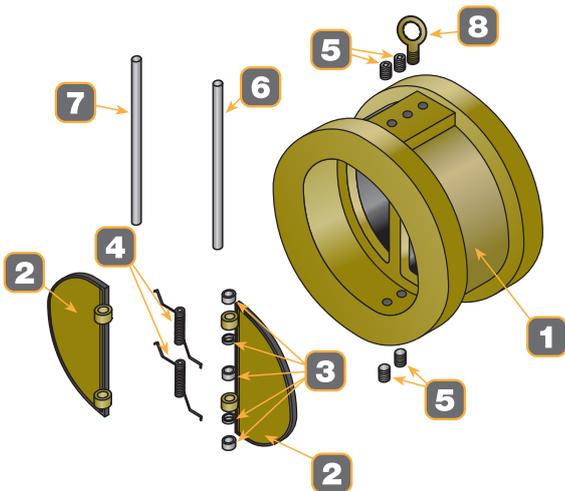
2.2.5 Aluminium bronze body

DN50 to DN150



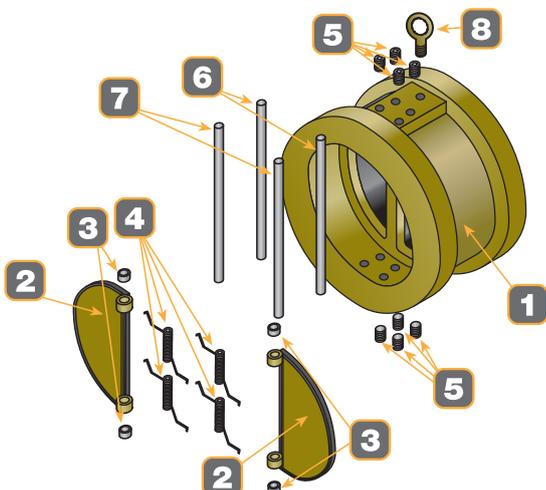
DESCRIPTION	MATERIAL	Units.	
1	Body	Aluminium bronze	1
2	Plates	Aluminium bronze+NBR	2
3	Washers	NYLON	4
4	Spring	STAINLESS STEEL 302	1
5	Set screw	STAINLESS STEEL A2	4
6	Shaft	STAINLESS STEEL 316L	1
7	Stop	STAINLESS STEEL 316L	1

DN200 to DN500



DESCRIPTION	MATERIAL	Units.	
1	Body	Aluminium bronze	1
2	Plates	Aluminium bronze+NBR	2
3	Washers	NYLON	5
4	Spring	STAINLESS STEEL 302	2
5	Set screw	STAINLESS STEEL A2	4
6	Shaft	STAINLESS STEEL 316L	1
7	Stop	STAINLESS STEEL 316L	1
8	Eye bolt	STEEL	1

DN600 to DN1,200



DESCRIPTION	MATERIAL	Units.	
1	Body	Aluminium bronze	1
2	Plates	Aluminium bronze+NBR	2
3	Washers	DELFIN	4
4	Spring	STAINLESS STEEL 302	4
5	Set screw	STAINLESS STEEL A2	8
6	Shaft	STAINLESS STEEL 316L	2
7	Stop	STAINLESS STEEL 316L	2
8	Eye bolt	STEEL	1

The manufacturer reserves the right to make modifications without prior notice.



2.2. Standard construction

2.2.6 Weight

Approximate weights for valves manufactured according to UNE-EN-558-1 and for flanges PN10 acc. UNE-EN 1092-1 and plates with s. steel rubberized

Body EN-GJS-400

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Weight	1.5	2.4	3.5	4.5	7	9.1	17	29,5	37	53	73	140	138	210

DN Nominal diameter / Weight in Kg.

Body CF8M

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Weight	1.5	2.5	3.6	4.9	7.6	10.5	17.5	31	39	55	90	140	158	225

DN Nominal diameter / Weight in Kg.

Carbon steel body

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Weight	2	4.2	6	7	10.5	11.3	23	38	41	75	100	157	162	240

DN Nominal diameter / Weight in Kg.

The manufacturer reserves the right to make modifications without prior notice.



DUAL PLATE CHECK VALVES

2.3. Pressure Drops

The minimum pressure drop to consider for each valve DN is that determined by its intersection with the dotted line.

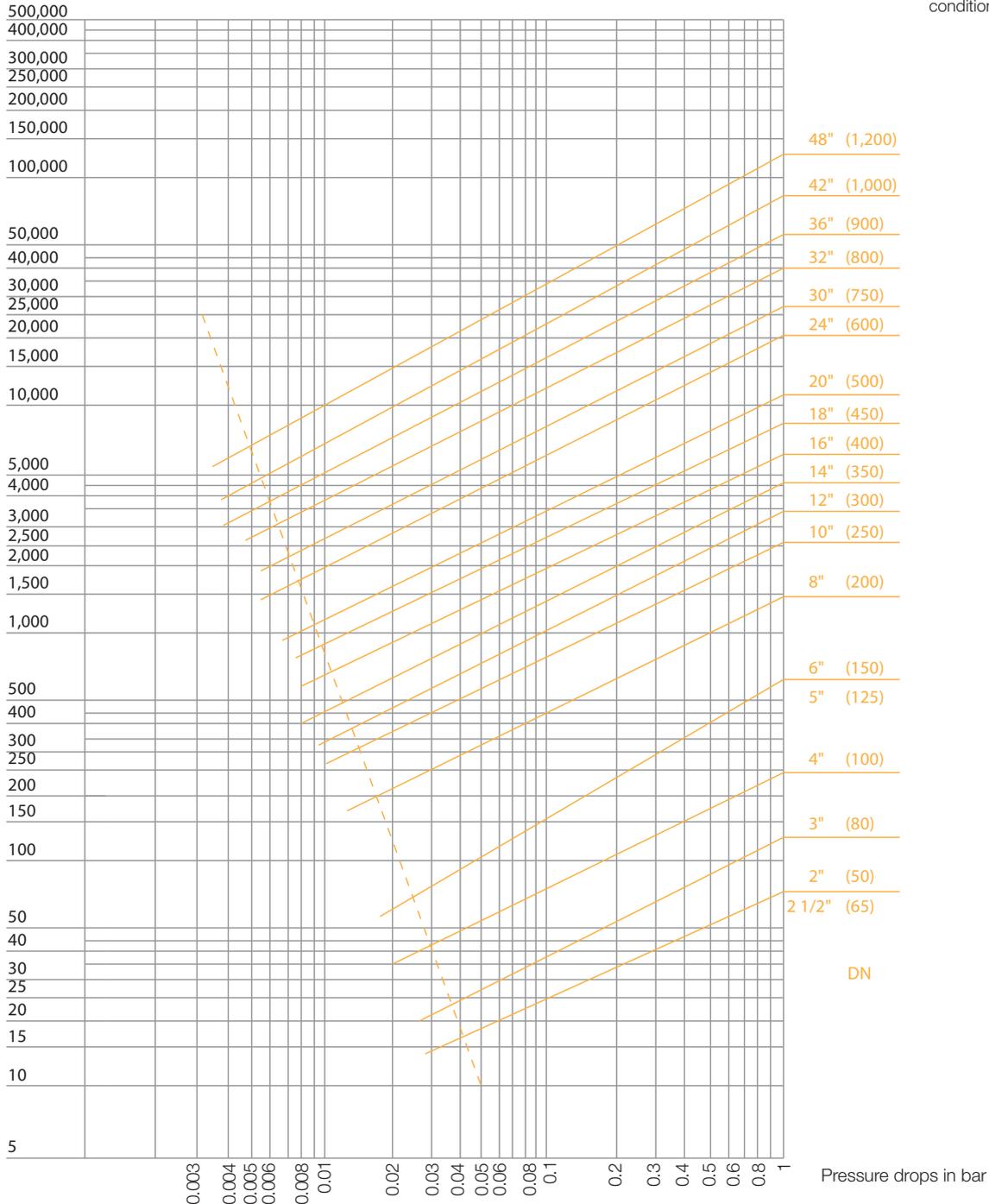
If the fluid is not water, the equivalent flow will be calculated using the expression:

$$Q = Q_L * \sqrt{\frac{\rho}{1.000}}$$

Q = Equivalent flow of water. m³ / h
 ρ = Density of the fluid in operating conditions. kg/m³

Q_L = Flow of the fluid in operating conditions. m³/h

Q = Flow of water m³/h

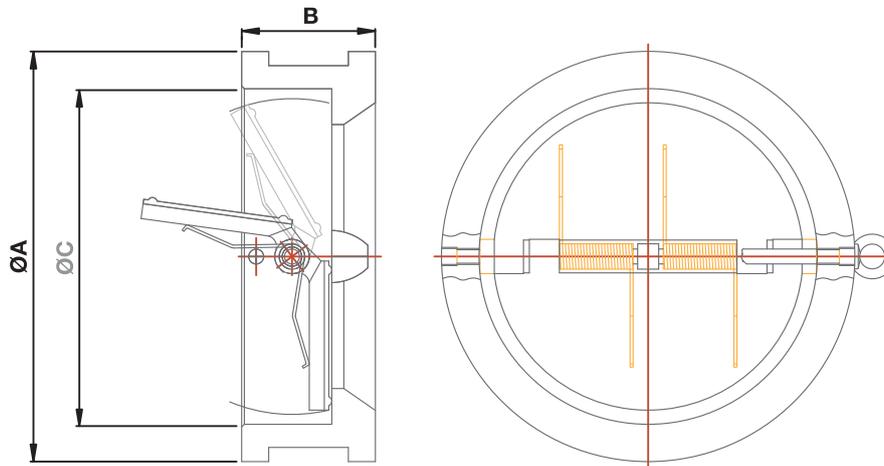


DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Kv (m ³ /h)	55	95	148	220	380	720	1410	2480	3782	4310	6150	7820	10300	12750

The manufacturer reserves the right to make modifications without prior notice.

2.4. Face to face: acc. UNE-EN-558-1

2.4.1. Outer diameter: for flanges acc. UNE-EN 1092-1



note: the figure is for construction from DN200 to DN500

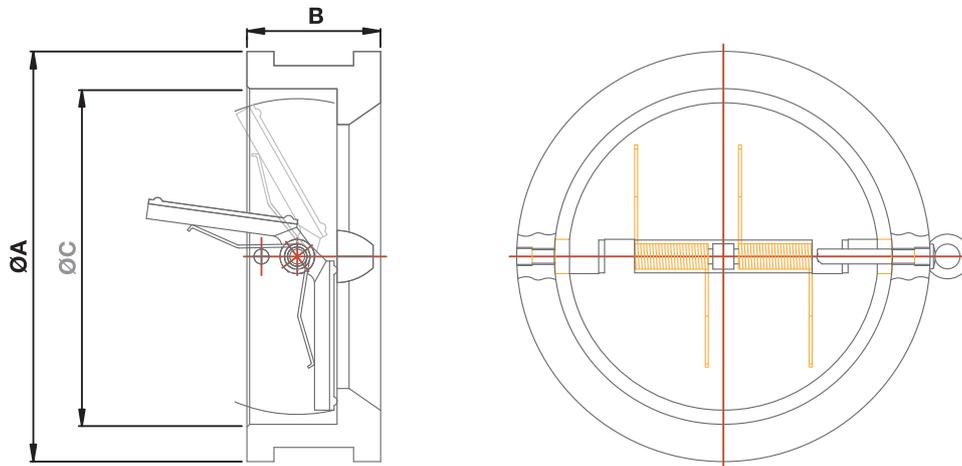
DN		PN6		PN10		PN16		PN25		PN40		PN63		PN100		ØC
mm	"	ØA	B													
40	1 1/2"	88	33	94	33	94	33	94	33	94	33	105	-	105	-	59
50	2"	98	43	109	43	109	43	109	43	109	43	115	60	121	60	75
65	2 1/2"	118	46	129	46	129	46	129	46	129	46	140	67	146	67	75
80	3"	134	64	144	64	144	64	144	64	144	64	150	73	156	73	94
100	4"	154	64	164	64	164	64	170	64	170	64	176	79	183	79	120
125	5"	184	70	194	70	194	70	196	70	196	70	213	-	220	-	144
150	6"	209	76	220	76	220	76	226	76	226	76	250	136	260	136	170
200	8"	264	89	275	89	275	89	286	89	293	89	312	165	327	165	224
250	10"	319	114	330	114	331	114	343	114	355	114	367	213	394	213	270
300	12"	375	114	380	114	386	114	403	114	420	114	427	229	461	229	328
350	14"	425	127	440	127	446	127	460	127	477	127	489	273	515	273	360
400	16"	475	140	491	140	498	140	517	140	549	140	546	305	575	305	400
450	18"	530	152	541	152	558	152	567	152	574	152	591	362	630	-	445
500	20"	580	152	596	152	620	152	627	152	631	152	660	368	708	368	490
600	24"	681	178	698	178	737	178	734	178	750	178	768	394	819	438	590
700	28"	786	229	813	229	807	229	836	229	855	229	883	-	-	-	690
800	32"	893	241	920	241	914	241	945	241	978	241	994	-	-	-	790
900	36"	993	241	1,020	241	1,014	241	1,045	241	1,088	241	1,114	635	-	-	900
1,000	40"	1,093	300	1,127	300	1,131	300	1,158	300	1,198	300	1,226	-	-	-	1,000
1,200	48"	1,310	350	1,344	350	1,345	350	1,368	350	1,404	350	1,458	-	-	-	1,180

DN Nominal Diameter / Measurements in mm.

The manufacturer reserves the right to make modifications without prior notice.

2.4. Face to face: acc. UNE-EN-558-1

2.4.2. Outer diameter: for flanges acc. ASME B16.5



note: the figure is for construction from DN200 to DN500

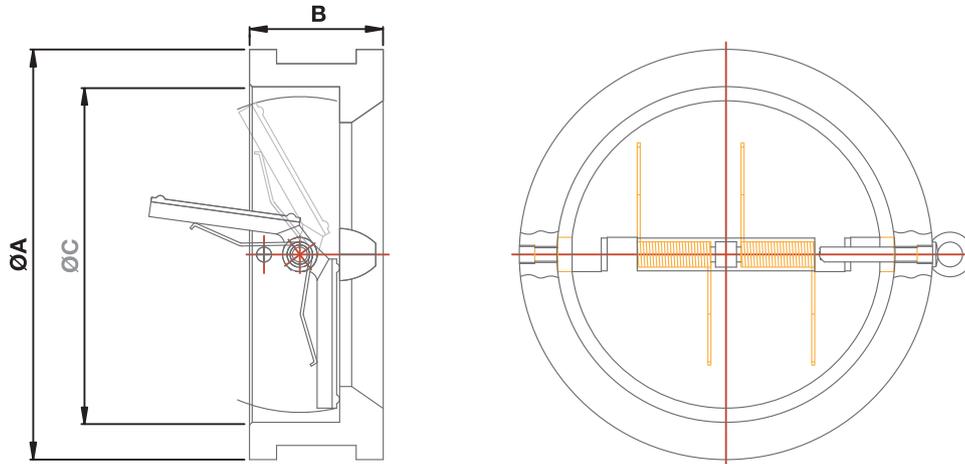
DN		Class125		Class150		Class300		ØC
mm	"	ØA	B	ØA	B	ØA	B	
40	1 1/2"	85	33	85	33	95	33	59
50	2"	104	43	104	43	110	43	75
65	2 1/2"	123	46	123	46	130	46	75
80	3"	136	64	136	64	149	64	94
100	4"	174	64	174	64	181	64	120
125	5"	196	70	196	70	215	70	144
150	6"	222	76	222	76	250	76	170
200	8"	279	89	279	89	308	89	224
250	10"	339	114	339	114	361	114	270
300	12"	409	114	409	114	422	114	328
350	14"	450	127	450	127	485	127	360
400	16"	514	140	514	140	539	140	400
450	18"	549	152	549	152	596	152	445
500	20"	606	152	606	152	654	152	490
600	24"	717	178	717	178	774	178	590
900	36"	1,047	241	1,047	241	1,117	241	900
1,200	48"	1,384	350	1,384	350	-	-	1,180

DN Nominal Diameter / Measurements in mm.

The manufacturer reserves the right to make modifications without prior notice.

2.5. Face to face: acc. API594

2.5.1. Outer diameter: for flanges acc. UNE-EN 1092-1



note: the figure is for construction from DN200 to DN500

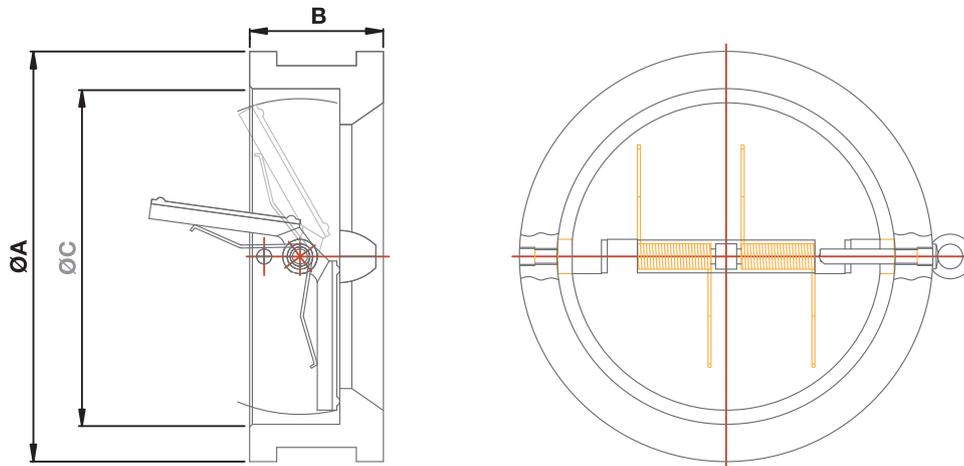
DN		PN6		PN10		PN16		PN25		PN40		PN63		PN100		ØC
mm	"	ØA	B													
50	2"	98	60	109	60	109	60	109	60	109	60	115	60	121	60	75
65	2 1/2"	118	67	129	67	129	67	129	67	129	67	140	67	146	67	75
80	3"	134	73	144	73	144	73	144	73	144	73	150	73	156	73	94
100	4"	154	73	164	73	164	73	170	73	170	73	176	79	183	79	120
125	5"	184	83	194	83	194	83	196	86	196	86	213	-	220	-	144
150	6"	209	98	220	98	220	98	226	98	226	98	250	136	260	136	170
200	8"	264	127	275	127	275	127	286	127	293	127	312	165	327	165	224
250	10"	319	146	330	146	331	146	343	146	355	146	367	213	394	213	270
300	12"	375	181	380	181	386	181	403	181	420	181	427	229	461	229	328
350	14"	425	184	440	184	446	184	460	184	477	184	489	273	515	273	360
400	16"	475	191	491	191	498	191	517	191	549	191	546	305	575	305	400
450	18"	530	203	541	203	558	203	567	203	574	203	591	362	630	-	445
500	20"	580	219	596	219	620	219	627	219	631	219	660	368	708	368	490
600	24"	681	222	698	222	737	222	734	222	750	222	768	394	819	438	590
900	36"	993	368	1,020	368	1,014	368	1,045	368	1,088	368	1,114	635	-	-	900
1,200	48"	1,310	524	1,344	524	1,345	524	1,368	524	1,404	524	1,458	-	-	-	1,180

DN Nominal Diameter / Measurements in mm.

The manufacturer reserves the right to make modifications without prior notice.

2.5.Face to face: acc. API594

2.5.2. Outer diameter: for flanges acc. ASME B16.5



note: the figure is for construction from DN200 to DN500

DN		Class125		Class150		Class300		Class600		
mm	"	ØA	B	ØA	B	ØA	B	ØA	B	ØC
50	2"	104	54	104	60	110	60	110	60	75
65	2 1/2"	123	60	123	67	130	67	130	67	75
80	3"	136	67	136	73	149	73	149	73	94
100	4"	174	67	174	73	181	73	193	79	120
125	5"	196	83	196	83	215	86	241	-	144
150	6"	222	95	222	99	250	99	266	136	170
200	8"	279	127	279	127	308	127	320	165	224
250	10"	339	140	339	146	361	146	400	213	270
300	12"	409	181	409	181	422	181	457	229	328
350	14"	450	184	450	184	485	222	492	273	360
400	16"	514	190	514	190	539	232	565	305	400
450	18"	549	203	549	203	596	264	612	362	445
500	20"	606	213	606	219	654	292	682	368	490
600	24"	717	222	717	222	774	318	790	438	590
900	36"	1,047	368	1,047	368	1,117	483	1,130	635	900
1,200	48"	1,384	524	1,384	524	-	629	-	-	1,180

DN Nominal Diameter / Measurements in mm.

The manufacturer reserves the right to make modifications without prior notice.



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