



PART 1

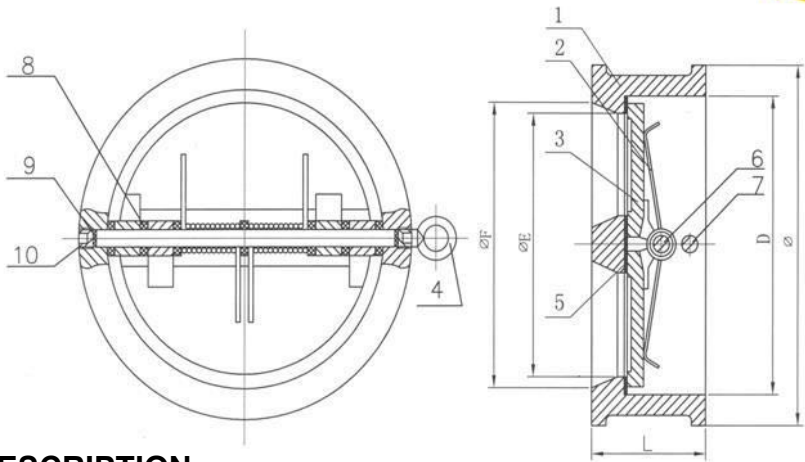


Check Valves

Double Disc Swing Check Valve(Normal pressure)



NO.	PART	MATERIAL
1	Body	GG25/GGG40/SS304/SS316
2	Spring	Stainless steel
3	Disc	SS316/SS304/WCB/C954
4	Ring	Steel
5	Seat Ring	NBR/EPDM/VITON
6	Shaft-1	SS316/SS304
7	Shaft-2	SS316/SS304
8	Gasket-1	PTFE
9	Gasket-2	NBR
10	Screw	Steel

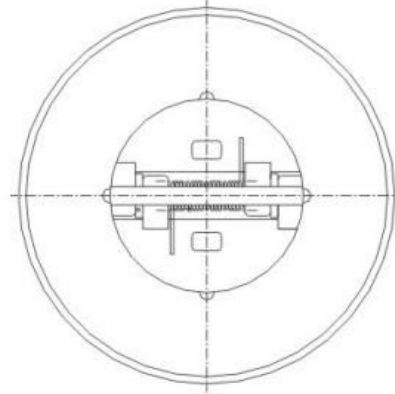
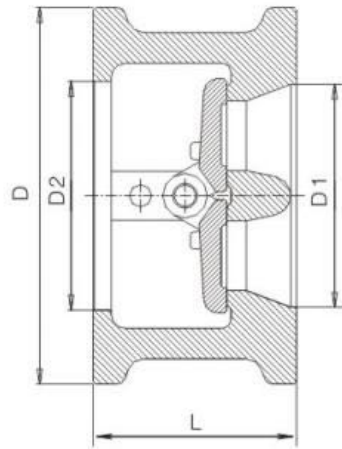


DESCRIPTION

1. Working pressure: 1.0Mpa/1.6Mpa/2.5Mpa
2. Working temperature:
NBR: 0°C~+80°C
EPDM: -10°C~+120°C
VITON: -20°C~+180°C
3. Face to face according to DIN3202K3, ANSI 125/150
4. Flange according to EN1092-2, ANSI 125/150 etc.
5. Testing: DIN3230, API598.
6. Medium: Fresh Water, Sea water, food stuff, all kinds of oil, acid, alkaline liquid etc.

DN(mm)		40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700
L (mm)		43	43	46	64	64	70	76	89	114	114	127	140	152	154	178	229
D(mm)		65	65	80	94	117	145	170	224	265	312	360	410	450	500	624	720
Φ(m m)	PN10	92	107	127	142	162	192	218	273	328	378	438	489	532	585	690	800
	PN16	92	107	127	142	162	192	218	273	329	384	446	491	550	610	720	

Double Disc Swing Check Valve(High pressure)



DESCRIPTION

1. Working pressure:

ANSI STANDARD: Class150/300/600/900/1500/2500

DIN STANDARD: PN40/63/100/160

JIS STANDARD: JIS 10K/20K

2. Seat material: EPDM/BUNA-N/NBR/VITON

3. End Connection: Raised face, Plain face, Ring joint, Weld end, Hub end

4. Sizes: 1 1/2"-60" (DN40-DN1500) kindly contact us for details information.

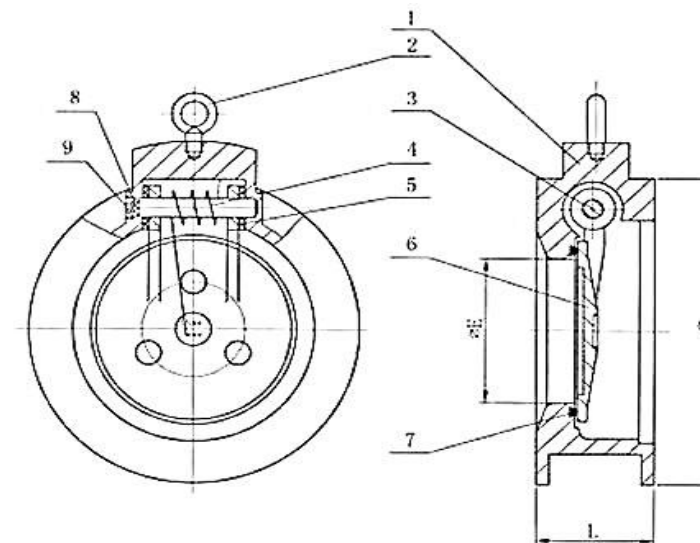
BODY	Disc	Body Seat	Disc Seat	Spring	Wetted Parts
A216 WCB/A105	A351 CF8	410SS/Stellite	Same as disc	Inconelx-750	410 SS
A216 WCB/A105	A351 CF8	VITON/BUNA/EPDM	Same as disc	Inconelx-750	410 SS
A216 WCB/A105	A351 CF8	316SS/Stellite	Same as disc	Inconelx-750	410 SS
A216 WCB/A105	A351 CF8	VITON/BUNA/EPDM	Same as disc	Inconelx-750	410 SS
352LCC/A350LF2	A351 CF8	316SS/Stellite	Same as disc	Inconelx-750	410 SS
352LCC/A350LF2	A351 CF8	VITON/BUNA/EPDM	Same as disc	Inconelx-750	410 SS
A351 CF8M/A182 F316	A351 CF8	Same as body	Same as disc	Inconelx-750	410 SS
A351 CF8M/A182 F316	A351 CF8	VITON/BUNA/EPDM	Same as disc	Inconelx-750	410 SS
A890 GR 4A/A182 F51	A890 GR 4A	Same as body	Same as disc	Inconelx-750	410 SS
A890 GR 4A/A182 F53	A890 GR 4A	Same as body	Same as disc	Inconelx-750	410 SS
UNS S31254	UNS S31251	Same as body	Same as disc	Inconelx-750	410 SS
UNS N26625	UNS S31251	Same as body	Same as disc	Inconelx-750	410 SS

Single Disc Swing Check Valve(Normal pressure)



NO.	PART	MATERIAL
1	Body	GG25/GGG40/SS304/SS316
2	Ring	Steel
3	Axle	SS304/SS316
4	Spring	Stainless steel
5	Gasket	PTFE
6	Disc	WCB/SS304/SS316
7	Seat ring	NBR/EPDM/VITON
8	Gasket	NBR
9	Screw	Steel
NO.	Part	Material

DN(mm)		50	65	80	100	125	150	200	250	300	350	400
L(mm)		44.5	47.6	50.8	57.2	63.5	69.9	73	79.4	85.7	108	108
ΦE(mm)		33	43	52	76	95	118	163	194	241	266	318
Φ(mm)	PN10	107	127	142	162	192	218	273	328	378	438	489
	PN16	107	127	142	162	192	218	273	329	384	446	498



DESCRIPTION

1. Working pressure: 1.0Mpa/1.6Mpa/2.5Mpa

2. Working temperature:

NBR: 0℃~+80℃

EPDM: -10℃~+120℃

VITON: -20℃~+180℃

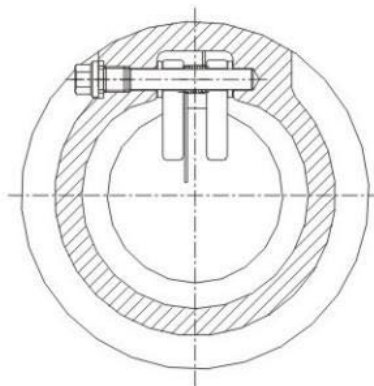
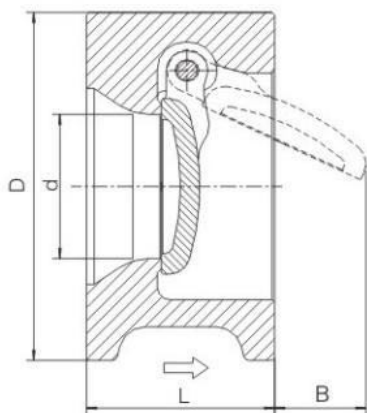
3. Face to face according to ANSI 125/150

4. Flange according to EN1092-2, ANSI 125/150 etc.

5. Testing: DIN3230, API598

6. Medium: Fresh Water, Sea water, food stuff, all kinds of oil, acid, alkaline liquid etc.

Single Disc Swing Check Valve(High pressure)

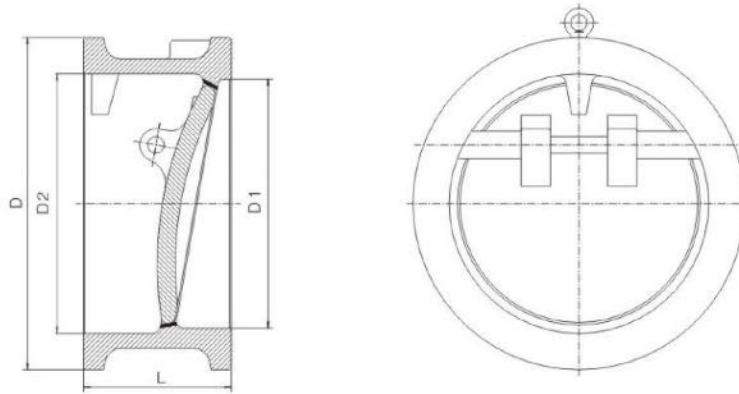


DESCRIPTION

1. Working pressure:
ANSI STANDARD: Class150/300/600/900
2. Seat material: EPDM/BUNA-N/NBR/VITON
3. End Connection: Raised face, Plain face, Ring joint, Weld end, Hub end
4. Sizes: 1 1/2"-24" (DN40-DN600) kindly contact us for details information.

Body	Disc	Body Seat	Disc Seat	Spring	Wetted Parts
A216WCB/A105	A351 CF8	410SS / Stellite	Same as disc	Inconel X-750	410 SS
A216WCB/A105	A351 CF8	VITON/BUNA/EPDM	Same as disc	Inconel X-750	410 SS
A216WCB/A105	A351 CF8M	316SS / Stellite	Same as disc	Inconel X-750	316 SS
A216WCB/A105	A351 CF8M	VITON/BUNA/EPDM	Same as disc	Inconel X-750	316 SS
A352 LCC / A350 LF2	A351 CF8M	316SS / Stellite	Same as disc	Inconel X-750	316 SS
A352 LCC / A350 LF2	A351 CF8M	VITON/BUNA/EPDM	Same as disc	Inconel X-750	316 SS
A351 CF8M / A182 F316	A351 CF8M	Same as body	Same as disc	Inconel X-750	316 SS
A351 CF8M / A182 F316	A351 CF8M	VITON/BUNA/EPDM	Same as disc	Inconel X-750	316 SS
A890 GR 4A / A182 F51	A890 GR 4A	Same as body	Same as disc	Inconel X-750	A182 F51
A890 GR 5A / A182 F53	A890 GR 4A	Same as body	Same as disc	Inconel X-750	A182 F53
UNS S31254	UNS S31254	Same as body	Same as disc	Inconel X-750	254-SMO
UNS N26625	UNS N26625	Same as body	Same as disc	Inconel X-750	Inconel 625

Tilting Wafer Check Valve(High pressure)



DESCRIPTION

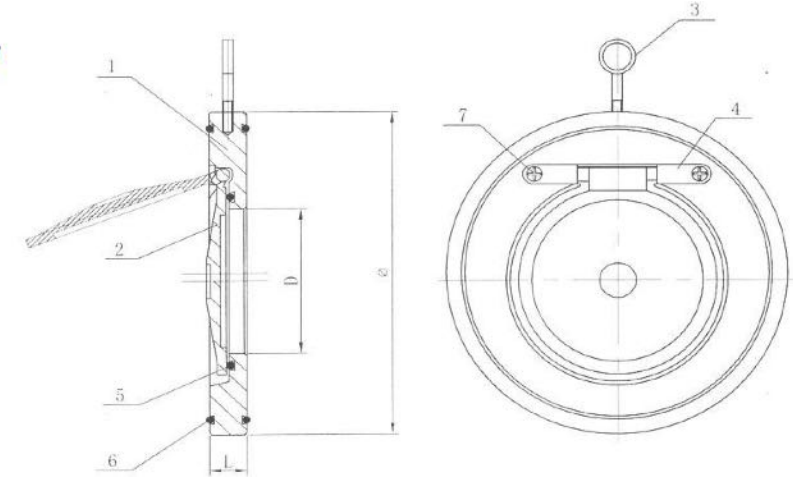
1. Working pressure: Class150/300/600/900/1500
2. Seat material: EPDM/BUNA-N/NBR/VITON
3. End Connection: Raised face, Plain face, Ring joint, Weld end, Hub end
4. Sizes: 1 1/2"-24" (DN40-DN600) kindly contact us for details information.

Body	Disc	Body Seat	Disc Seat	Spring	Wetted Parts
A216WCB/A105	A351 CF8	410SS / Stellite	Same as disc	Inconel X-750	410 SS
A216WCB/A105	A351 CF8	VITON/BUNA/EPDM	Same as disc	Inconel X-750	410 SS
A216WCB/A105	A351 CF8M	316SS / Stellite	Same as disc	Inconel X-750	316 SS
A216WCB/A105	A351 CF8M	VITON/BUNA/EPDM	Same as disc	Inconel X-750	316 SS
A352 LCC / A350 LF2	A351 CF8M	316SS / Stellite	Same as disc	Inconel X-750	316 SS
A352 LCC / A350 LF2	A351 CF8M	VITON/BUNA/EPDM	Same as disc	Inconel X-750	316 SS
A351 CF8M / A182 F316	A351 CF8M	Same as body	Same as disc	Inconel X-750	316 SS
A351 CF8M / A182 F316	A351 CF8M	VITON/BUNA/EPDM	Same as disc	Inconel X-750	316 SS
A890 GR 4A / A182 F51	A890 GR 4A	Same as body	Same as disc	Inconel X-750	A182 F51
A890 GR 5A / A182 F53	A890 GR 4A	Same as body	Same as disc	Inconel X-750	A182 F53
UNS S31254	UNS S31254	Same as body	Same as disc	Inconel X-750	254-SMO
UNS N26625	UNS N26625	Same as body	Same as disc	Inconel X-750	Inconel 625

Thin Single Disc Swing Check Valve



NO.	PART	MATERIAL
1	Body	SS304/SS316/WCB
2	Disc	SS304/SS316/WCB
3	Ring	Steel
4	Baffle	SS304/SS316/WCB
5	O-Ring	NBR/EPDM/VITON
6	O-Ring	NBR/EPDM/VITON
7	Bolt	SS304/SS316/WCB



DESCRIPTION

1. Working pressure: 1.0Mpa/1.6Mpa/2.5Mpa/4.0Mpa

2. Working temperature:

NBR: 0°C~+80°C

EPDM: -10°C~+120°C

VITON: -20°C~+180°C

3. Face to face according to DIN, ANSI

4. Flange according to EN1092-2, ANSI 125/150 etc.

5. Testing: DIN3230, API598

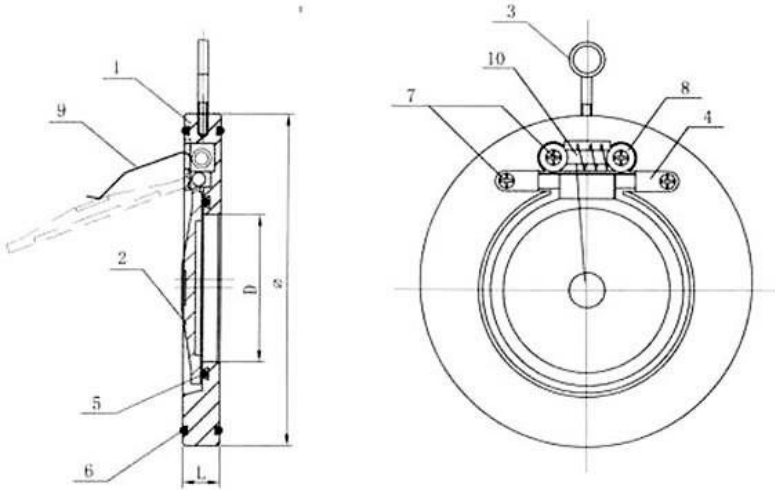
6. Medium: Fresh Water, Sea water, food stuff, all kinds of oil, acid, alkaline liquid etc.

DN(mm)		25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Φ(m m)	PN10	71	82	92	107	127	142	162	192	218	273	328	378	438	489	532	585	690
	PN16	71	82	92	107	127	142	162	192	218	273	329	384	444	491	550	610	724
D(mm)		11.5	17	22	32	40	54	70	92	114	154	200	235	280	316	360	405	486
L(mm)		14	14	14	14	14	14	18	18	20	22	26	28	38	44	50	56	62

Thin Single Disc Swing Check Valve With Spring



NO.	PART	MATERIAL
1	Body	SS304/SS316/WCB
2	Disc	SS304/SS316/WCB
3	Ring	Steel
4	Baffle	SS304/SS316/WCB
5	O-Ring	NBR/EPDM/VITON
6	O-Ring	NBR/EPDM/VITON
7	Bolt	SS304/SS316/WCB
8	Backing Plate	SS316/SS304
9	Spring	SS316/SS304
10	Shaft	SS304/SS316



DESCRIPTION

- 1. Working pressure: 1.0Mpa/1.6Mpa/2.5Mpa/4.0Mpa
- 2. Working temperature:
NBR: 0℃~+80℃
EPDM: -10℃~+120℃
VITON: -20℃~+180℃
- 3. Face to face according to DIN, ANSI
- 4. Flange according to EN1092-2, ANSI 125/150 etc.
- 5. Testing: DIN3230, API598
- 6. Medium: Fresh Water, Sea water, food stuff, all kinds of oil, acid, alkaline liquid etc.

DN(mm)		50	65	80	100	125	150	200	250	300	350	400
ΦD(mm)	PN10	107	127	142	162	192	218	273	328	378	438	489
	PN16	107	127	142	162	192	218	273	329	384	444	491
ΦE(mm)		32	40	54	70	92	114	154	200	235	280	316
L(mm)		14	14	14	18	18	20	22	26	28	38	44

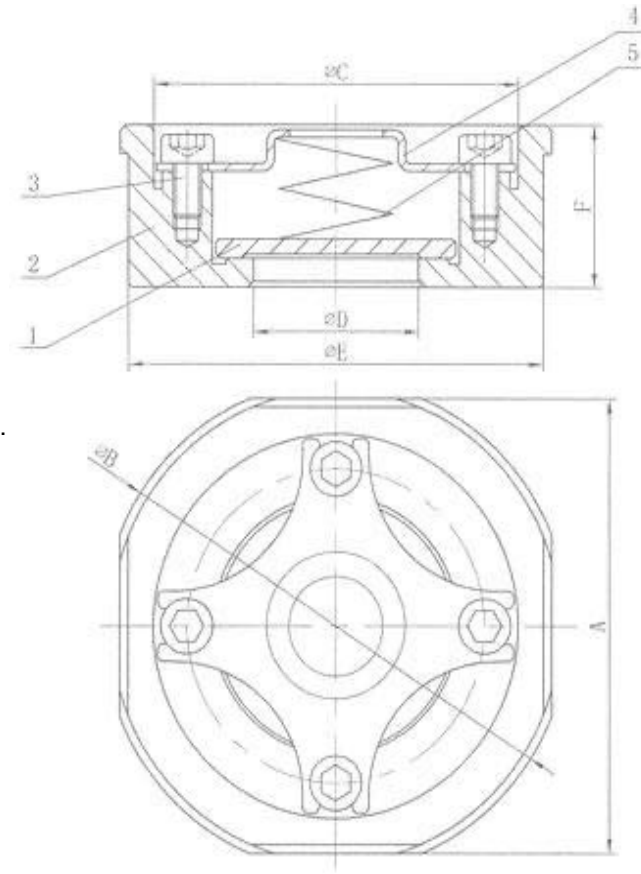
Small Size Wafer Type Lift Check Valve



DESCRIPTION

1. Working pressure: 4.0Mpa
2. Working temperature: -100°C~+400°C
3. Face to face according to DIN3202 K4
4. Flange according to EN1092-2, etc.
5. Testing: DIN3230, API598
6. Medium: Fresh Water, Sea water, food stuff, all kinds of oil, acid, alkaline liquid etc.

NO.	PART	MATERIAL
1	Disc	SS304/SS316
2	Body	SS304/SS316/Brass
3	Bolts	SS316
4	Spring cover	SS316
5	Spring	SS316



DN(mm)	15	20	25	32	40	50	65	80	100
ϕD (mm)	53	63	73	84	94	107	126	144	164
ϕE (mm)	15	20	25	30	38	47	62	77	95
F(mm)	16	19	22	28	31.5	40	46	50	60

Big Size Wafer Type Lift Check Valve

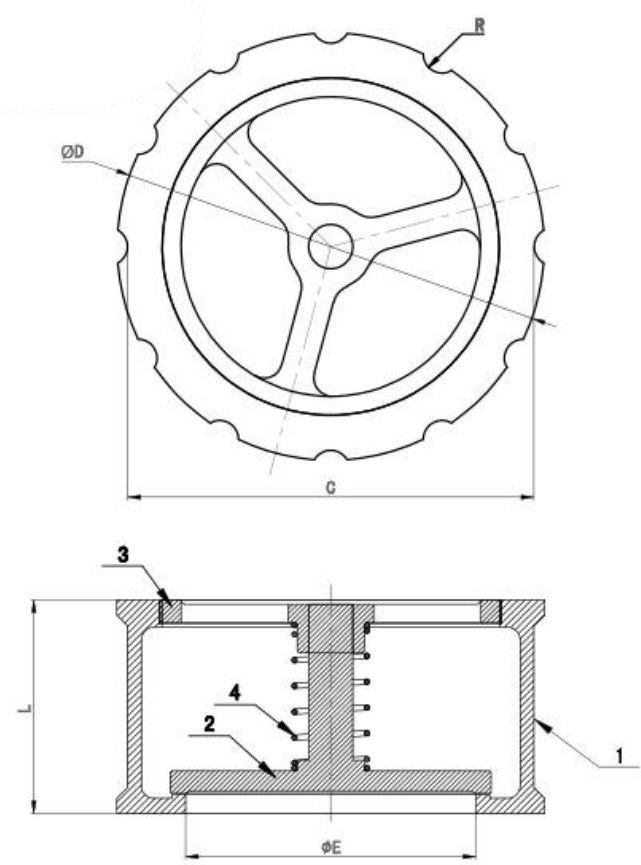


DESCRIPTION

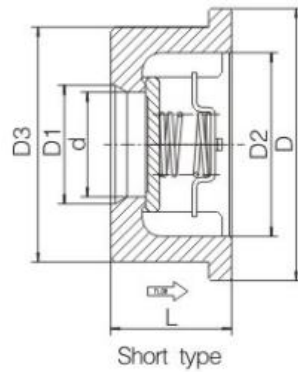
- 1. Working pressure: 4.0Mpa
- 2. Working temperature: -50°C~+400°C
- 3. Face to face according to ANSI B16.5
- 4. Flange according to EN1092-2, PN16/25/40. ANSI 150LB etc.
- 5. Testing: API598
- 6. Medium: Fresh Water, Sea water, food stuff, all kinds of oil, acid, alkaline liquid etc

NO.	PART	MATERIAL
1	Disc	CF8M
2	Body	CF8M
3	Guide	CF8M
4	Spring	Stainless Steel

DN(mm)	125	150	200	250	300
ΦE(mm)	118	140	190	230	280
C(mm)	192	218	272	326	376
ΦD(mm)	192	218	280	340	400
L	90	106	140	145	160
n-R			12-R20	12-R20	12-R25

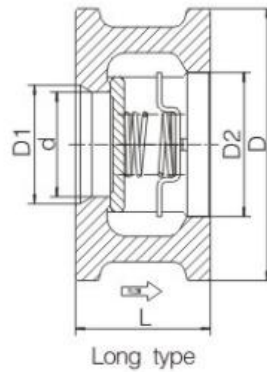


Wafer Type Lift Check Valve(High pressure)

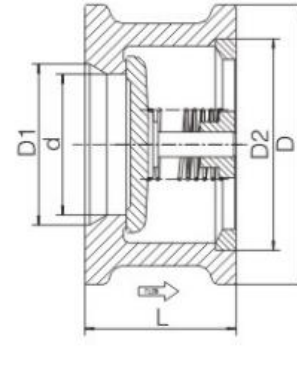


Short type

$Dn \leq 100$



Long type



$Dn \geq 100$

DESCRIPTION

1. Working pressure:

ANSI STANDARD: Class150/300/600/900

DIN STANDARD: PN10/16/40

2. Seat material: EPDM/BUNA-N/NBR/VITON

3. End Connection: Raised face, Plain face, Ring joint, Weld end, Hub end

4. Sizes: 1/2"-8" (DN15-DN200) kindly contact us for details information.

BODY	Disc	Body Seat	Disc Seat	Spring	Wetted Parts
A216 WCB/A105	A351 CF8	410SS/Stellite	Same as disc	Inconelx-750	410 SS
A216 WCB/A105	A351 CF8	VITON/BUNA/EPDM	Same as disc	Inconelx-750	410 SS
A216 WCB/A105	A351 CF8	316SS/Stellite	Same as disc	Inconelx-750	410 SS
A216 WCB/A105	A351 CF8	VITON/BUNA/EPDM	Same as disc	Inconelx-750	410 SS
352LCC/A350LF2	A351 CF8	316SS/Stellite	Same as disc	Inconelx-750	410 SS
352LCC/A350LF2	A351 CF8	VITON/BUNA/EPDM	Same as disc	Inconelx-750	410 SS
A351 CF8M/A182 F316	A351 CF8	Same as body	Same as disc	Inconelx-750	410 SS
A351 CF8M/A182 F316	A351 CF8	VITON/BUNA/EPDM	Same as disc	Inconelx-750	410 SS
A890 GR 4A/A182 F51	A890 GR 4A	Same as body	Same as disc	Inconelx-750	410 SS
A890 GR 4A/A182 F53	A890 GR 4A	Same as body	Same as disc	Inconelx-750	410 SS
UNS S31254	UNS S31251	Same as body	Same as disc	Inconelx-750	410 SS
UNS N26625	UNS S31251	Same as body	Same as disc	Inconelx-750	410 SS

Flanged Ball Check Valve

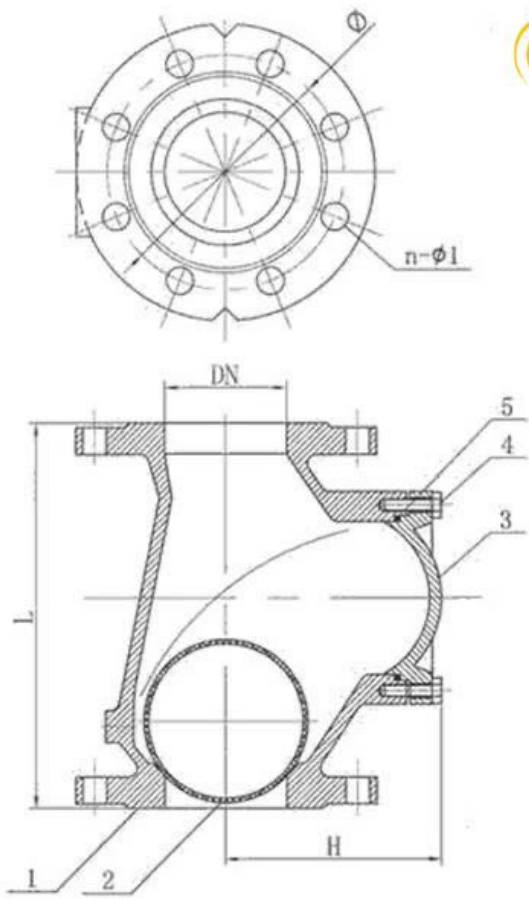


DESCRIPTION

- 1. Working pressure: 1.0/1.6Mpa
- 2. Working temperature:
NBR: 0°C~+80°C
EPDM: -10°C~+120°C
- 3. Face to face according to DIN3202 F6, ANSI 125/150
- 4. Flange according to EN1092-2, PN16/25. ANSI 125/150 etc.
- 5. Testing: DIN3230, API598
- 6. Medium: Fresh Water, Sea water, food stuff, all kinds of oil, acid, alkaline liquid etc.

NO.	PART	MATERIAL
1	Body	GG25/GGG40
2	Ball	Metal+ NBR/EPDM
3	Cap	GG25/GGG40
4	Bolt	Stainless Steel
5	Gasket	NBR/EPDM

DN(mm)		40	50	65	80	100	125	150	200	250	300	350	400
L(mm)		180	200	240	260	300	350	400	500	600	700	800	900
H(mm)		98	106	129	146	194	207	240	322	388	458	610	705
ΦD(mm)	PN10	Φ110	Φ125	Φ145	Φ160	Φ180	Φ210	Φ240	Φ295	Φ350	Φ400	Φ460	Φ515
	PN16	Φ110	Φ125	Φ145	Φ160	Φ180	Φ210	Φ240	Φ295	Φ355	Φ410	Φ470	Φ525



Threaded Ball Check Valve

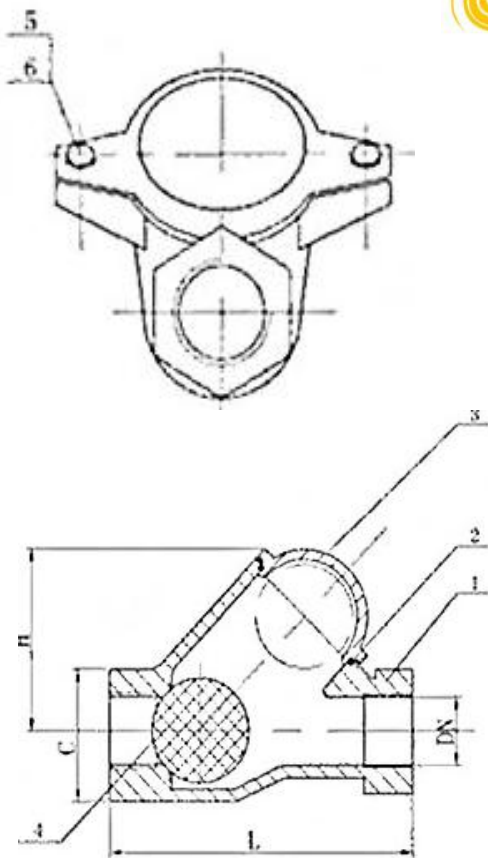


DESCRIPTION

- 1. Working pressure: 1.0/1.6Mpa
- 2. Working temperature:
NBR: 0°C~+80°C
EPDM: -10°C~+120°C
- 3. Connection type: BSP or BSPT
- 4. Testing: DIN3230, API598
- 5. Medium: Fresh Water, Sea water, food stuff, all kinds of oil, acid, alkaline liquid etc.

NO.	Part	Material
1	Body	GG25/GGG40
2	Gasket	NBR/EPDM
3	Cap	GG25/GGG40
4	Ball	NBR/EPDM
5	Bolt	Stainless steel
6	Nut	Stainless steel

DN(mm)	25	32	40	50	65	80
L(mm)	125	132	145	174	200	243
H(mm)	75	75	85	126	113	165



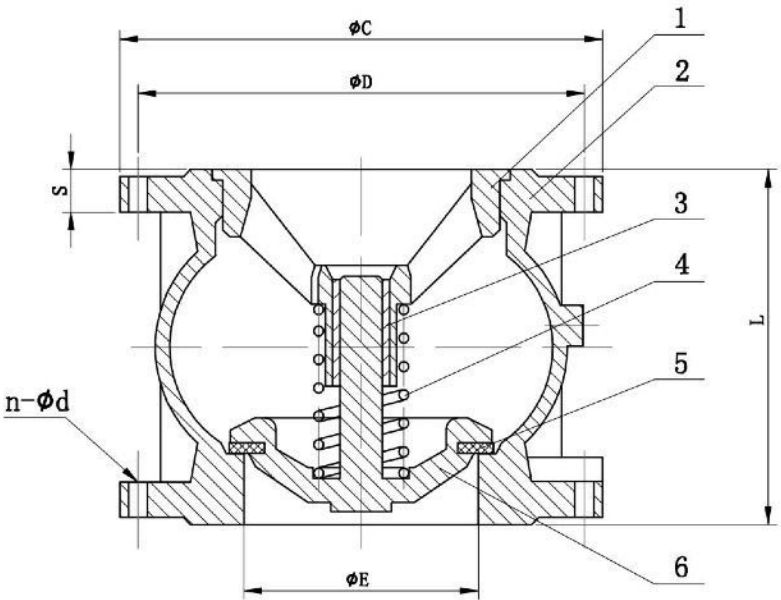
Flanged Silent Check Valve



DESCRIPTION

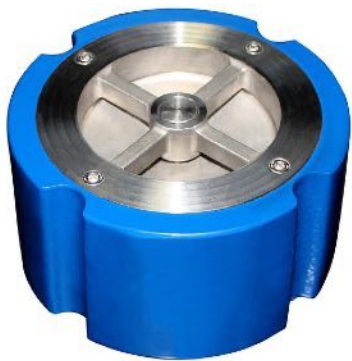
- 1. Working pressure: 1.0/1.6Mpa
- 2. Working temperature:
NBR: 0°C~+80°C
EPDM: -10°C~+120°C
- 3. Flange according to EN1092-2, PN10/16
- 4. Testing: DIN3230, API598
- 5. Medium: Fresh Water, Sea water, all kinds of oil, etc.

NO.	Part	Material
1	Guide	GGG40
2	Body	GG25/GGG40
3	Sleeve	PTFE
4	Spring	Stainless steel
5	Seal ring	NBR/EPDM
6	Disc	GGG40/Brass

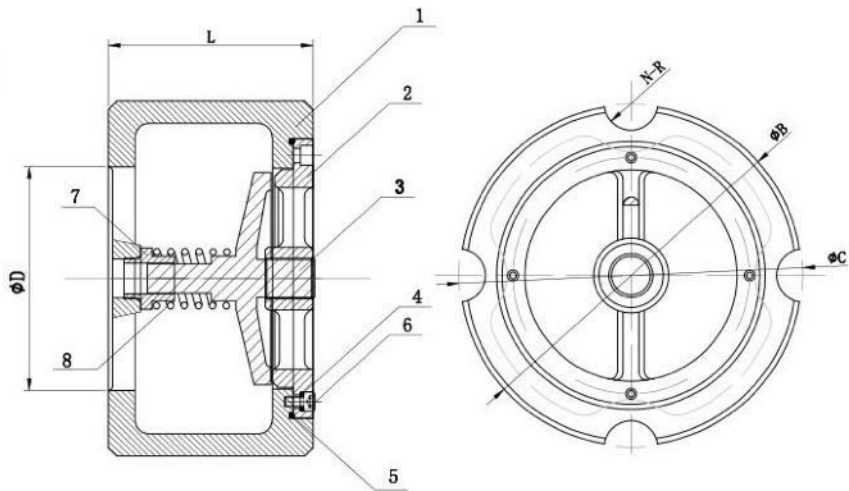


DN(mm)		50	65	80	100	125	150	200	250	300
L (mm)		100	120	140	170	200	230	301	370	410
ϕE (mm)		50	65	80	101	127	145	194	245	300
ϕC (mm)		165	185	200	220	250	285	340	405	460
ϕD (mm)	PN10	125	145	160	180	210	240	295	350	400
	PN16	125	145	160	180	210	240	295	355	410

Wafer Silent Check Valve



NO.	Part	Material
1	Body	GG25/GGG40
2	Guide	SS304/SS316
3	Disc	SS304/SS316
4	O-ring	NBR/EPDM
5	Seat ring	NBR/EPDM
6	Bolts	SS304/SS316
7	Sleeve	SS304/SS316
8	Spring	SS304/SS316



DESCRIPTION

- 1. Working pressure: 1.0/1.6Mpa
- 2. Working temperature:
NBR: 0℃~+80℃
EPDM: -10℃~+120℃
- 3. Flange according to ANSI 125/150
- 4. Face to face: ANSI 125/150
- 5. Testing: API598
- 6. Medium: Fresh Water, Sea water, all kinds of oil, acid, alkaline liquid etc.

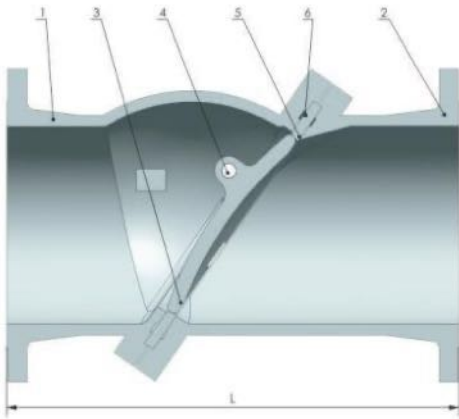
DN(mm)	50	65	80	100	125	150	200	250	300
L (mm)	67	73	79	102	117	140	165	210	286
ΦD(mm)	59	80	84	112	130	164	216	250	300
ΦB (mm)	108	127	146	174	213	248	340	406	482

Slanting Disc Check Valve



DESCRIPTION

1. Size: 2"-36"
2. Standard: ANSI Pressure class 125/150lb, 250/300lb
3. Flange ends: ASME B16.5 ASME B 16.47
4. API 6D face to face dimension and factory standard dimension
5. Wide range of materials are available



NO.	PART NAME	MATERIAL
1	outlet body	CI,DI,Carbon steel, Stainless steel, Duplex SS, Monel
2	inlet body	
3	disc	
4	shaft	Stainless steel, Dulex SS, Monel
5	seat ring	
6	gasket	SS+Graphite

NPS inch	ANSI Rating	Face to Face L(mm)	Weight kg
2	150	203	17
	300	267	26
3	150	241	27
	300	318	41
4	150	292	46
	300	356	76
6	150	356	79
	300	445	123
8	150	495	133
	300	533	208
10	150	622	221
	300	622	304
12	150	699	313
	300	711	467
14	150	787	403
	300	762	565
16	150	762	526
	300	838	769
18	150	838	651
	300	914	989
20	150	826	828
	300	991	1202
24	150	965	1310
	300	1143	1846
30	150	1321	2410
	300	1371	2812
36	150	1511	3082
	300	1524	5376

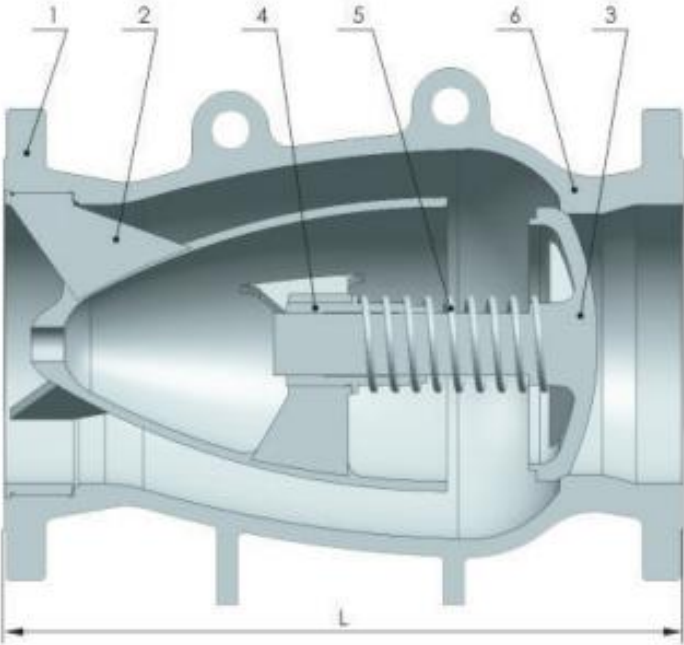
Axial Flow Check Valve



DESCRIPTION

- 1. Size: 2”-36” kindly contact us for details information.
- 2. Standard: ANSI Pressure class 150-2500
- 3. Flange ends: Butt-weld ends; Hub ends
- 4. API 6D face to face dimension and factory standard dimension
- 5. Wide range of materials are available

NO.	PART NAME	MATERIAL
1	Body	Carbon steel, Stainless steel, Duplex SS, Monel, Al-Bronze
2	Diffuser	
3	disc	
4	Bearing	Stainless steel, Dulex SS, Monel, Al-Bronzel
5	Spring	SS316, Inconel X-750, Inconel 718
6	Seat	Metal to Metal

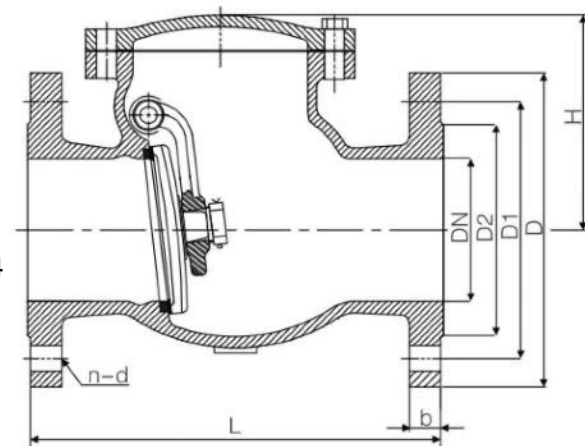




NO.	Part	Material
1	Body	GG20/GG25/GGG40/GGG50
2	Bonnet	GG20/GG25/GGG40/GGG50
3	Disc	GG20/GG25/GGG40/GGG50 with Brass/Bronze/Stainless steel
4	Seat	Brass/Bronze/Stainless steel
5	Pin	2CR13 SS304

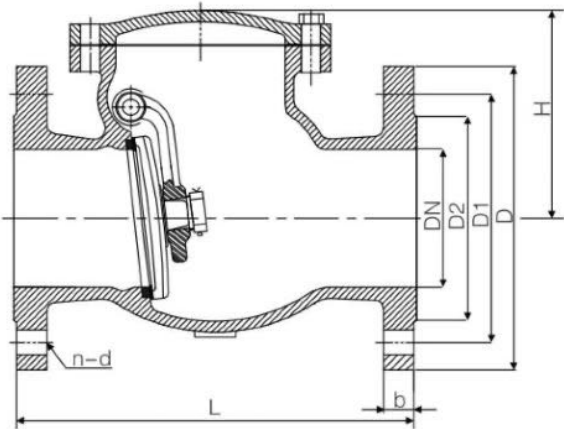
DESCRIPTION

1. Working pressure: 1.0/1.6Mpa
2. Working temperature: -20°C~+120°C
3. Flange connection according to BS4504
4. Face to face: BS5153
5. Design standard: BS5153
6. Medium: Water, Steam, Oil etc.



DN		50	65	80	100	125	150	200	250	300
L		203	216	241	292	330	356	495	622	698
D	PN10	165	185	200	220	250	285	340	395	445
	PN16								405	460
D1	PN10	125	145	160	180	210	240	295	350	400
	PN16								355	410
D2	PN10	102	122	138	158	188	212	268	320	370
	PN16									378
b		14	14	17	17	19	19	22	23	26
n-d	PN10	4-18	4-18	8-18	8-18	8-18	8-22	8-22	12-23	12-23
	PN16							12-22	12-28	12-28
H	PN10	137	147	160	180	203	223	258	290	325
	PN16			159						

DIN3202-F6 Swing Type Check Valve



NO.	Part	Material
1	Body	GG20/GG25/GGG40/GGG50
2	Bonnet	GG20/GG25/GGG40/GGG50
3	Disc	GG20/GG25/GGG40/GGG50 with Brass/Bronze/Stainless steel
4	Seat	Brass/Bronze/Stainless steel
5	Pin	2CR13 SS304

DESCRIPTION

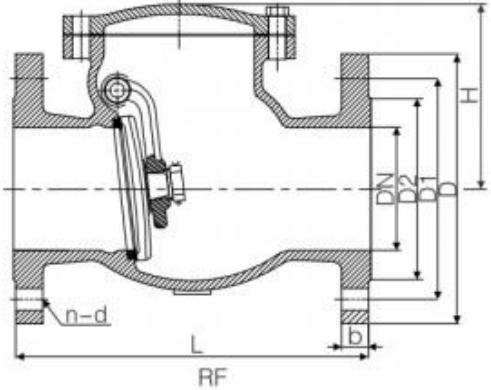
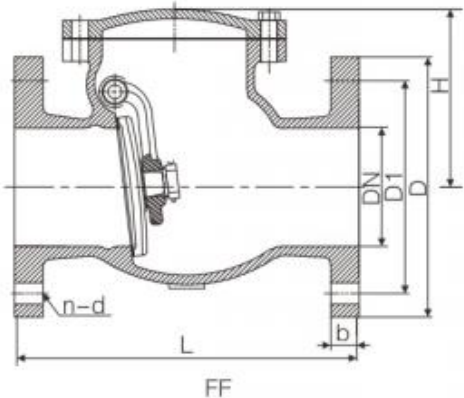
- 1. Working pressure: 1.0/1.6Mpa
- 2. Working temperature: -20℃~+120℃
- 3. Flange connection according to DIN2532 DIN2533 DIN 2501 EN1092
- 4. Face to face: DIN3202-F6
- 5. Design standard: DIN3356
- 6. Medium: Water, Steam, Oil etc.

DN		40	50	65	80	100	125	150	200	250
L		180	200	240	260	300	350	400	500	600
D	PN10	150	165	185	200	220	250	285	340	395
	PN16									405
D1	PN10	110	125	145	160	180	210	240	295	345
	PN16									355
D2	PN10	88	102	122	138	158	188	212	268	320
	PN16									
b	PN10	14	14	14	17	17	19	19	22	23
	PN16	18	20	20	22	24	26	26	30	32
n-d	PN10	4-19	4-19	4-19	8-19	8-19	8-19	8-23	8-23	12-23
	PN16								12-23	12-28
H		120	137	147	159	180	203	223	258	290

ANSI Swing Type Check Valve



NO.	Part	Material
1	Body	A126/A536
2	Bonnet	A126/A536
3	Disc	A126/A536 with Brass/Bronze/Stainless steel
4	Seat	Brass/Bronze/Stainless steel
5	Pin	2CR13 SS304



DESCRIPTION

1. Working pressure: 125LB/150LB
2. Working temperature: -20°C~+120°C
3. Flange connection according to ANSI B16.1 ANSI B16.5
4. Face to face: ANSI B16.10
5. Design standard: ANSI BS1868
6. Medium: Water, Steam, Oil, Gas etc.

DN		1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"
L		165	203	216	241	292	330	356	495	622
D		127	152	178	191	229	254	279	343	406
D1		99	121	140	152	191	216	241	299	362
D2	150LB	78	99	118	129	168	193	213	271	332
b		14	16	18	19	24	24	25	29	30
n-d	125LB	4-16	4-18	4-18	4-18	8-18	8-22	8-22	8-22	12-26
	150LB		4-19	4-19	4-19	8-19	8-23	8-23	8-23	
H		120	137	147	159	180	203	223	258	290