

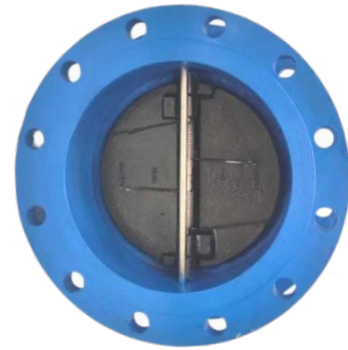
BERZICO METAL HINGED DUAL DOOR CHECK VALVE



**LUGGED TYPE
MODEL BCV36**



**WAFER TYPE MODEL
BCV35
(STANDARD MODEL)**



**FLANGE TYPE
MODEL BCV34**

Design Features:

The Berzico Dual Door Check Valve is an all-purpose non-return valve that is much stronger and lighter in weight due to the compact design when compared to a conventional Swing Check Valve or Lift Check Valve. BERZICO dual door check valves are designed to prevent back flow where systems are made to allow flow in one direction and prevent flow in the opposite direction. The valves are recommended for clean liquids, air, and gases.

Dual Door check valves are equipped with a spring for fast, non-slam shut off against the elastomer or metal seat. The dual doors automatically open when the downstream flow creates the required pressure in the off-seating direction. When the flow reduces, the torsion of the spring will automatically close the doors to prevent a flow reversal and minimize system surges and water hammer.

- **Minimal Head Loss**
- **Low Cracking Pressure**
- **Quick Close**
- **Cost Efficient Design**





Industries:

- Refineries
- Petrochemical
- Chemical
- Liquefaction
- HVAC
- Marine
- Water and Wastewater
- Steel/Primary Metals
- Power Generation

Standard Materials of Construction:

Sizes Available:	2" to 36" (50 to 900 mm)
Body Material:	Cast Iron, Ductile Iron (standard), Carbon Steel, CF8M (standard), CF8, Duplex, and other materials upon request.
Disc Material:	Bronze, CF8M (standard), CF8
Seat Material:	EPDM (standard), Viton, NBR
Wafer Body:	2" to 6" (50 to 150 mm) ASME B16.5 Class 150/300 lbs. (Scallop Design) 8" to 36" (200 to 900 mm) ASME Class 150
Lugged Design:	2" to 24" (50 to 600 mm) ASME Class 150 and 300
Double Flange:	2" to 24" (50 to 600 mm) ASME Class 150 and 300

Pressure Ratings: Wafer Type Model BCV35

2" to 6"	Class 300 Ductile Iron Body:	640 psi
8" to 36"	Class 150 Ductile Iron Body:	250 psi
2" to 6"	Class 300 Carbon Steel Body:	740 psi
8" to 36"	Class 150 Carbon Steel Body:	285 psi
2" to 6"	Class 300 Stainless Steel Body:	720 psi
8" to 36"	Class 150 Stainless Steel Body:	275 psi

Note: Pressure rating for BCV34 and BCV36 – ASME Class 150

Seal Data:

Buna-N	-60° F to 225° F (-50° C to 107° C)
EPDM	-40° F to 300° F (-40° C to 149° C)
Viton™	-20° F to 400° F (-29° C to 204° C)
Teflon	-20° F to 450° F (-29° C to 232° C)
Silicone	-90° F to 500° F (-68° C to 260° C)
Metal to Metal	-400° F to 1000° F (-240° C to 127° C)

Spring Data:

316SS	500° F (260° C)
Inconel X 750	1000° F (538° C)



Standard Models:

MODEL	BODY	DUAL DOORS	SEALS	SPRINGS	TRIM	ASME CLASS
BCV35-2236RE	DUCTILE IRON	CF8M	EPDM	316SS	316SS	≤ 6" 300
BCV35-2236RE	DUCTILE IRON					≥ 8" 150
BCV35-2236RE	WCB					≤ 6" 300
BCV35-2236RE	WCB					≥ 8" 150
BCV35-2236RE	CF8M					≤ 6" 300
BCV35-2236RE	CF8M					≥ 8" 150

Note: Trim includes all shafts, shaft supports, spacers

Options Available:

MODEL	BODY	DUAL DOORS	SEALS	SPRINGS	TRIM	ASME CLASS
BCV35-2236R	DUCTILE IRON	Aluminum Aluminum Bronze	Viton-A/B NBR Silicone	Inconel X-750	316SS	≤ 6" 300
BCV35-2236R	DUCTILE IRON					≥ 8" 150
BCV35-2236R	WCB					≤ 6" 300
BCV35-2236R	WCB					≥ 8" 150
BCV35-2236R	CF8M					≤ 6" 300
BCV35-2236R	CF8M					≥ 8" 150

Note: For other materials and models, please consult factory

Shutoff Capabilities:

Resilient Seat: Bubble tight shut off according to API 598 test requirements.

Metal Seat: According to API 598 test requirements.

Note: Berzico can perform and document the hydrostatic and leak test required by API 598, MSS-SP-61 or other such guides.

Cv Values for Dual Plate Check Valves MODEL BCV35

SIZE	Cv
2"	48
3"	150
4"	394
6"	900
8"	1589
10"	3300
12"	3926
14"	5418
16"	8256
18"	10452
20"	14251
24"	26511

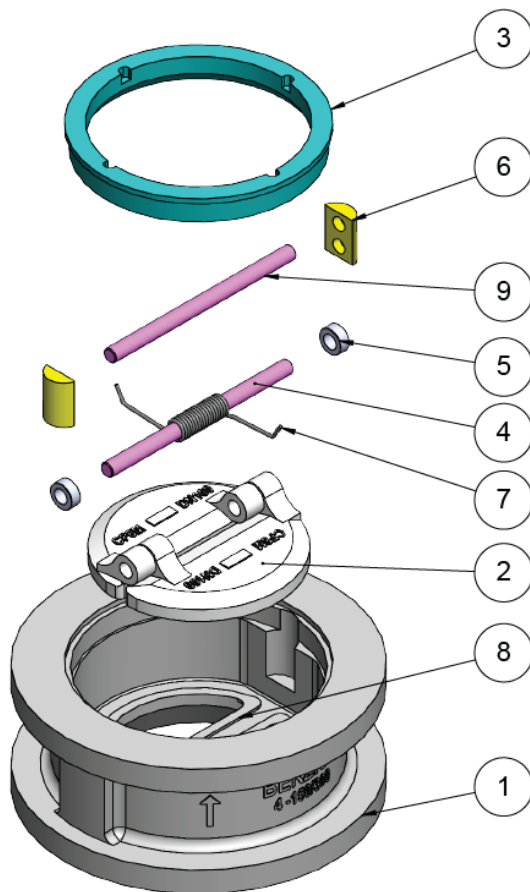
The critical velocity of a valve is that velocity of fluid required to keep the plates of the valve fully open. This condition is important for all check valves. If not obtained, then any pressure drop calculations would be invalid as the Cv of a valve is calculated on the basis of the valve being in the fully open position. With the valve plates only partially open (i.e the flow velocity being less than the critical velocity of the valve) then a higher-pressure drop will exist that would otherwise be calculated.

Ring Design

ITEM	DESCRIPTION	QTY	MATERIAL
1	Body	1	Cast Iron/Ductile Iron/WCB/CF8M/CF8
2	Door	2	CF8M/Bronze
3	Retainer Ring	1	Stainless Steel
4	Door Hinge Pin	1	316 Stainless Steel
5	Spring Spacer	2	316 Stainless Steel
6	Stop Pin Retainer	2	316 Stainless Steel
7	Spring	1	316 Stainless Steel/Inconel X-750
8	Seat	1	EPDM/Viton/Silicone
9	Stop Pin	1	316 Stainless Steel

Standard Parts List

2" to 5" (50 to 125 mm)

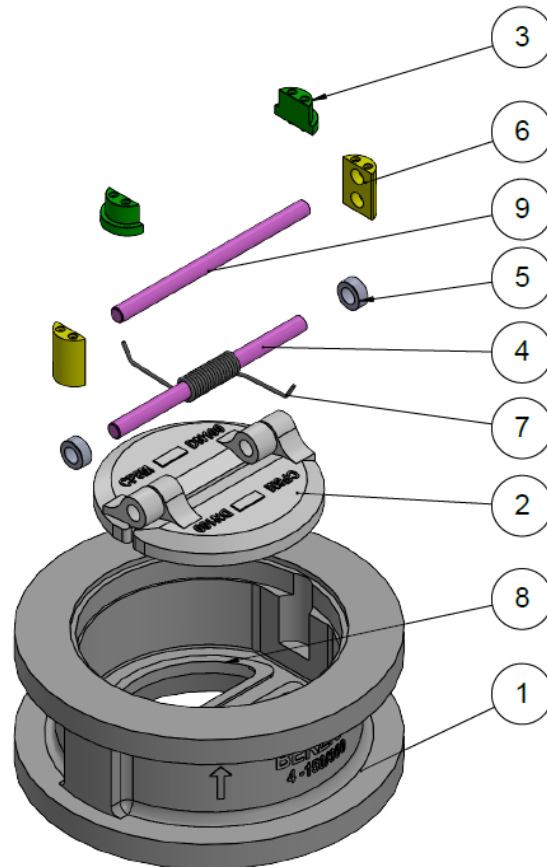


Cap design

Standard Parts List

6" to 36" (150 to 900 mm)

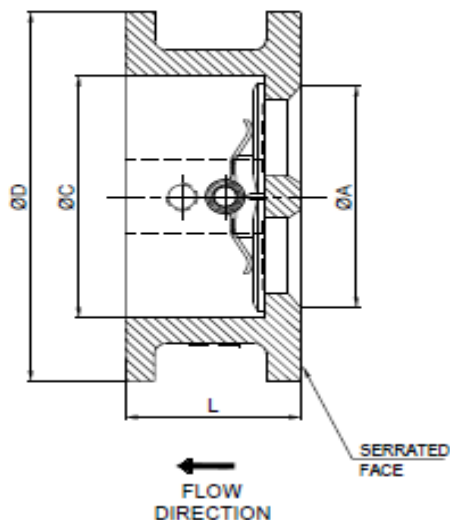
ITEM	DESCRIPTION	QTY	MATERIAL
1	Body	1	Cast Iron/Ductile Iron/WCB/CF8M/CF8
2	Door	2	CF8M/Bronze
3	Retainer Cap	1	Stainless Steel
4	Door Hinge Pin	1	316 Stainless Steel
5	Spring Spacer	2	316 Stainless Steel
6	Stop Pin Retainer	2	316 Stainless Steel
7	Spring	1	316 Stainless Steel/Inconel X-750
8	Seat	1	EPDM/Viton/Silicone
9	Stop Pin	1	316 Stainless Steel



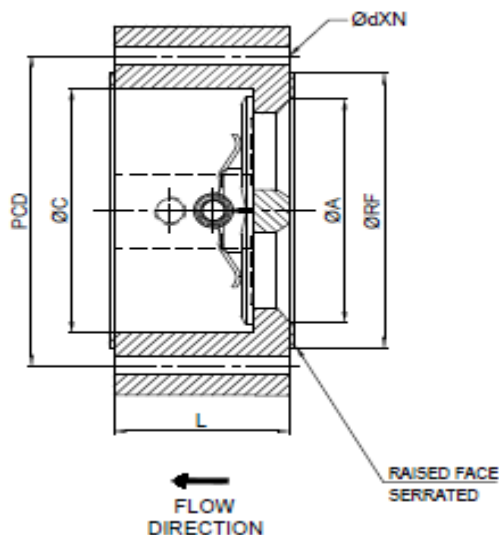
DIMENSIONS

Imperial / Ansi 150

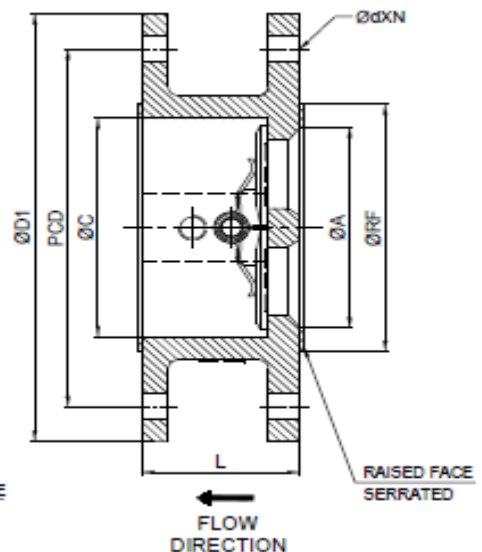
**WAFER
MODEL 35**



**LUGGED
MODEL 36**



**FLANGED
MODEL 34**



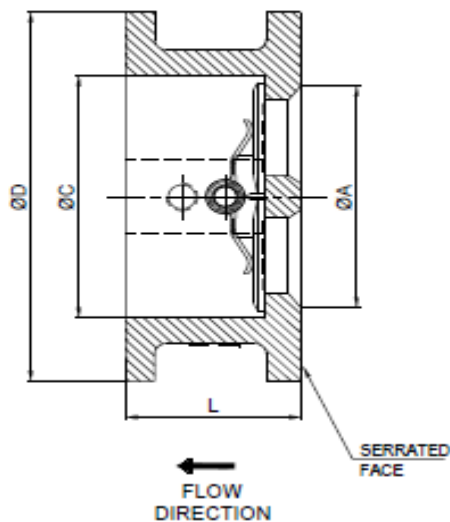
SIZE INCH	ØA	ØC	L	PCD	ØdXN	ØRF	WAFER ØD	FLANGED D1
2"	2.0	2.6	2.4	4.8	3/4 X 4	3.6	4.3	5.9
2.5"	2.5	3.0	2.6	5.5	3/4 X 4	4.1	4.9	7.1
3"	3.1	3.7	2.9	6.0	3/4 X 4	5.0	5.7	7.5
4"	4.1	4.7	2.9	7.5	3/4 X 8	6.2	7.0	9.1
5"	4.7	5.1	3.4	8.5	7/8 X 8	7.3	8.3	10.0
6"	6.4	6.7	3.9	9.5	7/8 X 8	8.5	9.8	11.0
8"	8.1	8.7	5.0	11.8	7/8 X 8	10.6	10.8	13.6
10"	10.1	10.4	5.7	14.3	1 X 12	12.7	13.1	15.9
12"	11.6	12.2	7.1	17.0	1 X 12	15.0	16.0	19.1
14"	14.4	14.2	7.2	18.8	1 X 12	16.3	17.5	21.1
16"	15.4	16.1	7.5	21.3	1 X 12	18.5	20.1	23.4
18"	17.1	16.9	8.0	22.8	1-1/4 X 16	21.0	21.5	25.0
20"	19.6	19.6	8.6	25.0	1-1/4 X 20	23.0	23.7	27.6
24"	23.5	23.5	8.7	29.5	1-3/8 X 20	27.3	28.0	32.1

- Standard drilling dimensions are as per ANSI B16.5 #150. For other drilling dimensions, please consult with the factory.
- Face to Face dimensions are as per API594 type 'A' #150. Shorter Face to Face are also available as per API594 type 'A' #125 for Cast Iron and Ductile Iron also available.
- Note: For diameters $\geq 30"$, please consult with the factory.

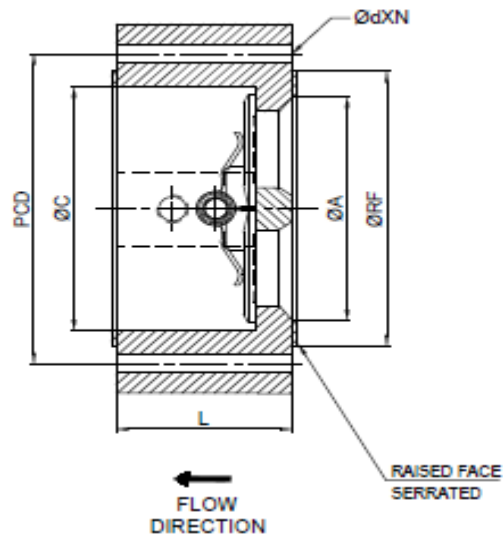
DIMENSIONS

Metric / Ansi 150

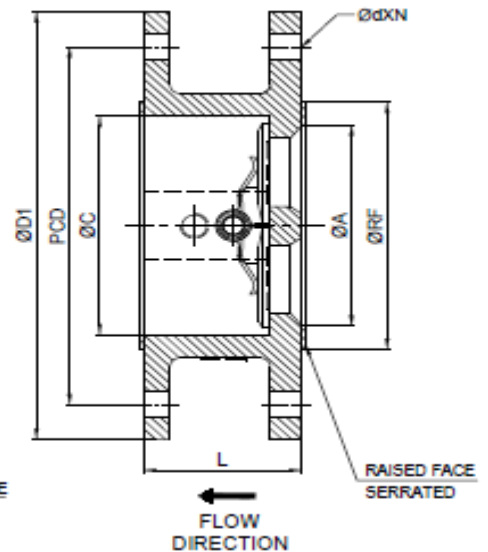
WAFER



LUGGED



FLANGED



SIZE MM	ØA	ØC	L	PCD	ØdXN	ØRF	WAFER ØD	FLANGED D1
50	52	66	60	120.7	19X4	92.1	109	150
65	64	76	67	139.7	19X4	104.8	125	180
80	80	93	73	152.4	19X4	127.0	145	190
100	105	120	73	190.5	19X8	157.2	178	230
125	120	130	86	215.9	22.2X8	185.7	212	255
150	163	170	99	241.3	22.2X8	215.9	248	280
200	205	222	127	298.5	22.2X8	269.9	275	345
250	256	265	146	362.0	25.4X12	323.8	334	405
300	295	310	181	431.8	25.4X12	381.0	406	485
350	365	360	184	476.3	28.6X12	412.8	445	535
400	390	410	191	539.8	28.6X12	469.9	510	595
450	435	430	203	577.9	31.8X16	533.4	547	635
500	498	498	219	635.0	31.8X20	584.2	602	700
600	598	598	222	749.3	35X20	692.2	712	816

- Standard drilling dimensions are as per ANSI B16.5 #150. For other drilling dimensions, please consult with the factory.
- Face to Face dimensions are as per API594 type 'A' #150. Shorter Face to Face are also available as per API594 type 'A' #125 for Cast Iron and Ductile Iron also available.
- Note: For diameters $\geq 30"$, please consult with the factory.

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BERZICO LOCATIONS

