581 Series
SILENT GLOBE CHECK VALVE

ENGINEERING DATA SHEET



Product Advantages

- Operates Horizontally or Vertically
- Watertight Metal-to-Metal Seating
- Field Replaceable Parts
- Factory Mutual Approved – 4 through 10 inches
- Optional Resilient Seat

The Cla-Val 581 Series Silent Globe Check Valve has a spring- loaded poppet that allows the valve to close at 1/4 psi before flow reversal occurs, resulting in a silent, non-slam closure. Constructed of a ductile iron body with stainless steel trim, the Cla-Val Silent Globe Check Valve offers watertight shutoff with metal-to-metal seating. Buna-N® resilient seats are available as an option for special applications.

FM APPROVED
4 - 12 inches

Meets the Federal Mandate Limiting Lead in Drinking Water

Approvals & Certifications

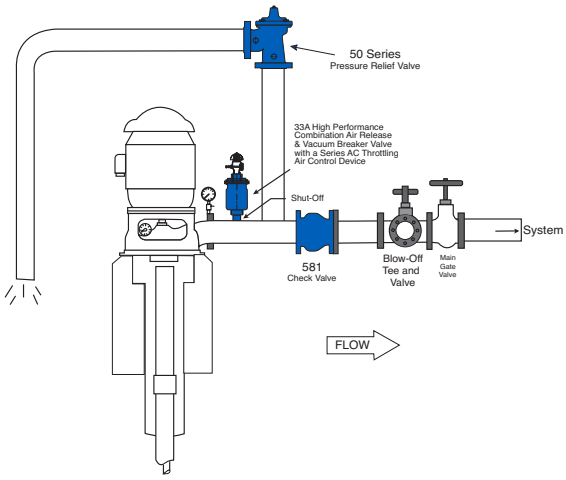
• 125/150 and 250/300 class valves 4 - 12 inches - FM Approved

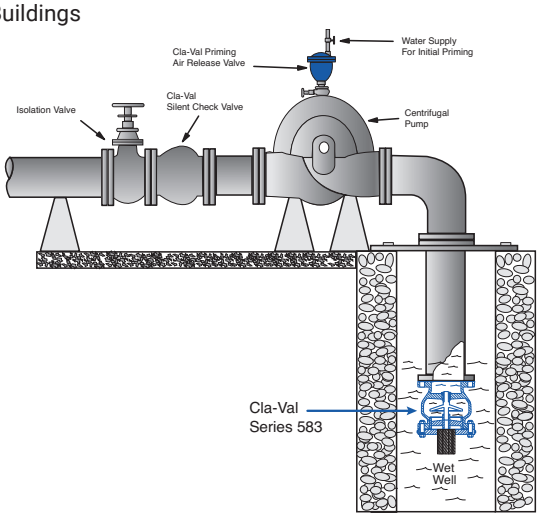
• 125/250 & 250/300 Class valves 3 - 42 inches meet Federal Mandate for Lead Content Limits

Typical Applications

Cla-Val 581 Series Silent Globe Check Valves are used anywhere a quick, quiet closure is desired and in the majority of pump applications, including the following;

• Fire Pump Applications
• Vertical Turbine Pumps
• Booster Pump Stations in High Rise Buildings
• House Pump Applications





Specifications

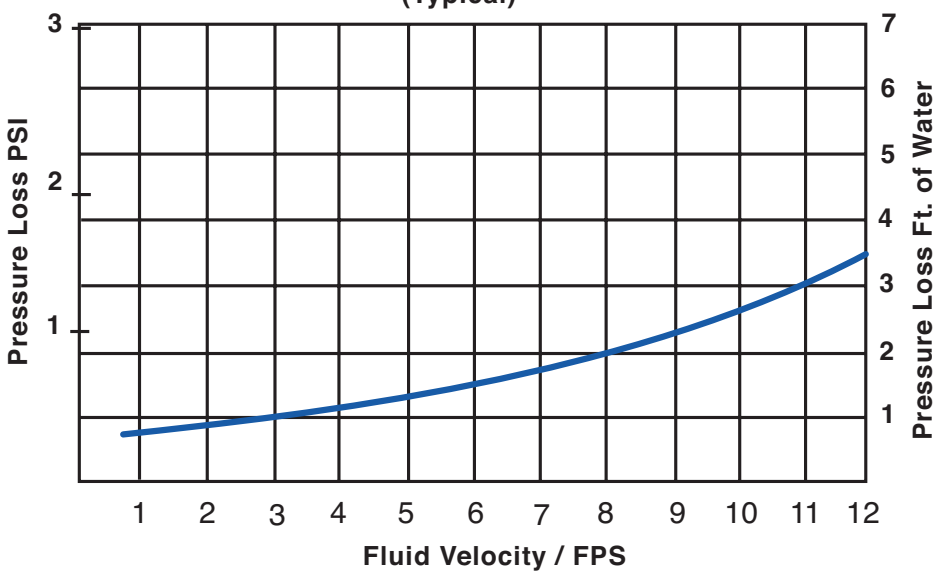
The silent globe check valve shall consist of an epoxy-coated ductile iron body, stainless steel seat, disc and spring. The valve disc shall be center guided at both ends with an integral shaft and shall be spring loaded for silent operation. The spring shall be helical or conical and stone tumbled to achieve a micro-finish to resist mineral deposits. For ease of maintenance, the seat and disc shall be replaceable in the field. Check valve shall be capable of silent operation when installed in vertical or horizontal positions with either flow up or flow down. The flow area through the body shall be equal to or greater than the cross-section area of the equivalent pipe size.

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Dimensions

Series 581 Pressure Loss Curve

(Typical)



Pressure Ratings

- 125/150 (Rated to 250 psi)
- 250/300 (Rated to 640 psi)

Materials

Valve Body:
Ductile Iron - ASTM 536 65-45-12

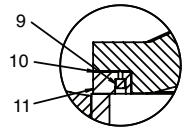
Disc & Seat:
316 Stainless Steel; Stone Tumbled and Stress Relieved - SS ASTM A276 T16

Spring:
316 Stainless Steel; Stone Tumbled and Stress Relieved - SS ASTM A276 T16

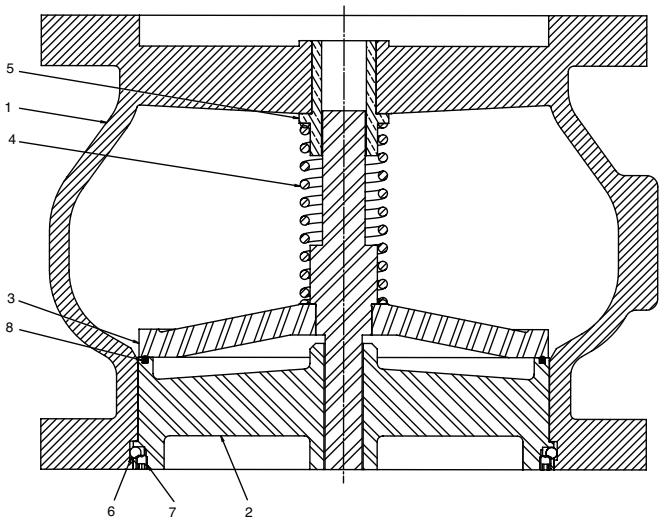
Note: Standard offering is NSF 61 fusion bond epoxy coating, interior and exterior

ASTM INTERNATIONAL
Standards Worldwide

581 Series Silent Globe Check Valve Technical Data



30" through 42" plug detail
(metal-to-metal seating surface shown)



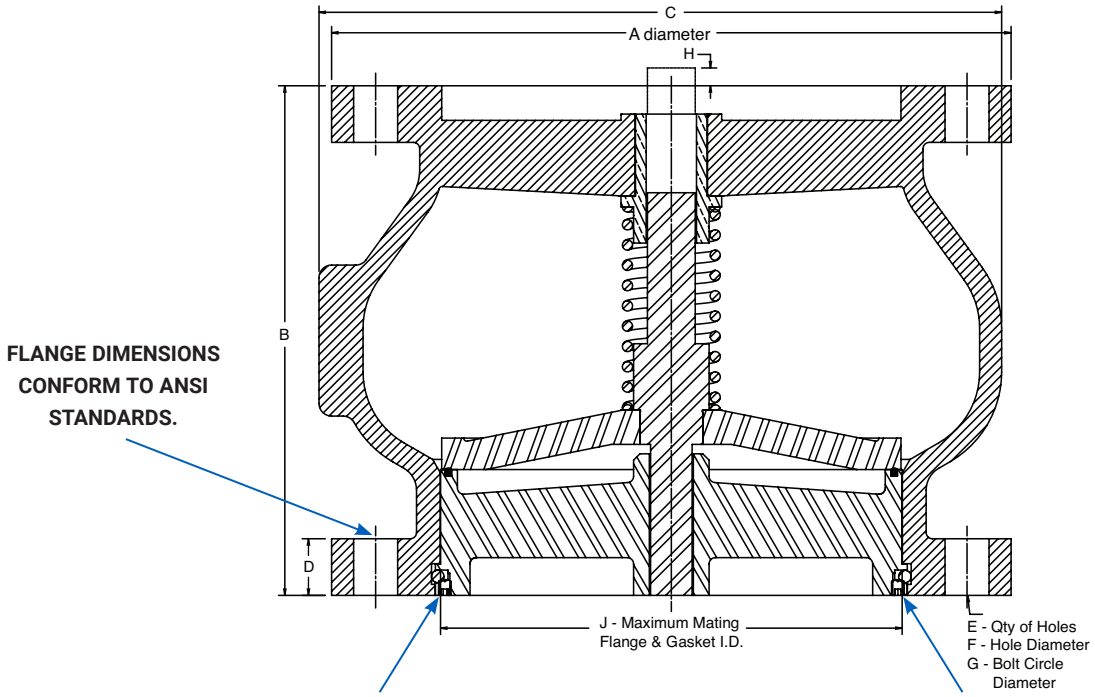
Item No.	Description	QTY	Material
1	Body	1	Ductile Iron 536 65-45-12
2	Seat	1	SS ASTM A276 T304
3	Plug	1	SS ASTM A276 T304
4	Spring	1	SS ASTM A276 T316
5	Bushing	1	SS ASTM A276 T304
6	Seat Retaining Ball	2	SS ASTM A276 T304
7	Seat Retaining Screw	2	SS ASTM A276 T304
8	Optional Resilient Seat	1	Buna-N®
9	Plug Ring (30"- 42")	1	Buna-N®
10	Gasket (30"- 42")	1	Buna-N®
11	Plug Ring Screw (30"- 42")	1	SS ASTM A276 T304

FLANGE DIMENSION CONFORM TO ANSI STANDARDS.

Note: Flange & Gasket must bridge this joint for seat retention and pressure seal.

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581 Series 125/150 Class Silent Globe Check Valve



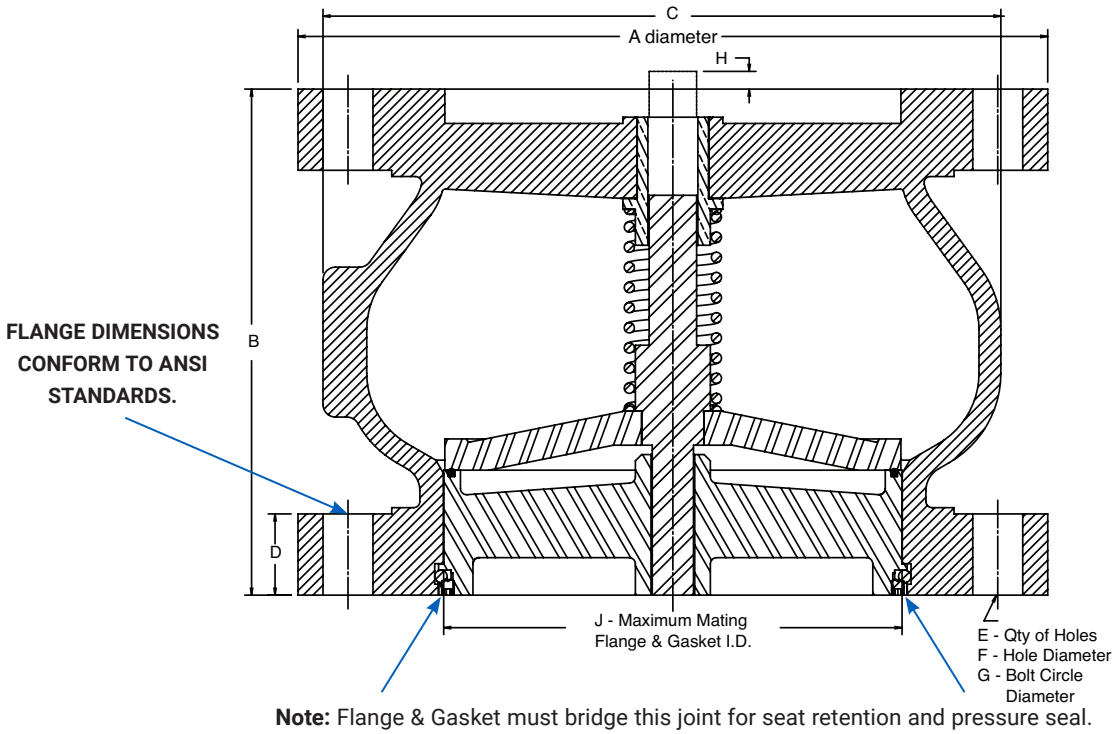
Note: Flange & Gasket must bridge this joint for seat retention and pressure seal.

Valve Size (inches)	A	B	C	D	E	F	G	H	J
3	7.50	6.00	6.06	0.94	4	0.75	6.00	0	3.38
4	9.00	7.25	7.63	0.94	8	0.75	7.50	0	4.75
6	11.00	9.00	10.88	1.00	8	0.88	9.50	0	6.50
8	13.50	10.125	13.69	1.13	8	0.88	11.75	0	8.50
10	16.00	12.00	17.50	1.19	12	1.00	14.25	0.16	10.75
12	19.00	14.37	20.56	1.25	12	1.00	17.00	0.31	12.88
14	21.00	15.75	22.56	1.38	12	1.13	18.75	0	14.75
16	23.50	17.625	25.50	1.44	16	1.13	21.25	0.69	16.50
18	25.00	18.75	27.25	1.56	16	1.25	22.75	1.38	18.75
20	27.50	20.625	31.25	1.69	20	1.25	25.00	1.13	20.63
24	32.00	24.00	37.19	1.88	20	1.38	29.50	2.25	24.75
30	38.75	29.25	45.13	2.13	28	1.38	36.00	3.56	29.50
36	46.00	45.00	53.38	2.38	32	1.63	42.75	0	36.00
42	53.00	50.00	60.00	2.63	36	1.63	49.50	0	42.00

Valve Size (inches)	A	B	C	D	E	F	G	H	J
80	190.5	152.4	154.0	23.8	4	19.1	152.4	0	85.7
100	228.6	184.2	193.7	23.8	8	19.1	190.5	0	120.7
150	279.4	228.6	276.2	25.4	8	22.2	241.3	0	165.1
200	342.9	257.2	347.7	28.6	8	22.2	298.5	0	215.9
250	406.4	304.8	444.5	30.2	12	25.4	362.0	4.0	273.1
300	482.6	365.1	522.3	31.8	12	25.4	431.8	7.9	327.0
350	533.4	400.1	573.1	34.9	12	28.6	476.3	0	374.7
400	596.9	447.7	647.7	36.5	16	28.6	539.8	17.5	419.1
450	635.0	476.3	692.2	39.7	16	31.8	577.9	34.9	476.3
500	698.5	523.9	793.8	42.9	20	31.8	635.0	28.6	523.9
600	812.8	609.6	944.6	47.6	20	34.9	749.3	57.2	628.7
750	984.3	743.0	1146.2	54.0	28	34.9	914.9	90.5	749.3
900	1168.4	1143.0	1355.7	60.3	32	41.3	1085.9	0	914.4
1000	1346.2	1270.0	1524.0	66.7	36	41.3	1257.3	0	1066.8

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581 Series 250/300 Class Silent Globe Check Valve



Note: Flange & Gasket must bridge this joint for seat retention and pressure seal.

Valve Size (inches)	A	B	C	D	E	F	G	H	J
3	7.50	6.00	6.06	1.13	8	0.88	6.63	0	3.38
4	9.00	7.25	7.63	1.25	8	0.88	7.87	0	4.75
6	11.00	9.00	10.88	1.44	12	0.88	10.56	0	6.50
8	13.50	10.125	13.69	1.63	12	1.00	13.00	0	8.50
10	16.00	12.00	17.50	1.88	16	1.13	15.25	0.16	10.75
12	19.00	14.37	20.56	2.00	16	1.25	17.75	0.31	12.88
14	21.00	15.75	22.56	2.13	20	1.25	20.25	0	14.75
16	23.50	17.625	25.50	2.25	20	1.38	22.50	0.69	16.50
18	25.00	18.75	27.25	2.38	24	1.38	24.75	1.38	18.75
20	27.50	20.625	31.25	2.50	24	1.38	27.00	1.13	20.63
24	32.00	24.00	37.19	2.75	24	1.63	32.00	2.25	24.75
30	38.75	29.25	45.13	3.00	28	1.88	39.25	3.56	29.50
36	46.00	45.00	53.38	3.38	32	2.25	46.00	0	36.00
42	53.00	50.00	60.00	3.69	36	2.25	52.75	0	42.00

Valve Size (inches)	A	B	C	D	E	F	G	H	J
80	209.6	152.4	154.0	28.6	8	22.2	168.4	0	85.9
100	254.0	184.2	193.7	31.8	8	22.2	200.0	0	120.7
150	317.5	228.6	276.2	36.5	12	22.2	268.1	0	165.1
200	381.0	257.2	347.7	41.3	12	25.4	330.2	0	215.9
250	444.5	304.8	444.5	47.6	16	28.6	387.4	4.0	273.1
300	520.7	365.1	522.3	50.8	16	31.8	450.9	7.9	327.0
350	584.2	400.1	573.1	54.0	20	31.8	514.4	0	374.7
400	647.7	447.7	647.7	57.2	20	34.9	571.5	17.5	419.1
450	711.2	476.3	692.2	60.3	24	34.9	628.7	34.9	476.3
500	774.7	523.9	793.8	63.5	24	34.9	685.8	28.6	523.9
600	914.4	609.6	944.6	69.9	24	41.3	812.8	57.2	628.7
750	1092.2	743.0	1146.2	76.2	28	47.6	997.0	90.5	749.3
900	1270.0	1143.0	1355.7	85.7	32	57.2	1168.4	0	914.4
1000	1447.8	1270.0	1524.0	93.7	36	57.2	1339.9	0	1066.8

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