



CV Single Flap Check Valve

Cast Iron Body

Stainless Steel Disc and Spring

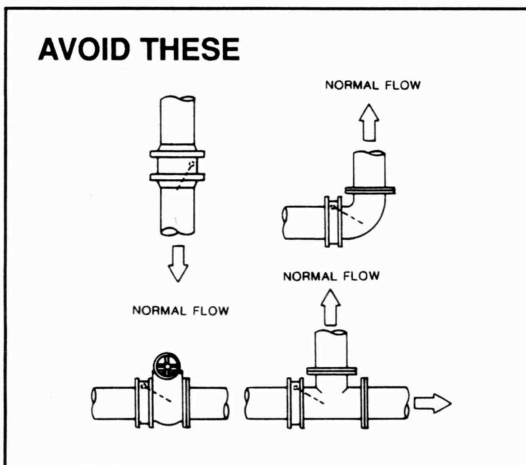
'O' Ring Selection

- Nitrile
- EPDM
- Viton

Features

1. Available in standard pattern (narrow face to face) or in API pattern (conforming to API 594 dimensions).
2. Quick spring-assisted closure reducing damaging water hammer.
3. Short face-to-face length enabling installation in restricted spaces not possible with conventional flanged check valves.
4. Lightweight construction, fifteen per cent the weight of a conventional check valve.
5. Wafer (flangeless) body pattern requiring one set of flange studs only.
6. Positive drip-tight closure with soft seat option.
7. Low cost.
8. Maintenance-free design.
9. Optional extended shaft fitted with backflush lever, lever and weight, external spring, microswitch, position indicator, hydraulic or pneumatic dampener.
10. Low head loss.

Installation



The W Series check valve installs between two pipe flanges. The body is flangeless and is centred in line by the surrounding flange bolts.

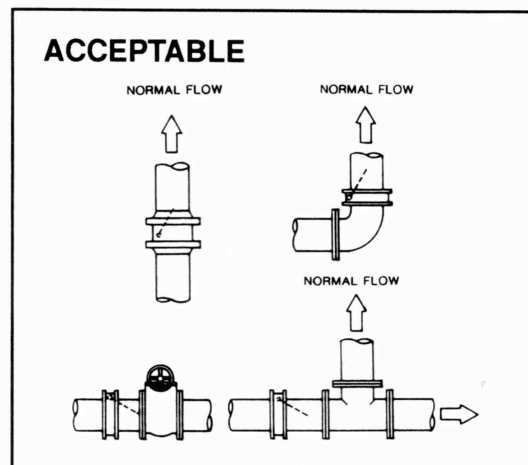
Correct selection of materials and installation will ensure trouble free operation. Consider the following points:

- Check that the pipe flange drilling complies with the valve tag specification.
- Flow direction is indicated by an arrow cast on the valve body.
- On horizontal installations, the valve tag should **always** be at the top.
- Flow should always be upward on vertical installations.

Maintenance

Due to the low wearing of working parts and simple robust construction, the valve should not require attention for several years.

However, if the valve is installed on critical applications such as sanitary isolation, it is considered prudent to make yearly inspections. Valves subject to high frequency of operation may require spring replacement at earlier intervals. This becomes apparent when valve closure is noisy.



— The valve reaches the fully open position when the clapper contacts the inside diameter of the pipe. If non-standard or cement lined pipe is used contact your supplier for recommendations.

— Allow a downstream length of straight pipe equal to one pipe diameter before installing other valves or pipe bends, tees etc.

Avoid manifolds where a pump discharges directly into another pump discharge.

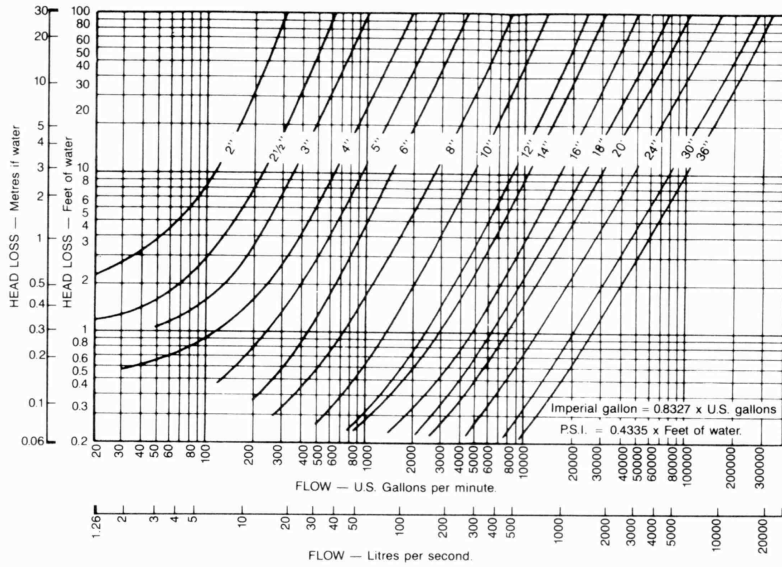
Resilient seats above 4136kpa (600 p.s.i.) are not recommended.

Flow Characteristics

Pressure Drop

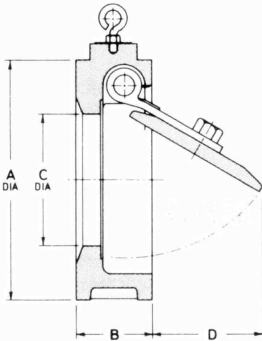
Valve Size		Opening Pressure Differential				
in	(mm)	CV	in WC	(mm WC)	psi	Bars
2	(50)	56	(19.10)	(485)	0.690	(0.048)
2.5	(65)	109	(13.42)	(340)	0.484	(0.033)
3	(80)	166	(7.76)	(197)	0.280	(0.019)
4	(100)	318	(3.18)	(81)	0.115	(0.008)
5	(125)	471	(2.58)	(65)	0.093	(0.006)
6	(150)	720	(1.51)	(38)	0.055	(0.004)
8	(200)	1384	(2.53)	(64)	0.091	(0.006)
10	(250)	2298	(2.73)	(69)	0.099	(0.007)
12	(300)	4153	(2.53)	(64)	0.091	(0.006)
14	(350)	4984	(1.60)	(40)	0.058	(0.004)
16	(400)	8307	(1.00)	(25)	0.036	(0.002)
18	(450)	11906	(0.95)	(24)	0.034	(0.002)
20	(500)	16059	(0.90)	(23)	0.032	(0.002)
24	(600)	22705	(0.82)	(21)	0.030	(0.002)
30	(750)	47071	(0.65)	(17)	0.023	(0.002)
36	(900)	53993	(0.60)	(15)	0.020	(0.001)

Flow Characteristics



Dimensional Data

Metric (mm)



Size	A BSTD BSTE	A Ansl 125 Ansl 150	A Ansl 300	A BS4504 NP16	B Std	B API 594 #150	B API 594 #300	C	D Std	D API 594 #150	D API 594 #300
50	98.4	104.8	111.1	109	44.5	60	60	33.3	28.6	13	13
65	111.1	123.8	-	129	47.6	-	-	42.9	30.2	-	-
80	130.2	136.5	149.2	144	50.8	73	73	52.4	55.6	34	34
100	161.9	174.6	181.0	164	57.2	73	73	76.2	74.6	59	59
125	193.7	196.9	-	194	63.5	-	-	95.3	95.3	-	-
150	215.9	222.3	250.8	220	69.9	98	98	120.7	114.3	86	86
200	273.1	279.4	308.0	275	73.0	127	127	163.5	155.6	102	102
250	336.6	339.7	362.3	331	79.4	146	146	193.7	187.3	121	121
300	384.2	409.6	422.3	386	85.7	181	181	241.3	222.3	127	127
350	447.7	450.9	485.8	446	108.0	184	222	266.7	228.6	152	114
400	498.5	514.4	539.8	498	108.0	191	232	317.5	247.7	165	124
450	562.0	549.3	596.9	558	108.0	203	264	355.6	298.5	203	143
500	619.1	606.4	654.1	620	139.7	219	292	387.4	323.9	245	171
600	727.1	717.6	774.7	737	152.4	222	318	482.6	387.4	318	222
750	895.3	882.7	-	-	152.4	-	-	584.2	527.1	-	-
900	1060.0	1048.0	-	-	152.4	-	-	736.6	635.0	-	-

Imperial (inches)

Size	A BSTD BSTE	A Ansl 125 Ansl 150	A Ansl 300	A BS4504 NP16	B Std	B API 594 #150	B API 594 #300	C	D Std	D API 594 #150	D API 594 #300
2	3.875	4.125	4.375	4.291	1.750	2.38	2.38	1.312	1.125	0.49	0.49
2.5	4.375	4.875	-	5.079	1.875	-	-	1.688	1.188	-	-
3	5.125	5.375	5.875	5.669	2.000	2.88	2.88	2.062	2.188	1.31	1.31
4	6.375	6.875	8.125	6.457	2.250	2.88	2.88	3.000	2.938	2.30	2.30
5	7.625	7.750	-	7.638	2.500	-	-	3.750	3.750	-	-
6	8.500	8.750	9.875	8.661	2.750	3.88	3.88	4.750	4.500	3.37	3.37
8	10.750	11.000	12.125	10.827	2.875	5.00	5.00	6.437	6.125	4.00	4.00
10	13.250	13.375	14.250	13.031	3.125	5.75	5.75	7.625	7.375	4.75	4.75
12	15.125	16.125	16.625	15.197	3.375	7.12	7.12	9.500	8.750	5.00	5.00
14	17.625	17.750	19.125	17.559	4.250	7.25	8.75	10.500	9.000	6.00	4.50
16	19.625	20.250	21.250	19.606	4.250	7.50	9.12	12.500	9.750	6.50	4.88
18	22.125	21.625	23.500	21.969	4.250	8.00	10.38	14.000	11.750	8.00	5.62
20	24.375	23.875	25.750	24.409	5.500	8.62	11.50	15.250	12.750	9.63	6.75
24	28.625	28.250	30.500	29.016	6.000	8.75	12.50	19.000	15.250	12.50	8.75
30	35.250	34.750	-	-	6.000	-	-	23.000	20.750	-	-
36	41.750	41.250	-	-	6.000	-	-	29.000	25.000	-	-