

Pressure Seal
Cast Steel Gate Valve

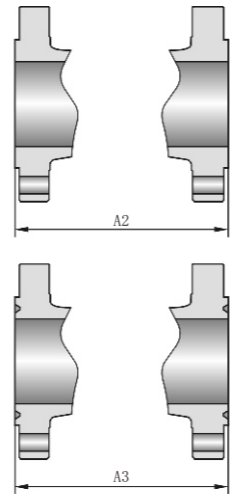
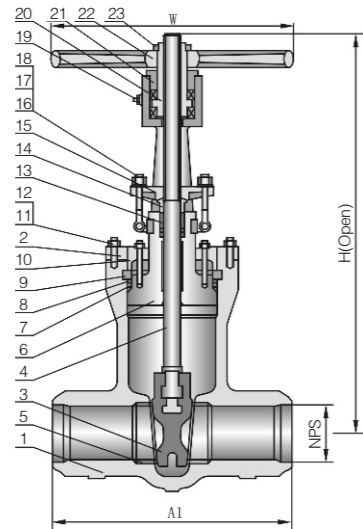
Pressure Seal
Cast Steel Gate Valve

Applicable Standards

- ★Steel Gate Valves, API 600/API 6D
- ★Steel Gate Valves, ISO 10434/ISO 14313
- ★Steel Valves, ASME B16.34
- ★Face To Face, ASME B16.10
- ★End Flanges, ASME B16.5
- ★Buttwelding Ends, ASME B16.25
- ★Inspection And Test, API 598/API 6D

Design Description

- ▲PSB, Pressure Seal Bonnet
- ▲Flexible Wedge, Fully Guided
- ▲Choice Of Solid Or Split Wedge
- ▲Renewable Seat Rings
- ▲Forged T-head Stem
- ▲Rising Stem And Non-rising Handwheel
- ▲Flanged Or Buttwelding Ends
- ▲Available With Bg Operator



Standard Material Specifications

No.	Part Name	ASTM Material							
		Carbon Steel	1.25Cr-0.5Mo	2.25Cr-1Mo	304 Type	316 Type	304L Type	316L Type	20 Alloy
1	Body	A216 WCB	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
2	Yoke	A216 WCB	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
3	Wedge	WCB+HF	A217 WC6+HF	A217 WC9+HF	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
4	Stem	A182 F6a	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
5	Seat Ring	A105+HF	A182 F11+HF	A182 F22+HF	NA	NA	NA	NA	NA
6	Bonnet	A216 WCB	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
7	Bonnet Gasket	304+Graphite	304+Graphite	304+Graphite	304+Graphite	316+Graphite	304L+Graphite	316L+Graphite	316+Graphite
8	Adapter Ring	Soft steel	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
9	Retainer	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F304	A182 F304
10	Yoke Cap	A216 WCB	A217 WC6	A217 WC9	A351 CF8	A351 CF8	A351 CF8	A351 CF8	A351 CF8
11	Bonnet Bolt	A193 B7	A193 B7	A193 B16	A193 B8	A193 B8	A193 B8	A193 B8	A193 B8
12	Bonnet Nut	A194 2H	A194 7	A194 7	A194 8	A194 8	A194 8	A194 8	A194 8
13	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
14	Gland	A276 410	A276 410	A276 410	A276 304	A276 316	A276 304L	A276 316L	20-Alloy
15	Gland Flange	A216 WCB	A216 WCB	A216 WCB	A351 CF8	A351 CF8	A351 CF8	A351 CF8	A351 CF8
16	Eyebolt	Carbon steel	A193 B7	A193 B7	A193 B8	A193 B8	A193 B8	A193 B8	A193 B8
17	Eyebolt Nut	Carbon steel	A194 2H	A194 2H	A194 8	A194 8	A194 8	A194 8	A194 8
18	Eyebolt Pin	A276 410	A276 411	A276 412	A276 304	A276 304	A276 304	A276 304	A276 304
19	Greas Fitting	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial
20	Stem Nut	Bronze	Bronze *1	Bronze *1	Bronze	Bronze	Bronze	Bronze	Bronze
21	Jam Nut	Carbon steel	Carbon steel	Carbon steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
22	Hand Wheel	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron
23	Wheel Nut	Carbon steel	Carbon steel	Carbon steel	Carbon steel+Zn	Carbon steel+Zn	Carbon steel+Zn	Carbon steel+Zn	Carbon steel+Zn
*1	Ductile Ni-Resist iron Optional								
NA	Integral with vessel								

Main Outline Dimensions & Weight Class 600

Valve Size		2	2.5	3	4	6	8	10	12	14	16	18	20	24	
		mm	50	65	80	100	150	200	250	300	350	400	450	500	600
A1	in	7.0	8.5	10.0	12.0	18.0	23.0	28.0	32.0	35.0	39.0	43.0	47.0	55.0	
	mm	178	216	254	305	457	584	711	813	889	991	1092	1194	1397	
A2	in	11.5	13.0	14.0	17.0	22.0	26.0	31.0	33.0	35.0	39.0	43.0	47.0	55.0	
	mm	292	330	356	432	556	660	787	838	889	991	1092	1194	1397	
A3	in	11.62	13.12	14.12	17.12	22.12	26.12	31.12	33.12	35.12	39.12	43.12	47.25	55.38	
	mm	295	333	359	435	562	664	791	841	892	994	1095	1200	1406	
H	in	23.2	24.8	26.3	36.0	42.5	49.9	59.5	70.5	73.1	85.1	88.6	97.2	118.1	
	mm	590	629	667	914	1080	1267	1511	1791	1857	2162	2251	2470	3000	
W	in	7.9	9.8	9.8	11.8	19.7	22.0	27.2	35.8	24.0	24.0	24.0	24.0	30.0	
	mm	200	250	250	300	500	560	690	610	610	610	610	610	760	
Weight	RF	lb	154.4	209.5	220.5	326.3	540.2	705.6	948.2	1135.6	1477.4	1995.5	2535.8	3186.2	4586.4
		kg	70	195	100	148	245	320	430	515	670	905	1150	1445	2080
	BW	lb	136.7	176.4	165.2	253.6	377.1	474.1	590.9	701.2	959.2	1256.9	1587.6	1962.5	2833.4
		kg	62	80	84	115	171	215	268	318	435	570	720	890	1285

Main Outline Dimensions & Weight Class 900

Valve Size		2	2.5	3	4	6	8	10	12	14	16	18	20	24	
		mm	50	65	80	100	150	200	250	300	350	400	450	500	600
A1	in	8.5	10.0	12.0	14.0	20.0	26.0	31.0	36.0	39.0	43.0	46.5	50.0	59.5	
	mm	216	254	305	356	508	660	787	914	991	1092	1181	1283	1511	
A2	in	14.5	16.5	15.0	18.0	24.0	29.0	33.0	38.0	40.5	44.5	48.0	52.0	61.0	
	mm	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	
A3	in	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	40.88	44.88	48.5	52.5	61.75	
	mm	371	422	384	460	612	740	841	968	1038	1140	1232	1333	1568	
H	in	23.4	29.6	29.8	34.0	39.9	50.2	60.7	70.1	79.8	89.0	97.2	108.3	1276	
	mm	594	753	756	864	1013	1276	1543	1781	2026	2261	2470	2750	3242	
W	in	11.8	17.7	17.7	19.7	22.0	18.1	24.0	24.0	24.0	24.0	29.9	29.9	24.0	
	mm	300	450	450	500	560	460	610	610	610	610	760	760	610	
Weight	RF	lb	132.3	207.3	224.9	330.8	617.4	1455.3	2116.8	2976.8	3748.5	5292	7320.6	9702.0	14927.9
		kg	60	94	102	150	280	660	960	1350	1700	2400	3320	4400	6770
	BW	lb	88.2	141.1	176.4	220.5	407.9	1091.5	1620.7	2315.3	3087.0	4299.8	6019.7	8125.4	11973.2
		kg	40	64	80	100	185	495	735	1050	1400	1950	2730	3685	5430

Main Outline Dimensions & Weight Class 1500

Valve Size		2	2.5	3	4	6	8	10	12	14	16	18	20	24	
		mm	50	65	80	100	150	200	250	300	350	400	450	500	600
A1	in	8.5	10.0	12.0	16.0	22.0	28.0	34.0	39.0	42.0	47.0	53.0	58.0	64.0	
	mm	216	254	305	406	559	711	864	991	1067	1194	1346	1473	1626	
A2	in	14.5	16.5	18.5	21.5	27.75	32.75	39.0	44.5	49.5	54.5	60.5	65.5	76.5	
	mm	368	419	470	546	705	832	991	1130	1257	1384	1536	1664	1943	
A3	in	14.62	16.62	18.62	21.62	28.0	33.13	39.38	45.12	50.25	55.38	61.38	66.38	77.62	
	mm	371	422	473	549	711	841	1000	1146	1276	1406	1559	1686	1972	
H	in	23.4	29.6	29.6	34.0	48.0	51.6	64.8	77.8	87.2	91.8	111.1	122.1	148.3	
	mm	594	753	753	864	1219	1311	1645	1975	2216	2331	2823	3102	3766	
W	in	11.8	17.7	17.7	19.7	24.0	24.0	24.0	24.0	29.9	29.9	29.9	24.0	24.0	
	mm	300	450	450	500	610	610	610	610	760	760	760	610	610	
Weight	RF	lb	132.3	207.3	264.6	458.6	1058.4	2006.6	3109.1	4586.4	5755.1	7938	13141.8	16250.9	23395.1
		kg	60	94	120	208	480	910	1410	2080	2610	3600	5960	7370	10610
	BW	lb	88.2	141.1	176.4	326.3	749.7	1499.4	2249.1	3197.3	3969	6063.8	10209.2	12612.6	18169.2
		kg	40	64	80	148	340	680	1020	1450	1800	2750	4630	5720	8240

Main Outline Dimensions & Weight Class 2500

Valve Size		2	2.5	3	4	6	8	10	12	14	16	18	
		mm	50	65	80	100	150	200	250	300	350	400	450
A1	in	11.0	13.0	14.5	18.0	24.0	30.0	36.0	41.0	44.0	49.0	55.0	
	mm	279	330	368	457	610	762	914	1041	1118	1245	1397	
A2	in	17.75	20.0	22.75	26.5	36.0	40.25	50.0	56.0	-	-	-	
	mm	451	508	578	673	914	1022	1270	1422	-	-	-	
A3	in	17.87	20.25	23.0	26.88	36.5	40.87	50.88	56.88	-	-	-	
	mm	454	514	584	683	927	1038	1292	1445	-	-	-	
H	in	23.4	29.6	29.6	34.3	47.3	57.1	63.4	82.5	90.2	97.2	116.1	
	mm	594	753	753	870	1201	1451	1610	2096	2291	2470	2950	
W	in	14.0	17.7	19.7	23.6	24.0	24.0	24.0	29.9	29.9	24.0	24.0	
	mm	355	450	500	600	610	610	610	760	760	610	610	
Weight	RF	lb	172.1	273.4	334.1	702.7	1640.3	2673	4807.4	6925.5	-	-	-
		kg	85	135	165	347	810	1320	2374	3420	-	-	-
	BW	lb	101.3	182.3	192.4	384.8	1053	1498.5	3240	6075	6885	8505	10125
		kg	50	90	95	190	520	740	1600	300	3400	4200	5000

Pressure Seal Cast Steel Globe Valve

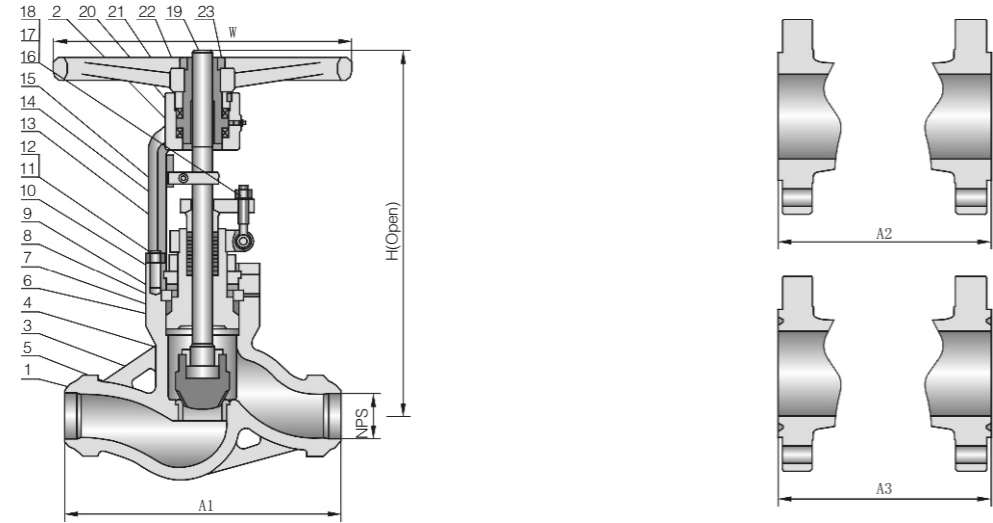
Pressure Seal Cast Steel Globe Valve

Applicable Standards

- ★Steel Globe Valves, BS EN 13709/API 600
- ★Steel Valves, ASME B16.34
- ★Face To Face, ASME B16.10
- ★End Flanges, ASME B16.5
- ★Buttwelding Ends, ASME B16.25
- ★Inspection And Test, API 598

Design Description

- ▲PSB, Pressure Seal Bonnet
- ▲Renewable Seat Rings
- ▲Forged T-head Stem
- ▲Rising Stem And Non-rising Handwheel
- ▲Flanged Or Buttwelding Ends
- ▲Available With Bg Operator



Standard Material Specifications

No.	Part Name	ASTM Material							
		Carbon Steel	1.25Cr-0.5Mo	2.25Cr-1Mo	304 Type	316 Type	304L Type	316L Type	20 Alloy
1	Body	A216 WCB	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
2	Yoke	A216 WCB	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
3	Disc	WCB+HF	A217 WC6+HF	A217 WC9+HF	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
4	Stem	A182 F6a	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
5	Seat Ring	A105+HF	A182 F11+HF	A182 F22+HF	NA	NA	NA	NA	NA
6	Bonnet	A216 WCB	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
7	Bonnet Gasket	304+Graphite	304+Graphite	304+Graphite	304+Graphite	316+Graphite	304L+Graphite	316L+Graphite	316+Graphite
8	Adapter Ring	Soft steel	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
9	Retainer	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F304	A182 F304
10	Yoke Cap	A216 WCB	A217 WC6	A217 WC9	A351 CF8	A351 CF8	A351 CF8	A351 CF8	A351 CF8
11	Bonnet Bolt	A193 B7	A193 B7	A193 B16	A193 B8	A193 B8	A193 B8	A193 B8	A193 B8
12	Bonnet Nut	A194 2H	A194 7	A194 7	A194 8	A194 8	A194 8	A194 8	A194 8
13	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
14	Gland	A276 410	A276 410	A276 410	A276 304	A276 316	A276 304L	A276 316L	20-Alloy
15	Gland Flange	A216 WCB	A216 WCB	A216 WCB	A351 CF8	A351 CF8	A351 CF8	A351 CF8	A351 CF8
16	Eyebolt	Carbon steel	A193 B7	A193 B7	A193 B8	A193 B8	A193 B8	A193 B8	A193 B8
17	Eyebolt Nut	Carbon steel	A194 2H	A194 2H	A194 8	A194 8	A194 8	A194 8	A194 8
18	Eyebolt Pin	A276 410	A276 411	A276 412	A276 304	A276 304	A276 304	A276 304	A276 304
19	Grease Fitting	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial
20	Stem Nut	Bronze	Bronze *1	Bronze *1	Bronze	Bronze	Bronze	Bronze	Bronze
21	Jam Nut	Carbon steel	Carbon steel	Carbon steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
22	Hand Wheel	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron
23	Wheel Nut	Carbon steel	Carbon steel	Carbon steel	Carbon steel+Zn	Carbon steel+Zn	Carbon steel+Zn	Carbon steel+Zn	Carbon steel+Zn
5	Back Seat	A276 410	A276 410	A276 410	NA	NA	NA	NA	NA
*1	Ductile Ni-Resist iron Optional								
NA	Integral with vessel								

Main Outline Dimensions & Weight Class 600

Valve Size	in	2	2.5	3	4	6	8	10	12	14	16	
		mm	50	65	80	100	150	200	250	300	350	400
A ₁	in	7.0	8.5	10.0	12.0	18.0	23.0	28.0	32.0	35.0	39.0	
	mm	178	216	254	305	457	584	711	813	889	991	
A ₂	in	11.5	13.0	14.0	17.0	22.0	26.0	31.0	33.0	35.0	39.0	
	mm	292	330	356	432	559	660	787	818	889	991	
A ₃	in	11.62	13.12	14.12	17.12	22.12	26.12	31.12	33.12	35.12	39.12	
	mm	295	333	359	435	562	664	792	841	892	994	
H	in	21.7	24.8	26.8	29.5	45.3	49.2	55.1	61.0	70.9	85.0	
	mm	550	630	680	750	1150	1250	1400	1550	1800	2160	
W	in	9.8	11.8	11.8	17.7	23.6	18.1	24.0	24.0	24.0	29.9	
	mm	250	300	300	450	600	460	610	610	610	760	
Weight	RF	lb	99.2	121.2	187.4	297.7	672.5	1367.1	2888.6	4189.5	5997.6	6945.8
		kg	45	55	85	135	305	620	1310	1900	2720	3150
		BW	lb	77.2	99.2	132.3	209.5	507.2	1190.7	2535.8	3792.6	5578.7
		kg	35	45	60	95	230	540	1150	1720	2530	2900

Main Outline Dimensions & Weight Class 900

Valve Size	in	2	2.5	3	4	6	8	10	12	14	16	
		mm	50	65	80	100	150	200	250	300	350	400
A ₁	in	8.5	10.0	12.0	14.0	20.0	26.0	31.0	36.0	39.0	43.0	
	mm	216	254	305	356	508	660	787	914	991	1092	
A ₂	in	14.5	16.5	15.0	18.0	24.0	29.0	33.0	38.0	40.5	44.5	
	mm	368	419	381	457	610	737	838	965	1029	1130	
A ₃	in	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	40.88	44.88	
	mm	371	422	384	460	613	740	841	968	1038	1140	
H	in	24.4	25.3	28.4	33.5	48.2	53.1	61.0	68.9	78.7	90.9	
	mm	619	641	721	850	1225	1350	1550	1750	2000	2310	
W	in	15.7	15.7	15.7	19.7	24.0	24.0	24.0	24.0	29.9	29.9	
	mm	400	400	400	500	610	610	610	610	760	760	
Weight	RF	lb	176.4	242.6	231.5	374.9	926.1	2205.0	3792.6	5071.5	7386.8	8820.0
		kg	80	110	105	170	420	1000	1720	2300	3350	4000
		BW	lb	121.3	176.4	176.4	286.7	793.8	1984.5	3351.6	4520.3	6725.3
		kg	55	80	80	130	360	900	1520	2050	3050	3600

Main Outline Dimensions & Weight Class 1500

Valve Size	in	2	2.5	3	4	6	8	10	12	14	
		mm	50	65	80	100	150	200	250	300	350
A ₁	in	8.5	10.0	12.0	16.0	22.0	28.0	34.0	39.0	42.0	
	mm	216	254	305	406	559	711	864	991	1067	
A ₂	in	14.5	16.5	18.5	21.5	27.75	32.75	39.0	44.5	49.5	
	mm	368	419	470	546	705	832	991	1130	1257	
A ₃	in	14.62	16.62	18.62	21.62	28.0	33.13	39.38	45.12	50.25	
	mm	371	422	473	549	711	841	1000	1146	1276	
H	in	24.4	25.2	32.9	33.7	48.4	70.9	78.7	91.0	105.9	
	mm	619	641	835	857	1230	1800	2000	2311	2691	
W	in	15.7	15.7	19.7	19.7	24.0	24.0	29.9	29.9	29.9	
	mm	400	400	500	500	610	610	760	760	760	
Weight	RF	lb	176.4	242.6	299.9	496.1	1433.3	3704.4	5909.4	7497.0	9481.5
		kg	80	110	136	225	650	1680	2680	3400	4300
		BW	lb	121.3	176.4	209.5	352.8	1146.6	3153.2	5027.4	6240.2
		kg	55	80	95	160	520	1430	2280	2830	3600

Main Outline Dimensions & Weight Class 2500

Valve Size	in	2	2.5	3	4	6	8	10	12	
		mm	50	65	80	100	150	200	250	300
A ₁	in	11.0	13.0	14.5	18.0	24.0	30.0	36.0	41.0	
	mm	279	330	368	457	610	762	914	1041	
A ₂	in	17.75	20.0	22.75	26.5	36.0	40.25	50.0	56.0	
	mm	451	508	578	673	914	1022	1270	1422	
A ₃	in	17.87	20.25	23.0	26.88	36.5	40.87	50.88	56.88	
	mm	454	514	584	683	927	1038	1292	1445	
H	in	24.3	30.7	31.5	51.2	53.9	85.0	100.0	106.0	
	mm	616	781	800	1300	1370	2160	2540	2692	
W	in	15.7	19.7	19.7	24.0	24.0	29.9	29.9	29.9	
	mm	400	500	500	610	610	760	760	760	
Weight	RF	lb	220.5	341.8	463.1	1102.5	2756.3	5292.0	7276.5	9261.0
		kg	100	155	210	500	1250	2400	3300	4200
		BW	lb	154.4	242.6	308.7	771.8	2094.8	4410.0	5512.5
		kg	70	110	140	350	950	2000	2500	3300

Pressure Seal
Cast Steel Swing Check Valve

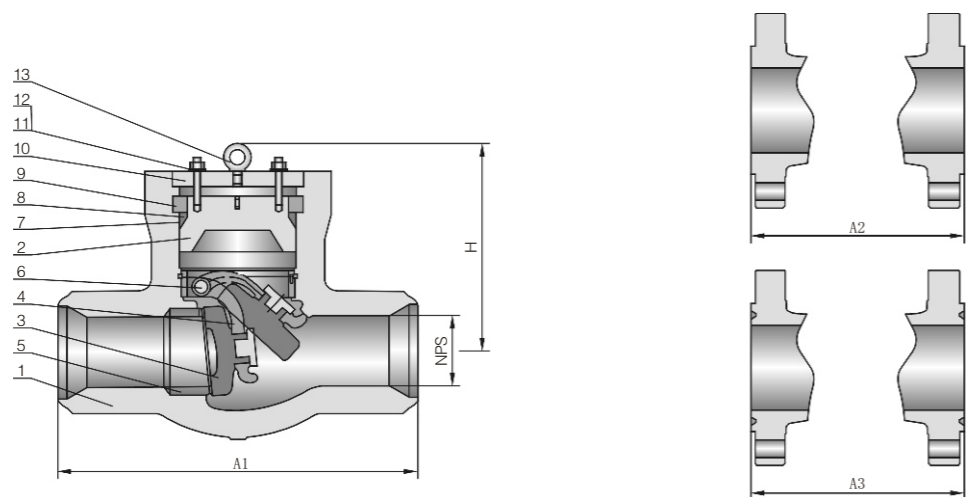
Pressure Seal
Cast Steel Swing Check Valve

Applicable Standards

- ★Steel Check Valves, API 594/API 6D
- ★Steel Check VALVES, ISO 14313
- ★Steel Valves, ASME B16.34
- ★Face To Face, ASME B16.10
- ★End Flanges, ASME B16.5
- ★Inspection And Test, API 598/API 6D

Design Description

- ▲PSB, Pressure Seal Bonnet
- ▲Swing Type
- ▲Renewable Seat Rings
- ▲Non-penetrate Disc Shaft
- ▲Flanged Or Buttwelding Ends



Standard Material Specifications

No.	Part Name	ASTM Material							
		Carbon Steel	1.25Cr-0.5Mo	2.25Cr-1Mo	304 Type	316 Type	304L Type	316L Type	20 Alloy
1	Body	A216 WCB	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
2	Bonnet	A216 WCB	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
3	Disc	WCB+13Cr *1	A217 WC6+HF	A217 WC9+HF	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
4	Hinge	A216 WCB	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
5	Seat Ring	A105+13Cr *1	A182 F11+HF	A182 F22+HF	NA	NA	NA	NA	NA
6	Hinge Pin	A276 410	A276 410	A276 410	A276 304	A276 316	A276 304L	A276 316L	20-Alloy
7	Bonnet Gasket	304+Graphite	304+Graphite	304+Graphite	304+Graphite	316+Graphite	304L+Graphite	316L+Graphite	316+Graphite
8	Adapter Ring	Soft steel	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
9	Retainer	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F304	A182 F304
10	Bonnet Clamp	A216 WCB	A217 WC6	A217 WC9	A351 CF8	A351 CF8	A351 CF8	A351 CF8	A351 CF8
11	Bonnet Bolt	A193 B7	A193 B7	A193 B16	A193 B8	A193 B8	A193 B8	A193 B8	A193 B8
12	Bonnet Nut	A194 2H	A194 7	A194 7	A194 8	A194 8	A194 8	A194 8	A194 8
13	Eyebolt	Carbon steel	Carbon steel	Carbon steel	Carbon steel+Zn	Carbon steel+Zn	Carbon steel+Zn	Carbon steel+Zn	Carbon steel+Zn
NA	Integral with vessell								
*1	PN≥600 Class seal face will be HF								

Main Outline Dimensions & Weight Class 900

Valve Size	in	2	2.5	3	4	6	8	10	12	14	16	18	20	24	
	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	
A1	in	8.5	10.0	12.0	14.0	20.0	26.0	31.0	36.0	39.0	43.0	46.5	50.5	59.5	
	mm	216	254	305	356	508	660	787	914	991	1092	1181	1283	1511	
A2	in	14.5	16.5	15.0	18.0	24.0	29.0	33.0	38.0	40.5	44.5	48.0	52.0	61.0	
	mm	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	
A3	in	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	40.88	44.88	48.5	52.5	61.75	
	mm	371	422	384	460	613	740	841	968	1038	1140	1232	1333	1568	
H	in	9.5	10.4	10.6	12.5	15.7	23.1	23.9	27.4	29.5	28.7	33.5	33.3	37.8	
	mm	241	264	270	318	400	587	606	695	749	730	851	864	959	
Weight	RF	lb	88.2	121.3	114.7	231.5	507.2	1256.9	1874.3	2866.5	3417.8	3638.3	5071.5	6615.0	9040.5
		kg	40	55	52	105	230	570	850	1300	1550	1650	2300	3000	4100
	BW	lb	44.1	70.6	66.2	143.3	352.8	970.2	1521.5	2249.1	2690.1	2976.8	4079.3	5292.0	6394.5
		kg	20	32	30	65	160	440	690	1020	1220	1350	1850	2400	2900

Main Outline Dimensions & Weight Class 1500

Valve Size	in	2	2.5	3	4	6	8	10	12	14	16	18	20	24	
	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	
A1	in	8.5	10.0	12.0	16.0	22.0	28.0	34.0	39.0	42.0	47.0	53.0	58.0	64.0	
	mm	216	254	305	406	559	711	864	991	1067	1194	1346	1473	1626	
A2	in	14.5	16.5	18.5	21.5	27.75	32.75	39.0	44.5	49.5	54.5	60.5	65.5	76.5	
	mm	368	419	470	546	705	832	991	1130	1257	1383	1537	1664	1943	
A3	in	14.62	16.62	18.62	21.62	28.0	33.13	39.38	45.12	50.25	55.38	61.38	66.38	77.62	
	mm	371	422	473	549	711	841	1000	1146	1276	1407	1559	1686	1972	
H	in	9.5	10.4	10.6	12.5	15.7	18.9	23.3	25.4	28.0	29.5	34.6	37.4	43.3	
	mm	241	264	270	318	400	479	591	645	711	749	880	949	1099	
Weight	RF	lb	88.2	121.3	220.5	308.7	882.0	1345.1	2315.3	3417.8	4630.5	5733.0	7276.5	9261.0	13230.0
		kg	40	55	100	140	400	610	1050	1550	2100	2600	3300	4200	6000
	BW	lb	44.1	70.6	88.2	154.4	617.4	1058.4	1631.7	2425.5	3109.1	3528.0	4630.5	3733.0	7717.5
		kg	20	32	40	70	280	480	740	1100	1410	1600	2100	2600	3500

Main Outline Dimensions & Weight Class 2500

Valve Size	in	2	2.5	3	4	6	8	10	12	14	16	18	
	mm	50	65	80	100	150	200	250	300	350	400	450	
A1	in	11.0	13.0	14.5	18.0	24.0	30.0	36.0	41.0	44.0	49.0	55.0	
	mm	279	330	368	457	610	762	914	1041	1118	1245	1397	
A2	in	17.75	20.0	22.75	26.5	36.0	40.25	50.0	56.0	62.0	68.0	-	
	mm	451	508	578	673	914	1022	1270	1422	1575	1727	-	
A3	in	17.87	20.25	23.0	26.88	36.5	40.87	50.88	56.88	-	-	-	
	mm	454	514	584	683	927	1038	1292	1445	-	-	-	
H	in	9.6	10.4	10.6	12.5	15.7	22.0	24.8	27.5	33.9	35.4	39.4	
	mm	245	264	270	318	400	559	629	699	860	899	1000	
Weight	RF	lb	187.4	260.2	341.8	628.4	1653.8	2976.8	4740.8	6615.0	9216.9	11157.3	16493.4
		kg	85	118	155	285	750	1350	2150	3000	4180	5060	7480
	BW	lb	110.3	154.4	187.4	363.8	1014.3	1984.5	2866.5	3969.0	5402.3	7056.0	8930.3
		kg	50	70	85	165	460	900	1300	1800	2450	3200	4050