

Cast Carbon Steel Globe Valve

Bolted bonnet, Outside screw-and-yoke, Rising stem handwheel, Swivel disc.

Class 150

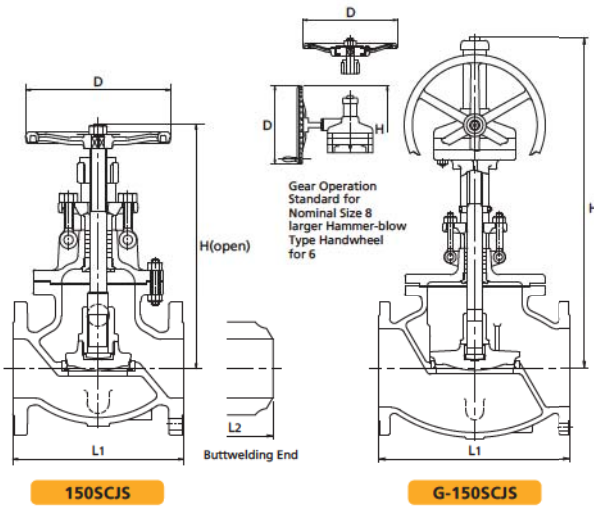


Fig	End Connections
150SCJS	RF-flanged ends.
W150SCJS	Butt-welding ends.

Standard materials of parts

Parts	Materials
Body	ASTM A216 Gr.WCB
Bonnet	ASTM A216 Gr.WCB
Stem	ASTM A276 Tp.403
Disc	13Cr/Carbon Steel+13Cr
Lock nut	ASTM A182 Gr.F6a
Body seat ring	Carbon Steel+HF*
Gland	ASTM A182 Gr.F6a
Gland packing	Flexible Graphite
Gland flange	ASTM A105/A216 Gr. WCB
Handwheel	Ductile iron
Gasket	See Page 6
Bonnet bolt/nut	ASTM A193 Gr.B7/A194 Gr.2H
Gland bolt/nut	ASTM A576 Gr.1045/A194 Gr.2H
Bonnet bushing	ASTM A182 Gr.F6a
Yoke sleeve	ASTM A439 Tp.D2

*Hard facing with Co-Cr-W Alloy.
Note: Refer to Page 3&6 for standard seat material and construction.

Dimensions

Nominal Size	Nominal Size													
	1½	2	2½	3	4	5	6	8	10	12	14	16	18	
L1	in	6.50	8.00	8.50	9.50	11.50	14.00	16.00	19.50	24.50	27.50	31.00	36.00	38.50
	mm	165	203	216	241	292	356	406	495	622	698	787	914	978
L2	in	—	8.00	8.50	9.50	11.50	14.00	16.00	19.50	24.50	37.50	31.00	36.00	38.50
	mm	—	203	216	241	292	356	406	495	622	698	787	914	978
H	in	13.1	13.1	14.9	15.4	18.1	19.1	20.2	24.8	38.5	41.3	43.5	48.2	49.8
	mm	332	332	379	390	460	484	513	929	979	1049	1106	1224	1275
D	in	7.9	7.9	9.8	9.8	9.8	11.8	13.8	15.7	19.7	19.7	19.7	23.6	23.6
	mm	200	200	250	250	250	300	350	500	500	500	500	600	600

Bolted bonnet, Outside screw-and-yoke, Rising stem handwheel, Swivel disc.

Class 300

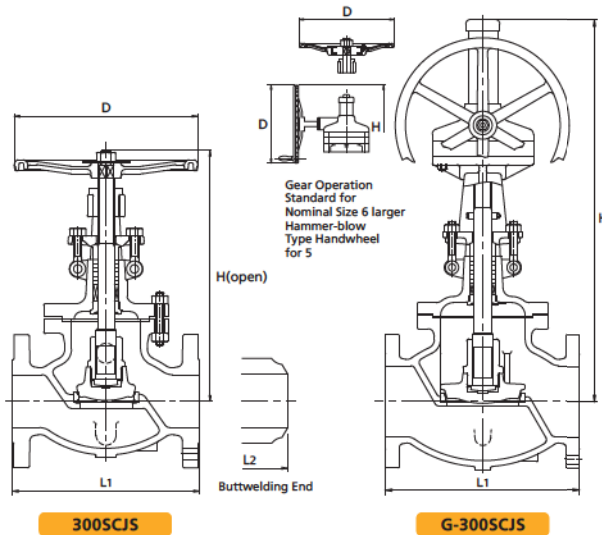


Fig	End Connections
300SCJS	RF-flanged ends.
W300SCJS	Butt-welding ends.

Standard materials of parts

Parts	Materials
Body	ASTM A216 Gr.WCB
Bonnet	ASTM A216 Gr.WCB
Stem	ASTM A276 Tp.403
Disc	13Cr/Carbon Steel+13Cr
Lock nut	ASTM A182 Gr.F6a
Body seat ring	Carbon Steel+HF*
Gland	ASTM A182 Gr.F6a
Gland packing	Flexible Graphite
Gland flange	ASTM A105/A216 Gr. WCB
Handwheel	Ductile iron
Gasket	See Page 6
Bonnet bolt/nut	ASTM A193 Gr.B7/A194 Gr.2H
Gland bolt/nut	ASTM A576 Gr.1045/A194 Gr.2H
Bonnet bushing	ASTM A182 Gr.F6a
Yoke sleeve	ASTM A439 Tp.D2

*Hard facing with Co-Cr-W Alloy.
Note: Refer to Page 3&6 for standard seat material and construction.

Dimensions

Nominal Size	Nominal Size												
	1½	2	2½	3	4	5	6	8	10	12	14	16	
L1	in	9.00	10.50	11.50	12.50	14.00	15.75	17.50	22.00	24.50	28.00	33.00	34.00
	mm	229	267	292	318	356	400	444	559	622	711	838	864
L2	in	—	10.50	11.50	12.50	14.00	15.75	17.50	22.00	24.50	28.00	33.00	34.00
	mm	—	267	292	318	356	400	444	559	622	711	838	864
H	in	14.3	14.3	17.0	17.2	20.1	24.0	27.0	41.8	45.0	46.8	57.1	55.5
	mm	362	362	433	436	510	610	990	1062	1143	1188	1450	1410
D	in	7.9	7.9	9.8	9.8	13.8	15.7	17.7	19.7	23.6	23.6	23.6	23.6
	mm	200	200	250	250	350	400	500	500	600	600	600	600

Pressure - Temperature Ratings <For reference only> Valves - Flanged and Welding End : Standard Class

ASTM Material Standard-to ASME B16.34 2013

Temperature		Working Pressures by Class, psig														
		Class 150					Class 300					Class 600				
°F	°C	WC6 (a)	WC6 (b)	C5 (c)	C12 (c)	LCC (d)	WC6 (a)	WC6 (b)	C5 (c)	C12 (c)	LCC (d)	WC6 (a)	WC6 (b)	C5 (c)	C12 (c)	LCC (d)
-20 to 100	-29 to 38	285	290	290	290	290	740	750	750	750	750	1,480	1,500	1,500	1,500	1,500
200	93	260	260	260	260	260	680	750	750	750	750	1,360	1,500	1,500	1,500	1,500
300	149	230	230	230	230	230	655	720	730	730	730	1,310	1,445	1,455	1,455	1,455
400	204	200	200	200	200	200	635	695	705	705	705	1,265	1,385	1,410	1,410	1,405
500	260	170	170	170	170	170	605	665	665	665	665	1,205	1,330	1,330	1,330	1,330
600	316	140	140	140	140	140	570	605	605	605	605	1,135	1,210	1,210	1,210	1,210
650	343	125	125	125	125	125	550	590	590	590	590	1,100	1,175	1,175	1,175	1,175
700	371	110	110	110	110	110	530	570	570	570	555	1,060	1,135	1,135	1,135	1,110
750	399	95	95	95	95	95	505	530	530	530	505	1,015	1,065	1,065	1,065	1,015
800	427	80	80	80	80	80	410	510	510	510	410	825	1,015	1,015	1,015	825
850	454	65	65	65	65	65	320	485	485	485	320	640	975	975	975	640
900	482	50	50	50	50	50	230	450	375	450	225	460	900	745	900	445
950	510	35	35	35	35	35	135	320	275	375	135	275	640	550	755	275
1000	538	20	20	20	20	20	85	215	200	255	85	170	430	400	505	170
1050	566		20	20	20			145	145	170			290	290	345	
1100	593		20	20	20			95	100	115			190	200	225	
1150	621		20	20	20			65	60	75			130	125	150	
1200	649		15	15	20			40	35	50			80	70	105	

Temperature		Working Pressures by Class, psig														
		Class 900					Class 1500					Class 2500				
°F	°C	WC6 (a)	WC6 (b)	C5 (c)	C12 (c)	LCC (d)	WC6 (a)	WC6 (b)	C5 (c)	C12 (c)	LCC (d)	WC6 (a)	WC6 (b)	C5 (c)	C12 (c)	LCC (d)
-20 to 100	-29 to 38	2,220	2,250	2,250	2,250	2,250	3,705	3,750	3,750	3,750	3,750	6,170	6,250	6,250	6,250	6,250
200	93	2,035	2,250	2,250	2,250	2,250	3,395	3,750	3,750	3,750	3,750	5,655	6,250	6,250	6,250	6,250
300	149	1,965	2,165	2,185	2,185	2,185	3,270	3,610	3,640	3,640	3,640	5,450	6,015	6,070	6,070	6,070
400	204	1,900	2,080	2,115	2,115	2,110	3,170	3,465	3,530	3,530	3,520	5,280	5,775	5,880	5,880	5,865
500	260	1,810	1,995	1,995	1,995	1,995	3,015	3,325	3,325	3,325	3,325	5,025	5,540	5,540	5,540	5,540
600	316	1,705	1,815	1,815	1,815	1,815	2,840	3,025	3,025	3,025	3,025	4,730	5,040	5,040	5,040	5,040
650	343	1,650	1,765	1,765	1,765	1,765	2,745	2,940	2,940	2,940	2,940	4,575	4,905	4,905	4,905	4,905
700	371	1,590	1,705	1,705	1,705	1,665	2,665	2,840	2,840	2,840	2,775	4,425	4,730	4,730	4,730	4,630
750	399	1,520	1,595	1,595	1,595	1,520	2,535	2,660	2,660	2,660	2,535	4,230	4,430	4,430	4,430	4,230
800	427	1,235	1,525	1,525	1,525	1,235	2,055	2,540	2,540	2,540	2,055	3,430	4,230	4,230	4,230	3,430
850	454	955	1,460	1,460	1,460	955	1,595	2,435	2,435	2,435	1,595	2,655	4,060	4,060	4,060	2,655
900	482	690	1,350	1,120	1,350	670	1,150	2,245	1,870	2,245	1,115	1,915	3,745	3,115	3,745	1,855
950	510	410	955	825	1,130	410	685	1,595	1,370	1,885	685	1,145	2,655	2,285	3,145	1,145
1000	538	255	650	595	760	255	430	1,080	995	1,270	430	715	1,800	1,655	2,115	715
1050	566		430	430	515			720	720	855			1,200	1,200	1,430	
1100	593		290	300	340			480	495	565			800	830	945	
1150	621		195	185	225			325	310	375			545	515	630	
1200	649		125	105	155			205	170	255			345	285	430	

- (a) Upon prolonged exposure to temperatures above 800°F, the carbide phase of steel may be converted to graphite. Permissible, but not recommended for prolonged use above 800°F
- (b) Use normalized and tempered material only. Permissible, but not recommended for prolonged use above 1100°F
- (c) Use normalized and tempered material only.
- (d) Not to be used over 650°F.