

CAST STEEL(API/ASME/BS) General Specification and Standard

- (1) Basic Standard
 - Gate Valve : API 600/ASME B16.34/BS1414
 - Swing Check Valve : API 6D/ASME B16.34/BS1868
 - Globe Valve : ASME B16.34/BS1873
- (2) Shell Wall Thickness : API 600
- (3) Face To Face Dimensions : ASME B16.10/BS2080/ISO5752
- (4) Flange Dimensions : ASME B16.5/BS1560/ISO2229
- (5) Pressure-Temperature Ratings : ASME B16.5/ASME B16.34

Temperature(°C)	-29~38	50	100	150	200	250	300	325	350	375	400	425
Working Pressure	class 150	1.96	1.92	1.77	1.58	1.38	1.21	1.02	0.93	0.84	0.74	0.65
	class 300	5.11	5.01	4.66	4.51	4.38	4.19	3.98	3.87	3.76	3.64	3.47
	class 600	10.21	10.02	9.32	9.02	8.76	8.39	7.96	7.74	7.51	7.27	6.94

CAST STEEL(API/ASME/BS) Gate Valve OS&Y

		150Lb.Flanged			300Lb.Flanged			600Lb.Flanged		
Fig No.		14			17			20		
Material	Body	ASTM A216 WCB								
	Trim	API Trim No8.(Body Seat=Stl.,Disc Seat=13Cr., Stem=13Cr.)								
Working Pressure		See(5)Pressure-Temperature Ratings								
Appearance										
Dimension		L	H(Open)	W	L	H(Open)	W	L	H(Open)	W
2 inch	50mm	178	415	250	216	413	220	292	440	250
2 1/2	65	190	480	250	241	476	220	330	480	250
3	80	203	525	280	283	535	275	356	520	300
4	100	229	620	300	305	618	320	432	650	350
6	150	267	765	350	403	805	350	559	840	400
8	200	292	955	400	419	995	400	660	1025	450
10	250	330	1195	400	457	1210	430	787	1230	500
12	300	356	1380	500	502	1416	480	838	1450	600
14	350	381	1522	500						
16	400	406	1713	600						
18	450	432	1892	600						
20	500	457	2119	700						
24	600	508	2500	700						

CAST STEEL(API/ASME/BS) Swing Check Valve

		150Lb.Flanged		300Lb.Flanged		600Lb.Flanged	
Fig No.		15		18		21	
Material	Body	ASTM A216 WCB					
	Trim	API Trim No8.(Body Seat=Stl.,Disc Seat=13Cr., Stem=13Cr.)					
Working Pressure		See(5)Pressure-Temperature Ratings					
Appearance							
Dimension		L	H	L	H	L	H
2 inch	50mm	203	152	267	176	292	185
2 1/2	65	216	165	292	185	330	210
3	80	241	175	318	216	356	235
4	100	292	204	356	259	432	265
6	150	356	293	445	317	559	375
8	200	495	353	533	380	660	430
10	250	622	420	622	434	787	520
12	300	698	480	711	511		

CAST STEEL(API/ASME/BS) Globe Valve

		150Lb.Flanged			300Lb.Flanged			600Lb.Flanged		
Fig No.		16			19			22		
Material	Body	ASTM A216 WCB								
	Trim	API Trim No8.(Body Seat=Stl.,Disc Seat=13Cr., Stem=13Cr.)								
Working Pressure		See(5)Pressure-Temperature Ratings								
Appearance										
Dimension		L	H(Open)	W	L	H(Open)	W	L	H(Open)	W
2 inch	50mm	203	380	200	267	393	200	292	375	210
2 1/2	65	216	388	250	292	427	200	330	446	300
3	80	241	434	250	318	505	250	356	535	350
4	100	292	515	300	356	570	250	432	625	400
6	150	406	560	350	445	640	350	559	720	Gear
8	200	495	800	Gear	559	800	Gear	660	800	Gear
10	250	622	930	Gear	622	930	Gear	787	930	Gear
12	300	698	1080	Gear	711	1080	Gear	838	1080	Gear

CAST STEEL(JIS) General Specification and Standard

- (1) Basic Standard : JIS B2071 for 10K/20K Flanged
: ASME B16.34 Class 300 for 30K Flanged
- (2) Shell Wall Thickness : JIS B2071 a1 for 10K/20K Flanged
: API 600 Class 300 for 30K Flanged
- (3) Face To Face Dimensions : JIS B2071 for 10K/20K Flanged
: ASME B16.10 Class 300 for 30K Flanged
- (4) Flange Dimensions : JIS B2220

Max.Working Temperature	Max.Working Pressure(MPa)		
	class 10K	class 20K	class 30K
Steam, Air, Gas, Oil(425°C)	—	2.0	3.0
Steam, Air, Gas, (400°C)	—	2.3	3.4
Steam, Air, Gas, Water(350°C)	—	2.6	3.9
Steam, Air, Gas, Water(300°C)	1.0	2.9	4.3
Steam, Air, Gas, Water(220°C)	1.2	3.1	4.6
Water(120°C)	1.4	3.4	5.1

CAST STEEL(JIS) Gate Valve OS&Y

		10K Flanged			20K Flanged			30K Flanged		
Fig No.		84			87			118		
Material	Body	SCPH2								
	Trim	13Cr.								
Working Pressure	See(5)Pressure-Temperature Ratings									
Appearance										
Dimension		L	H(Open)	W	L	H(Open)	W	L	H(Open)	W
2 inch	50mm	178	420	250	216	413	224	216	440	224
2 1/2	65	190	440	250	241	476	224	241	480	224
3	80	203	525	280	283	535	250	283	520	250
4	100	229	610	300	305	618	300	305	650	300
5	125	254	650	300	381	685	300	381	770	300
6	150	267	785	350	403	810	355	403	840	355
8	200	292	980	400	419	991	400	419	1025	400
10	250	330	1190	400	457	1210	450	457	1230	450
12	300	356	1375	500	502	1416	510	502	1450	510
14	350	381	1522	500	762	1705	Gear	762	1705	Gear
16	400	406	1713	600	838	1869	Gear	838	1875	Gear
18	450	432	1892	600	914	2018	Gear	914	2020	Gear
20	500	457	2119	700	991	2225	Gear	991	2229	Gear
24	600	508	2500	700	1143	2766	Gear	1143	2751	Gear

CAST STEEL(JIS) Swing Check Valve

		10K Flanged		20K Flanged		30K Flanged	
Fig No.		85		88		120	
Material	Body	SCPH2					
	Trim	13Cr.					
Working Pressure	See(5)Pressure-Temperature Ratings						
Appearance							
Dimension		L	H	L	H	L	H
2 inch	50mm	203	152	267	176	267	185
2 1/2	65	216	165	292	185	292	210
3	80	241	175	318	216	318	235
4	100	292	215	356	259	356	265
5	125	330	252	400	298	400	305
6	150	356	293	444	317	444	375
8	200	495	353	533	380	533	430
10	250	622	420	622	434	622	520
12	300	698	480	711	511	711	570

CAST STEEL(JIS) Globe Valve

		10K Flanged			20K Flanged			30K Flanged		
Fig No.		86			89			141		
Material	Body	SCPH2								
	Trim	13Cr.								
Working Pressure	See(5)Pressure-Temperature Ratings									
Appearance										
Dimension		L	H(Open)	W	L	H(Open)	W	L	H(Open)	W
2 inch	50mm	203	380	200	267	393	220	267	375	210
2 1/2	65	216	388	250	292	427	250	292	446	300
3	80	241	434	250	318	505	280	318	535	350
4	100	292	515	300	356	570	350	356	625	400
5	125	356	545	320	400	610	400	400	700	400
6	150	406	560	400	444	640	450	444	720	Gear
8	200	495	800	Gear	559	800	Gear	559	800	Gear
10	250	622	930	Gear	622	930	Gear	622	930	Gear
12	300	699	1080	Gear	711	1080	Gear	711	1080	Gear