

### Technical Specification

Design and Manufacture: Cast steel gate valve to API 600 (ISO 10434) or API 6D; Cast stainless steel gate valve to API 600; Forged steel gate valve to API 602.  
 Inspection and Test: API 598, API 600 or API 6D.  
 End flange dimension: ASME B16.5 (for NPS ≤ 24), ASME B16.47 series B, API 605 or ASME B16.47 series A, MSS SP-44 (for NPS > 24), BW end dimension: ASME B16.25.  
 Socket-weld dimension: ASME B16.11.  
 Face to face and end to end: ASME B16.10.  
 Pressure-temperature ratings: ASME B16.34.

### Design of Disc

Gate Valves with NPS ≥ 2 are of wedge flexible gate; Gate valves with NPS < 2 are of wedge solid gate.

### Body and Bonnet Connection

The body and bonnet of Class 150 ~ Class 900 gate valves are usually connected with studs and nuts. And the body and bonnet of Class 1500 ~ Class 2500 gate valves are usually of pressurized seal design.

### Gasket of Cover Flange

Carbon steel or stainless steel + flexible graphite combined gasket is used for Class 150 gate valve; Stainless steel + flexible graphite wounded gasket is used for Class 300 gate valve; Stainless steel + flexible graphite wounded gasket is used for Class 600 gate valve, and ring joint gasket is also optional for Class 600 gate valve; Ring Joint gasket is used for Class 900 gate valve; Pressurized seal design is used for Class 1500 ~ Class 2500 gate valve.

### Actuation

Hand wheel or gear box is usually used for gate valve actuation. Chain wheel and electric actuator can be also used for gate valve actuation if being requested by the customers.

### Packing Seal

Molded flexible graphite is used for packing material. PTFE or combined packing material can be also used if being requested by the customer. The internal surface of the stuffing box, of which area is contacted with the packing, is of excellent finish (Ra 3.2 μm). The stem surface, contacting with the packing, should be rolled and pressed after being precisely machined, so as to reach to the high finish and compactness (Ra 0.8 μm) and ensure the reliable tightness of the stem area.

### Belleville Spring Loaded Packing Impacting System

If being requested by the customer, the Belleville spring loaded packing impacting system can be adopted for enhancing the durability and reliability of the packing seal.

### Back Seating Design

All our gate valves have the back seating design. In most cases, the carbon steel gate valve is fitted with a renewable back seat. For stainless steel gate valve, the back seat is machined directly in the bonnet or is machined after welding. When the gate valve is at fully open position, the sealing of the back seat can be very reliable. However, as per the requirement of API 600, it is not advisable to add or change packing by the mean of back seating when the valve is pressure containing.

### Seat

For carbon steel gate valve, the seat is usually forged steel. The sealing surface of the seat is spray welded with hard alloy specified by the customer. Renewable threaded seat is used for NPS ≤ 10 gate valves, and welded on seat can be also optional if being requested by the customer. Welded on seat is used for NPS ≤ 10 carbon steel gate valves. For Stainless steel gate valve, integral seat is usually adopted, or to weld hard alloy directly integrally. Threaded or welded on seat is also optional for stainless steel gate valve if being requested by the customer.

### Stem Design

The stem is of integral forged design. The minimum diameter of the stem shall per the standard requirement. The connection of the stem and disc is T type. The strength of the connecting area is bigger than that of the T threaded part of the stem. The strength test of that area conforms to API 591.

### Stem Nut

Usually, the stem nut is made of ASTM A439 D2. It is also can be made of copper ally if being requested by the customer. For large sized gate valves (NPS 10 for Class 150, NPS 8 for Class 300, NPS 6 for Class 600, NPS 5 for Class 900), rolling bearing is fitted at the two sides of the stem nut in order to minimize the open and close torque of the gate valve.

### Special Gate Valve

Besides the common gate valves, Williamson Company also makes cryogenic gate valve, Jacketed Gate Valve, Bellow Sealed Gate Valve, EXTension Stem Gate Valve for underground application, Flat Gate Valve, etc.



Flat Gate Valve



Cryogenic Gate Valve



Bellow Sealed Gate Valve



Extension Stem Gate Valve for Underground Application



Casted Steel Gate Valve



BW Gate Valve



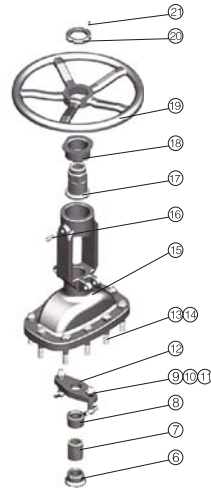
Self-pressure Gate Valve



Casted Steel Gate Valve

### Technical Specification

Design and Manufacture: API 600 (ISO 10434) or API 6D  
 Inspection and Test: API 598, API 600 or API 6D  
 End flange dimension: ASME B16.5 (for NPS ≤ 24), ASME B16.47 series B, API 605 or ASME B16.47 series A, MSS SP-44 (for NPS > 24)  
 BW end dimension: ASME B16.25  
 Face to face and end to end: ASME B16.10  
 Pressure-temperature ratings: ASME B16.34

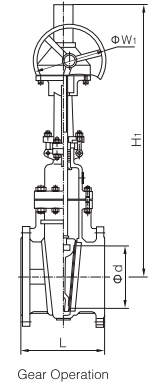
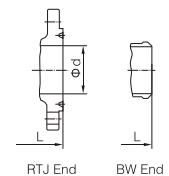
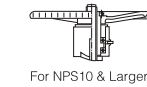
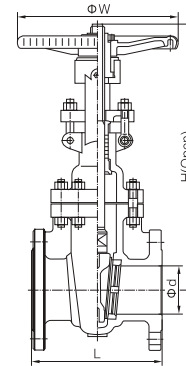


### Form of Major Part Material

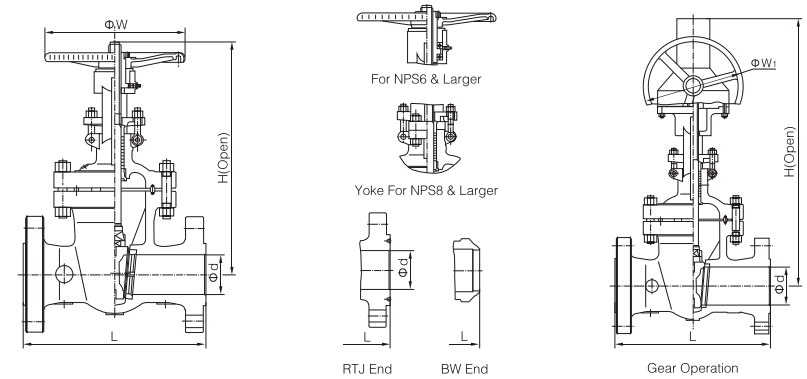
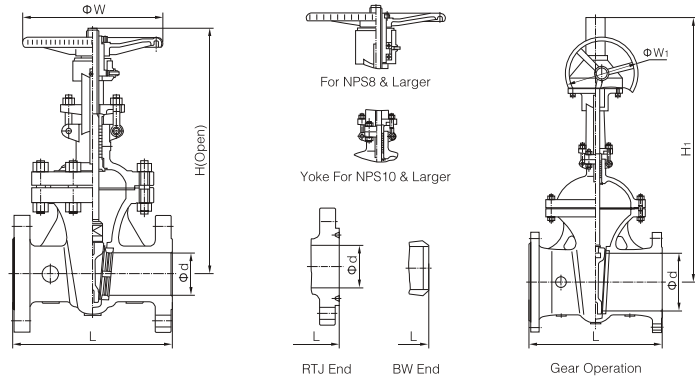
Parts No.	Parts Name	Materials				
		WCB/Trim 1	WCB/Trim 5	WCB/Trim 8	CF8/304	CF8M/316
1	Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
2	Gasket	Soft Iron + Graphite or 304 + Graphite			304 + Graphite	316 + Graphite
3	Seat ring	A105 + 13Cr	A105 + STL	A105 + STL	ASTM A351 CF8	ASTM A351 CF8M
4	Gate	ASTM A216 WCB + 13Cr	ASTM A216 WCB + STL	ASTM A216 WCB + 13Cr	ASTM A351 CF8	ASTM A351 CF8M
5	Stem	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316
6	Backseat bushing	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A351 CF8	ASTM A351 CF8M
7	Packing	Graphite	Graphite	Graphite	Graphite	Graphite
8	Gland	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316
9	Gland eyebolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
10	Eyebolt nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
11	Eyebolt pin	ASTM A36	ASTM A36	ASTM A36	304ss	316ss
12	Gland flange	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
13	Bonnet bolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
14	Bonnet nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
15	Bonnet	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
16	Nipple	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
17	Stem nut	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2
18	Yoke sleeve nut	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
19	Hand wheel	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron
20	Hand wheel nut	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
21	Set screw	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7

Note: The chart above only lists out some common composition of steel gate valve parts. We may provide other different parts material composition according to the customer's request or the actual valve working condition.

### Class150 Cast Steel Gate Valve



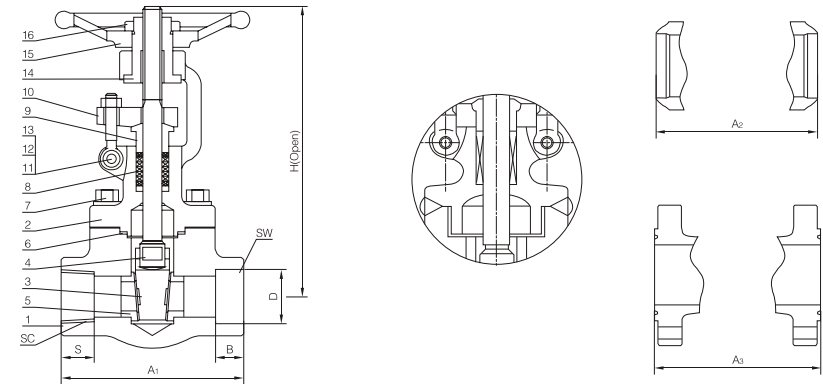
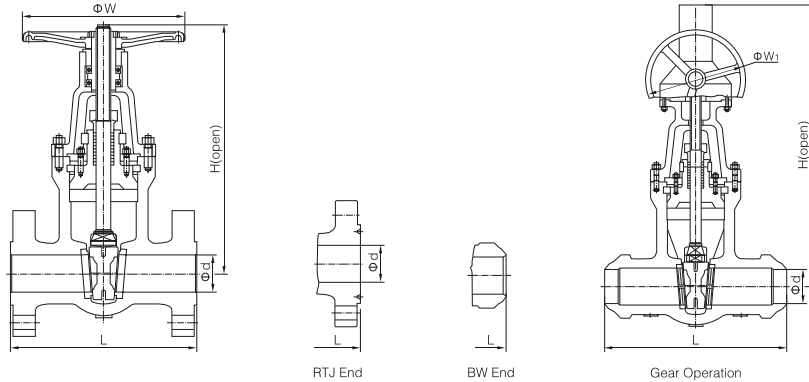
Class	Size		Dimensions(mm)								Weight(kg)	
	NPS	DN	L			d	H	H <sub>1</sub>	W	W <sub>1</sub>	H.W	G.O
			RF	RTJ	BW							
Class150	1/2	15	108	119	108	14	195	-	120	-	4	-
	3/4	20	117	130	117	19	210	-	120	-	5	-
	1	25	127	140	127	25	240	-	140	-	7	-
	1 1/4	32	140	153	140	32	300	-	180	-	10	-
	1 1/2	40	165	178	165	38	395	-	200	-	14	-
	2	50	178	191	216	51	400	-	200	-	19	-
	2 1/2	65	191	203	241	64	435	-	200	-	25	-
	3	80	203	216	283	76	515	-	250	-	33	-
	4	100	229	241	305	102	595	-	280	-	49	-
	5	125	254	267	381	127	725	-	280	-	62	-
	6	150	267	279	403	152	780	820	300	310	77	104
	8	200	292	305	419	203	975	1020	350	310	123	150
	10	250	330	343	457	254	1150	1200	400	310	188	215
	12	300	356	368	502	305	1380	1430	450	310	288	315
	14	350	381	394	572	337	1545	1580	500	310	385	435
	16	400	406	419	610	387	1733	1780	500	460	500	552
	18	450	432	445	660	438	1915	1990	500	460	601	653
	20	500	457	470	711	489	2122	2220	600	460	764	816
	24	600	508	521	813	591	2520	2600	600	460	1007	1185
	26	650	559	-	864	633	-	2800	-	600	-	1550
	28	700	610	-	914	684	-	3050	-	600	-	1880
30	750	610	-	914	735	-	3130	-	600	-	2300	
32	800	711	-	965	779	-	3280	-	600	-	2550	
34	850	762	-	1016	830	-	3500	-	600	-	2950	
36	900	711	-	1016	874	-	3720	-	600	-	3390	



Class	Size		Dimensions(mm)								Weight(kg)	
	NPS	DN	L			d	H	H <sub>1</sub>	W	W <sub>1</sub>	H.W	G.O
			RF	RTJ	BW							
Class300	1/2	15	140	151	140	14	198	-	120	-	6	-
	3/4	20	152	165	152	19	215	-	140	-	7	-
	1	25	165	178	165	25	245	-	160	-	10	-
	1 1/4	32	178	191	178	32	306	-	180	-	15	-
	1 1/2	40	190	203	190	38	400	-	200	-	21	-
	2	50	216	232	216	51	420	-	200	-	25	-
	2 1/2	65	241	257	241	64	446	-	200	-	30	-
	3	80	283	298	283	76	537	-	250	-	48	-
	4	100	305	321	305	102	619	650	280	310	73	100
	5	125	381	397	381	127	722	750	300	310	99	126
	6	150	403	419	403	152	806	835	350	310	130	186
	8	200	419	435	419	203	1000	1030	400	310	208	235
	10	250	457	473	457	254	1240	1280	450	310	334	386
	12	300	502	518	502	305	1425	1460	500	310	450	502
	14	350	762	778	762	337	1585	1620	600	460	704	756
	16	400	838	854	838	387	1790	1830	500	460	923	965
	18	450	914	930	914	438	1960	2000	650	460	1131	1224
	20	500	991	1010	991	489	2158	2220	750	460	1345	1400
24	600	1143	1165	1143	591	2576	2620	900	600	2122	2385	
26	650	1245	1270	1245	633	-	2850	-	600	-	3000	
28	700	1346	1372	1346	684	-	3080	-	600	-	3300	
30	750	1397	1422	1397	735	-	3180	-	600	-	3550	
32	800	1524	1553	1524	779	-	3300	-	600	-	4400	
34	850	1626	1654	1626	830	-	3550	-	600	-	5200	
36	900	1727	1756	1727	874	-	3760	-	600	-	6050	

Class	Size		Dimensions(mm)								Weight(kg)	
	NPS	DN	L			d	H	H <sub>1</sub>	W	W <sub>1</sub>	H.W	G.O
			RF	RTJ	BW							
Class600	2	50	292	295	292	51	444	-	200	-	32	-
	2 1/2	65	330	333	330	64	500	-	250	-	52	-
	3	80	356	359	356	76	558	585	280	310	60	87
	4	100	432	435	432	102	665	695	300	310	107	134
	5	125	508	511	508	127	760	790	350	310	175	227
	6	150	559	562	559	152	868	900	450	310	216	268
	8	200	660	664	660	203	1073	1110	500	310	399	451
	10	250	787	791	787	254	1263	1300	650	460	605	657
	12	300	838	841	838	305	1600	1650	700	460	851	893
	14	350	889	892	889	337	1705	1750	900	460	1177	1232
	16	400	991	994	991	387	1835	1900	900	460	1513	1568
	18	450	1092	1095	1092	438	-	2020	-	600	-	1980
	20	500	1194	1200	1194	489	-	2172	-	600	-	2460
	24	600	1397	1407	1397	591	-	2650	-	600	-	3650
Class900	2	50	368	371	368	51	500	-	280	-	70	-
	2 1/2	65	419	422	419	64	550	-	280	-	110	-
	3	80	381	384	381	76	610	660	300	310	140	167
	4	100	457	460	457	102	702	750	350	310	200	227
	5	125	559	562	559	127	850	900	400	310	258	285
	6	150	610	613	610	152	980	1060	500	460	358	410
	8	200	737	740	737	203	1100	1140	650	460	550	600
	10	250	838	841	838	254	1320	1370	700	460	1000	1100
	12	300	965	968	965	305	1500	1560	900	460	1215	1310
	14	350	1029	1038	1029	322	1900	1950	900	600	1600	1700
16	400	1130	1140	1130	373	2050	2100	900	600	2150	2330	

### Class1500 & Class2500 Cast Steel Gate Valve



Class	Size		Dimensions(mm)								Weight(kg)	
	NPS	DN	L			d	H	H <sub>1</sub>	W	W <sub>1</sub>	H.W	G.O
			RF	RTJ	BW							
Class 1500	2	50	368	371	368	51	510	-	280	-	70	-
	2 1/2	65	419	422	419	64	560	-	300	-	110	-
	3	80	470	473	470	76	620	670	350	310	175	202
	4	100	546	549	546	102	728	770	400	310	270	300
	5	125	673	676	673	127	870	920	450	310	378	405
	6	150	705	711	705	144	1000	1070	500	460	520	575
	8	200	832	841	832	192	1130	1180	750	460	820	915
	10	250	991	1000	991	239	1360	1410	900	600	1560	1750
	12	300	1130	1146	1130	287	-	1620	-	600	-	2120
	14	350	1257	1276	1257	315	-	2020	-	600	-	2600
16	400	1384	1407	1384	360	-	2180	-	600	-	3450	
Class 2500	2	50	451	454	451	42	530	580	280	310	100	130
	2 1/2	65	508	514	508	52	580	630	300	310	150	180
	3	80	578	584	578	62	650	700	350	310	245	275
	4	100	673	683	673	87	750	800	400	310	390	420
	5	125	794	807	794	96	900	960	500	460	550	580
	6	150	914	927	914	131	1040	1100	600	460	780	835
	8	200	1022	1038	1022	179	1150	1200	750	460	1260	1355
	10	250	1270	1292	1270	223	1400	1460	900	600	2380	2565
12	300	1422	1445	1422	265	-	1660	-	600	-	3250	

### Technical Specification

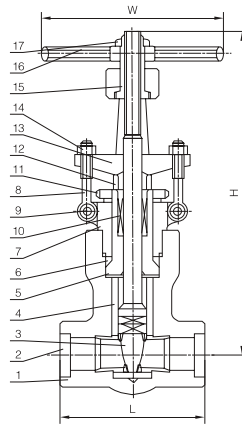
- ★ Steel Gate Valves, API 602
- ★ Steel Valves, ASME B16.34
- ★ Face to Face, Manufacturer Standard
- ★ Face to Face, Flanged, ASME B16.10
- ★ End Flanges, ASME B16.5
- ★ Butt-welding Ends, ASME B16.25
- ★ Socket-welding Ends, ASME B16.11
- ★ Screwed Ends, ASME B1.20.1
- ★ Inspection and Test, API 598

### Design Description

- ▲ Outside Screw and Yoke (OS&Y)
- ▲ Bolted Bonnet
- ▲ Choice of WB, Welding Bonnet
- ▲ Single Wedge, Fully Guided
- ▲ Renewable Seat Rings
- ▲ Yoke Integral with Bonnet
- ▲ Rising Stem and Non-rising Handwheel
- ▲ SW, Socket-welding Ends
- ▲ SC, Screwed Ends
- ▲ BW, Butt-welding Ends
- ▲ Flanged Ends

### Form of Major Part Material

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	A105	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy		
2	Bonnet	A105	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy		
3	Wedge	A105+13Cr *1	A182 F11+HF	A182 F22+HF	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy		
4	Stem	A182 F6a	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy		
5	Seat Ring	A105+13Cr *1	A182 F11+HF	A182 F22+HF	NA	NA	NA	NA	Na		
6	Bonnet Gasket	304+Graphit	304+Graphit	304+Graphit	304+Graphit	316+Graphit	304L+Graphit	316L+Graphit	316+Graphit		
7	Bonnet Bolt	A193 B7	A193 B7	A193 B16	A193 B8	A193 B8M	A193 B8M	A193 B8M	A193 B8M		
8	Packing	Graphite	Graphite	Graphite	Graphite *2	Graphite *2	Graphite *2	Graphite *2	Graphite *2		
9	Gland	A276 410	A276 410	A276 410	A276 304	A276 316	A276 304L	A276 316L	20-Alloy		
10	Gland Flange	A105	A105	A105	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy		
11	Eyebolt	Carbon Steel	A193 B7	A193 B7	A193 B8	A193 B8	A193 B8	A193 B8	A193 B8		
12	Eyebolt Nut	Carbon Steel	A194 2H	A194 2H	A194 8	A194 8	A194 8	A194 8	A194 8		
13	Eyebolt Pin	A276 410	A276 410	A276 412	A276 304	A276 304	A276 304	A276 304	A276 304		
14	Stem Nut	Bronze	Bronze *3	Bronze *3	Bronze	Bronze	Bronze	Bronze	Bronze		
15	Hand wheel	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron		
16	Wheel Nut	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel+Zn	Carbon Steel+Zn	Carbon Steel+Zn	Carbon Steel+Zn	Carbon Steel+Zn		
*1	PN ≥ 600 Class seal face will be HF										
*2	PTFE Optional										
*3	Ductile Ni-Resist iron Optional										



### Technical Specification

- ★ Steel Gate Valves, API 602
- ★ Steel Valves, ASME B16.34
- ★ Face to Face, Manufacturer Standard
- ★ Face to Face, Flanged, ASME B16.10
- ★ End Flanges, ASME B16.5
- ★ Butt-welding Ends, ASME B16.25
- ★ Socket-welding Ends, ASME B16.11
- ★ Screwed Ends, ASME B1.20.1
- ★ Inspection and Test, API 598

### Design Description

- ▲ Outside Screw and Yoke (OS&Y)
- ▲ Pressure Seal Bonnet
- ▲ Single Wedge, Fully Guided
- ▲ Renewable Seat Rings
- ▲ Rising stem and non-rising handwheel
- ▲ SW, Socket-welding Ends
- ▲ SC, Screwed Ends
- ▲ BW, Butt-welding Ends
- ▲ Flanged Ends

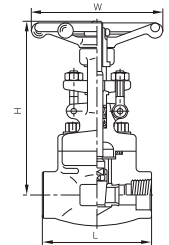
### Form of Major Part Material

No.	Part Name	CS to ASTM	AS to ASTM	SS to ASTM	
		Type A 105N	Type F22	Type F304(L)	Type F316(L)
1	Body	A105N	A182 F22	A182 F304(L)	A182 F316(L)
2	Seat Ring	A276 420	A276 304	A276 304(L)	A276 316(L)
3	Wedge	A182/F430+STL	A182 F304+STL	A182 F304(L)+STL	A182 F316(L)+STL
4	Stem	A182 F6a A276-410	A182 F22	A182 F304(L)	A182 F316(L)
5	From Seal Place	A105N	A182 F304	A182 F304(L)	F316(L)
6	From Packing Ring	F182 F304	A182 F304 F22	A276 304(L)	A276 316(L)
7	Bonnet	A105N	A182 F22	A182 F304(L)	A182 F316(L)
8	Gland Eyebolt	A193 B7	A193 B16	A193 B8	A193 B8M
9	Cylindrical Pin	A276 F420	A276 F420	A182 F304	A182 F304
10	Stem Packing	Graphite+304	Graphite+304	Graphite+316	Graphite+316
11	Promotes the Nut	A194 2H	A194 4	A194 8	A194 8M
12	Gland	A276 F420	A276 F420	A182 F304	A182 F304
13	Gland Flange	A105	F22	A182 F304	A182 F304
14	Gland Nut	A194 2H	A194 4	A194 8	A194 8M
15	Yoke Nut	A276-410	A276-410	A276 F410	A276 F410
16	Hand Wheel	A197	A197	A197	A197
17	Lock Nut	A194 2H	A194 4	A194 8	A194 8M

### Class800 Main Outline Dimensions & Weight

Bold fastening valve cover, outside screw stem & yoke (OS&Y)  
Designs according to API 602.

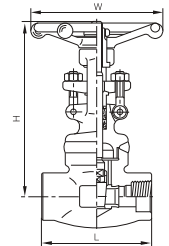
R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	79	79	92	111	120	120	140	178
W	100	100	100	125	160	160	180	200
H	161	161	163	196	223	251	290	333
d	8	10.5	13.5	18	24	29	36.5	45
Weight(kg)	2.3	2.22	2.39	4.24	5.7	7.05	10.9	16.8



### Class800 Main Outline Dimensions & Weight

Weld joint valve cover, outside screw stem & yoke (OS&Y).  
Designs according to API 602.

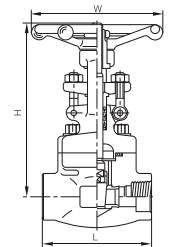
R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	79	79	92	111	120	120	140	178
W	100	100	100	125	160	160	180	200
H	161	161	163	196	223	251	290	333
d	8	10.5	13.5	18	24	29	36.5	45
Weight(kg)	1.9	1.9	2.1	3.2	5.2	6.9	10.4	15.8



### Class800 Main Outline Dimensions & Weight

Bold fastening valve cover, outside screw stem & yoke (OS&Y).  
Designs according to API 602.

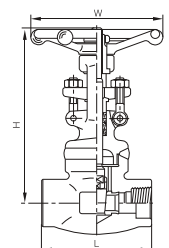
R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	92	111	111	120	120	140	178	180
W	100	125	125	160	160	180	200	220
H	191	191	192	219	243	296	316	370
d	8	10.5	13.5	18	24	29	36.5	45
Weight(kg)	2.4	4.4	4.3	6	7.2	11.4	16	23



### Class800 Main Outline Dimensions & Weight

Weld joint valve cover, outside screw stem & yoke (OS&Y).  
Designs according to API 602.

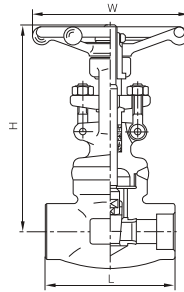
R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	92	111	111	120	120	140	178	180
W	100	125	125	160	160	180	200	220
H	171	207	207	240	258	330	355	370
d	8	10.5	13.5	18	24	29	36.5	45
Weight(kg)	2.3	4	4	4.8	7.1	11	16	22.8



### Class2500 Main Outline Dimensions & Weight

Weld joint valve cover, outside screw stem & yoke (OS&Y).  
Designs according to ASME B16.34

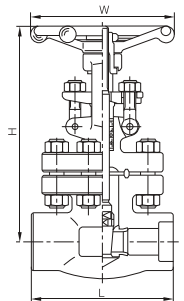
NPS	3/8	1/2	3/4	1	1 1/4
L	111	120	120	120	140
W	125	160	160	180	220
H	215	218	220	238	281
d	14	14	14	19	25
Weight(kg)	7	8.7	8.5	11.7	17



### Class1500 ~ 2500 Main Outline Dimensions & Weight

Bolt fastening cover, outside screw stem & yoke (OS&Y).  
Designs according to ASME B16.34

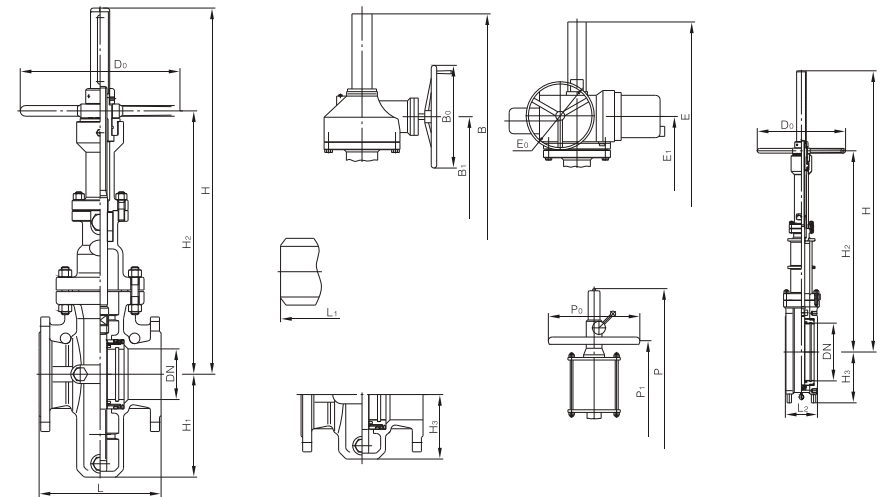
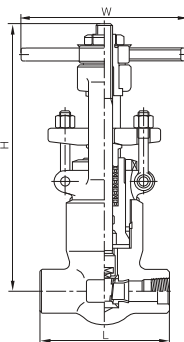
NPS	Class	1/2	3/4	1	1 1/2	2
L	1500	110	150	150	210	235
	2500	150	150	210	235	235
W	1500	110	130	130	180	250
	2500	130	130	250	300	300
H	1500	277	300	390	400	435
	2500	293	300	390	435	435
d	1500	14	17	22	35	37
	2500	14	14	14	25	30
Weight(kg)	1500	5.1	11	12.1	22	37
	2500	11	11.3	22.4	38	38



### Class1500 ~ 2500 Main Outline Dimensions & Weight

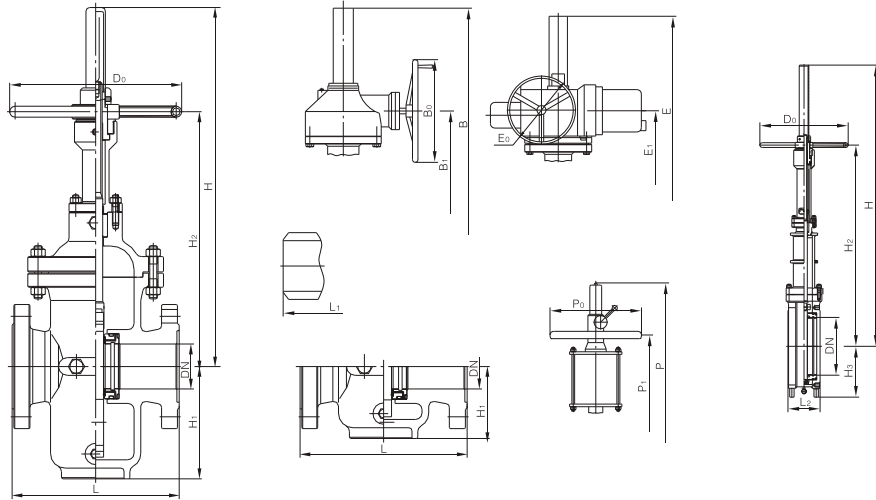
Pressure seal bonnet, outside screw stem & yoke (OS&Y).  
Designs according to ASME B16.34

NPS	Class	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	900-1500	140	140	140	140	178	178	216
	2500	186	186	186	186	232	232	279
W	900-1500	200	200	200	200	280	280	300
	2500	200	200	200	200	280	280	300
H	900-1500	318	318	318	322	467	468	540
	2500	325	325	325	327	467	468	540
d	900-1500	14	14	14	19	25	30	36.5
	2500	14	14	14	19	25	30	36.5
Weight(kg)	900-1500	11.5	11.5	10.8	10.5	19.6	21.0	55.4
	2500	12.3	12.3	11.6	10.8	26.0	28.4	60.0



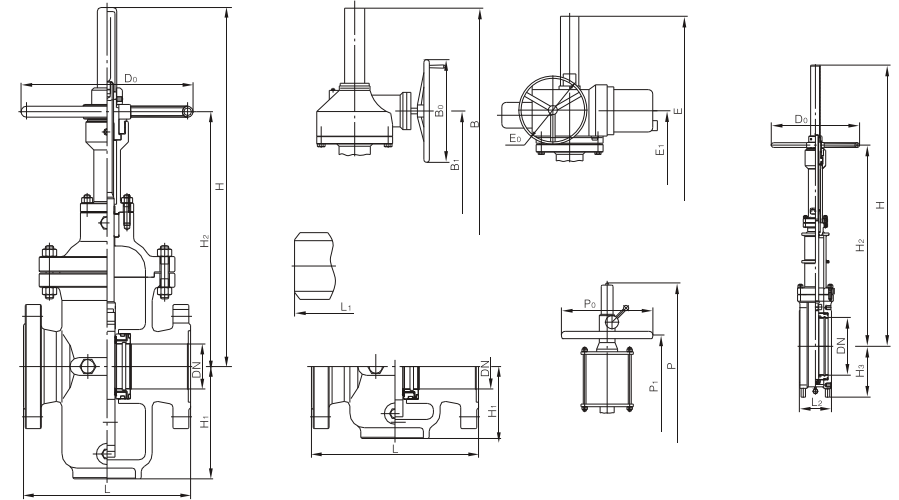
### Class150 Main Size of Outside

NPS (in)	Flange	Butt welding	Light-duty	Hand-operated			Geared driving			Geared driving	Air-operated and Fluid driving			Electric driving device			Electric driving device	Non-diversion hole type	Diversion hole type
	L	L1	L2	H	H2	D0	B	B1	B0		P	P1	P0	E	E1	E0		H3	H1
1	127	127	-	360	250	180	-	-	-	-	-	-	-	-	-	-	60	85	
1 1/4	140	140	-	375	260	180	-	-	-	-	-	-	-	-	-	-	71	103	
1 1/2	165	165	-	410	290	250	-	-	-	-	-	-	-	-	-	-	75	115	
2	178	216	-	450	315	250	-	-	-	-	525	430	250	-	-	-	85	122	
2 1/2	190	241	-	550	420	300	-	-	-	-	648	560	300	-	-	-	91	154	
3	203	283	-	610	428	300	-	-	-	-	730	630	300	-	-	-	109	169	
4	229	305	150	700	494	300	770	650	310	BA-0	850	720	300	912	790	200	SMC-04	121	193
6	267	403	150	895	625	350	965	800	310	BA-0	1120	920	350	1107	920	500	SMC-03	178	283
8	292	419	180	1130	784	350	1200	960	310	BA-0	1430	1160	350	1390	1120	500	SMC-03	211	352
10	330	457	180	1290	937	400	1360	1080	310	BA-0	1665	1380	400	1550	1250	500	SMC-03	215	440
12	356	502	200	1480	1080	450	1560	1200	310	BA-0	1930	1550	450	1740	1400	305	SMC-00	245	514
14	381	572	200	1660	1283	500	1740	1350	460	BA-1	2185	1750	450	1913	1550	305	SMC-00	280	602
16	406	610	218	1850	1417	500	1930	1500	460	BA-1	2450	2000	500	2103	1620	305	SMC-00	310	678
18	432	660	218	2080	1489	600	2160	1680	460	BA-1	2755	2250	500	2365	1830	305	SMC-0	346	785
20	457	711	229	2300	1672	700	2420	1850	460	BA-1	3050	2450	600	2585	1980	305	SMC-0	363	855
24	508	813	248	2680	2012	800	2800	2120	460	BA-2	3580	2900	800	2990	2300	305	SMC-1	442	1045
28	610	914	286	3080	2250	800	3200	2450	460	BA-2	4130	3350	800	3390	2600	305	SMC-1	505	1190
32	660	965	286	3491	2550	1000	3640	2800	460	BA-2	-	-	-	3850	2980	305	SMC-1	560	1350
36	711	1016	-	3897	2850	1000	4050	3080	600	BA-3	-	-	-	4260	3200	458	SMC-2	610	1510
40	811	-	-	4317	3250	1200	4467	3400	600	BA-3	-	-	-	4677	3600	458	SMC-2	715	1715



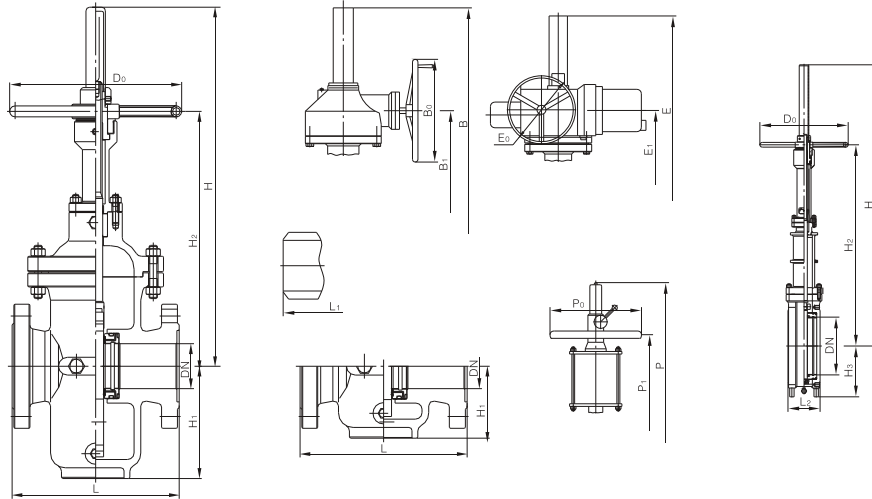
**Class300 Main Size of Outside**

NPS (in)	Flange		Butt welding	Light- duty	Hand-operated		Geared driving			Air-operated and Fluid driving	Electric driving device			Electric driving device	Non-diversion hole type	Diversion hole type			
	L	L1	L2	H	H2	D0	B	B1	B0		P	P1	P0		E	E1	E0	H3	H1
1	165	165	-	370	260	180	-	-	-	-	-	-	-	-	-	70	90		
1 1/4	178	178	-	385	270	180	-	-	-	-	-	-	-	-	-	80	115		
1 1/2	190	190	-	420	300	250	-	-	-	-	-	-	-	-	-	85	130		
2	216	216	-	458	325	250	-	-	-	533	435	200	-	-	-	100	137		
2 1/2	241	241	-	555	420	300	-	-	-	653	565	200	-	-	-	106	169		
3	283	283	-	615	430	300	-	-	-	735	635	250	-	-	-	124	184		
4	305	305	150	710	500	300	770	650	310	BA-0	860	730	250	912	790	200	SMC-04	146	218
6	403	403	150	900	625	350	965	800	310	BA-0	1125	925	350	1155	960	500	SMC-03	206	311
8	419	419	180	1135	790	350	1200	960	310	BA-0	1435	1165	350	1390	1120	305	SMC-00	241	382
10	457	457	180	1401	1040	400	1360	1090	310	BA-0	1776	1450	400	1543	1240	305	SMC-00	251	476
12	502	502	200	1580	1150	450	1560	1200	310	BA-1	2030	1620	450	1745	1400	305	SMC-0	281	545
14	762	762	200	-	-	-	1740	1350	460	BA-1	2305	1900	500	1945	1580	305	SMC-0	325	645
16	838	838	218	-	-	-	1930	1540	460	BA-1	2558	2100	600	2135	1640	305	SMC-0	360	728
18	914	914	218	-	-	-	2160	1700	460	BA-1	2835	2320	700	2385	1840	305	SMC-1	400	800
20	991	991	229	-	-	-	2420	1850	460	BA-2	3120	2510	800	2660	2050	305	SMC-1	430	930
24	1143	1143	248	-	-	-	2800	2120	460	BA-2	3670	2980	900	3010	2310	305	SMC-1	497	1100
28	1346	1346	286	-	-	-	3200	2460	460	BA-2	-	-	-	3480	2680	458	SMC-2	560	1260
32	1524	1524	286	-	-	-	3640	2800	460	BA-2	-	-	-	3890	3020	458	SMC-2	620	1420
36	1727	1727	-	-	-	-	4050	3080	600	BA-3	-	-	-	4260	3200	458	SMC-2	610	1510



**Class400 Main Size of Outside**

NPS (in)	Flange		Butt welding	Hand-operated		Geared driving			Air-operated and Fluid driving	Electric driving device			Electric driving device	Non-diversion hole type	Diversion hole type			
	L	L1	H	H2	D0	B	B1	B0		P	P1	P0		E	E1	E0	H3	H1
2	292	292	458	325	300	505	430	310	BA-0	533	435	200	647	560	200	SMC-04	108	158
2 1/2	330	330	555	420	300	560	470	310	BA-0	653	565	200	702	610	200	SMC-04	125	190
3	356	356	615	430	350	610	510	310	BA-0	735	635	250	752	650	500	SMC-03	145	225
4	406	406	710	500	350	770	650	310	BA-0	860	730	250	912	790	500	SMC-03	165	255
6	495	495	900	625	400	965	800	310	BA-0	1125	925	350	1138	950	305	SMC-00	220	330
8	597	597	1135	790	500	1200	960	310	BA-0	1435	1165	350	1373	1100	305	SMC-00	280	410
10	673	673	1401	1040	500	1370	1090	460	BA-1	1776	1450	400	1575	1280	305	SMC-0	330	490
12	762	762	1580	1150	600	1560	1200	460	BA-1	2030	1620	450	1725	1390	305	SMC-0	380	570
14	826	826	-	-	-	1740	1350	460	BA-1	2305	1900	500	1930	1570	305	SMC-1	430	650
16	902	902	-	-	-	1970	1540	460	BA-2	2558	2100	600	2210	1700	305	SMC-1	480	735
18	978	978	-	-	-	2260	1700	460	BA-2	2835	2320	700	2500	1940	305	SMC-1	530	810
20	1054	1054	-	-	-	2420	1850	460	BA-2	3120	2510	800	2630	2020	458	SMC-2	580	905
24	1232	1232	-	-	-	2800	2120	600	BA-3	-	-	-	3050	2350	458	SMC-2	670	1070
28	1397	1397	-	-	-	3230	2460	600	BA-3	-	-	-	3480	2680	458	SMC-2	770	1230



**Class600 Main Size of Outside**

NPS (in)	Flange		Butt welding		Hand-operated			Geared driving			Air-operated and Fluid driving			Electric driving device			Non-diversion hole type		Diversion hole type	
	L	L1	H	H2	D0	B	B1	B0	Geared driving	P	P1	P0	E	E1	E0	Electric driving device	H3	H1		
2	292	292	468	335	300	505	430	310	BA-0	543	445	200	647	560	200	SMC-04	108	158		
2 1/2	330	330	565	430	300	560	470	310	BA-0	663	570	200	702	610	200	SMC-04	125	190		
3	356	356	625	440	350	610	510	310	BA-0	745	640	250	752	650	500	SMC-03	145	225		
4	432	432	720	510	350	770	650	310	BA-0	870	740	250	950	820	500	SMC-03	165	255		
6	559	559	910	630	400	965	800	310	BA-0	1135	930	350	1138	950	305	SMC-0	220	330		
8	660	660	1145	800	500	1200	960	310	BA-1	1445	1170	350	1403	1130	305	SMC-0	280	410		
10	787	787	1411	1050	500	1370	1090	460	BA-1	1786	1460	400	1575	1280	305	SMC-0	330	490		
12	838	838	1590	1160	600	1560	1200	460	BA-1	2040	1630	450	1750	1410	305	SMC-1	380	570		
14	889	889	-	-	-	1740	1350	460	BA-2	-	-	-	1930	1570	305	SMC-1	430	650		
16	991	991	-	-	-	1970	1540	460	BA-2	-	-	-	2210	1700	305	SMC-1	480	735		
18	1092	1092	-	-	-	2260	1700	460	BA-2	-	-	-	2500	1940	458	SMC-2	530	810		
20	1194	1194	-	-	-	2420	1850	460	BA-2	-	-	-	2630	2020	458	SMC-2	580	905		

### Technical Specification

Design and Manufacture: Cast steel check valve to BS 1868, ASME B16.34 and API 6D; Forged steel check valve to API 602.  
 Inspection and Test: API 598 or API 6D.  
 End flange dimension: ASME B16.5 (for NPS ≤ 24), ASME B16.47 series B, API 605 or ASME B16.47 series A, MSS SP-44 (for NPS > 24).  
 BW end dimension: ASME B16.25.  
 Socket-weld dimension: ASME B16.11.  
 Face to face and end to end: ASME B16.10.  
 Pressure-temperature ratings: ASME B16.34.  
 Wall thickness dimension: API 600 and BS 1868.

### The Features of check Valve

Bolted Bonnet; Swing and lift disc; Metallic seating surfaces.

### Body and Bonnet Connection

The body and bonnet of Class 150 ~ Class 900 check valves are usually with studs and nuts. And the body and bonnet of Class 1500 ~ Class 2500 check valves are usually of pressurized seal design.

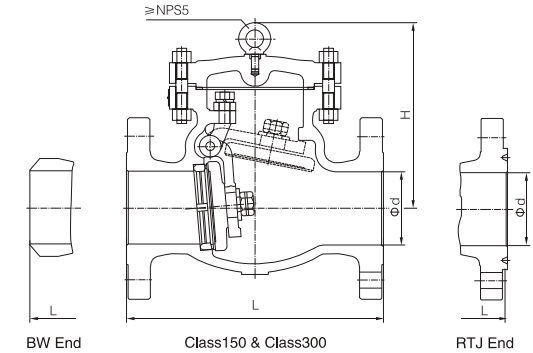
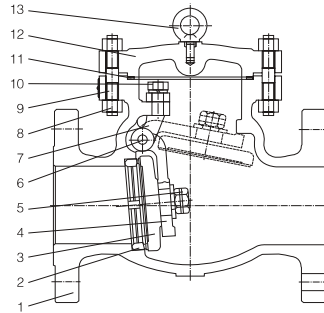
### Body-To-Bonnet Joint

Stainless steel + flexible graphite wounded gasket is used for Class 150 and Class 300 check valve; Stainless steel + flexible graphite wounded gasket is used for Class 600 check valve, and joint gasket is also optional for Class 600 check valve; Ring Joint gasket is used for Class 900 check valve; Pressurized seal design is used for Class 1500 ~ Class 2500 check valve.

### Seat

For carbon steel check valve, the seat is usually forged steel. The sealing surface of the seat is spray welded with hard alloy specified by the customer. Renewable threaded seat is used for NPS ≤ 10 check valves, and welded on seat can be also optional if being requested by the customer. Welded on seat is used for NPS ≥ 12 carbon steel check valves. For Stainless steel check valve, integral seat is usually adopted, or to weld hard alloy directly integrally. Threaded or welded on seat is also optional for stainless steel check valve if being requested by the customer.





### Technical Specification

Design and Manufacture: BS1868 or API 6D

Inspection and Test: API 598 or API 6D

End flange dimension: ASME B16.5, ASME B16.47 A, MSS SP-44; ASME B16.47 B, API 605

BW end dimension: ASME B16.25

Face to face and end to end: ASME B16.10

Pressure-temperature ratings: ASME B16.34

Wall thickness dimension: API 600 and BS 1868

### Form of Major Part Material

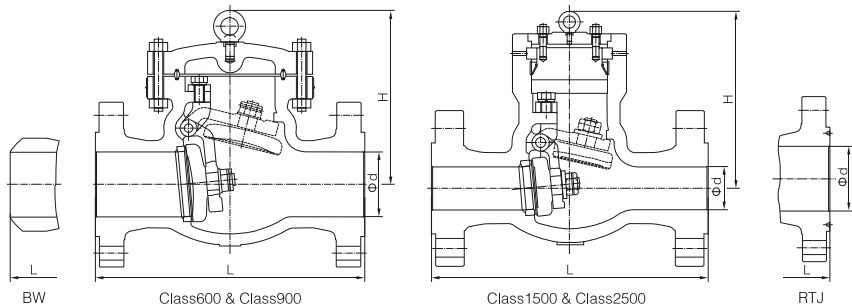
Parts No.	Parts Name	Materials				
		WCB/Trim 1	WCB/Trim 5	WCB/Trim 8	CF8/304	CF8M/316
1	Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
2	Seat ring	A105 + 13Cr	A105 + STL	A105 + STL	ASTM A351 CF8	ASTM A351 CF8M
3	Disc	ASTM A216 WCB + 13Cr	ASTM A216 WCB + STL	ASTM A216 WCB + 13Cr	ASTM A351 CF8	ASTM A351 CF8M
4	Arm	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
5	Nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
6	Arm pin	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316
7	Yoke	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
8	Bonnet nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
9	Bonnet bolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
10	Bolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
11	Gasket	304 sheet + Graphite	304 sheet + Graphite	304 sheet + Graphite	304 + Graphite	316 + Graphite
12	Bonnet	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
13	Eye bolt	ASTM A181	ASTM A181	ASTM A181	ASTM A181	ASTM A181

Note: The chart above only lists out some common composition of steel check valve parts. We may provide other different parts material composition according to the customer's request or the actual valve working condition.

### Class 150 & Class 300 Cast Steel Swing Check Valve

NPS	DN	Class 150						Class 300					
		Dimensions(mm)					Weight (kg)	Dimensions(mm)					Weight (kg)
		L			d	H		L			d	H	
		RF	RTJ	BW						RF			RTJ
2	50	203	216	203	51	132	15	267	283	267	51	144	20
2 1/2	65	216	229	216	64	147	20	292	308	292	64	149	35
3	80	241	254	241	76	176	27	318	333	318	76	210	40
4	100	292	305	292	102	198	45	356	371	356	102	260	61
5	125	330	343	330	127	255	58	400	416	400	127	295	80
6	150	356	368	356	152	320	69	445	460	445	152	326	130
8	200	495	508	495	203	380	131	533	549	533	203	380	190
10	250	622	635	622	254	440	219	622	638	622	254	440	296
12	300	699	711	699	305	480	321	711	727	711	305	520	450
14	350	787	800	787	337	530	380	838	854	838	337	540	640
16	400	864	876	864	387	580	560	864	879	864	387	588	850
18	450	978	991	978	438	618	630	978	994	978	438	670	1030
20	500	978	991	978	489	657	770	1016	1035	1016	489	720	1330
24	600	1295	1308	1295	591	760	960	1346	1368	1346	591	850	1950
26	650	1295	-	1295	633	840	1250	1346	1372	1346	633	920	2300
28	700	1448	-	1448	684	920	1580	1499	1524	1499	684	1150	2600
30	750	1524	-	1524	735	980	1950	1594	1619	1594	735	1260	3200

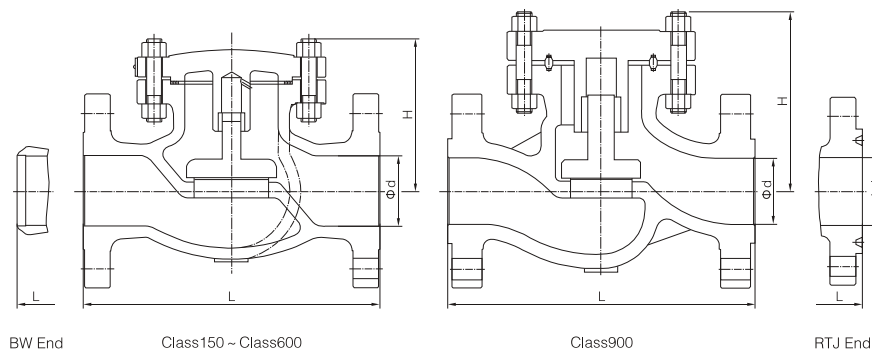
### Class 600 ~ Class 2500 Cast Steel Swing Check Valve



Size		Class 600						Class 900					
NPS	DN	Dimensions(mm)					Weight (kg)	Dimensions(mm)					Weight (kg)
		L			d	H		L			d	H	
RF	RTJ	BW	RF	RTJ			BW	RF	RTJ	BW			
2	50	292	295	292	51	170	28	368	371	368	51	200	48
2 1/2	65	330	333	330	64	178	40	419	422	419	64	220	75
3	80	356	359	356	76	246	68	381	384	381	76	280	95
4	100	432	435	432	102	290	117	457	460	457	102	320	135
5	125	508	511	508	127	320	155	559	562	559	127	360	200
6	150	559	562	559	152	360	192	610	613	610	152	400	264
8	200	660	664	660	203	430	340	737	740	737	203	480	424
10	250	787	791	787	254	502	515	838	841	838	254	560	730
12	300	838	841	838	305	554	750	965	968	965	305	632	1070
14	350	889	892	889	337	595	890	1029	1038	1029	337	680	1180
16	400	991	994	991	387	680	1303	1130	1140	1130	373	780	1790
18	450	1092	1095	1092	438	778	1800	1219	1232	1219	423	880	250
20	500	1194	1200	1194	489	970	2150	1321	1334	1321	471	1050	3080
24	600	1397	1407	1397	591	1100	3200	1549	1568	1549	522	1200	4600

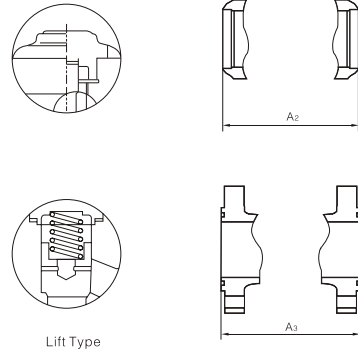
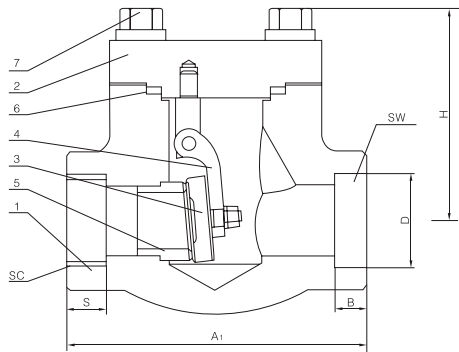
Size		Class 1500						Class 2500					
NPS	DN	Dimensions(mm)					Weight (kg)	Dimensions(mm)					Weight (kg)
		L			d	H		L			d	H	
RF	RTJ	BW	RF	RTJ			BW	RF	RTJ	BW			
2	50	368	371	368	51	210	48	451	454	451	42	230	68
2 1/2	65	419	422	419	64	240	75	508	514	508	52	260	100
3	80	470	473	470	76	303	120	578	584	578	62	330	165
4	100	546	549	546	102	340	180	673	683	673	87	370	260
5	125	673	676	673	127	380	294	794	807	794	96	410	440
6	150	705	711	705	144	430	385	914	927	914	131	460	580
8	200	832	841	832	192	500	634	1022	1038	1022	179	530	970
10	250	991	1000	991	239	590	1140	1270	1292	1270	223	620	1700
12	300	1130	1146	1130	287	660	1650	1422	1445	1422	265	690	2600
14	350	1257	1276	1257	315	710	2000	-	-	-	-	-	-
16	400	1384	1407	1384	360	820	2700	-	-	-	-	-	-

### Class 150 ~ Class 900 Cast Steel Lift Check Valve



Size		Class 150						Class 300					
NPS	DN	Dimensions(mm)					Weight (kg)	Dimensions(mm)					Weight (kg)
		L			d	H		L			d	H	
RF	RTJ	BW	RF	RTJ			BW	RF	RTJ	BW			
1/2	15	108	119	108	13	76	3	152	162	152	13	78	5
3/4	20	117	130	117	19	76	4	178	191	178	19	82	6
1	25	127	140	127	25	98	5	203	216	203	25	102	8
1 1/4	32	140	153	140	32	102	7	216	229	216	32	106	11
1 1/2	40	165	178	165	38	115	8	229	242	229	38	118	13
2	50	203	216	203	51	140	15	267	283	267	51	140	26
2 1/2	65	216	229	216	64	162	22	292	308	292	64	164	33
3	80	241	254	241	76	168	28	318	333	318	76	178	50
4	100	292	305	292	102	194	42	356	371	356	102	195	86
5	125	356	368	356	127	210	60	400	416	400	127	223	120
6	150	406	419	406	152	226	75	445	460	445	152	245	180
8	200	495	508	495	203	250	118	533	549	533	203	280	220
10	250	622	635	622	254	275	194	622	638	622	254	336	310
12	300	699	711	699	305	332	320	711	727	711	305	380	510

Size		Class 600						Class 900					
NPS	DN	Dimensions(mm)					Weight (kg)	Dimensions(mm)					Weight (kg)
		L			d	H		L			d	H	
RF	RTJ	BW	RF	RTJ			BW	RF	RTJ	BW			
2	50	292	295	292	51	152	32	368	371	368	50	180	50
2 1/2	65	330	333	330	64	167	45	419	422	419	64	200	65
3	80	356	359	356	76	178	68	381	384	381	74	235	88
4	100	432	435	432	102	215	98	457	460	457	100	270	140
5	125	508	511	508	125	240	155	559	562	559	125	300	210
6	150	559	562	559	152	279	230	610	613	610	150	350	300
8	200	660	664	660	200	328	300	737	740	737	200	400	390



### Technical Specification

- Steel Check Valves, API 602
- Steel Valves, ASME B16.34
- Face to Face, Manufacturer Standard
- Face to Face, Flanged, ASME B16.10
- End Flanges, ASME B16.5
- Buttwelding Ends, ASME B16.25
- Socket-welding Ends, ASME B16.11
- Screwed Ends, ASME B1.20.1
- Inspection and Test, API 598

### Design Description

- Bolted Bonnet Cap
- Choice of WB, Welding Bonnet
- Lift or Swing Type
- Seat Rings Integral with Body of Lift
- Horizontal or Vertical Service
- Socket Weld Ends
- SW, Socket-welding Ends
- SC, Screwed Ends
- BW, Buttwelding Ends
- Flanged Ends

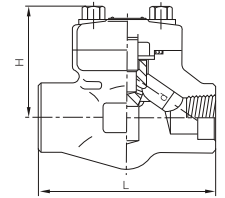
### Form of Major Part Material

No.	Part Name	ASTM Material							
		Carbon Steel	F11	F22	304 Type	316 Type	304L Type	316L Type	20 Alloy
1	Body	A105	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
2	Bonnet	A105	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
3	Disc	A182 F6a	A182 F11+HF	A182 F22+HF	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
4	Hinge	A182 F6a	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
5	Seat	A182 F6a	A182 F11+HF	A182 F22+HF	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
6	Bonnet Gasket	304+Graphit	304+Graphit	304+Graphit	304+Graphit	316+Graphit	304L+Graphit	316L+Graphit	316+Graphit
7	Bonnet Bolt	A193 B7	A193 B7	A193 B16	A193 B8	A193 B8M	A193 B8	A193 B8M	A193 B8M

### Class800 Main Outline Dimensions & Weight

Bold valve cover.  
Designs according to BS5,352.

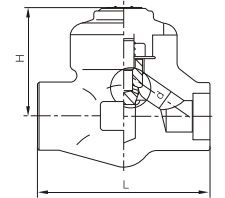
R.P		1/2	3/4	1	1 1/4	1 1/2	2	
F.P		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2
L	Lift	79	79	92	111	120	152	172
	Swing	79	79	92	111	120	120	140
H	Lift	61	61	61	78	84	84	118
	Swing	61	61	61	78	84	84	120
d	Lift	7	9	13	17.5	23	30	35
	Swing	8	10.5	13.5	18	24	29	36.5
Weight (kg)	Lift	1.2	1.5	1.7	3.3	4.2	4.2	10.5
	Swing	1.4	1.5	1.7	3.3	4.2	4.2	8.5



### Class800 Main Outline Dimensions & Weight

Weld valve cover.  
Designs according to BS5,352.

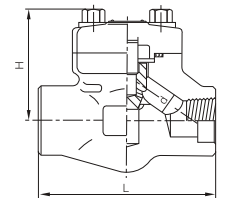
R.P		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2
L		79	79	92	111	120	152	172
H		61	61	61	78	84	103	118
d		7	9	13	17.5	23	30	35
Weight(kg)		1.2	1.3	1.5	3.0	3.9	6.0	10



### Class900 ~ 1500 Main Outline Dimensions & Weight

Bold valve cover.  
Designs according to BS5,352.

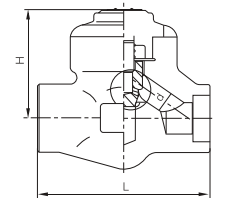
R.P		1/2	3/4	1	1 1/4	1 1/2	2	
F.P		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2
L	Lift	92	111	111	120	152	172	200
	Swing	92	111	111	120	120	140	178
H	Lift	61	78	78	84	103	118	132
	Swing	61	78	78	84	101	120	133
d	Lift	7	12	15	20	28	32	40
	Swing	8	10.5	13.5	18.7	24	29	45
Weight (kg)	Lift	1.5	3.4	3.3	4.2	6.3	10.5	12.5
	Swing	1.5	3.4	3.3	4.2	5.0	8.5	10.9



### Class900 ~ 1500 Main Outline Dimensions & Weight

Weld valve cover.  
Designs according to BS5,352.

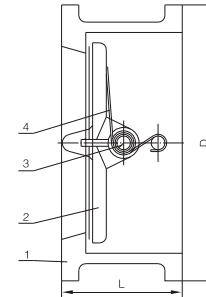
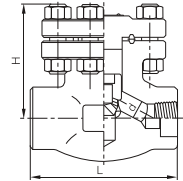
R.P		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2
L		92	111	111	120	152	172	200
H		61	78	78	84	103	118	132
d		7	12	15	20	28	32	40
Weight(kg)		1.3	3.1	3.1	3.9	5.8	10.0	11.5



### Class900 ~ 1500 Main Outline Dimensions & Weight

Bold valve cover.  
Designs according to BS5,352.

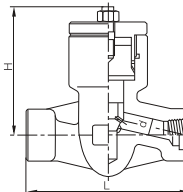
F.P		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L		110	110	110	110	150	150	210	235
H		166	166	171	207	240	258	330	355
d	Lift	9	10	12	15	20	28	32	40
	Swing	8	10.5	13.5	18	24	29	36.5	45
Weight (kg)	Lift	2	2.1	1.9	4	5.1	7.2	12.1	14
	Swing	1.9	2.3	2.3	4.35	5.25	7.8	12.5	14.6



### Class900 ~ 1500 Main Outline Dimensions & Weight

Pressure seal bonnet.  
Designs according to BS5,352.

R.P		1/2	3/4	1	1 1/4	1 1/2	2
F.P		3/8	1/2	3/4	1	1 1/4	1 1/2
L		140	140	140	178	216	216
H		117	117	117	152	195	195
d		12	15	20	28	28	40
Weight (kg)		7.5	7.0	6.8	18.5	18.5	22



### Technical Specification

Structural formation: Dual-disc swing type check valve

Design standard: API 594

Face to face: ASME B16.0

Flanged ends: ASME B16.5

Test & inspection: API 598

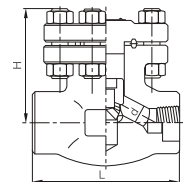
### Form of Major Part Material

Parts No.	Parts Name	Materials
1	Body	ASTM A216-WCB, ASTM A351-CF8, CF8M, CF8C, CF3, CF3M
2	Disc	ASTM A216-WCB, ASTM A351-CF8, CF8M, CF8C, CF3, CF3M
3	Pivot	ASTM A182 Gr.F6a, ASTM A182 F22, ASTM A182-F304, F316, F321, F304L, F316L
4	Spring	AISI 9260, AISI 6150, ASTM A182-F304, F316, F321, F304L, F316L

### Class2500 Main Outline Dimensions & Weight

Bold valve cover.  
Designs according to BS5,352.

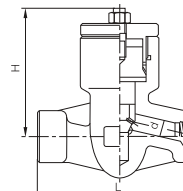
F.P		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L		150	150	150	150	210	235	235	235
H		166	166	171	207	240	258	330	355
d		7.5	10.5	11	14	19	25	28	35
Weight (kg)		1.9	2.3	17	46	62	73	58	85



### Class2500 Main Outline Dimensions & Weight

Pressure seal bonnet.  
Designs according to BS5,352.

F.P		1/2	3/4	1	1 1/4	1 1/2	2
L		186	186	186	232	232	279
H		117	117	117	152	150	195
d		11	14	14	25	28	35
Weight (kg)		11.8	11	11	23	26.4	39



### Main Size of Outside & Weight

Model: H76H, H76Y

Class	DN (mm)	NPS (in)	Dimensions(mm)		Weight (kg)	Class	DN (mm)	NPS (in)	Dimensions(mm)		Weight (kg)	Class	DN (mm)	NPS (in)	Dimensions(mm)		Weight (kg)				
			L	D					L	D					L	D					
150	50	2	60	103	2	300	50	2	60	110	3.5	600	50	2	60	110	3.5				
	65	2 1/2	67	122	3.2		65	2 1/2	67	129	5		65	2 1/2	67	129	5				
	80	3	73	135	4		80	3	73	148	7		80	3	73	148	7				
	100	4	73	173	6		100	4	73	248	7		100	4	79	192	12				
	125	5	86	196	9		125	5	86	215	18.5		125	5	105	240	22.5				
	150	6	98	222	12		150	6	98	250	19		150	6	137	265	35				
	200	8	127	279	22		200	8	127	307	33		200	8	165	319	45				
	250	10	146	339	38		250	10	146	361	54		250	10	213	399	77				
	300	12	181	409	54		300	12	181	422	88		300	12	229	456	110				
	350	14	184	450	80		350	14	222	485	128		350	14	273	489	135				
	400	16	191	514	118		400	16	232	539	169		400	16	305	562	163				
	450	18	203	549	210		450	18	203	549	210		450	18	203	549	210				
500	20	219	606	240	500	20	219	606	240	500	20	219	606	240							
600	24	222	717	410	600	24	222	717	410	600	24	222	717	410							
												900									
												50						2	70	142	6.5
												65						2 1/2	83	164	9
												80						3	83	167	14
												100						4	102	205	24
												150						6	159	288	43
												200						8	206	358	56

### Technical Specification

Design and Manufacture: Cast steel globe valve to BS 1873 and ASME B16.34; Forged steel globe valve to API 602.

Inspection and Test: API 598.

End flange dimension: ASME B16.5 .

BW end dimension: ASME B16.25.

Socket-weld dimension: ASME B16.11.

Face to face and end to end: ASME B16.10.

Pressure-temperature ratings: ASME B16.34.

### The features of globe valve

Bolted Bonnet; Outside Screw and Yoke; Rising stems; Metallic seating surfaces.

### Body and Bonnet Connection

The body and bonnet of Class 150 ~ Class 900 globe valves are usually with studs and nuts. And the body and bonnet of Class 1500 ~ Class 2500 globe valves are usually of pressurized seal design.

### Gasket of Cover Flange

Stainless steel + flexible graphite wounded gasket is used for Class 150 and Class 300 globe valve; Stainless steel + flexible graphite wounded gasket is used for Class 600, and ring joint gasket is also optional for Class 600. Ring joint gasket is used for Class 900 globe valve; Pressurized seal design is used for Class 1500 ~ Class 2500 globe valve.

### Actuation

Hand wheel, impact hand wheel & gear box is usually used for globe valve actuation. Chain wheel and electric actuator can be also used for globe valve actuation if being requested by the customers.

### Packing Seal

Molded flexible graphite is used for packing material. PTFE or combined packing material can be also used if being requested by the customer. The internal surface of the stuffing box, of which area is contacted with the packing, is of excellent finish (Ra 3.2 μ m). The stem surface, contacting with the packing, should be rolled and pressed after being precisely machined, so as to reach to the high finish and compactness (Ra 0.8 μ m) and ensure the reliable tightness of the stem area.

### Belleville Spring Loaded Packing Impacting System

If being requested by the customer, the Belleville spring loaded packing impacting system can be adopted for enhancing the durability and reliability of the packing seal.

### Back Seating Design

All our globe valves have the back seating design. In most cases, the carbon steel globe valve is fitted with a renewable back seat. For stainless steel globe valve, the back seat is machined directly in the bonnet or is machined after welding. When the globe valve is at fully open position, the sealing of the back seat can be very reliable. However, as per the requirement of API, it is not advisable to add or change packing by the mean of back seating when the valve is pressure containing.

### Seat

For carbon steel globe valve, the seat is usually forged steel. The sealing surface of the seat is spray welded with hard alloy specified by the customer. Renewable threaded seat is used for NPS ≤ 10 globe valves, and welded on seat can be also optional if being requested by the customer. Welded on seat is used for NPS ≥ 12 carbon steel globe valves. For Stainless steel globe valve, integral seat is usually adopted, or to weld hard alloy directly integrally. Threaded or welded on seat is also optional for stainless steel globe valve if being requested by the customer.

### Stem Design

The stem is of integral forged design. The minimum diameter of the stem shall per the standard requirement.

### Stem Nut

Usually, the stem nut is made of ASTM A439 D2. it is also can be made of copper ally if being requested by the customer. For large sized globe valve, rolling bearing is fitted at the two sides of stem nut in order to minimize the open and close torque of the globe valve.

### Special Gate Valve

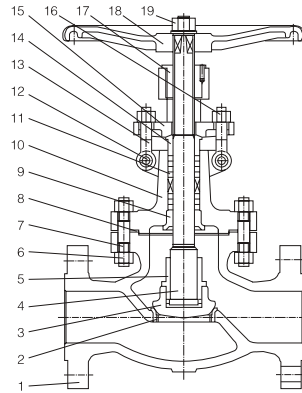
Besides the common globe valves, Company also makes cryogenic globe valve, Bellow sealed globe valve, Jacketed globe valve, etc.



Bellow Sealed Globe Valve



Forged Steel Globe Valve



### Technical Specification

Design and Manufacture: BS1873 or ASME B16.34  
 Inspection and Test: API 598  
 End flange dimension: ASME B16.5  
 BW end dimension: ASME B16.25

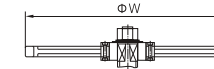
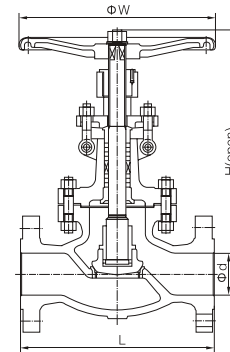
Socket-weld dimension: ASME B16.11  
 Face to face and end to end: ASME B16.10  
 Pressure-temperature ratings: ASME B16.34

### Form of Major Part Material

Parts No.	Parts Name	Materials				
		WCB/Trim 1	WCB/Trim 5	WCB/Trim 8	CF8/304	CF8M/316
1	Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
2	Seat ring	A105 + 13Cr	A105 + STL	A105 + STL	ASTM A351 CF8	ASTM A351 CF8M
3	Disc	ASTM A216 WCB + 13Cr	ASTM A216 WCB + STL	ASTM A216 WCB + 13Cr	ASTM A351 CF8	ASTM A351 CF8M
4	Stem	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316
5	Disc nut	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
6	Bonnet nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
7	Bonnet bolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
8	Gasket	304 sheet + Graphite	304 sheet + Graphite	304 sheet + Graphite	304 + Graphite	316 + Graphite
9	Backseat bushing	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A351 CF8	ASTM A351 CF8M
10	Bonnet	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
11	Packing	Graphite	Graphite	Graphite	Graphite	Graphite
12	Eyebolt pin	ASTM A36	ASTM A36	ASTM A36	304ss	316ss
13	Gland eyebolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
14	Gland	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316
15	Gland flange	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
16	Eyebolt nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
17	Stem nut	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2
18	Hand wheel	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron
19	Hand wheel nut	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel

Note: The chart above only lists out some common composition of steel check valve parts. We may provide other different parts material composition according to the customer's request or the actual valve working condition.

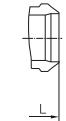
### Cast Steel Globe Valve Class 150



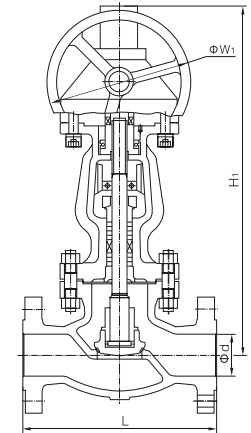
Impact Handwheel For 6" and Larger



RTJ End



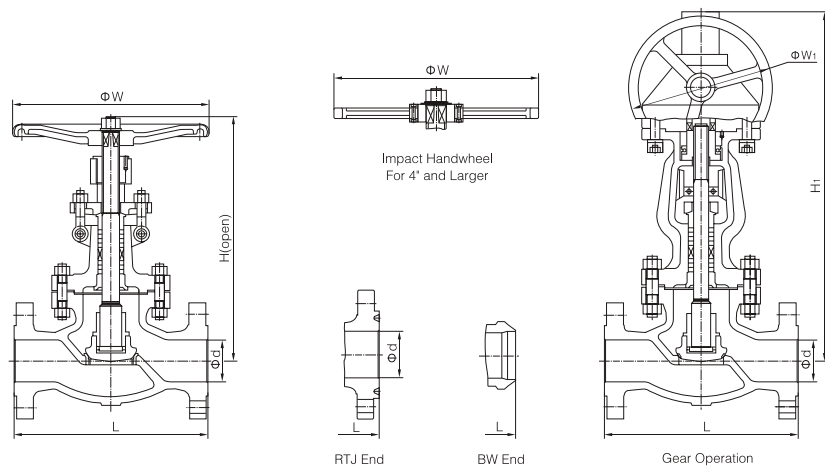
BW End



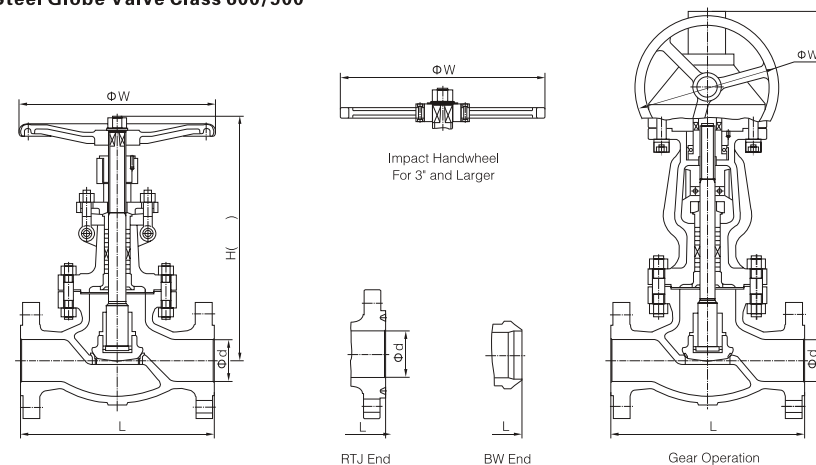
Gear Operation

Class	Size		Dimensions(mm)							Weight(kg)		
	NPS	DN	L			d	H	H <sub>1</sub>	W	W <sub>1</sub>	H.W	G.O
			RF	RTJ	BW							
150	1/2	15	108	119	108	13	182	-	100	-	4	-
	3/4	20	117	130	117	19	193	-	100	-	6	-
	1	25	127	140	127	25	217	-	100	-	8	-
	1 1/4	32	140	152	140	32	235	-	135	-	12	-
	1 1/2	40	165	178	165	38	258	-	135	-	16	-
	2	50	203	216	203	51	330	-	200	-	25	-
	2 1/2	65	216	229	216	64	360	-	250	-	42	-
	3	80	241	254	241	76	390	-	280	-	46	-
	4	100	292	305	292	102	445	-	300	-	74	-
	5	125	356	369	356	127	480	-	350	-	111	-
	6	150	406	419	406	152	520	556	350	310	165	258
	8	200	495	508	495	203	600	658	400	310	275	300
10	250	622	635	622	254	773	805	450	460	400	450	
12	300	698	711	698	305	880	955	500	460	624	725	

### Cast Steel Globe Valve Class 300

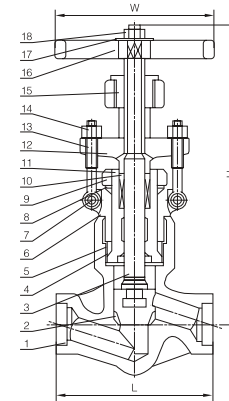
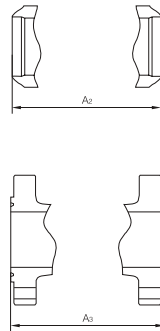
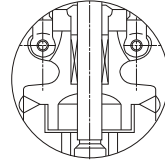
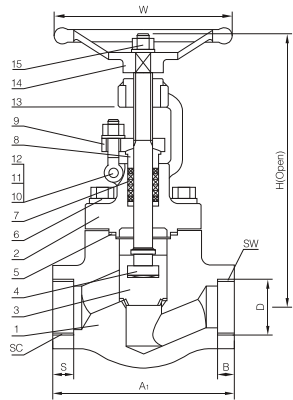


### Cast Steel Globe Valve Class 600/900



Class	Size		Dimensions(mm)								Weight(kg)	
	NPS	DN	L			d	H	H <sub>1</sub>	W	W <sub>1</sub>	H.W	G.O
			RF	RTJ	BW							
300	1/2	15	152	164	152	14	185	-	100	-	5	-
	3/4	20	178	191	178	19	195	-	100	-	7	-
	1	25	203	216	203	25	220	-	135	-	10	-
	1 1/4	32	216	229	216	32	240	-	135	-	14	-
	1 1/2	40	229	241	229	38	260	-	160	-	19	-
	2	50	267	283	267	51	385	-	200	-	25	-
	2 1/2	65	292	308	292	64	420	-	200	-	42	-
	3	80	318	333	318	76	440	-	280	-	46	-
	4	100	356	371	356	102	515	-	350	-	74	-
	5	125	400	416	400	127	580	-	350	-	111	-
	6	150	444	460	444	152	660	690	400	310	165	195
	8	200	559	575	559	203	900	950	550	460	275	327

Class	Size		Dimensions(mm)								Weight(kg)		
	NPS	DN	L			d	H	H <sub>1</sub>	W	W <sub>1</sub>	H.W	G.O	
			RF	RTJ	BW								
600	2	50	292	295	292	51	360	-	250	-	32	-	
	2 1/2	65	330	333	330	64	410	-	280	-	42	-	
	3	80	356	359	356	76	465	-	300	-	63	-	
	4	100	432	435	432	102	545	575	400	310	107	138	
	5	125	508	511	508	127	625	660	500	310	185	215	
	6	150	559	562	559	152	785	820	550	460	290	342	
	8	200	660	664	660	200	930	960	650	460	540	645	
	900	2	50	368	371	368	51	480	-	350	-	55	-
		2 1/2	65	419	422	419	64	520	-	350	-	68	-
		3	80	381	384	381	76	564	630	400	310	95	128
4		100	457	460	457	102	685	720	450	310	160	210	
5		125	559	562	559	127	780	840	550	460	270	325	
6		150	610	613	610	152	950	1015	650	460	410	480	



### Technical Specification

Steel Globe Valves, API 602  
 Steel Valves, ASME B16.34  
 Face to Face, Manufacturer Standard  
 Face to Face, Flanged, ASME B16.10  
 End Flanges, ASME B16.5  
 Butt-welding Ends, ASME B16.25  
 Socket-welding Ends, ASME B16.11  
 Screwed Ends, ASME B1.20.1  
 Inspection and Test, API 598

### Design Description

Outside Screw and Yoke (OS&Y)  
 Bolted Bonnet  
 Choice of WB, Welding Bonnet  
 Seat Rings Integral with Body  
 Yoke Integral with Bonnet  
 Rising Stem and Handwheel  
 Horizontal Service  
 SW, Socket-welding Ends  
 SC, Screwed Ends  
 BW, Butt-welding Ends

### Form of Major Part Material

No.	Part Name	ASTM Material								
		Carbon Steel	F11	F22	304 Type	316 Type	304L Type	316L Type	20 Alloy	
1	Body	A105	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy	
2	Bonnet	A105	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy	
3	Disc	A182 F6a	A182 F11+HF	A182 F22+HF	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy	
4	Stem	A182 F6a	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy	
5	Bonnet Gasket	304+Graphit	304+Graphit	304+Graphit	304+Graphit	316+Graphit	304L+Graphit	316L+Graphit	316+Graphit	
6	Bonnet Bolt	A193 B7	A193 B7	A193 B16	A193 B16	A193 B8	A193 B8	A193 B8	A193 B8	
7	Packing	Graphite	Graphite	Graphite	Graphite *2	Graphite *2	Graphite *2	Graphite *2	Graphite *2	
8	Gland	A276 410	A276 410	A276 410	A276 304	A276 316	A276 304L	A276 316L	20-Alloy	
9	Gland Flange	A182 F6a	A182 F11	A182 F22	A182 F304	A182 F304	A182 F304L	A182 F316L	A182 F304	
10	Eyebolt	Carbon Steel	A193 B7	A193 B7	A193 B8	A193 B8	A193 B8	A193 B8	A193 B8	
11	Eyebolt Nut	Carbon Steel	A194 2H	A194 2H	A194 8	A194 8	A194 8	A194 8	A194 8	
12	Eyebolt Pin	A276 410	A276 410	A276 410	A276 304	A276 304	A276 304	A276 304	A276 304	
13	Yoke Sleeve	Bronze	Bronze *3	Bronze *3	Bronze	Bronze	Bronze	Bronze	Bronze	
14	Hand wheel	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	
15	Wheel Nut	Carbon Steel	Carbon Steel	Carbon Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	
*1	PN ≥ 600 Class seal face will be HF									
*2	PTFE Optional									
*3	Ductile Ni-Resist iron Optional									
Na	Integral with vessel									

### Technical Specification

Steel Globe Valves, API 602  
 Steel Valves, ASME B16.34  
 Face to Face, Manufacturer Standard  
 Face to Face, ASME B16.10  
 Butt-welding Ends, ASME B16.25  
 Socket-welding Ends, ASME B16.11  
 Screwed Ends, ASME B1.20.1  
 Inspection and Test, API 598

### Design Description

Outside Screw and Yoke (OS&Y)  
 Pressure Seal Bonnet  
 Choice of WB, Welding Bonnet  
 Single wedge, Fully Guided  
 Renewable Seat Rings  
 Yoke Integral with Bonnet  
 Rising Stem and Handwheel  
 SW, Socket-welding Ends  
 SC, Screwed Ends  
 BW, Butt-welding Ends

### Form of Major Part Material

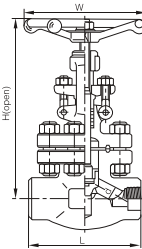
No.	Part Name	CS to ASTM	AS to ASTM	SS to ASTM	
		Type A 105N	Type F22	Type F304(L)	Type F316(L)
1	Body	A105N	A182 F22	A182 F304(L)	A182 F316(L)
2	Disc	A276 420+STL	A276 304+STL	A276 316(L)+STL	A276 316(L)+STL
3	Stem	A276-410	A182 F22	A182 F304(L)	A182 F316(L)
4	Seal Place	A105	A182 F22	A182 F304(L)	A182 F316(L)
5	Packing Ring	A182 F304	A182 F304	A182 F304(L)	F316(L)
6	Bonnet	A105N	A182 F22	A182 F304(L)	A182 F316(L)
7	Pin	A276 420	A276 420	A182 F304	A182 F304
8	Gasket	A105N	A182 F22	A182 F304(L)	A182 F316(L)
9	Promotes the Nut	A194 2H	A194 4	A194 8	A194 8M
10	Stem Packing	Flexible graphite+304	Flexible graphite+304	Flexible graphite+316	Flexible graphite+316
11	Gland	A276 420	A276 420	A182 F304	A182 F304
12	Gland Flange	A105	A105	A182 F304	A182 F304
13	Gland Eyebolt	A193 B7	A193 B16	A193 B8	A193 B8M
14	Gland Nut	A194 2H	A194 4	A194 8	A194 8M
15	Yoke Nut	A276 420	A276 420	A276 420	A276 420
16	Hand Wheel	A197	A194 4	A197	A197
17	Nameplate	SS	SS	SS	SS
18	Stem Nut	C.S	C.S	SS	SS



### Class900 ~ 1500 Main Outline Dimensions & Weight

Bold fastening valve cover(RJ), reduced port, outside screw stem & yoke (OS&Y).  
The terminal connection or receives for the thread inserts welds, designs according to BS5.352

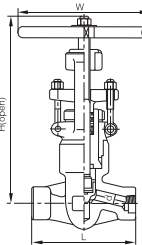
F.P	1/2	3/4	1	1 1/4	2	2 1/2
L	110	110	150	150	210	235
W	110	110	130	210	180	250
H	227	227	300	307	40	448
d	9	12	15	20	32	40
Weight(kg)	5	5	10	11.5	22	37



### Class900 ~ 1500 Main Outline Dimensions & Weight

Pressure seal bonnet, reduced port, outside screw stem & yoke (OS&Y).BS 5352

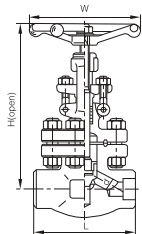
F.P	1/2	3/4	1	1 1/4	1 1/2	2
L	140	140	140	178	178	216
W	200	200	200	280	280	300
H	320	320	320	440	440	490
d	12	15	20	28	32	40
Weight(kg)	11.5	10.8	10.5	19.6	21.1	55.4



### Class2500 Main Outline Dimensions & Weight

Bold fastening valve cover(RJ), full port (OS&Y).  
The terminal connection for receives inserts welds, designs according to ASME B16.34

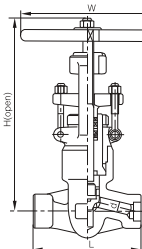
F.P	1/2	3/4	1	1 1/2	2
L	150	150	210	235	235
W	130	130	250	300	300
H	293	300	390	435	435
d	11	14	19	28	35
Weight(kg)	10	10.3	22.4	38	38



### Class2500 Main Outline Dimensions & Weight

Reduced port (OS&Y).  
The terminal connection for receives inserts welds, designs according to ASME B16.34

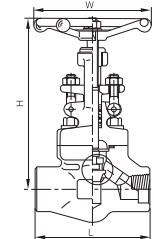
F.P	1/2	3/4	1	1 1/4	1 1/2	2
L	186	186	186	232	232	279
W	200	200	200	280	280	300
H	375	378	380	490	490	540
d	11	14	19	25	28	35
Weight(kg)	12.3	11.6	10.8	26.0	28.4	60



### Class800 Main Outline Dimensions & Weight

Bold fastening valve cover, outside screw stem & yoke (OS&Y).  
designs according to BS5,352.

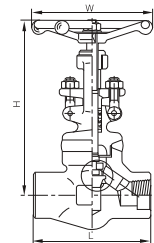
R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	79	79	92	111	120	152	172	200
W	100	100	100	125	160	160	180	200
H	164	164	164	203	224	260	300	355
d	7	9	13	17.5	23	30	35	46
Weight(kg)	1.9	2.28	2.37	4.3	5.75	7.8	12.5	17.5



### Class800 Main Outline Dimensions & Weight

Weld joint valve cover, outside screw stem & yoke (OS&Y).  
Designs according to BS5,352.

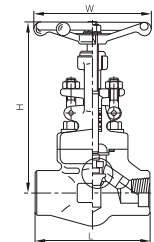
R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	79	79	92	111	120	152	172	200
W	100	100	100	125	160	160	180	200
H	164	164	164	203	224	260	300	355
d	7	9	13	17.5	23	30	35	46
Weight(kg)	1.7	1.7	1.9	3.3	5.2	6.8	10.6	13.8



### Class900 ~ 1500 Main Outline Dimensions & Weight

Bold fastening valve cover, outside screw stem & yoke (OS&Y).  
Designs according to BS5,352.

R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	92	111	111	120	152	172	200	220
W	100	125	125	160	160	180	200	240
H	171	207	207	240	258	330	355	370
d	7	12	15	20	28	32	40	45
Weight(kg)	2.3	3.7	3.6	6.8	7.6	11.6	15	21.9



### Class900 ~ 1500 Main Outline Dimensions & Weight

Weld joint valve cover, outside screw stem & yoke (OS&Y).  
Designs according to BS5,352.

R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	92	111	111	120	152	172	200	220
W	100	125	125	160	160	180	200	240
H	171	207	207	240	258	330	355	370
d	7	12	15	20	28	32	40	45
Weight(kg)	2.0	3.4	3.3	6.0	5.6	10.3	14.2	18.5

