

CAST STEEL GLOBE VALVE SERIES



Standards

Design and Manufacture: Cast steel globe valve to BS 1 873 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 B1 6.1 1 .
 Face to face and end to end: ASME B16.10.
 Pressure-temperature ratings: ASME B1 6.34.

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 Class150 – Class900 check valves are usually with studs and nuts. And the body and bonnet of Class1 500 –Class2500 check valves are usually of pressure seal design.

Gasket of Cover Flange

Stainless steel + flexible graphite wounded gasket is used for Class1 50 and Class300 globe valve. Stainless steel + flexible graphite wounded gasket is used for Class 600, and ring joint gasket is also optional for Class600. Ring joint gasket is used for Class900 globe valve.Pressu rized seal design is used for Class 1500 – Class2500 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 U 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 com-pactness (Ra 0.8 u 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 can be adopted for enhancing the durability and reliability of the packing seal.

Back Seating Design

All our globe valves have the back seat 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 valve, 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

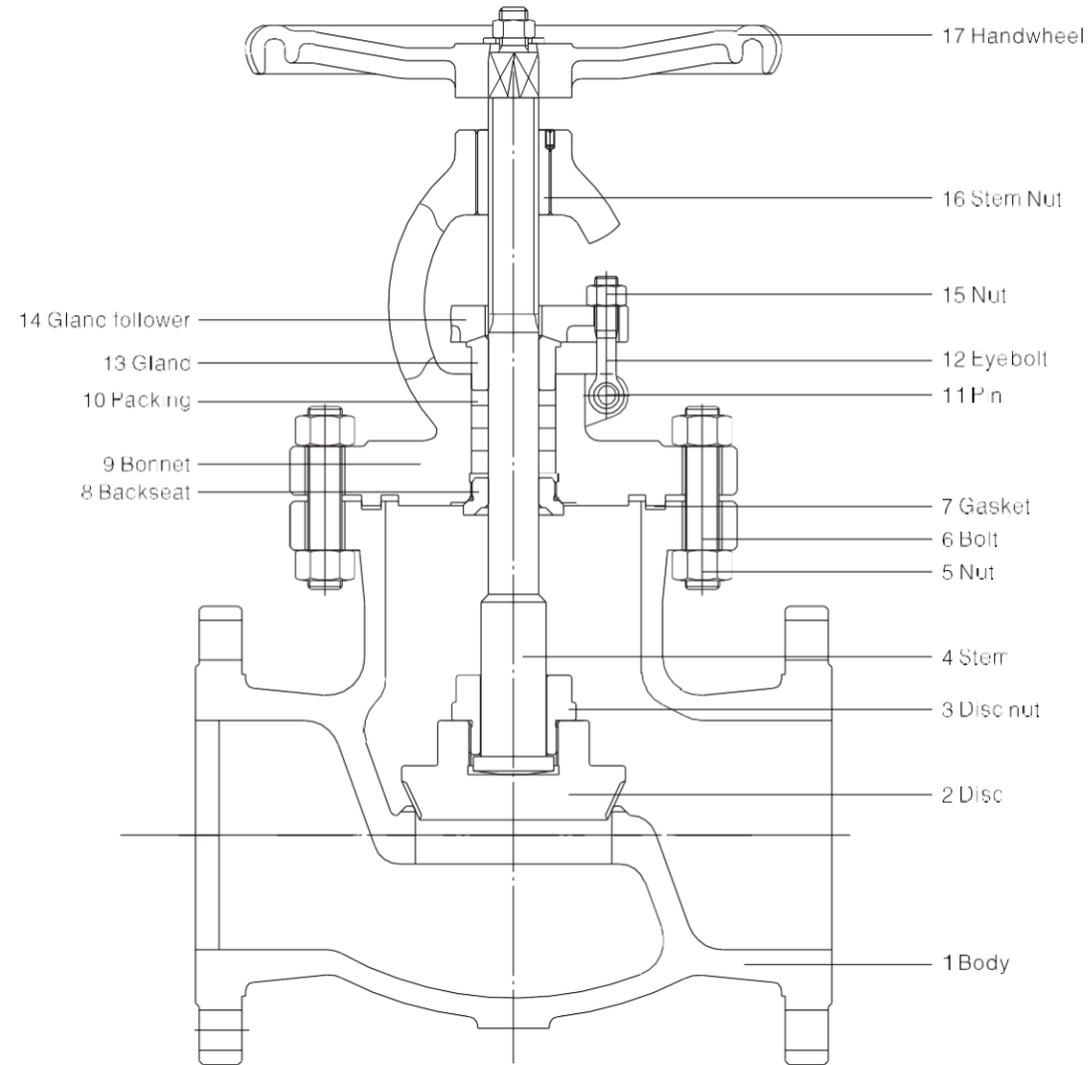
Usually, the stem nut is copper alloy. It is also can be made of ASTM A439 D2 if being requested by the customer. For large sized globe valve, rolling bearing is fitted at the two sides of stem nut in order to minimize the open and close torque of the globe valve.

Special Globe Valve

Besides the common globe valves, we also makes cntogenic globe valve, bellow sealed globe valve , Jacketed globe valve, etc.



Casted Steel Globe Valve, OS&Y, Bolted Bonnet



Main Parameter Specification

Design and Manufacture: BS1873, ASME B16.34
 Face to Face Dimension: ASME B16.10
 Flange Connection Dimension: ASME B16.5
 BW Connection Dimension: ASME B16.25
 Test and Inspection: API598

Main Part Material(150Lb/300Lb/600Lb/900Lb)

NO.	Part Name	Material							
		A216 WCB/WCC+HF*	A352 LCB/LCC+HF*	A217 WC6/WC9/C5+HF*	A351 CF8/CF3+HF*	A351 CF8M/CF3M+HF*	A351 CF8C+HF*	A890 4A/5A/6A+HF*	
1	Body	A216 WCB/WCC+HF*	A352 LCB/LCC+HF*	A217 WC6/WC9/C5+HF*	A351 CF8/CF3+HF*	A351 CF8M/CF3M+HF*	A351 CF8C+HF*	A890 4A/5A/6A+HF*	
2	Disc	A105+HF*	A350 LF2+HF*	A182 F11/F22/F304+HF*	A182 F304/F304L+HF*	A182 F316/F316L+HF*	A182 F321+HF*	A182 F51/F53/F55+HF*	
3	Disc nut	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F321	A182 F51/F53/F55	
4	Stem	A182 F6a	A182 F316/F6a	A182 F6A/A182 F304	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55	
5	Nut	A194 2H(M)	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4	
6	Bolt	A193 B7(M)	A193 L7	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16	
7	Gasket	S.S+Graphite							
8	Backseat	A182 F6a	A182 F316	A182 F6a	A182 F304	A182 F316	A182 F321	A182 F51/F53/F55	
9	Bonnet	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A	
10	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	PTFE	
11	Pin	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	
12	Eyebolt	A193 B7(M)	A193 L7	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16	
13	Gland	A182 F6a	A182 F6a	A182 F304	A182 F304	A182 F316	A182 F304	A182 F316L	
14	Gland follower	A216 WCB	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8	A351 CF8	A351 CF8	A351 CF8	
15	Nut	A194 2H(M)	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4	
16	Stem Nut	Copper Alloy							
17	Handwheel	Ductile iron							

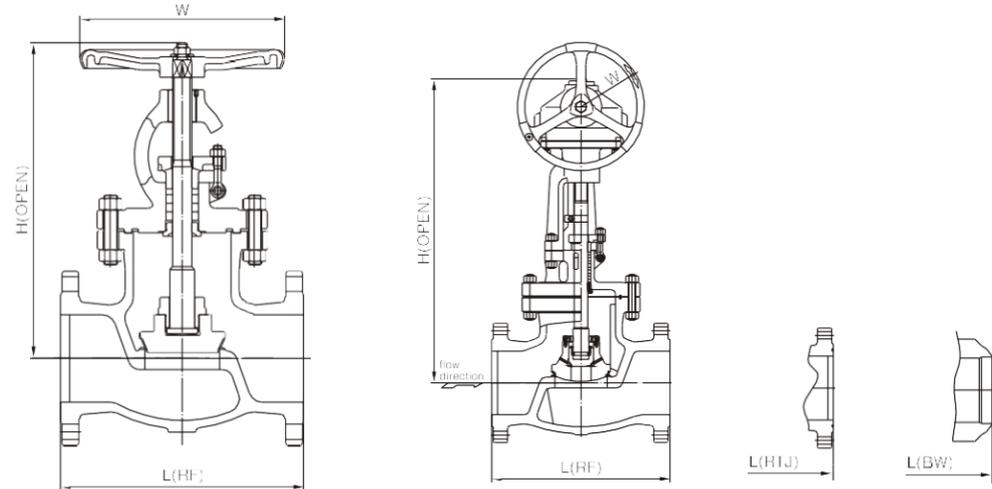
* Based on different trim, the HF can be different, the widely applied trim include 1#, 2#, 5#,8#,10#,12#,16#etc.

BS1873 BOLTED BONNET GLOBE VALVE

ASME B16.34 PRESSURE SEAL GLOBE VALVE

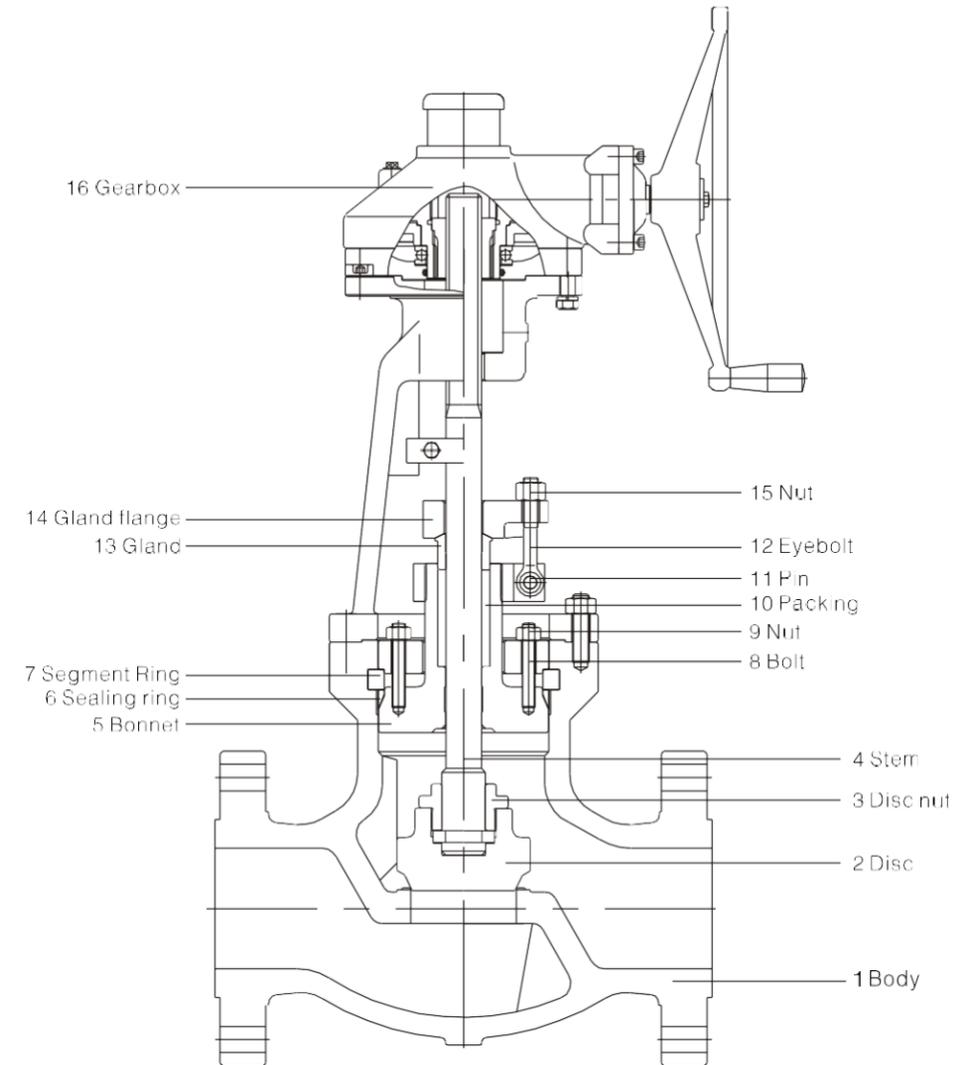
Construction and Dimension

CLASS 150Lb~600Lb



Rating	SIZE						Weight(kg)		H(mm)	
	DN(mm)	NPS(in)					RF≈	BW	Manual≈	Gear
150Lb	50	2	203	216	203	200	24	35	354	
	65	2 1/2	216	229	216	250	31	50	392	
	80	3	241	254	241	250	38	61	429	
	100	4	292	305	292	300	62	97	486	
	125	5	356	369	356	350	90	155	537	
	150	6	406	419	406	400	112	203	597	
	200	8	495	508	495	500	178	338	705	
	250	10	622	635	622	550	256	500	814	
	300	12	698	711	698	610	430	715	945	
	350	14	787	800	787	680	632		1070	
300Lb	50	2	267	283	267	250	32		425	
	65	2 1/2	292	308	292	250	45		465	
	80	3	318	333	318	300	58		530	
	100	4	356	371	356	350	91		616	
	125	5	400	416	400	400	135		695	
	150	6	444	460	444	450	178		781	
	200	8	559	575	559	550	265		857	
	250	10	622	638	622	650	395		935	
600Lb	50	2	292	295	292	250	40		384	
	65	2 1/2	330	333	330	300	57		416	
	80	3	356	359	356	350	72		470	
	100	4	432	435	432	450	120		540	
	125	5	508	511	508	500	198		600	
	150	6	559	562	559	550	250		670	
	200	8	660	663	660	650	435		810	
	250	10	787	790	787	760	650		956	
	300	12	838	841	838	850	875		1118	

Cast Steel Globe Valve, OS&Y, Pressure Sealed Bonnet



Main Parameter Specification

Design and Manufacture:	BS1873, ASME B16.34
Face to Face Dimension:	ASME B16.10
Flange Connection Dimension:	ASME B16.5
BW Connection Dimension:	ASME B16.25
Test and Inspection:	API598

ASME B16.34 PRESSURE SEAL GLOBE VALVE

ASME B16.34 PRESSURE SEAL GLOBE VALVE

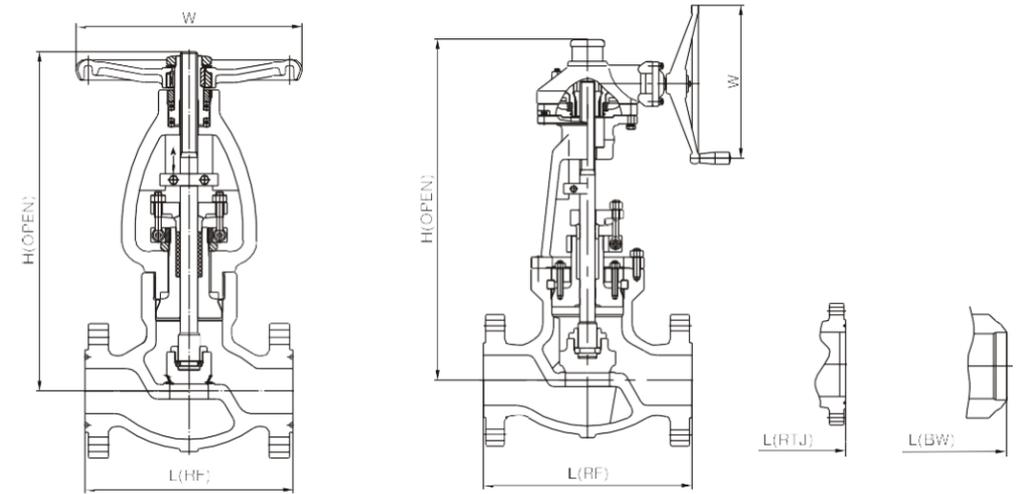
Main Part Material (900Lb/1500Lb/2500Lb)

NO.	Parts	Material								
1	Body	A216 WCB/WCC+HF*	A352 LCB/LCC+HF*	A217 WC6/WC9/C5+HF*	A217 C12A+HF*	A351 CF8/CF3+HF*	A351 CF8M/CF3M+HF*	A351 CF5C+HF*	A890 4A/5A/6A+HF*	
2	Disc	A105+HF*	A352 LF2+HF*	A182 F11/F22/F304+HF*	A182 F91+HF*	A182 F304/F304L+HF*	A182 F316/F316L+HF*	A182 F321+HF*	A182 F51/F53/F55+HF*	
3	Disc nut	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F321	A182 F51/F53/F55	
4	Stem	A182 F6a	A182 F316/F6a	A182 F6A/A182 F304	A182 F304	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55	
5	Bonnet	A105	LF2	A182 F11/F22/F5	A182 F91	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55	
6	Sealing ring	A182 F6A	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F316	A182 F51	
7	Segment Ring	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	
8	Bolt	A193 B7(M)	A193 L7	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16	
9	Nut	A194 2H(M)	A194 4	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4	
10	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	
11	Pin	A182 F6a								
12	Eyebolt	A193 B7(M)	A193 L7	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16	
13	Gland	A182 F6a	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F316	A182 F316	A182 F316L	
14	Gland flange	A216 WCB	A352 LCB/LCC	A217 WC6/WC9/C5	A217 C12A	A351 CF8	A351 CF8	A351 CF8	A351 CF8	
15	Nut	A194 2H(M)	A194 4	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4	
16	Gearbox	Assembly								

* Based on different trim, the HF can be different, the widely applied trim include 1#, 2#, 5#, 8#, 10#, 12#, 16# etc.

Construction and Dimension

CLASS 900Lb~2500Lb



Rating	SIZE						Weight(kg)		H(mm)	
	DN(mm)	NPS(in)					RF≈	BW	Manual≈	Gear
900Lb	50	2	368	371	368	350	107	92	354	
	65	2 1/2	419	422	419	400	125	104	392	
	80	3	381	384	381	450	145	128	429	
	100	4	457	460	457	500	225	191	486	
	125	5	559	562	559	560	308	252	537	
1500Lb	50	2	368	371	216	350	80	76	425	
	65	2 1/2	419	422	254	450	130	110	465	
	80	3	470	473	305	510	185	150	530	
	100	4	546	549	406	560	250	206	616	
	125	5	673	676	483	610	310	251	695	
2500Lb	50	2	454	457	454	450	210	130	384	
	65	2 1/2	514	517	514	510	290	150	416	
	80	3	584	587	584	560	320	190	470	
	100	4	683	686	683	700	410	255	540	
	125	5	807	810	807	460	560	365	600	
	150	6	927	933	927	460	710	520	670	