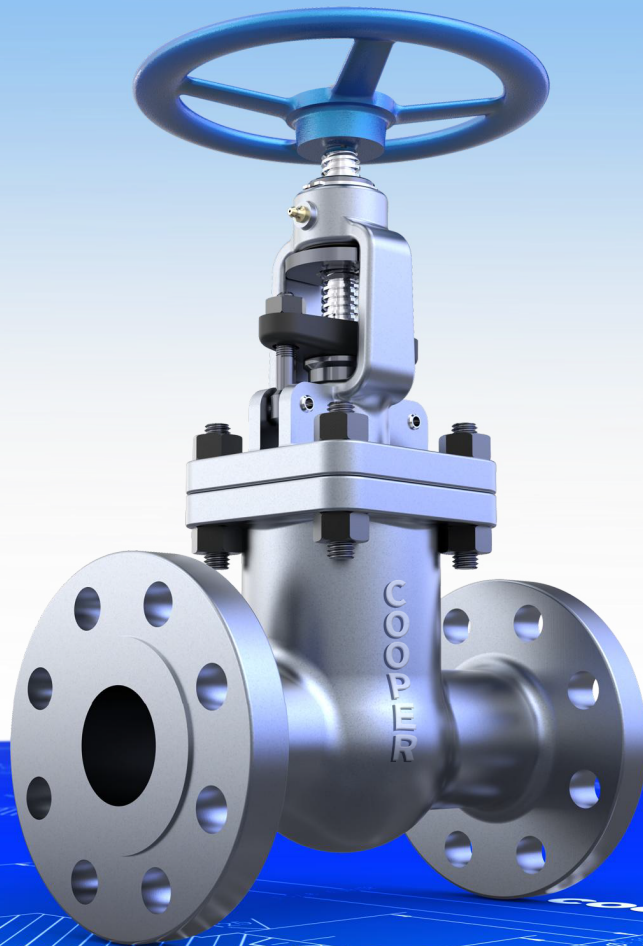




Smart Solutions. Powerful Products.

Globe Valve



Globe Valve



The open-close member of the globe valve is a cork-like disc, with the sealing face presented as a plane or a conical face, and the disc does a linear movement along with the fluid central line. It is the broadest used valve and the reason for it to be favored comes at its small frictional force between the sealing faces during open and close, being more durable, not high opening, easy manufacture and repair, and being suitable for not only middle and low pressures but also high one. In the recent years since the sealed valve comes into being, the medium in a globe valve is changed to flow into the valve cavity from the upper of the disc and, under the medium pressure at this time, the force to close the valve becomes small while the one to open it becomes large, getting the stem diameter relatively reduced. Meanwhile, under the medium action, this type of valve is made more tight and is applicable for the pipeline of petroleum, chemical industry and electric power system.

Design

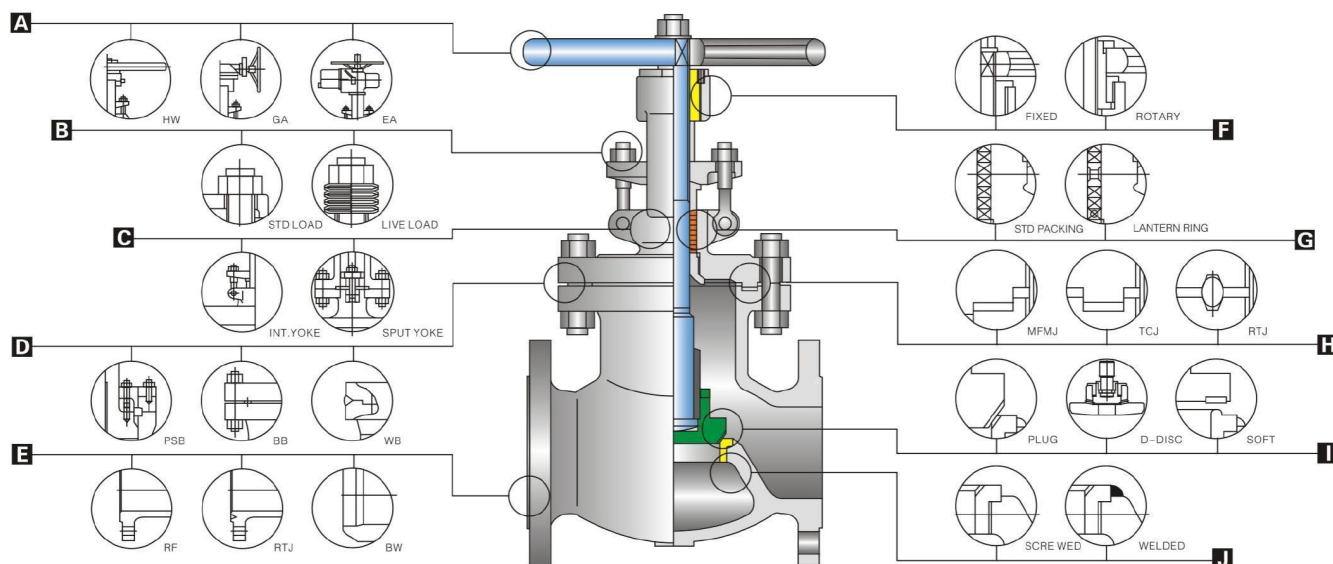
ADVANCED TECHNOLOGY cast steel globe valves are designed and manufactured to provide maximum service life and dependability. All globe valves are full ported and meet the design requirements of American Petroleum Institute Standard API 600 & API 6D, BS EN 13709 and generally conform to American Society of Mechanical Engineers standard ASME B16.34. Valves are available in a complete range of body/bonnet material and trims.

Range of Materials

Standard body/bonnet materials include carbon steel, low alloy and stainless steels. For special applications they can be supplied in other grades of alloy and stainless steel. There is a full range of trim materials to match any service. Optional packing and gasket materials are available for a full range of service conditions.

Available Modifications for ADVANCED TECHNOLOGY Cast Steel Valves

- * Trim Changes
- * End Connection Modifications
- * Packing and Gasket Changes
- * Operator Mounting
- * Handwheel Extensions
- * Pressure Equalizing
- * By-pass
- * Customer Specified Coatings
- * Weld End Bore Changes
- * Oxygen & Chlorine Cleaning & Packaging



A Operating

Large handwheels for easy operation. Also available with gear, motor actuators, pneumatic or hydraulic actuators for more difficult services.

B Live Load Packing

In services requiring frequent cycling or with high pressure / temperature variations, live loading extends the service life between maintenance periods packing gland adjustments. Belleville springs are employed to provide constant packing gland stress.

C OS & Y

Outside Screw and Yoke. Cast steel globe valve yoke integral with bonnet for 10" and smaller.

D BB

Boited bonnet, Welding bonnet and pressure sea bonnet in services requiring frequent cycling or with high pressure/temperature variations.

E End Connections

A choice of Flanged, RTJ flanged or Butt welding end for piping flexibility.

F Yoke sleeve

Furnished in aluminum bronze to reduce operating torque. Most sizes furnished with ball bearing yoke sleeves.

G Lantern ring and double packing set

Lantern ring with leak-off fitting connection and double packing stack is optionally available for critical services.

H Body-to-Bonnet Joint

A Male and Female joint or Tongue and Groove joint is used 150Lb to 600Lb valves. Ring joint is used in the body to bonnet connection in 900Lb & higher rated valves.

I Disc

Plug disc is stem guided on all sizes. Disc has a differential angle front the seat to provide a line contact for maximum sealing. The bottom of V-port disc is guided by the body seat ring for maximum disc stability in throttling applications. The soft teflon ring is excellent for over temperature service where tight shut off is required

J Seat Rings

Separate heavy duty full ported rings for easy maintenance. Screwed or welded connection into body

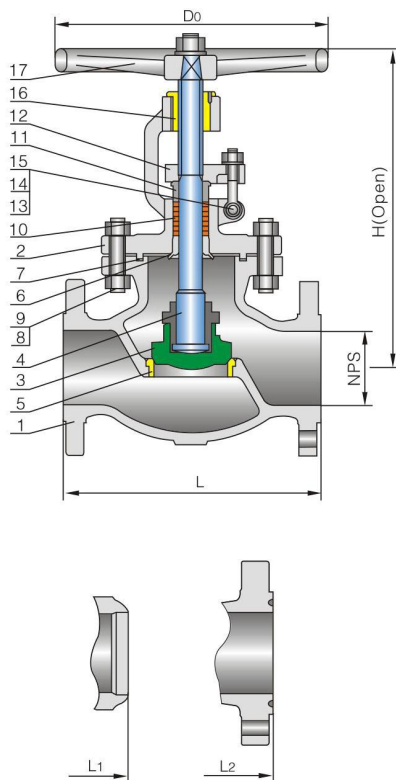
Cast Steel Globe Valve 150Lb/300Lb

Applicable Standards

- ★STEEL GLOBE VALVES, API 623
- ★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

- ▲STRAIGHT PATTERN BODY DESIGN
- ▲OS & Y, OUTSIDE SCREW AND YOKE
- ▲BB, BOLTED BONNET
- ▲YOKE INTEGRAL WITH BONNET
- ▲RISING STEM AND HANDWHEEL
- ▲LOOSE DISC, CHOICE OF PLUG OR BALL
- ▲RENEWABLE SEAT RING
- ▲IMPACT HANDWHEEL FOR 10" & ABOVE
- ▲HORIZONTAL SERVICE
- ▲FLANGED OR BUTTWELDING ENDS
- ▲AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material				
		Carbon Steel		Alloy Steel	Stainless Steel	
1	Body	A216-WCB	A352-LCB	A217-WC6	A351-CF8	A351-CF8M
2	Bonnet	A216-WCB	A352-LCB	A217-WC6	A351-CF8	A351-CF8M
3	Disc	A105+Cr13	A350-LF2	A182-F11+HF	A351-CF8	A351-CF8M
4	Stem	A182-F6a	A182-F6a	A182-F11	A276-304	A182-F316S
5	Seat Ring	A105+Cr13	A350-LF2	A182-F11+HF	A351-CF8	A351-CF8M
6	Backseat	A276-420	A276-420	A276-304	A276-304	A182-F316S
7	Gasket	Spiral wound(Graphite+304)				
8	Bonnet Stud	A320-L7	A193-B7	A193-B7	A193-B8	A193-B8
9	Bonnet Nut	A194-4	A194-2H	A194-2H	A194-8	A194-8
10	Packing	Graphite				
11	Gland	A105	A350-LCB	A276-304	A182-F304	A182-F316
12	Gland Flange	A216-WCB	A352-LCB	A217-WC6	A351-CF8	A351-CF8M
13	Eyebolt Pin	Carbon Steel	Carbon Steel	A276-420	A276-304	A276-316
14	Eyebolt	Carbon Steel	Carbon Steel	A193-B7	A193-B8	A193-B8
15	Eyebolt Nut	A194-4	A194-2H	A194-2H	A194-8	A194-8
16	Yokesleeve	Aluminum-Bronze				
17	Handwheel	Malleable Iron				

- Notes: 1). Ductile Ni-resist optional.
2). Disc and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

Dimensions Data ANSI Class 150Lb

ANSI Class 300Lb

NPS	DN	L/L ₁ (RF/BW)		L ₂ (RTJ)		H (Open)		D ₀		WT(kg)		L/L ₁ (RF/BW)		L ₂ (RTJ)		H (Open)		D ₀		WT(kg)	
2	50	8.00	203	8.00	203	15.00	380	7	180	18	14	10.50	267	11.12	282	16.75	425	8	200	25	20
2 1/2	65	8.50	216	8.50	216	21.00	535	10	240	30	22	11.50	292	12.12	308	19.00	485	10	240	32	22
3	80	9.50	241	9.50	241	17.50	445	11	280	41	33	12.50	318	13.12	333	19.88	505	11	280	38	27
4	100	11.50	292	11.50	292	20.25	515	11	280	64	43	14.00	356	14.62	371	22.50	570	13	320	56	41
6	150	16.00	406	16.00	406	22.00	560	13	320	86	72	17.50	444	18.12	460	25.25	640	16	400	96	75
8	200	19.50	495	19.50	495	24.25	615	13	320	110	88	22.00	559	22.62	575	33.25	845	18	450	150	117
10	250	24.50	622	24.50	622	32.00	815	16	400	280	245	24.50	622	25.12	638	35.50	900	20	500	360	310
12	300	27.50	698	27.50	698	35.88	910	18	450	380	345	28.00	711	28.62	727	38.62	980	24	600	550	492
14	350	31.00	787	31.00	787	48.38	1230	20	500	510	450	-	-	-	-	-	-	-	-	-	-
16	400	36.00	914	36.00	914	57.00	1450	24	600	740	665	-	-	-	-	-	-	-	-	-	-
in	mm	in	mm	in	mm	in	mm	in	mm	RF/RTJ	BW	in	mm	in	mm	in	mm	in	mm	RF/RTJ	BW

Cast Steel Globe Valve 600Lb/ 900Lb

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

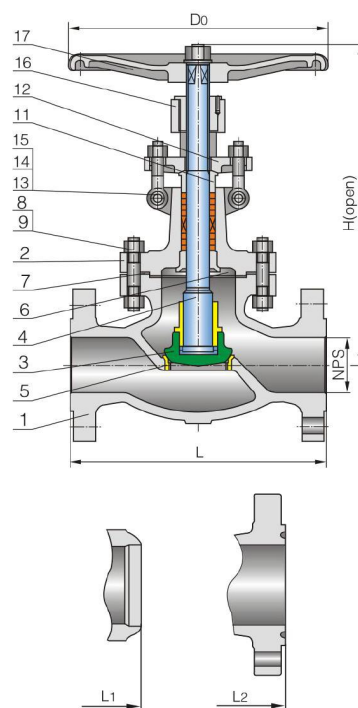
- ▲STRAIGHT PATTERN BODY DESIGN
- ▲OS & Y, OUTSIDE SCREW AND YOKE
- ▲BB, BOLTED BONNET
- ▲YOKE INTEGRAL WITH BONNET
- ▲RISING STEM AND HANDWHEEL
- ▲LOOSE DISC, CHOICE OF PLUG OR BALL
- ▲RENEWABLE SEAT RING
- ▲IMPACT HANDWHEEL FOR 10" & ABOVE
- ▲HORIZONTAL SERVICE
- ▲FLANGED OR BUTTWELDING ENDS
- ▲AVAILABLE WITH GEAR OPERATOR

Materials of Parts

No	Part Name	ASTM Material				
		Carbon Steel		Alloy Steel	Stainless Steel	
1	Body	A216-WCB	A352-LCB	A217-WC6	A351-CF8	A351-CF8M
2	Bonnet	A216-WCB	A352-LCB	A217-WC6	A351-CF8	A351-CF8M
3	Disc	A105+Cr13	A350-LF2	A182-F11+HF	A351-CF8	A351-CF8M
4	Stem	A182-F6a	A182-F6a	A182-F11	A276-304	A182-F316S
5	Seat Ring	A105+Cr13	A350-LF2	A182-F11+HF	A351-CF8	A351-CF8M
6	Backseat	A276-420	A276-420	A276-304	A276-304	A182-F316S
7	Gasket	Spiral wound(Graphite+304)				
8	Bonnet Stud	A193-B7	A320-L7	A193-B7	A193-B8	A193-B8
9	Bonnet Nut	A194-2H	A194-4	A194-2H	A194-8	A194-8
10	Packing	Graphite				
11	Gland	A105	A350-LCB	A276-304	A182-F304	A182-F316
12	Gland Flange	A216-WCB	A352-LCB	A217-WC6	A351-CF8	A351-CF8M
13	Eyebolt Pin	Carbon Steel	Carbon Steel	A276-420	A276-304	A276-316
14	Eyebolt	Carbon Steel	Carbon Steel	A193-B7	A193-B8	A193-B8
15	Eyebolt Nut	A194-2H	A194-4	A194-2H	A194-8	A194-8
16	Yokesleeve	Aluminum-Bronze				
17	Handwheel	Malleable Iron				

Notes: 1). Ductile Ni-resist optional.

2). Disc and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.



Dimensions Data ANSI Class 600Lb

ANSI Class 900Lb

NPS	DN	L/L1 (RF/BW)		L2 (RTJ)		H (Open)		D0		WT(kg)		L/L1 (RF/BW)		L2 (RTJ)		H (Open)		D0		WT(kg)	
2	50	11.50	292	11.62	295	17.50	445	10	240	35	27	14.50	368	14.62	371	22.00	560	11	280	57	41
2 1/2	65	13.00	330	13.12	333	19.75	502	11	280	50	34	16.50	419	16.62	422	23.25	590	13	320	82	53
3	80	14.00	356	14.12	359	21.00	533	13	320	60	42	15.00	381	15.12	384	25.25	640	16	400	91	58
4	100	17.00	432	17.12	435	24.50	622	16	400	110	84	18.00	457	18.12	460	31.88	810	18	450	168	117
6	150	22.00	559	22.12	562	29.50	750	18	450	230	192	24.00	610	24.12	613	41.38	1050	20	500	365	238
8	200	26.00	660	26.12	663	36.50	927	20	500	410	350	29.00	737	29.12	740	53.50	1360	24	600	665	538
10	250	31.00	787	31.12	790	44.88	1140	24	600	770	680	33.00	838	33.12	841	61.88	1570	24	600	1250	1060
12	300	33.00	838	33.12	841	53.12	1350	24	600	1140	1030	-	-	-	-	-	-	-	-	-	-
in	mm	in	mm	in	mm	in	mm	in	mm	RF/RTJ	BW	in	mm	in	mm	in	mm	in	mm	RF/RTJ	BW

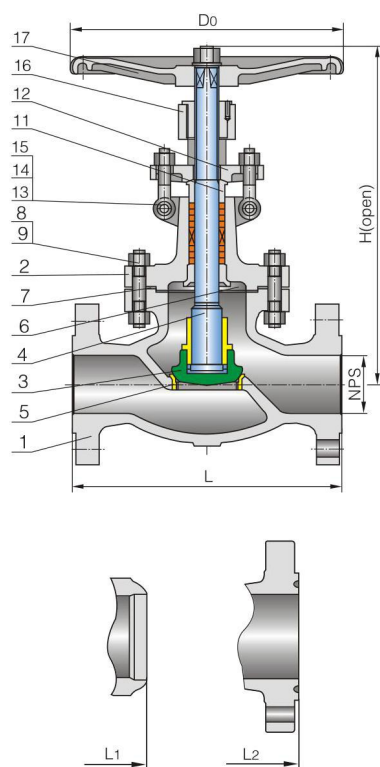
Cast Steel Globe Valve 1500Lb/2500Lb

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

- ▲STRAIGHT PATTERN BODY DESIGN
- ▲OS & Y, OUTSIDE SCREW AND YOKE
- ▲BB, BOLTED BONNET
- ▲YOKE INTEGRAL WITH BONNET
- ▲RISING STEM AND HANDWHEEL
- ▲LOOSE DISC, CHOICE OF PLUG OR BALL
- ▲RENEWABLE SEAT RING
- ▲IMPACT HANDWHEEL FOR 10" & ABOVE
- ▲HORIZONTAL SERVICE
- ▲FLANGED OR BUTTWELDING ENDS
- ▲AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material				
		Carbon Steel		Alloy Steel	Stainless Steel	
1	Body	A216-WCB	A352-LCB	A217-WC6	A351-CF8	A351-CF8M
2	Bonnet	A216-WCB	A352-LCB	A217-WC6	A351-CF8	A351-CF8M
3	Disc	A105+Cr13	A350-LF2	A182-F11+HF	A351-CF8	A351-CF8M
4	Stem	A182-F6a	A182-F6a	A182-F11	A276-304	A182-F316S
5	Seat Ring	A105+Cr13	A350-LF2	A182-F11+HF	A351-CF8	A351-CF8M
6	Backseat	A276-420	A276-420	A276-304	A276-304	A182-F316S
7	Gasket	Spiral wound(Graphite+304)				
8	Bonnet Stud	A193-B7	A320-L7	A193-B7	A193-B8	A320-B8
9	Bonnet Nut	A194-2H	A194-4	A194-2H	A194-8	A194-8
10	Packing	Graphite				
11	Gland	A105	A350-LCB	A276-304	A182-F304	A182-F316
12	Gland Flange	A216-WCB	A352-LCB	A217-WC6	A351-CF8	A351-CF8M
13	Eyebolt Pin	Carbon Steel	Carbon Steel	A276-420	A276-304	A276-F316
14	Eyebolt	Carbon Steel	Carbon Steel	A193-B7	A193-B8	A193-B8
15	Eyebolt Nut	A194-2H	A194-4	A194-2H	A194-8	A194-8
16	Yokesleeve	Aluminum-Bronze				
17	Handwheel	Malleable Iron				

Notes: 1). Ductile Ni-resist optional.

2). Disc and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

Dimensions Data ANSI Class 1500Lb

NPS	DN	L/L1 (RF/BW)		L2 (RTJ)		H (Open)		D0		WT(kg)		L/L1 (RF/BW)		L2 (RTJ)		H (Open)		D0		WT(kg)	
2	50	14.50	368	14.62	371	22.00	560	13	320	68	57	17.75	451	17.88	454	25.50	650	16	400	97	72
2 1/2	65	16.50	419	16.62	422	23.25	590	16	400	97	81	20.00	508	20.50	414	28.12	715	18	450	138	95
3	80	18.50	470	18.62	473	29.50	750	18	450	116	95	22.75	578	23.00	584	32.50	825	20	500	167	108
4	100	21.50	546	21.62	549	36.00	915	20	500	215	184	26.50	673	26.88	683	47.00	1195	24	600	305	196
6	150	27.75	705	28.00	711	48.62	1235	24	600	445	347	36.00	914	36.50	927	70.50	1790	28	700	633	351
8	200	32.75	832	33.12	841	65.00	1650	28	700	795	635	-	-	-	-	-	-	-	-	-	-
in	mm	in	mm	in	mm	in	mm	in	mm	RF/RTJ	BW	in	mm	in	mm	in	mm	in	mm	RF/RTJ	BW

ANSI Class 2500Lb

Forged Steel Globe Valve

Applicable Standards

- ★ 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
- ★ BUTTWELDING ENDS, ASME B16.25
- ★ SOCKET-WELDING ENDS, ASME B16.11
- ★ SCREWED ENDS, ASME B1.20.1
- ★ INSPECTION AND TEST, API 598

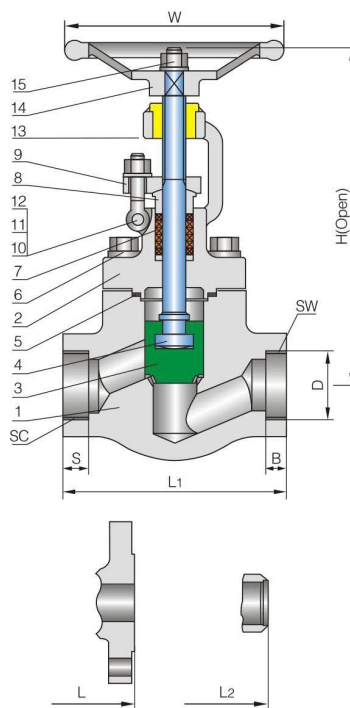
Design Description

- ▲ OUTSIDE SCREW AND YOKE (OS&Y)
- ▲ BOLTED BONNET
- ▲ CHOICE OF WC, WELDING BONNET
- ▲ LOOSE DISC, CHOICE PLUG OR BALL
- ▲ SEAT RINGS INTEGRAL WITH BODY
- ▲ YOKE INTEGRAL WITH BONNET
- ▲ RISING STEM AND HANDWHEEL
- ▲ HORIZONTAL SERVICE
- ▲ SW, SOCKET-WELDING ENDS
- ▲ SC, SCREWED ENDS
- ▲ BW, BUTTWELDING ENDS

Materials of Parts

No	Part Name	ASTM Material			
		CS	Alloy Steel	Stainless Steel	
1	Body	A105	A182-F11	A182-F304	A182-F316
2	Bonnet	A105	A182-F11	A182-F304	A182-F316
3	Disc	A182-F6a	A182-F6a+HF	A182-F304	A182-F316
4	Stem	A276-410	A276-410	A276-410	A276-410
5	Gasket ²⁾	Spiral wound(Graphite+304)		Spiral wound(Graphite+316)	
6	Bonnet Stud	A193-B7	A193-B16	A193-B8	A193-B8M
7	Packing	Graphite			
8	Gland	A276-410	A276-410	A276-F304	A276-F316
9	Gland Flange	A105	A182-F11	A182-F304	A182-F316
10	Eyebolt Pin	A276-410		A276-F304	A276-F316
11	Eyebolt	A193-B7	A193-B16	A193-B8	A193-B8M
12	Eyebolt Nut	A194-2H	A194-4	A194-8	A194-8M
13	Yokesleeve	A276-410			
14	Handwheel	Malleable Iron			
15	Handwheel nut	Carbon Steel		A194-8	

Notes: 1). Seat integral with body.
2). Spiral wound construction.



Dimensions Data

NPS DN	Unit	L ¹⁾ /L ₂	L(Flanged Ends)			d	SW		SC	H(open)	D ₀	WT ²⁾ (kg)	
			150Lb	300Lb	600Lb		D	B	NPT	S			
3/8	in	3.12	4.00	6.00	6.50	0.354	0.693	0.378	3/8	0.540	6.50	4.00	3.8/2.8
10	mm	79	102	152	165	9	17.6	9.6		13.6	164	100	
1/2	in	3.12	4.25	6.00	6.50	0.354	0.858	0.378	1/2	0.535	6.50	4.00	5.6/3.4
15	mm	79	108	152	165	9	21.8	9.6		13.6	164	100	
3/4	in	3.62	4.62	7.00	7.50	0.512	1.067	0.500	3/4	0.547	6.50	4.00	7.8/4.7
20	mm	92	117	178	190	13	27.1	12.7		13.9	164	100	
1	in	4.38	5.00	8.00	8.50	0.689	1.331	0.500	1	0.681	8.00	5.00	12.5/9.2
25	mm	111	127	203	216	17.5	33.8	12.7		17.3	203	125	
1 1/4	in	4.75	5.50	8.50	9.00	0.906	1.677	0.500	1 1/4	0.709	8.88	6.25	17/10.5
32	mm	120	140	216	229	23	42.6	12.7		18	224	160	
1 1/2	in	6.00	6.50	9.00	9.50	1.142	1.917	0.500	1 1/2	0.724	10.25	6.25	23.5/13.3
40	mm	152	165	229	241	29	48.7	12.7		18.4	260	160	
2	in	6.75	8.00	10.50	11.50	1.378	2.406	0.626	2	0.756	11.88	7.00	38.8/18.9
50	mm	172	203	267	292	35	61.1	15.9		19.2	300	180	

Notes: 1). BW, SW or SC.
2). 600Lb-RF/800Lb-(BW/SW/SC)

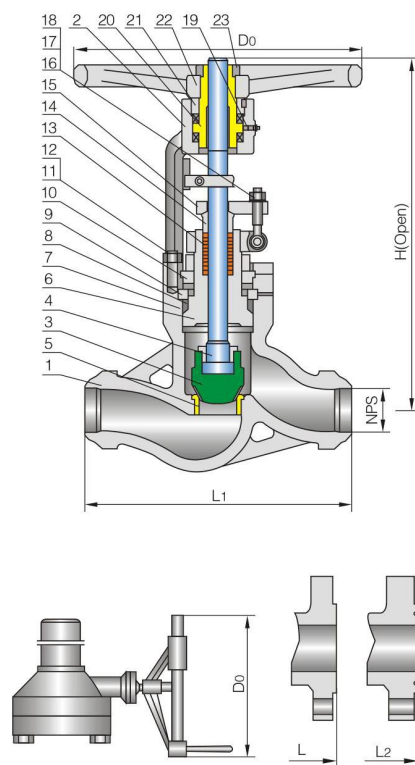
Pressure Seal, Cast Steel Globe Valve 900Lb

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
- ▲ OS&Y, OUTSIDE SCREW AND YOKE
- ▲ BB, BOLTED BONNET
- ▲ RENEWABLE SEAT RINGS
- ▲ RISING STEM AND HANDWHEEL
- ▲ FLANGED OR BUTTWELDING ENDS
- ▲ AVAILABLE WITH GEAR OPERATOR



Materials of Parts

No	Part Name	ASTM Material				
		Carbon Steel		1¼Cr–½Mo	Stainless Steel	
1	Body	A216–WCB	A352–LCB	A217–WC6	A351–CF8	A351–CF8M
2	Yoke	A216–WCB	A352–LCB	A217–WC6	A351–CF8	A351–CF8M
3	Disc	A216–WCB+HF	A350–LF2+HF	A217–WC6+HF	A351–CF8+HF	A351–CF8M+HF
4	Stem	A182–F6a	A182–F6a	A182–F11	A276–304	A182–F316S
5	Seat Ring	A105+HF	A350–LF2+HF	A182–F11+HF	A240–304+HF	A240–316+HF
6	Bonnet	A105	A182–F6a	A182–F11	A276–304	A182–F316S
7	Gasket ¹⁾	Spiral wound(Graphite+304)			Spiral wound(Graphite+316)	
8	Adapter	Carbon Steel		A276–420	A276–304	A276–316
9	Retainer Ring	Carbon Steel		A276–420	A276–304	A276–316
10	Yoke Cap	Carbon Steel			Stainless Steel	
11	Bonnet Stud	A193–B7	A320–L7	A193–B7	A193–B8	A193–B8
12	Bonnet Nut	A194–2H	A194–4	A194–2H	A194–8	A194–8
13	Packing	Graphite				
14	Gland	A105	A350–LCB	A276–304	A182–F304	A182–F316
15	Gland Flange	A216–WCB	A352–LCB	A217–WC6	A351–CF8	A351–CF8M
16	Eyebolt Pin	Carbon Steel	Carbon Steel	A276–420	A276–304	A276–316
17	Eyebolt	Carbon Steel	Carbon Steel	A193–B7	A193–B8	A193–B8
18	Eyebolt Nut	A194–2H	A194–4	A194–2H	A194–8	A194–8
19	Grease Fitting	Brass-Bronze			A351–CF8	A182–F316
20	Yokesleeve	Aluminum-Bronze ²⁾				
21	Yokesleeve Jam Nut	Caron Steel			A194–8	
22	Handwheel	Malleable Iron				
23	Handwheel Nut	Carbon Steel			A194–8	

- Notes: 1). Graphite optional.
 2). Ductile Ni-resist optional.
 3). Wedge and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

Dimensions Data ANSI Class 900Lb

NPS	2	2 1/2	3	4	6	8	10	12	in
DN	50	65	80	100	150	200	250	300	mm
L ₁ (BW)	8.50	10.00	12.00	14.00	20.00	26.00	31.00	36.00	in
	216	254	305	356	508	660	787	914	mm
L (RF)	14.50	16.50	15.00	18.00	24.00	29.00	33.00	38.00	in
	368	419	381	457	610	737	838	965	mm
L ₂ (RTJ)	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	in
	371	422	384	460	613	740	841	968	mm
H (open)	22	22	22	27	36.38	43.38	50.62	57	in
	557	557	557	685	925	1100	1285	1450	mm
D ₀	16	16	16	16	28	28	36	36	in
	400	400	400	400	700	700	900	900	mm
WT(kg)	46	53	68	100	270	450	740	1150	BW
	75	82	95	135	355	680	1050	1480	RF/RTJ

Pressure Seal, Cast Steel Globe Valve 1500Lb/2500Lb

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
- ▲ OS&Y, OUTSIDE SCREW AND YOKE
- ▲ BB, BOLTED BONNET
- ▲ RENEWABLE SEAT RINGS
- ▲ RISING STEM AND HANDWHEEL
- ▲ FLANGED OR BUTTWELDING ENDS
- ▲ AVAILABLE WITH GEAR OPERATOR

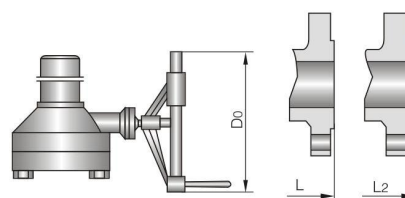
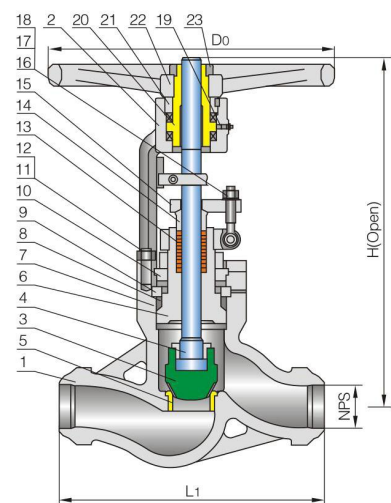
Materials of Parts

No	Part Name	ASTM Material				
		Carbon Steel		1¼Cr-½Mo	Stainless Steel	
1	Body	A216-WCB	A352-LCB	A217-WC6	A351-CF8	A351-CF8M
2	Yoke	A216-WCB	A352-LCB	A217-WC6	A351-CF8	A351-CF8M
3	Disc	A216-WCB+HF	A350-LF2+HF	A217-WC6+HF	A351-CF8+HF	A351-CF8M+HF
4	Stem	A182-F6a	A182-F6a	A182-F11	A276-304	A182-F316S
5	Seat Ring	A105+HF	A350-LF2+HF	A182-F11+HF	A240-304+HF	A240-316+HF
6	Bonnet	A105	A182-F6a	A182-F11	A276-304	A182-F316S
7	Gasket ¹⁾	Spiral wound(Graphite+304)			Spiral wound(Graphite+316)	
8	Adapter	Carbon Steel		A276-420	A276-304	A276-316
9	Retainer Ring	Carbon Steel		A276-420	A276-304	A276-316
10	Yoke Cap	Carbon Steel			Stainless Steel	
11	Bonnet Stud	A193-B7	A320-L7	A193-B7	A193-B8	A193-B8
12	Bonnet Nut	A194-2H	A194-4	A194-2H	A194-8	A194-8
13	Packing	Graphite				
14	Gland	A105	A350-LCB	A276-304	A182-F304	A182-F316
15	Gland Flange	A216-WCB	A352-LCB	A217-WC6	A351-CF8	A351-CF8M
16	Eyebolt Pin	Carbon Steel	Carbon Steel	A276-420	A276-304	A276-316
17	Eyebolt	Carbon Steel	Carbon Steel	A193-B7	A193-B8	A198-B8
18	Eyebolt Nut	A194-2H	A194-4	A194-2H	A194-8	A194-8
19	Grease Fitting	Brass-Bronze			A351-CF8	A182-F316
20	Yokesleeve	Aluminum-Bronze ²⁾				
21	Yokesleeve Jam Nut	Caron Steel			A194-8	
22	Handwheel	Malleable Iron				
23	Handwheel Nut	Carbon Steel			A194-8	

Notes: 1). Graphite optional.

2). Ductile Ni-resist optional.

3). Wedge and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.



Dimensions Data ANSI Class 1500Lb

NPS	2	2 1/2	3	4	6	8	2	2 1/2	3	4	6	in
DN	50	65	80	100	150	200	50	65	80	100	150	mm
L ₁ (BW)	8.50	10.00	12.00	16.00	22.00	28.00	11.00	13.00	14.50	18.00	24.00	in
	216	254	305	406	559	711	279	330	368	457	610	mm
L (RF)	14.50	16.50	18.50	21.50	27.75	32.75	17.75	20.00	22.75	26.50	36.00	in
	368	419	470	546	705	832	451	508	578	673	914	mm
L ₂ (RTJ)	14.62	16.62	18.62	21.62	28.00	33.12	17.88	20.50	23.00	26.88	36.50	in
	371	422	473	549	711	842	454	514	584	683	927	mm
H (Open)	22	22	24.38	30	44.62	54.75	23.38	23.38	28	32.25	49.62	in
	557	557	620	760	1135	1390	595	595	710	820	1260	mm
D ₀	16	18	20	24	28	36	16	20	24	28	36	in
	400	450	500	600	700	900	400	500	600	700	900	mm
WT(kg)	57	65	90	190	450	730	65	78	125	155	480	BW
	86	112	162	240	580	950	115	136	205	275	860	RF/RTJ

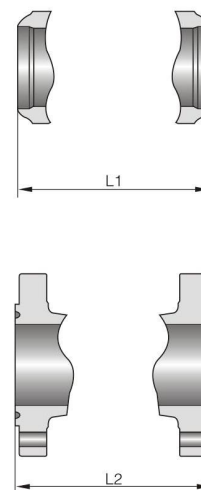
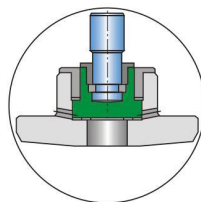
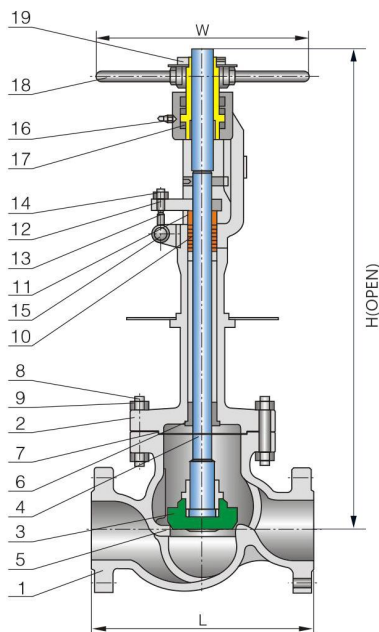
Cryogenic Globe Valve

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

- ▲ STRAIGHT PATTERN BODY DESIGN
- ▲ OS & Y, OUTSIDE SCREW AND YOKE
- ▲ BB, BOLTED BONNET
- ▲ YOKE INTEGRAL WITH BONNET
- ▲ RISING STEM AND HANDWHEEL
- ▲ DOUBLE DISC, CHOICE OF PLUG OR BALL
- ▲ RENEWABLE SEAT RING
- ▲ IMPACT HANDWHEEL FOR 10" & ABOVE
- ▲ HORIZONTAL SERVICE
- ▲ FLANGED OR BUTT WELDING ENDS
- ▲ AVAILABLE WITH BG OPERATOR



Standard Material Specifications

No	Part Name	ASTM Material							
		Carbon steel	2.5Ni	3.5Ni	304 Type	316 Type	304L Type	316L Type	20 Alloy
1	Body	A352 LCB	A352 LC2	A352 LC3	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
2	Bonnet	A352 LCB	A352 LC2	A352 LC3	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
3	Disc	LCB+304 *1	LC2+304	LC3+304	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M
4	Stem	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F304L	A182 F316L	20–Alloy
5	Seat Ring	A105+304 *1	A182 F22+HF	A182 F22+HF	NA				NA
6	Back Seat	A276 304	A276 304	A276 304	NA				NA
7A	Bonnet Gasket	304+graphite	304+graphite	304+graphite	304+graphite	316+graphite	304L+graphite	316L+graphite	316+graphite
7B	Ring Gasket	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F304L	A182 F316L	20–Alloy
8	Bonnet Bolt	A193 L7	A193 L7	A193 L7	A193 B8	A193 B8M	A193 B8	A193 B8M	A193 B8M
9	Bonnet Nut	A194 4	A194 4	A194 4	A194 8	A194 8M	A194 8	A194 8M	A194 8M
10	Packing	Graphite	Graphite	Graphite	Graphite *2	Graphite *2	Graphite *2	Graphite *2	Graphite *2
11	Gland	A276 410	A276 410	A276 410	A276 304	A276 316	A276 304L	A276 316L	20–Alloy
12	Gland Flange	A216 WCB			A351 CF8	A351 CF8	A351 CF8	A351 CF8	A351 CF8
13	Eyebolt	A193 L7	A193 L7	A193 L7	A193 B8	A193 B8	A193 B8	A193 B8	A193 B8
14	Eyebolt Nut	A194 4	A194 4	A194 4	A194 8	A194 8	A194 8	A194 8	A194 8
15	Eyebolt Pin	A276 410	A276 410	A276 410	A276 304	A276 304	A276 304	A276 304	A276 304
16	Grease Fitting	Commercial			Commercial				Commercial
17	Yoke Sleeve	Bronze	Bronze *3	Bronze *3	Bronze				Bronze
18	Hand Wheel	Malleable iron			Malleable iron				Malleable iron
19	Wheel Nut	Carbon 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 vessell								

Cryogenic Globe Valve

Dimensions Data ANSI Class 150

NPS	in	2	2½	3	4	6	8	10	12	14	16	18
	mm	50	65	80	100	150	200	250	300	350	400	450
L & L ₂	in	8.0	8.5	9.5	11.5	16.0	19.5	24.5	27.5	31.0	36.0	38.5
	mm	203	216	241	292	406	495	622	698	787	914	978
H	in	15.3	14.8	17.0	19.5	22.6	28.0	31.4	39.1	54.6	53.4	78.0
	mm	383	376	433	495	574	710	797	992	1387	1356	1980
W	in	7.9	8.8	8.8	9.8	14.0	14.0	17.7	17.7	22.0	22.0	24.0
	mm	200	224	224	250	355	355	450	450	560	560	610
WT	RF	lb	44.1	77.2	88.2	123.5	229.3	401.3	650.5	904	1510	1985
		kg	20	35	40	56	104	182	295	410	685	900
	BW	lb	33.1	66.2	70.6	90.4	183.0	330.8	496.1	728	1312	1764
		kg	15	30	32	41	83	150	225	330	595	800

Dimensions Data ANSI Class 300

NPS		in	2	2½	3	4	6	8	10	12	14	16
		mm	50	65	80	100	150	200	250	300	350	400
L & L ₂		in	10.5	11.5	12.5	14.0	17.5	22.0	24.5	28.0	39.0	42.0
		mm	267	292	318	356	444	559	622	711	991	1067
L ₁		in	11.12	12.12	13.12	14.62	18.12	22.62	25.12	28.62	39.62	42.62
		mm	283	308	333	371	460	575	638	727	1006	1083
H		in	15.6	16.3	18.2	21.7	29.2	31.5	44.6	46.1	56.5	70.7
		mm	396	415	462	550	741	287.5	1132	1172	1435	1797
W		in	7.9	8.8	9.8	14.0	17.7	22.0	22.0	28.0	28.0	31.5
		mm	200	224	250	355	450	560	560	710	710	800
WT	RF	lb	70.6	92.6	141.0	220.5	419.0	595.4	1163.7	2240	2546.8	3748.5
		kg	32	42	64	100	190	270	530	1016	1155	1700
	BW	lb	66.2	66.2	105.89	194.0	328.5	441	970.2	1997.7	2216	3309.7
		kg	30	30	48	88	149	200	440	906	1005	1501

Dimensions Data ANSI Class 600

NPS		in	2	2½	3	4	6	8	10	12	14	16
		mm	50	65	80	100	150	200	250	300	350	400
L & L 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
L ₁		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	16.0	19.8	19.9	22.4	29.9	51.8	59.5	69.9	70.9	76.0
		mm	407	502	505	165	759	1315	1511	1775	1800	1930
W		in	8.8	9.8	11.0	14.0	17.7	28.0	31.5	35.4	35.4	35.4
		mm	224	250	280	355	450	710	800	900	900	900
WT	RF	lb	94.8	154.4	172.0	300.0	619.6	1301	2099	3528	5953.5	7938.0
		kg	43	70	78	136	281	590	952	1600	2700	3600
	BW	lb	72.8	121.3	132.3	216.1	454.2	1125	1746	3263.45	5534.6	7386.8
		kg	33	55	60	98	206	510	792	1480	2510	3350

About us



Our History

COOPER®Valves was founded in 1930 and in 1934 COOPER's foundry developed the first successful technique to pour 304 stainless steel. Since then COOPER has become a well-respected and approved valve manufacturer that specializes in exotic alloy valves, serving the downstream and mid-stream chemical, petrochemical, oil and gas, water, power, mining and refining industries for over 90 years. COOPER's success is derived from its dedication to building dependable valves through advanced engineering, experienced personnel, controlled manufacturing processes, and a wide level of end-user's approvals.

Our Mission Statement

To manufacture and deliver to our customers the finest valves in the world.

Our motto is "Quality without Compromise". We strive to make every valve we produce "bullet proof" because we know that our quality directly impacts our end users, our community, and our environment. An American classic, Cooper's vision is to grow and maintain our market position as the leading manufacturer and supplier of high alloy and nickel valves in a global market.

We believe through hard work, intelligent decision making and effective management we can deliver the highest quality, shortest delivery products to our client base at a fair price. We believe that our employees and their dedication to preserving and protecting our core values will be our basis for success. We are all like-minded people with shared beliefs in striving to always do the best.

COOPER VALVES

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