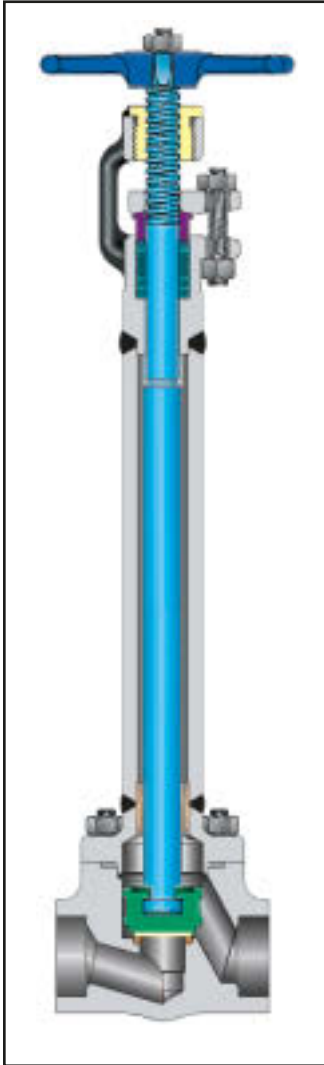




# FORGED AND CAST CRYOGENIC, GLOBE VALVES IN AUSTENITIC STAINLESS STEEL

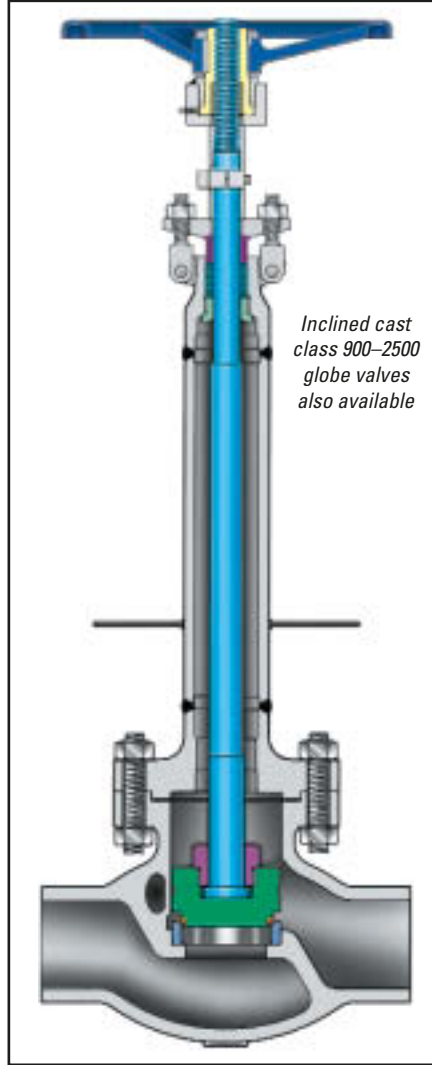
FORGED ¼–2" (8–50 mm) ASME CLASSES 150–2500,  
CAST 2–16" (50–400 mm) ASME CLASSES 150–2500

SHOWN CLASS 600



FORGED ¼–2" ASME Class 150–2500

SHOWN CLASS 300



Cast 2–16" ASME Class 150–600

Forged 2–8" ASME Class 900–2500

## STANDARD MATERIALS

PART	TYPE	
	FORGED	CAST
Body <sup>(1)</sup>	F 316	CF8M
Seat <sup>(1)(2)</sup>	Integral Stellite	Stellite 6 faced F 316
Bonnet <sup>(1)</sup>	F 316	CF8M
Stem <sup>(1)(3)</sup>	SS 316	
Packing ring <sup>(1)</sup>	RTFE and graphite	
Gland stud	F 316, B8M	
Gland nut	Gr. 8M	
Packing flange	SS	
Gland bushing	SS	
Bonnet stud	B8M	
Bonnet nut	Gr. 8M	
Hinge pin	N/A	SS
Gasket <sup>(1)</sup>	Spiral SS/graphite	
Stem nut	Ni-resist type DZC	
Handwheel nut	Gr. 2M	
Handwheel <sup>(1)</sup>	Malleable iron	
Backseat <sup>(1)(3)</sup>	Integral	SS 316
Disc nut	N/A	SS 304 or 316
Disc	Stellite 6	CF8M or F 316

(1) Other materials available. (2) Stellite. (3) Hardened.

(4) For eye bolts Gr.B, for studs B7 is used.

(5) For eye bolts F316, for studs B8M or 630 is used.

- **Stem** with precision Acme threads and burnished finish.
- **Gland** has two-piece construction for easy alignment.
- **Yoke bushing.** Ni-resist, renewable in-line, non-rotating yoke bushing, rotating stem (as shown).

The following valves are supplied with a rotating stem nut, non-rotating stem and two thrust bearings:

**Class 150:** 12" (300 mm) and up,

**Class 300:** 8" (200 mm) and up,

**Class 600:** 6" (150 mm) and up.

- **Impactor handwheels.** Globe and stop check valves require higher closing torques than gate valves with the same seat diameter and pressure class. The most economical mechanism for tight shutoff is the impactor handwheel. Two lugs cast under the wheelstrike simultaneous blows and give 3–10 times the closing force of standard handwheels. Impactor handwheels are supplied at manufacturer's option unless specified by customer.

## DESIGN FEATURES FOR CAST STEEL:

- **Seat face** Stellite, ground and lapped to a mirror finish. Conical seat machined to 8 RMS.
- **Flat disc.** Floating stem-disc engagement, hardfaced with Stellite 6 or Monel, ground and lapped with seat.
- **Tapered disc.** Body-guided disc, hardfaced with Stellite 6 or Monel, ground and lapped with seat.
- **Body and bonnet.** Castings are precision machined. One-piece bonnet for better alignment, fewer parts.
- **Stuffing box** finish to 63 AARH or better.
- **Body and bonnet joint** accurately machined. Fully enclosed gasket. Gasket materials on page 3.

**SMALL FORGED BOLTED BONNET GLOBE DIMENSIONS\***

\* Add height of extension to C, D.

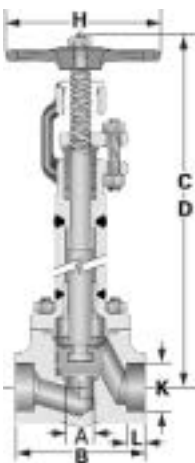
Size in mm	A Port		B End to End		C Center-Top Closed		D Center-Top Open		H Handwheel		K Socket Weld Bore	L Socket Weld Depth	Flanged Valves Face to Face			
	800	1500	800	1500	800	1500	800	1500	800	1500			150	300	600	1500
1/4 8	0.31 8	0.45 11	2.88 73	4.00 102	4.5 114	7.4 188	4.8 122	7.9 201	2.5 64	6 152	0.555 14.10	0.38 10	4.00 102	6.00 152	6.50 165	8.50 216
3/8 10	0.31 8	0.45 11	2.88 73	4.00 102	4.5 114	7.4 188	4.8 122	7.9 201	2.5 64	6 152	0.690 17.53	0.38 10	4.00 102	6.00 152	6.50 165	8.50 216
1/2 15	0.31 8	0.45 11	2.88 73	4.00 102	4.5 114	7.4 188	4.8 122	7.9 201	2.5 64	6 152	0.855 21.72	0.38 10	4.25 108	6.00 152	6.50 165	8.50 216
3/4 20	0.50 13	0.63 16	3.25 83	5.00 127	6.6 168	7.7 196	7.1 180	8.1 206	4.0 102	6 152	1.065 27.05	0.50 13	4.62 117	7.00 178	7.50 190	9.00 229
1 25	0.75 19	1.00 25	3.50 89	6.00 152	6.7 170	9.4 239	7.3 185	10.2 259	4.0 102	8 203	1.330 33.78	0.50 13	5.00 127	8.00 203	8.50 215	10.00 254
1 1/4 32	1.25 32	1.31 33	5.00 127	7.00 178	8.1 206	10.3 262	8.7 221	11.0 279	6.0 152	8 203	1.675 42.55	0.50 13	5.50 140	8.50 216	9.00 229	11.00 279
1 1/2 40	1.25 32	1.31 33	5.00 127	7.00 178	8.1 206	10.3 262	8.7 221	11.0 279	6.0 152	8 203	1.915 48.64	0.50 13	6.50 165	9.00 229	9.50 241	12.00 305
2 50	1.50 38	1.75 44	8.00 203	9.00 229	10.9 277	11.1 282	11.2 285	12.3 312	8.0 203	12 305	2.406 61.11	0.63 16	8.00 203	10.50 266	11.50 292	14.50 368

**CAST STEEL GLOBE VALVE DIMENSIONS\***

\* Add height of extension 12-18" to B, C.

SIZE in mm	ASME 150 (PN 20)					ASME 300 (PN 50)					ASME 600 (PN 100)				
	A	B <sup>(1)</sup>	C <sup>(1)</sup>	D	E	A	B <sup>(1)</sup>	C <sup>(1)</sup>	D	E	A	B <sup>(1)</sup>	C <sup>(1)</sup>	D	E
2 50	8.00 203	15.00 381	19.00 483	2.00 51	8.00 203.2	10.50 267	15.00 381	19.00 483	2.00 51	8.00 203	11.50 292	15.00 381	19.43 494	2.00 51	10.00 254
2 1/2 65	8.50 216	15.44 392	19.00 483	2.50 64	10.00 254	11.50 292	15.44 392	20.00 508	2.50 64	10.00 254	13.00 330	17.37 441	22.12 562	2.50 64	10.00 254
3 80	9.50 241	16.88 429	21.00 533	3.00 76	10.00 254	12.50 318	16.88 429	22.00 559	3.00 76	10.00 254	14.00 356	19.37 492	24.81 630	3.00 76	14.00 356
4 100	11.50 292	19.31 491	24.00 610	4.00 102	14.00 356	14.00 356	19.31 491	25.00 635	4.00 102	14.00 356	17.00 432	23.00 584	28.62 727	4.00 102	24.00 610
6 150	16.00 406	23.56 598	30.00 762	6.00 152	24.00 610	17.50 445	23.56 598	31.00 787	6.00 152	24.00 610	22.00 559	31.50 800	38.12 968	6.00 152	30.00 762
8 200	19.50 495	25.75 654	34.00 864	8.00 203	24.00 610	22.00 559	35.88 911	44.00 1118	8.00 203	18.00 <sup>(2/3)</sup> 457	26.00 660	42.50 1080	47.00 1194	7.88 200	24.00 <sup>(2/3)</sup> 610
10 250	24.50 622	35.13 892	44.00 1118	10.00 254	30.00 762	24.50 622	39.81 1011	50.00 1270	10.00 254	18.00 <sup>(2/3)</sup> 457	-	-	-	-	-
12 300	27.50 699	40.87 1038	52.00 1321	12.00 305	30.00 762	28.00 711	44.06 1119	58.00 1473	12.00 305	30.00 <sup>(2/3)</sup> 762	-	-	-	-	-
14 350	31.00 787	53.31 1354	68.00 1727	13.25 337	24.00 <sup>(2/3)</sup> 610	33.00 838	53.31 1354	68.00 1727	13.25 337	36.00 <sup>(2/3)</sup> 914	-	-	-	-	-
16 400	36.00 914	57.32 1456	70.00 1778	15.25 387	30.00 <sup>(2/3)</sup> 762	34.00 863	57.32 1456	70.00 1778	15.25 387	36.00 <sup>(2/3)</sup> 914	-	-	-	-	-

(1) Height does not include actuators. (2) Impactor handwheel. (3) Gear actuator is optional.

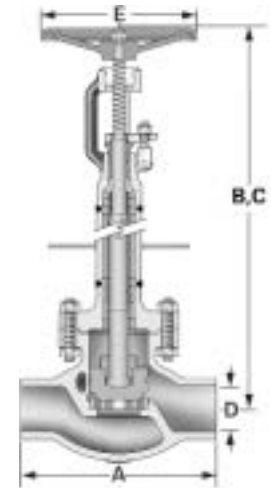


FORGED

Inclined cast Class 900-2500 globe valves also available

**DESIGN SPECIFICATIONS**

ITEM	APPLICABLE SPECIFICATION
Wall thickness and general valve design	API 600, BS 1873
Pressure-Temperature rating	ASME B16.34
Face-to-face dimensions for butt weld and flanged valves	ASME B16.10
Flange design	ASME B16.5
Butt welding design	ASME B16.25
Cryogenic valves	BS 1873



CAST