

**STANDARD MATERIALS (Other materials available)**

PART	MATERIALS			
Body	A105 + Stellite 6 Faced	A182 F11 + Stellite 6 Faced	A182 F22 + Stellite 6 Faced	A182 F316 (1)
Bonnet	A105	A182 F11	A182 F22	A182 F316
Disc	SST 420			A182 F316
Stem	A182 F6a			A182 F316
Gland Flange	A105			A182 F316
Eye Bolt	A193 Gr. B7	A193 Gr. B16		A193 Gr. B8M
Eye Bolt Nut	A194 Gr. 2H	A194 Gr. 7		A194 Gr. 8M
Gland	SST 420			Series 300 SST
Packing	Graphite			PTFE
Gasket (2)	Spiral Wound SST with Graphite			Spiral Wound SST with PTFE
Hand Wheel	Malleable Iron or Steel			
Hand Wheel Nut	Malleable Iron or Steel			
Body / Bonnet Bolting (2)	A193 Gr. B7	A193 Gr. B16		A193 Gr. B8M
Identification Plate	Series 300 SST			

Class	Bore	Fig. No.
150	Standard	GL01
	Full	GLL1
300	Standard	GL03
	Full	GLL3
600	Standard	GL06
	Full	GLL6
800	Standard	GL08
	Full	GLL8
1500	Standard	GL15
	Full	GLL5
1680	Standard	GL16
2500	Standard	GL25
2690	Standard	GL26

- (1) Threaded and weld end valve bodies A182 F316L
- (2) Welded bonnet design also available.

**NOTE: See page 43 for flow, safety and maintenance information.**

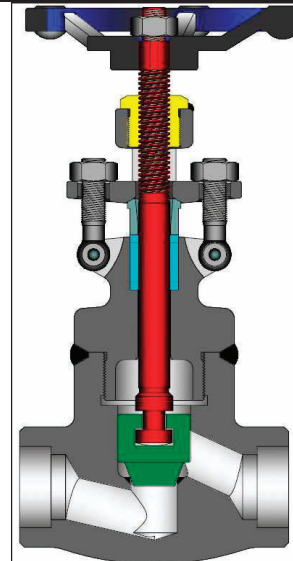
**Design Specifications**

Item	Applicable Specification
Wall thickness	API 602
Pressure - temperature ratings	ASME B16.34
General valve design	API 602 & B16.34
End to End dimensions	ASME B16.10
Flange design	ASME B16.5
Thread design	ASME B1.20.1
Butt Weld design	ASME B16.25
Socket Weld design	ASME B16.11
Materials	ASTM

**DESIGN FEATURES:**

- **Standard trim** is stellite faced seats integral to the body, 13% chrome disc, and 13% chrome stem (API trim 8). Other trims available on request.
- **Wall thickness** per heavy wall API 602 requirements.
- **Seat faces** lapped for smooth finish and superior sealing.
- **Swivel disc** for optimal seating and longer seat life are non-rotating.
- **Stems** of hand wheel operated design are rotating / rising design.
- **Each valve** is shell, seat and backseat pressure tested per industry standard API 598.
- **Gland** is two piece gland / gland flange design for optimal alignment and uniform packing compression.

- **End Flanges** have the following raised faces per ASME B16.5:  
Classes 150-300: 1/16” (2mm)  
Classes 600: 1/4” (7mm)
- **Weld ends** are available per ASME B16.25/ B16.11 or per customer’s specification.
- **Other** available options as follows:  
-Alternate valve materials such as chrome and stainless steel alloys  
-Alternate trim materials  
-NACE service  
-Special cleaning for applications such as oxygen or chlorine  
-Other options available as specified



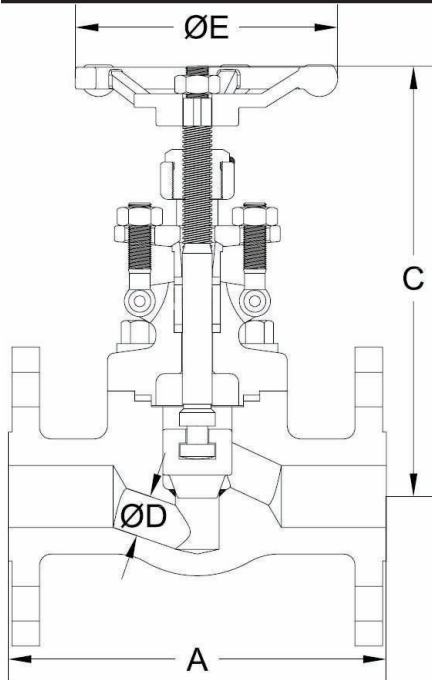
Welded Bonnet Design

**GLOBE VALVE DIMENSIONS (CLASS 150—800).**

SIZE	ASME 150				ASME 300				ASME 600			
	Bolted Bonnet				Bolted Bonnet				Bolted Bonnet			
	Standard Bore				Standard Bore				Standard Bore			
in	A	C	D	E	A	C	D	E	A	C	D	E
mm	FE				FE				FE			
½	4.25	6.0	0.39	3.9	6.00	6.2	0.39	3.9	6.50	6.2	0.39	3.9
13	108	153	10	100	152	158	10	100	165	158	10	100
¾	4.62	6.2	0.50	3.9	7.00	6.2	0.50	3.9	7.50	6.2	0.50	3.9
19	117	158	13	100	178	158	13	100	190	158	13	100
1	5.00	7.6	0.69	4.9	8.00	7.6	0.69	4.9	8.50	7.6	0.69	4.9
25	127	192	18	125	203	192	18	125	216	192	18	125
1¼	5.50	8.9	0.91	6.3	8.50	8.9	0.91	6.3	9.00	5.0	0.91	6.3
32	140	227	23	160	216	227	23	160	229	127	23	160
1½	6.50	9.4	1.12	6.3	9.00	9.4	1.12	6.3	9.50	9.4	1.12	6.3
38	165	240	29	160	229	240	29	160	241	240	29	160
2	8.00	11.0	1.38	7.1	10.50	11.0	1.38	7.1	11.50	11.0	1.38	7.1
50	203	279	35	180	267	279	35	180	292	279	35	180

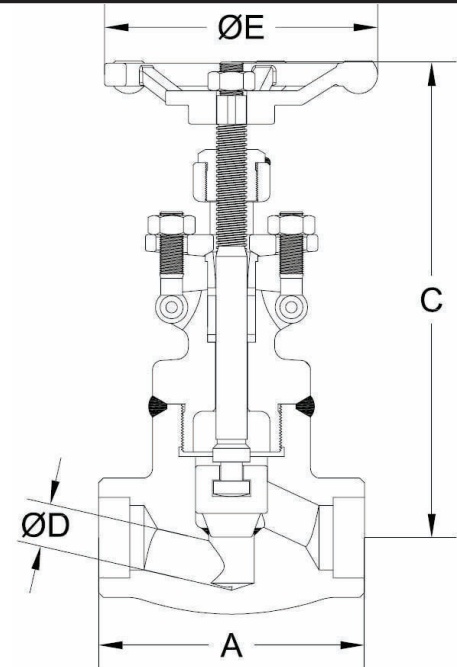
SIZE	ASME 800															
	Bolted Bonnet						Welded Bonnet									
	Standard Bore			Full Bore			Standard Bore			Full Bore						
in	A	C	D	E	A	C	D	E	A	C	D	E	A	C	D	E
mm	WE				WE				WE				WE			
¼	3.11	6.1	0.26	3.9	-	-	-	-	3.11	6.1	0.26	3.9	-	-	-	-
6	79	154	7	100	-	-	-	-	79	154	7	100	-	-	-	-
¾	3.11	6.1	0.39	3.9	-	-	-	-	3.11	6.1	0.39	3.9	-	-	-	-
10	79	154	10	100	-	-	-	-	79	154	10	100	-	-	-	-
½	3.11	6.2	0.39	3.9	3.62	6.2	0.50	6.3	3.11	6.1	0.39	3.9	3.62	6.2	0.50	3.9
13	79	158	10	100	92	158	13	160	79	154	10	100	92	158	13	100
¾	3.62	6.2	0.50	3.9	4.37	7.6	0.69	4.9	3.62	6.2	0.50	3.9	4.37	7.6	0.69	4.9
19	92	158	13	100	111	192	18	125	92	158	13	100	111	192	18	125
1	4.37	7.6	0.69	4.9	4.72	8.9	0.91	6.3	4.37	7.6	0.69	4.9	4.72	8.9	0.91	6.3
25	111	192	18	125	120	227	23	160	111	192	18	125	120	227	23	160
1¼	4.72	8.9	0.91	6.3	5.98	9.4	1.12	6.3	4.72	8.9	0.91	6.3	5.98	9.4	1.12	6.3
32	120	227	23	160	152	240	29	160	120	227	23	160	152	240	29	160
1½	5.98	9.4	1.12	6.3	6.77	11.0	1.40	7.1	5.98	9.4	1.12	6.3	6.77	11.0	1.42	7.1
38	152	240	29	160	172	279	36	180	152	240	29	160	172	279	36	180
2	6.77	11.0	1.38	7.1	8.66	12.8	1.85	7.9	6.77	11.0	1.38	7.1	8.66	12.8	1.85	7.9
50	172	279	35	180	220	325	47	200	172	279	35	180	220	325	47	200



Bolted Bonnet Flanged Ends Design

**ADDITIONAL MATERIALS  
AND CLASSES AVAILABLE  
UPON REQUEST.**

WE = Socket Weld /  
Threaded ends  
FE = Flanged Ends  
C = Center to top open

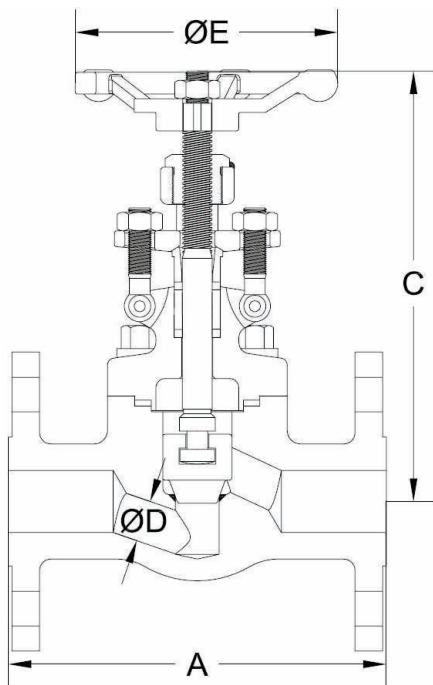


Welded Bonnet Socket Weld Ends Design

**GLOBE VALVE DIMENSIONS (CLASS 1500—2680).**

SIZE	ASME 1500 & 1690																
	Bolted Bonnet									Welded Bonnet							
	Standard Bore						Full Bore			Standard Bore				Full Bore			
	in	A		C	D	E	A	C	D	E	A	C	D	E	A	C	D
mm	FE	WE	WE				WE										
¼	-	3.11	6.9	0.26	3.9	-	-	-	-	3.11	6.2	0.39	3.9	-	-	-	-
6	-	79	175	7	100	-	-	-	-	79	158	10	100	-	-	-	-
¾	-	3.62	7.0	0.39	4.9	-	-	-	-	3.62	6.2	0.50	3.9	-	-	-	-
10	-	92	178	10	125	-	-	-	-	92	158	13	100	-	-	-	-
½	8.50	3.62	7.4	0.39	4.9	4.37	7.4	0.50	4.9	4.37	7.4	0.39	4.9	4.37	7.4	0.50	4.9
13	216	92	187	10	125	111	187	13	125	111	187	10	125	111	187	13	125
¾	9.00	4.37	7.4	0.50	4.9	4.72	8.9	0.69	6.3	4.37	7.4	0.50	4.9	4.72	8.9	0.69	6.3
19	229	111	187	13	125	120	227	18	160	111	187	13	125	120	227	18	160
1	10.00	4.72	8.9	0.69	6.3	5.98	9.5	0.91	6.3	4.72	8.9	0.69	6.3	5.98	9.5	0.91	6.3
25	254	120	227	18	160	152	242	23	160	120	227	18	160	152	242	23	160
1¼	11.00	5.98	9.5	0.91	6.3	6.77	10.9	1.12	7.1	5.98	9.5	0.91	6.3	6.77	10.9	1.12	7.1
32	279	152	242	23	160	172	278	29	180	152	242	23	160	172	278	29	180
1½	12.00	6.77	10.9	1.12	7.1	8.66	12.8	1.38	7.9	6.77	10.9	1.12	7.1	8.66	12.8	1.38	7.9
38	305	172	278	29	180	220	325	35	200	172	278	29	180	220	325	35	200
2	14.50	8.66	12.8	1.38	7.9	9.84	14.0	1.85	7.9	8.66	12.8	1.38	7.9	9.84	14.0	1.85	7.9
50	368	220	325	35	200	250	355	47	200	220	325	35	200	250	355	47	200

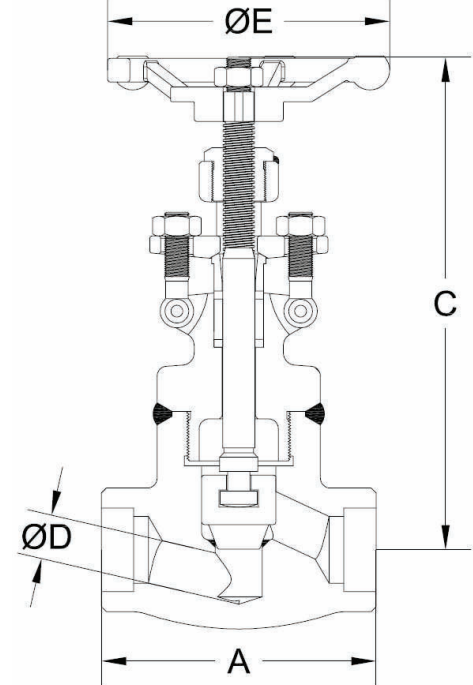
SIZE	ASME 2500 & 2680							
	Bolted Bonnet				Welded Bonnet			
	Standard Bore				Standard Bore			
	in	A	C	D	E	A	C	D
mm	WE	WE						
½	5.91	11.5	0.43	6.3	5.91	9.8	0.55	6.3
13	150	293	11	160	150	249	14	160
¾	5.91	11.5	0.43	6.3	5.91	9.8	0.55	6.3
19	150	293	11	160	150	249	14	160
1	6.69	13.5	0.55	7.9	6.69	11.5	0.75	7.9
25	170	344	14	200	170	292	19	200
1¼	7.87	15.1	0.63	9.8	7.87	12.9	0.98	9.8
32	200	383	16	250	200	327	25	250
1½	7.87	15.1	0.98	9.8	7.87	12.9	1.10	9.8
38	200	383	25	250	200	327	28	250
2	9.84	17.4	1.10	11.8	9.84	15.0	1.38	11.8
50	250	442	28	300	250	381	35	300



Bolted Bonnet Flanged Ends Design

**ADDITIONAL  
MATERIALS AND  
CLASSES AVAILABLE  
UPON  
REQUEST.**

WE = Socket Weld /  
Threaded ends  
FE = Flanged Ends  
C = Center to top open



Welded Bonnet Socket Weld Ends Design



**API 602 GLOBE VALVES**  
 FORGED CARBON , STAINLESS STEEL OR ALLOY STEEL  
 ¼” TO 2” (6 TO 50 mm)  
 ASME CLASSES 150 TO 2680

SIZE	ASME 150			ASME 300			ASME 600			ASME 800														
	Bolted Bonnet			Bolted Bonnet			Bolted Bonnet			Bolted Bonnet						Welded Bonnet								
	Standard Bore			Standard Bore			Standard Bore			Standard Bore			Full Bore			Standard Bore			Full Bore					
in	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>
mm	FE	KG		FE	KG		FE	KG		WE	KG		WE	KG		WE	KG		WE	KG		WE	KG	
¼	-	-	-	-	-	-	-	-	-	4.6	0.7	-	-	4.4	0.7	-	-	-	-	-	-	-	-	
6	-	-	-	-	-	-	-	-	-	2.1	-	-	-	2.0	-	-	-	-	-	-	-	-	-	
¾	-	-	-	-	-	-	-	-	-	4.6	1.5	-	-	4.4	1.5	-	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	-	-	2.1	-	-	-	2.0	-	-	-	-	-	-	-	-	-	
½	9.9	1.5	-	10.6	1.5	-	12.3	1.5	-	4.4	1.5	-	4.9	2.6	-	4.2	1.5	-	4.6	2.6	-	-	-	
13	4.5	-	-	4.8	-	-	5.6	-	-	2.0	-	-	2.2	-	-	1.9	-	-	2.1	-	-	-	-	
¾	15.2	2.7	-	17.0	2.7	-	17.2	2.7	-	4.9	2.7	-	8.4	4.9	-	4.6	2.7	-	8.2	4.9	-	-	-	
19	6.9	-	-	7.7	-	-	7.8	-	-	2.2	-	-	3.8	-	-	2.1	-	-	3.7	-	-	-	-	
1	21.6	5.1	-	24.3	5.1	-	27.6	5.1	-	5.5	5.1	-	12.1	8.9	-	8.2	5.1	-	11.9	8.9	-	-	-	
25	9.8	-	-	11.0	-	-	12.5	-	-	2.5	-	-	5.5	-	-	3.7	-	-	5.4	-	-	-	-	
1¼	29.8	9.1	-	37.0	9.1	-	37.5	9.1	-	12.1	9.1	-	15.4	13.7	-	11.9	9.1	-	15.2	13.7	-	-	-	
32	13.5	-	-	16.8	-	-	17.0	-	-	5.5	-	-	7.0	-	-	5.4	-	-	6.9	-	-	-	-	
1½	43.0	14.0	-	46.5	14.0	-	51.8	14.0	-	15.4	14.0	-	25.4	21.9	-	15.2	14.0	-	25.1	21.9	-	-	-	
38	19.5	-	-	21.2	-	-	23.5	-	-	7.0	-	-	11.5	-	-	6.9	-	-	11.4	-	-	-	-	
2	61.7	22.4	-	68.0	22.4	-	71.9	22.4	-	25.4	22.4	-	26.5	40	-	25.1	22.4	-	26.2	40	-	-	-	
50	28.0	-	-	31.0	-	-	32.6	-	-	11.5	-	-	12.0	-	-	11.4	-	-	11.9	-	-	-	-	

SIZE	ASME 1500 & 1687												ASME 2500 & 2680										
	Bolted Bonnet						Welded Bonnet						Bolted Bonnet			Welded Bonnet							
	Standard Bore			Full Bore			Standard Bore			Full Bore			Standard Bore			Standard Bore							
in	WT	LB	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>	WT	LB	C <sub>v</sub>
mm	FE	KG	WE	KG		WE	KG		WE	KG		WE	KG		WE	KG		WE	KG		WE	KG	
¼	-	-	6.6	0.7	-	-	6.2	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	-	-	3.0	-	-	-	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
¾	-	-	7.7	1.5	-	-	6.6	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	-	-	3.5	-	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
½	24.3	7.7	1.5	8.8	1.5	-	7.3	1.5	-	8.6	1.5	-	23.8	1.8	-	16.1	3.0	-	-	-	-	-	
13	11.0	3.5	-	4.0	-	-	3.3	-	-	3.9	-	-	10.8	-	-	7.3	-	-	-	-	-	-	
¾	29.1	8.8	2.7	13.9	2.7	-	8.4	2.7	-	13.7	2.7	-	24.3	1.9	-	18.7	3.1	-	-	-	-	-	
19	13.2	4.0	-	6.3	-	-	3.8	-	-	6.2	-	-	11.0	-	-	8.5	-	-	-	-	-	-	
1	38.4	13.9	5.1	17.6	5.1	-	13.4	5.1	-	17.4	5.1	-	26.8	3.2	-	27.6	6.0	-	-	-	-	-	
25	17.4	6.3	-	8.0	-	-	6.1	-	-	7.9	-	-	12.1	-	-	12.5	-	-	-	-	-	-	
1¼	41.9	17.6	9.1	27.6	9.1	-	17.2	9.1	-	27.3	9.1	-	47.8	4.3	-	45.6	10.5	-	-	-	-	-	
32	19.0	8.0	-	12.5	-	-	7.8	-	-	12.4	-	-	21.7	-	-	20.7	-	-	-	-	-	-	
1½	54.0	27.6	14.0	43.0	14.0	-	27.1	14.0	-	42.8	14.0	-	48.5	10.7	-	46.3	13.5	-	-	-	-	-	
38	24.5	12.5	-	19.5	-	-	12.3	-	-	19.4	-	-	22.0	-	-	21.0	-	-	-	-	-	-	
2	85.5	43.0	22.4	44.1	22.4	-	42.5	22.4	-	43.9	22.4	-	81.6	14.2	-	79.4	22.4	-	-	-	-	-	
50	38.8	19.5	-	20.0	-	-	19.3	-	-	19.9	-	-	37.0	-	-	36.0	-	-	-	-	-	-	

**FE** = Flanged Ends  
**WE** = Socket Weld / Threaded Ends

**WT** = Weight  
**C<sub>v</sub>** = Flow Coefficient