

# GLOBE VALVES

## CAST GLOBE VALVES

Series 60 (API 623) & 61 (API 603) <sup>(1)</sup>



### FEATURES

- OS&Y
- CAST / STAINLESS STEEL
- SIZES 2" - 18" CLASS 150 - 2500
- BASIC DESIGN API 623 & ANSI B 16.34
- SHELL WALL THICKNESS API 623 & API 603
- FACE TO FACE DIMENSION ANSI B16.10
- FLANGE END DIMENSION ANSI 16.5
- BUT - WELD END DIMENSION ANSI B16.25
- INSPECTION & TESTING API 598

### TRIM MATERIAL

Trim No.	Seat ring surface	Disc seat surface	Stem	Backseat bushing
1	Integral+13%Cr	BM <sup>(2)</sup> +13%Cr	ASTM A276 410	ASTM A276 410
2	Integral+SS304	BM <sup>(2)</sup> +SS 304	ASTM A276 304	ASTM A276 304
5	Integral+STL6	BM <sup>(2)</sup> +STL6	ASTM A276 410	ASTM A276 410
6	Integral+Cu+Ni	BM <sup>(2)</sup> +13%Cr	ASTM A276 410	ASTM A276 410
8	Integral+STL6	BM <sup>(2)</sup> +13%Cr	ASTM A276 410	ASTM A276 410
9	Integral+Monel	Monel	Monel	Monel
10	Integral+SS316	BM <sup>(2)</sup> +SS316	ASTM A276 316	ASTM A276 316
13	Integral+Alloy20	BM <sup>(2)</sup> +Alloy20	ASTM B473	ASTM B473

#### GENERAL NOTES:

Integral: Seat Ring is not renewable, is body's part.  
STL6: Hard Face on Surface (AWS A5.13 ECoCr-a or AWS A5.21 ERCoCr-A).

13%Cr.: Material applied by Welding (AWS A5.9 ER410).  
SS316: Material applied by Welding (AWS A5.9 ER316).

Note 1: The Integral and Body Material only applies when the Trim materials are different from Body Material.

Note 2: The Disc and Body Seat Ring Material are least equal in corrosion resistance to that of the body material according Table 7 from API 623.

(1) Wall Thickness.

(2) Body Material.

Note 3: TFV Trims are according to API 623 valid options. If you require any specific material, please contact us.

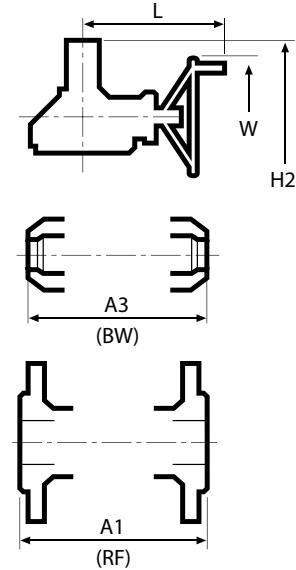
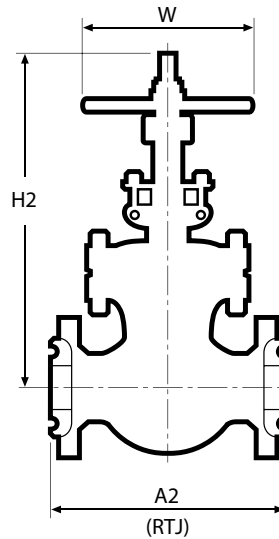
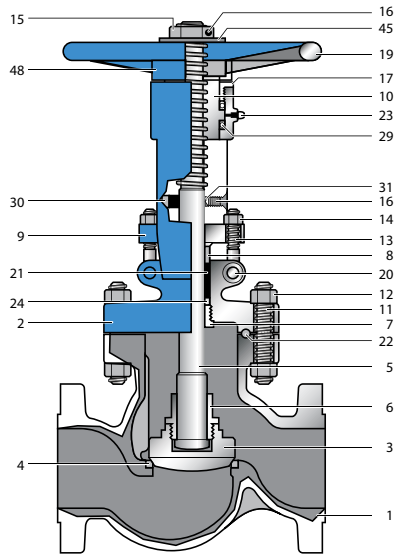
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## CAST GLOBE VALVES

### CAST & STAINLESS STEEL GLOBE VALVES

### CLASS 150 - 2500

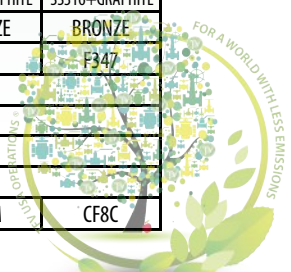
2" - 18"



#### BILL OF MATERIAL

NO	NAME OF PART	ASTM SPECIFICATION							
		CARBON STEEL	HIGH TEMPERATURE SERVICE			LOW TEMPERATURE SERVICE	STAINLESS STEEL		
1	BODY	A216-WCB	A217-WC6	A217-WC9	A217-C5	A352-LCB/LC2/LC3	CF8M	CF8C	
2	BONNET	A216-WCB	A217-WC6	A217-WC9	A217-C5	A352-LCB/LC2/LC3	CF8M	CF8C	
3	DISC	A216-WCB+13%Cr	A217-WC6+13%Cr	A217-WC9+13%Cr	A217-C5+13%Cr	A352-LCB/LC2/LC3	CF8M	CF8C	
4	BODY SEAT RING	A216-WCB+STL6	A217-WC6+STL6	A217-WC9+STL6	A217-C5+STL6	A182 F304	F316	F347	
5	STEM	A276 410	A276 410	A276 410	A276 410	A182 F304	F316	F347	
6	DISC GLAND	A276 410	A276 410	A276 410	A276 410	A182 F304	F316	F347	
7	BONNET BUSH	A276 410	A276 410	A276 410	A276 410	A276 304	F316	F347	
8	PACKING GLAND	A276 410	A276 410	A276 410	A276 410	A276 304	F316	F347	
9	GLAND FLANG	A105 or A216WCB	A105 or A216WCB	A105 or A216WCB	A105 or A216WCB	A360-LF2	CF8M	CF8C	
10	STEM NUT	A276 410 / A439 Gr D2C	A276 410 / A439 Gr D2C	A276 410 / A439 Gr D2C	A276 410 / A439 Gr D2C	B147 B8	F316	F347	
11	BONNET BOLT	A193 B7	A193 B16	A193 B16	A193 B16	A320 L7	A193 B8	A193 B8	
12	BONNET NUT	A194 2H	A194 4	A194 4	A194 4	A194 4	A194 8	A194 8	
13	GLAND BOLT	A193 B7	A193 B7	A193 B7	A193 B7	A320 L7	A193 B8	A193 B8	
14	GLAND NUT	A194 2H	A194 2H	A194 2H	A194 2H	A194 4	A194 8	A194 8	
15	HANDLE NUT	STEEL							
16	SET SCREW	STEEL							
17	SLEEVE GLAND	STEEL							
19	HANDWHEEL	A395 DI							
20	HINGE PIN	A276 410	A276 410	A276 410	A276 410	A276 304	F316	F347	
21	PACKING	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE	COMMERCIAL	GRAPHITE	GRAPHITE	
22	GASKET	SS304+GRAPHITE	SS304+GRAPHITE	SS304+GRAPHITE	SS304+GRAPHITE	COMMERCIAL	SS316+GRAPHITE	SS316+GRAPHITE	
23	GREASE NIPPLE	STEEL						BRONZE	BRONZE
24	LANTERN	A276 410	A276 410	A276 410	A276 410	A276 304	F316	F347	
29	BEARING	COMMERCIAL							
30	STOPPER	A283 D							
31	KEY	STEEL							
45	WASHER	STEEL							
48	IMPACT	A216 WCB	A217 WC6	A217 WC9	A217 C5	A352-LCB/LC2/LC3	CF8M	CF8C	

OTHER MATERIAL AVAILABLE UPON REQUEST INCLUDING NACE MR0175  
HARD FACE STANDARD STELLITE 6 (OTHER OPTIONS AVAILABLE UPON REQUEST)





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## CAST GLOBE VALVES

### CLASS 150 - CAST & STAINLESS STEEL GLOBE VALVES

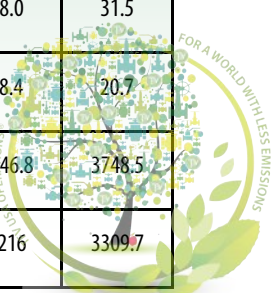
#### DIMENSIONS & WEIGHTS

VALVE SIZE	in	2	2.5	3	4	6	8	10	12	14	16	18
A1 (RF)	in	8.0	8.5	9.5	11.5	16.0	19.5	24.5	27.5	31.0	36.0	38.5
A2 (RTJ)	in											
A3 (BW)	in	8.0	8.5	9.5	11.5	16.0	19.5	24.5	27.5	31.0	36.0	38.5
H2	in	15.3	14.8	17.0	19.5	22.6	28.0	31.4	39.1	54.6	53.4	78.0
W	in	7.9	8.8	8.8	9.8	14.0	14.0	17.7	17.7	22.0	22.0	24.0
L	in	-	-	-	-	-	-	-	-	16.3	16.3	17.0
WGT (RF)	lb	44.1	77.2	88.2	123.5	229.3	401.3	650.5	904	1510	1985	3969.0
WGT (BW)	lb	33.1	66.2	70.6	90.4	183.0	330.8	496.1	728	1312	1764	3638.3

### CLASS 300 - CAST & STAINLESS STEEL GLOBE VALVES

#### DIMENSIONS & WEIGHTS

VALVE SIZE	in	2	2.5	3	4	6	8	10	12	14	16
A1 (RF)	in	10.5	11.5	12.5	14.0	17.5	22.0	24.5	28.0	39.0	42.0
A2 (RTJ)	in	11.12	12.12	13.12	14.62	18.12	22.62	25.12	28.62	39.62	42.62
A3 (BW)	in	10.5	11.5	12.5	14.0	17.5	22.0	24.5	28.0	39.0	42.0
H2	in	15.6	16.3	18.2	21.7	29.2	31.5	44.6	46.1	56.5	70.7
W	in	7.9	8.8	9.8	14.0	17.7	22.0	22.0	28.0	28.0	31.5
L	in	-	-	-	-	-	-	16.3	18.4	18.4	20.7
WGT (RF)	lb	70.6	92.6	141.0	220.5	419.0	595.4	1168.7	2240	2546.8	3748.5
WGT (BW)	lb	66.2	66.2	105.8	194.0	328.5	441	970.2	1997.7	2216	3309.7





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### CLASS 600 - CAST & STAINLESS STEEL GLOBE VALVES

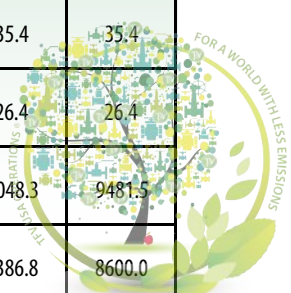
#### DIMENSIONS & WEIGHTS

VALVE SIZE	in	2	2.5	3	4	6	8	10	12	14	16
A1 (RF)	in	11.5	13.0	14.0	17.0	22.0	26.0	31.0	33.0	35.0	39.0
A2 (RTJ)	in	11.62	13.12	14.12	17.12	22.12	26.12	31.12	33.12	35.12	39.12
A3 (BW)	in	11.5	13.0	14.0	17.0	22.0	26.0	31.0	33.0	35.0	39.0
H2	in	16.0	19.8	19.9	22.4	29.9	51.8	59.5	69.9	70.9	76.0
W	in	8.8	9.8	11.0	14.0	17.7	28.0	31.5	35.4	35.4	35.4
L	in	-	-	-	-	-	18.4	20.7	26.4	26.4	26.4
WGT (RF)	lb	94.8	154.4	172.0	300.0	619.6	1301	2099	3528	5953.5	7938.0
WGT (BW)	lb	72.8	121.3	132.3	216.1	454.2	1125	1746	3263.4	5534.6	7386.8

### CLASS 900 - CAST & STAINLESS STEEL GLOBE VALVES

#### DIMENSIONS & WEIGHTS

VALVE SIZE	in	2	2.5	3	4	6	8	10	12	14	16
A1 (RF)	in	14.5	16.5	15.0	18.0	24.0	29.0	33.0	38.0	40.5	44.5
A2 (RTJ)	in	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	40.88	44.88
A3 (BW)	in	14.5	16.5	15.0	18.0	24.0	29.0	33.0	38.0	40.5	44.5
H2	in	27.4	27.3	30.5	33.7	50.7	65.6	63.0	67.1	87.0	103.1
W	in	15.7	15.7	15.7	15.7	22.0	31.5	31.5	35.4	35.4	35.4
L	in	-	-	-	-	16.3	20.7	20.7	26.4	26.4	26.4
WGT (RF)	lb	271.2	341.8	231.5	441	1101.5	2756.3	4520.3	5843.3	8048.3	9481.5
WGT (BW)	lb	205.1	264.6	196.2	335.2	903.2	2425.5	4123.4	5292.0	7386.8	8600.0





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### CLASS 1500 - CAST & STAINLESS STEEL GLOBE VALVES

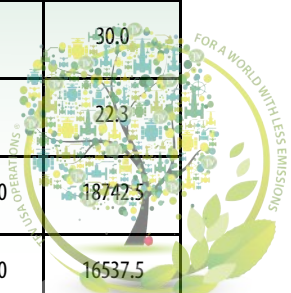
#### DIMENSIONS & WEIGHTS

VALVE SIZE	in	2	2.5	3	4	6	8	10	12	14	16
A1 (RF)	in	14.5	16.5	18.5	21.5	27.75	32.75	39.0	44.5	49.5	54.5
A2 (RTJ)	in	14.62	16.62	18.62	21.62	28.0	33.13	39.38	45.12	50.25	55.38
A3 (BW)	in	14.5	16.5	18.5	21.5	27.75	32.75	39.0	44.5	49.5	54.5
H2	in	27.4	27.3	31.5	40.0	53.0	77.2	91.0	105.1	126.0	160.0
W	in	15.7	15.7	19.7	19.7	28.0	28.0	30.0	30.0	30.0	30.0
L	in	-	-	-	-	18.4	18.4	20.2	20.2	22.3	22.3
WGT (RF)	lb	271.2	341.8	396.9	749.7	1482	4630.5	7056.0	9702.0	11907.0	14773.5
WGT (BW)	lb	205.1	264.6	297.7	621.8	1217.1	4190.0	6174.0	8379.0	10363.5	12789.0

### CLASS 2500 - CAST & STAINLESS STEEL GLOBE VALVES

#### DIMENSIONS & WEIGHTS

VALVE SIZE	in	2	2.5	3	4	6	8	10	12
A1 (RF)	in	17.75	20.0	22.75	26.5	36.0	40.25	50.0	56.0
A2 (RTJ)	in	17.87	20.25	23.0	26.88	36.5	40.87	50.88	56.88
A3 (BW)	in	17.75	20.0	22.75	26.5	36.0	40.25	50.0	56.0
H2	in	28.3	31.5	34.8	50.0	75.0	97.0	110.2	138.0
W	in	15.7	19.7	19.7	24.0	24.0	30.0	30.0	30.0
L	in	-	-	-	20.2	17.0	22.3	22.3	22.3
WGT (RF)	lb	419.0	661.5	771.8	1852.2	5071.5	10584.0	14994.0	18742.5
WGT (BW)	lb	352.8	529.2	617.4	1521.5	4410.0	9702.0	13230.0	16537.5





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## CAST GLOBE VALVES

### HOW TO ORDER

VALVE TYPE			FEATURES	MATERIAL		ENDS	CLASS	SIZE <sup>(4)</sup>	OPERATION							
Body Design (Series)	Bonnet Design	Wedge/Disc Design		BODY	TRIM <sup>(6)</sup> (Seat Ring / Disc Seat / Stem)											
60	B Bolted Bonnet	C Conical Std Plug	NONE	20	A216 WCB	01	BM+13%Cr	F	Flanged RF	0	ANSI 150#	02	2"	H	Handwheel	
			NONE	21	A216 WCC	01	BM+13%Cr BM+13%Cr (410 or 13Cr)	3	ANSI 300#	02.5	2 1/2"					
61	W Welded Bonnet	G Guide Plug	N	22	A350 LCB <sup>(1)</sup>	02	304SS	R	Flanged RTJ	6	ANSI 600#	03	3"	G	Gear Operator	
			MR0175	23	A352 LC3 <sup>(1)</sup>	05	BM+STL6/ BM+STL6/ (410 or 13Cr)	9	ANSI 900#	04	4"					
64		O Soft Seated Plug	F	24	A217 WC1	06	BM+13Cr/ Monel/ BM+13Cr	B	Butt Weld	1	ANSI 1500#	05	5"	E	Electric Actuator	
65			O	25	A217 WC6 <sup>(2)</sup>	08	BM+13Cr/ BM+STL6/ (410 or 13Cr)	2	ANSI 2500#	06	6"	08	8"			
69			FE	26	A217 WC9 <sup>(2)</sup>	09	Monel			10	ANSI 1500#	10	10"	P	Pneumatic Actuator	
			BS	27	A217 C5 <sup>(2)</sup>	10	316 SS			12	ANSI 1500#	12	12"			
			CR	28	A217 C12 <sup>(1)</sup>	11	Monel			14	ANSI 1500#	14	14"	B	Bare Shaft	
			LD	30	A351 CF8M <sup>(3)</sup>	13	CN7M/CN7M/ B473			16	ANSI 1500#	16	16"			
			SC	31	A351 CF3M <sup>(3)</sup>	14	CN7M/ CN7M+STL6/ B473			18	ANSI 1500#	18	18"			
				32	A351 CF8 <sup>(3)</sup>	15	304SS+STL6/ 304SS+STL6/ 304SS									
				40	Monel	16	316SS+STL6/ 316SS+STL6/ 316SS									
				41	Alloy 20	17	347+STL6/ 347+STL6/ 347									
				42	Hastelloy	18	CN7M+STL6/ CN7M+STL6/ B473									
				43	A182 Gr321											
				44	A182 Gr347											
				45	Duplex											
				46	Triballoy 900											
				47	Triballoy 800											
				48	Triballoy 825											

### Example

Globe Valve OS&Y API 623, Bolted Bonnet Standard Plug, Body WCB, Trim 5, Flanged ANSI Class 150# Size 6" with Handwheel

**60BC-2005-F006H**

- (1) Low temperature Service
- (2) High temperature Service
- (3) Stainless Steel
- (4) Available Sizes: ANSI Class 150# - from 2" to 18"  
300, 600, 900 & 1500# - from 2" to 16"  
2500# - from 2" to 12"
- (5) Series 63 & 64 are Bolted Bonnet design only
- (6) BM = Body Matreial

