



# Globe Valves Type Bolted Bonnet

## Class 150 DN 50-600 (2" – 24")

### Carbon, Alloy and Stainless Steel



## Fig. VG150BB

**Design:**

**BS 1873, ASME B16.34 and MSS SP- 42**

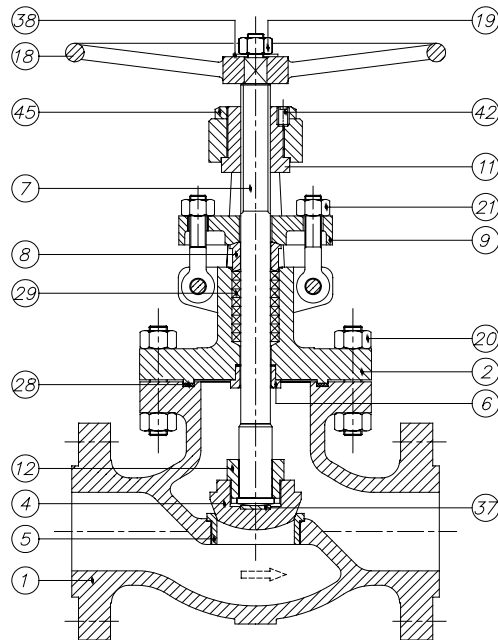




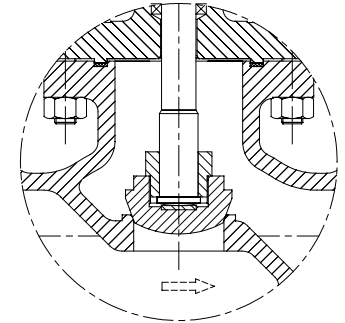
# Globe Valves Class 150

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### Parts and materials



**Stainless Steel  
Construction**



#### Trim Material

API 600 Trim No.	Stem / Backseat	Seating Surface Body / Wedge
1	13% Cr	13% Cr
2	SS 304	SS 304
3	SS310	SS310
4	13% Cr	13% Cr (Hard)
5 or 5A	13% Cr	HF
6	13% Cr	13% Cr / Cu Ni
7	13% Cr	13% Cr / 13% Cr (Hard)
8 or 8A	13% Cr	HF / 13% Cr
9	Monel	Monel
10	SS 316	SS 316
11 or 11A	Monel	HF / Monel
12 or 12A	SS 316	HF / SS 316
13	Alloy 20	Alloy 20
14 or 14A	Alloy 20	HF / Alloy 20

*HF: Hard Facing using Co Cr welding alloy (Stellite)*

Item	Description	Material			
		Carbon Steel	Carbon Steel (Low Temp.)	Alloy Steel	Stainless Steel
1	Body	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
2	Bonnet	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
4	Disc	A105 + ER 410	A 182 Gr.F304	A 217 Gr.C5 + ER 410	A 351 Gr.CF8M
5	Seat Ring	A105 + Stellite	A 182 Gr.F304	A182 Gr.F6a + Stellite	----
6	Backseat	A182 Gr.F6a	A 182 Gr.F304	A182 Gr.F6a	----
7	Stem	A182 Gr.F6a	A 182 Gr.F304	A182 Gr.F6a	A 182 Gr.F316
8	Gland	A 105	A 105	A182 Gr. F6a	A 182 Gr.F316
9	Gland Flange	A 105	A 105	A 105	A 182 Gr.F304
11	Stem Nut	B 148 / A 439 Gr.D2	B 148 / A 439 Gr.D2	B 148 / A 439 Gr.D2	B 148 / A 439 Gr.D2
12	Disc Nut	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
18	Handw heel	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
19	Handw heel Nut	Steel	Steel	Steel	Steel
20	Bonnet Bolt & Nut	A 193 Gr.B7 / A 194 Gr.2H	A 193 Gr.B7 / A 194 Gr.2H	A 193 Gr.B7 / A 194 Gr.2H	A 193 Gr.B7 / A 194 Gr.2H
21	Eye Bolt & Nut	A 193 Gr.B7 / A 194 Gr.2H	A 193 Gr.B7 / A 194 Gr.2H	A 193 Gr.B7 / A 194 Gr.2H	A 193 Gr.B7 / A 194 Gr.2H
28	Gasket	SPW S.S. 304 / Graphited	SPW S.S. 304 / Graphited	SPW S.S. 304 / Graphited	SPW S.S. 316 / Graphited
29	Gland Packing	Graphited	Graphited	Graphited	Graphited
37	Thrust Washer	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
38	Washer	Steel	Steel	Steel	Steel
42	Grub Screw	A 193 Gr.B7	A 193 Gr.B7	A 193 Gr.B7	A 193 Gr.B7
45	Lock Nut	Steel	Steel	A 182 Gr.F6a	A 182 Gr.F316

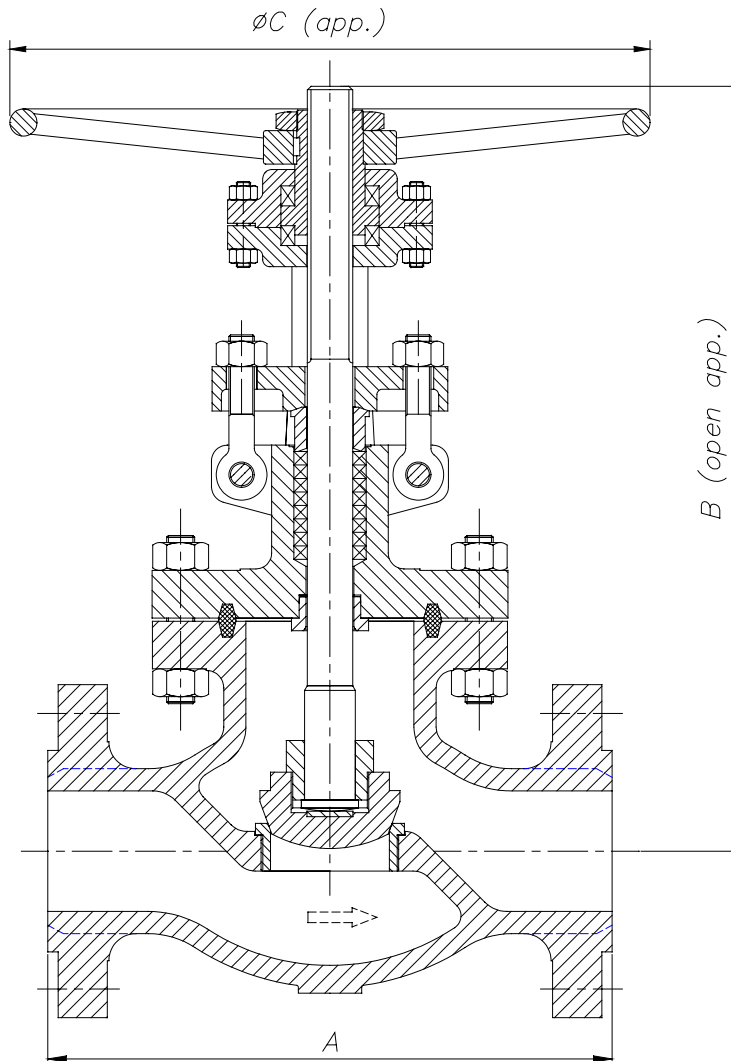
*Item 5 and 6 only in Carbon Steel and Alloy Steel construction*



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### Dimensions



DN	A (RF/BW)	B	ØC	WEIGHT
50 (2")	203	320	200	20
65 (2½")	216	330	200	30
80 (3")	241	380	250	38
100 (4")	292	480	300	57
125 (5")	356	525	300	75
150 (6")	406	575	350	98
200 (8")	495	650	450	155
250 (10")	622	780	500	225
300 (12")	698	935	600	360
350 (14")	787	1185	700	580
400 (16")	914	1250	750	800
450 (18")	978	1350	800	910
500 (20")	978	1410	800	1100
550 (22")	1067	1525	850	1300
600 (24")	1295	1650	900	1450

(\*) Dimensions in mm and weight in kg.



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### General Characteristics, Cv, P&T Rating

GENERAL CHARACTERISTICS		Fig. VG150BB		
<b>DESIGN STANDARDS</b>				
Valves design	BS 1873	ASME B16.34	MSS SP- 42	
End to End Dimensions	ASME B16.10 & ISO 5752			
Flanged Dimensions	ASME B16.5 & ISO 7005-1 Part. 1	ASME B16.47	BS 3293	MSS SP-44
Buttweld Dimensions	ASME B16.25			
Visual Inspection	MSS SP- 55			
Marking	MSS SP-25 & ISO 5209			
<b>TESTS AND CERTIFICATES</b>				
Pressure testing	API 598 & ISO 5208	BS 6755 Part. 1	MSS SP-61	

#### Cv Values in U.S. Gallons/min.

DN	Cv	DN	Cv
50 (2")	55	300 (12")	1900
65 (2½")	80	350 (14")	2350
80 (3")	105	400 (16")	3300
100 (4")	190	450 (18")	4250
125 (5")	305	500 (20")	5350
150 (6")	425	550 (22")	6500
200 (8")	790	600 (24")	7600
250 (10")	1250		

#### Pressure-Temperature (STANDARD CLASS According to ASME B16.34)

Temp °C	MATERIAL			
	A216 WCB Bar	A352 LCB Bar	A217 C5 Bar	A351 CF8M Bar
-29 to 38	19,6	18,3	20,0	18,9
95	17,9	17,2	17,9	16,2
150	15,8	15,8	15,8	14,8
205	13,8	13,8	13,8	13,4
260	11,7	11,7	11,7	11,7
315	9,6	9,6	9,6	9,6
345	8,6	8,6	8,6	8,6
375	7,6		7,6	7,6
400	6,5		6,5	6,5
425	5,5		5,5	5,5
450	4,5		4,5	4,5
485	3,4		3,4	3,4
510	2,4		2,4	2,4
540	1,4		1,4	1,4
565			1,4 *	1,4 *
595			1,4 *	1,4 *
620			1,4 *	1,4 *
650			1,4 *	1,4 *
675				1,4 *
705				1,4 *
735				1,4 *
760				1,4 *
790				1,4 *
815				1,4 *

\* FOR WELD END VALVES ONLY. FLANGED END RATINGS TERMINATE AT 540°C