



**Globe Valves Type Bolted Bonnet**  
**Class 150 DN 50-400 (2" – 16")**  
**Carbon, Alloy and Stainless Steel**



## **Fig. VG150BB**

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

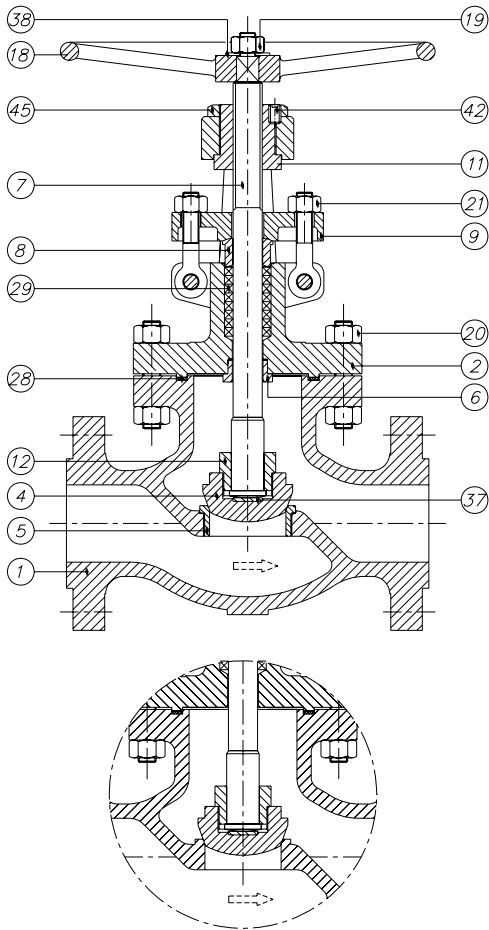




# Globe Valves Class 150

## Type Bolted Bonnet

### Parts and materials



#### Trim Material

API 600 Trim No.	Nominal Trim	Stem / Backseat (1)	Seating Surface Body / Wedge
1	F6	13Cr	13Cr
2	304	18Cr-8Ni	18Cr-8Ni
3	F310	25Cr-20Ni	25Cr-20Ni
4	Hard F6	13Cr	Hard 13Cr
5	Hardfaced	13Cr	Co-Cr A (2)
5A	Hardfaced	13Cr	Ni-Cr
6	F6 and Cu-Ni	13Cr	13Cr and Cu-Ni
7	F6 and Hard F6	13Cr	13Cr and Hard 13Cr
8	F6 and Hardfaced	13Cr	13Cr and Co-Cr A (2)
8A	F6 and Hardfaced	13Cr	13Cr and Ni-Cr
9	Monel	Ni-Cu Alloy	Ni-Cu Alloy
10	316	18Cr-8Ni-Mo	18Cr-8Ni-Mo
11	Monel and Hardfaced	Ni-Cu Alloy	Ni-Cu Alloy and Trim 5 or 5A
12	316 and Hardfaced	18Cr-8Ni-Mo	18Cr-8Ni-Mo and Trim 5 or 5A
13	Alloy 20	19Cr-29Ni	19Cr-29Ni
14	Alloy 20 and Hardfaced	19Cr-29Ni	19Cr-29Ni and Trim 5 or 5A
15	Hardfaced	18Cr-8Ni	Co-Cr A (2)
16	Hardfaced	18Cr-8Ni-Mo	Co-Cr A (2)
17	Hardfaced	18Cr-10Ni-Cb	Co-Cr A (2)
18	Hardfaced	19Cr-29Ni	Co-Cr A (2)

(1) „„and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

#### Stainless Steel Construction

Item	Description	Material of construction*			
		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	A 105 + 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 (3)
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	S.S. 304 / Graphite	S.S. 304 / Graphite	S.S. 304 / Graphite	S.S. 316 / Graphite
29	Stem Packing	Graphite	Graphite	Graphite	Graphite
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

(3) Zinc coating

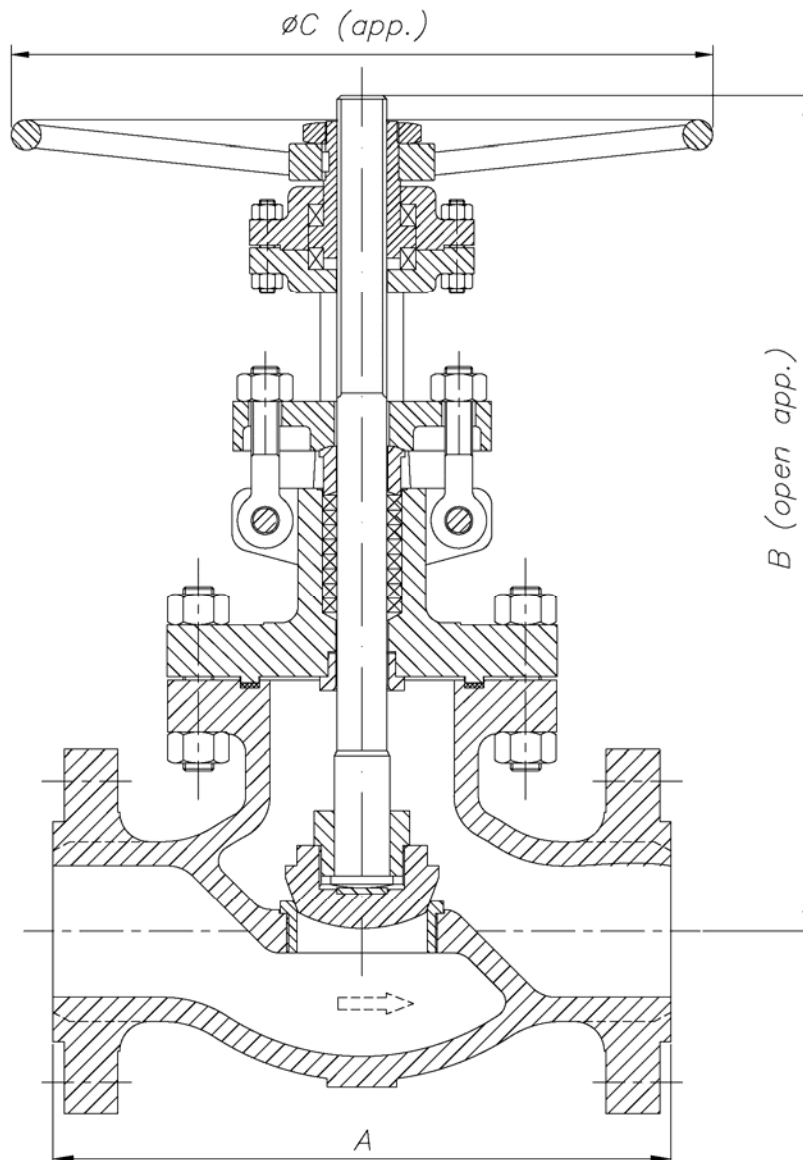
\* Standard constructions with Trim 8, 2 and 10, other options are available



# Globe Valves Class 150

## Type Bolted Bonnet

### Dimensions



DN	A (RF/BW)	B	ØC	WEIGHT
50 (2")	203	341	200	22
65 (2½")	216	367	250	29
80 (3")	241	375	250	40
100 (4")	292	483	300	64
125 (5")	356	537	300	77
150 (6")	406	517	350	105
200 (8")	495	590	400	154
250 (10")	622	754	450	288
300 (12")	698	941	640	507
350 (14")	787	1085	640	520
400 (16")	914	1250	460	810

(\*) Dimensions in mm and weight in kg  
For other sizes consult to the technical department.



# Globe Valves Class 150

## Type Bolted Bonnet

### 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	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	EN 12266-1	MSS SP-61
Other	ATEX, CE		

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

DN	Cv	DN	Cv
50 (2")	55	200 (8")	790
65 (2½")	80	250 (10")	1250
80 (3")	105	300 (12")	1900
100 (4")	190	350 (14")	2350
125 (5")	305	400 (16")	3300
150 (6")	425		

#### 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

\*\* A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.

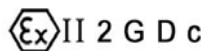


**Globe Valves Type Bolted Bonnet**  
**Class 300 DN 50-300 (2" – 12")**  
**Carbon, Alloy and Stainless Steel**



## **Fig. VG300BB**

**Design:**  
**BS 1873 and ASME B16.34**

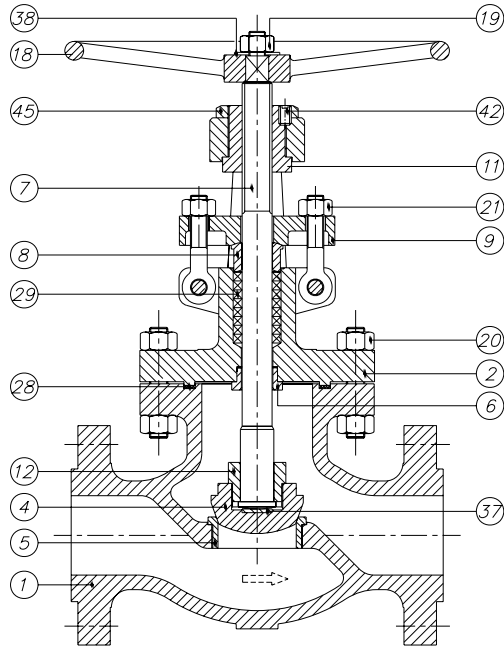




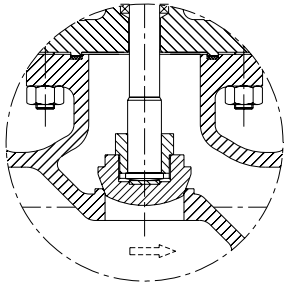
# Globe Valves Class 300

## Type Bolted Bonnet

### Parts and materials



**Stainless Steel Construction**



#### Trim Material

API 600 Trim No.	Nominal Trim	Stem / Backseat (1)	Seating Surface Body / Wedge
1	F6	13Cr	13Cr
2	304	18Cr-8Ni	18Cr-8Ni
3	F310	25Cr-20Ni	25Cr-20Ni
4	Hard F6	13Cr	Hard 13Cr
5	Hardfaced	13Cr	Co-Cr A (2)
5A	Hardfaced	13Cr	Ni-Cr
6	F6 and Cu-Ni	13Cr	13Cr and Cu-Ni
7	F6 and Hard F6	13Cr	13Cr and Hard 13Cr
8	F6 and Hardfaced	13Cr	13Cr and Co-Cr A (2)
8A	F6 and Hardfaced	13Cr	13Cr and Ni-Cr
9	Monel	Ni-Cu Alloy	Ni-Cu Alloy
10	316	18Cr-8Ni-Mo	18Cr-8Ni-Mo
11	Monel and Hardfaced	Ni-Cu Alloy	Ni-Cu Alloy and Trim 5 or 5A
12	316 and Hardfaced	18Cr-8Ni-Mo	18Cr-8Ni-Mo and Trim 5 or 5A
13	Alloy 20	19Cr-29Ni	19Cr-29Ni
14	Alloy 20 and Hardfaced	19Cr-29Ni	19Cr-29Ni and Trim 5 or 5A
15	Hardfaced	18Cr-8Ni	Co-Cr A (2)
16	Hardfaced	18Cr-8Ni-Mo	Co-Cr A (2)
17	Hardfaced	18Cr-10Ni-Cb	Co-Cr A (2)
18	Hardfaced	19Cr-29Ni	Co-Cr A (2)

(1) ...and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

Item	Description	Material of construction*			
		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	A 105 + ER 410	A 182 Gr.F304	A 217 Gr.C5 + ER 410	A 351 Gr.CF8M
5	Seat Ring	A 105 + Stellite	A 182 Gr.F304	A 182 Gr.F6a + Stellite	-----
6	Backseat	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	-----
7	Stem	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
8	Gland	A 105	A 105	A 182 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 (3)
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 / Graphite	SPW S.S. 304 / Graphite	SPW S.S. 304 / Graphite	SPW S.S. 316 / Graphite
29	Stem Packing	Graphite	Graphite	Graphite	Graphite
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

(3) Zinc coating

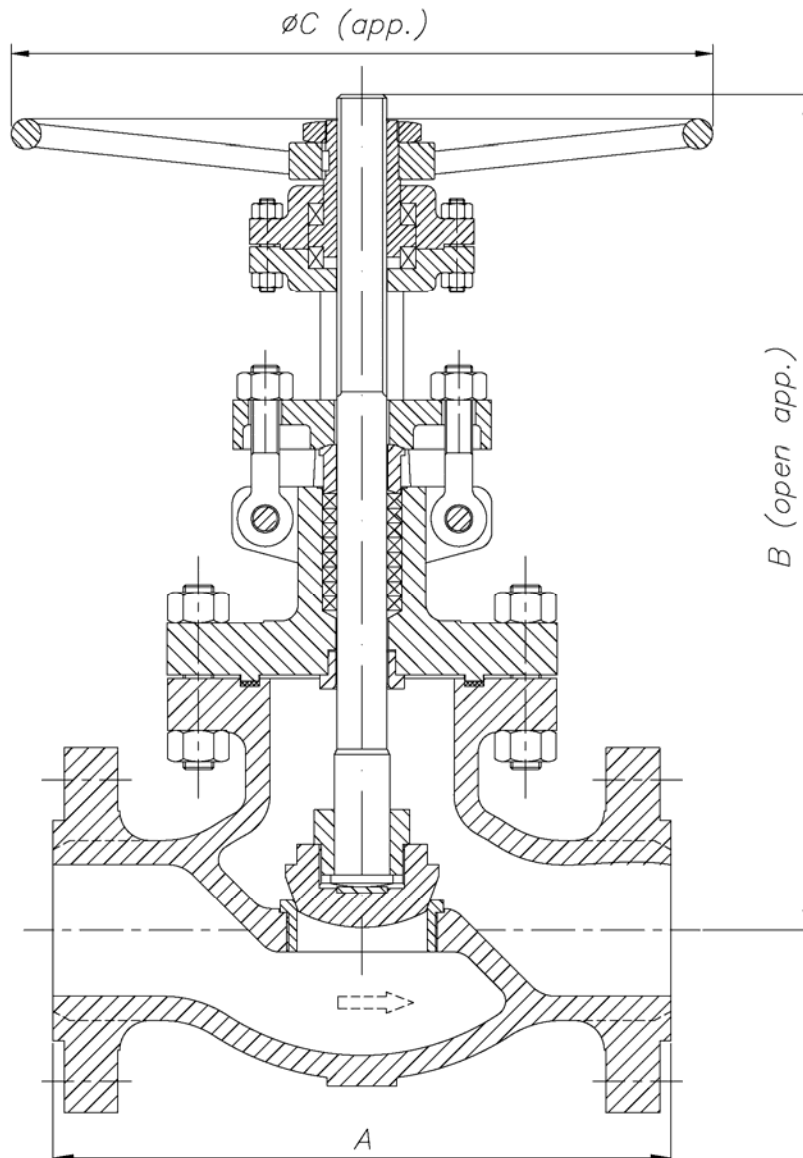
\* Standard constructions with Trim 8, 2 and 10, other options are available



# Globe Valves Class 300

## Type Bolted Bonnet

### Dimensions



DN	A (RF/BW)	B	ØC	WEIGHT
50 (2")	267	349	200	31
65 (2½")	292	376	250	43
80 (3")	318	430	250	57
100 (4")	356	486	350	86
125 (5")	400	560	400	130
150 (6")	444	618	450	168
200 (8")	559	937	560	280
250 (10")	622	949	640	385
300 (12")	711	995	460	671

(\*) Dimensions in mm and weight in kg  
For other sizes consult to the technical department.



# Globe Valves Class 300

## Type Bolted Bonnet

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

<b>GENERAL CHARACTERISTICS</b>	Fig. VG300BB		
<b>DESIGN STANDARDS</b>			
Valves design	BS 1873	ASME B16.34	
End to End Dimensions	ASME B16.10 & ISO 5752		
Flanged Dimensions	ASME B16.5 & ISO 7005-1 Part. 1	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	EN 12266-1	MSS SP-61
Other	ATEX, CE		

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

DN	Cv	DN	Cv
50 (2")	55	150 (6")	425
65 (2½")	80	200 (8")	790
80 (3")	105	250 (10")	1250
100 (4")	190	300 (12")	1900
125 (5")	305		

#### 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	51,0	47,9	51,7	49,6
95	46,5	45,1	51,3	42,7
150	45,1	44,1	49,3	38,6
205	43,8	42,7	48,6	35,5
260	41,3	40,3	45,8	33,1
315	37,9	36,9	41,7	31,0
345	36,9	36,2	40,7	30,7
375	36,9		39,3	29,6
400	34,8		36,5	29,3
425	28,2		35,1	28,9
450	18,6		33,4	28,9
485	11,7		25,5	28,6
510	7,2		18,9	26,5
540	3,4		13,8	24,1
565			10,0 *	23,8 *
595			6,9 *	21,0 *
620			4,1 *	16,2 *
650			2,4 *	12,7 *
675				10,0 *
705				7,9 *
735				6,5 *
760				5,2 *
790				4,1 *
815				2,8 *

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

\*\* A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.



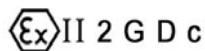


**Globe Valves Type Bolted Bonnet**  
**Class 600 DN 50-300 (2" – 12")**  
 Carbon, Alloy and Stainless Steel



## Fig. VG600BB

**Design:**  
**BS 1873 and ASME B16.34**

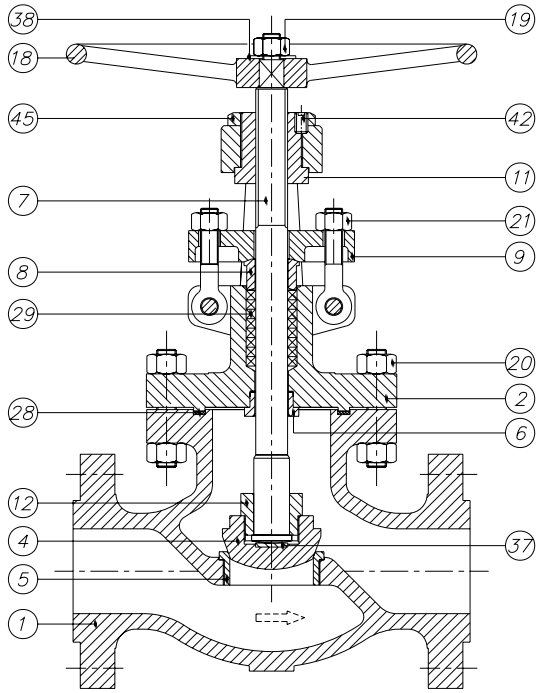




# Globe Valves Class 600

## Type Bolted Bonnet

### Parts and materials



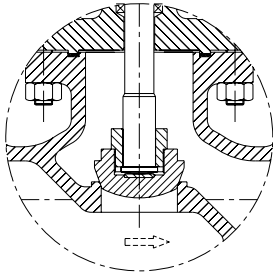
#### Trim Material

API 600 Trim No.	Nominal Trim	Stem / Backseat (1)	Seating Surface Body / Wedge
1	F6	13Cr	13Cr
2	304	18Cr-8Ni	18Cr-8Ni
3	F310	25Cr-20Ni	25Cr-20Ni
4	Hard F6	13Cr	Hard 13Cr
5	Hardfaced	13Cr	Co-Cr A (2)
5A	Hardfaced	13Cr	Ni-Cr
6	F6 and Cu-Ni	13Cr	13Cr and Cu-Ni
7	F6 and Hard F6	13Cr	13Cr and Hard 13Cr
8	F6 and Hardfaced	13Cr	13Cr and Co-Cr A (2)
8A	F6 and Hardfaced	13Cr	13Cr and Ni-Cr
9	Monel	Ni-Cu Alloy	Ni-Cu Alloy
10	316	18Cr-8Ni-Mo	18Cr-8Ni-Mo
11	Monel and Hardfaced	Ni-Cu Alloy	Ni-Cu Alloy and Trim 5 or 5A
12	316 and Hardfaced	18Cr-8Ni-Mo	18Cr-8Ni-Mo and Trim 5 or 5A
13	Alloy 20	19Cr-29Ni	19Cr-29Ni
14	Alloy 20 and Hardfaced	19Cr-29Ni	19Cr-29Ni and Trim 5 or 5A
15	Hardfaced	18Cr-8Ni	Co-Cr A (2)
16	Hardfaced	18Cr-8Ni-Mo	Co-Cr A (2)
17	Hardfaced	18Cr-10Ni-Cb	Co-Cr A (2)
18	Hardfaced	19Cr-29Ni	Co-Cr A (2)

(1) ...and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

**Stainless Steel Construction**



Item	Description	Material of construction*			
		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	A 105 + ER 410	A 182 Gr.F304	A 217 Gr.C5 + ER 410	A 351 Gr.CF8M
5	Seat Ring	A 105 + Stellite	A 182 Gr.F304	A 182 Gr.F6a + Stellite	----
6	Backseat	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	----
7	Stem	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
8	Gland	A 105	A 105	A 182 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(3)
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 / Graphite	SPW S.S. 304 / Graphite	SPW S.S. 304 / Graphite	SPW S.S. 316 / Graphite
29	Stem Packing	Graphite	Graphite	Graphite	Graphite
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

(3) Zinc coating

\* Standard constructions with Trim 8, 2 and 10, other options are available

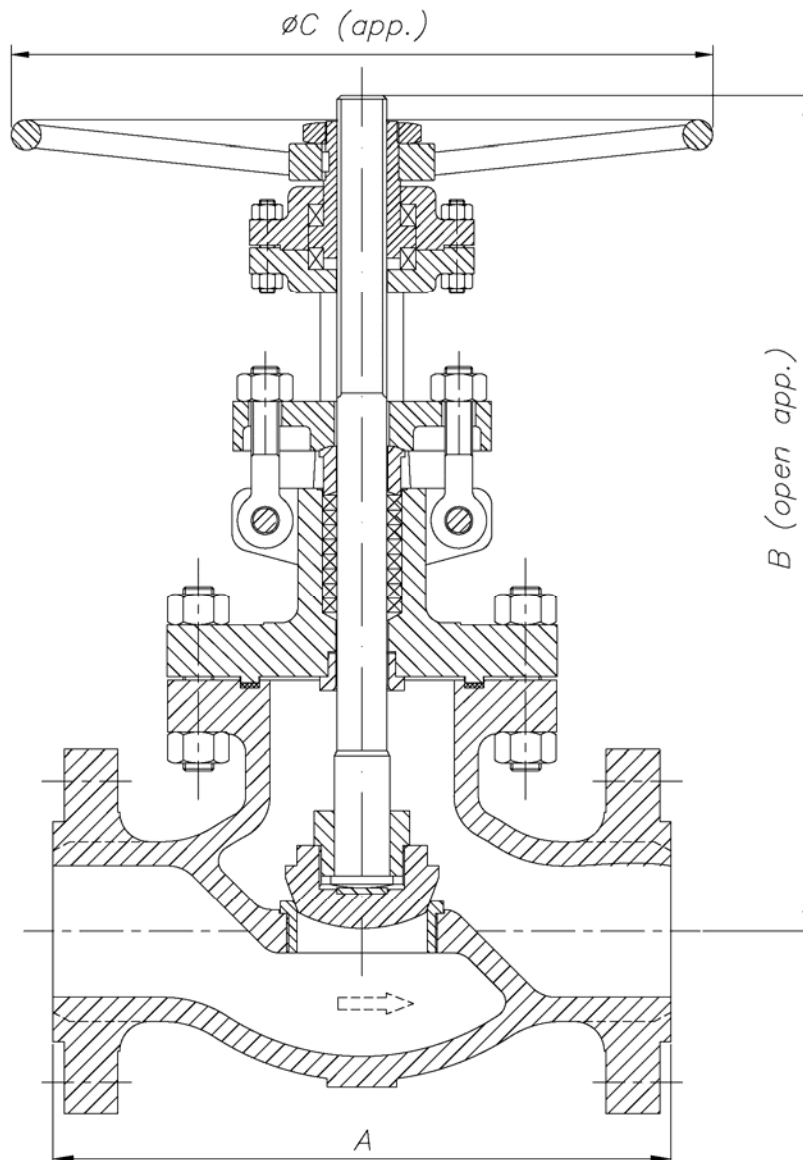




# JC® Globe Valves Class 600

## Type Bolted Bonnet

### Dimensions



DN	A (RF/BW)	B	øC	WEIGHT
50 (2")	292	425	250	35
65 (2½")	330	502	300	48
80 (3")	356	521	350	73
100 (4")	432	620	450	117
125 (5")	508	756	500	245
150 (6")	559	886	560	327
200 (8")	660	932	460	482
250 (10")	787	1040	610	700
300 (12")	838	1280	760	900

(\*) Dimensions in mm and weight in kg  
For other sizes consult to the technical department.



# JC® Globe Valves Class 600

## Type Bolted Bonnet

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

<b>GENERAL CHARACTERISTICS</b>	Fig. VG600BB			
<b>DESIGN STANDARDS</b>				
Valves design	BS 1873	ASME B16.34		
End to End Dimensions	ASME B16.10 & ISO 5752			
Flanged Dimensions	ASME B16.5 & ISO 7005-1 Part. 1	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	EN 12266-1	MSS SP-61	
Other	ATEX, CE			

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

DN	Cv	DN	Cv
50 (2")	55	150 (6")	425
65 (2½")	80	200 (8")	790
80 (3")	105	250 (10")	1200
100 (4")	190	300 (12")	1850
125 (5")	305		

#### 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	102,0	95,8	103,4	99,2
95	93,0	90,6	102,7	85,4
150	90,6	87,8	98,5	77,2
205	87,5	85,1	87,1	70,6
260	82,7	80,3	91,6	65,8
315	75,4	73,4	83,4	62,0
345	74,1	72,0	81,0	61,3
375	73,4		78,2	59,9
400	69,6		72,7	58,9
425	56,8		69,9	58,2
450	36,9		66,5	57,5
485	23,8		51,0	57,2
510	14,1		37,9	53,4
540	7,2		27,6	48,2
565			20,0 *	47,2 *
595			13,8 *	42,0 *
620			8,6 *	32,7 *
650			4,8 *	25,5 *
675				20,3 *
705				16,2 *
735				13,1 *
760				10,3 *
790				7,9 *
815				5,9 *

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

\*\* A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.



**Globe Valves Type Bolted Bonnet**  
**Class 900 DN 50-200 (2" – 8")**  
 Carbon, Alloy and Stainless Steel



## **Fig. VG900BB**

**Design:**  
**BS 1873 and ASME B16.34**

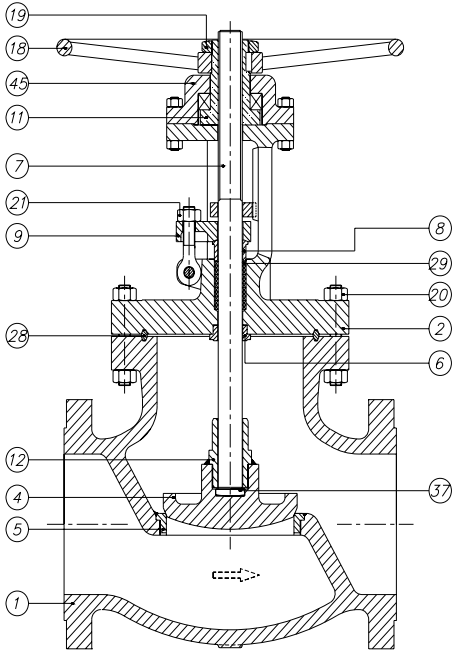




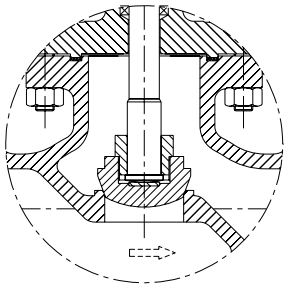
# JC® Globe Valves Class 900

## Type Bolted Bonnet

### Parts and materials



**Stainless Steel Construction**



#### Trim Material

API 600 Trim No.	Nominal Trim	Stem / Backseat (1)	Seating Surface Body / Wedge
1	F6	13Cr	13Cr
2	304	18Cr-8Ni	18Cr-8Ni
3	F310	25Cr-20Ni	25Cr-20Ni
4	Hard F6	13Cr	Hard 13Cr
5	Hardfaced	13Cr	Co-Cr A (2)
5A	Hardfaced	13Cr	Ni-Cr
6	F6 and Cu-Ni	13Cr	13Cr and Cu-Ni
7	F6 and Hard F6	13Cr	13Cr and Hard 13Cr
8	F6 and Hardfaced	13Cr	13Cr and Co-Cr A (2)
8A	F6 and Hardfaced	13Cr	13Cr and Ni-Cr
9	Monel	Ni-Cu Alloy	Ni-Cu Alloy
10	316	18Cr-8Ni-Mo	18Cr-8Ni-Mo
11	Monel and Hardfaced	Ni-Cu Alloy	Ni-Cu Alloy and Trim 5 or 5A
12	316 and Hardfaced	18Cr-8Ni-Mo	18Cr-8Ni-Mo and Trim 5 or 5A
13	Alloy 20	19Cr-29Ni	19Cr-29Ni
14	Alloy 20 and Hardfaced	19Cr-29Ni	19Cr-29Ni and Trim 5 or 5A
15	Hardfaced	18Cr-8Ni	Co-Cr A (2)
16	Hardfaced	18Cr-8Ni-Mo	Co-Cr A (2)
17	Hardfaced	18Cr-10Ni-Cb	Co-Cr A (2)
18	Hardfaced	19Cr-29Ni	Co-Cr A (2)

(1) ...and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

Item	Description	Material of construction*			
		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	A 105 + ER 410	A 182 Gr.F304	A 217 Gr.C5 + ER 410	A 351 Gr.CF8M
5	Seat Ring	A 105 + Stellite	A 182 Gr.F304	A 182 Gr.F6a + Stellite	-----
6	Backseat	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	-----
7	Stem	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
8	Gland	A 105	A 105	A 182 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	Handwheel	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
19	Handwheel 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(3)
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	Soft Iron	SS 304	SS 304	SS 316
29	Stem Packing	Graphite	Graphite	Graphite	Graphite
37	Thrust Washer	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
45	Lock Nut	Steel	Steel	A 182 Gr.F6a	A 182 Gr.F316

(3) Zinc coating

\* Standard constructions with Trim 8, 2 and 10, other options are available

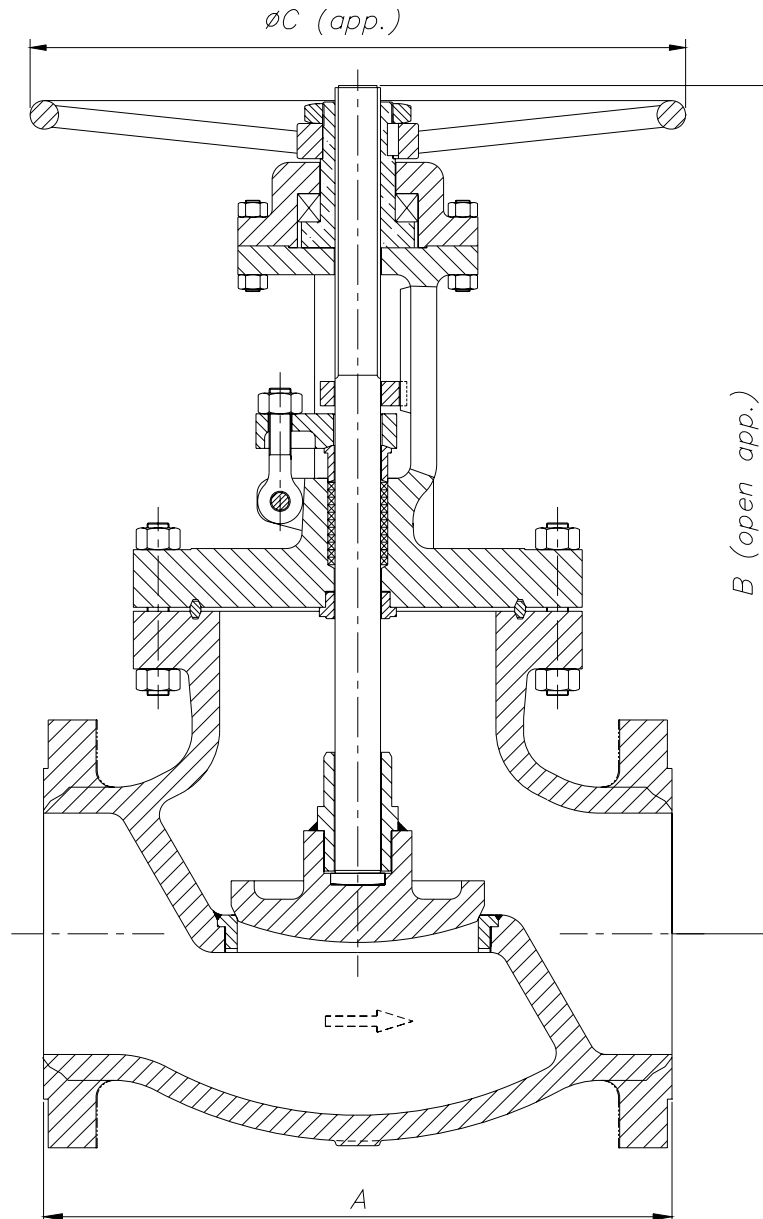




# JC® Globe Valves Class 900

## Type Bolted Bonnet

### Dimensions



DN	A (RF/BW)	B	øC	WEIGHT
50 (2")	368	478	350	105
65 (2½")	419	550	350	120
80 (3")	381	614	450	131
100 (4")	457	789	560	218
125 (5")	559	825	560	235
150 (6")	610	886	460	452
200 (8")	737	932	610	710

(\*) Dimensions in mm and weight in kg  
For other sizes consult to the technical department.



# Globe Valves Class 900

## Type Bolted Bonnet

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

<b>GENERAL CHARACTERISTICS</b>	Fig. VG900BB		
<b>DESIGN STANDARDS</b>			
Valves design	BS 1873	ASME B16.34	
End to End Dimensions	ASME B16.10 & ISO 5752		
Flanged Dimensions	ASME B16.5 & ISO 7005-1 Part. 1	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	EN 12266-1	MSS SP-61
Other	ATEX, CE		

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

DN	Cv	DN	Cv
50 (2")	45	125 (5")	280
65 (2½")	70	150 (6")	400
80 (3")	90	200 (8")	700
100 (4")	150		

#### 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	153,0	143,7	155,0	148,8
95	139,5	135,7	154,0	128,2
150	135,7	131,9	148,1	115,8
205	130,9	127,5	145,7	106,1
260	123,7	120,2	137,5	98,9
315	113,0	110,2	125,1	93,4
345	110,9	108,2	121,6	91,6
375	110,2		117,5	89,9
400	104,0		109,2	88,2
425	85,1		105,1	87,2
450	55,5		99,9	86,5
485	35,5		76,5	85,8
510	21,4		56,8	79,9
540	10,7		41,0	72,3
565			29,6 *	71,0 *
595			20,7 *	63,0 *
620			12,7 *	48,9 *
650			7,2 *	38,2 *
675				30,3 *
705				24,1 *
735				20,0 *
760				15,5 *
790				12,1 *
815				8,6 *

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

\*\* A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.





**Globe Valves Type Bolted Bonnet**  
**Class 1500 DN 50-200 (2" – 8")**  
 Carbon, Alloy and Stainless Steel



## Fig. VG1500BB

**Design:**  
**BS 1873 and ASME B16.34**

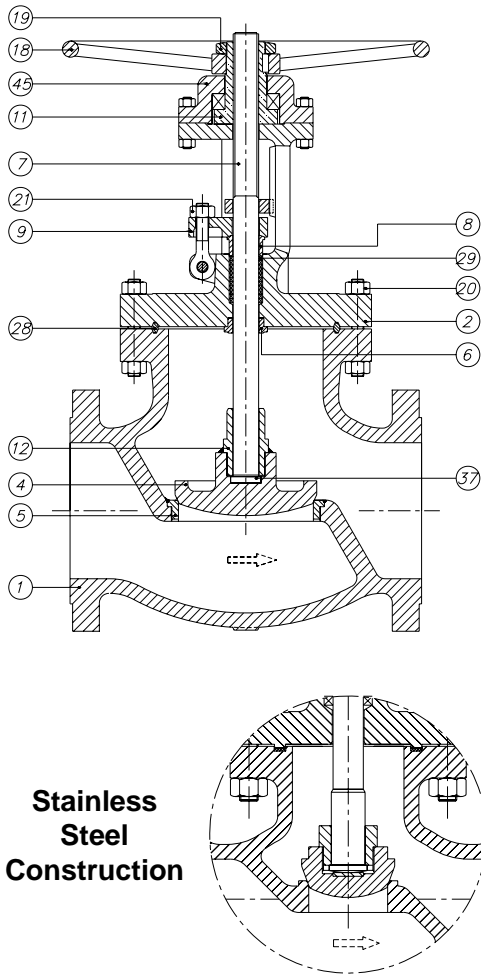




# Globe Valves Class 1500

## Type Bolted Bonnet

### Parts and materials



#### Trim Material

API 600 Trim No.	Nominal Trim	Stem / Backseat (1)	Seating Surface Body / Wedge
1	F6	13Cr	13Cr
2	304	18Cr-8Ni	18Cr-8Ni
3	F310	25Cr-20Ni	25Cr-20Ni
4	Hard F6	13Cr	Hard 13Cr
5	Hardfaced	13Cr	Co-Cr A (2)
5A	Hardfaced	13Cr	Ni-Cr
6	F6 and Cu-Ni	13Cr	13Cr and Cu-Ni
7	F6 and Hard F6	13Cr	13Cr and Hard 13Cr
8	F6 and Hardfaced	13Cr	13Cr and Co-Cr A (2)
8A	F6 and Hardfaced	13Cr	13Cr and Ni-Cr
9	Monel	Ni-Cu Alloy	Ni-Cu Alloy
10	316	18Cr-8Ni-Mo	18Cr-8Ni-Mo
11	Monel and Hardfaced	Ni-Cu Alloy	Ni-Cu Alloy and Trim 5 or 5A
12	316 and Hardfaced	18Cr-8Ni-Mo	18Cr-8Ni-Mo and Trim 5 or 5A
13	Alloy 20	19Cr-29Ni	19Cr-29Ni
14	Alloy 20 and Hardfaced	19Cr-29Ni	19Cr-29Ni and Trim 5 or 5A
15	Hardfaced	18Cr-8Ni	Co-Cr A (2)
16	Hardfaced	18Cr-8Ni-Mo	Co-Cr A (2)
17	Hardfaced	18Cr-10Ni-Cb	Co-Cr A (2)
18	Hardfaced	19Cr-29Ni	Co-Cr A (2)

(1) ...and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

Item	Description	Material of construction*			
		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	A 105 + ER 410	A 182 Gr.F304	A 217 Gr.C5 + ER 410	A 351 Gr.CF8M
5	Seat Ring	A 105 + Stellite	A 182 Gr.F304	A 182 Gr.F6a + Stellite	-----
6	Backseat	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	-----
7	Stem	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
8	Gland	A 105	A 105	A 182 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(3)
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	SS 304	SS 304	SS 304	SS 316
29	Stem Packing	Graphite	Graphite	Graphite	Graphite
37	Thrust Washer	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
45	Lock Nut	Steel	Steel	A 182 Gr.F6a	A 182 Gr.F316

(3) Zinc coating

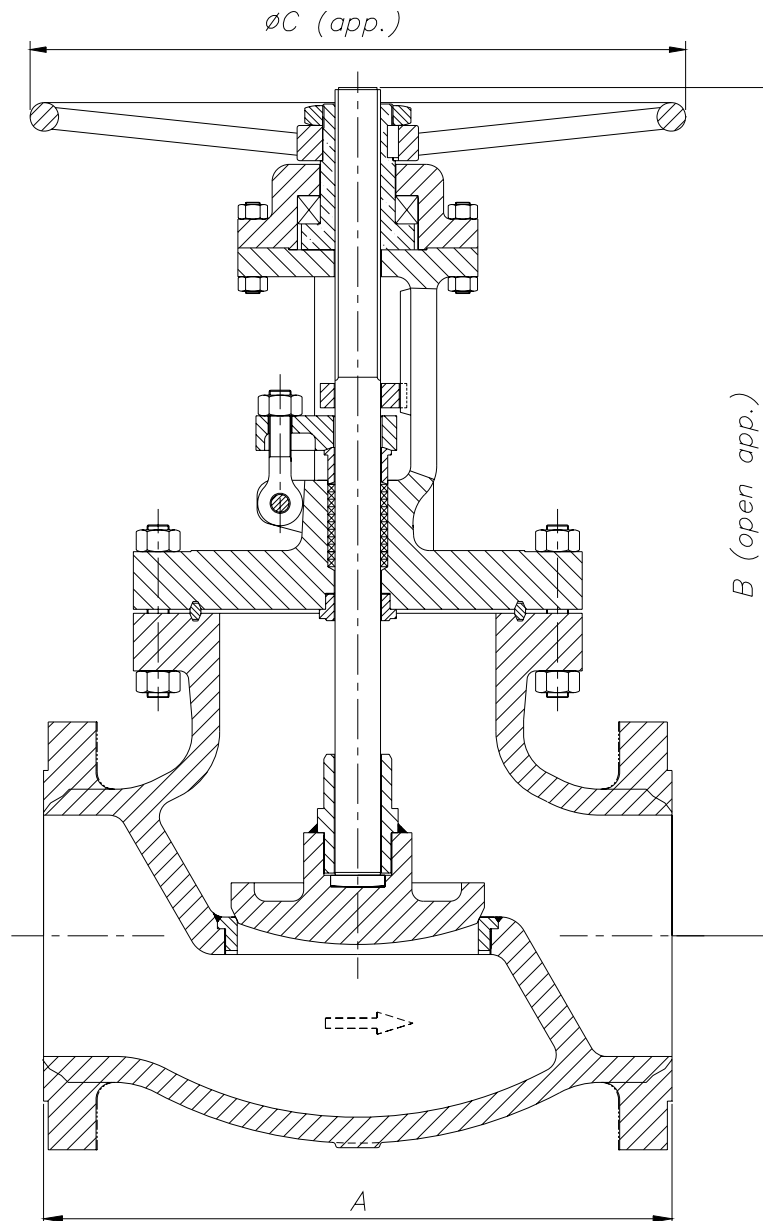
\* Standard constructions with Trim 8, 2 and 10, other options are available



# Globe Valves Class 1500

## Type Bolted Bonnet

### Dimensions



DN	A (RF/BW)	B	ØC	WEIGHT
50 (2")	368	592	350	112
65 (2½")	419	605	450	175
80 (3")	470	692	450	228
100 (4")	546	907	460	336
125 (5")	673	965	560	585
150 (6")	705	1015	610	822
200 (8")	832	1145	610	960

(\*) Dimensions in mm and weight in kg  
For other sizes consult to the technical department.



# JC® Globe Valves Class 1500

## Type Bolted Bonnet

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

GENERAL CHARACTERISTICS	Fig. VG1500BB			
<b>DESIGN STANDARDS</b>				
Valves design	BS 1873	ASME B16.34		
End to End Dimensions	ASME B16.10 & ISO 5752			
Flanged Dimensions	ASME B16.5 & ISO 7005-1 Part. 1	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	EN 12266-1	MSS SP-61	
Other	ATEX, CE			

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

DN	Cv	DN	Cv
50 (2")	40	125 (5")	250
65 (2½")	65	150 (6")	360
80 (3")	85	200 (8")	600
100 (4")	120		

#### 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	255,3	239,1	258,4	248,0
95	232,5	226,0	256,7	213,2
150	226,0	219,8	246,7	192,6
205	218,4	212,6	243,2	177,1
260	206,4	200,5	229,1	164,7
315	188,4	183,6	208,4	155,4
345	185,0	180,2	202,6	153,0
375	183,6		195,7	149,5
400	173,6		181,9	147,1
425	141,9		175,0	145,4
450	92,3		166,4	144,0
485	59,3		127,5	143,0
510	35,5		94,4	133,0
540	17,9		68,6	120,6
565			49,6 *	118,5 *
595			34,1 *	105,1 *
620			21,4 *	81,6 *
650			11,7 *	63,7 *
675				50,6 *
705				40,3 *
735				33,1 *
760				26,2 *
790				20,0 *
815				14,1 *

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

\*\* A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.



**Globe Valves Type Bolted Bonnet**  
**Class 2500 DN 50-200 (2" – 8")**  
 Carbon, Alloy and Stainless Steel



# Fig. VG2500BB

**Design:**  
**BS 1873 and ASME B16.34**

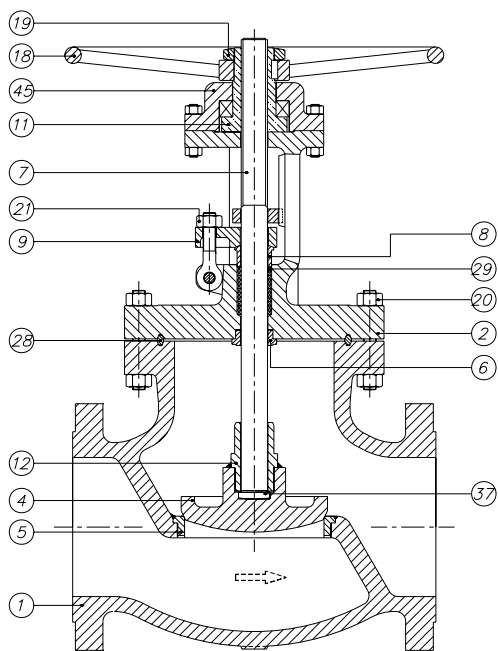




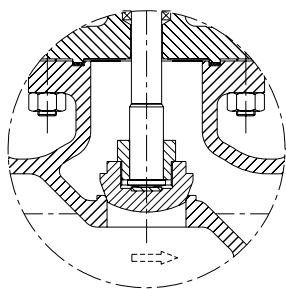
# Globe Valves Class 2500

## Type Bolted Bonnet

### Parts and materials



**Stainless Steel Construction**



#### Trim Material

API 600 Trim No.	Nominal Trim	Stem / Backseat (1)	Seating Surface Body / Wedge
1	F6	13Cr	13Cr
2	304	18Cr-8Ni	18Cr-8Ni
3	F310	25Cr-20Ni	25Cr-20Ni
4	Hard F6	13Cr	Hard 13Cr
5	Hardfaced	13Cr	Co-Cr A (2)
5A	Hardfaced	13Cr	Ni-Cr
6	F6 and Cu-Ni	13Cr	13Cr and Cu-Ni
7	F6 and Hard F6	13Cr	13Cr and Hard 13Cr
8	F6 and Hardfaced	13Cr	13Cr and Co-Cr A (2)
8A	F6 and Hardfaced	13Cr	13Cr and Ni-Cr
9	Monel	Ni-Cu Alloy	Ni-Cu Alloy
10	316	18Cr-8Ni-Mo	18Cr-8Ni-Mo
11	Monel and Hardfaced	Ni-Cu Alloy	Ni-Cu Alloy and Trim 5 or 5A
12	316 and Hardfaced	18Cr-8Ni-Mo	18Cr-8Ni-Mo and Trim 5 or 5A
13	Alloy 20	19Cr-29Ni	19Cr-29Ni
14	Alloy 20 and Hardfaced	19Cr-29Ni	19Cr-29Ni and Trim 5 or 5A
15	Hardfaced	18Cr-8Ni	Co-Cr A (2)
16	Hardfaced	18Cr-8Ni-Mo	Co-Cr A (2)
17	Hardfaced	18Cr-10Ni-Cb	Co-Cr A (2)
18	Hardfaced	19Cr-29Ni	Co-Cr A (2)

(1) ...and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

Item	Description	Material of construction*			
		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	A 105 + ER 410	A 182 Gr.F304	A 217 Gr.C5 + ER 410	A 351 Gr.CF8M
5	Seat Ring	A 105 + Stellite	A 182 Gr.F304	A 182 Gr.F6a + Stellite	-----
6	Backseat	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	-----
7	Stem	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
8	Gland	A 105	A 105	A 182 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(3)
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	SS 304	SS 304	SS 304	SS 316
29	Stem Packing	Graphite	Graphite	Graphite	Graphite
37	Thrust Washer	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
45	Lock Nut	Steel	Steel	A 182 Gr.F6a	A 182 Gr.F316

(3) Zinc coating

\* Standard constructions with Trim 8, 2 and 10, other options are available

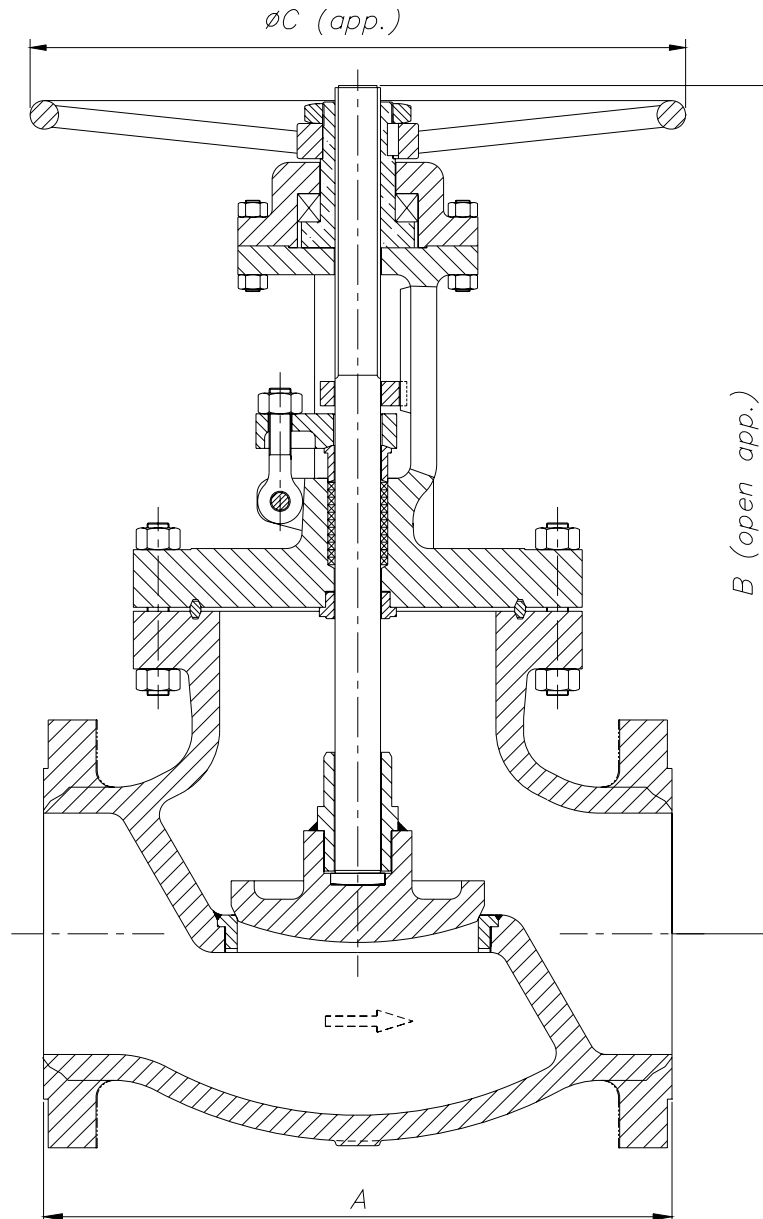




# JC® Globe Valves Class 2500

## Type Bolted Bonnet

### Dimensions



DN	A (RF/BW)	B	ØC	WEIGHT
50 (2")	451	635	350	135
65 (2½")	508	690	450	270
80 (3")	578	745	460	335
100 (4")	673	975	560	510
125 (5")	794	1025	610	730
150 (6")	914	1105	610	995
200 (8")	1022	1225	610	1185

(\*) Dimensions in mm and weight in kg  
For other sizes consult to the technical department.



# JC® Globe Valves Class 2500

## Type Bolted Bonnet

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

<b>GENERAL CHARACTERISTICS</b>	Fig. VG2500BB		
<b>DESIGN STANDARDS</b>			
Valves design	BS 1873	ASME B16.34	
End to End Dimensions	ASME B16.10 & ISO 5752		
Flanged Dimensions	ASME B16.5 & ISO 7005-1 Part. 1	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	EN 12266-1	MSS SP-61
Other	ATEX, CE		

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

DN	Cv	DN	Cv
50 (2")	25	125 (5")	180
65 (2½")	45	150 (6")	245
80 (3")	65	200 (8")	400
100 (4")	100		

#### 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	425,1	398,6	430,6	413,4
95	387,6	376,9	427,5	355,5
150	376,9	366,2	411,0	321,1
205	363,8	354,5	405,1	294,9
260	343,8	334,2	381,7	274,2
315	314,2	305,9	347,3	259,1
345	308,3	300,1	338,0	254,9
375	305,9		325,9	249,4
400	289,4		303,2	245,3
425	236,3		291,4	242,5
450	153,6		277,7	239,8
485	98,5		212,6	238,4
510	59,3		157,4	221,9
540	29,6		114,0	200,8
565			82,7 *	197,4 *
595			57,2 *	175,4 *
620			35,5 *	135,7 *
650			19,6 *	106,5 *
675				84,7 *
705				66,8 *
735				55,1 *
760				43,4 *
790				33,4 *
815				23,8 *

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

\*\* A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.