Gate Valves Type Bolted Bonnet
Class 150 DN 50-900 (2” – 36”)
Carbon, Alloy and Stainless Steel

Fig. VC150BB

Design:
API 600, API 603,
ASME B16.34 and BS 1414

Certificado ISO 14001 por BVQI

IPQ 600-0016

CE

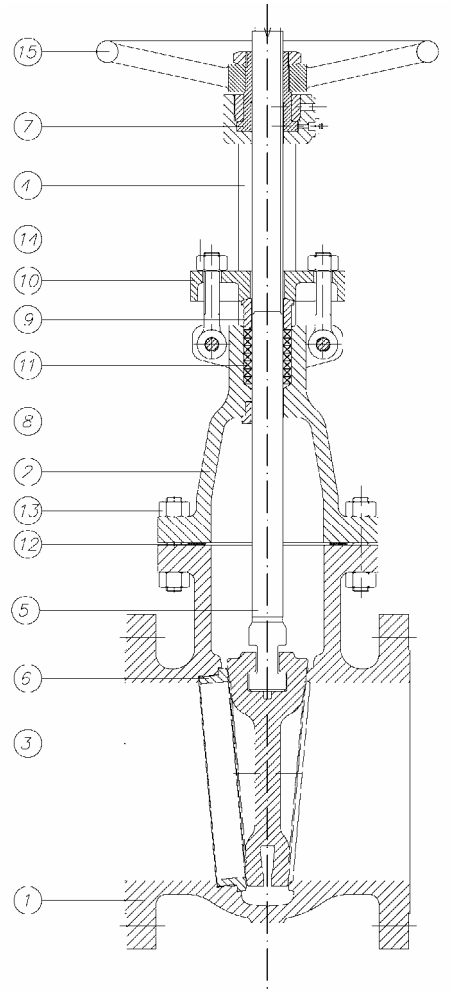
Ex II 2 G D c

Certificado ISO 9001 por BVQI

JC Fábrica de válvulas, s.a.
E-Mail: jc@jc-valves.com
Internet: www.jc-valves.com

SERIES VC

Gate Valves Class 150
Type Bolted Bonnet
Parts and materials



Carbon & Alloy Steel Construction ◄► ***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

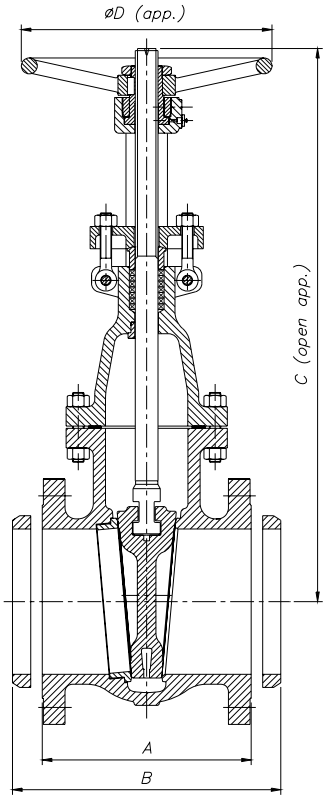
Item	Description	Material of construction *			
		Carbon Steel	Carbon Steel (Low Temp.)	Alloy Steel	Stainless Steel
1	Body	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
2	Bonnet	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
3	Wedge	A 216 Gr.WCB + ER410	A 352 Gr.LCB + ER308	A 217 Gr.C5 + ER410	A 351 Gr.CF8M
4	Yoke	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
5	Stem	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
6	Seat Ring	A 105 + Stellite	A 182 Gr.F304	A 182 Gr.F6a + Stellite	-----
7	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
8	Backseat	A182 Gr.F6a	A182 Gr.F304	A 182 Gr.F6a	-----
9	Gland	A 105	A 105	A 182 Gr.F6a	A 182 Gr.F316
10	Gland Flange	A 105	A 105	A 105	A 182 Gr.F304
11	Stem Packing	Graphite	Graphite	Graphite	Graphite
12	Gasket	SS 304 / Graphite	SS 304 / Graphite	SS 304 / Graphite	SS 316 / Graphite
13	Bonnet Bolt & Nut	A 193 Gr.B7 / A 194 Gr.2H	A320 Gr. L7 / A194 Gr. 7	A 193 Gr.B7 / A 194 Gr.2H	A 193 Gr.B7 / A 194 Gr.2H (3)
14	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
15	Handw heel	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel

(3) Zinc coating

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

SERIES VC

Gate Valves Class 150
Type Bolted Bonnet
Dimensions



DN	A	B	C	ØD	WEIGHT
50 (2”)	178	216	386	200	17
65 (2½")	190	241	435	200	27
80 (3”)	203	282,5	483	250	33
100 (4”)	229	305	587	250	48
125 (5")	254	381	673	300	65
150 (6”)	267	403	767	300	78
200 (8”)	292	419	955	350	120
250 (10”)	330	457	1146	450	176
300 (12”)	356	502	1328	500	260
350 (14")	381	572	1519	460	380
400 (16")	406	610	1721	460	530
450 (18")	432	660	1900	460	620
500 (20")	457	711	2116	610	810
550 (22")	483	762	2315	610	1050
600 (24")	508	813	2480	610	1150
650 (26")	559	--	2700	610	1380
700 (28")	610	--	2975	610	1980
750 (30")	610	--	3102	610	2200
900 (36")	711	--	3668	710	2800

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

SERIES VC

Gate Valves Class 150
Type Bolted Bonnet
General Characteristics, Cv, P&T Rating

GENERAL CHARACTERISTICS	Fig. VC150BB			
DESIGN STANDARDS				
Valves design	API 600, API 603, ASME B16.34 & EN ISO 10434			
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			
TESTS AND CERTIFICATES				
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”)	250	400 (16")	20300
65 (2½")	450	450 (18")	26100
80 (3”)	620	500 (20")	33500
100 (4”)	1160	550 (22")	42000
125 (5")	1900	600 (24")	50000
150 (6”)	2700	650 (26")	59500
200 (8”)	5100	700 (28")	69200
250 (10”)	8050	750 (30")	79000
300 (12”)	12050	900 (36")	115500
350 (14")	15100		

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

Temp	MATERIAL			
	A216 WCB	A352 LCB	A217 C5	A351 CF8M (**)
ºC	Bar	Bar	Bar	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 540ºC*

*** A351 CF8M at temparetures over 538ºC (1000ºF) to be used only if Carbon contents is 0,04% or higher.*

SERIES VC

Gate Valves Type Bolted Bonnet
Class 300 DN 50-600 (2” – 24”)
Carbon, Alloy and Stainless Steel

Fig. VC300BB

Design:
API 600, API 603
ASME B16.34 and BS1414

Certificado ISO 14001 por BVQI

IQNet 600-0016

CE

Ex II 2 G D c

Certificado ISO 9001 por BVQI

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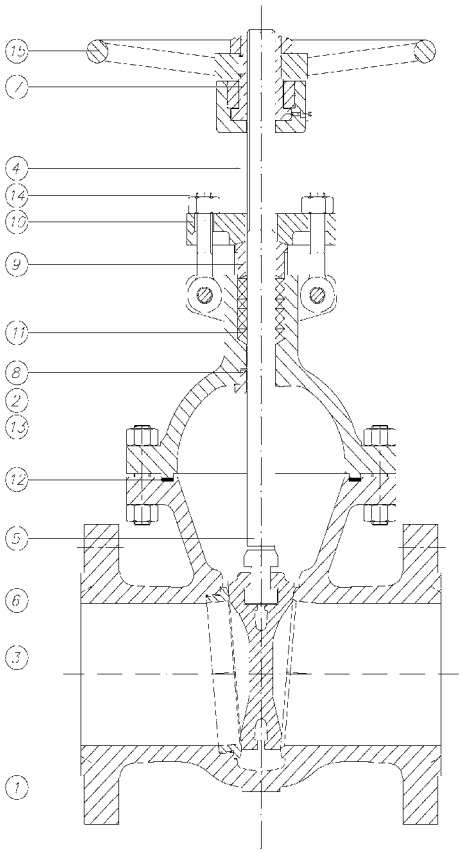
E-Mail: jc@jc-valves.com
Internet: www.jc-valves.com

SERIES VC

Gate Valves Class 300
Type Bolted Bonnet
Parts and materials



Carbon & Alloy Steel Construction ↔ ***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

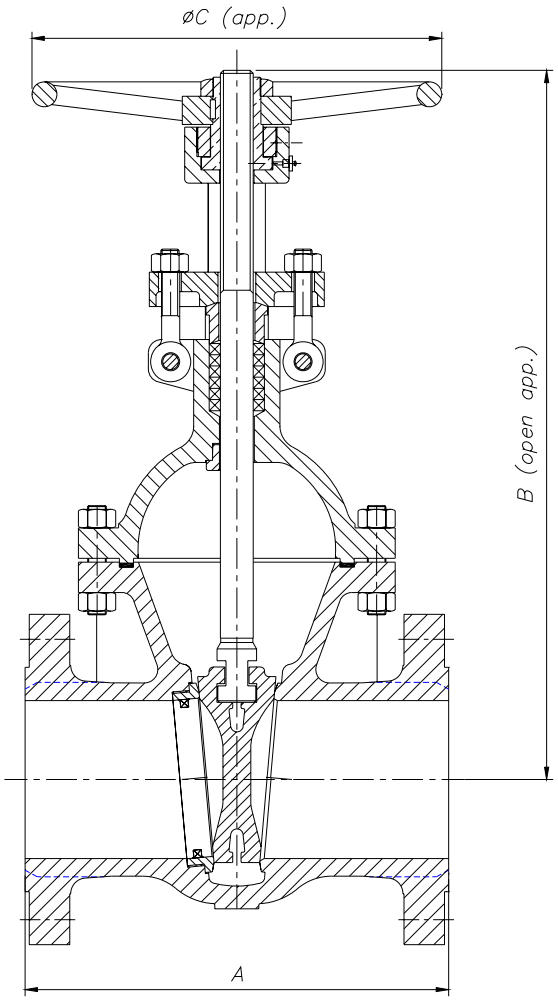
Item	Description	Material of construction*			
		Carbon Steel	Carbon Steel (Low Temp.)	Alloy Steel	Stainless Steel
1	Body	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
2	Bonnet	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
3	Wedge	A 216 Gr.WCB + ER410	A 352 Gr.LCB + ER308	A 217 Gr.C5 + ER410	A 351 Gr.CF8M
4	Yoke	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
5	Stem	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
6	Seat Ring	A 105 + Stellite	A 182 Gr.F304	A 182 Gr.F6a + Stellite	-----
7	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
8	Backseat	A182 Gr.F6a	A182 Gr. F304	A 182 Gr.F6a	-----
9	Gland	A 105	A 105	A 182 Gr.F6a	A 182 Gr.F316
10	Gland Flange	A 105	A 105	A 105	A 182 Gr.F304
11	Stem Packing	Graphite	Graphite	Graphite	Graphite
12	Gasket	SPW SS304 / Graphite	SPW SS304 / Graphite	SPW SS304 / Graphite	SPW SS316 / Graphite
13	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)
14	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
15	Handwheel	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel

(3) Zinc coating

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

SERIES VC

Gate Valves Class 300
Type Bolted Bonnet
Dimensions



DN	A (RF/BW)	B	ØC	WEIGHT
50 (2”)	216	417	200	24
65 (2½")	241	460	250	35
80 (3”)	282,5	526	250	49
100 (4”)	305	650	250	69
125 (5")	381	694	300	92
150 (6”)	403	824	350	130
200 (8”)	419	987	450	208
250 (10”)	457	1192	500	333
300 (12”)	502	1431	560	536
350 (14")	762	1559	460	699
400 (16")	838	1758	460	1010
450 (18")	914	1942	610	1205
500 (20")	991	2145	610	1720
550 (22")	1092	2340	610	1920
600 (24")	1143	2526	610	2580

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

SERIES VC

Gate Valves Class 300
Type Bolted Bonnet
General Characteristics, Cv, P&T Rating

GENERAL CHARACTERISTICS	Fig. VC300BB			
DESIGN STANDARDS				
Valves design	API 600, API 603, ASME B16.34 & EN ISO 10434			
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			
TESTS AND CERTIFICATES				
Pressure testing	API 598 & ISO 5208	EN 12266-1	MSS SP-61	
Others	ATEX, CE			

Cv Values in U.S. Gallons/min.

DN	Cv	DN	Cv
50 (2”)	250	300 (12”)	12050
65 (2½")	450	350 (14")	15100
80 (3”)	620	400 (16")	20300
100 (4”)	1160	450 (18")	25000
125 (5")	1900	500 (20")	32500
150 (6”)	2700	550 (22")	40000
200 (8”)	5100	600 (24")	48500
250 (10”)	8050		

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

Temp	MATERIAL			
	A216 WCB	A352 LCB	A217 C5	A351 CF8M (**)
ºC	Bar	Bar	Bar	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 540ºC*

*** A351 CF8M at temparetures over 538ºC (1000ºF) to be used only if Carbon contents is 0,04% or higher.*

SERIES VC

Gate Valves Type Bolted Bonnet
Class 600 DN 50-600 (2” – 24”)
Carbon, Alloy and Stainless Steel

Fig. VC600BB

Design:
API 600, API 603,
ASME B16.34 and BS 1414

Certificado ISO 14001 por BVQI

600-0016

II 2 G D c

Certificado ISO 9001 por BVQI

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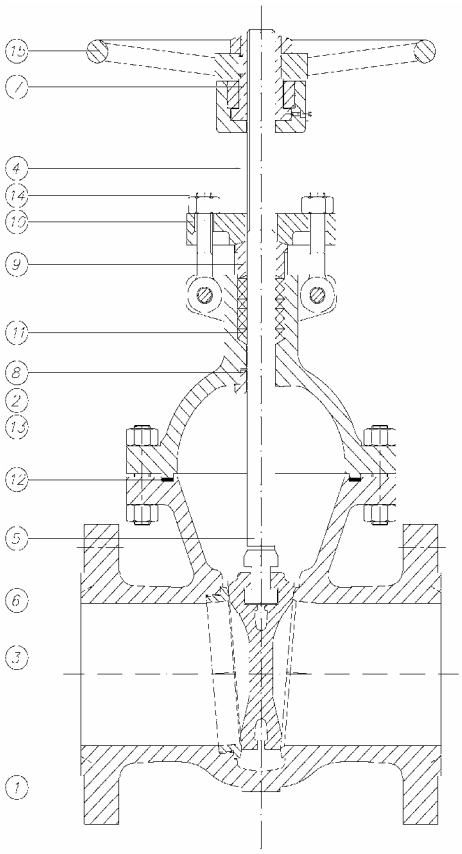
Internet: www.jc-valves.com

SERIES VC

Gate Valves Class 600
Type Bolted Bonnet
Parts and materials



Carbon & Alloy Steel Construction ↔ ***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

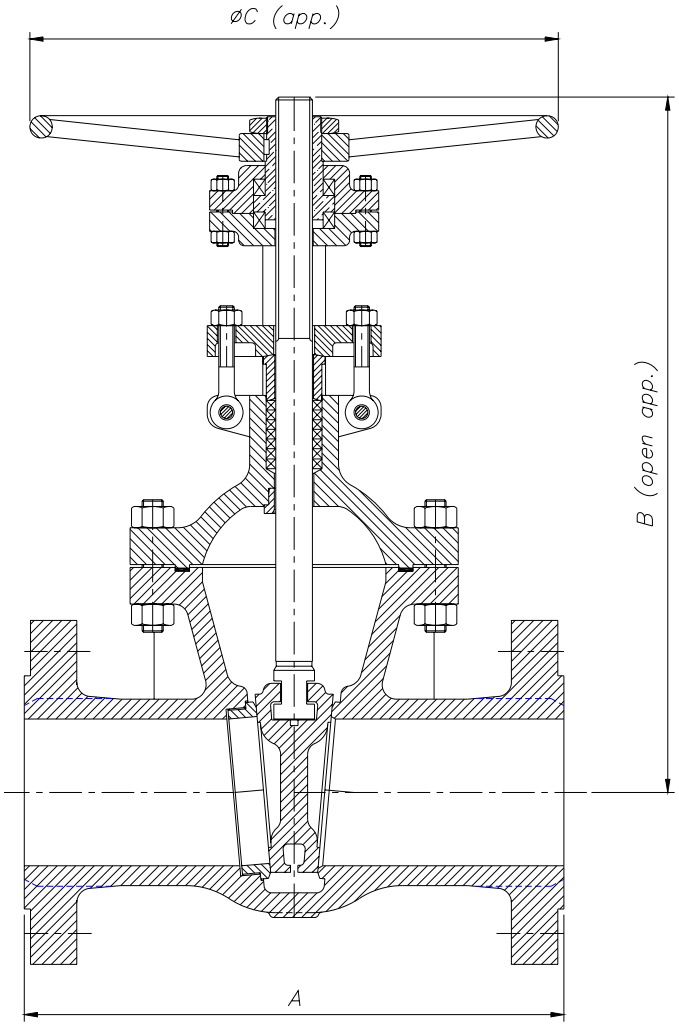
Item	Description	Material of construction*			
		Carbon Steel	Carbon Steel (Low Temp.)	Alloy Steel	Stainless Steel
1	Body	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
2	Bonnet	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
3	Wedge	A 216 Gr.WCB + ER410	A 352 Gr.LCB + ER308	A 217 Gr.C5 + ER410	A 351 Gr.CF8M
4	Yoke	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
5	Stem	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
6	Seat Ring	A 105 + Stellite	A 182 Gr.F304	A 182 Gr.F6a + Stellite	-----
7	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
8	Backseat	A182 Gr.F6a	A182 Gr.F304	A 182 Gr.F6a	-----
9	Gland	A 105	A 105	A 182 Gr.F6a	A 182 Gr.F316
10	Gland Flange	A 105	A 105	A 105	A 182 Gr.F304
11	Stem Packing	Graphite	Graphite	Graphite	Graphite
12	Gasket	SPW SS304 / Graphite	SPW SS304 / Graphite	SPW SS304 / Graphite	SPW SS316 / Graphite
13	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)
14	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
15	Handwheel	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel

(3) Zinc coating

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

SERIES VC

Gate Valves Class 600
Type Bolted Bonnet
Dimensions



DN	A (RF/BW)	B	ØC	WEIGHT
50 (2”)	292	427	250	33
65 (2½")	330	473	250	58
80 (3”)	356	538	300	63
100 (4”)	432	657	350	131
125 (5")	508	770	400	182
150 (6”)	559	872	500	253
200 (8”)	660	1101	560	413
250 (10”)	787	1279	720	623
300 (12”)	838	1486	610	784
350 (14")	889	1643	610	1288
400 (16")	991	1798	610	1820
450 (18")	1092	2101	610	2150
500 (20")	1194	2259	710	2540
550 (22")	1295	2405	760	2800
600 (24")	1397	2545	760	3350

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

SERIES VC

Gate Valves Class 600
Type Bolted Bonnet
General Characteristics, Cv, P&T Rating

GENERAL CHARACTERISTICS	Fig. VC600BB			
DESIGN STANDARDS				
Valves design	API 600, API 603, ASME B16.34 & EN ISO 10434			
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			
TESTS AND CERTIFICATES				
Pressure testing	API 598 & ISO 5208	EN 12266-1	MSS SP-61	
Others	ATEX, CE			

Cv Values in U.S. Gallons/min.

DN	Cv	DN	Cv
50 (2”)	250	300 (12”)	11500
65 (2½")	450	350 (14")	14000
80 (3”)	620	400 (16")	18500
100 (4”)	1160	450 (18")	23000
125 (5")	1900	500 (20")	28500
150 (6”)	2700	550 (22")	35000
200 (8”)	5100	600 (24")	43000
250 (10”)	7800		

Pressure-Temperature *(STANDARD CLASS ACCORDING TO ASME B16.34)*

Temp	MATERIAL			
	A216 WCB	A352 LCB	A217 C5	A351 CF8M (**)
ºC	Bar	Bar	Bar	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 540ºC*

*** A351 CF8M at temparetures over 538ºC (1000ºF) to be used only if Carbon contents is 0,04% or higher.*

SERIES VC

Gate Valves Type Bolted Bonnet
Class 900 DN 50-500 (2” – 20”)
Carbon, Alloy and Stainless Steel

Fig. VC900BB

Design:
API 600,
ASME B16.34 and BS 1414

Certificado ISO 14001 por BVQI

IPQ 600-0016

CE

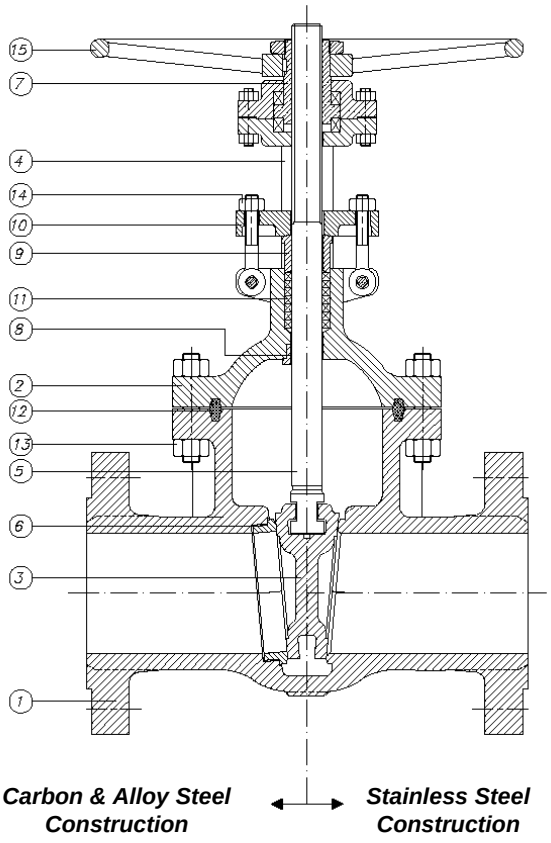
Ex II 2 G D c

Certificado ISO 9001 por BVQI

JC Fábrica de válvulas, s.a.
E-Mail: jc@jc-valves.com
Internet: www.jc-valves.com

SERIES VC

Gate Valves Class 900
Type Bolted Bonnet
Parts and materials



Carbon & Alloy Steel Construction ⟷ ***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

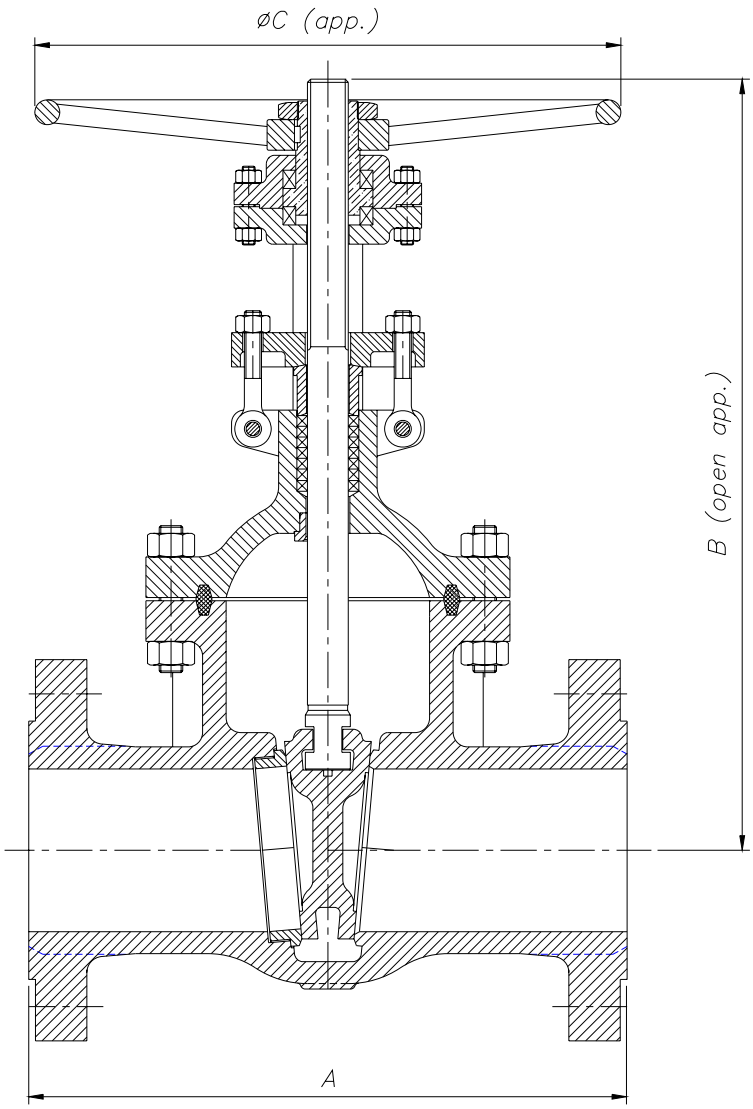
Item	Description	Material of construction*			
		Carbon Steel	Carbon Steel (Low Temp.)	Alloy Steel	Stainless Steel
1	Body	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
2	Bonnet	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
3	Wedge	A 216 Gr.WCB + ER410	A 352 Gr.LCB + ER308	A 217 Gr.C5 + ER410	A 351 Gr.CF8M
4	Yoke	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
5	Stem	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
6	Seat Ring	A 105 + Stellite	A 182 Gr.F304	A 182 Gr.F6a + Stellite	-----
7	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
8	Backseat	A182 Gr.F6a	A182 Gr.F304	A 182 Gr.F6a	-----
9	Gland	A 105	A 105	A 182 Gr.F6a	A 182 Gr.F316
10	Gland Flange	A 105	A 105	A 105	A 182 Gr.F304
11	Stem Packing	Graphite	Graphite	Graphite	Graphite
12	Gasket	Soft Iron	SS 304	SS 304	SS 316
13	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)
14	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
15	Handwheel	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel

(3) Zinc coating

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

SERIES VC

Gate Valves Class 900
Type Bolted Bonnet
Dimensions



DN	A (RF/BW)	B	ØC	WEIGHT
50 (2”)	368	547	300	90
65 (2½")	419	700	350	110
80 (3”)	381	648	400	123
100 (4”)	457	729	450	148
125 (5")	559	890	500	280
150 (6”)	610	1041	560	420
200 (8”)	737	1260	460	650
250 (10”)	838	1590	610	1160
300 (12”)	965	1795	610	1700
350 (14")	1029	2025	760	2300
400 (16")	1130	2170	760	2750
450 (18")	1219	2345	760	3120
500 (20")	1321	2610	760	3550

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

SERIES VC

Gate Valves Class 900
Type Bolted Bonnet
General Characteristics, Cv, P&T Rating

GENERAL CHARACTERISTICS	Fig. VC900BB			
DESIGN STANDARDS				
Valves design	API 600	ASME B16.34	EN ISO 10434	
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			
TESTS AND CERTIFICATES				
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”)	230	250 (10”)	7050
65 (2½")	410	300 (12”)	10000
80 (3”)	580	350 (14")	13100
100 (4”)	1050	400 (16")	18200
125 (5")	1820	450 (18")	21500
150 (6”)	2550	500 (20")	26500
200 (8”)	4400		

Pressure-Temperature *(STANDARD CLASS ACCORDING TO ASME B16.34)*

Temp	MATERIAL			
	A216 WCB	A352 LCB	A217 C5	A351 CF8M (**)
ºC	Bar	Bar	Bar	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 540ºC*

*** A351 CF8M at temparetures over 538ºC (1000ºF) to be used only if Carbon contents is 0,04% or higher.*

SERIES VC

Gate Valves Type Bolted Bonnet
Class 1500 DN 50-400 (2” – 16”)
Carbon, Alloy and Stainless Steel

Fig. VC1500BB

Design:
API 600,
ASME B16.34 and BS 1414

Certificado ISO 14001 por BVQI

IQNet 600-0016

CE

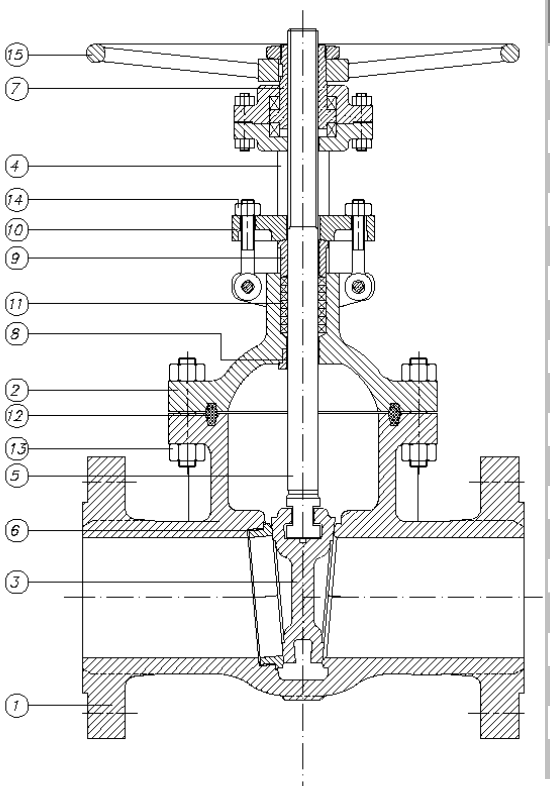
Ex II 2 G D c

Certificado ISO 9001 por BVQI

JC Fábrica de válvulas, s.a.
E-Mail: jc@jc-valves.com
Internet: www.jc-valves.com

SERIES VC

Gate Valves Class 1500
Type Bolted Bonnet
Parts and materials



Carbon & Alloy Steel Construction ◄► ***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

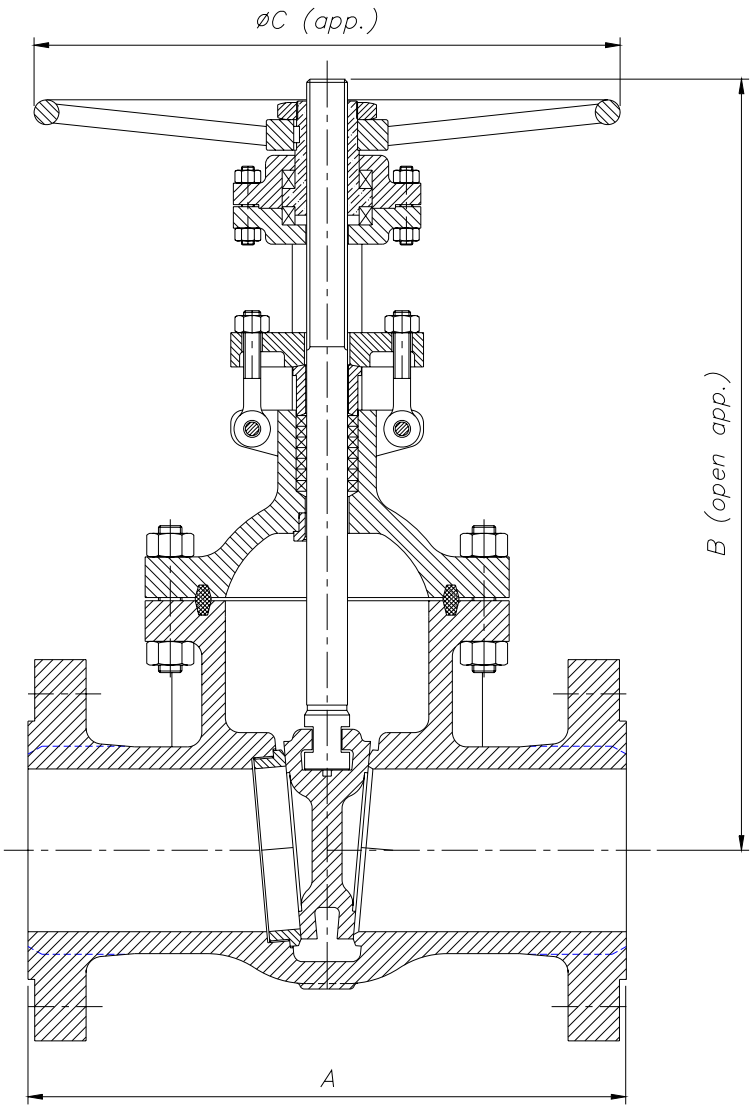
Item	Description	Material of construction*			
		Carbon Steel	Carbon Steel (Low Temp.)	Alloy Steel	Stainless Steel
1	Body	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
2	Bonnet	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
3	Wedge	A 216 Gr.WCB + ER410	A 352 Gr.LCB + ER308	A 217 Gr.C5 + ER410	A 351 Gr.CF8M
4	Yoke	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
5	Stem	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
6	Seat Ring	A 105 + Stellite	A 182 Gr.F304	A 182 Gr.F6a + Stellite	-----
7	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
8	Backseat	A182 Gr.F6a	A182 Gr.F304	A 182 Gr.F6a	-----
9	Gland	A 105	A 105	A 182 Gr.F6a	A 182 Gr.F316
10	Gland Flange	A 105	A 105	A 105	A 182 Gr.F304
11	Stem Packing	Graphite	Graphite	Graphite	Graphite
12	Gasket	Soft Iron	SS 304	SS 304	SS 316
13	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)
14	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
15	Handwheel	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel

(3) Zinc coating

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

SERIES VC

Gate Valves Class 1500
Type Bolted Bonnet
Dimensions



DN	A (RF/BW)	B	ØC	WEIGHT
50 (2”)	368	574	350	117
65 (2½")	419	700	400	175
80 (3”)	470	806	450	240
100 (4”)	546	887	560	337
125 (5")	673	995	560	485
150 (6”)	705	1079	305	680
200 (8”)	832	1370	610	1228
250 (10”)	991	1520	760	2218
300 (12”)	1130	1651	760	3260
350 (14")	1257	1825	760	3990
400 (16")	1384	1995	760	5420

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

® Gate Valves Class 1500
Type Bolted Bonnet
General Characteristics, Cv, P&T Rating

GENERAL CHARACTERISTICS	Fig. VC1500BB			
DESIGN STANDARDS				
Valves design	API 600	ASME B16.34	EN ISO 10434	
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			
TESTS AND CERTIFICATES				
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”)	230	200 (8”)	3800
65 (2½")	380	250 (10”)	6050
80 (3”)	520	300 (12”)	9100
100 (4”)	930	350 (14")	11500
125 (5")	1600	400 (16")	15100
150 (6”)	2250		

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

Temp	MATERIAL			
	A216 WCB	A352 LCB	A217 C5	A351 CF8M (**)
ºC	Bar	Bar	Bar	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 540ºC*

*** A351 CF8M at temparetures over 538ºC (1000ºF) to be used only if Carbon contents is 0,04% or higher.*

SERIES VC

JC® Gate Valves Type Bolted Bonnet Class 2500 DN 50-300 (2” – 12”)

Carbon, Alloy and Stainless Steel

Fig. VC2500BB

Design:
API 600,
ASME B16.34 and BS 1414

Certificado ISO 14001 por BVQI

600-0016

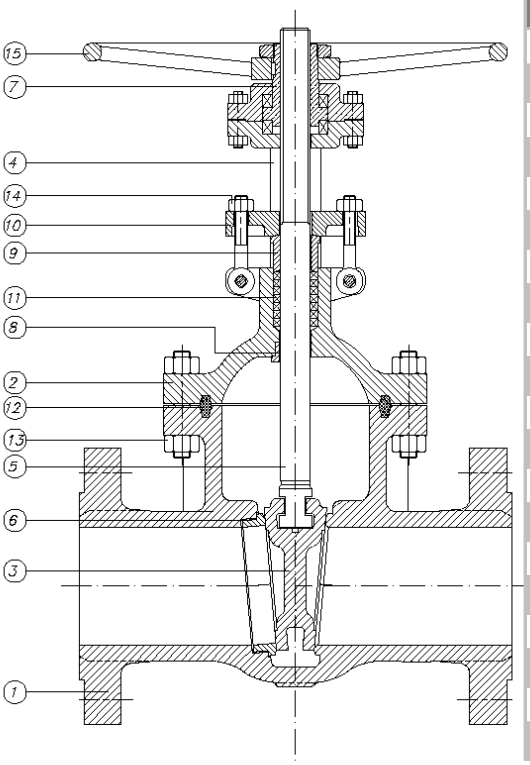
II 2 G D c

Certificado ISO 9001 por BVQI

JC Fábrica de válvulas, s.a.
E-Mail: jc@jc-ballvalves.com
Internet: www.jc-ballvalves.com

SERIES VC

®Gate Valves Class 2500
Type Bolted Bonnet
Parts and materials



Carbon & Alloy Steel Construction ↔ ***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

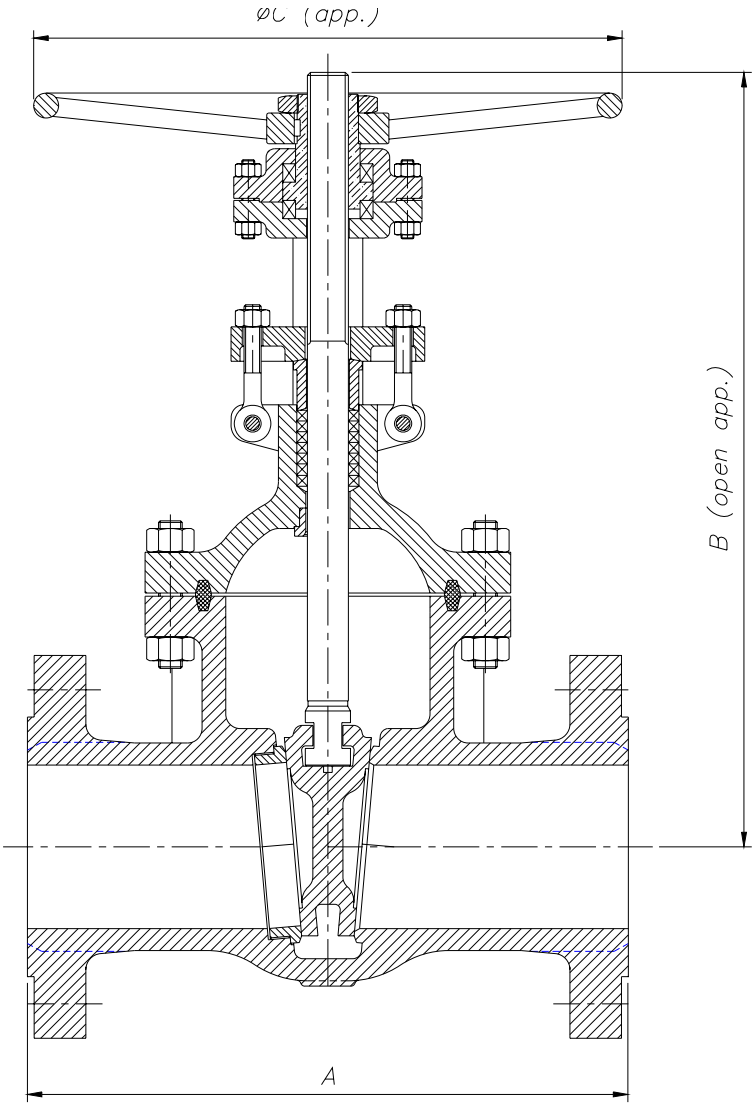
Item	Description	Material of construction*			
		Carbon Steel	Carbon Steel (Low Temp.)	Alloy Steel	Stainless Steel
1	Body	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
2	Bonnet	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
3	Wedge	A 216 Gr.WCB + ER410	A 352 Gr.LCB + ER308	A 217 Gr.C5 + ER410	A 351 Gr.CF8M
4	Yoke	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
5	Stem	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
6	Seat Ring	A 105 + Stellite	A 182 Gr.F304	A 182 Gr.F6a + Stellite	-----
7	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
8	Backseat	A182 Gr.F6a	A182 Gr.F304	A 182 Gr.F6a	-----
9	Gland	A 105	A 105	A 182 Gr.F6a	A 182 Gr.F316
10	Gland Flange	A 105	A 105	A 105	A 182 Gr.F304
11	Stem Packing	Graphite	Graphite	Graphite	Graphite
12	Gasket	Soft Iron	SS 304	SS 304	SS 316
13	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)
14	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
15	Handw heel	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel

(3) Zinc coating

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

SERIES VC

Gate Valves Class 2500
Type Bolted Bonnet
Dimensions



DN	A (RF/BW)	B	ØC	WEIGHT
50 (2”)	451	595	400	155
65 (2½")	508	675	450	215
80 (3”)	578	750	560	285
100 (4”)	673	805	610	405
125 (5")	794	1010	610	715
150 (6”)	914	1200	460	1050
200 (8”)	1022	1346	610	1700
250 (10”)	1270	1500	760	2950
300 (12”)	1422	1700	760	4120
350 (14”)	1575	1950	760	5790

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

SERIES VC

Gate Valves Class 2500
Type Bolted Bonnet
General Characteristics, Cv, P&T Rating

GENERAL CHARACTERISTICS	Fig. VC2500BB			
DESIGN STANDARDS				
Valves design	API 600	ASME B16.34	EN ISO 10434	
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			
TESTS AND CERTIFICATES				
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”)	160	150 (6”)	1500
65 (2½")	265	200 (8”)	2650
80 (3”)	370	250 (10”)	4500
100 (4”)	630	300 (12”)	6000
125 (5")	1070		

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

Temp	MATERIAL			
	A216 WCB	A352 LCB	A217 C5	A351 CF8M (**)
ºC	Bar	Bar	Bar	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 540ºC*

*** A351 CF8M at temparetures over 538ºC (1000ºF) to be used only if Carbon contents is 0,04% or higher.*

SERIES VC