

# International Standard Valve, Inc.

10749 Cash Road, Stafford, Texas 77477, 1-713-983-7600



## Cast Steel Gate Valves

*For Refining, Chemical, Oil Production, Power & Industrial Processing Industries*



**ISV 2" through 24" sizes**  
**API 600 / ISO 10434 Design**  
**Class 150 & 300**  
**Flanged Ends**

*Other sizes and pressure classes available on request*



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QUALITY MANAGEMENT SYSTEM  
CERTIFIED BY DNV  
**ISO 9001:2008**



## ISV Series 2GTB - Standard Design Features

### DESIGN STANDARDS

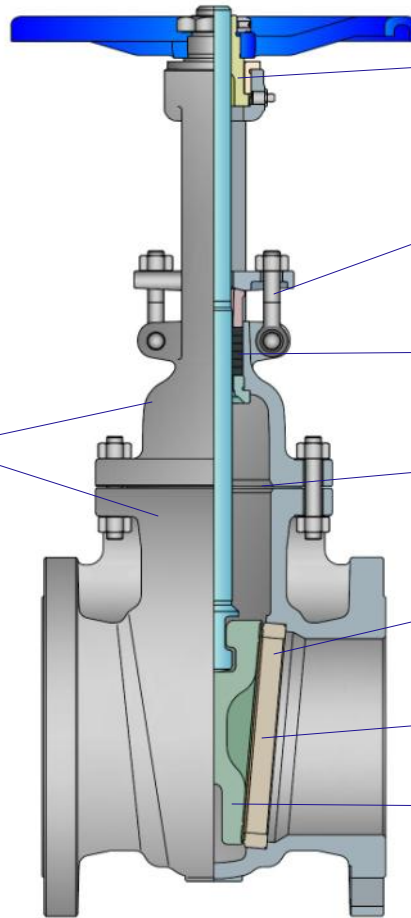
<b>Basic Design</b>	API 600 / ISO 10434
<b>Pressure Temperature Rating</b>	ASME B16.34
<b>Pressure Test</b>	API 598
<b>Flanged Ends</b>	ASME B16.5
<b>Face to Face</b>	ASME B16.10



Class 150

Class 300

Heavy API 600 shell wall thickness



Yoke nut bearing & grease fitting provide smooth stem cycle operation

Eye bolt & nut for adjustable packing gland

Die formed graphite stem packing with braided graphite top & bottom rings.

Stainless steel / Graphite gaskets

Hard Faced Seats are standard

Welded in seat rings

Flexible solid wedge

### MATERIALS

ITEM	PART NAME	WCB / 8	WCB / 5 - NACE	WCB / 12 - NACE	LCC / 12 - NACE
		API Trim # 8	API Trim # 5	API Trim # 12	API Trim # 12
1	BODY	A216 WCB	A216 WCB	A216 WCB	A352 LCC
2	BONNET	A216 WCB	A216 WCB	A216 WCB	A352 LCC
3	WEDGE	A216 WCB+13Cr 1)	A216 WCB+HF (CoCr)	CF8M	CF8M
4	STEM	A479 410	A479 410	AISI 316	AISI 316
5	GASKET	GRAPHITE+304SS 2)	GRAPHITE+304SS 2)	GRAPHITE+304SS 2)	GRAPHITE+304SS 2)
6	SEAT RING	A106+HF (CoCr)	A106+HF (CoCr)	A106+HF (CoCr)	A350 LF2+HF (CoCr)
7	BACK SEAT RING	A479 410	A479 410	AISI 316	AISI 316
8	PACKING GLAND	A479 410	A479 410	A276 316	A276 316
9	PACKING	GRAPHITE 3)	GRAPHITE 3)	GRAPHITE 3)	GRAPHITE 3)
10	GLAND FLANGE	A105	A105	A105	A105
11	EYE BOLT	A193 B7	A193 B7	A193 B7	A193 B7
12	EYE BOLT NUT	A194 2H	A194 2H	A194 2H	A194 2H
13	EYE BOLT PIN	CS	CS	CS	CS
14	HAND WHEEL	DUCTILE IRON	DUCTILE IRON	DUCTILE IRON	DUCTILE IRON
15	BONNET BOLT	A193 B7	A193 B7M	A193 B7M	A320 L7M
16	BONNET NUT	A194 2H	A194 2HM	A194 2HM	A194 7M
17	YOKE BUSHING	CS	CS	CS	CS
18	STEM NUT	A439 D2C	A439 D2C	A439 D2C	A439 D2C
19	HANDLE NUT	CS	CS	CS	CS
20	SET SCREW	STEEL	STEEL	STEEL	STEEL
21	GREASE FITTING	STEEL	STEEL	STEEL	STEEL

1) 2" - 4" with ASTM A217 CA15. 6" with ASTM A217 CA15 or A216 WCB+13Cr.

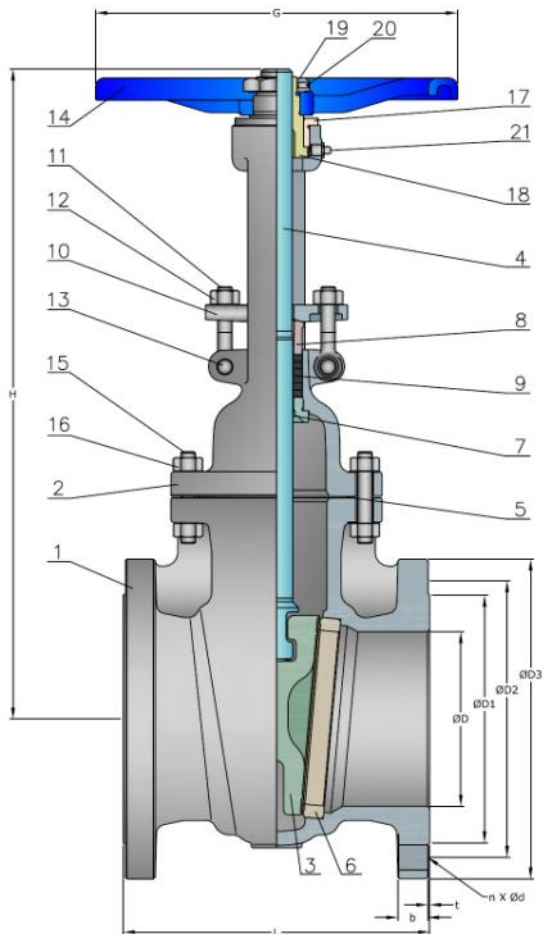
2) Class 150: Corrugated 304/graphite gasket. Class 300: Stainless steel spiral wound graphite gasket

3) Die formed flexible graphite packing ring stack with Inconel reinforced braided graphite top and bottom rings.

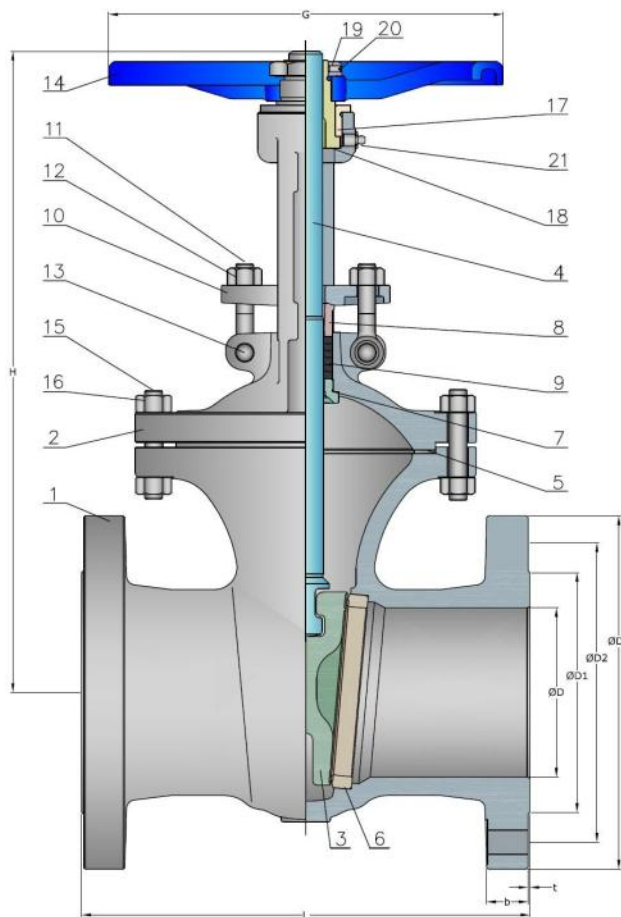


**Bolted Bonnet Gate Valve Outside Stem & Yoke**

**Class 150**



**Class 300**



**Class 150 Dimensions** In INCHES

NPS	L	ØD	ØD1	ØD2	ØD3	t	b	n X Ød	H Open	G	Wt. (lbs)
2"	7	2	3.62	4.75	5.98	0.063	0.68	4 X .75	15.8	7.87	49
3"	8	3	5	6	7.52	0.063	0.81	4 X .75	20.5	8.82	79
4"	9	4	6.18	7.5	9.02	0.063	1	8 X .75	23.6	9.84	117
6"	10.5	6	8.5	9.5	10.98	0.063	1.06	8 X .87	30.6	12.4	201
8"	11.5	8	10.63	11.75	13.5	0.063	1.18	8 X .87	37.9	13.97	276
10"	13	10	12.76	14.25	15.98	0.063	1.25	12 X 1.00	46	15.75	445
12"	14	12	15	17	19	0.063	1.25	12 X 1.00	54.9	17.72	665
14"	15	13.25	16.25	18.75	21	0.063	1.38	12 X 1.13	61.5	19.75	915
16"	16	15.25	18.5	21.25	23.5	0.063	1.44	16 X 1.13	71	23.65	1295
18"	17	17.25	21	22.75	25	0.063	1.56	16 X 1.25	80	23.65	1652
20"	18	19.25	23	25	27.5	0.063	1.69	20 X 1.25	86.9	27	2095
24"	20	23.25	27.25	29.5	32	0.063	1.88	20 X 1.38	103.5	29.75	3080

**Class 300 Dimensions** In INCHES

NPS	L	ØD	ØD1	ØD2	ØD3	t	b	n X Ød	H Open	G	Wt. (lbs)
2"	8.5	2	3.63	5	6.5	0.063	0.94	8 X .75	16.9	7.87	68
3"	11.12	3	5.01	6.62	8.27	0.063	1.12	8 X .88	20.9	8.82	116
4"	12	4	6.19	7.88	10	0.063	1.25	8 X .88	24.6	9.84	180
6"	15.88	6	8.5	10.62	12.52	0.063	1.5	12 X .88	32.2	13.98	325
8"	16.5	8	10.63	13	15	0.063	1.68	12 X 1.00	40.5	15.75	478
10"	18	10	12.76	15.25	17.52	0.063	1.94	16 X 1.13	48.5	17.91	735
12"	19.75	12	15	17.75	20.5	0.063	2	16 X 1.25	57.6	19.69	1080
14"	30	13.25	16.25	20.25	23	0.063	2.13	20 X 1.25	65.5	23.65	15750
16"	33	15.25	18.5	22.5	25.5	0.063	2.25	20 X 1.38	72.9	27	21250
18"	36	17	21	24.75	28	0.063	2.4	24 X 1.38	81.2	29.7	26945
20"	39	19	23	27	30.5	0.063	2.52	24 X 1.38	91.2	34	34690
24"	45	23	27.25	32	36	0.063	2.75	24 X 1.61	107.4	36	51975

For quality improvements, we reserve the right to change designs, specifications, dimensions and materials without notice.

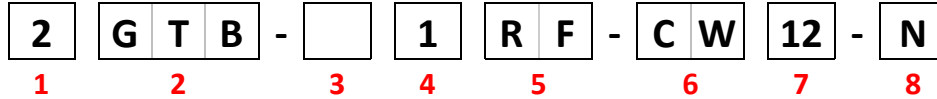


# Specifying ISV Series 2GTB - Cast Steel Valves

## Specifying ISV Cast Steel Gate Valves

**Example ISV figure number: 2GTB-1RF-CW12-N**

Describes a class 150, gate valve, bolted bonnet, OS&Y design, full port, raised face flange ends, WCB body, 316 stainless steel trim with HF Seats (API trim 12), meets NACE, hand wheel operated.



1 Valve Design		2 Valve Type & Style		3 Body Bore		4 Pressure Rating		5 End Connections		6 Body Material		7 Trim Material		8 Application	
Code	Design	Code	Type description	Code	Bore	Code	Rating	Code	End type	Code	Material	Code	Material	Code	Description
1	API 602	GTB	Gate, Bolted bonnet	Blank	Standard Bore	015	Class 150	RF	Flanged RF (B16.5)	Blank	Carbon Steel	1	F6 (Stem, Seat, Disc)	Blank	Hand Wheel
2	API 600, 594, 623	GWT	Gate, Welded Bonnet	F	Full Bore	030	Class 300	RFA	Flanged RF (B16.47-A)	A	A105	2	304SS	A	Actuated
3	API 603, ASME B16.34	GTP	Gate, Pressure Seal Bonnet	R	Reduce	060	Class 600	RFB	Flanged RF (B16.47-B)	CW	WCB	3	304SS + HF Seats	B	Bare Steam
		GLB	Globe, Bolted Bonnet			090	Class 900	RJ	Flanged RTJ (B16.5)	2F	LF2	4	Bronze + Bronze Facing	C	Chain Wheel
		GLW	Globe, Welded Bonnet			150	Class 1500	RJA	Flanged RTJ (B16.47-A)	3F	LF3	5	F6 + Full HF	CN	Cryogenic, NACE
		GLP	Globe, Pressure Seal Bonnet			250	Class 2500	RJB	Flanged RTJ (B16.47-B)	CL	LCC	8	F6 + HF Seats	CRY	Cryogenic, non-NACE
		CKB	Swing Check, Bolted bonnet					FF	FLG-FF	8M	316/CF8M	9	Monel	E	Extended Bonnet
		CKW	Swing Check, Welded Bonnet					WW	WE x WE	8C	304SS/CF8	10	316SS	G	Manual Gear
		CKP	Swing Check, Pressure Seal Bonnet					WF	RF x WE	1F	F11/WC6	11	Monel + HF Seats	I	Impact Hand Wheel
		CPB	Piston Check, Bolted Bonnet					WJ	RTJ x WE	9F	F22/WC9	12	316SS + HF Seats	N	Meets NACE
		CPW	Piston Check, Welded Bonnet							6W	WC6	14	Alloy 20 + HF Seats	T	PTFE Packing
		CPP	Piston Check, Pressure Seal Bonnet							9W	WC9	16	316SS + Full HF		
										12W	C12A				

**Photos at ISV - Stafford, Texas**



Distributed by:

**Other ISV products**



**Floating Type Ball Valves**



**Trunnion Mounted Ball Valves**



is a registered trademark of **International Standard Valve, Inc.**  
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