

# Master Valve USA

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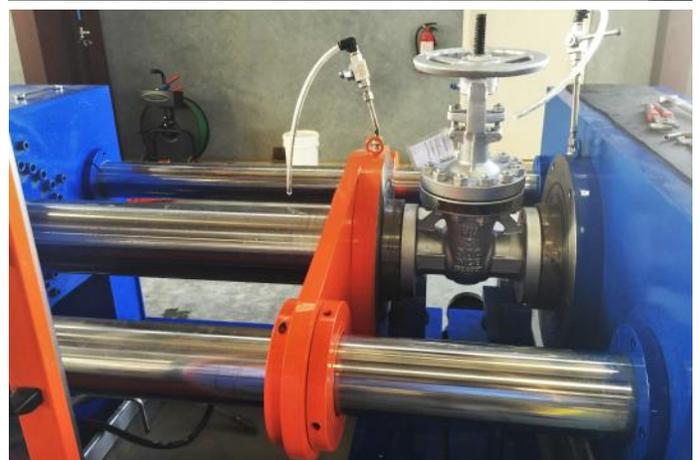
## Master Valve Cast Steel Valve



[www.MasterValveUSA.com](http://www.MasterValveUSA.com)

# Quality Controls

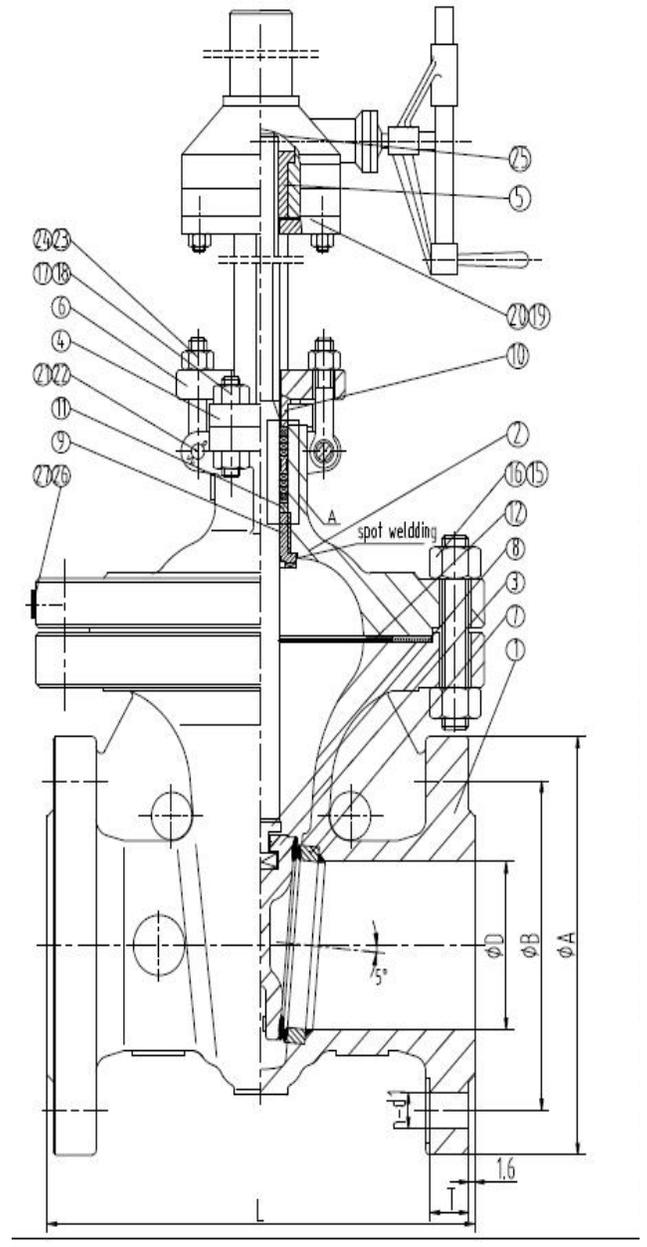
- ⇒ All manufacturing is conducted under ISO 9001 certified quality management system
- ⇒ Products are stringently manufactured in accordance with applicable industry standards and to specific Master Valve Design Specifications.
- ⇒ Designs are compliant with ASME B16.34, API 608, API 600, API 6D, API 6A and MSS-SP110
- ⇒ Pressure testing is conducted to API 6D, API 6A, API 598, MSS SP-110 as applicable
- ⇒ Fire test certifications to API 607 and API 6FA as applicable
- ⇒ All MV valves certified to NACE meets the predefined material requirements of NACE MR-0175/ISO 15156 or NACE MR-0103
- ⇒ Material Test Reports per EN 10204-1991 3.1.B & EN10204 3.1 available for each valve



# API 600 Gate Valve

## API 600 Trim # 8 Gate Valve BOM

<u>Item</u>	<u>Part</u>	<u>Description</u>
1	Body	ASTM A216 WCB
2	Bonnet	ASTM A216 WCB
3	Wedge	ASTM A216 WCB+ CR13
4	Yoke	ASTM A216 WCB
5	Stem nut	ASTM A439 D-2
6	Gland Flange	ASTM A105
7	Seat ring	ASTM A105+ Stellite 6
8	Stem	ASTM A182 F6A CL2
9	Back seat	ASTM A276 410+ Stellite 6
10	Gland	ASTM A276 420
11	Packing washer	ASTM A276 420
12	Gasket	304SS+ graphite
13	Packing	304SS+ graphite
14	Latten ring	ASTM A276 420
15	Nut	ASTM A194 2H
16	Stud	ASTM A193 B7
17	Nut	ASTM A194 2H
18	Stud	ASTM A193 B7
19	Nut	ASTM A194 2H
20	Stud	ASTM A193 B7
21	Pin	C.S.
22	Pin	C.S.
23	Bolt	ASTM A193 B7
24	Nut	ASTM A194 2H
25	Gear box	Assembly
26	Name plate	Stainless steel
27	Rivet	Stainless steel



**Pressure – Temperature Rating**  
ASME B16.34

**Face to Face / End to End**  
ASME B16.10

**Connection**  
ASME B16.5 / B16.25

**Testing and Inspection**  
API 598

## Standards of API 600 Cast Steel Gate Valves

- Design - API 600/ASME B16.34
- Wall thickness - ASME B16.34
- Face to face dimension - ASME B16.10
- Flange design - ASME B16.5
- Butt weld design - ASME B16.25
- Testing - API 598
- Materials - ASTM

## Features of API 600 Cast Steel Gate Valves

- Standard trim#8: 13Cr stem, wedge in CA 15 or 13Cr faced, and CoCr alloy seat suitable for applications up to 850°F (454°C). Seat face CoCr alloy hardfaced, ground and lapped to a mirror finish
- Flexible wedge with low center stem wedge contact, in solid CA15 (13Cr) or hardfaced with 13Cr, SS 316, Monel or CoCr alloy. Wedge is ground and lapped to a mirror finish and tightly guided to prevent dragging and seat damage.
- Body and bonnet joint accurately machined
- Body and bonnet castings are precision machined. One-piece bonnet up to NPS 12 (DN 300) for better alignment and fewer parts.
- Full port
- Outside screw and yoke (OS & Y)
- Bolted bonnet; extended bonnet; or pressure seal bonnet



## Range of API 600 Cast Steel Gate Valve

- Body materials: Carbon steel, stainless steel and alloy steel
- Trim: standard trim #8 410 and hardfaced; trim chart is on page 6
- End Connection - Flange/RTJ/Butt Weld
- Pressure Rating - Class 150, 300, 600, 800, 900, 1500 and 2500
- Size - NPS 2"-64" (DN 50 - 1600)

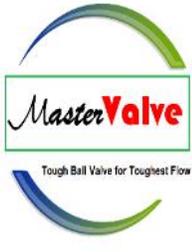


## How to Order

Example: **100CGA-13-8-WCB-BH**. This figure number represents a 10" cast gate valve, flanged raised face end, 300# class, trim #8 410/stellite, body WCB, bolted bonnet and hand wheel operator.

Size	Valve Type	End Connection	Pressure Class
<b>015 = 1 1/2"</b> <b>020 = 2"</b> <b>025 = 2 1/2"</b> <b>030 = 3"</b> <b>040 = 4"</b> <b>060 = 6"</b> <b>080 = 8"</b> <b>100 = 10"</b> <b>120 = 12"</b> <b>140 = 14"</b> <b>160 = 16"</b> <b>180 = 18"</b> <b>200 = 20"</b> <b>240 = 24"</b> <b>300 = 30"</b> <b>360 = 36"</b> <b>480 = 48"</b>	<b>CGA = Cast gate</b> <b>CGL = Cast globe</b> <b>CSC = Cast swing check</b> <b>CPC = Cast Piston check</b> <b>CYG = Cast Y-globe</b>	<b>1 = Raised face</b> <b>2 = Ring type joint</b> <b>3 = Butt weld</b> <b>S = Special</b>	<b>1 = 150#</b> <b>3 = 300#</b> <b>6 = 600#</b> <b>9 = 900#</b> <b>A = 1500#</b> <b>B = 2500#</b>

Trim	Body/Bonnet	Bonnet Type	Operator
<b>1 = 410</b> <b>2 = 304</b> <b>5 = Hardfaced</b> <b>8 = 410/hardfaced</b> <b>9 = Monel</b> <b>10 = 316</b> <b>11 = Monel/hardfaced</b> <b>12 = 316/hardfaced</b> <b>13 = Alloy 20</b> <b>14 = Alloy 20/hardfaced</b> <b>16 = 316/hardfaced</b>	<b>WCB</b> <b>LCC</b> <b>C5</b> <b>C-12</b> <b>WC6</b> <b>WC9</b> <b>CD3MN</b> <b>C12A</b> <b>CF8M</b> <b>CF8</b> <b>CG3M</b> <b>CF8C</b> <b>M-35</b> <b>CW6MC</b> <b>CN7M</b>	<b>B = Bolted</b> <b>E = Extended</b> <b>P = Pressure seal</b>	<b>H = Handwheel</b> <b>G = Bevel Gear</b> <b>A = Actuator</b>



## API 600 Trim Number Chart

API Trim Number	Material (Seat/ Disc surface)	Seat / Disc		Backseat Overlay	Stem Material
1	F6/410 (13Cr)	410	410	410	410
2	304 (18Cr-8Ni)	304	304	304	304
3	F310 (25Cr-20Ni)	310	310	310	310
4	Hard F6/410	Hard 410	Hard 410	410	410
5	Hardfaced (Co-Cr A)	Stellite	Stellite	410	410
5A	Hardfaced (Ni-Cr)	Ni-Cr	Ni-Cr	410	410
6	410 and 13Cr & Cu-Ni	Cu-Ni	Cu-Ni	410	410
7	410 and Hard 410	Hard 410	Hard 410	410	410
8	410 and Hardfaced (13Cr & Co-Cr A)	Stellite	410	410	410
8A	410 and Hardfaced (13Cr & Ni-Cr)	Ni-Cr	410	410	410
9	Monel (Ni-Gu Alloy)	Monel	Monel	Monel	Monel
10	316(18Cr-8Ni-Mo)	316	316	316	316
11	Monel and Hardfaced	Stellite	Monel	Monel	Monel
12	316(18Cr-8Ni-Mo) and Hardfaced	Stellite	316	316	316
13	Alloy 20	Alloy 20	Alloy 20	Alloy 20	Alloy 20
14	Alloy 20 and Hardfaced	Stellite	Alloy 20	Alloy 20	Alloy 20
15	Hardfaced	Stellite	Stellite	304	304
16	Hardfaced	Stellite	Stellite	316	316
17	Hardfaced	Stellite	Stellite	347	347
18	Hardfaced	Stellite	Stellite	Alloy 20	Alloy 20

**Trim:** stem; body seating surface; gate seating surface; bushing, or a deposited weld, for the backseat & stem hole guide; small internal parts that normally contact the service fluid, excluding the pin that is to make a stem-to-gate connection (this pin shall be made of an austenitic stainless steel material)



ISO 9001-2008 Certified

# Master Valve USA

TOUGH BALL VALVE FOR TOUGHEST FLOW

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