



FORGED
STEEL
VALVES



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Bonney Forge—The Name You Trust for Forged Steel Valves

Bonney Forge's forged steel valves and piping components have led the way for over eighty years in state-of-the-art design and dependable performance. It is qualities like these, combined with a customer-driven culture, that maintains Bonney Forge's leadership position within the industry for exceeding customer expectations. Our goal is to make Bonney Forge your number one world-wide choice for forged valves.



FORGING AHEAD OF THE REST

The Industry's Widest Range of Forged Steel Valves

Bonney Forge's forged steel valve range includes carbon steel, alloys, stainless steel, and exotic alloys. Valve types include gate, globe and check with ratings of 150 lbs. to 4500 lbs. There are also bellows sealed valves, cryogenic valves for temperatures to -321°F (-196°C) and valves with extended bodies. All available from one source!

Production Capabilities that Meet Your Demands

Bonney Forge is an integrated supplier with in-house forging, machining and assembly-test operations. Our forge shop contains a complete line of forging and support equipment, including a forge die shop, all located in one modern facility. Automated production lines and next generation machining systems

offer high volume capabilities with uncompromising quality.

Quality That You Can Count On

Bonney Forge products are manufactured and tested in strict accordance to ASTM, ASME, ANSI, API and other applicable industry codes and specifications. Chemical and mechanical properties of all Bonney Forge products are fully traceable to the original forging lot and raw material heat. Our extensive quality control system carefully monitors our manufacturing processes to assure a product that performs to the highest industry standards. Quality assurance procedures include 100% hydrostatic



and pneumatic testing of all valves in full conformance to applicable API standards and industry codes. Bonney Forge has earned ISO 9001 designation through uncompromising, company-wide controls.

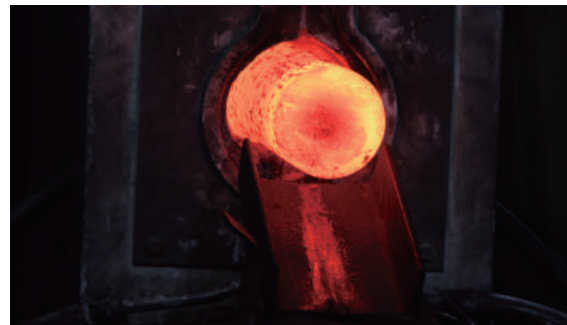
We're Here for You

This catalog offers a vast amount of product information and specifications. In the event that you need additional information or technical assistance please call our friendly and knowledgeable customer service personnel at 1-800-231-0655 or visit our web site at www.bonneyforge.com.



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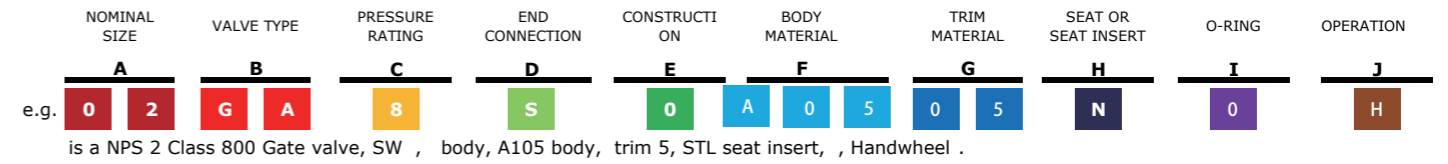
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**The Best Value -
Price, Quality, Service
All The Time.**



FIGURE NUMBER/HOW TO ORDER



A NOMINAL SIZE

- F1 3/8" (DN 10)
- F2 1/2" (DN 15)
- F3 3/4" (DN 20)
- 01 1" (DN 25)
- F4 1 1/4" (DN 32)
- F5 1 1/2" (DN 40)
- 02 2" (DN 50)
- F6 2 1/2" (DN 65)
- 03 3" (DN 80)
- 04 4" (DN 100)

D E

- X Other
- R RF (Raised Face)
- J RTJ (Ring Type Joint)
- F FF (Flat Face)
- T Threaded (NPT/BSP/...)
- B BW (Butt-Welding)
- S SW (Socket-Welding)

F BODY MATERIAL

- | | | | |
|-------------------|-----------------|--|--|
| X0 Other | | | |
| A05 A105 | F6L A182 F316L | | |
| CL1 A350 LF1 | F32 A182 F321 | | |
| CL2 A350 LF2 | F34 A182 F347 | | |
| F11 A182 F11 CI 2 | F51 A182 F51 | | |
| F22 A182 F22 CI 3 | F53 A182 F53 | | |
| F05 A182 F5 | F55 A182 F55 | | |
| F09 A182 F9 | F91 A182 F91 | | |
| F34 A182 F304 | I25 Inconel 625 | | |
| F3L A182 F304L | M40 Monel 400 | | |
| F36 A182 F316 | A20 Alloy 20 | | |

H SEAT OR SEAT INSERT

- | | |
|---------|-----------------------|
| ALL | GA/GL/CH |
| X Other | R Renewable metal |
| BA | N Non renewable metal |
| T | PTFE |
| R | RPTFE |
| N | Nylon |
| V | Viton |
| Q | TFM |
| D | Devlon |
| P | PEEK |
| C | PCTFE |
| M | Metal |
| O | MolonLPPL |
| A | Delrin |

B VALVE TYPE

- XX Other
- BA Ball Valve
- GA Gate Valve
- GL Globe Valve
- CH Check Valve

C PRESSURE RATING

- 0 Other
- 1 CI 150 (PN 20)
- 3 CI 300 (PN 50)
- 6 CI 600 (PN 100)
- 8 CI 800 (PN 130)
- 9 CI 900 (PN 150)
- 15 CI 1500 (PN250)
- 25 CI 2500 (PN 420)

G TRIM MATERIAL

- ALL
- 00 Other
- GA/GL/CH/BA
- 01 13Cr/13Cr/410
- 02 304/304/304
- 03 310/310/310
- 04 Hard 13Cr/Hard 13Cr/410
- 05 Stellite 6/Stellite 6/410
- 5A Ni-Cr/Ni-Cr/410
- 06 13Cr/Cu-Ni/410
- 07 13Cr/Hard 13Cr/410
- 08 13Cr/Stellite 6/410
- 8A 13Cr/Ni-Cr/410
- 09 Monel/Monel/Monel
- 10 316/316/316
- 11 Monel/Stellite 6/Monel
- 12 316/Stellite 6/316
- 13 Alloy 20/Alloy 20/Alloy 20
- 14 Alloy 20/Stellite 6/Alloy 20
- 18 Stellite 6/Stellite 6/Alloy 20
- 20 304L/304L/304L
- 21 316L/316L/316L

E CONSTRUCTION

- All 0 Other
- BA 3 3-piece, split body, floating
- 1 Top entry
- GA 1 Solid wedge, bolted bonnet
- 2 Solid wedge, welded bonnet
- 3 Solid wedge, pressure seal
- 4 Solid wedge, bellow seal
- GL 1 Straight pattern, bolted bonnet
- 2 Straight pattern, welded bonnet
- 3 Straight pattern, pressure seal
- 4 Y-pattern, bolted bonnet
- 5 Y-pattern, welded bonnet
- 6 Y-pattern, pressure seal
- CH 1 Swing, bolted cover
- 2 Swing, welded cover
- 3 Swing, pressure seal
- 4 Piston type, bolted cover
- 5 Piston type, welded cover
- 6 Ball disc, bolted cover
- 7 Ball disc, welded cover

J OPERATION

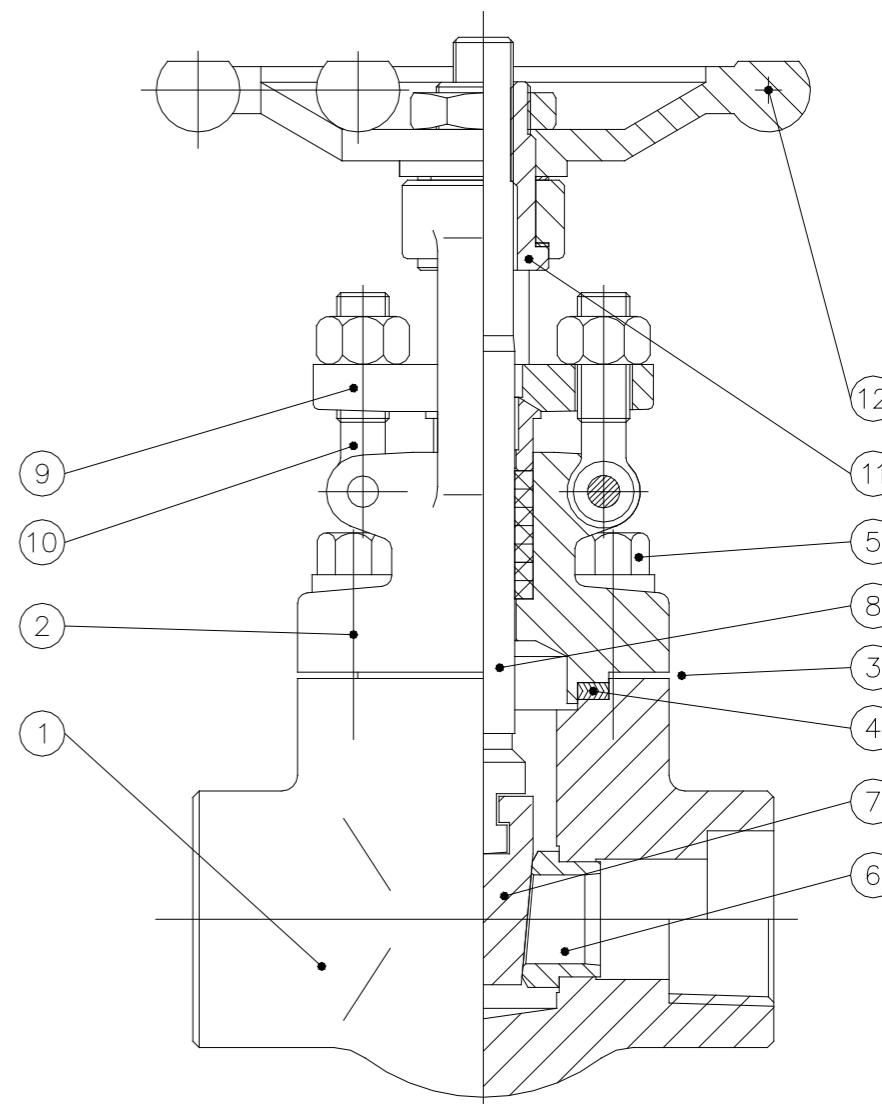
- X No operation
- L Lever
- H Handwheel
- G Gear
- B Bare stem
- P Pneumatic
- E Electric

I O-RING

- 0 NoO-ring
- 1 Viton
- 2 TEFLON
- 3 HNBR
- 4 NBR
- 5 Other
- 6 EPDM
- 7 FVMQ
- 8 FFKM
- 9 AFLAS

GATE VALVES

Forged steel, outside screw and yoke (OS&Y), rising stem, non-rising handwheel. Full or standard port. Bolted or welded bonnet joint. Integral backseat.



GATE VALVES



- 1. BODY.** The body is forged steel and designed to the basic dimensional requirements of the applicable specifications such as API 602 and ASME B16.34. The body is available in both the full or standard port design.
- 2. BONNET.** The bonnet is forged steel, has an integral backseat and incorporates the stuffing box, which has dimensions per the applicable specifications such as API 602.
- 3. BODY-BONNET JOINT.** Two different bonnet joint designs are available. These are either the bolted bonnet or the threaded and seal welded type.
- 4. GASKET.** The bolted bonnet joint design valve uses a contained, controlled compression, spiral wound type gasket.
- 5. BONNET BOLTING.** The bonnet bolting is manufactured of alloy steel in accordance with the requirements of the applicable specifications such as API 602 and ASME B16.34.
- 6. SEAT RINGS.** The seat rings are steel and makeup part of the valve trim. They are pressed into the valve body and wedged into place, forming a seal with the body. The seating surfaces are ground and lapped.
- 7. WEDGE.** The wedge, which is solid design, is forged or investment cast steel and is part of the valve trim. The seating surfaces are ground and lapped.

- 8. STEM.** The stem is forged steel and part of the valve trim. It contains an integral back seat shoulder, which mates with the integral backseat of the bonnet. The stem is designed to the basic dimensional requirements of the applicable specifications such as API 602.
- 9. GLAND AND FLANGE.** The gland, gland flange assembly utilizes a separate, two piece design. This self aligning design allows the flange to be unevenly tightened while the gland maintains it's parallel alignment with the stem and stuffing box.
- 10. GLAND BOLTS AND NUTS.** The steel/stainless steel gland bolt and nut assembly is a stud, Eye bolt arrangement. This design allows complete removal from the valve when service is required. The use of industry standard thread full length studs and nuts also allows easy replacement should these items be lost or in need of replacement.
- 11. YOKE SLEEVE.** The yoke sleeve is of forged stainless steel material having a high melting point and is resistant to wear and corrosion.
- 12. HANDWHEEL.** The handwheel is forged carbon steel of an open spoke design. This robust construction along with appropriate sizing allows for ease of operation.

GATE VALVES- BOLTED BONNET- FULL & STANDARD PORT



150LB-800LB.

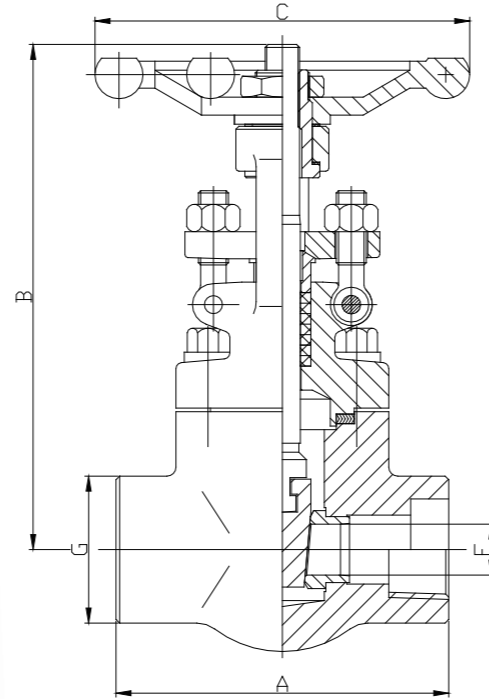
900LB-1500LB.

Design construction:

- API 602 - ASME B16.34 - BS 5352
- Testing according to API 598
- Marking MSS SP25
- Outside Screw and Yoke (OS&Y)
- Self aligning two piece packing gland
- Spiral-wound gasket
- Integral backseat
- Socket Weld Ends to ASME B16.11
- Screwed Ends (NPT) to ASME B1.20.1
- Butt Welding Ends to ASME B16.25

Ratings:

- carbon steel class 800 1975 psig @ 100°F
138 bar + 38°C
- carbon steel class 1500 3705 psig @ 100°F
255 bar + 38°C



Main dimension and weight

150LB-800LB.	DN	R. P	mm	8	10	15	20	25	32	40	50	-	
		F. P	(in)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	-	
	F	R. P	mm	-	8	10	15	20	25	32	40	50	-
		F. P	(in)	-	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	-
	A	R. P	mm	7	10	10	13	18	24	29	36.5	-	-
		F. P	(in)	-	7	10	13	18	24	29	36.5	46.5	-
	B	R. P	mm	79	79	79	92	111	120	120	140	-	-
		F. P	(in)	-	79	79	92	111	120	120	140	178	-
	W	R. P	mm	149	151	151	158	185	239	243	279	-	-
		F. P	(in)	-	149	151	158	158	239	243	279	328	-
	kg	R. P	mm	100	100	100	100	125	160	160	180	-	-
		F. P	(in)	-	100	100	100	125	160	160	180	200	-
kg	R. P	mm	1.9	1.9	1.9	2.1	3.2	6.9	6.9	10.4	-	-	
	F. P	(in)	-	1.9	1.9	2.1	3.2	6.9	6.9	10.4	15.8	-	

RB,FB.Reduced bore,full bore

900LB-1500LB.	NPS	(in)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
	DN	mm	8	10	15	20	25	32	40	50
	F		7	10	13	18	24	29	36.5	46.5
	A		102	102	102	111	120	120	140	178
	B		166	166	169	193	230	246	283	330
	W		120	120	120	125	160	160	180	200
kg		3.6	3.5	3.4	3.8	7.8	11.9	12.2	21.9	

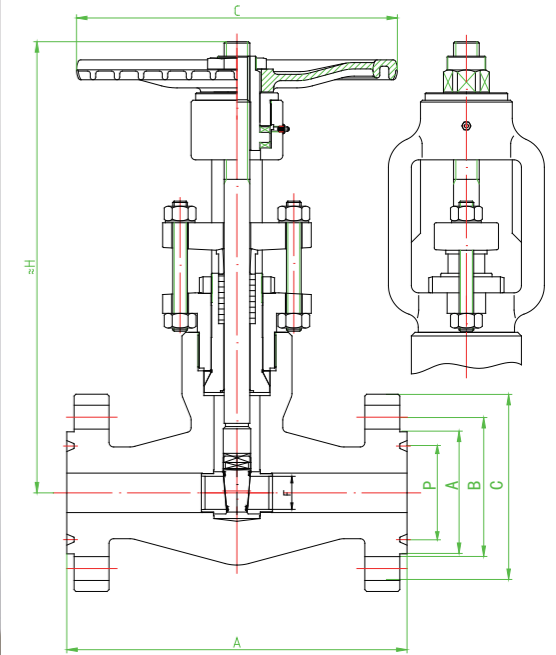


GATE VALVES-SELFING-SEALING GATE VALVE

2500 LB.

Design construction:

- ASME B16.34 - BS 5352
- Outside Screw and Yoke (OS&Y)
- Self aligning two piece packing gland
- Integral backseat
- Oval ring joint gasket
- Socket Weld Ends to ASME B16.11
- Screwed Ends (NPT) to ASME B1.20.1
- Butt Welding Ends to ASME B16.25
- Ratings standard class:
- carbon steel class 1500 3705 psig @ 100°F
255 bar + 38°C
- carbon steel class 2500 6170 psig @ 100°F
425 bar + 38°C



DN		L	H	W	P	A	B	C	T	F	n	kg
(in)	公制											
1/2	15	264	333	180	42.9	65.1	89.0	133	30.5	6.4	4-23	18.0
3/4	20	273	333	180	50.8	73.0	95.2	140	32.0	6.4	4-23	20.5
1	25	308	333	180	60.3	82.5	107.9	159	35.0	6.4	4-26	23.0
1 1/4	32	352.2	383	200	72.2	101.6	130.2	184	38.5	7.93	4-29	42.6
1 1/2	40	387.2	420	200	82.6	114.0	146.0	203	44.5	7.93	4-32	45.0
2	50	454.2	524	300	101.6	133.0	171.4	235	51.0	7.93	8-29	60.5



GATE VALVES-WELDED BONNET- FULL & STANDARD PORT

150LB-800LB.

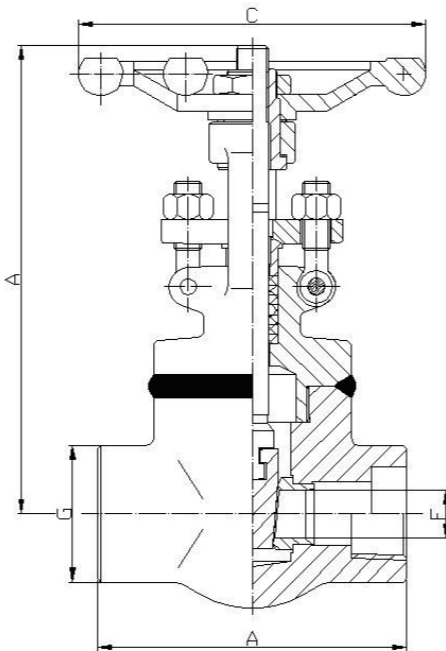
900LB-1500LB.

Design construction:

API -ASME B16.34 - BS 5352
 Testing according to api 598
 Marking MSS SP25
 Outsind Screw and Yoke(OS&Y)
 Integral backseat
 Body Bonnet Weld to ASMEIX
 Screwed Ends (NPT) to ASME B1.20.1
 Butt Welding Ends to ASME B16.25

Ratings:

- carbon steel class 800 1975 psig @ 100°F
 138 bar + 38°C
 - carbon steel class 1500 3705 psig @ 100°F
 255 bar + 38°C



150LB-800LB.	DN	R. P	mm	8	10	15	20	25	32	40	50	-
			(in)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	-
	F. P	mm	-	8	10	15	20	25	32	40	50	
		(in)	-	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	
	F	R. P		7	10	10	13	18	24	29	36.5	-
		F. P		-	7	10	13	18	24	29	36.5	46.5
	A	R. P		79	79	79	92	111	120	120	140	-
		F. P		-	79	79	92	111	120	120	140	178
	H	R. P		149	151	151	158	185	239	243	279	-
		F. P		-	149	151	158	158	239	243	279	328
	C	R. P		100	100	100	100	125	160	160	180	-
		F. P		-	100	100	100	125	160	160	180	200
kg	R. P		1.9	1.9	1.9	2.1	3.2	6.9	6.9	10.4	-	
	F. P		-	1.9	1.9	2.1	3.2	6.9	6.9	10.4	15.8	

900LB-1500LB.	NPS	(in)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
	DN	mm	8	10	15	20	25	32	40	50
	F		7	10	13	18	24	29	36.5	46.5
	A		102	102	102	111	120	120	140	178
	H		166	166	169	193	230	246	283	330
	C		120	120	120	125	160	160	180	200
	kg		3.6	3.5	3.4	3.8	7.8	11.9	12.2	21.9