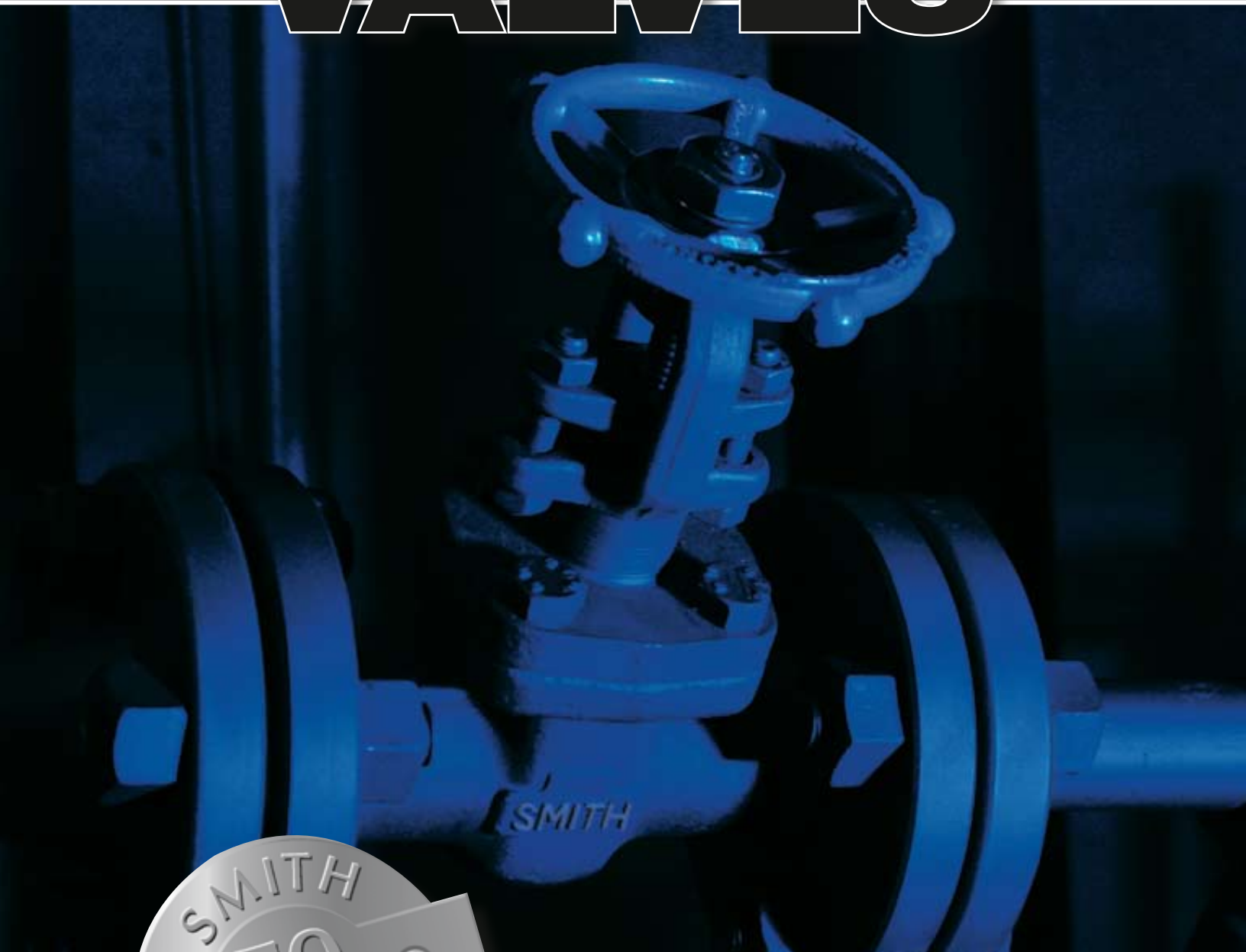


SMITH

Forged Steel

VALVES



**OUR REPUTATION
HAS BEEN FORGED
OVER A SOLID
HALF CENTURY**



A Trademark of the Newdell Company

SMITH



In the Beginning

1956

When he founded his company in the mid 1950s, James Dewolf Smith focused on the production of forged gate, globe and check valves for use primarily in the petrochemical industry. Ten years later he added a forged brass ball valve line to the production stream. By the mid 1970s, Smith was one of the industry's largest producers of industrial gate, globe, check, and ball valves under the 2.5" size. The oil business was booming and producers were ordering valves at a remarkable rate.



The End of an Era

80's

By now Tony Smith had taken over his father's business, added exotic stainless and alloy items to the product offerings, and relocated to a brand new production facility. Then U.S. oil production came to a virtual halt. A dramatic downturn in market conditions and increased competition forced Tony to make substantial changes, laying off workers and moving most production offshore. He began producing private label valves and licensed his industrial ball valves to raise cash. Eventually the economy forced Tony to sell to Cornerstone Financial and a chain of corporate owners ensued. Finally Smith's production facilities were moved to Longview, Texas. But the company continued to falter.



New Beginnings

2001

With the turn of the century came new life for Smith. In March of 2000, the Newdell Company bought Smith's assets and moved production to Italy. The downward trend was reversed and sales began to climb. In the fall of 2006, production was returned to the USA, this time to Houston, Texas where the owners had just completed a new manufacturing and warehousing facility. Smith is now producing valves at a rate of 20,000 per month and is growing rapidly.



Throughout the company history, one thing has never changed with the Smith brand: product quality. Yes, the Newdell Company has made substantial investments in technology resulting in improved engineering and manufacturing practices. Yet the time-tested Smith designs and the unique color-coding system remain essentially unchanged. You see, the Smith brand has a reputation to uphold. A reputation for quality that has been forged over a solid half-century. A reputation that will only be enhanced as we move into our second half-century of production.



Coding Information.....2, 3

GATE VALVES

Class 800

Conventional Port..... 0800/0870.....5
 Full Port 0888/5870.....6
 Inside Screw, Conventional Port 0850/0890.....7
 Conventional Port, Butt Weld 0800B.....9
 Integrally Reinforced Extended Body..... 0874/0875.....15
 Extended Body..... 0811-0814/0876-0879.....16

Class 1500

Conventional Port..... 1500/1570.....8
 Conventional Port, Butt Weld 1500B.....9
 Full Port..... 1588/1578.....10

Class 2500

Full Port..... 2578.....11

Class 150, 300, 600, 1500

Conventional Port, Flanged..... 0815/0830/0860.....12
 Full Port, Flanged 5815/5830.....13
 Full Port, Flanged, Butt Weld..... 0895/0895B.....14

GLOBE VALVES

Class 800

Throttle Valve..... 0G80/0G87.....18
 Flow Control..... FG80.....22

Class 1500

Throttle Valve..... G150/G157.....19

Class 150, 300, 600, 1500

Flanged..... 0G81/0G83/0G86/G895.....20, 21

Class 1690/2690

Y-Pattern, Non-rotating Stem Y162-Y262.....35
 Y-Pattern, Rotating Stem Y167-Y267.....36

CHECK VALVES

Class 800

Ball..... 0B80/SB80.....24
 Piston..... 0C80/SC80.....25
 Swing..... SW80.....25
 YPattern, Ball/Piston YB80/YC80.....27

Class 1500

Ball..... B150/SB15.....26
 Piston..... C150/SC15.....26

Class 150, 300, 600

Flanged, Piston..... 0C81/SC81, 0C83/SC83,
 0C86/SC86.....28, 29
 Flanged, Ball..... 0B81/SB81, 0B83/SB83,
 0B86/SB86.....30, 31

SPECIALITY VALVES.....32, 33

Class 1690/2690

Y-Pattern..... YC16/YC26.....37

CRYOGENIC VALVES.....38-42

BELLOWS SEAL.....43

TECHNICAL.....44-47

SMITH VALVE PART NUMBERING SYSTEM

The ordering code allows you to code the Valve Figure Number of any standard Smith Gate, Globe, or Check Valve. Code letters from the listing below have been assigned for your selection.

The grouping may be prefixed by "CE" to indicate compliance to the European Commission Pressure Equipment Directive 97/23/EC. The grouping may also be suffixed by the following letters to denote the indicated special requirements: X = oxygen cleaned, V = vented seat.

EXAMPLE:

BB, OS&Y, Conv. Port, Gate Valve, A105NLC, 316 SS trim, Grafoil packing, 316 SS with graphite gasket, socket weld ends, 1" size.

Use "O" or "T" for Standard Service
Use "S" for HF Acid Service
Use "U" or "Y" for Nace Service

STYLE CODE* + MATERIAL SELECTION PER TABLE BELOW + PIPE SIZE**



* Insert 4 digit Smith number (0888, 1578, 0G80, etc.) as shown on the following pages.

Pipe Size **
025 - (1/4 NPS / 8 DN)
037 - (3/8 NPS / 10 DN)
050 - (1/2 NPS / 15 DN)
075 - (3/4 NPS / 20 DN)
100 - (1 NPS / 25 DN)
125 - (1 1/4 NPS / 32 DN)
150 - (1 1/2 NPS / 40 DN)
200 - (2 NPS / 50 DN)
300 - (3 NPS / 80 DN)

BODY/BONNET/COVER	TRIM MATERIAL		SEAT	PACKING	GASKET	END CONNECTIONS
	SHELL	WEDGE/DISC				
A	F51	316	316	A	INCOLOY 825+GRAPHITE	A
B	F347	MONEL	HF	B	INCONEL 600/X750 + GRAPHITE	B
C	F5	KMONEL	MONEL	C	CHESTERTON	C
D	F316H	MONEL NACE	MONEL NACE	D	INCONEL 600/X750 + TFE	D
E	HASTELOY - C276	347	HF	E	E	E
F	F20	A20	A20	F	A20 + GRAPHITE	F
G	F9	317L	HF	G	316 + GRAPHITE	G
H	F321	347H	HF	H	HAST - C276 + GRAPHITE	H
I	F347H	347H	HF	I	347 + GRAPHITE	I
J	F316DC	316H	HF	J	J	J
K	F11	410 NACE	410 HF NACE	K	K	K
L	F317L	316 + INSERT	HF	L	L	L
M	F22	316H	HF	M	MONEL + GRAPHITE	M
N		304	HF	N	N	N
O	A105NLC	410	HF	O	304/316 + GRAPHITE	O
P	F91	825	HF	P	P	P
Q	Monel 400	347	HF	Q	Q	Q
R	F304DC	F51	HF	R	R	R
S	A105NLC	316	HF	S	S	S
T	LF2	410	HF	T	T	T
U	LF2	KMONEL	MONEL + TFE	U	U	U
V	F304H	304H	HF	V	V	V
W	INCOLOY 825	316	HF	W	W	W
X	A105NLC	HAST - C276	HAST - C276	X	X	X
Y		304H	HF	Y	Y	Y
Z			HF	Z	Z	Z

FEMALE ENDS-NPT THD
 MALE END-SEE FIG. NO.
 FLANGE ENDS 125-250

BSP THD
 (BRITISH PARALLEL)

SOCKETWELD X F-NPT

SOCKETWELD

MONEL + TFE

316 + TFE

304/316 + GRAPHITE

GRAPHITE W/BRAIDED ENDS

GRAPHITE V-RINGS

CHESTERTON

GARLOCK EVSP

A20 + GRAPHITE

316 + GRAPHITE

HAST - C276 + GRAPHITE

347 + GRAPHITE

317L + GRAPHITE

MONEL + GRAPHITE

304/316 + GRAPHITE

316 + TFE

MONEL + TFE

TFE V-RINGS VACUUM

TFE V-RINGS



A Trademark of the Newdell Company

SMITH

Unique Color Coding



BLUE
ASTM A105
Carbon Steel



GREEN
ASTM 182 F9
9 Cr, 1 Mo



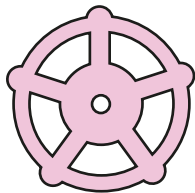
ORANGE
ASTM A350 LF2
Low Temp.



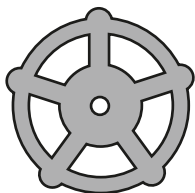
RED
Teflon Packing
Gaskets or Seals
500°F/250°C
Max Temp.



PURPLE
MONEL



PINK
F20 (ALLOY 20)



SILVER
ASTM A182 F316
ASTM A182 F316L
316 S.S.



YELLOW
ASTM A182 F11
1 1/4 Cr, 1/2 Mo



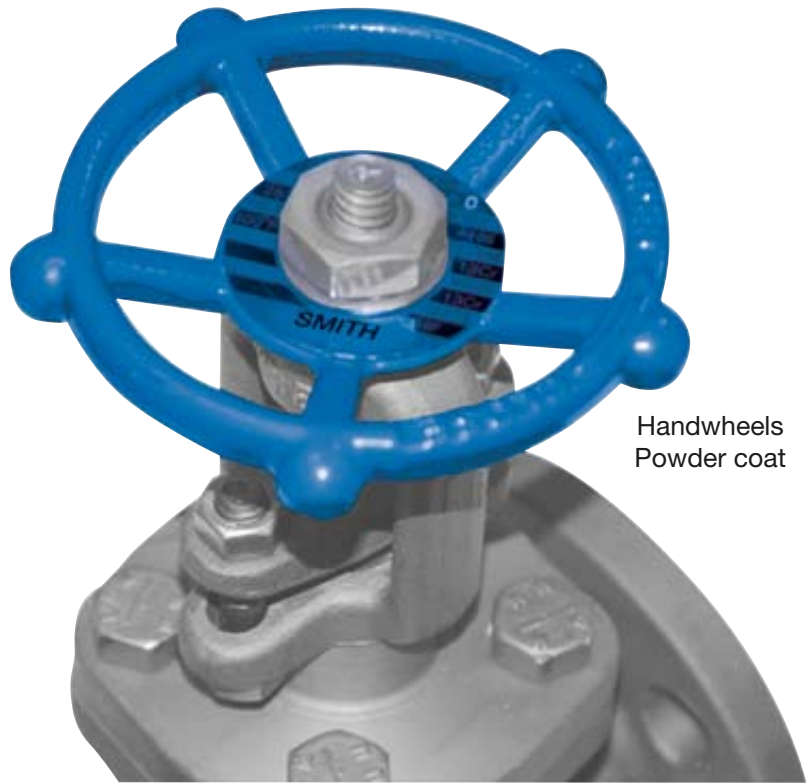
WHITE
ASTM 182 F5
5 Cr, 1/2 Mo



BROWN
ASTM A182 F22
2 1/2 Cr, 1 Mo

GATE & GLOBE VALVES

Handwheel color indicates
Body-Bonnet Material or Special Packing



Handwheels
Powder coat

Nameplate color indicates Trim Material
(Gate, Globe and Check)

Standard 13 Cr Trim, Stem, Wedge Hard-faced Seat Rings	13 Cr Stainless Soft Stem, Wedge, & Seats per NACE	316 Stainless Steel Trim
Monel Trim	Special Trim	

END CAPS

Socket Weld End

Threaded End

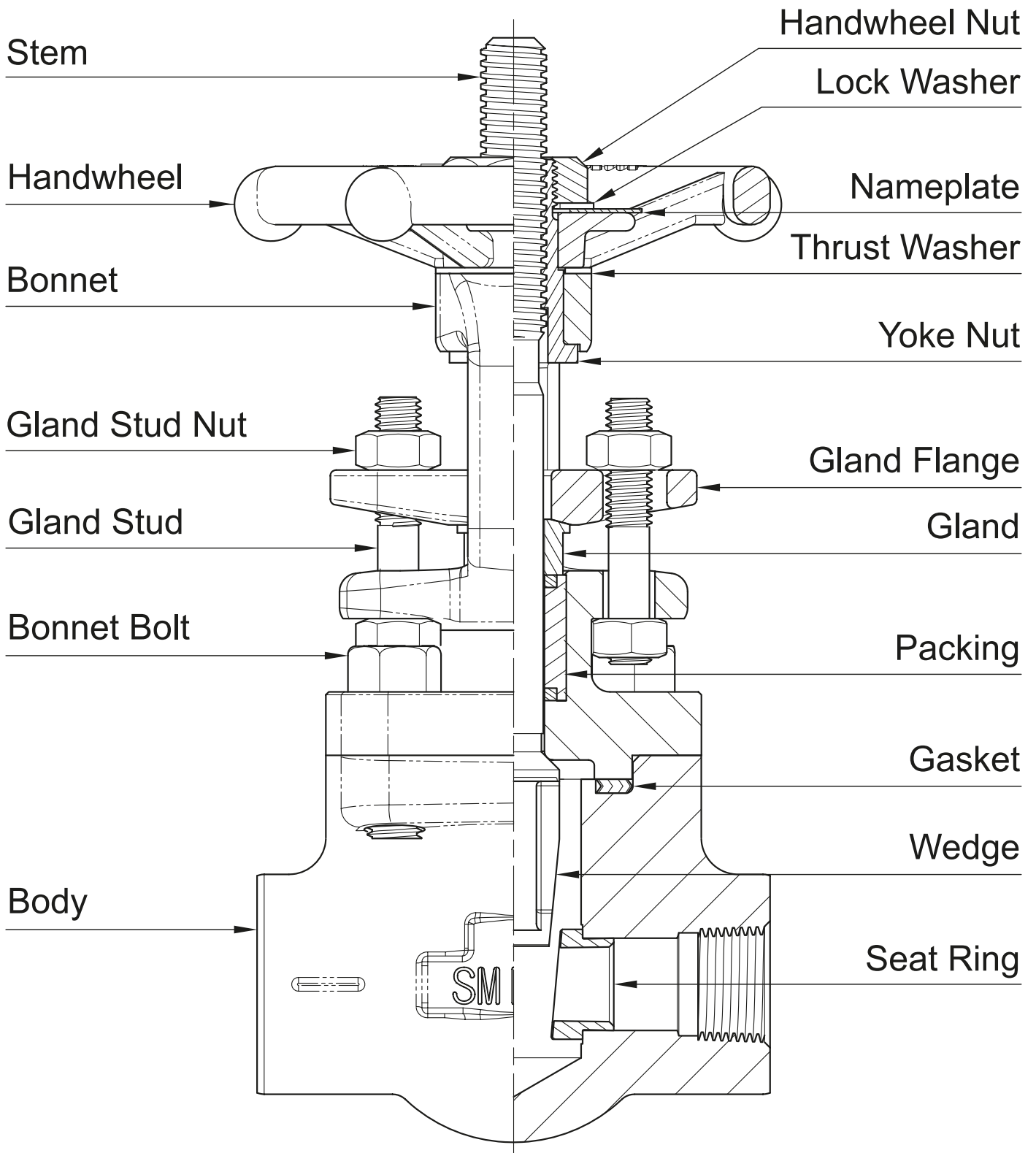
Name Plates are Stainless Steel



A Trademark of the Newdell Company

SMITH

Gate Valves





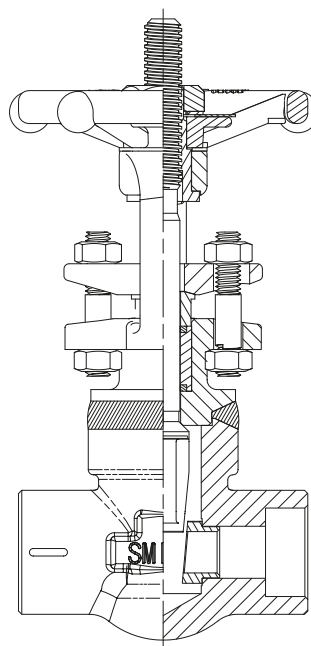
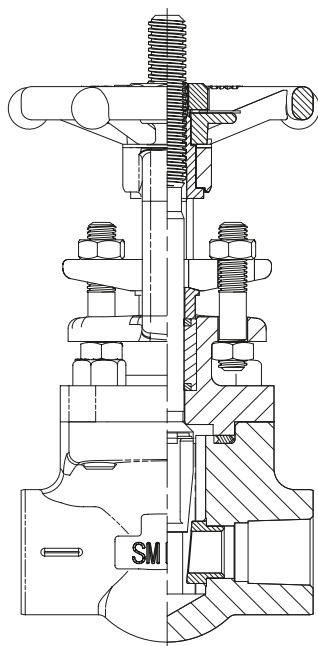
A Trademark of the Newdell Company

SMITH

0800-0870
Gate Valves

Forged Steel OS&Y – Conventional Port
Valves comply with applicable portions of API 602 and ASME B16.34

Class 800
1/4" - 2"



0800

0870

CLASS 800 CONVENTIONAL PORT BOLTED BONNET GATE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/4 (8)	3.25 (83)	6.31 (160)	4.00 (102)	0.31 (8)	0.39 (10)	0.56 (14)	1/4"-18	3.8 (1.7)
3/8 (10)	3.25 (83)	6.31 (160)	4.00 (102)	0.39 (10)	0.39 (10)	0.69 (18)	3/8"-18	3.8 (1.7)
1/2 (15)	3.25 (83)	6.31 (160)	4.00 (102)	0.39 (10)	0.39 (10)	0.86 (22)	1/2"-14	3.8 (1.7)
3/4 (20)	3.50 (89)	6.50 (165)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	4.5 (2.0)
1 (25)	3.88 (98)	7.25 (184)	4.00 (102)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	6.3 (2.8)
1 1/4 (32)	4.75 (121)	9.13 (232)	5.50 (140)	1.19 (30)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	9.5 (4.3)
1 1/2 (40)	4.75 (121)	9.13 (232)	5.50 (140)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	12.0 (5.4)
2 (50)	5.50 (140)	11.06 (281)	6.63 (168)	1.50 (38)	0.63 (16)	2.41 (61)	2"-11 1/2	20.5 (9.3)

CLASS 800 CONVENTIONAL PORT WELDED BONNET GATE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/4 (8)	3.25 (83)	6.19 (157)	4.00 (102)	0.31 (8)	0.39 (10)	0.56 (14)	1/4"-18	3.3 (1.5)
3/8 (10)	3.25 (83)	6.25 (159)	4.00 (102)	0.39 (10)	0.39 (10)	0.69 (18)	3/8"-18	3.3 (1.5)
1/2 (15)	3.25 (83)	6.25 (159)	4.00 (102)	0.39 (10)	0.39 (10)	0.86 (22)	1/2"-14	3.3 (1.5)
3/4 (20)	3.50 (89)	6.50 (165)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	3.8 (1.7)
1 (25)	3.88 (98)	7.25 (184)	4.00 (102)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	5.3 (2.4)
1 1/4 (32)	4.75 (121)	9.13 (232)	5.50 (140)	1.19 (30)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	10.3 (4.6)
1 1/2 (40)	4.75 (121)	9.13 (232)	5.50 (140)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	9.8 (4.4)
2 (50)	5.50 (140)	11.00 (279)	6.63 (168)	1.50 (38)	0.63 (16)	2.41 (61)	2"-11 1/2	16.0 (7.3)



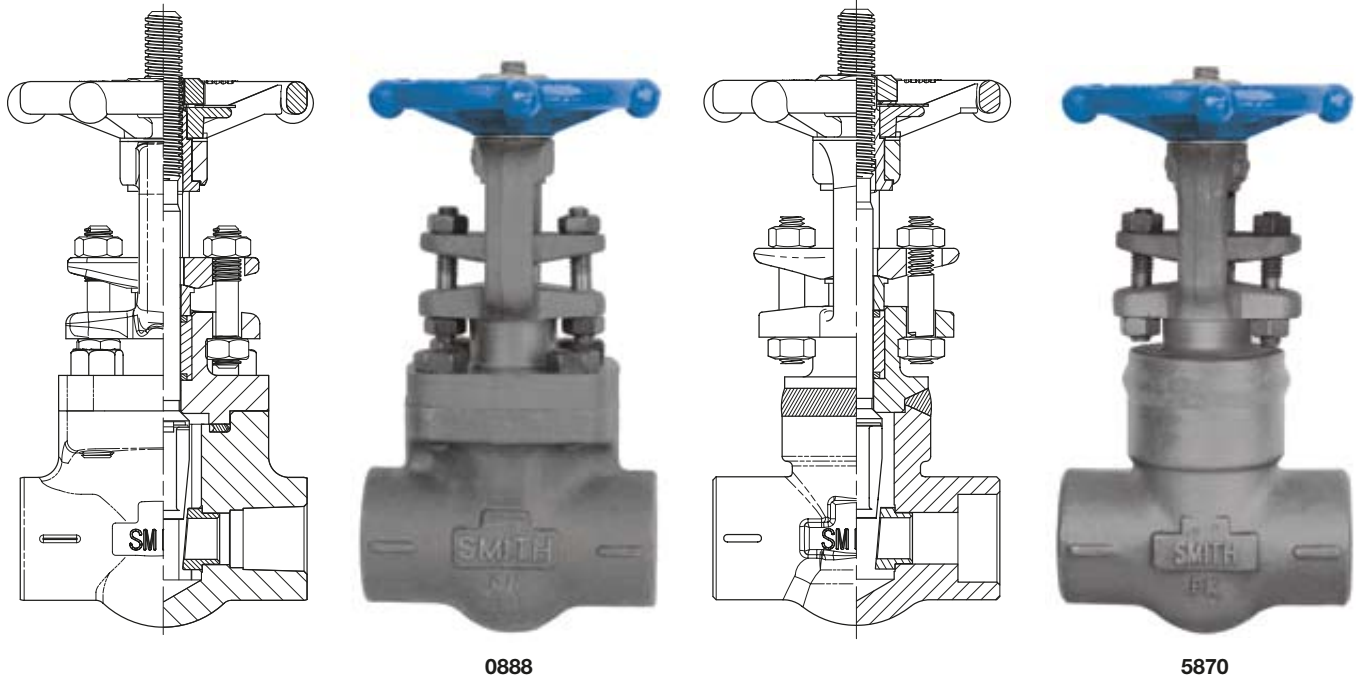
A Trademark of the Newdell Company

SMITH

0888-5870
Gate Valves

Forged Steel OS&Y – Full Port
Valves comply with applicable portions of API 602 and ASME B16.34

Class 800
1/4" - 2"



0888

5870

CLASS 800 FULL PORT BOLTED BONNET GATE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/4 (8)	3.25 (83)	6.25 (159)	4.00 (102)	0.31 (8)	0.39 (10)	0.56 (14)	1/4"-18	3.8 (1.7)
3/8 (10)	3.25 (83)	6.31 (160)	4.00 (102)	0.39 (10)	0.39 (10)	0.69 (18)	3/8"-18	3.8 (1.7)
1/2 (15)	3.50 (89)	6.50 (165)	4.00 (102)	0.50 (13)	0.39 (10)	0.86 (22)	1/2"-14	4.8 (2.2)
3/4 (20)	3.88 (98)	7.25 (184)	4.00 (102)	0.75 (19)	0.51 (13)	1.07 (27)	3/4"-14	6.3 (2.8)
1 (25)	4.75 (121)	9.13 (232)	4.00 (102)	0.94 (24)	0.51 (13)	1.34 (34)	1"-11 1/2	9.8 (4.4)
1 1/4 (32)	4.75 (121)	9.13 (232)	5.50 (140)	1.19 (30)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	11.5 (5.2)
1 1/2 (40)	5.50 (140)	11.06 (281)	6.63 (168)	1.50 (38)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	21.8 (9.9)
2 (50)	5.69 (144)	12.38 (314)	6.63 (168)	2.00 (51)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	24.0 (10.9)

CLASS 800 FULL PORT WELDED BONNET GATE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/4 (8)	3.25 (83)	6.25 (159)	4.00 (102)	0.31 (8)	0.39 (10)	0.56 (14)	1/4"-18	3.3 (1.5)
3/8 (10)	3.25 (83)	6.25 (159)	4.00 (102)	0.39 (10)	0.39 (10)	0.69 (18)	3/8"-18	3.3 (1.5)
1/2 (15)	3.50 (89)	6.50 (165)	4.00 (102)	0.50 (13)	0.39 (10)	0.86 (22)	1/2"-14	4.3 (1.9)
3/4 (20)	3.94 (100)	7.25 (184)	4.00 (102)	0.75 (19)	0.51 (13)	1.07 (27)	3/4"-14	5.8 (2.6)
1 (25)	4.75 (121)	8.94 (227)	5.50 (140)	0.94 (24)	0.51 (13)	1.34 (34)	1"-11 1/2	10.5 (4.8)
1 1/4 (32)	4.75 (121)	9.13 (232)	5.50 (140)	1.19 (30)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	10.3 (4.6)
1 1/2 (40)	5.50 (140)	11.00 (279)	6.63 (168)	1.50 (38)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	17.0 (7.7)



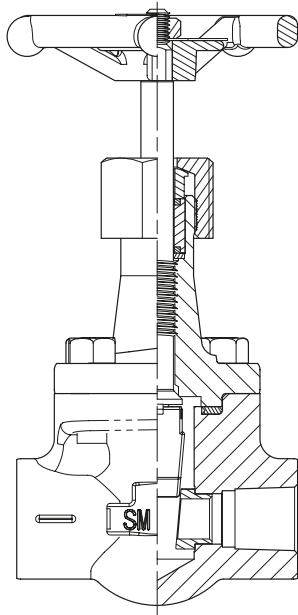
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SMITH

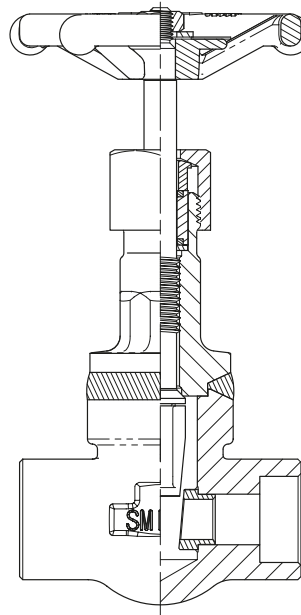
0850-0890
Gate Valves

Forged Steel, Inside Screw – Conventional Port
Valves comply with applicable portions of API 602 and ASME B16.34

Class 800
1/4" - 2"



0850



0890

CLASS 800 INSIDE SCREW RISING STEM BOLTED BONNET GATE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/4 (8)	3.25 (83)	6.13 (156)	4.00 (102)	0.31 (8)	0.39 (10)	0.56 (14)	1/4"-18	3.5 (1.6)
3/8 (10)	3.25 (83)	6.19 (157)	4.00 (102)	0.39 (10)	0.39 (10)	0.69 (18)	3/8"-18	3.5 (1.6)
1/2 (15)	3.25 (83)	6.19 (157)	4.00 (102)	0.39 (10)	0.39 (10)	0.86 (22)	1/2"-14	3.5 (1.6)
3/4 (20)	3.50 (89)	6.38 (162)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	4.3 (1.9)
1 (25)	3.88 (98)	7.75 (197)	4.63 (117)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	6.0 (2.7)
1 1/4 (32)	4.75 (121)	10.25 (260)	4.63 (117)	1.19 (30)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	12.3 (5.6)
1 1/2 (40)	4.75 (121)	10.25 (260)	5.50 (140)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	11.8 (5.3)
2 (50)	5.50 (140)	11.75 (298)	5.50 (140)	1.50 (38)	0.63 (16)	2.41 (61)	2"-11 1/2	19.0 (8.6)

CLASS 800 INSIDE SCREW RISING STEM WELDED BONNET GATE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/4 (8)	3.25 (83)	6.13 (156)	4.00 (102)	0.31 (8)	0.39 (10)	0.56 (14)	1/4"-18	3.3 (1.5)
3/8 (10)	3.25 (83)	6.13 (156)	4.00 (102)	0.39 (10)	0.39 (10)	0.69 (18)	3/8"-18	3.0 (1.4)
1/2 (15)	3.25 (83)	6.19 (157)	4.00 (102)	0.39 (10)	0.39 (10)	0.86 (22)	1/2"-14	3.0 (1.4)
3/4 (20)	3.50 (89)	6.19 (157)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	3.8 (1.7)
1 (25)	3.88 (98)	7.75 (197)	4.63 (117)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	5.5 (2.5)
1 1/4 (32)	4.75 (121)	10.25 (260)	4.63 (117)	1.19 (30)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	10.3 (4.6)
1 1/2 (40)	4.75 (121)	10.25 (260)	5.50 (140)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	9.8 (4.4)
2 (50)	5.50 (140)	11.75 (298)	5.50 (140)	1.50 (38)	0.63 (16)	2.41 (61)	2"-11 1/2	15.3 (6.9)



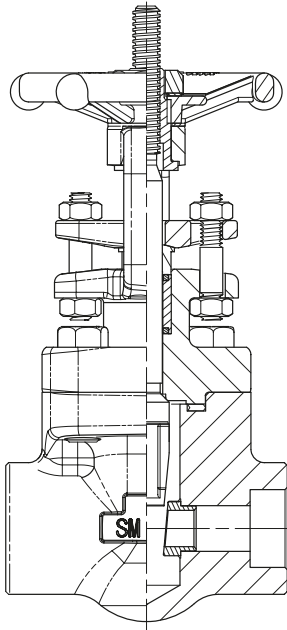
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SMITH

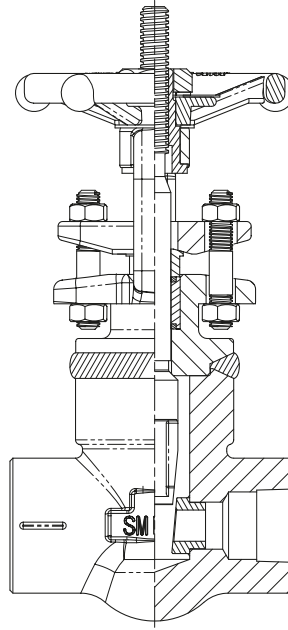
**1500-1570
Gate Valves**

Forged Steel OS&Y – Conventional Port
Valves comply with applicable portions of API 602 and ASME B16.34

Class 1500
1/4" - 2"



1500



1570

CLASS 1500 CONVENTIONAL PORT BOLTED BONNET GATE VALVE - THREADED or SOCKET WELD - INCHES (MM)								
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/4 (8)	3.50 (89)	6.50 (165)	4.00 (102)	0.31 (8)	0.39 (10)	0.56 (14)	1/4"-18	5.3 (2.4)
3/8 (10)	3.50 (89)	6.50 (165)	4.00 (102)	0.39 (10)	0.39 (10)	0.69 (18)	3/8"-18	5.3 (2.4)
1/2 (15)	3.50 (89)	6.50 (165)	4.00 (102)	0.39 (10)	0.39 (10)	0.86 (22)	1/2"-14	5.0 (2.3)
3/4 (20)	3.88 (98)	7.25 (184)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	7.3 (3.3)
1 (25)	4.75 (121)	8.94 (227)	5.50 (140)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	14.0 (6.4)
1 1/4 (32)	5.50 (140)	11.00 (279)	6.63 (168)	1.19 (30)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	23.0 (10.4)
1 1/2 (40)	5.50 (140)	11.00 (279)	6.63 (168)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	22.5 (10.2)
2 (50)	6.25 (159)	11.56 (294)	6.63 (168)	1.50 (38)	0.63 (16)	2.41 (61)	2"-11 1/2	29.5 (13.4)

CLASS 1500 CONVENTIONAL PORT WELDED BONNET GATE VALVE - THREADED or SOCKET WELD - INCHES (MM)								
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/4 (8)	3.50 (89)	6.31 (160)	4.00 (102)	0.31 (8)	0.39 (10)	0.56 (14)	1/4"-18	4.8 (2.2)
3/8 (10)	3.50 (89)	6.38 (162)	4.00 (102)	0.39 (10)	0.39 (10)	0.69 (18)	3/8"-18	4.8 (2.2)
1/2 (15)	3.50 (89)	6.38 (162)	4.00 (102)	0.39 (10)	0.39 (10)	0.86 (22)	1/2"-14	4.5 (2.0)
3/4 (20)	3.88 (98)	7.00 (178)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	6.0 (2.7)
1 (25)	4.75 (121)	8.75 (222)	5.50 (140)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	11.3 (5.1)
1 1/4 (32)	5.50 (140)	10.69 (272)	6.63 (168)	1.19 (30)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	17.8 (8.1)
1 1/2 (40)	5.50 (140)	10.69 (272)	6.63 (168)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	17.5 (7.9)
2 (50)	6.25 (159)	11.06 (281)	6.63 (168)	1.50 (38)	0.63 (16)	2.41 (61)	2"-11 1/2	24.2 (11.0)



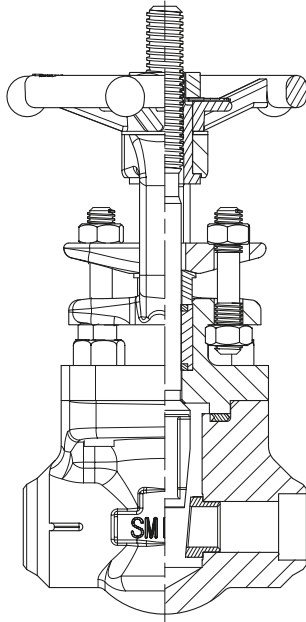
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SMITH

**0800B-1500B
Gate Valves**

**Forged Steel OS&Y – Conventional Port
Valves comply with applicable portions of API 602 and ASME B16.34**

**Class 800
1/2" - 2"**



0800B

* Also available in Class 1500, see below for dimensional information

CLASS 800 CONVENTIONAL PORT BOLTED BONNET GATE VALVE - BUTT WELD ENDS-INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	APPROX. WEIGHT LBS (KG)
1/2 (15)	3.25 (83)	6.31 (160)	4.00 (102)	0.31 (8)	3.8 (1.7)
3/4 (20)	3.50 (89)	6.50 (165)	4.00 (102)	0.50 (13)	4.5 (2.0)
1 (25)	3.88 (98)	7.25 (184)	4.00 (102)	0.66 (17)	6.3 (2.8)
1 1/4 (32)	4.75 (121)	9.13 (232)	5.50 (140)	1.19 (30)	9.5 (4.3)
1 1/2 (40)	4.75 (121)	9.13 (232)	5.50 (140)	1.19 (30)	12.0 (5.4)
2 (50)	5.50 (140)	11.06 (281)	6.63 (168)	1.50 (38)	20.5 (9.3)

CLASS 1500 CONVENTIONAL PORT BOLTED BONNET GATE VALVE - BUTT WELD ENDS-INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	APPROX. WEIGHT LBS (KG)
1/2 (15)	3.50 (89)	6.50 (165)	4.00 (102)	0.31 (8)	5.0 (2.3)
3/4 (20)	3.88 (98)	7.25 (184)	4.00 (102)	0.50 (13)	7.3 (3.3)
1 (25)	4.75 (121)	8.94 (227)	5.50 (140)	0.66 (17)	14.0 (6.4)
1 1/4 (32)	5.50 (140)	11.00 (279)	6.63 (168)	1.19 (30)	23.0 (10.4)
1 1/2 (40)	5.50 (140)	11.00 (279)	6.63 (168)	1.19 (30)	22.5 (10.2)
2 (50)	6.25 (159)	11.56 (294)	6.63 (168)	1.50 (38)	29.5 (13.4)



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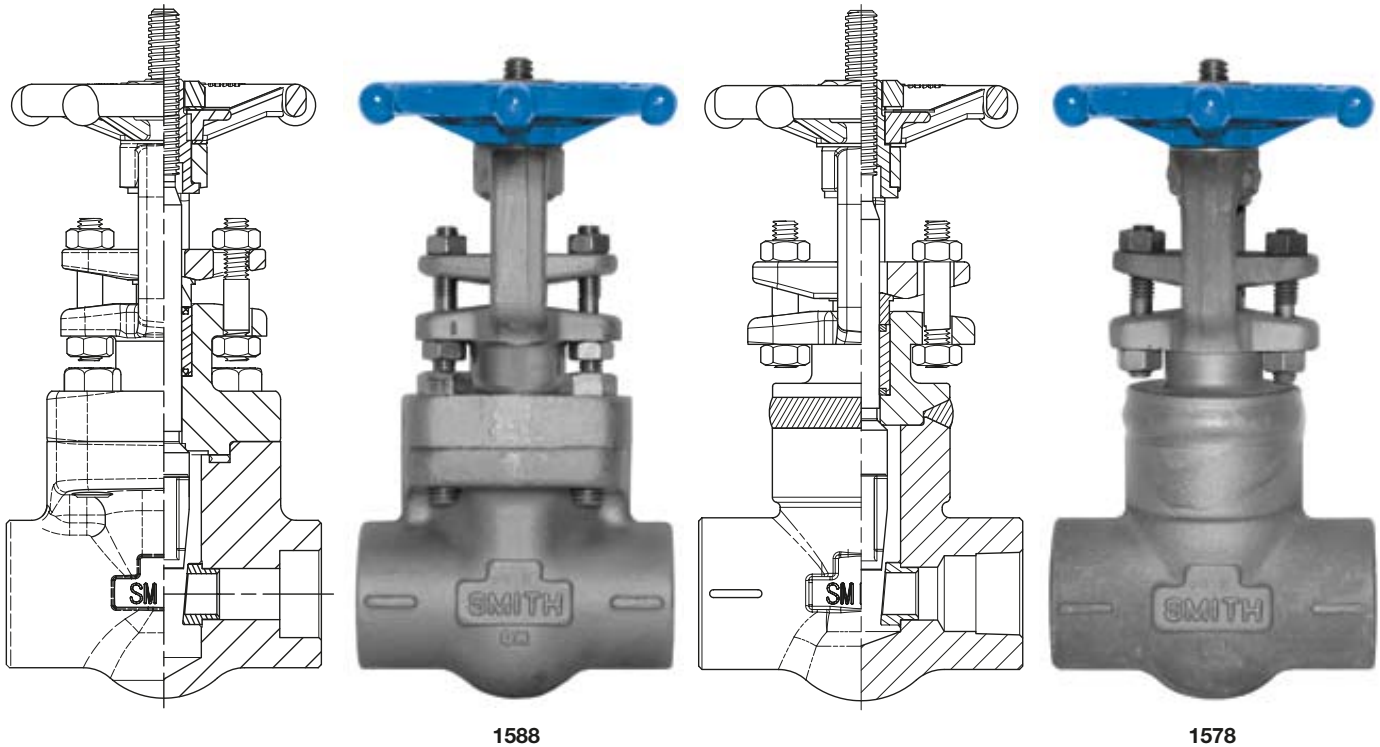
SMITH

**1588-1578
Gate Valves**

Forged Steel OS&Y – Full Port

Valves comply with applicable portions of API 602 and ASME B16.34

**Class 1500
1/4" - 1-1/2"**



CLASS 1500 FULL PORT BOLTED BONNET GATE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/4 (8)	3.50 (89)	6.44 (164)	4.00 (102)	0.31 (8)	0.39 (10)	0.56 (14)	1/4"-18	5.3 (2.4)
3/8 (10)	3.50 (89)	6.50 (165)	4.00 (102)	0.39 (10)	0.39 (10)	0.69 (18)	3/8"-18	5.3 (2.4)
1/2 (15)	3.94 (100)	6.88 (175)	4.00 (102)	0.50 (13)	0.39 (10)	0.86 (22)	1/2"-14	7.5 (3.4)
3/4 (20)	4.75 (121)	8.94 (227)	4.00 (102)	0.75 (19)	0.51 (13)	1.07 (27)	3/4"-14	14.8 (6.7)
1 (25)	4.75 (121)	9.06 (230)	5.50 (140)	0.94 (24)	0.51 (13)	1.34 (34)	1"-11 1/2	23.5 (10.7)
1 1/4 (32)	5.50 (140)	11.00 (279)	6.63 (168)	1.19 (30)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	23.0 (10.4)
1 1/2 (40)	6.25 (159)	11.56 (294)	6.63 (168)	1.50 (38)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	30.5 (13.8)

CLASS 1500 FULL PORT WELDED BONNET GATE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/4 (8)	3.50 (89)	6.31 (160)	4.00 (102)	0.31 (8)	0.39 (10)	0.56 (14)	1/4"-18	4.8 (2.2)
3/8 (10)	3.50 (89)	6.38 (162)	4.00 (102)	0.39 (10)	0.39 (10)	0.69 (18)	3/8"-18	4.8 (2.2)
1/2 (15)	3.88 (98)	7.00 (178)	4.00 (102)	0.50 (13)	0.39 (10)	0.86 (22)	1/2"-14	6.3 (2.8)
3/4 (20)	4.75 (121)	8.75 (222)	4.00 (102)	0.75 (19)	0.51 (13)	1.07 (27)	3/4"-14	11.5 (5.2)
1 (25)	4.75 (121)	8.94 (227)	5.50 (140)	0.94 (24)	0.51 (13)	1.34 (34)	1"-11 1/2	19.0 (8.6)
1 1/4 (32)	5.50 (140)	10.69 (272)	6.63 (168)	1.19 (30)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	17.8 (8.1)
1 1/2 (40)	6.25 (159)	11.06 (281)	6.63 (168)	1.50 (38)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	25.0 (11.3)



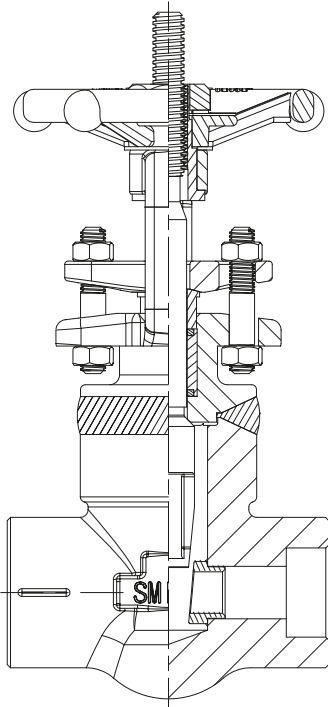
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SMITH

**2578
Gate Valves**

Forged Steel OS&Y – Full Port
Valves comply with applicable portions of API 602 and ASME B16.34

Class 2500
1/2" - 2"



2578

CLASS 2500 FULL PORT WELDED BONNET GATE VALVE - THREADED or SOCKET ENDS - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/2 (15)	3.88 (98)	7.26 (184)	4.00 (102)	0.50 (13)	0.39 (10)	0.86 (22)	1/2"-14	6.3 (2.8)
3/4 (20)	4.65 (118)	9.05 (230)	5.50 (140)	0.75 (19)	0.51 (13)	1.07 (27)	3/4"-14	11.3 (5.1)
1 (25)	5.40 (137)	9.44 (240)	5.50 (140)	0.94 (24)	0.51 (13)	1.34 (34)	1"-11 1/2	17.8 (8.1)
1 1/2 (40)	6.15 (156)	12.06 (306)	6.63 (168)	1.50 (38)	0.51 (13)	1.93 (49)	1 1/2"-11 1/2	18.5 (8.4)
2 (50)	6.15 (156)	12.06 (306)	6.63 (168)	1.50 (38)	0.63 (16)	2.42 (61)	2"-11 1/2	18.5 (8.4)



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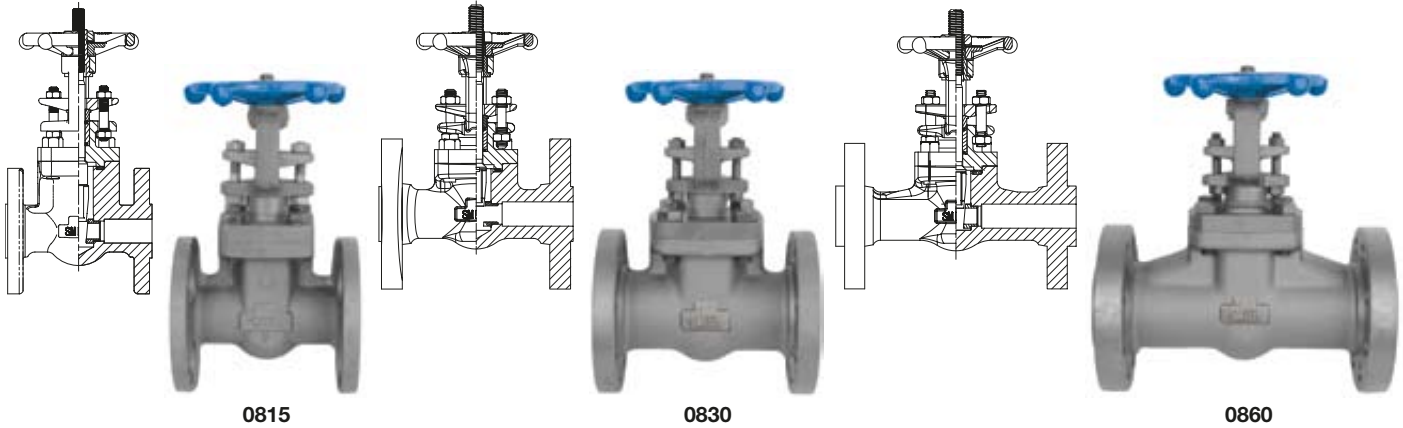
SMITH

0815-0830-0860

Gate Valves

Forged Steel OS&Y – Conventional Port
Valves comply with applicable portions of API 602 and ASME B16.34

Class 150/300/600
1/2" - 3"



CLASS 150 CONVENTIONAL PORT BOLTED BONNET GATE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)
1/2 (15)	4.25 (108)	7.00 (178)	4.00 (102)	0.39 (10)	3.54 (90)	1.38 (35)	4	0.63 (16)	2.38 (60)	6.5 (2.9)
3/4 (20)	4.63 (118)	7.06 (179)	4.00 (102)	0.50 (13)	3.94 (100)	1.69 (43)	4	0.63 (16)	2.75 (70)	9.0 (4.1)
1 (25)	5.00 (127)	7.69 (195)	4.00 (102)	0.75 (19)	4.25 (108)	2.00 (51)	4	0.63 (16)	3.13 (79)	9.8 (4.4)
1 1/2 (40)	6.50 (165)	9.13 (232)	5.50 (140)	1.19 (30)	5.00 (127)	2.88 (73)	4	0.63 (16)	3.88 (98)	18.2 (8.3)
2 (50)	7.00 (178)	11.06 (281)	6.63 (168)	1.50 (38)	6.00 (152)	3.63 (92)	4	0.75 (19)	4.75 (121)	33.5 (15.2)
3 (80)	8.00 (203)	13.69 (348)	7.38 (187)	2.00 (51)	7.50 (191)	5.00 (127)	4	0.75 (19)	6.00 (152)	54.0 (24.5)

CLASS 300 CONVENTIONAL PORT BOLTED BONNET GATE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)
1/2 (15)	5.50 (140)	6.25 (159)	4.00 (102)	0.39 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	7.0 (3.2)
3/4 (20)	6.00 (152)	6.38 (162)	4.00 (102)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	10.3 (4.6)
1 (25)	6.50 (165)	7.25 (184)	4.00 (102)	0.75 (19)	4.94 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	12.8 (5.8)
1 1/2 (40)	7.50 (191)	9.13 (232)	5.50 (140)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	25.0 (11.3)
2 (50)	8.50 (216)	11.06 (281)	6.63 (168)	1.50 (38)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	35.5 (16.1)
3 (80)	11.13 (283)	13.63 (346)	7.38 (187)	2.00 (51)	8.25 (210)	5.00 (127)	8	0.88 (22)	6.63 (168)	64.5 (29.3)

CLASS 600 CONVENTIONAL PORT BOLTED BONNET GATE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)
1/2 (15)	6.50 (165)	6.25 (159)	4.00 (102)	0.39 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	7.5 (3.4)
3/4 (20)	7.50 (191)	6.44 (164)	4.00 (102)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	11.8 (5.3)
1 (25)	8.50 (216)	7.25 (184)	4.00 (102)	0.75 (19)	4.94 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	15.0 (6.8)
1 1/2 (40)	9.50 (241)	9.13 (232)	5.50 (140)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	31.0 (14.1)
2 (50)	11.50 (292)	11.06 (281)	6.63 (168)	1.50 (38)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	44.2 (20.1)



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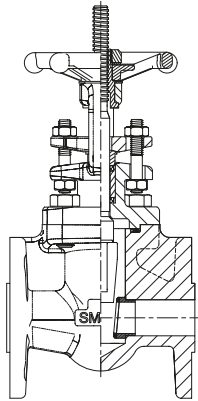
SMITH

**5815-5830
Gate Valves**

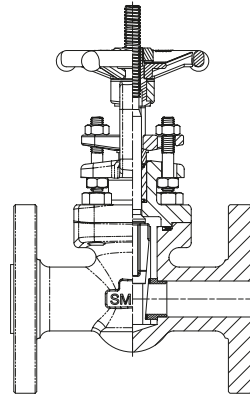
Forged Steel OS&Y – Full Port

Valves comply with applicable portions of API 602 and ASME B16.34

**Class 150/300
3/4" - 1-1/2"**



5815



5830

CLASS 150 FULL PORT BOLTED BONNET GATE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WT. LBS (KG)
3/4 (20)	4.63 (118)	7.63 (194)	4.00 (102)	0.75 (19)	3.94 (100)	1.69 (43)	4	0.63 (16)	2.75 (70)	9.1 (4.1)
1 (25)	5.00 (127)	8.87 (225)	4.00 (102)	0.94 (24)	4.33 (110)	2.00 (51)	4	0.63 (16)	3.13 (79)	14.2 (6.4)
1 1/2 (40)	6.50 (165)	11.01 (280)	5.50 (140)	1.50 (38)	5.00 (127)	2.88 (73)	4	0.63 (16)	3.88 (98)	26.8 (12.2)

CLASS 300 FULL PORT BOLTED BONNET GATE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WT. LBS (KG)
3/4 (20)	6.00 (152)	7.28 (185)	4.00 (102)	0.75 (19)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	11.6 (5.2)
1 (25)	6.50 (165)	9.14 (232)	4.00 (102)	0.94 (24)	4.92 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	19.5 (8.8)
1 1/2 (40)	7.50 (191)	11.04 (280)	5.50 (140)	1.50 (38)	6.12 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	30.4 (13.8)



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SMITH

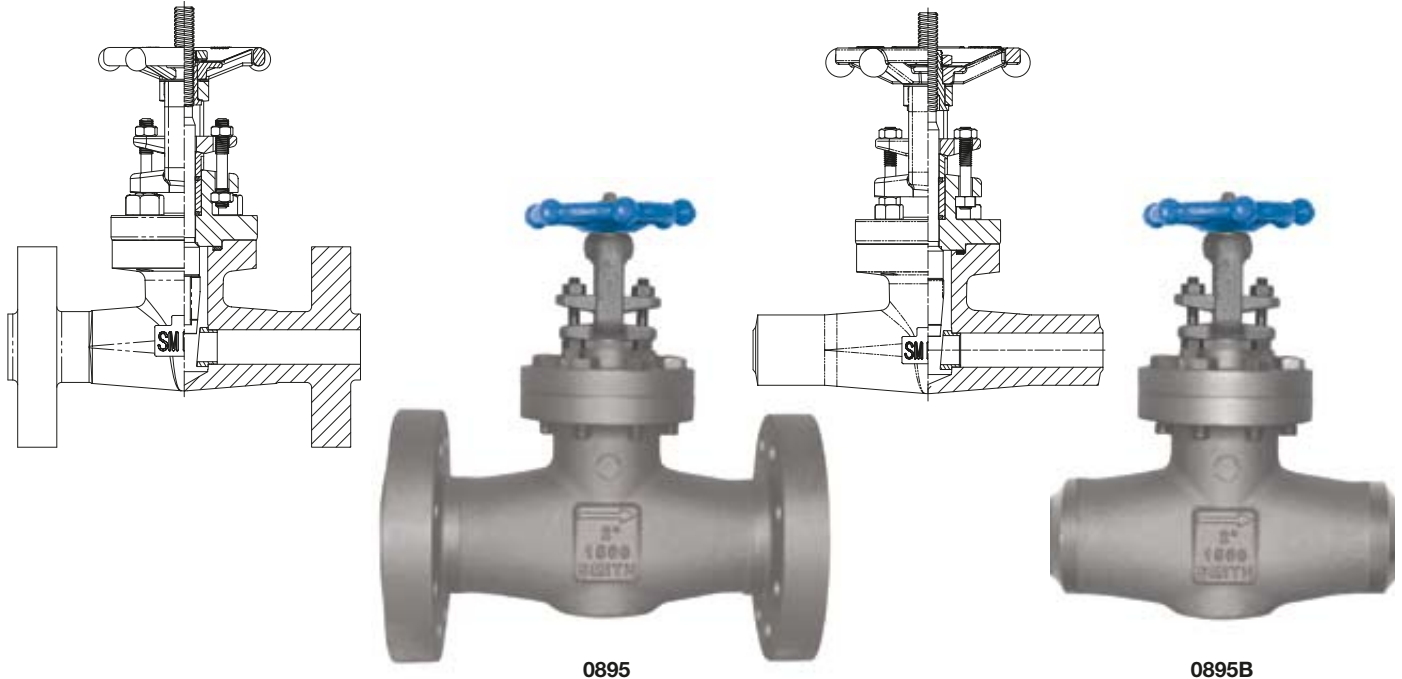
**0895-0895B
Gate Valves**

Forged Steel OS&Y – Full Port

Valves comply with applicable portions of API 602 and ASME B16.34

Class 1500

1/2" - 2"



0895

0895B

CLASS 1500 FULL PORT BOLTED BONNET GATE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT DIAMETER	BOLT CIRCLE	APPROX. WT. LBS (KG)
1/2 (15)	8.50 (216)	8.18 (208)	4.00 (102)	0.50 (13)	4.75 (121)	1.38 (35)	4	0.88 (22)	3.25 (83)	17.0 (7.7)
3/4 (20)	9.00 (229)	9.47 (241)	5.50 (140)	0.75 (19)	5.13 (130)	1.69 (43)	4	0.88 (22)	3.50 (89)	23.0 (10.4)
1 (25)	10.00 (254)	9.93 (252)	5.50 (140)	0.94 (24)	5.88 (149)	2.00 (51)	4	1.00 (25)	4.00 (102)	34.0 (15.4)
1 1/2 (40)	12.00 (305)	12.82 (326)	6.63 (168)	1.50 (38)	7.00 (178)	2.88 (73)	4	1.13 (29)	4.88 (124)	54.0 (24.5)
2 (50)	14.50 (368)	13.46 (342)	6.63 (168)	2.00 (51)	8.50 (216)	3.63 (92)	8	1.00 (25)	6.50 (165)	97.0 (44.0)

CLASS 1500 FULL PORT BOLTED BONNET GATE VALVE - BUTT WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	APPROX. WEIGHT LBS (KG)
1/2 (15)	8.50 (216)	8.18 (208)	4.00 (102)	0.50 (13)	13.6 (6.2)
3/4 (20)	9.00 (229)	9.47 (241)	4.00 (102)	0.75 (19)	18.4 (8.4)
1 (25)	10.00 (254)	9.93 (252)	5.50 (140)	0.94 (24)	27.4 (12.4)
1 1/2 (40)	12.00 (305)	12.82 (326)	6.63 (168)	1.50 (38)	43.6 (19.8)
2 (50)	14.50 (368)	13.46 (342)	6.63 (168)	2.00 (51)	79.9 (36.2)



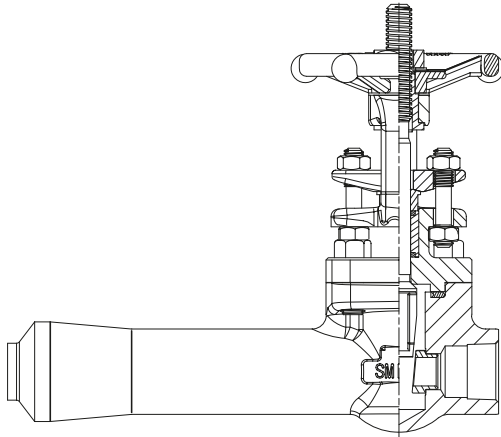
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SMITH

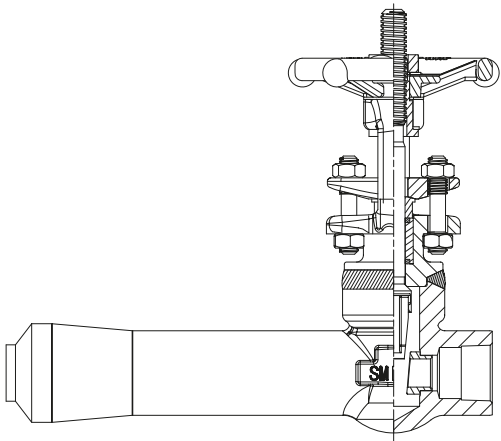
**0874-0875
Gate Valves**

**Forged Steel OS&Y Integrally Reinforced Extended Body – Conventional Port
Valves comply with applicable portions of API 602 and ASME B16.34**

**Class 800
1/2" - 2"**



0874



0875

CLASS 800 BOLTED BONNET INTEGRALLY REINFORCED EXTENDED BODY GATE VALVE - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	CENTER TO END	APPROX. WEIGHT LBS (KG)
1/2 (15)	7.75 (197)	6.00 (152)	4.00 (102)	0.39 (10)	6.13 (156)	5.5 (2.5)
3/4 (20)	8.63 (219)	6.44 (164)	4.00 (102)	0.50 (13)	6.88 (175)	7.0 (3.2)
1 (25)	9.56 (243)	7.25 (184)	4.00 (102)	0.75 (19)	7.63 (194)	10.5 (4.8)
1 1/2 (40)	10.38 (264)	9.13 (232)	5.50 (140)	1.19 (30)	8.00 (203)	16.5 (7.5)
2 (50)	12.00 (305)	11.06 (281)	6.63 (168)	1.50 (38)	9.25 (235)	27.4 (12.4)

CLASS 800 WELDED BONNET INTEGRALLY REINFORCED EXTENDED BODY GATE VALVE - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	CENTER TO END	APPROX. WEIGHT LBS (KG)
1/2 (15)	7.75 (197)	6.00 (152)	4.00 (102)	0.39 (10)	6.13 (156)	5.0 (2.3)
3/4 (20)	8.63 (219)	6.44 (164)	4.00 (102)	0.50 (13)	6.88 (175)	6.5 (2.9)
1 (25)	9.56 (243)	7.25 (184)	4.00 (102)	0.75 (19)	7.63 (194)	9.8 (4.4)
1 1/2 (40)	10.38 (264)	9.13 (232)	5.50 (140)	1.19 (30)	8.00 (203)	14.3 (6.5)
2 (50)	12.00 (305)	11.06 (281)	6.63 (168)	1.50 (38)	9.25 (235)	22.9 (10.4)



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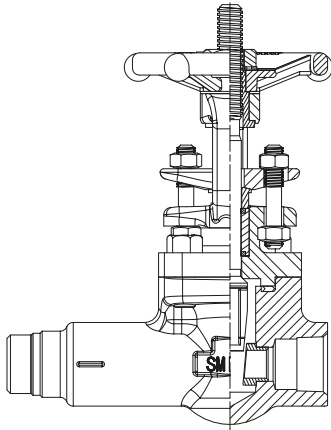
SMITH

0811-0814/0876-0879

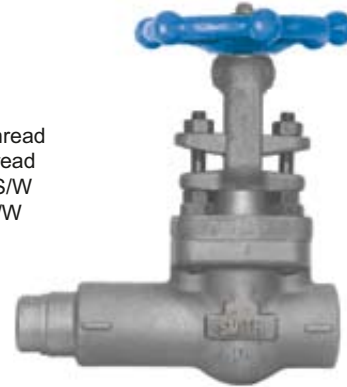
Gate Valves

Forged Steel OS&Y Male End – Conventional Port
Valves comply with applicable portions of API 602 and ASME B16.34

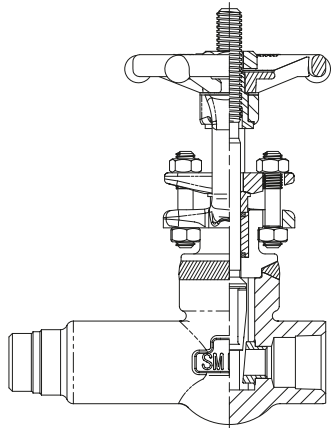
Class 800
1/2" - 2"



0811 Male Thread x Female Thread
 0812 Male Plain x Female Thread
 0813 Male Thread x Female S/W
 0814 Male Plain x Female S/W



0811-0814



0876 Male Thread x Female Thread
 0877 Male Plain x Female Thread
 0878 Male Thread x Female S/W
 0879 Male Plain x Female S/W



0876-0879

CLASS 800 CONVENTIONAL PORT BOLTED BONNET GATE TAKE OFF DESIGN - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	CENTER TO END	APPROX. WEIGHT LBS (KG)
1/2 (15)	5.63 (143)	6.25 (159)	4.00 (102)	0.31 (8)	4.00 (102)	4.3 (1.9)
3/4 (20)	5.75 (146)	6.50 (165)	4.00 (102)	0.50 (13)	4.00 (102)	5.0 (2.3)
1 (25)	5.94 (151)	7.25 (184)	4.00 (102)	0.66 (17)	4.00 (102)	6.8 (3.1)
1 1/2 (40)	7.38 (187)	9.13 (232)	5.50 (140)	1.19 (30)	5.00 (127)	10.2 (4.6)
2 (50)	7.88 (200)	11.06 (281)	6.63 (168)	1.50 (38)	5.13 (130)	12.8 (5.8)

CLASS 800 CONVENTIONAL PORT WELDED BONNET GATE TAKE OFF DESIGN - INCHES (MM)

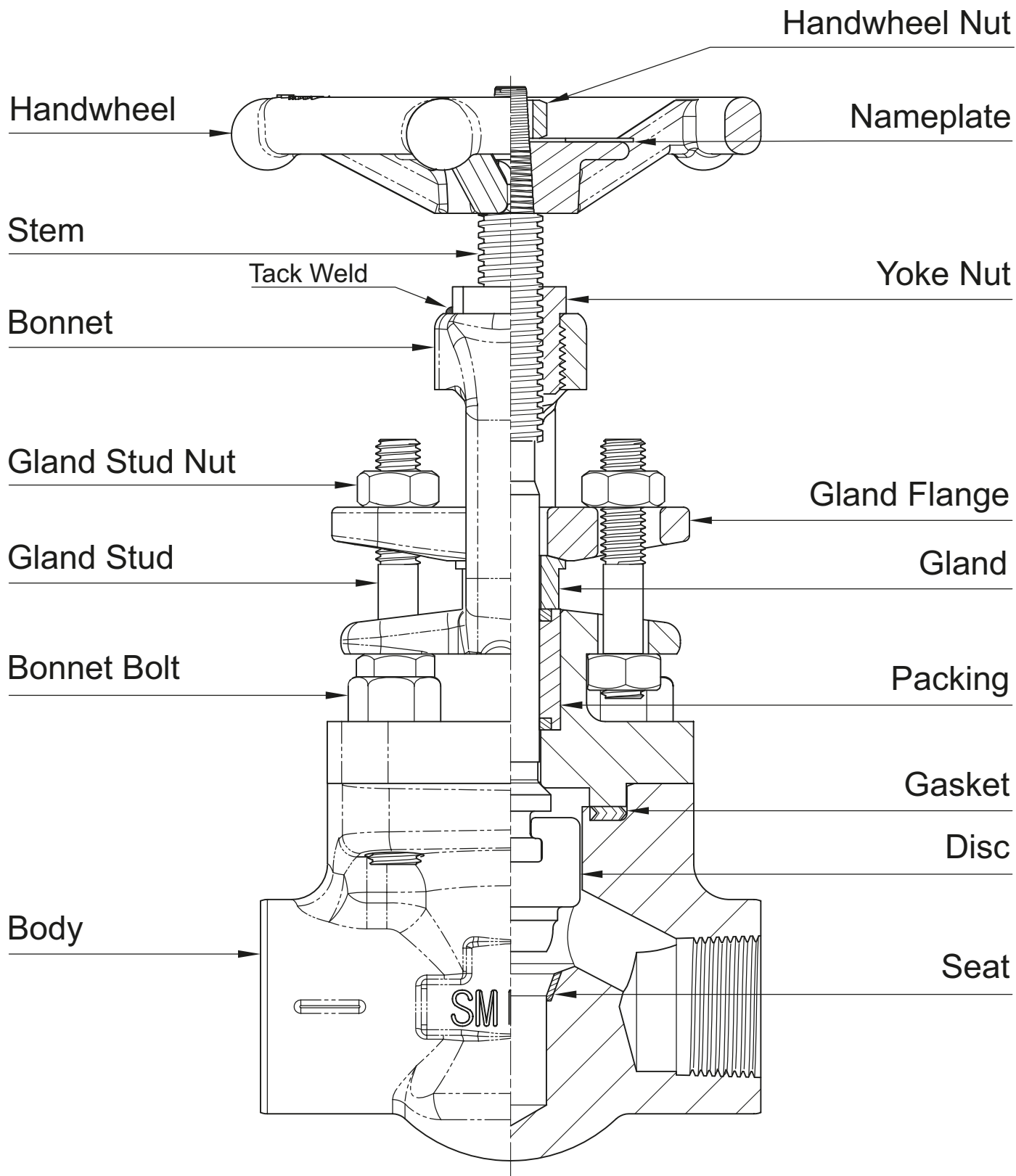
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	CENTER TO END	APPROX. WEIGHT LBS (KG)
1/2 (15)	5.63 (143)	6.19 (157)	4.00 (102)	0.31 (8)	4.00 (102)	3.8 (1.7)
3/4 (20)	5.75 (146)	6.44 (164)	4.00 (102)	0.50 (13)	4.00 (102)	4.2 (1.9)
1 (25)	5.94 (151)	7.19 (183)	4.00 (102)	0.66 (17)	4.00 (102)	5.8 (2.6)
1 1/2 (40)	7.38 (187)	9.13 (232)	5.50 (140)	1.19 (30)	5.00 (127)	10.5 (4.8)
2 (50)	7.88 (200)	11.00 (279)	6.63 (168)	1.50 (38)	5.13 (130)	17.0 (7.7)



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SMITH

Globe Valves





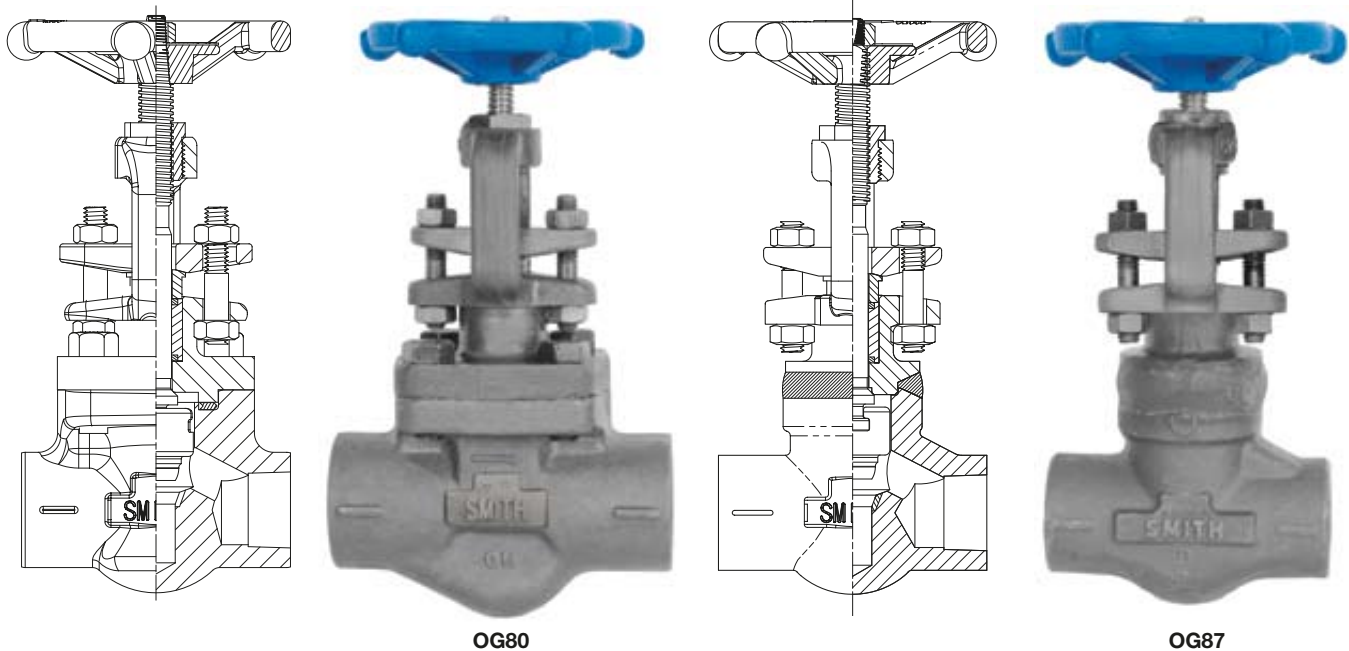
A Trademark of the Newdell Company

SMITH

**OG80-OG87
Globe Valves**

**Forged Steel OS&Y
Valves comply with applicable portions of API 602 and ASME B16.34**

**Class 800
1/4" - 2"**



CLASS 800 BOLTED BONNET GLOBE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WT. LBS (KG)
1/4 (8)	3.25 (83)	6.31 (160)	4.00 (102)	0.25 (6)	0.39 (10)	0.56 (14)	1/4"-18	3.8 (1.7)
3/8 (10)	3.25 (83)	6.31 (160)	4.00 (102)	0.25 (6)	0.39 (10)	0.69 (18)	3/8"-18	3.8 (1.7)
1/2 (15)	3.25 (83)	6.31 (160)	4.00 (102)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	3.8 (1.7)
3/4 (20)	3.50 (89)	6.50 (165)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	4.8 (2.2)
1 (25)	4.50 (114)	6.81 (173)	4.00 (102)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	6.3 (2.8)
1 1/4 (32)	6.25 (159)	8.13 (206)	4.63 (118)	1.00 (25)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	12.8 (5.8)
1 1/2 (40)	6.25 (159)	8.13 (206)	4.63 (118)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	12.3 (5.6)
2 (50)	7.25 (184)	9.94 (252)	6.63 (168)	1.44 (37)	0.63 (16)	2.41 (61)	2"-11 1/2	22.5 (10.2)

CLASS 800 WELDED BONNET GLOBE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WT. LBS (KG)
1/4 (8)	3.25 (83)	6.38 (162)	4.00 (102)	0.25 (6)	0.39 (10)	0.56 (14)	1/4"-18	3.5 (1.6)
3/8 (10)	3.25 (83)	6.38 (162)	4.00 (102)	0.25 (6)	0.39 (10)	0.69 (18)	3/8"-18	3.5 (1.6)
1/2 (15)	3.25 (83)	6.38 (162)	4.00 (102)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	3.5 (1.6)
3/4 (20)	3.50 (89)	6.50 (165)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	4.5 (2.0)
1 (25)	4.50 (114)	6.81 (173)	4.00 (102)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	6.0 (2.7)
1 1/4 (32)	6.25 (159)	8.19 (208)	4.63 (118)	1.00 (25)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	12.3 (5.6)
1 1/2 (40)	6.25 (159)	8.19 (208)	4.63 (118)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	11.8 (5.3)
2 (50)	7.25 (184)	10.00 (254)	6.63 (168)	1.44 (37)	0.63 (16)	2.41 (61)	2"-11 1/2	22.0 (10.0)



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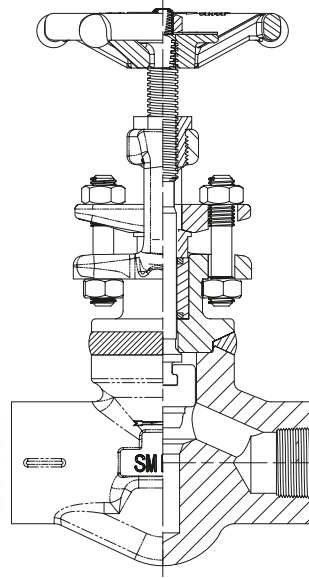
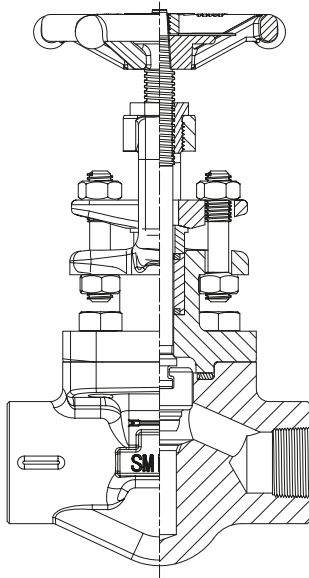
**G150-G157
Globe Valves**

Forged Steel OS&Y

Valves comply with applicable portions of API 602 and ASME B16.34

Class 1500

1/4" - 2"



G150

G157

CLASS 1500 BOLTED BONNET GLOBE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/4 (8)	3.50 (89)	6.63 (168)	4.00 (102)	0.25 (6)	0.39 (10)	0.56 (14)	1/4"-18	6.0 (2.7)
3/8 (10)	3.50 (89)	6.63 (168)	4.00 (102)	0.25 (6)	0.39 (10)	0.69 (18)	3/8"-18	6.0 (2.7)
1/2 (15)	3.50 (89)	6.63 (168)	4.00 (102)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	5.8 (2.6)
3/4 (20)	4.50 (114)	6.75 (171)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	8.5 (3.9)
1 (25)	6.25 (159)	7.88 (200)	4.63 (118)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	14.8 (6.7)
1 1/4 (32)	7.25 (184)	9.94 (252)	6.63 (168)	1.00 (25)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	27.0 (12.2)
1 1/2 (40)	7.25 (184)	9.94 (252)	6.63 (168)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	27.0 (12.2)
2 (50)	7.25 (184)	10.75 (273)	6.63 (168)	1.44 (37)	0.63 (16)	2.41 (61)	2"-11 1/2	31.0 (14.1)

CLASS 1500 WELDED BONNET GLOBE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/4 (8)	3.50 (89)	6.56 (167)	4.00 (102)	0.25 (6)	0.39 (10)	0.56 (14)	1/4"-18	4.3 (1.9)
3/8 (10)	3.50 (89)	6.56 (167)	4.00 (102)	0.25 (6)	0.39 (10)	0.69 (18)	3/8"-18	4.3 (1.9)
1/2 (15)	3.50 (89)	6.56 (167)	4.00 (102)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	4.0 (1.8)
3/4 (20)	4.50 (114)	6.88 (175)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	6.0 (2.7)
1 (25)	6.25 (159)	8.19 (208)	4.63 (118)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	12.5 (5.7)
1 1/4 (32)	7.25 (184)	10.31 (262)	6.63 (168)	1.00 (25)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	19.5 (8.8)
1 1/2 (40)	7.25 (184)	10.31 (262)	6.63 (168)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	19.5 (8.8)
2 (50)	7.25 (184)	10.38 (264)	6.63 (168)	1.44 (37)	0.63 (16)	2.41 (61)	2"-11 1/2	24.0 (10.9)



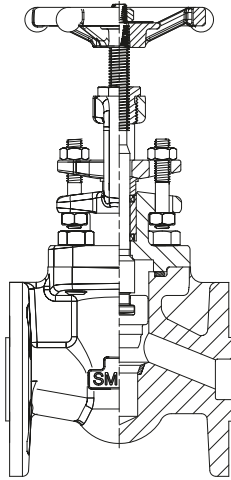
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SMITH

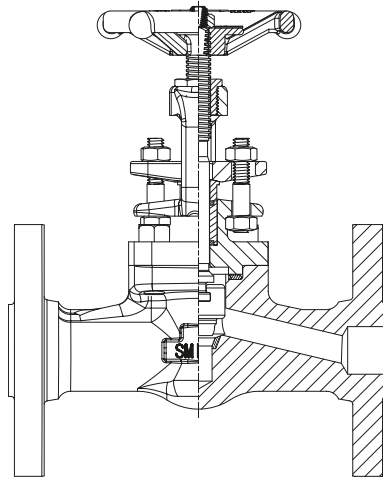
**OG81-OG83
Globe Valves**

**Forged Steel OS&Y
Valves comply with applicable portions of API 602 and ASME B16.34**

**Class 150/300
1/2" - 2"**



OG81



OG83

CLASS 150 BOLTED BONNET GLOBE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)
1/2 (15)	4.25 (108)	5.69 (144)	3.25 (83)	0.38 (10)	3.54 (90)	1.38 (35)	4	0.63 (16)	2.38 (61)	3.7 (1.7)
3/4 (20)	4.63 (118)	5.94 (151)	3.94 (100)	0.50 (13)	3.94 (100)	1.69 (43)	4	0.63 (16)	2.75 (70)	5.3 (2.4)
1 (25)	5.00 (127)	6.75 (171)	3.94 (100)	0.75 (19)	4.25 (108)	2.00 (51)	4	0.63 (16)	3.13 (79)	9.8 (4.4)
1 1/2 (40)	6.50 (165)	8.44 (214)	5.50 (140)	1.19 (30)	5.00 (127)	2.88 (73)	4	0.63 (16)	3.88 (98)	18.5 (8.4)
2 (50)	8.00 (203)	9.69 (246)	6.25 (159)	1.44 (37)	6.00 (152)	3.63 (92)	4	0.75 (19)	4.75 (121)	36.0 (16.3)

CLASS 300 BOLTED BONNET GLOBE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)
1/2 (15)	6.00 (152)	6.31 (160)	4.00 (102)	0.38 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	7.3 (3.3)
3/4 (20)	7.00 (178)	6.50 (165)	4.00 (102)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	11.0 (5.0)
1 (25)	8.00 (203)	7.19 (183)	4.00 (102)	0.75 (19)	4.92 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	14.5 (6.6)
1 1/2 (40)	9.00 (229)	8.88 (225)	4.63 (118)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	31.0 (14.1)
2 (50)	10.50 (267)	10.63 (270)	6.63 (168)	1.44 (37)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	41.2 (18.7)



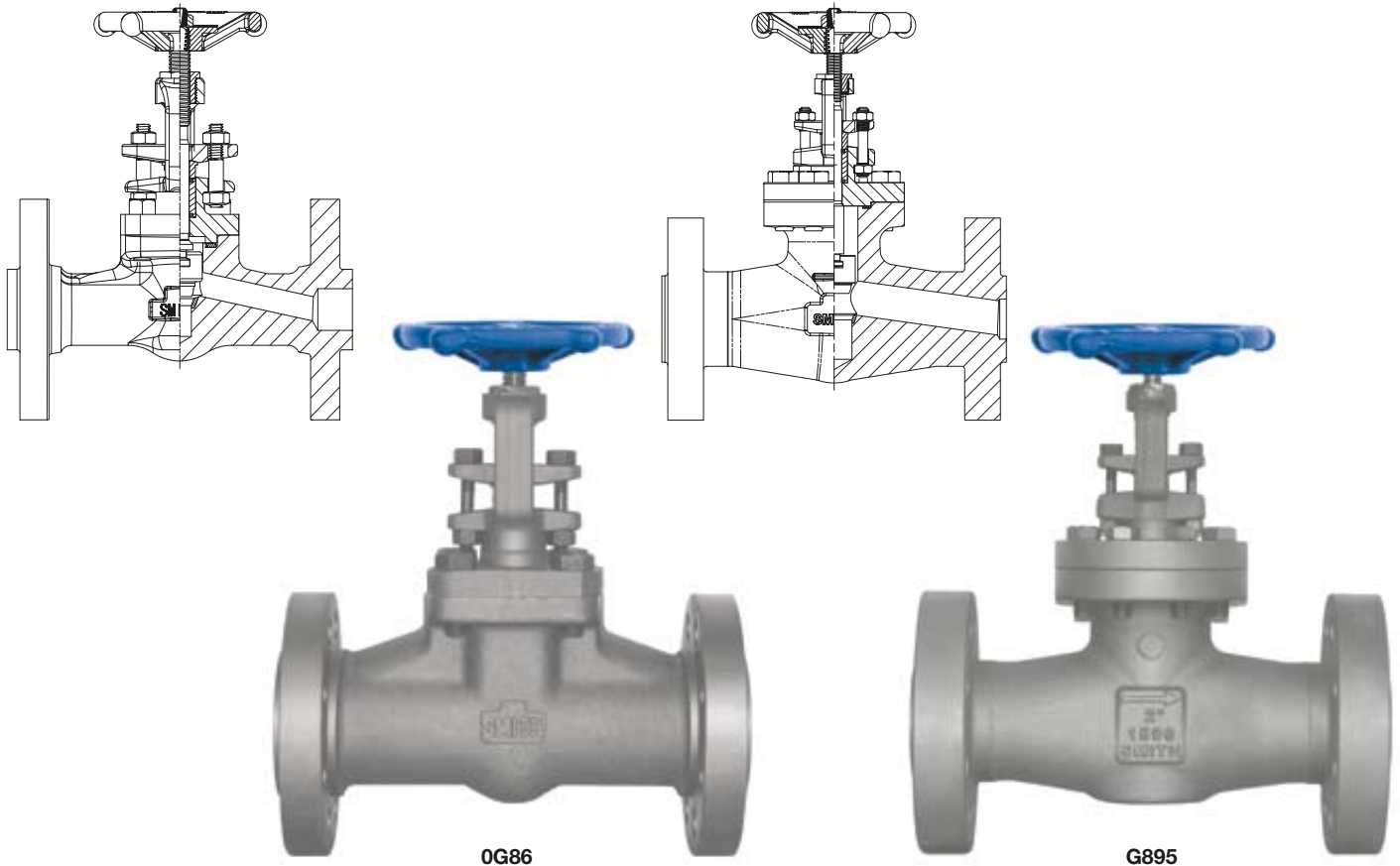
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SMITH

**OG86-G895
Globe Valves**

**Forged Steel OS&Y
Valves comply with applicable portions of API 602 and ASME B16.34**

**Class 600/1500
1/2" - 2"**



OG86

G895

CLASS 600 BOLTED BONNET GLOBE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)
1/2 (15)	6.50 (165)	6.31 (160)	4.00 (102)	0.38 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	7.8 (3.5)
3/4 (20)	7.50 (191)	6.50 (165)	4.00 (102)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	11.8 (5.3)
1 (25)	8.50 (216)	7.19 (183)	4.00 (102)	0.75 (19)	4.94 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	15.3 (6.9)
1 1/2 (40)	9.50 (241)	8.88 (225)	4.63 (118)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	31.8 (14.4)
2 (50)	11.50 (292)	10.63 (270)	6.63 (168)	1.44 (37)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	46.8 (21.2)

CLASS 1500 BOLTED BONNET GLOBE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE
1/2 (15)	8.50 (216)	7.98 (203)	4.00 (102)	0.38 (10)	4.75 (121)	1.38 (35)	4	0.88 (22)	3.25 (83)
3/4 (20)	9.00 (229)	8.69 (221)	5.50 (140)	0.50 (13)	5.13 (130)	1.69 (43)	4	0.88 (22)	3.50 (89)
1 (25)	10.00 (254)	10.00 (254)	5.50 (140)	0.75 (19)	5.88 (149)	2.00 (51)	4	1.00 (25)	4.00 (102)
1 1/2 (40)	12.00 (305)	11.89 (302)	6.63 (168)	1.19 (30)	7.00 (178)	2.88 (73)	4	1.13 (29)	4.88 (124)
2 (50)	14.50 (368)	12.98 (330)	6.63 (168)	1.44 (37)	8.50 (216)	3.63 (92)	8	1.00 (25)	6.50 (165)



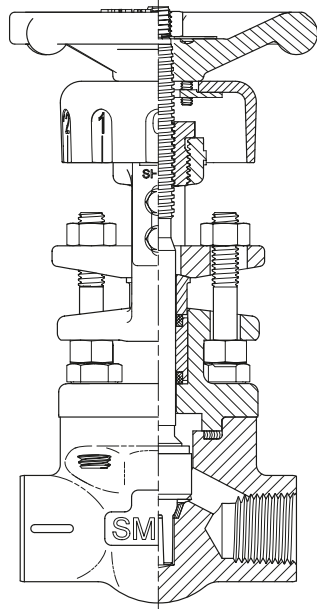
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SMITH

**FG80
Globe Valves**

**Forged Steel OS&Y
Valves comply with applicable portions of API 602 and ASME B16.34**

**Class 800
1/2" - 1"**



FG80

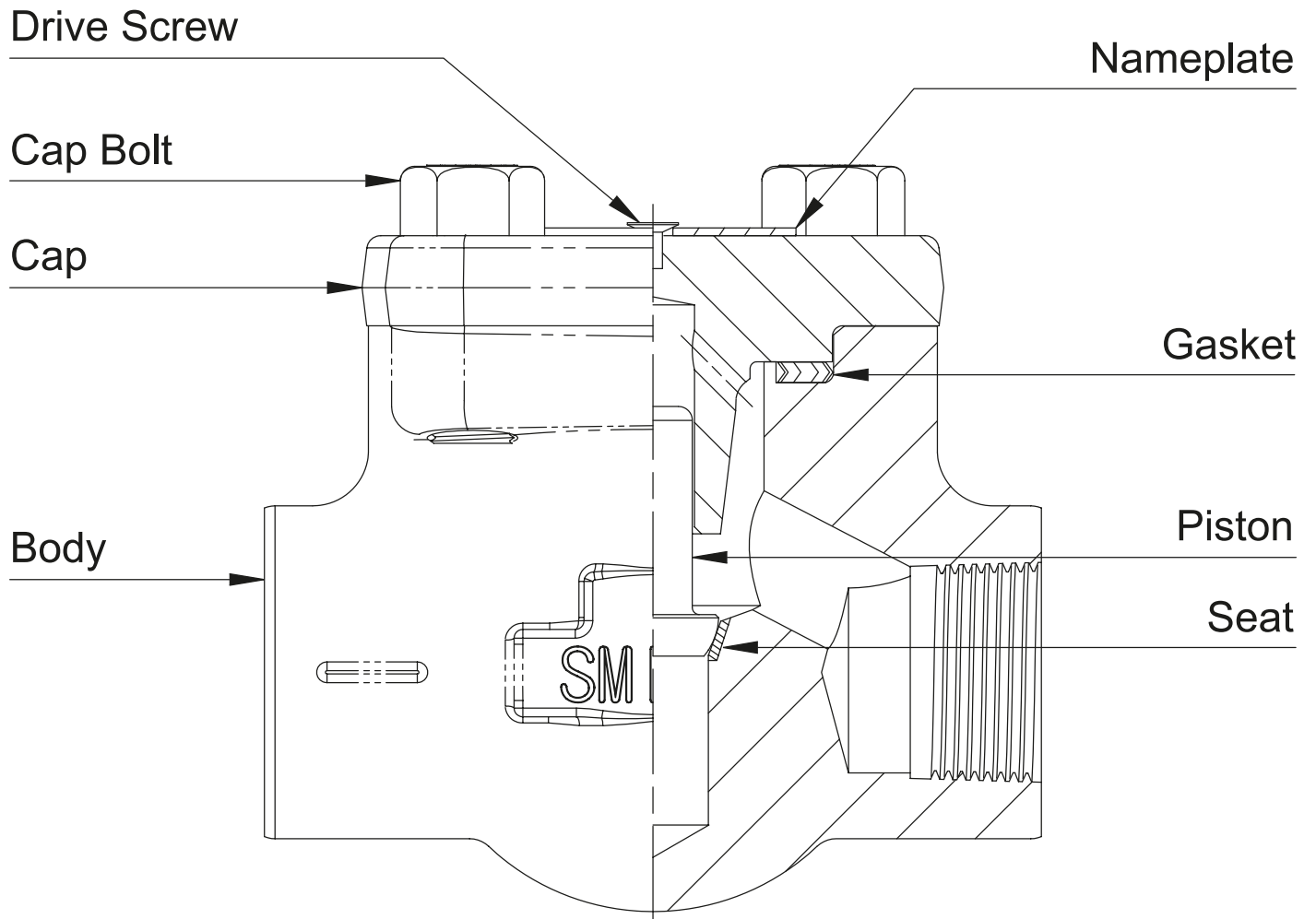
CLASS 800 FLOW CONTROL GLOBE VALVE - THREADED or SOCKET WELD - INCHES (MM)								
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/2 (15)	3.25 (83)	6.50 (165)	4.00 (102)	0.39 (10)	0.39 (10)	0.86 (22)	1/2"-14	4.3 (2.0)
3/4 (20)	3.50 (89)	6.58 (167)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	5.3 (2.4)
1 (25)	3.88 (98)	6.71 (170)	4.00 (102)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	7.0 (3.2)



A Trademark of the Newdell Company

SMITH

Check Valves





A Trademark of the Newdell Company

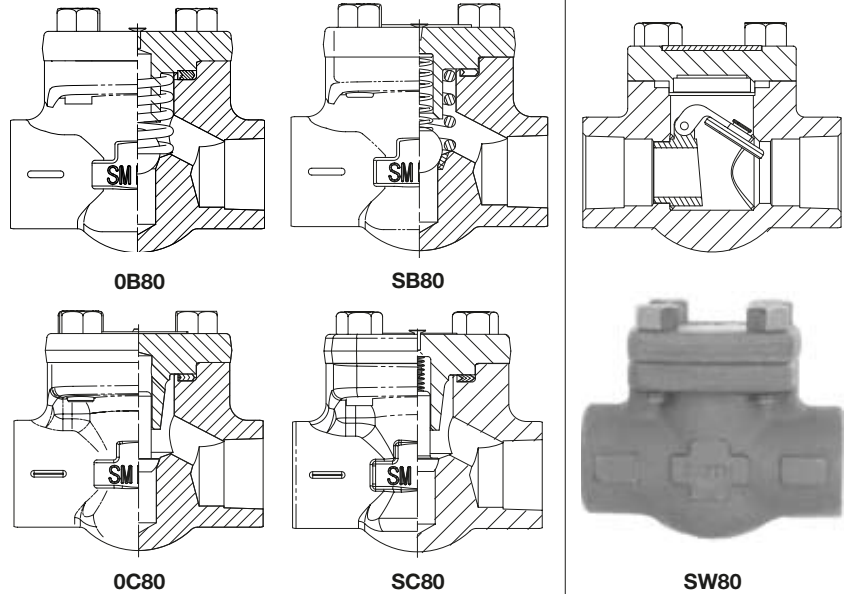
SMITH

OB80-SB80-OC80-SC80-SW80

Check Valves

Forged Steel, Bolted Cap, Horizontal, Ball, Piston, Swing type
Valves comply with applicable portions of API 602 and ASME B16.34

Class 800
1/4" - 2"



OB80 CLASS 800 BOLTED CAP BALL TYPE CHECK VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/4 (8)	3.25 (83)	2.00 (51)	0.25 (6)	0.39 (10)	0.56 (14)	1/4"-18	2.5 (1.1)	0.2 (0.01)
3/8 (10)	3.25 (83)	2.00 (51)	0.25 (6)	0.39 (10)	0.69 (18)	3/8"-18	2.5 (1.1)	0.2 (0.01)
1/2 (15)	3.25 (83)	2.00 (51)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	2.3 (1.0)	0.2 (0.01)
3/4 (20)	3.50 (89)	2.25 (57)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	3.3 (1.5)	0.3 (0.02)
1 (25)	4.50 (114)	2.25 (57)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	5.0 (2.3)	0.3 (0.02)
1 1/4 (32)	6.25 (159)	2.88 (73)	1.00 (25)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	10.5 (4.8)	0.4 (0.03)
1 1/2 (40)	6.25 (159)	2.88 (73)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	10.0 (4.5)	0.4 (0.03)
2 (50)	7.25 (184)	3.56 (90)	1.44 (37)	0.63 (16)	2.41 (61)	2"-11 1/2	18.2 (8.3)	0.5 (0.03)

SB80 CLASS 800 BOLTED CAP SPRING BALL TYPE CHECK VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/4 (8)	3.25 (83)	2.00 (51)	0.25 (6)	0.39 (10)	0.56 (14)	1/4"-18	2.5 (1.1)	2.1 (0.14)
3/8 (10)	3.25 (83)	2.00 (51)	0.25 (6)	0.39 (10)	0.69 (18)	3/8"-18	2.5 (1.1)	2.1 (0.14)
1/2 (15)	3.25 (83)	2.00 (51)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	2.3 (1.0)	2.1 (0.14)
3/4 (20)	3.50 (89)	2.25 (57)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	3.3 (1.5)	2.1 (0.14)
1 (25)	4.50 (114)	2.25 (57)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	5.0 (2.3)	3.5 (0.24)
1 1/4 (32)	6.25 (159)	2.88 (73)	1.00 (25)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	10.5 (4.8)	2.7 (0.19)
1 1/2 (40)	6.25 (159)	2.88 (73)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	10.0 (4.5)	2.7 (0.19)
2 (50)	7.25 (184)	3.56 (90)	1.44 (37)	0.63 (16)	2.41 (61)	2"-11 1/2	18.2 (8.3)	6.0 (0.41)



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SMITH

OB80-SB80-OC80-SC80-SW80

Check Valves

Forged Steel, Bolted Cap, Horizontal, Ball, Piston, Swing type
Valves comply with applicable portions of API 602 and ASME B16.34

Class 800
1/4" - 2"

OC80 CLASS 800 BOLTED CAP PISTON TYPE CHECK VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/4 (8)	3.25 (83)	2.00 (51)	0.25 (6)	0.39 (10)	0.56 (14)	1/4"-18	2.5 (1.1)	0.3 (0.02)
3/8 (10)	3.25 (83)	2.00 (51)	0.25 (6)	0.39 (10)	0.69 (18)	3/8"-18	2.5 (1.1)	0.3 (0.02)
1/2 (15)	3.25 (83)	2.00 (51)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	2.3 (1.0)	0.3 (0.02)
3/4 (20)	3.50 (89)	2.25 (57)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	3.3 (1.5)	0.3 (0.02)
1 (25)	4.50 (114)	2.25 (57)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	5.0 (2.3)	0.3 (0.02)
1 1/4 (32)	6.25 (159)	2.88 (73)	1.00 (25)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	10.5 (4.8)	0.3 (0.02)
1 1/2 (40)	6.25 (159)	2.88 (73)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	10.0 (4.5)	0.3 (0.02)
2 (50)	7.25 (184)	3.56 (90)	1.44 (37)	0.63 (16)	2.41 (61)	2"-11 1/2	18.2 (8.3)	0.4 (0.03)

SC80 CLASS 800 BOLTED CAP SPRING PISTON TYPE CHECK VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/4 (8)	3.25 (83)	2.00 (51)	0.25 (6)	0.39 (10)	0.56 (14)	1/4"-18	2.5 (1.1)	1.8 (0.12)
3/8 (10)	3.25 (83)	2.00 (51)	0.25 (6)	0.39 (10)	0.69 (18)	3/8"-18	2.5 (1.1)	1.8 (0.12)
1/2 (15)	3.25 (83)	2.00 (51)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	2.3 (1.0)	1.8 (0.12)
3/4 (20)	3.50 (89)	2.25 (57)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	3.3 (1.5)	1.0 (0.07)
1 (25)	4.50 (114)	2.25 (57)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	5.0 (2.3)	0.6 (0.04)
1 1/4 (32)	6.25 (159)	2.88 (73)	1.00 (25)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	10.5 (4.8)	0.5 (0.03)
1 1/2 (40)	6.25 (159)	2.88 (73)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	10.0 (4.5)	0.5 (0.03)
2 (50)	7.25 (184)	3.56 (90)	1.44 (37)	0.63 (16)	2.41 (61)	2"-11 1/2	18.2 (8.3)	0.7 (0.05)

SW80 CLASS 800 BOLTED CAP SWING TYPE CHECK VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	2.94 (75)	1.88 (48)	0.50 (13)	0.39 (10)	0.86 (22)	1/2"-14	2.1 (1.0)	0.1 (0.01)
3/4 (20)	3.38 (86)	2.00 (51)	0.69 (17)	0.51 (13)	1.07 (27)	3/4"-14	3.1 (1.4)	0.1 (0.01)
1 (25)	4.00 (102)	2.56 (65)	0.94 (24)	0.51 (13)	1.34 (34)	1"-11 1/2	4.2 (1.9)	0.1 (0.01)
1 1/2 (40)	4.50 (114)	2.94 (75)	1.44 (37)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	8.6 (3.9)	0.1 (0.01)
2 (50)	5.50 (140)	3.75 (95)	1.75 (44)	0.63 (16)	2.41 (61)	2"-11 1/2	13.2 (6.0)	0.1 (0.01)



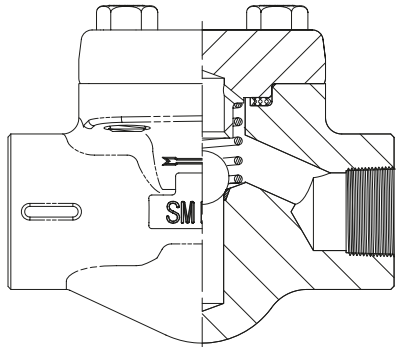
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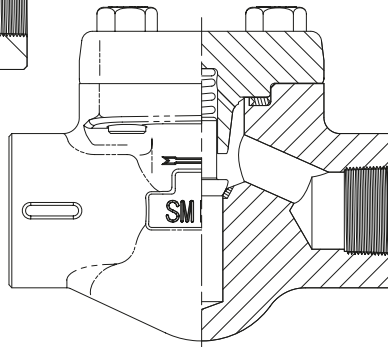
**B150-SB15/C150-SC15
Check Valves**

**Forged Steel, Bolted Cap, Horizontal, Ball and Piston-type
Valves comply with applicable portions of API 602 and ASME B16.34**

**Class 1500
1/4" - 2"**



B150-SB15



C150 - SC15



CLASS 1500 BOLTED CAP BALL TYPE CHECK VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)	B150 CRACKING PRESSURE PSI (BAR)	SB15 CRACKING PRESSURE PSI (BAR)
1/4 (8)	3.50 (89)	2.38 (60)	0.25 (6)	0.39 (10)	0.56 (14)	1/4"-18	4.8 (2.2)	0.2 (0.01)	2.1 (0.14)
3/8 (10)	3.50 (89)	2.38 (60)	0.25 (6)	0.39 (10)	0.69 (18)	3/8"-18	4.8 (2.2)	0.2 (0.01)	2.1 (0.14)
1/2 (15)	3.50 (89)	2.38 (60)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	4.5 (2.0)	0.2 (0.01)	2.1 (0.14)
3/4 (20)	4.50 (114)	2.44 (62)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	7.0 (3.2)	0.3 (0.02)	2.1 (0.14)
1 (25)	6.25 (159)	3.13 (79)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	12.8 (5.8)	0.3 (0.02)	3.5 (0.24)
1 1/4 (32)	7.25 (184)	3.94 (100)	1.00 (25)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	22.5 (10.2)	0.4 (0.03)	2.7 (0.19)
1 1/2 (40)	7.25 (184)	3.94 (100)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	22.2 (10.1)	0.4 (0.03)	2.7 (0.19)
2 (50)	7.25 (184)	4.50 (114)	1.44 (37)	0.63 (16)	2.41 (61)	2"-11 1/2	26.5 (12.0)	0.5 (0.03)	6.0 (0.41)

CLASS 1500 BOLTED CAP PISTON TYPE CHECK VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)	C150 CRACKING PRESSURE PSI (BAR)	SC15 CRACKING PRESSURE PSI (BAR)
1/4 (8)	3.50 (89)	2.38 (60)	0.25 (6)	0.39 (10)	0.56 (14)	1/4"-18	4.8 (2.2)	0.3 (0.02)	1.8 (0.12)
3/8 (10)	3.50 (89)	2.38 (60)	0.25 (6)	0.39 (10)	0.69 (18)	3/8"-18	4.8 (2.2)	0.3 (0.02)	1.8 (0.12)
1/2 (15)	3.50 (89)	2.38 (60)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	4.5 (2.0)	0.3 (0.02)	1.8 (0.12)
3/4 (20)	4.50 (114)	2.44 (62)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	7.0 (3.2)	0.3 (0.02)	1.0 (0.07)
1 (25)	6.25 (159)	3.13 (79)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	12.8 (5.8)	0.3 (0.02)	0.6 (0.04)
1 1/4 (32)	7.25 (184)	3.94 (100)	1.00 (25)	0.51 (13)	1.68 (43)	1 1/4"-11 1/2	22.5 (10.2)	0.3 (0.02)	0.5 (0.03)
1 1/2 (40)	7.25 (184)	3.94 (100)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	22.2 (10.1)	0.3 (0.02)	0.5 (0.03)
2 (50)	7.25 (184)	4.50 (114)	1.44 (37)	0.63 (16)	2.41 (61)	2"-11 1/2	26.5 (12.0)	0.4 (0.03)	0.7 (0.05)



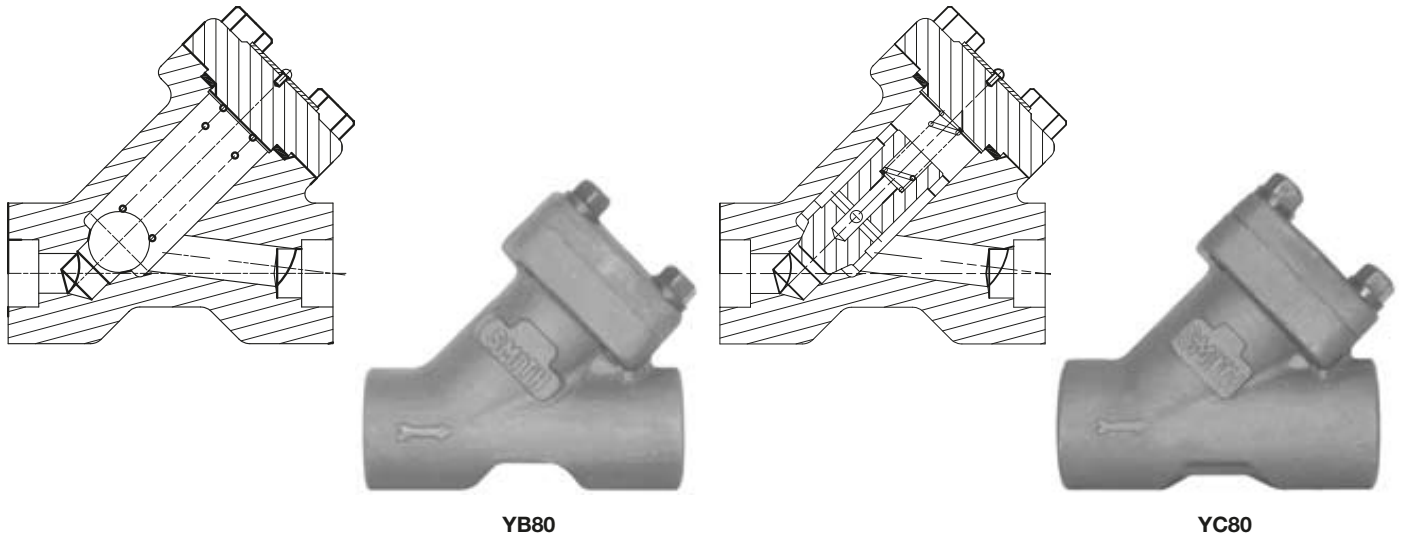
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**YB80-YC80
Y-Pattern Check Valves**

**Forged Steel, Bolted Cap, Y-Pattern, Horizontal, Ball and Piston-type
Valves comply with applicable portions of API 602 and ASME B16.34**

**Class 800
1/2" - 2"**



YB80

YC80

CLASS 800 Y-PATTERN BALL TYPE CHECK VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	4.17 (106)	3.46 (88)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	3.9 (1.7)	8.7 (0.60)
3/4 (20)	4.17 (106)	3.46 (88)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	3.9 (1.7)	8.7 (0.60)
1 (25)	4.72 (120)	3.98 (101)	0.69 (18)	0.51 (13)	1.34 (34)	1"-11 1/2	6.2 (2.8)	7.3 (0.50)
1 1/2 (40)	5.98 (152)	4.88 (124)	1.12 (28)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	11.7 (5.3)	4.4 (0.30)
2 (50)	7.09 (180)	5.59 (142)	1.38 (35)	0.63 (16)	2.41 (61)	2"-11 1/2	18.7 (8.5)	2.9 (0.20)

CLASS 800 Y-PATTERN PISTON TYPE CHECK VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	4.17 (106)	3.46 (88)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	3.9 (1.7)	36.3 (2.50)
3/4 (20)	4.17 (106)	3.46 (88)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	3.9 (1.7)	36.3 (2.50)
1 (25)	4.72 (120)	3.98 (101)	0.69 (18)	0.51 (13)	1.34 (34)	1"-11 1/2	6.2 (2.8)	16.0 (1.10)
1 1/2 (40)	5.98 (152)	4.88 (124)	1.12 (28)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	11.7 (5.3)	14.5 (1.00)
2 (50)	7.09 (180)	5.59 (142)	1.38 (35)	0.63 (16)	2.41 (61)	2"-11 1/2	18.7 (8.5)	16.0 (1.10)



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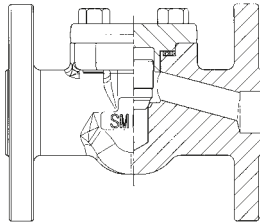
SMITH

OC81-SC81-OC83-SC83-OC86-SC86

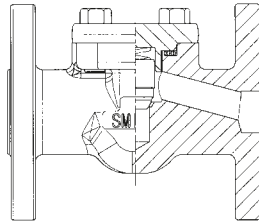
Check Valves

Forged Steel, Bolted Cap, Horizontal, Piston-type
Valves comply with applicable portions of API 602 and ASME B16.34

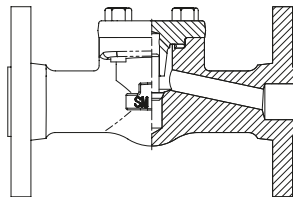
Class 150/300/600
1/2" - 2"



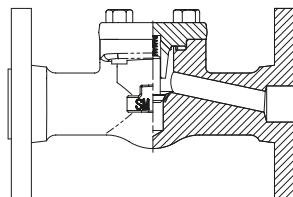
OC81



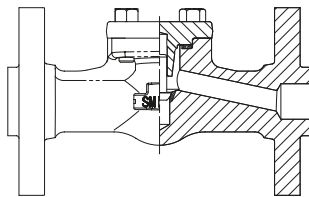
SC81



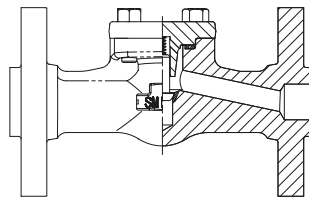
OC83



SC83



OC86



SC86



OC81 CLASS 150 BOLTED CAP PISTON TYPE CHECK VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	4.25 (108)	1.88 (48)	0.38 (10)	3.54 (90)	1.38 (35)	4	0.63 (16)	2.38 (60)	4.4 (2.0)	0.7 (0.05)
3/4 (20)	4.63 (118)	2.00 (51)	0.50 (13)	3.94 (100)	1.69 (43)	4	0.63 (16)	2.75 (70)	5.5 (2.5)	0.7 (0.05)
1 (25)	5.00 (127)	2.56 (65)	0.69 (17)	4.25 (108)	2.00 (51)	4	0.63 (16)	3.13 (79)	8.8 (4.0)	0.7 (0.05)
1 1/2 (40)	6.50 (165)	2.94 (75)	1.19 (30)	5.00 (127)	2.88 (73)	4	0.63 (16)	3.88 (98)	17.6 (8.0)	0.8 (0.05)
2 (50)	8.00 (203)	3.75 (95)	1.44 (37)	6.00 (152)	3.63 (92)	4	0.75 (19)	4.75 (121)	25.4 (11.5)	0.7 (0.05)

SC81 CLASS 150 BOLTED CAP SPRING PISTON TYPE CHECK VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	4.25 (108)	1.88 (48)	0.38 (10)	3.54 (90)	1.38 (35)	4	0.63 (16)	2.38 (60)	4.4 (2.0)	1.6 (0.11)
3/4 (20)	4.63 (118)	2.00 (51)	0.50 (13)	3.94 (100)	1.69 (43)	4	0.63 (16)	2.75 (70)	5.5 (2.5)	2.1 (0.15)
1 (25)	5.00 (127)	2.56 (65)	0.69 (17)	4.25 (108)	2.00 (51)	4	0.63 (16)	3.13 (79)	8.8 (4.0)	2.0 (0.13)
1 1/2 (40)	6.50 (165)	2.94 (75)	1.19 (30)	5.00 (127)	2.88 (73)	4	0.63 (16)	3.88 (98)	17.6 (8.0)	2.5 (0.17)
2 (50)	8.00 (203)	3.75 (95)	1.44 (37)	6.00 (152)	3.63 (92)	4	0.75 (19)	4.75 (121)	25.4 (11.5)	2.6 (0.18)



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OC81-SC81-OC83-SC83-OC86-SC86

Check Valves

Forged Steel, Bolted Cap, Horizontal, Piston-type
Valves comply with applicable portions of API 602 and ASME B16.34

Class 150/300/600
1/2" - 2"

OC83 CLASS 300 BOLTED CAP PISTON TYPE CHECK VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	6.00 (152)	2.00 (51)	0.38 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	5.8 (2.6)	0.3 (0.02)
3/4 (20)	7.00 (178)	2.25 (57)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	9.5 (4.3)	0.3 (0.02)
1 (25)	8.00 (203)	2.63 (67)	0.75 (19)	4.92 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	13.3 (6.0)	0.3 (0.02)
1 1/2 (40)	9.00 (229)	3.69 (94)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	28.8 (13.0)	0.3 (0.02)
2 (50)	10.50 (267)	4.25 (108)	1.44 (37)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	37.0 (16.8)	0.4 (0.03)

SC83 CLASS 300 BOLTED CAP SPRING PISTON TYPE CHECK VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	6.00 (152)	2.00 (51)	0.38 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	5.8 (2.6)	1.8 (0.12)
3/4 (20)	7.00 (178)	2.25 (57)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	9.5 (4.3)	1.0 (0.07)
1 (25)	8.00 (203)	2.63 (67)	0.75 (19)	4.92 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	13.3 (6.0)	0.6 (0.04)
1 1/2 (40)	9.00 (229)	3.69 (94)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	28.8 (13.0)	0.5 (0.03)
2 (50)	10.50 (267)	4.25 (108)	1.44 (37)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	37.0 (16.8)	0.7 (0.05)

OC86 CLASS 600 BOLTED CAP PISTON TYPE CHECK VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	6.50 (165)	2.00 (51)	0.38 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	6.3 (2.8)	0.3 (0.02)
3/4 (20)	7.50 (191)	2.25 (57)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	10.5 (4.8)	0.3 (0.02)
1 (25)	8.50 (216)	2.63 (67)	0.75 (19)	4.94 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	13.5 (6.1)	0.3 (0.02)
1 1/2 (40)	9.50 (241)	3.69 (94)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	29.5 (13.4)	0.3 (0.02)
2 (50)	11.50 (292)	4.25 (108)	1.44 (37)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	43.5 (19.7)	0.4 (0.03)

SC86 CLASS 600 BOLTED CAP SPRING PISTON TYPE CHECK VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	6.50 (165)	2.00 (51)	0.38 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	6.3 (2.8)	1.8 (0.12)
3/4 (20)	7.50 (191)	2.25 (57)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	10.5 (4.8)	1.0 (0.07)
1 (25)	8.50 (216)	2.63 (67)	0.75 (19)	4.92 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	13.5 (6.1)	0.6 (0.04)
1 1/2 (40)	9.50 (241)	3.69 (94)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	29.5 (13.4)	0.5 (0.03)
2 (50)	11.50 (292)	4.25 (108)	1.44 (37)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	43.5 (19.7)	0.7 (0.05)



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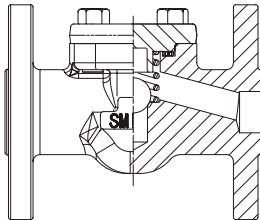
SMITH

OB81-SB81-OB83-SB83-OB86-SB86

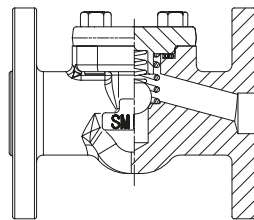
Check Valves

Forged Steel, Bolted Cap, Horizontal, Ball-type
Valves comply with applicable portions of API 602 and ASME B16.34

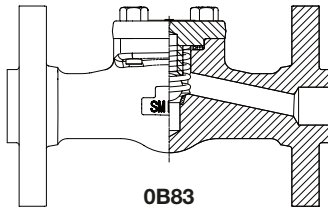
Class 150/300/600
1/2" - 2"



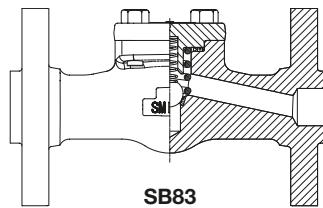
OB81



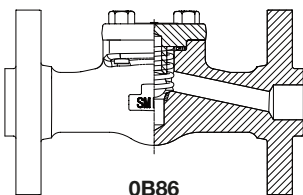
SB81



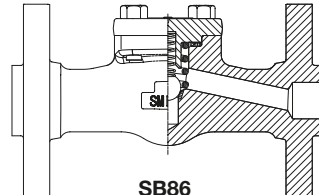
OB83



SB83



OB86



SB86



OB81 CLASS 150 BOLTED CAP BALL TYPE CHECK VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	4.25 (108)	1.88 (48)	0.38 (10)	3.54 (90)	1.38 (35)	4	0.63 (16)	2.38 (60)	4.4 (2.0)	0.7 (0.05)
3/4 (20)	4.63 (118)	2.00 (51)	0.50 (13)	3.94 (100)	1.69 (43)	4	0.63 (16)	2.75 (70)	5.5 (2.5)	0.7 (0.05)
1 (25)	5.00 (127)	2.56 (65)	0.69 (17)	4.25 (108)	2.00 (51)	4	0.63 (16)	3.13 (79)	8.8 (4.0)	0.7 (0.05)
1 1/2 (40)	6.50 (165)	2.94 (75)	1.19 (30)	5.00 (127)	2.88 (73)	4	0.63 (16)	3.88 (98)	17.6 (8.0)	0.8 (0.05)
2 (50)	8.00 (203)	3.75 (95)	1.44 (37)	6.00 (152)	3.63 (92)	4	0.75 (19)	4.75 (121)	25.4 (11.5)	0.7 (0.05)

SB81 CLASS 150 BOLTED CAP SPRING BALL TYPE CHECK VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	4.25 (108)	1.88 (48)	0.38 (10)	3.54 (90)	1.38 (35)	4	0.63 (16)	2.38 (60)	4.4 (2.0)	1.6 (0.11)
3/4 (20)	4.63 (118)	2.00 (51)	0.50 (13)	3.94 (100)	1.69 (43)	4	0.63 (16)	2.75 (70)	5.5 (2.5)	2.1 (0.15)
1 (25)	5.00 (127)	2.56 (65)	0.69 (17)	4.25 (108)	2.00 (51)	4	0.63 (16)	3.13 (79)	8.8 (4.0)	2.0 (0.13)
1 1/2 (40)	6.50 (165)	2.94 (75)	1.19 (30)	5.00 (127)	2.88 (73)	4	0.63 (16)	3.88 (98)	17.6 (8.0)	2.5 (0.17)
2 (50)	8.00 (203)	3.75 (95)	1.44 (37)	6.00 (152)	3.63 (92)	4	0.75 (19)	4.75 (121)	25.4 (11.5)	2.6 (0.18)



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OB81-SB81-OB83-SB83-OB86-SB86

Check Valves

Forged Steel, Bolted Cap, Horizontal, Ball-type
Valves comply with applicable portions of API 602 and ASME B16.34

Class 150/300/600
1/2" - 2"

OB83 CLASS 300 BOLTED CAP BALL TYPE CHECK VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	6.00 (152)	2.00 (51)	0.38 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	5.8 (2.6)	0.2 (0.01)
3/4 (20)	7.00 (178)	2.25 (57)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	9.5 (4.3)	0.3 (0.02)
1 (25)	8.00 (203)	2.63 (67)	0.75 (19)	4.92 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	13.3 (6.0)	0.3 (0.02)
1 1/2 (40)	9.00 (229)	3.69 (94)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	28.8 (13.0)	0.4 (0.03)
2 (50)	10.50 (267)	4.25 (108)	1.44 (37)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	37.0 (16.8)	0.5 (0.03)

SB83 CLASS 300 BOLTED CAP SPRING BALL TYPE CHECK VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	6.00 (152)	2.00 (51)	0.38 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	5.8 (2.6)	2.1 (0.15)
3/4 (20)	7.00 (178)	2.25 (57)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	9.5 (4.3)	2.1 (0.15)
1 (25)	8.00 (203)	2.63 (67)	0.75 (19)	4.92 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	13.3 (6.0)	3.5 (0.24)
1 1/2 (40)	9.00 (229)	3.69 (94)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	28.8 (13.0)	2.7 (0.19)
2 (50)	10.50 (267)	4.25 (108)	1.44 (37)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	37.0 (16.8)	6.0 (0.41)

OB86 CLASS 600 BOLTED CAP BALL TYPE CHECK VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	6.50 (165)	2.00 (51)	0.38 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	6.3 (2.8)	0.2 (0.01)
3/4 (20)	7.50 (191)	2.25 (57)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	10.5 (4.8)	0.3 (0.02)
1 (25)	8.50 (216)	2.63 (67)	0.75 (19)	4.94 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	13.5 (6.1)	0.3 (0.02)
1 1/2 (40)	9.50 (241)	3.69 (94)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	29.5 (13.4)	0.4 (0.03)
2 (50)	11.50 (292)	4.25 (108)	1.44 (37)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	43.5 (19.7)	0.5 (0.03)

SB86 CLASS 600 BOLTED CAP SPRING BALL TYPE CHECK VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)	CRACKING PRESSURE PSI (BAR)
1/2 (15)	6.50 (165)	2.00 (51)	0.38 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	6.3 (2.8)	2.1 (0.15)
3/4 (20)	7.50 (191)	2.25 (57)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	10.5 (4.8)	2.1 (0.15)
1 (25)	8.50 (216)	2.63 (67)	0.75 (19)	4.92 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	13.5 (6.1)	3.5 (0.24)
1 1/2 (40)	9.50 (241)	3.69 (94)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	29.5 (13.4)	2.7 (0.19)
2 (50)	11.50 (292)	4.25 (108)	1.44 (37)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	43.5 (19.7)	6.0 (0.41)



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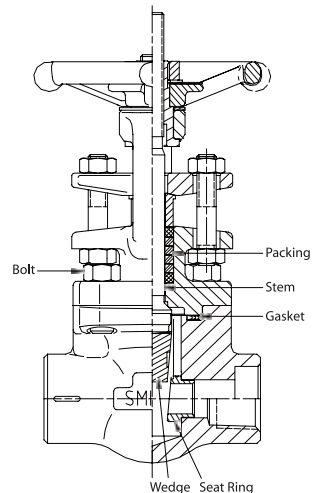
Specialty Valves

Sour Service Valves

Smith manufactures a complete line of valves in full compliance to NACE Standards. All Body/Bonnet, Packing, and Gasket materials shown on page 2 are acceptable for sour gas service. However, NACE valves have special limitations on bolting and trim materials to ensure their resistance to corrosion by sulfides ("sour gas") found in processing crude oil.

TRIM MATERIALS			
CODE	STEM	WEDGE/DISC	SEAT
K	410, 22HRC Max	410, 22HRC Max	HF
A	316	316	316 *
S		316	316+HF *
W		STELLITE	
D	MONEL	MONEL, 35HRC Max	MONEL

* Stellite seat in Globe & Check when body not 316 or 316L
 HF = "Hard Faced", such as Stellite #6.



Customer must specify desired material as there is no single "NACE Valve".

HF Acid Service Valves

(HF=hydrofluoric acid)

Chlorine valves can be used for Hydrofluoric acid (HF) service. However, some users require the following additional features:

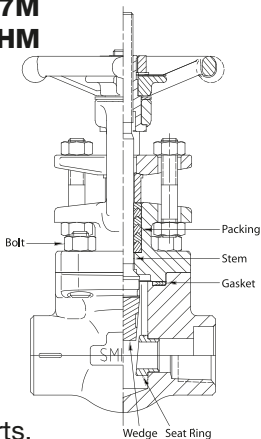
- STEM** K-Monel
- WEDGE or Disc** ... Additional side clearance for medial build up
- STUDS**..... ASTM A 193-B7M
- NUTS**..... ASTM A 194-2HM (instead of bolts)

These valves are coded:

SCOMO/U/W..... Monel trim

Body and Bonnet flange and end connections are painted with "ON GUARD" acid alert system. Teflon soft goods and Double Ball Grease Injectors are available upon request.

Consult factory for valves prohibiting the use of stainless steel external parts.



Chlorine Valves

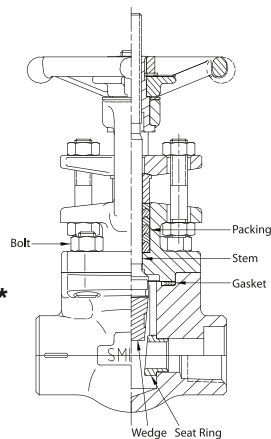
The following combinations are generally used for chlorine service:

- ODXXO/U/W** ... Monel trim
- OQXXO/U/W** ... Monel & Teflon trim

When requested, valves for chlorine service are specially cleaned and packaged.

- PACKING** Teflon V-ring
- STEM** Monel
- GASKET** Monel & Teflon
- SEAT RINGS**
- WEDGE or DISC**..... Monel or Monel w/Teflon*

- *Gate Valve - Teflon in seats
- *Globe Valve - Teflon in Disc



Oxygen Service

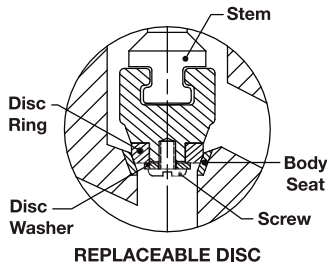
For adequate contamination control in oxygen-enriched systems and environments, different cleanliness levels from a simple degreasing wash to the removal of both organic and inorganic contaminants are offered by Smith.

Smith valves can be cleaned to achieve ASTM specifications or other specific industry or customer standards.

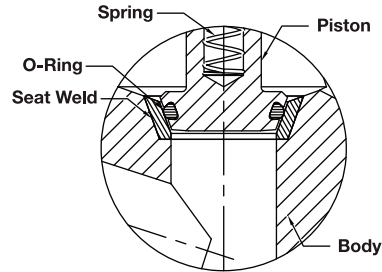
Please, contact your Smith representative.



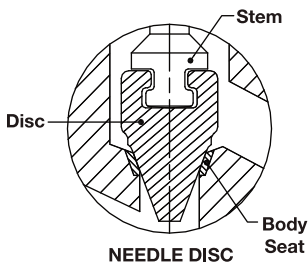
Gate, Globe, Check Valves



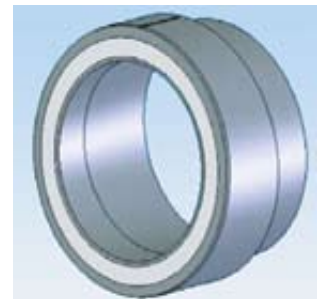
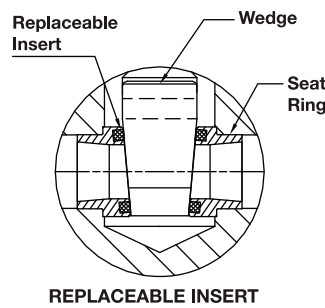
Used for elastomeric or plastic seating (Globe)



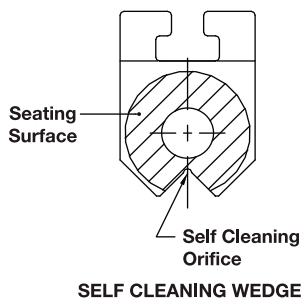
Used for elastomeric seating (Check)



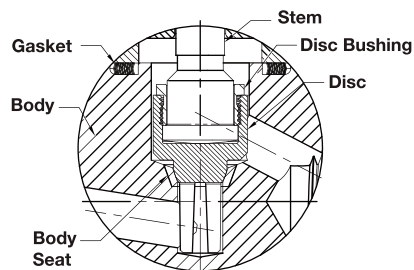
Used for metering (Globe)



Used for elastomeric or plastic seating (Gate)



Used as anti-clog and self cleaning (Gate)



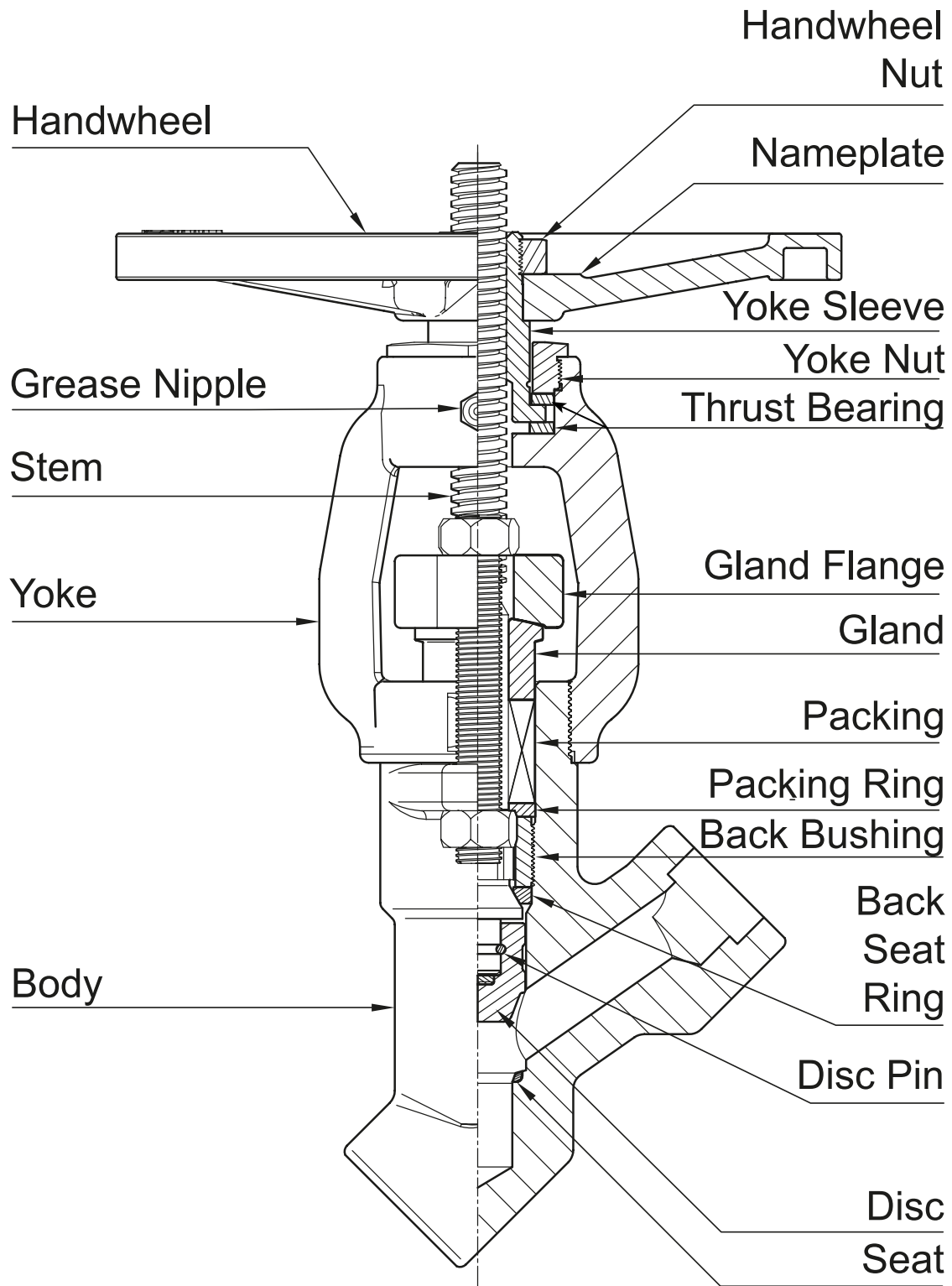
Used for flow control (Globe)



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Y-Pattern Valves





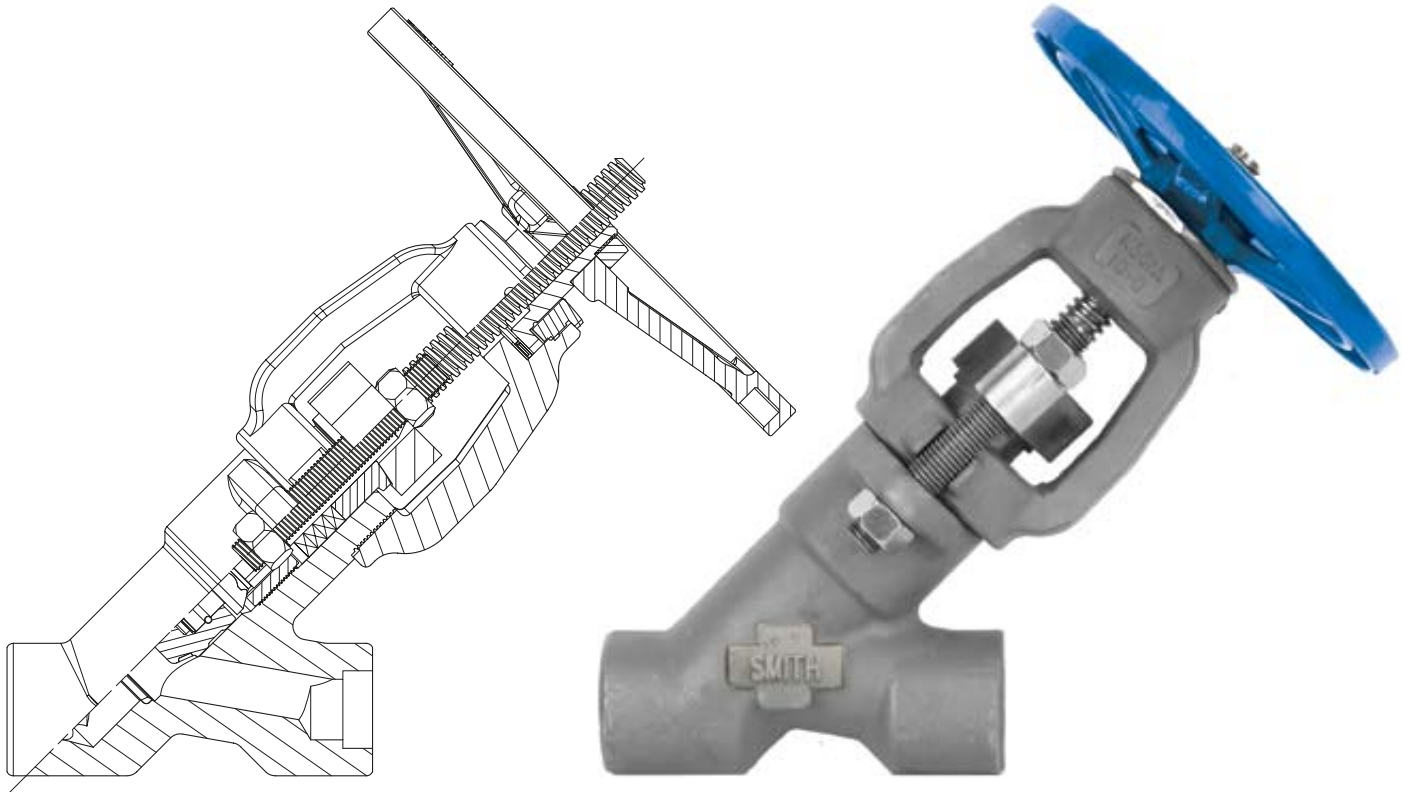
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SMITH

**Y162-Y262
Y-Pattern Globe Valves**

**Forged Steel OS&Y
Valves comply with applicable portions of API 602 and ASME B16.34
Non-Rotating Stem**

**Class 1690/2690
1/2" - 2"**



Y162-Y262

CLASS 1690 BONNETLESS Y-PATTERN GLOBE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/2 (15)	5.50 (140)	11.31 (287)	9.81 (249)	0.47 (12)	0.39 (10)	0.86 (22)	1/2"-14	22.1 (10.0)
3/4 (20)	5.50 (140)	11.31 (287)	9.81 (249)	0.71 (18)	0.51 (13)	1.07 (27)	3/4"-14	21.7 (9.8)
1 (25)	7.13 (181)	11.88 (302)	9.81 (249)	0.91 (23)	0.51 (13)	1.34 (34)	1"-11 1/2	27.2 (12.4)
1 1/2 (40)	8.25 (210)	17.69 (449)	15.75 (400)	1.38 (35)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	84.7 (38.4)
2 (50)	10.25 (260)	21.50 (546)	19.69 (500)	1.69 (43)	0.63 (16)	2.41 (61)	2"-11 1/2	138.1 (62.6)

CLASS 2690 BONNETLESS Y-PATTERN GLOBE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/2 (15)	5.50 (140)	11.31 (287)	9.81 (249)	0.47 (12)	0.39 (10)	0.86 (22)	1/2"-14	22.1 (10.0)
3/4 (20)	5.50 (140)	11.31 (287)	9.81 (249)	0.71 (18)	0.51 (13)	1.07 (27)	3/4"-14	21.7 (9.8)
1 (25)	7.13 (181)	11.88 (302)	9.81 (249)	0.91 (23)	0.51 (13)	1.34 (34)	1"-11 1/2	27.2 (12.4)
1 1/2 (40)	8.25 (210)	17.69 (449)	15.75 (400)	1.38 (35)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	84.7 (38.4)
2 (50)	10.25 (260)	21.50 (546)	19.69 (500)	1.69 (43)	0.63 (16)	2.41 (61)	2"-11 1/2	138.1 (62.6)



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**Y167-Y267
Y-Pattern Globe Valves**

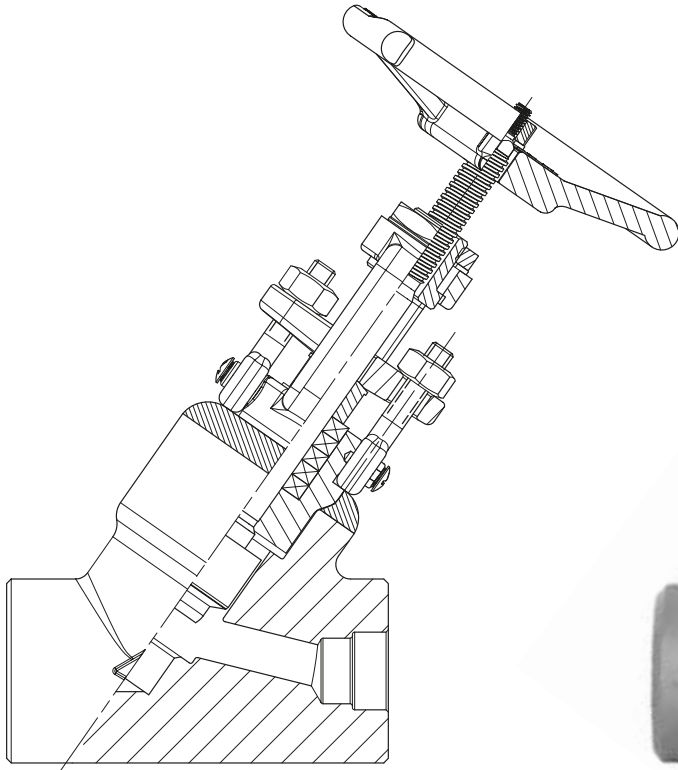
Forged Steel OS&Y

Valves comply with applicable portions of API 602 and ASME B16.34

Rotating Stem

Class 1690/2690

1/2" - 2"



Y167-Y267

CLASS 1690 WELDED BONNET Y-PATTERN GLOBE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/2 (15)	4.13 (105)	8.50 (216)	3.94 (100)	0.47 (12)	0.39 (10)	0.86 (22)	1/2"-14	7.7 (3.5)
3/4 (20)	4.75 (121)	10.00 (254)	5.50 (140)	0.56 (14)	0.51 (13)	1.07 (27)	3/4"-14	12.1 (5.5)
1 (25)	6.50 (165)	11.00 (279)	5.50 (140)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	24.3 (11.0)
1 1/2 (40)	7.50 (191)	14.94 (379)	6.88 (175)	1.25 (32)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	36.4 (16.5)
2 (50)	8.69 (221)	17.69 (449)	9.25 (235)	1.56 (40)	0.63 (16)	2.41 (61)	2"-11 1/2	57.3 (26.0)

CLASS 2690 WELDED BONNET Y-PATTERN GLOBE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/2 (15)	4.75 (121)	9.44 (240)	5.50 (140)	0.44 (11)	0.39 (10)	0.86 (22)	1/2"-14	11.0 (5.0)
3/4 (20)	6.50 (165)	11.25 (286)	5.50 (140)	0.59 (15)	0.51 (13)	1.07 (27)	3/4"-14	19.8 (9.0)
1 (25)	6.50 (165)	12.19 (310)	5.50 (140)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	22.0 (10.0)
1 1/2 (40)	7.50 (191)	14.94 (379)	6.88 (175)	1.13 (29)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	35.3 (16.0)
2 (50)	8.69 (221)	18.12 (460)	9.25 (235)	1.50 (38)	0.63 (16)	2.41 (61)	2"-11 1/2	55.1 (25.0)



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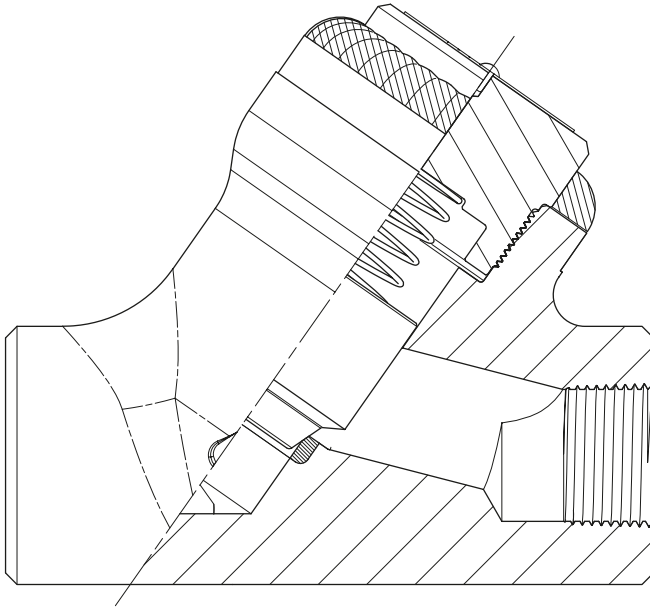
**YC16-YC26
Y-Pattern Check Valves**

Forged Steel

Valves comply with applicable portions of API 602 and ASME B16.34

Class 1690/2690

1/2" - 2"



YC16-YC26

CLASS 1690 WELDED CAP SPRING TYPE PISTON CHECK - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/2 (15)	4.75 (121)	3.75 (95)	0.43 (11)	0.39 (10)	0.86 (22)	1/2"-14	8.0 (3.6)
3/4 (20)	6.50 (165)	4.50 (114)	0.57 (15)	0.51 (13)	1.07 (27)	3/4"-14	20.0 (9.1)
1 (25)	6.50 (165)	4.75 (121)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	19.4 (8.8)
1 1/2 (40)	7.50 (191)	5.69 (145)	1.10 (28)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	28.0 (12.7)
2 (50)	8.63 (219)	7.25 (184)	1.50 (38)	0.63 (16)	2.41 (61)	2"-11 1/2	51.0 (23.1)

CLASS 2690 WELDED CAP SPRING TYPE PISTON CHECK - THREADED or SOCKET WELD - INCHES (MM)

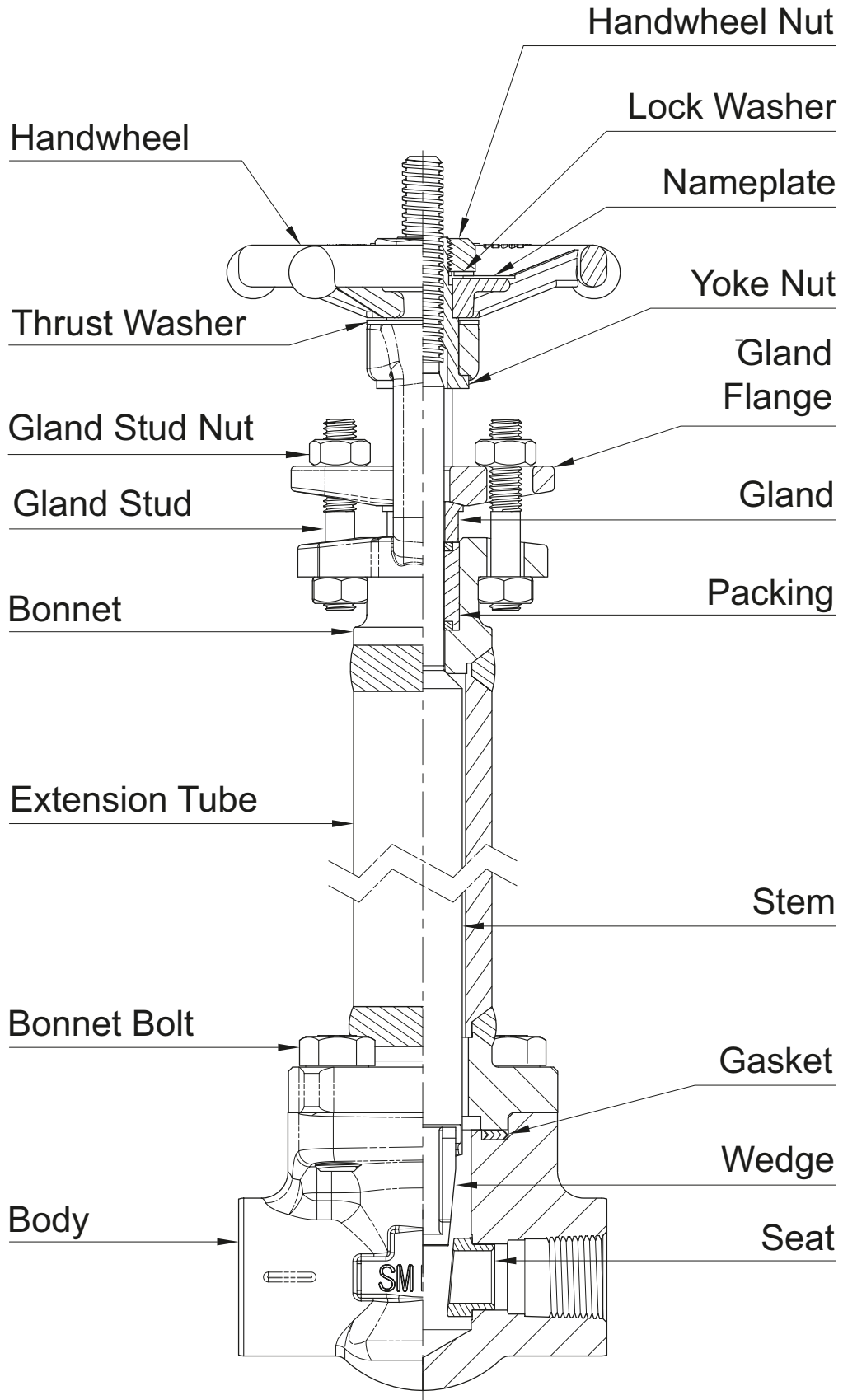
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/2 (15)	4.75 (121)	3.75 (95)	0.43 (11)	0.39 (10)	0.86 (22)	1/2"-14	8.0 (3.6)
3/4 (20)	6.50 (165)	4.50 (114)	0.57 (15)	0.51 (13)	1.07 (27)	3/4"-14	20.0 (9.1)
1 (25)	6.50 (165)	4.75 (121)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	19.4 (8.8)
1 1/2 (40)	7.50 (191)	5.69 (145)	1.10 (28)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	28.0 (12.7)
2 (50)	8.63 (219)	7.25 (184)	1.50 (38)	0.63 (16)	2.41 (61)	2"-11 1/2	51.0 (23.1)



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Cryogenic Valves





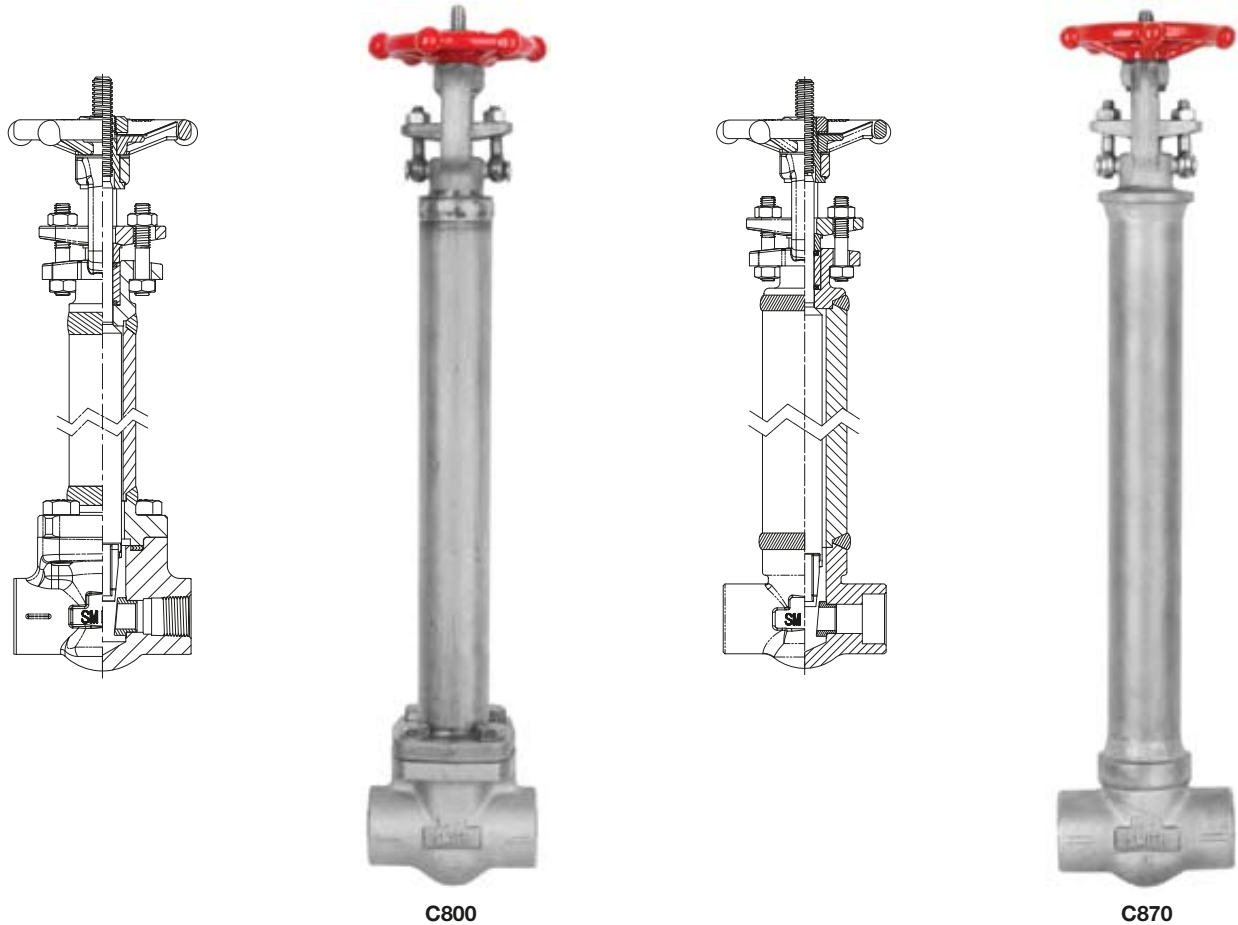
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**C800-C870
Cryogenic Gate Valves**

Forged Steel OS&Y – Conventional Port
Valves comply with applicable portions of API 602 and ASME B16.34

Class 800
1/2" - 2"



C800

C870

CLASS 800 BOLTED BONNET CRYOGENIC GATE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/2 (15)	3.25 (83)	18.25 (464)	4.00 (102)	0.39 (10)	0.39 (10)	0.86 (22)	1/2"-14	8.0 (3.6)
3/4 (20)	3.50 (89)	18.44 (468)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	8.7 (3.9)
1 (25)	3.88 (98)	19.81 (503)	4.00 (102)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	12.1 (5.5)
1 1/2 (40)	4.75 (121)	21.12 (537)	5.50 (140)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	19.3 (8.8)
2 (50)	5.50 (140)	23.00 (584)	6.63 (168)	1.50 (38)	0.63 (16)	2.41 (61)	2"-11 1/2	30.0 (13.6)

CLASS 800 WELDED BONNET CRYOGENIC GATE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/2 (15)	3.25 (83)	18.25 (464)	4.00 (102)	0.39 (10)	0.39 (10)	0.86 (22)	1/2"-14	10.6 (4.8)
3/4 (20)	3.50 (89)	18.50 (470)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	11.8 (5.4)
1 (25)	3.88 (98)	19.19 (487)	4.00 (102)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	15.6 (7.1)
1 1/2 (40)	4.75 (121)	21.19 (538)	5.50 (140)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	22.2 (10.1)
2 (50)	5.50 (140)	23.12 (587)	6.63 (168)	1.50 (38)	0.63 (16)	2.41 (61)	2"-11 1/2	32.3 (14.7)



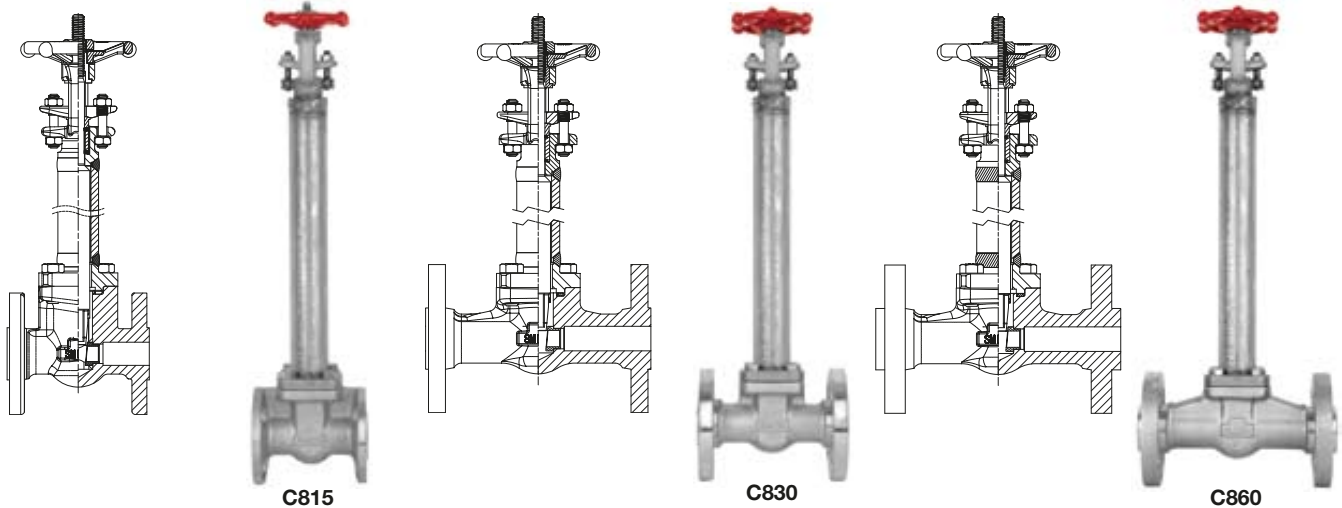
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**C815-C830-C860
Cryogenic Gate Valves**

Forged Steel OS&Y – Conventional Port
Valves comply with applicable portions of **API 602** and **ASME B16.34**

Class 150/300/600
1/2" - 2"



CLASS 150 CONVENTIONAL PORT CRYOGENIC BOLTED BONNET GATE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)
1/2 (15)	4.25 (108)	18.88 (479)	4.00 (102)	0.39 (10)	3.54 (90)	1.38 (35)	4	0.63 (16)	2.38 (60)	10.8 (4.9)
3/4 (20)	4.63 (118)	19.06 (484)	4.00 (102)	0.50 (13)	3.94 (100)	1.69 (43)	4	0.63 (16)	2.75 (70)	13.3 (6.0)
1 (25)	5.00 (127)	20.25 (514)	4.00 (102)	0.75 (19)	4.25 (108)	2.00 (51)	4	0.63 (16)	3.13 (79)	15.2 (6.9)
1 1/2 (40)	6.50 (165)	21.12 (537)	5.50 (140)	1.19 (30)	5.00 (127)	2.88 (73)	4	0.63 (16)	3.88 (98)	25.0 (11.3)
2 (50)	7.00 (178)	23.00 (584)	6.63 (168)	1.50 (38)	6.00 (152)	3.63 (92)	4	0.75 (19)	4.75 (121)	42.2 (19.1)

CLASS 300 CONVENTIONAL PORT CRYOGENIC BOLTED BONNET GATE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)
1/2 (15)	5.50 (140)	18.19 (462)	4.00 (102)	0.39 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	11.3 (5.1)
3/4 (20)	6.00 (152)	18.38 (467)	4.00 (102)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	14.5 (6.6)
1 (25)	6.50 (165)	19.81 (503)	4.00 (102)	0.75 (19)	4.94 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	18.2 (8.3)
1 1/2 (40)	7.50 (191)	21.13 (537)	5.50 (140)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	31.3 (14.2)
2 (50)	8.50 (216)	23.00 (584)	6.63 (168)	1.50 (38)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	44.2 (20.1)

CLASS 600 CONVENTIONAL PORT CRYOGENIC BOLTED BONNET GATE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WEIGHT LBS (KG)
1/2 (15)	6.50 (165)	18.19 (462)	4.00 (102)	0.39 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	11.8 (5.4)
3/4 (20)	7.50 (191)	18.38 (467)	4.00 (102)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	16.0 (7.3)
1 (25)	8.50 (216)	19.81 (503)	4.00 (102)	0.75 (19)	4.94 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	20.5 (9.3)
1 1/2 (40)	9.50 (241)	21.12 (537)	5.50 (140)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	37.2 (16.9)
2 (50)	11.50 (292)	23.00 (584)	6.63 (168)	1.50 (38)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	53.9 (24.4)



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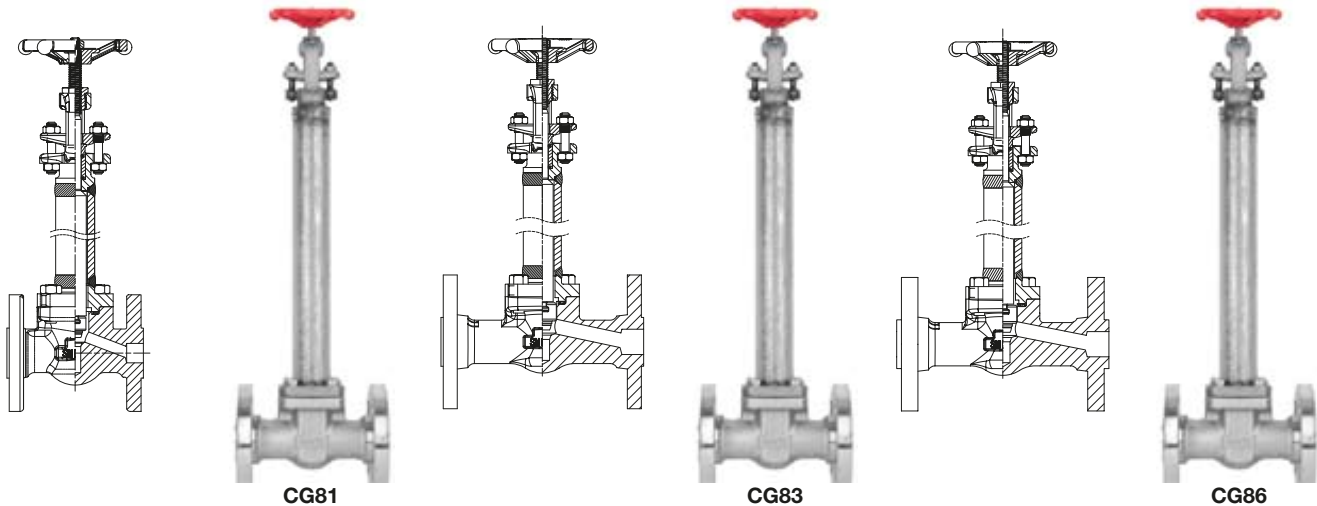
CG81-CG83-CG86
Cryogenic Globe Valves

Forged Steel OS&Y

Valves comply with applicable portions of API 602 and ASME B16.34

Class 150/300/600

1/2" - 2"



CLASS 150 CRYOGENIC BOLTED BONNET GLOBE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WT LBS (KG)
1/2 (15)	4.25 (108)	18.31 (465)	4.00 (102)	0.38 (10)	3.54 (90)	1.38 (35)	4	0.63 (16)	2.38 (60)	10.8 (4.9)
3/4 (20)	4.63 (118)	18.50 (470)	4.00 (102)	0.50 (13)	3.94 (100)	1.69 (43)	4	0.63 (16)	2.75 (70)	13.3 (6.0)
1 (25)	5.00 (127)	18.75 (476)	4.00 (102)	0.75 (19)	4.33 (110)	2.00 (51)	4	0.63 (16)	3.13 (79)	15.2 (6.9)
1 1/2 (40)	6.50 (165)	20.13 (511)	5.50 (140)	1.19 (30)	5.00 (127)	2.88 (73)	4	0.63 (16)	3.88 (98)	25.0 (11.3)
2 (50)	8.00 (203)	21.94 (557)	6.63 (168)	1.44 (37)	6.00 (152)	3.63 (92)	4	0.75 (19)	4.75 (121)	42.2 (19.1)

CLASS 300 CRYOGENIC BOLTED BONNET GLOBE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WT LBS (KG)
1/2 (15)	6.00 (152)	18.31 (465)	4.00 (102)	0.38 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	11.3 (5.1)
3/4 (20)	7.00 (178)	18.50 (470)	4.00 (102)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	14.5 (6.6)
1 (25)	8.00 (203)	19.13 (486)	4.00 (102)	0.75 (19)	4.94 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	18.2 (8.3)
1 1/2 (40)	9.02 (229)	21.00 (533)	4.63 (118)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	31.3 (14.2)
2 (50)	10.51 (267)	22.63 (575)	6.63 (168)	1.44 (37)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	44.2 (20.1)

CLASS 600 CRYOGENIC BOLTED BONNET GLOBE VALVE - FLANGED ENDS - INCHES (MM)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	FLANGE DIAMETER	RAISED DIAMETER	BOLT HOLE	BOLT HOLE DIAMETER	BOLT CIRCLE	APPROX. WT LBS (KG)
1/2 (15)	6.50 (165)	18.19 (462)	4.00 (102)	0.39 (10)	3.75 (95)	1.38 (35)	4	0.63 (16)	2.63 (67)	11.8 (5.4)
3/4 (20)	7.50 (191)	18.38 (467)	4.00 (102)	0.50 (13)	4.63 (118)	1.69 (43)	4	0.75 (19)	3.25 (83)	16.0 (7.3)
1 (25)	8.50 (216)	19.81 (503)	4.00 (102)	0.75 (19)	4.94 (125)	2.00 (51)	4	0.75 (19)	3.50 (89)	20.5 (9.3)
1 1/2 (40)	9.50 (241)	21.13 (537)	5.50 (140)	1.19 (30)	6.13 (156)	2.88 (73)	4	0.88 (22)	4.50 (114)	37.2 (16.9)
2 (50)	11.50 (292)	23.00 (584)	6.63 (168)	1.44 (37)	6.50 (165)	3.63 (92)	8	0.75 (19)	5.00 (127)	53.9 (24.4)



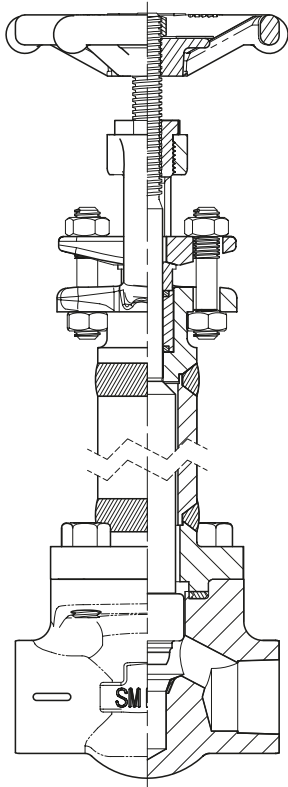
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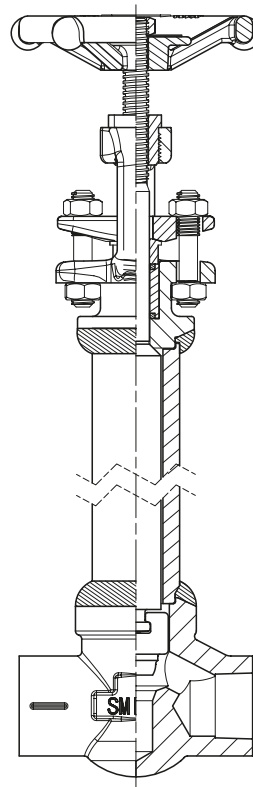
**CG80-CG87
Cryogenic Globe Valves**

**Forged Steel OS&Y
Valves comply with applicable portions of API 602 and ASME B16.34**

**Class 800
1/2" - 2"**



CG80



CG87

CLASS 800 BOLTED BONNET CRYOGENIC GLOBE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX.WEIGHT LBS (KG)
1/2 (15)	3.25 (83)	18.31 (465)	4.00 (102)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	8.0 (3.6)
3/4 (20)	3.50 (89)	18.50 (470)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	8.9 (4.0)
1 (25)	4.50 (114)	18.75 (476)	4.00 (102)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	12.1 (5.5)
1 1/2 (40)	6.25 (159)	20.13 (511)	5.50 (140)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	19.5 (8.8)
2 (50)	7.25 (184)	21.94 (557)	6.63 (168)	1.44 (37)	0.63 (16)	2.41 (61)	2"-11 1/2	32.0 (14.5)

CLASS 800 WELDED BONNET CRYOGENIC GLOBE VALVE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX.WEIGHT LBS (KG)
1/2 (15)	3.25 (83)	18.38 (467)	4.00 (102)	0.38 (10)	0.39 (10)	0.86 (22)	1/2"-14	10.9 (4.9)
3/4 (20)	3.50 (89)	18.56 (472)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	12.6 (5.7)
1 (25)	4.50 (114)	18.81 (478)	4.00 (102)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	16.4 (7.4)
1 1/2 (40)	6.25 (159)	20.06 (510)	5.50 (140)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	24.2 (11.0)
2 (50)	7.25 (184)	22.12 (562)	6.63 (168)	1.44 (37)	0.63 (16)	2.41 (61)	2"-11 1/2	38.3 (17.4)



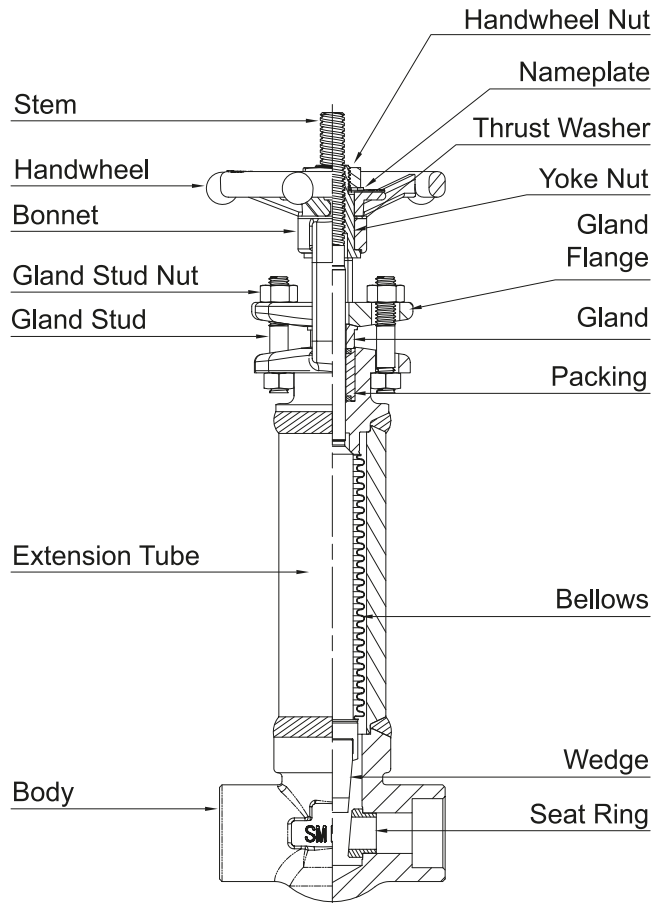
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**B870
Bellows Seal Gate Valves**

**Forged Steel OS&Y – Conventional Port
Valves comply with applicable portions of API 602 and ASME B16.34**

**Class 800
1/2" - 2"**



B870

CLASS 800 CONVENTIONAL PORT WELDED BONNET BELLOWS GATE - THREADED or SOCKET WELD - INCHES (MM)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/2 (15)	3.25 (83)	10.38 (264)	4.00 (102)	0.39 (10)	0.39 (10)	0.86 (22)	1/2"-14	8.1 (3.7)
3/4 (20)	3.50 (89)	10.24 (260)	4.00 (102)	0.50 (13)	0.51 (13)	1.07 (27)	3/4"-14	8.8 (4.0)
1 (25)	3.88 (98)	11.97 (304)	4.00 (102)	0.75 (19)	0.51 (13)	1.34 (34)	1"-11 1/2	12.0 (5.4)
1 1/2 (40)	4.75 (121)	15.04 (382)	5.50 (140)	1.19 (30)	0.51 (13)	1.92 (49)	1 1/2"-11 1/2	18.3 (8.3)
2 (50)	5.50 (140)	18.75 (476)	6.63 (168)	1.50 (38)	0.63 (16)	2.41 (61)	2"-11 1/2	29.2 (13.2)



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Pressure Temperature Chart, PSI

MATERIAL CLASS	CARBON STEEL A105 & A350-LF2 (Note 2)						ALLOY STEEL						316 STAINLESS						MATERIAL CLASS
	A182-F11 Class 2 (Note 3)		A182-F5		A182-F9		A182-F316		A182-F316L		A182-F316		A182-F316L		TEMP. -31 to 38°C				
	800	1500	800	1500	800	1500	800	1500	800	1500	800	1500	800	1500		TEMP. 93 °C			
285	740	1,480	1,973	2,220	3,705	2,000	3,750	2,000	3,750	2,000	3,750	1,920	3,600	1,600	3,000	93 °C			
260	680	1,360	1,810	2,035	3,395	2,000	3,750	1,963	3,680	2,000	3,750	1,653	3,095	1,363	2,555	149 °C			
230	655	1,310	1,747	1,965	3,270	1,925	3,610	1,867	3,495	1,942	3,640	1,493	2,795	1,217	2,280	204 °C			
200	635	1,265	1,688	1,900	3,170	1,848	3,465	1,782	3,345	1,880	3,530	1,368	2,570	1,120	2,100	260 °C			
170	605	1,205	1,608	1,810	3,015	1,773	3,325	1,723	3,230	1,773	3,325	1,275	2,390	1,048	1,970	316 °C			
140	570	1,135	1,515	1,705	2,840	1,613	3,025	1,613	3,025	1,613	3,025	1,203	2,255	992	1,860	343 °C			
125	550	1,100	1,467	1,650	2,745	1,568	2,940	1,568	2,940	1,568	2,940	1,178	2,210	973	1,825	371 °C			
110	530	1,060	1,413	1,590	2,665	1,515	2,840	1,515	2,840	1,515	2,840	1,160	2,170	960	1,800	399 °C			
95	505	1,015	1,352	1,520	2,535	1,418	2,660	1,418	2,660	1,418	2,660	1,138	2,135	942	1,765	427 °C			
80	410	825	1,098	1,235	2,055	1,355	2,540	1,355	2,540	1,355	2,540	1,125	2,110	920	1,730	454 °C			
65	320	640	850	955	1,595	1,298	2,435	1,298	2,435	1,298	2,435	1,115	2,090	902	1,690	482 °C			
50	230	460	613	690	1,150	1,200	2,245	995	1,870	1,200	2,245	1,107	2,075			510 °C			
35	135	275	365	410	685	850	1,595	733	1,370	1,005	1,885	1,032	1,930			538 °C			
20	85	170	227	255	430	577	1,080	530	995	675	1,270	968	1,820			566 °C			
1050 °F						383	720	383	720	458	855	960	1,800						
1100 °F						257	480	257	480	302	565	813	1,525			593 °C			
1150 °F						173	325	165	310	200	375	632	1,185			621 °C			
1200 °F						110	205	93	170	138	255	493	925			649 °C			
1250 °F												392	735			677 °C			
1300 °F												312	585			704 °C			
1350 °F												257	480			732 °C			
1400 °F												200	380			760 °C			
1450 °F												155	290			788 °C			
1500 °F												112	205			816 °C			

Notes:

1. Data in Table are maximum fluid pressures at temperatures shown in side columns per ASME B16.34 - 2004. User should be aware of specification changes.
2. Permissible, but not recommended, for prolonged use above 800°F / 427°C.
3. Permissible, but not recommended, for prolonged use above 1100°F / 593°C.
4. For other materials, refer to ASME B16.34.



Flow Coefficient

NPS	DN	Conventional Port Gate	Full Port Gate	Globe	Piston Check	Ball Check	Swing Check
1/4	8	1.7	1.7	1	0.9	0.8	---
3/8	10	4.2	5.7	1.2	1	0.9	---
1/2	15	5.7	8.2	1.5	1.3	1.2	11
3/4	20	8.2	22	2.4	2.1	1.9	17.6
1	25	26	34	5.6	5	4.4	31.4
1 1/4	32	37	60	15	---	---	---
1 1/2	40	60	92	21	12.6	10.5	57.6
2	50	92	200	29	17.4	14.5	80.1
3	80	200	---	---	---	---	---

Cv - Flow Coefficient = Index of Flow Capacity equivalent to the gallons per minute of water at standard temperature (60°F = 16°C) which will flow through a valve or fitting at a pressure differential across the valve of 1 psi.

FLOW COEFFICIENT, FLOW RATE, PRESSURE DROP EQUATIONS

TYPE OF FLUID	Cv	Flow Rate	Pressure Drop
INCOMPRESSIBLE	$C_v = Q \cdot \sqrt{\frac{G_f}{DP}}$	$Q = C_v \cdot \sqrt{\frac{DP}{G_f}}$	$DP = G_f \cdot \left(\frac{Q}{C_v}\right)^2$
COMPRESSIBLE	$C_v = \frac{q}{1,360 \cdot Y} \cdot \sqrt{\frac{T_1 \cdot G_g}{DP \cdot P_1}}$	$q = 1,360 \cdot Y \cdot C_v \cdot \sqrt{\frac{DP \cdot P_1}{T_1 \cdot G_g}}$	$DP = \frac{T_1 \cdot G_g}{P_1} \cdot \left(\frac{q}{1,360 \cdot C_v \cdot Y}\right)^2$

NOMENCLATURE

Cv = Valve flow coefficient, dimensionless

Q = Volumetric flow rate, gpm

q = Volumetric flow rate, scfh

Gf = Liquid specific gravity at upstream conditions [ratio of density of liquid at flowing temperature to density of water at 15.6°C (60°F)], dimensionless

Gg = Gas specific gravity (ratio of flowing gas to density of air with both at standard conditions, which is equal to the ratio of the molecular weight of gas to the molecular weight of air), dimensionless

DP = Pressure differential, psi

T1 = Absolute upstream temperatures (in °R)

P1 = Upstream absolute static pressure, psia

P2 = Downstream absolute static pressure, psia

Y = Expansion factor, ratio of flow coefficient for a gas to that for a liquid at the same Reynolds Number, dimensionless

(Y = 0.667 when P2 <= 0.5 times P1 for choked or critical flow, Y = 1.000 when P2 > 0.5 times P1 for very low pressure differential)

Disclaimer

The above sizing equations are provided as courtesy and are derived from ISA-75.01 and ISA-75.02.

They have been simplified to include a piping geometry factor of 1.0.

Refer back to ISA-75 in case actual application differ from the assumptions taken in the herein.



GATE VALVES

Item	Description	Carbon Steel API Trim 8	Carbon Steel API Trim 12	Alloy Steel API Trim 8	Stainless Steel API Trim 12
1	Body	A105	A105	A182 F9	A182 F316
2	Bonnet	A105	A105	A182 F9	A182 F316
3	Seat	A276 410+HF	A276 316+HF	A276 410+HF	A276 316+HF
4	Wedge	A743 CA40	A351 CF8M	A743 CA40	A351 CF8M
5	Stem	A276 410	A276 316	A276 410	A276 316
6	Gasket	316/Graphite	316/Graphite	Inconel 600/Graphite	316/Graphite
7	Bonnet Bolts	A193 B7	A193 B7	A193 B16	A193 B8M-CI. 2/B8MA-CI. 1A
8	Packing	Grafoil/Braided End Ring	Grafoil/Braided End Ring	Grafoil/Braided End Ring	Grafoil/Braided End Ring
9	Gland	B783 F-0008-30	B783 F-0008-30	B783 F-0008-30	B783 SS-316N2-33
10	Gland Flange	A105	A105	A105	A182 F316
11	Gland Stud	A193 B7	A193 B7	A193 B7H	A193 B8
12	Gland Nut	A194 2H	A194 2H	A194 2H	A194 8
14	Yoke Nut	A582 416	A582 416	A582 416	A582 416
15	Thrust Washer	A276 410	A276 410	A276 410	A276 410
16	Handwheel	Malleable Iron	Malleable Iron	Malleable Iron	Malleable Iron
17	Nameplate	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
18	Lock Washer	Steel	Steel	Steel	Steel
19	Handwheel Nut	Steel	Steel	Steel	Steel
20	Packing Ring	Steel	Steel	Steel	Steel

GLOBE VALVES

Item	Description	Carbon Steel API Trim 8	Carbon Steel API Trim 12	Alloy Steel API Trim 8	Stainless Steel API Trim 12
1	Body	A105	A105	A182 F9	A182 F316
2	Bonnet	A105	A105	A182 F9	A182 F316
3	Seat	Int. + HF	Int. + HF	Int. + HF	Int. + HF
4	Disc	A743 CA40	A351 CF8M	A743 CA40	A351 CF8M
5	Stem	A276 410	A276 316	A276 410	A276 316
6	Gasket	316/Graphite	316/Graphite	Inconel 600/Graphite	316/Graphite
7	Bonnet Bolts	A193 B7	A193 B7	A193 B7	A193 B8M-CI. 2/B8MA-CI. 1A
8	Packing	Grafoil/Braided End Ring	Grafoil/Braided End Ring	Grafoil/Braided End Ring	Grafoil/Braided End Ring
9	Gland	B783 F-0008-30	B783 F-0008-30	B783 F-0008-30	B783 SS-316N2-33
10	Gland Flange	A105	A105	A105	A182 F316
11	Gland Stud	A193 B7	A193 B7	A193 B16	A193 B8
12	Gland Nut	A194 2H	A194 2H	A194 2H	A194 8
14	Yoke Nut	A582 416	A582 416	A582 416	A582 416
16	Handwheel	Malleable Iron	Malleable Iron	Malleable Iron	Malleable Iron
17	Nameplate	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
19	Handwheel Nut	Steel	Steel	Steel	Steel

PISTON CHECK

Item	Description	Carbon Steel API Trim 8	Carbon Steel API Trim 12	Alloy Steel API Trim 8	Stainless Steel API Trim 12
1	Body	A105	A105	A182 F9	A182 F316
2	Cap	A105	A105	A182 F9	A182 F316
3	Seat	Int. + HF	Int. + HF	Int. + HF	Int. + HF
4	Piston	A276 420	A276 316	A276 420	A276 316
6	Gasket	316/Graphite	316/Graphite	Inconel 600/Graphite	316/Graphite
7	Cap Bolts	A193 B7	A193 B7	A193 B7	A193 B8M-CI. 2/B8MA-CI. 1A
17	Nameplate	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
23	Drive Screws	Steel	Steel	Steel	Steel



SPRING PISTON CHECK

Item	Description	Carbon Steel API Trim 8	Carbon Steel API Trim 12	Alloy Steel API Trim 8	Stainless Steel API Trim 12
1	Body	A105	A105	A182 F9	A182 F316
2	Cap	A105	A105	A182 F9	A182 F316
3	Seat	Int. + HF	Int. + HF	Int. + HF	Int. + HF
4	Piston	A276 420	A276 316	A276 420	A276 316
6	Gasket	316/Graphite	316/Graphite	Inconel 600/Graphite	316/Graphite
7	Cap Bolts	A193 B7	A193 B7	A193 B16	A193 B8M-CI. 2/B8MA-CI. 1A
17	Nameplate	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
22	Spring	AISI 302	AISI 316	AISI 302	AISI 316
23	Drive Screws	Steel	Steel	Steel	Steel

BALL CHECK

Item	Description	Carbon Steel API Trim 8	Carbon Steel API Trim 12	Alloy Steel API Trim 8	Stainless Steel API Trim 12
1	Body	A105	A105	A182 F9	A182 F316
2	Cap	A105	A105	A182 F9	A182 F316
3	Seat	Int. + HF	Int. + HF	Int. + HF	Int. + HF
4	Ball	A276 440C	A276 316	A276 440C	A276 316
6	Gasket	316/Graphite	316/Graphite	Inconel 600/Graphite	316/Graphite
7	Cap Bolts	A193 B7	A193 B7	A193 B16	A193 B8M-CI. 2/B8MA-CI. 1A
17	Nameplate	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
21	Cage	AISI 302	AISI 316	AISI 302	AISI 316
23	Drive Screws	Steel	Steel	Steel	Steel

SPRING BALL CHECK

Item	Description	Carbon Steel API Trim 8	Carbon Steel API Trim 12	Alloy Steel API Trim 8	Stainless Steel API Trim 12
1	Body	A105	A105	A182 F9	A182 F316
2	Cap	A105	A105	A182 F9	A182 F316
3	Seat	Int. + HF	Int. + HF	Int. + HF	Int. + HF
4	Ball	A276 440C	A276 316	A276 440C	A276 316
6	Gasket	316/Graphite	316/Graphite	Inconel 600/Graphite	316/Graphite
7	Cap Bolts	A193 B7	A193 B7	A193 B16	A193 B8M-CI. 2/B8MA-CI. 1A
17	Nameplate	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
21	Cage	AISI 302	AISI 316	AISI 302	AISI 316
22	Spring	AISI 302	AISI 316	AISI 302	AISI 316
23	Drive Screws	Steel	Steel	Steel	Steel

This is not a complete list. Construction materials will vary between sizes and pressure classes and may be changed without notice.

On occasion B7M bolting may be substituted for B7 bolting.

This list is to be used for general purposes only.

For a complete, accurate and itemized description of a particular valve, contact a Smith sales representative.



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