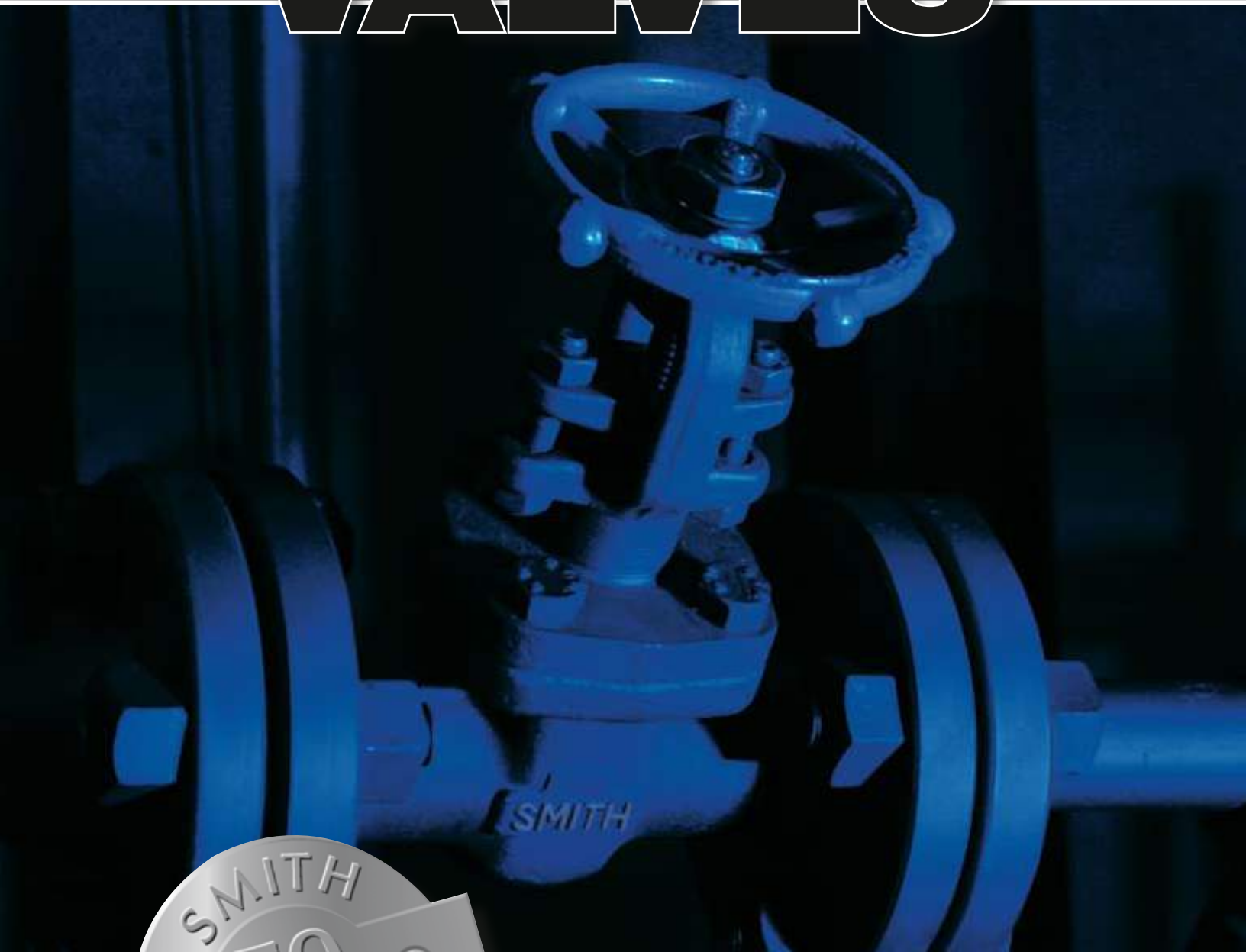


# SMITH

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.

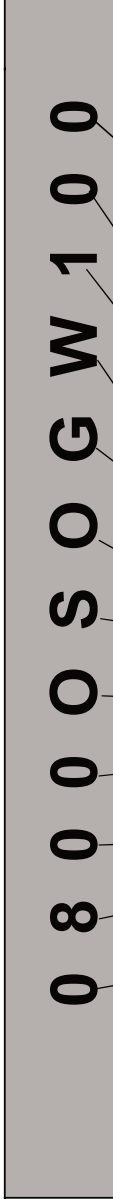
The grouping may be prefixed by "CE" to indicate compliance to the European Commission Pressure Equipment Directive 97/23/EC. The grouping may also be suffixed by the following letters to denote the indicated special requirements: X = oxygen cleaned, V = vented seat.

**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 SHELL	API Trim #	TRIM MATERIAL		PACKING	GASKET	END CONNECTIONS
		STEM	WEDGE/DISC			
A F51	10	316	316	A GRAPHITE V-RINGS	A INCOLOY 825+GRAPHITE	A BUTTWELD
B F347	11	MONEL	MONEL	B CHESTERTON	B INCONEL 600/X750 + GRAPHITE	B BUTTWELD
C F5		KMONEL	MONEL	C CHESTERTON	C	C
D F316H	9	MONEL NACE	MONEL NACE	D GARLOCK EVSP	D INCONEL 600/X750 + TFE	D
E HASTALOY - C276		347	347	E	E	E
F F20	13	A20	A20	F	F A20 + GRAPHITE	F
G F9		317L	317L	G	G 316 + GRAPHITE	G
H F321		347H	HF	H	H HAST - C276 + GRAPHITE	H
I F347H		347H	HF	I	I 347 + GRAPHITE	I
J F316DC		316H	HF	J	J	J RING JOINT
K F11		410 NACE	410 NACE	K	K 317L + GRAPHITE	K
L F317L		316	316 + INSERT	L	L	L
M F22		316H	HF	M	M MONEL + GRAPHITE	M
N		304	HF	N	N	N
O A105NLC	8	410	410	O GRAPHITE W/BRAIDED ENDS	O 304/316 + GRAPHITE	O FEMALE ENDS-NPT THD MALE END-SEE FIG. NO. FLANGE ENDS 125-250
P F91		825	HF	P	P	P
Q Monel 400		347	HF	Q	Q	Q BSPP THD (BRITISH PARALLEL)
R F304DC		F51	F51	R	R	R
S A105NLC	12	316	316	S	S	S
T LF2	5	410	HF	T	T 316 + TFE	T
U LF2		KMONEL	MONEL + TFE	U	U	U SOCKETWELD X F-NPT
V F304H		304H	304H	V	V TFE V-RINGS VACUUM	V
W INCOLOY 825	16	316	HF	W	W	W SOCKETWELD
X A105NLC		HAST - C276	HAST - C276	X	X MONEL + TFE	X
Y		304H	HF	Y	Y	Y
Z				Z	Z	Z



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.



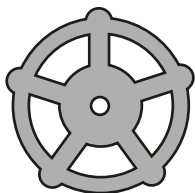
**RED**  
Teflon Packing  
Gaskets or Seals  
500°F/250°C  
Max Temp.



**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



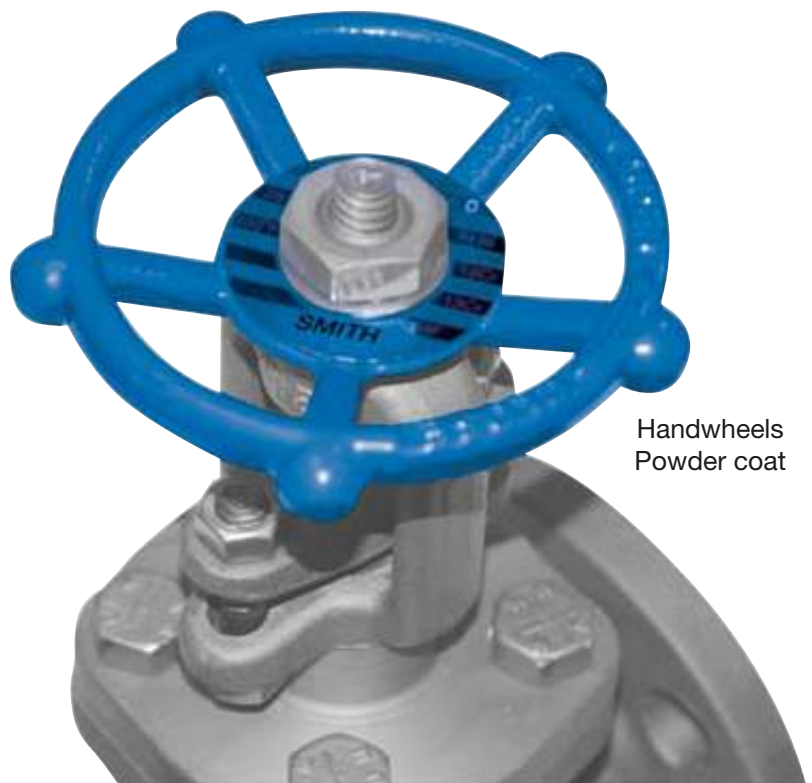
**WHITE**  
ASTM 182 F5  
5 Cr, 1/2 Mo



**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
		<b>END CAPS</b>  Socket Weld End  Threaded End
Monel Trim	Special Trim	

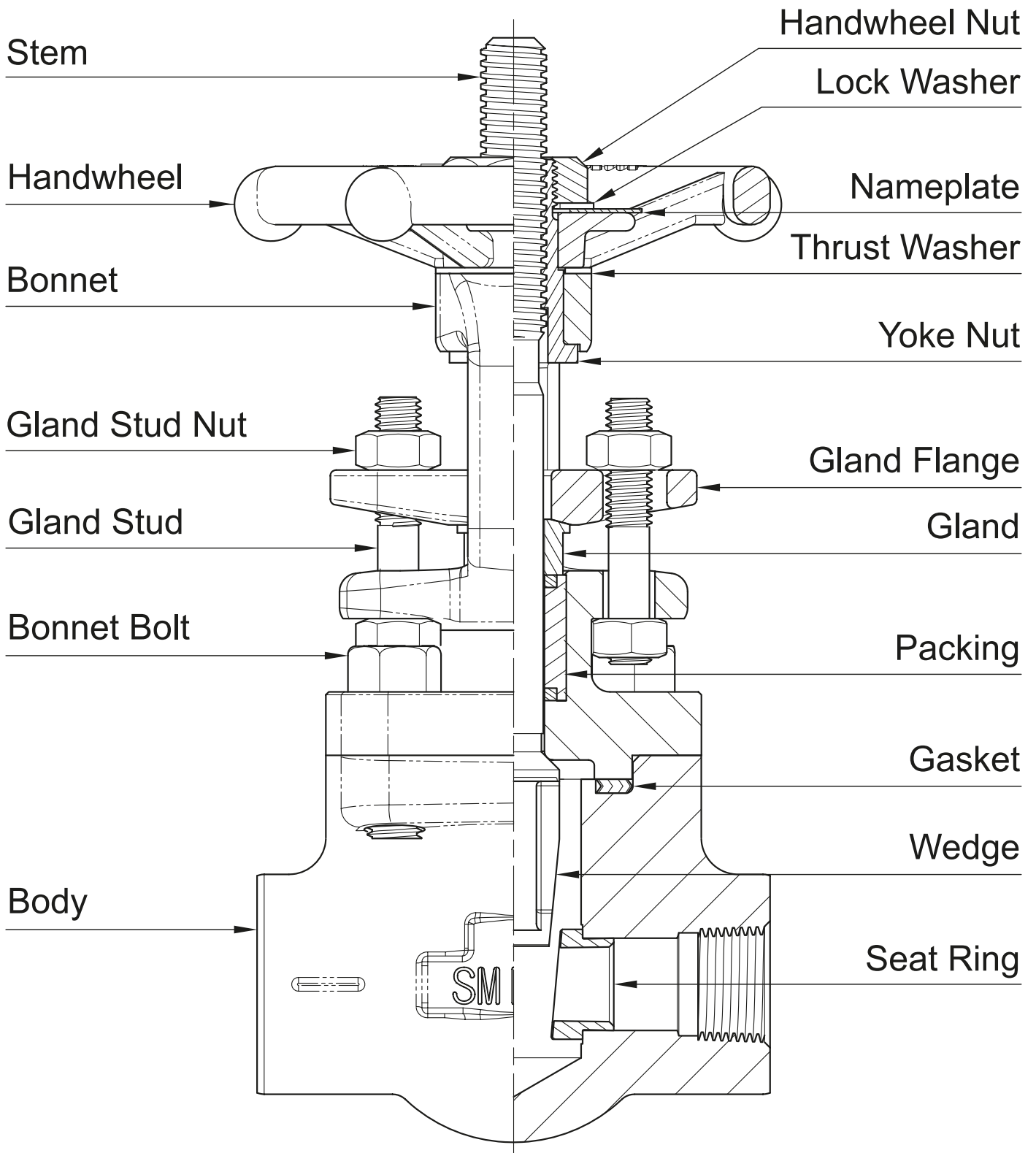
Name Plates are Stainless Steel



A Trademark of the Newdell Company

**SMITH**

# Gate Valves





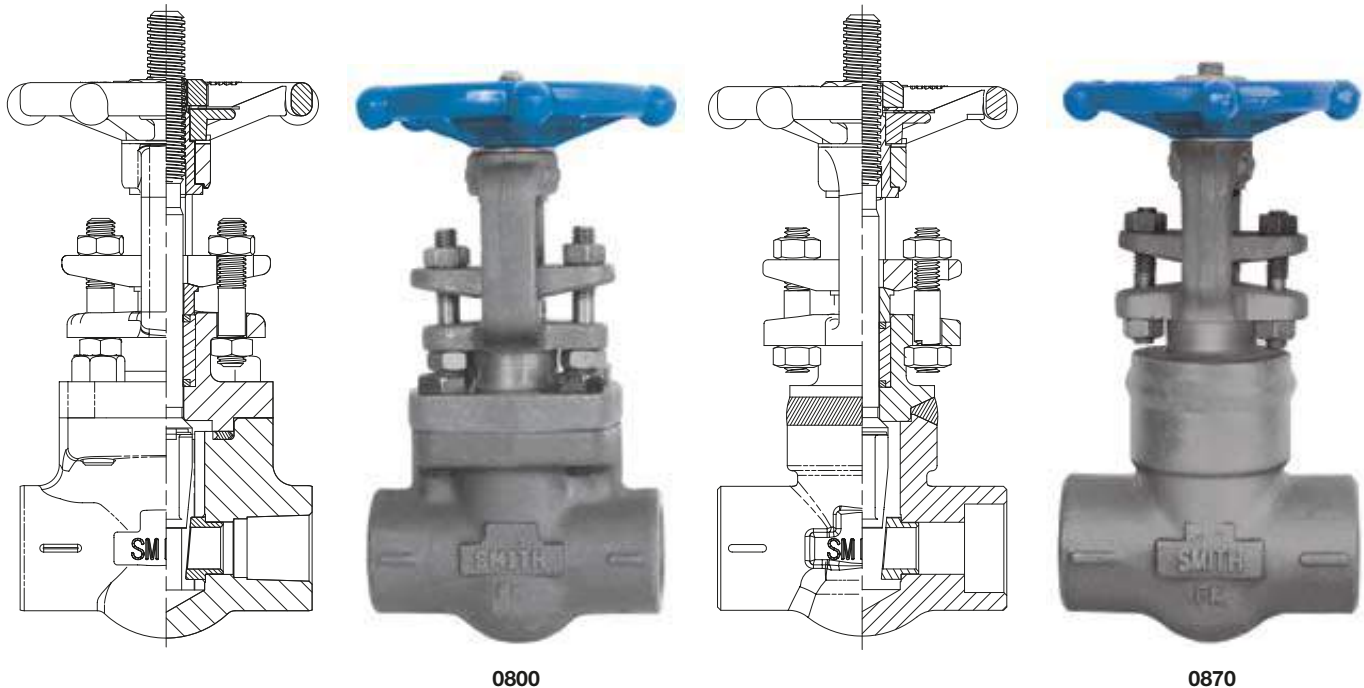
A Trademark of the Newdell Company

**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"**



**CLASS 800 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)	3.25 (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 (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)	6.19 (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)



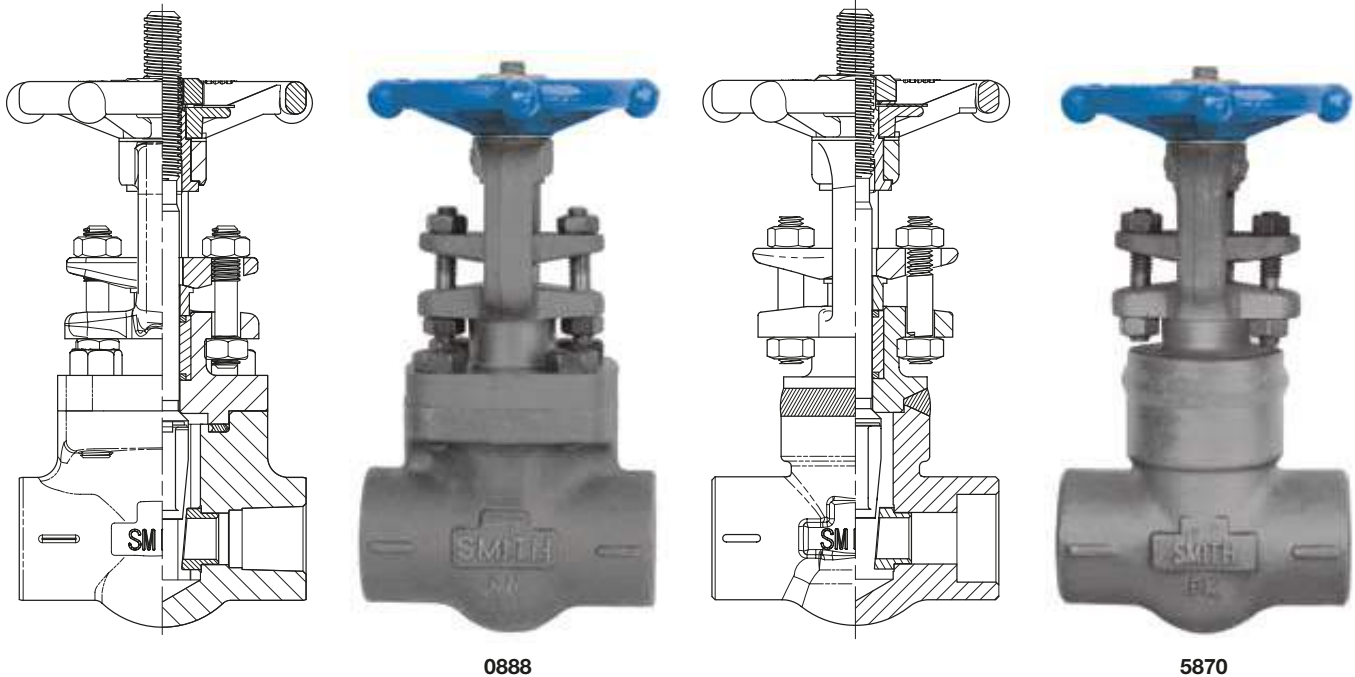
A Trademark of the Newdell Company

**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"**



**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)





A Trademark of the Newdell Company

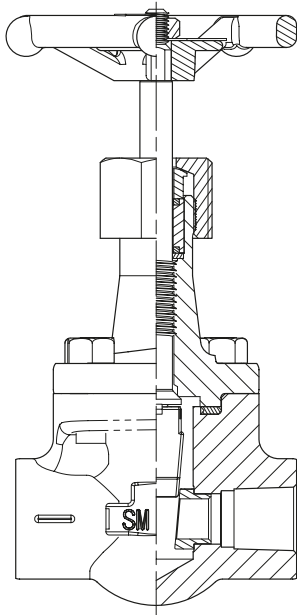
**SMITH**

**0850-0890**

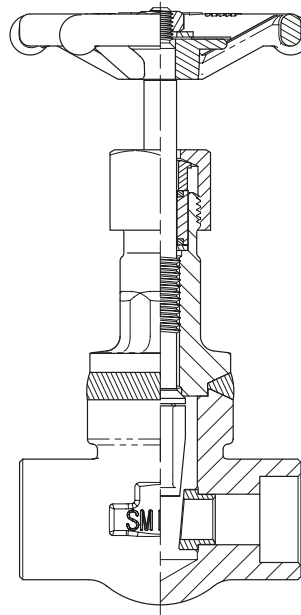
**Gate Valves**

**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)



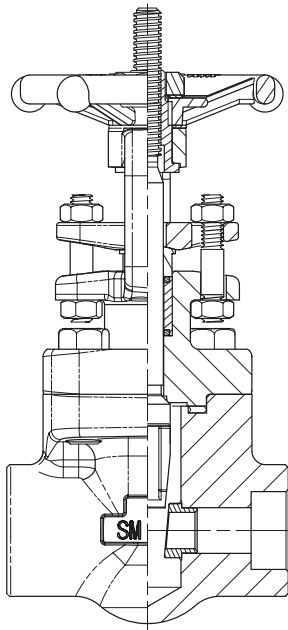
A Trademark of the Newdell Company

**SMITH**

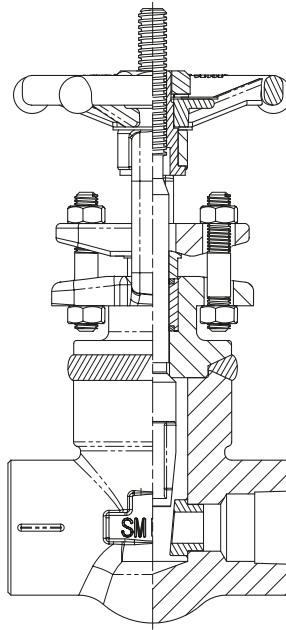
**1500-1570  
Gate Valves**

**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)



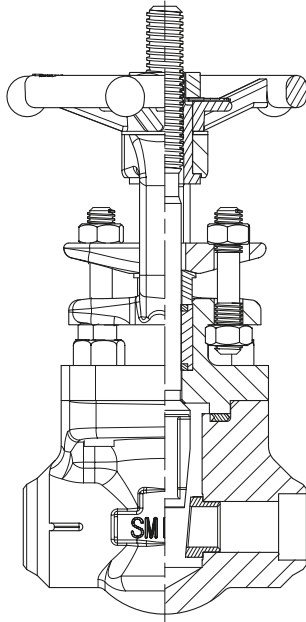
A Trademark of the Newdell Company

**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)



A Trademark of the Newdell Company

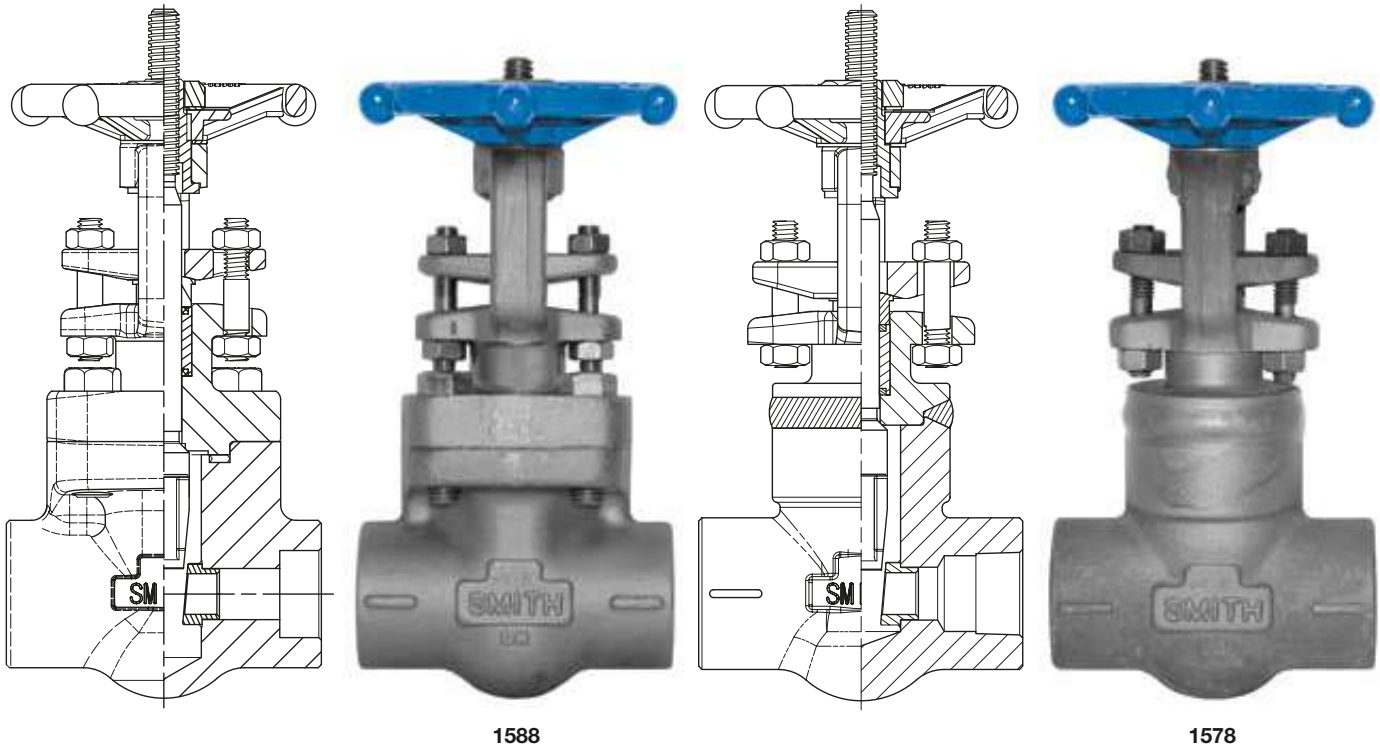
**SMITH**

**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)



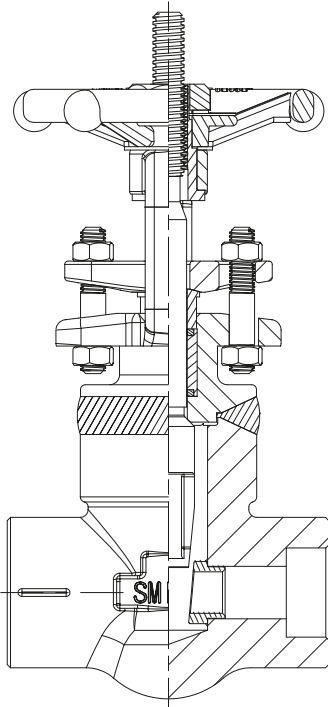
A Trademark of the Newdell Company

**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)



A Trademark of the Newdell Company

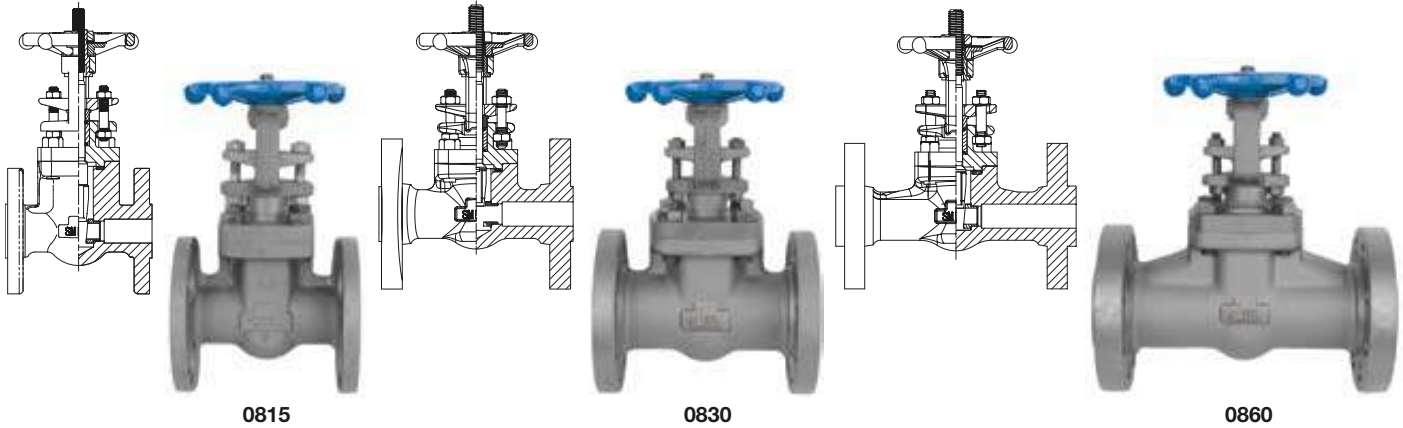
**SMITH**

**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)



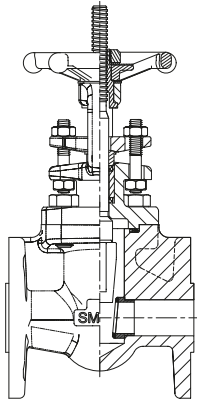
A Trademark of the Newdell Company

**SMITH**

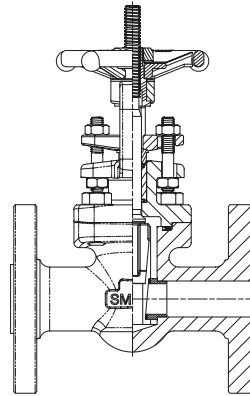
**5815-5830  
Gate Valves**

**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)



A Trademark of the Newdell Company

**SMITH**

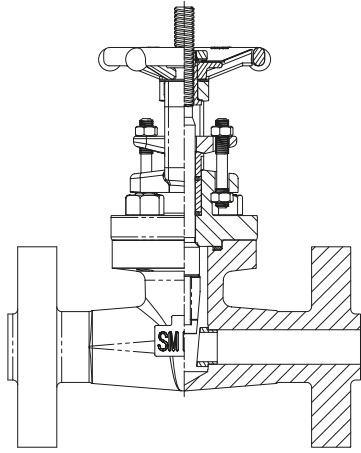
**0895-0895B  
Gate Valves**

**Forged Steel OS&Y – Full Port**

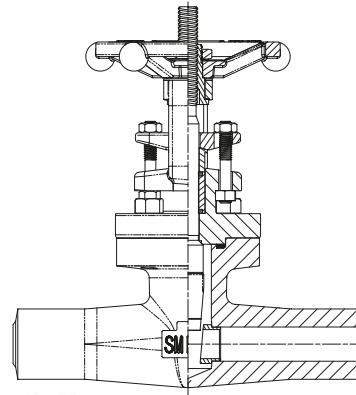
**Valves comply with applicable portions of API 602 and ASME B16.34**

**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)





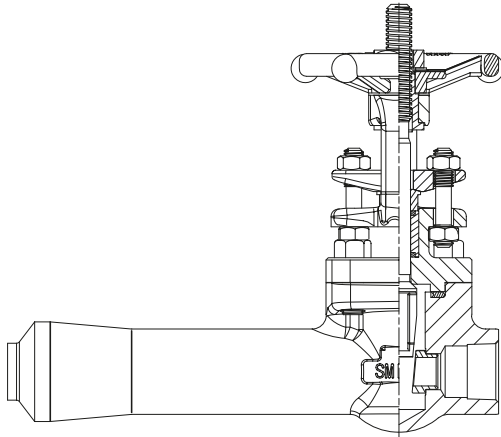
A Trademark of the Newdell Company

**SMITH**

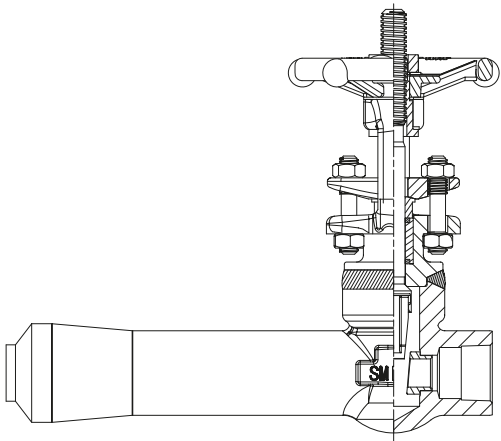
**0874-0875  
Gate Valves**

**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)



A Trademark of the Newdell Company

**SMITH**

**0811-0814/0876-0879**

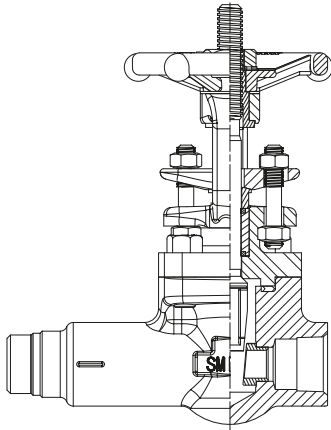
**Gate Valves**

**Forged Steel OS&Y Male End – Conventional Port**

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

**Class 800**

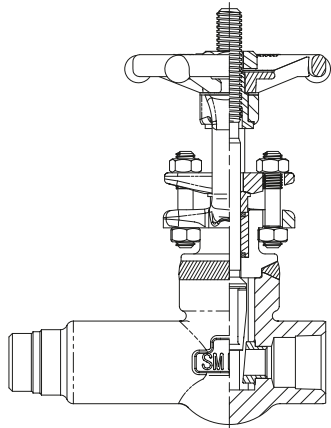
**1/2" - 2"**



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)**

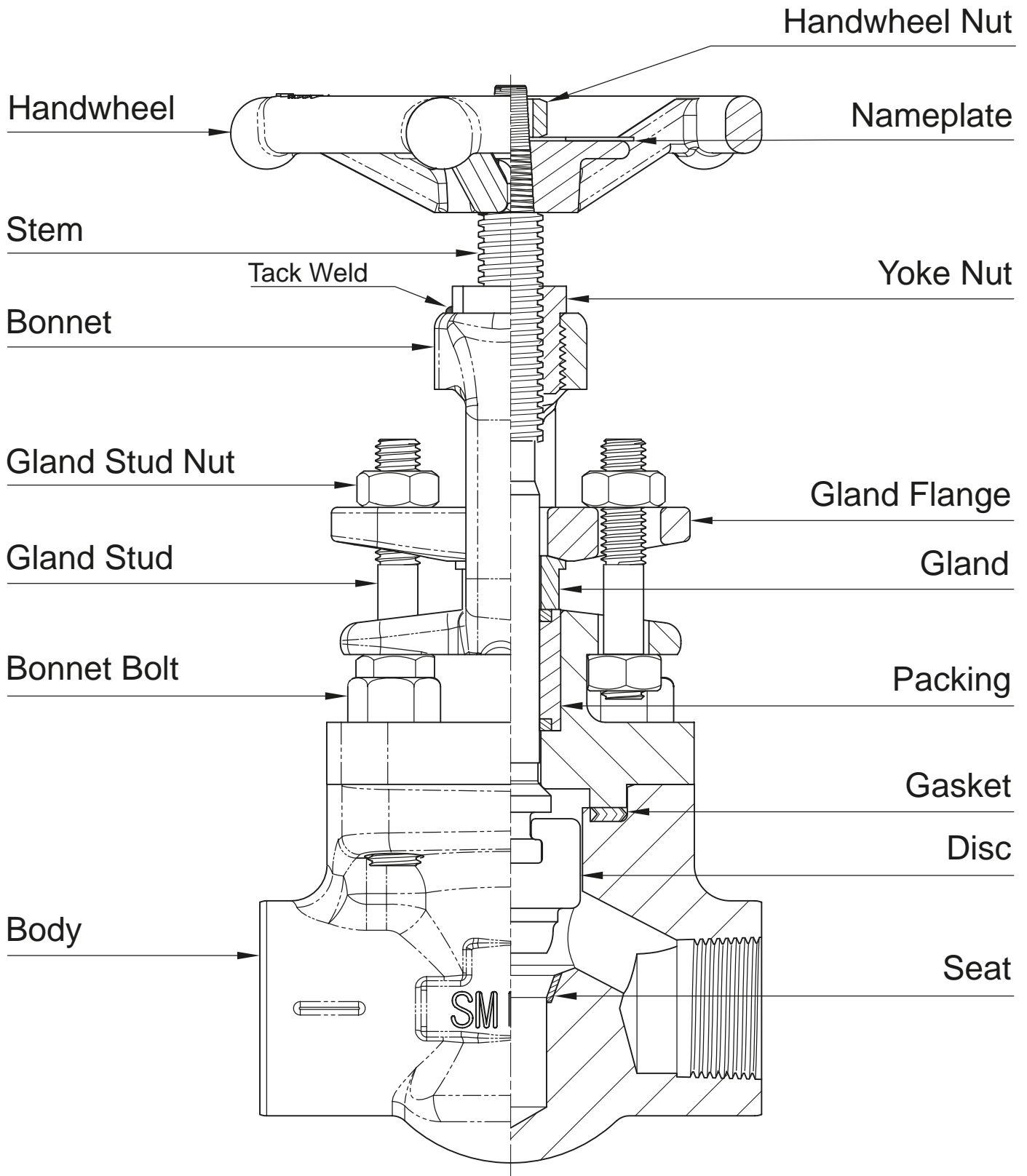
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	PORT DIAMETER	CENTER TO END	APPROX. WEIGHT LBS (KG)
1/2 (15)	5.63 (143)	6.19 (157)	4.00 (102)	0.31 (8)	4.00 (102)	3.8 (1.7)
3/4 (20)	5.75 (146)	6.44 (164)	4.00 (102)	0.50 (13)	4.00 (102)	4.2 (1.9)
1 (25)	5.94 (151)	7.19 (183)	4.00 (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)



A Trademark of the Newdell Company

**SMITH**

# Globe Valves





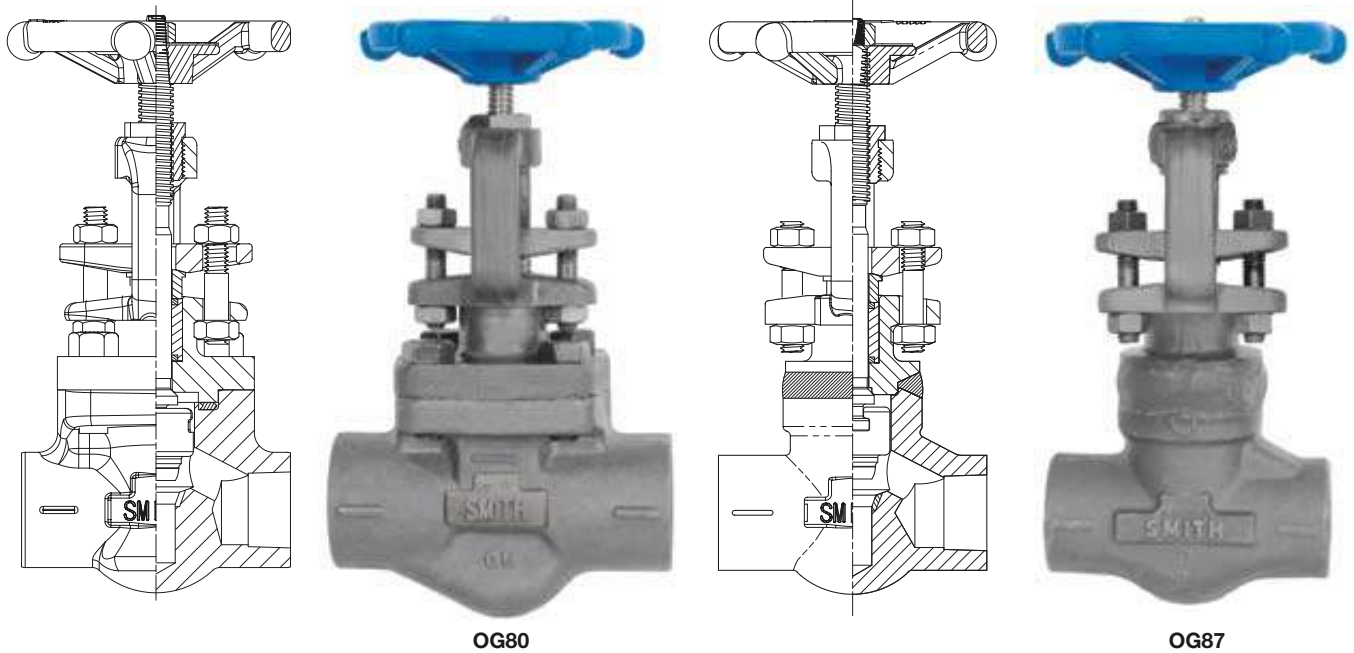
A Trademark of the Newdell Company

**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)



A Trademark of the Newdell Company

**SMITH**

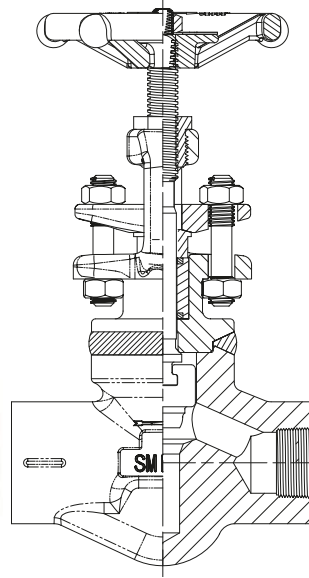
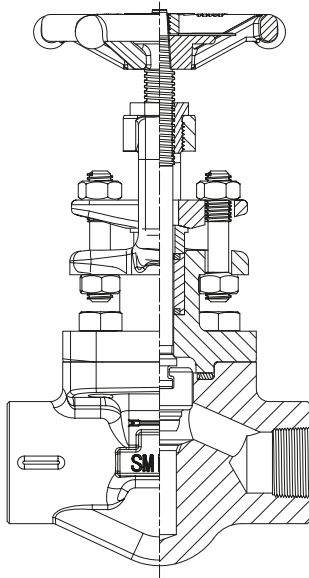
**G150-G157  
Globe Valves**

**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)



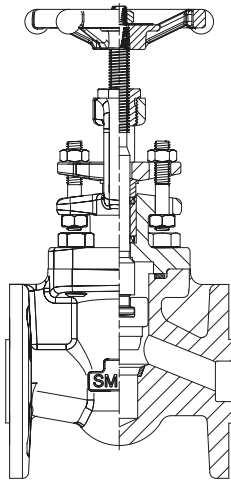
A Trademark of the Newdell Company

**SMITH**

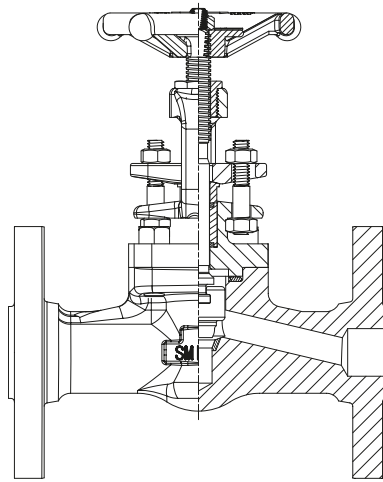
**OG81-OG83  
Globe Valves**

**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)



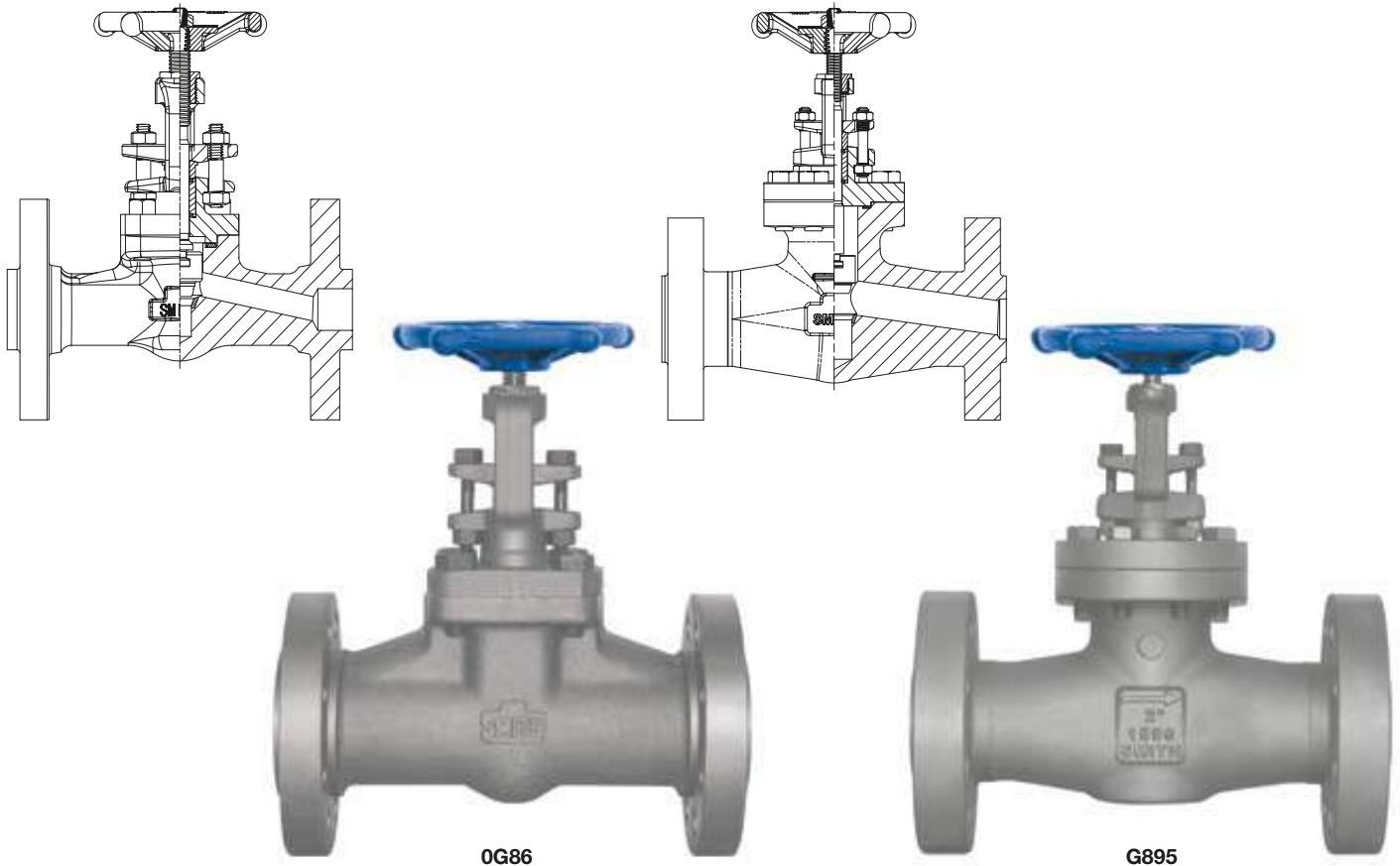
A Trademark of the Newdell Company

**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)



A Trademark of the Newdell Company

**SMITH**

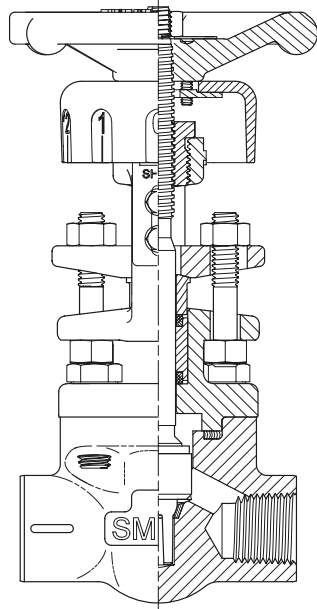
**FG80  
Globe Valves**

**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)

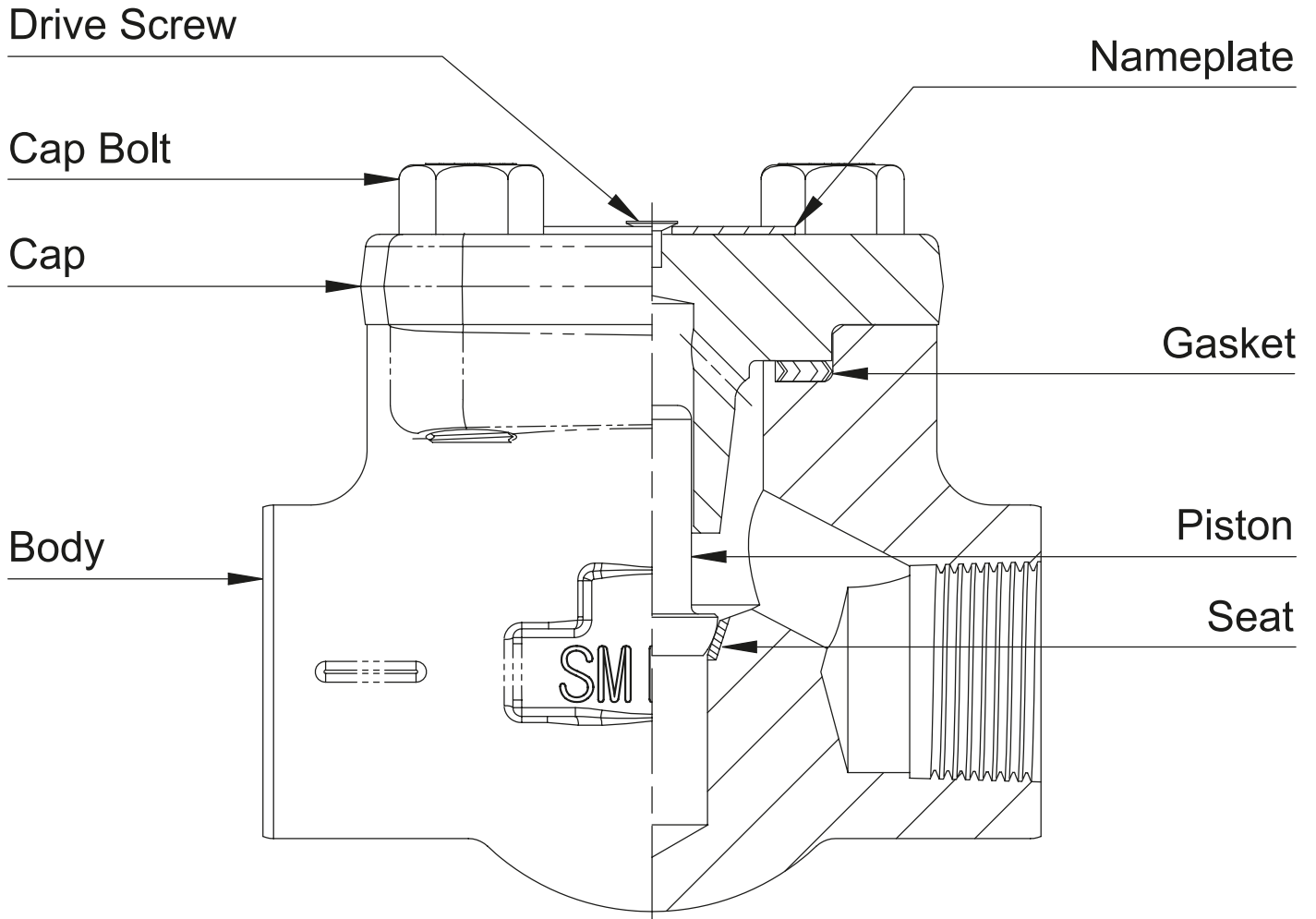




A Trademark of the Newdell Company

**SMITH**

# Check Valves





A Trademark of the Newdell Company

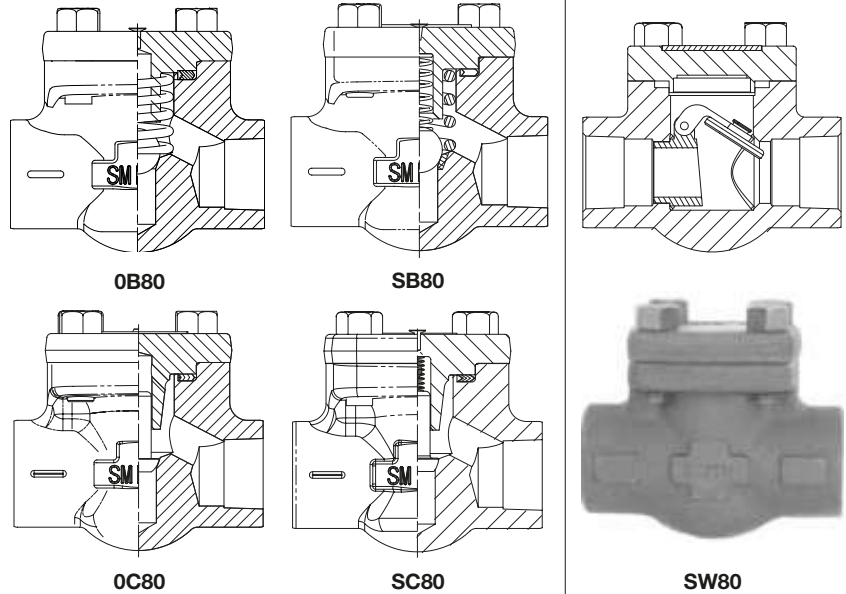
**SMITH**

**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)



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"**

**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)



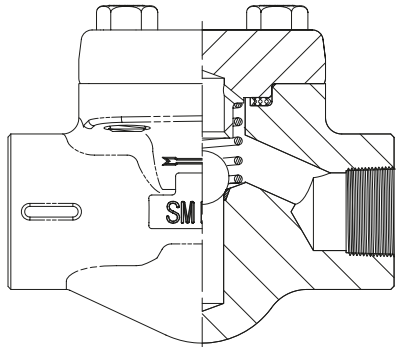
A Trademark of the Newdell Company

**SMITH**

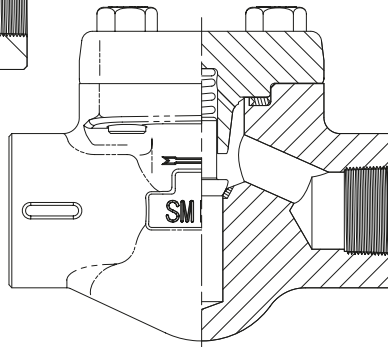
**B150-SB15/C150-SC15  
Check Valves**

**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)



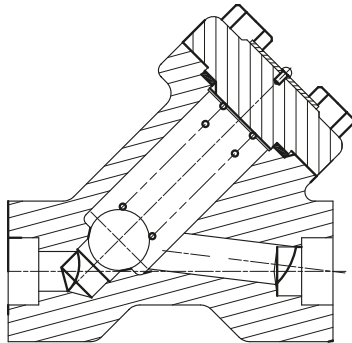
A Trademark of the Newdell Company

**SMITH**

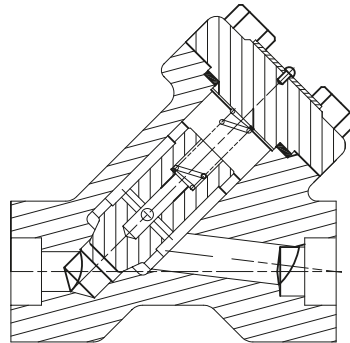
**YB80-YC80  
Y-Pattern Check Valves**

**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)



A Trademark of the Newdell Company

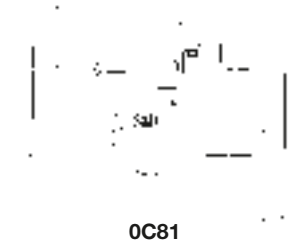
**SMITH**

**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**

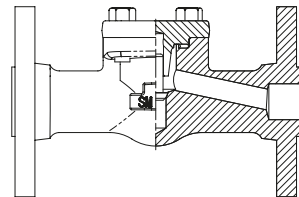
**Class 150/300/600**  
**1/2" - 2"**



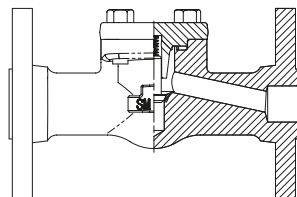
**OC81**



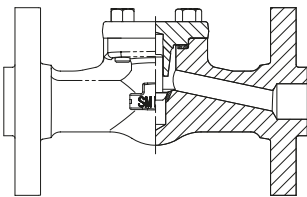
**SC81**



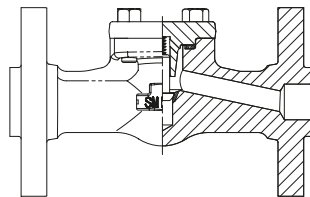
**OC83**



**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)



A Trademark of the Newdell Company

**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"**

**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)



A Trademark of the Newdell Company

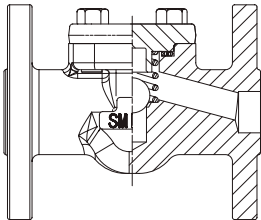
**SMITH**

**OB81-SB81-OB83-SB83-OB86-SB86**

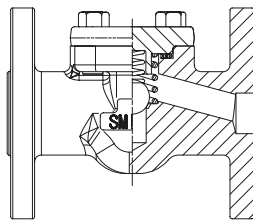
**Check Valves**

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

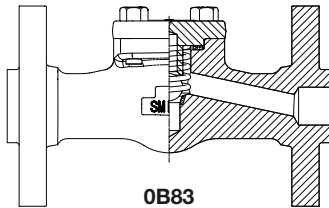
**Class 150/300/600**  
**1/2" - 2"**



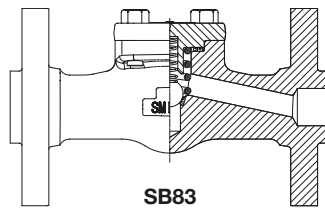
**OB81**



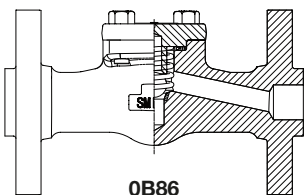
**SB81**



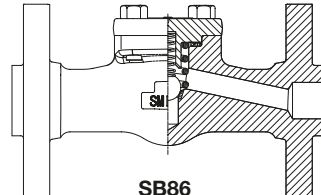
**OB83**



**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)





A Trademark of the Newdell Company

**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"**

**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)



A Trademark of the Newdell Company

**SMITH**

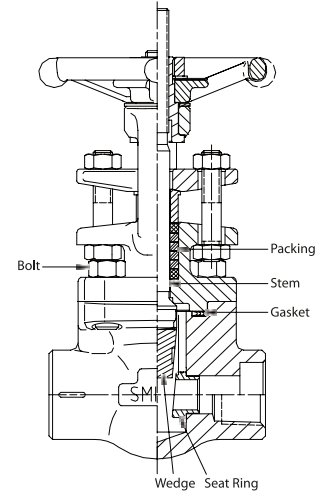
## Specialty Valves

### 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
<b>K</b>	410, 22HRC Max	410, 22HRC Max	HF
<b>A</b>	316	316	316 *
<b>S</b>		316	316+HF *
<b>W</b>		STELLITE	
<b>D</b>	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:

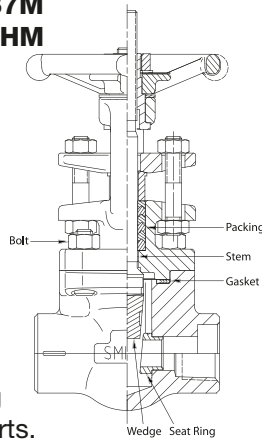
- STEM** ..... **K-Monel**
- WEDGE or Disc** ... **Additional side clearance for medial build up**
- STUDS**..... **ASTM A 193-B7M**
- NUTS**..... **ASTM A 194-2HM**
- (instead of bolts)**

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

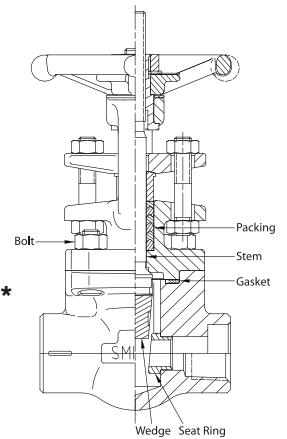
The following combinations are generally used for chlorine service:

- 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

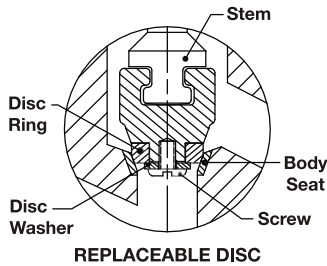
For adequate contamination control in oxygen-enriched systems and environments, different cleanliness levels from a simple degreasing wash to the removal of both organic and inorganic contaminants are offered by Smith.

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

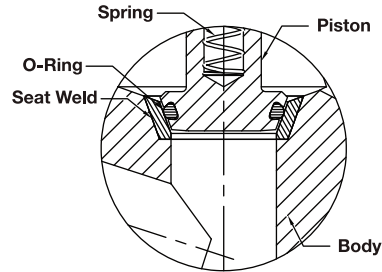
Please, contact your Smith representative.



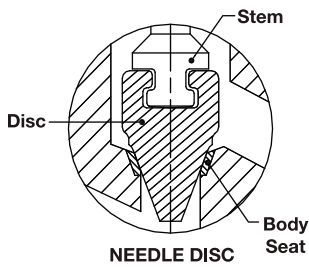
**Gate, Globe, Check Valves**



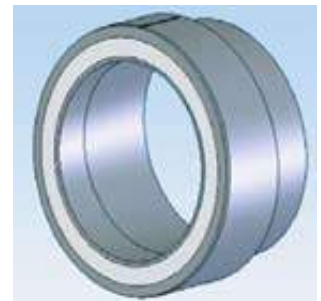
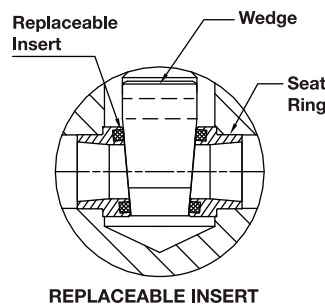
Used for elastomeric or plastic seating (Globe)



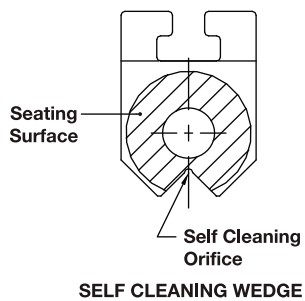
Used for elastomeric seating (Check)



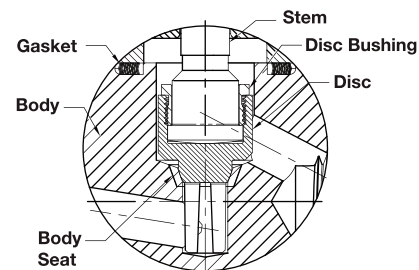
Used for metering (Globe)



Used for elastomeric or plastic seating (Gate)



Used as anti-clog and self cleaning (Gate)



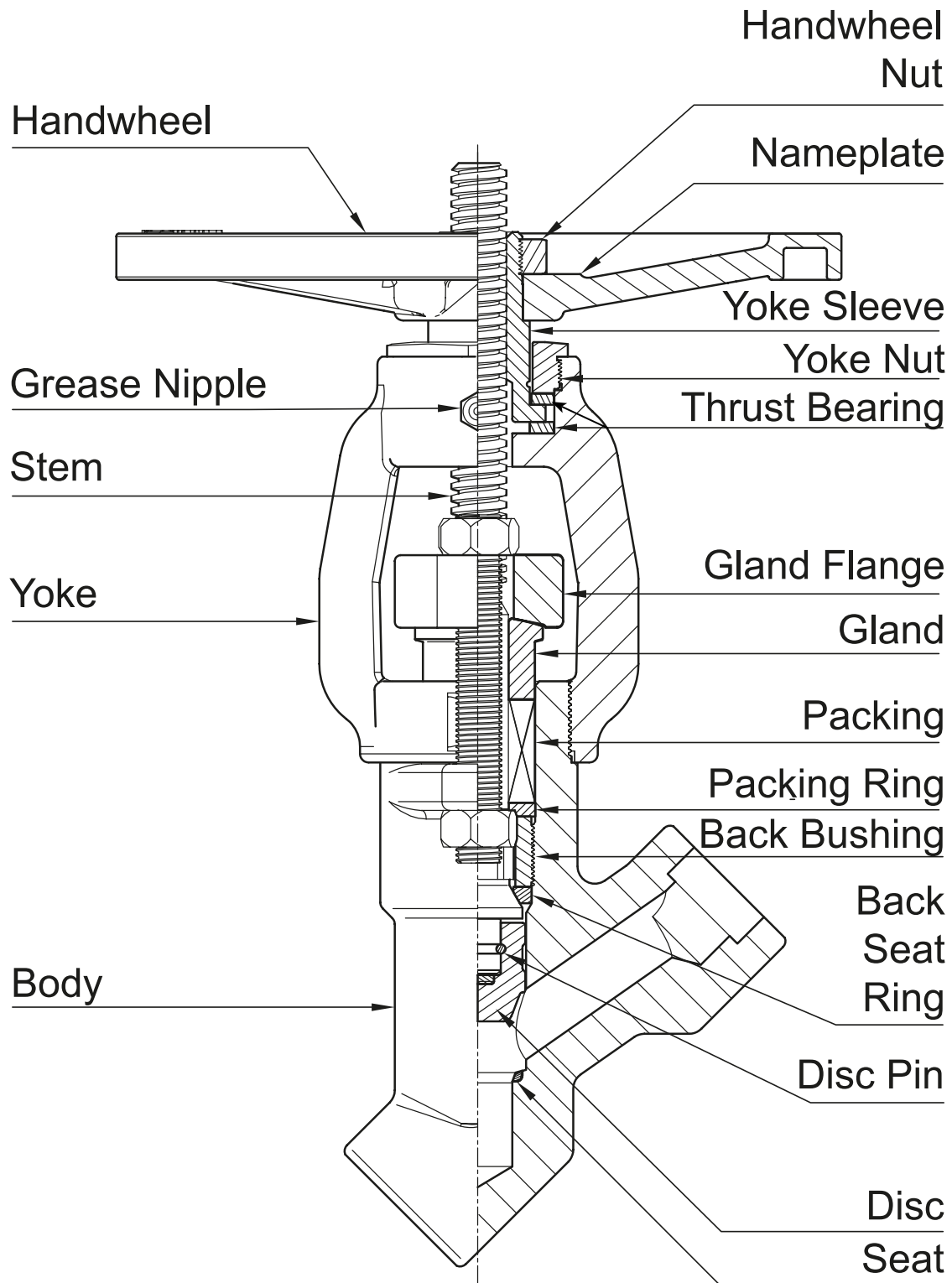
Used for flow control (Globe)



A Trademark of the Newdell Company

**SMITH**

# Y-Pattern Valves





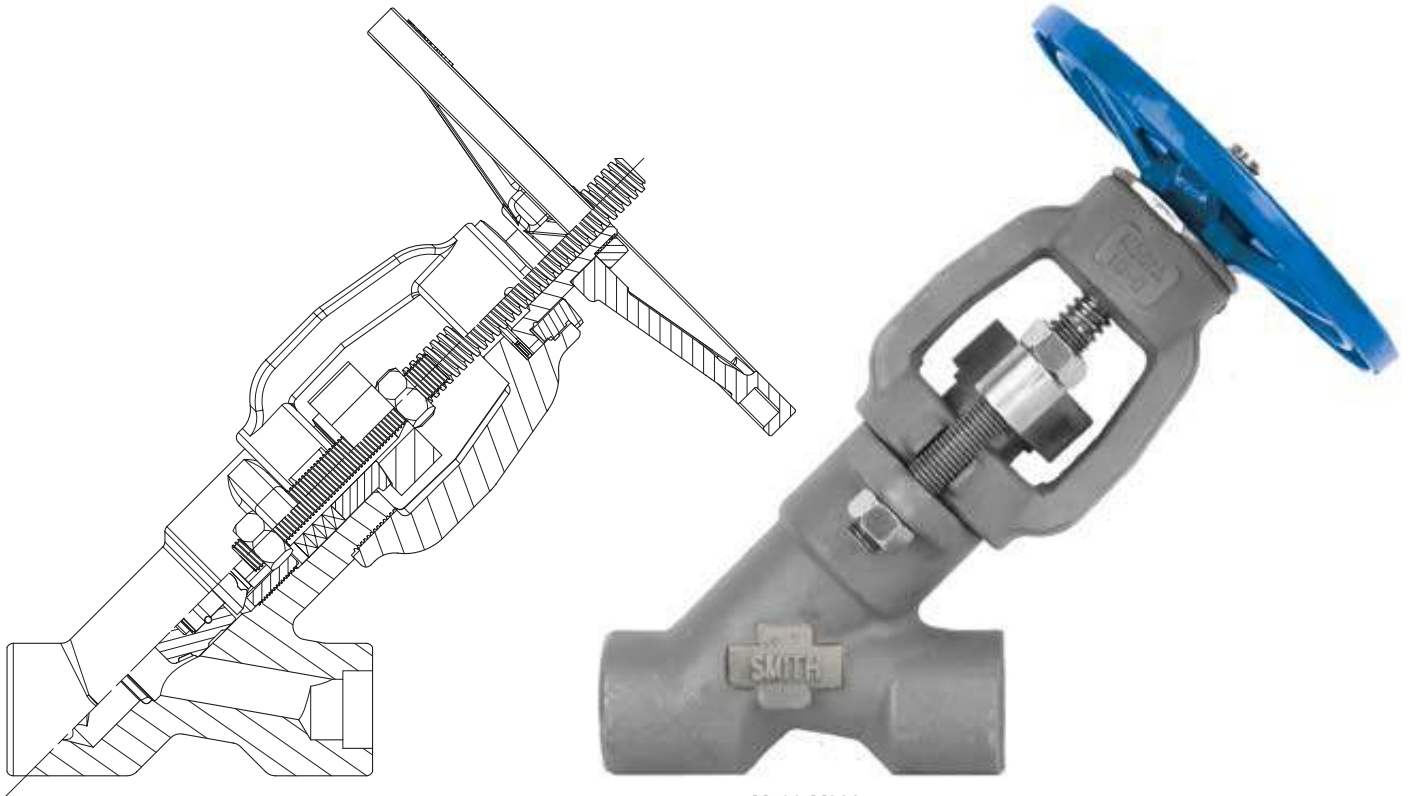
A Trademark of the Newdell Company

**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)



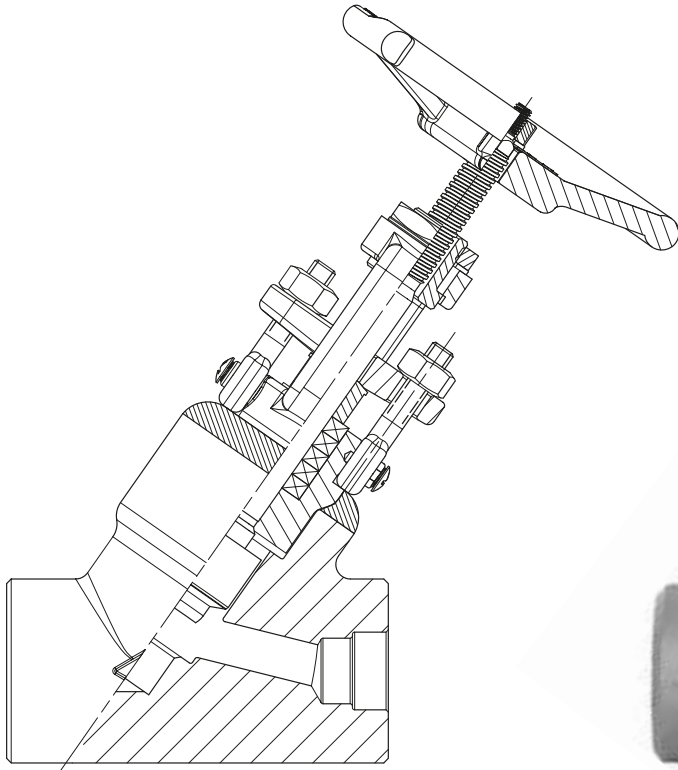
A Trademark of the Newdell Company

**SMITH**

**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)



A Trademark of the Newdell Company

**SMITH**

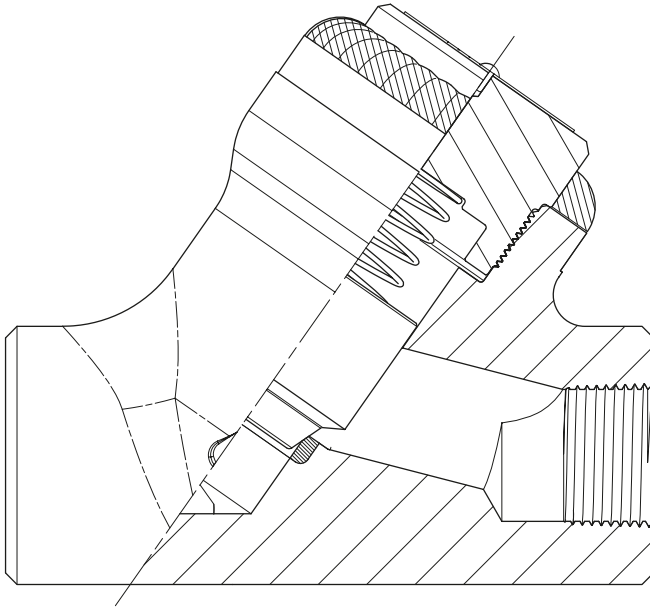
**YC16-YC26  
Y-Pattern Check Valves**

**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)**

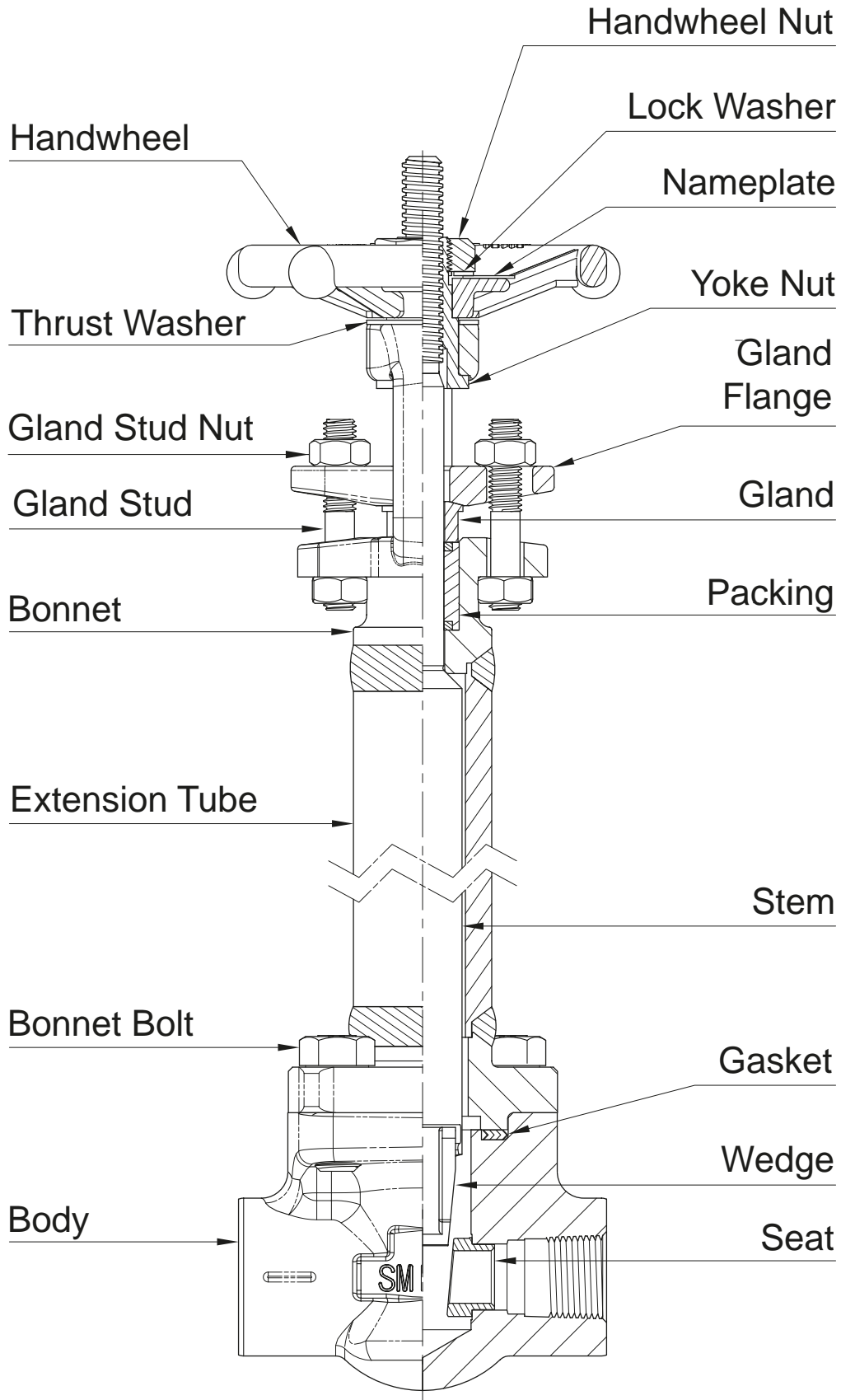
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	PORT DIAMETER	SOCKET DEPTH	SOCKET DIAMETER	NPT THRD	APPROX. WEIGHT LBS (KG)
1/2 (15)	4.75 (121)	3.75 (95)	0.43 (11)	0.39 (10)	0.86 (22)	1/2"-14	8.0 (3.6)
3/4 (20)	6.50 (165)	4.50 (114)	0.57 (15)	0.51 (13)	1.07 (27)	3/4"-14	20.0 (9.1)
1 (25)	6.50 (165)	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)



A Trademark of the Newdell Company

**SMITH**

# Cryogenic Valves







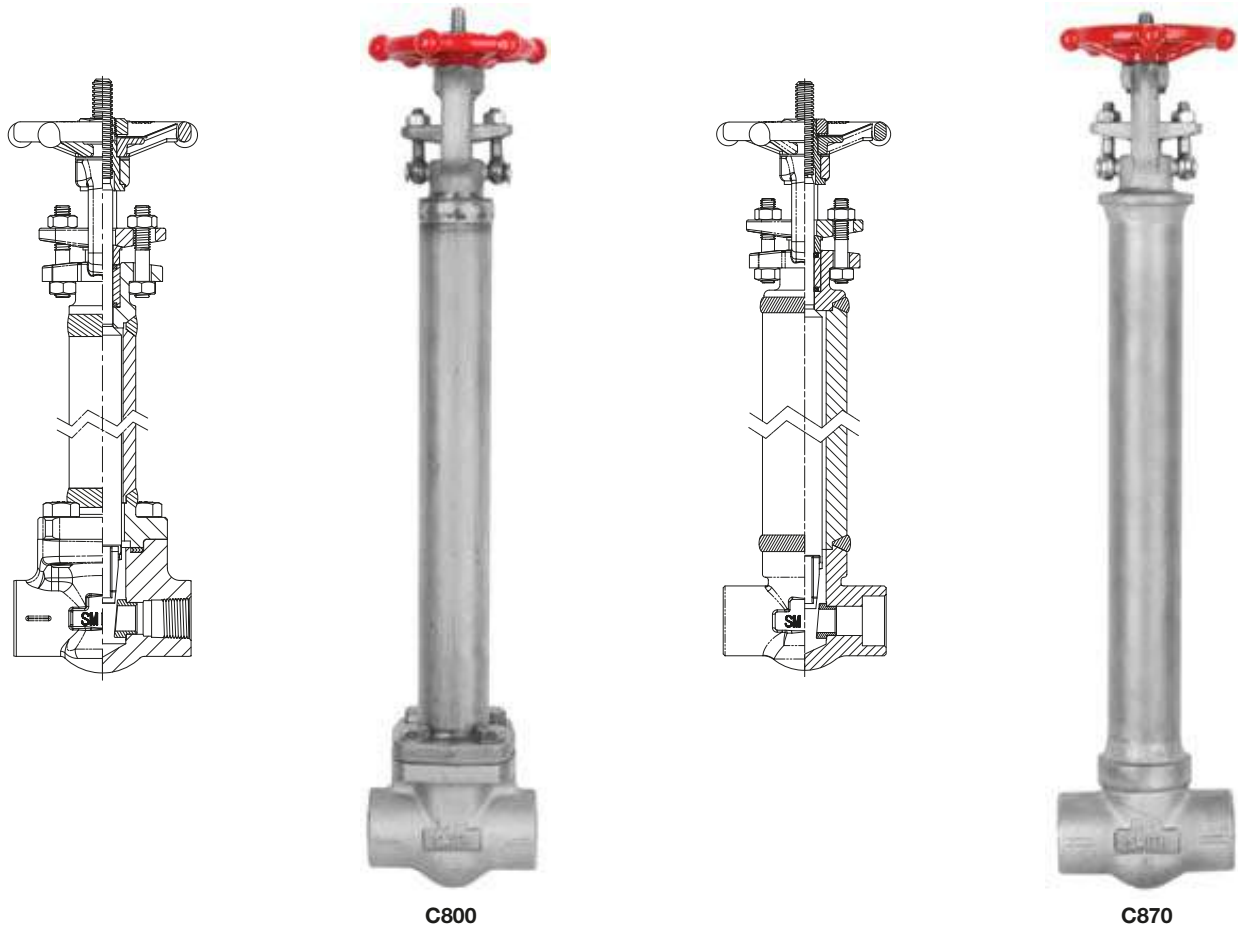
A Trademark of the Newdell Company

**SMITH**

**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)



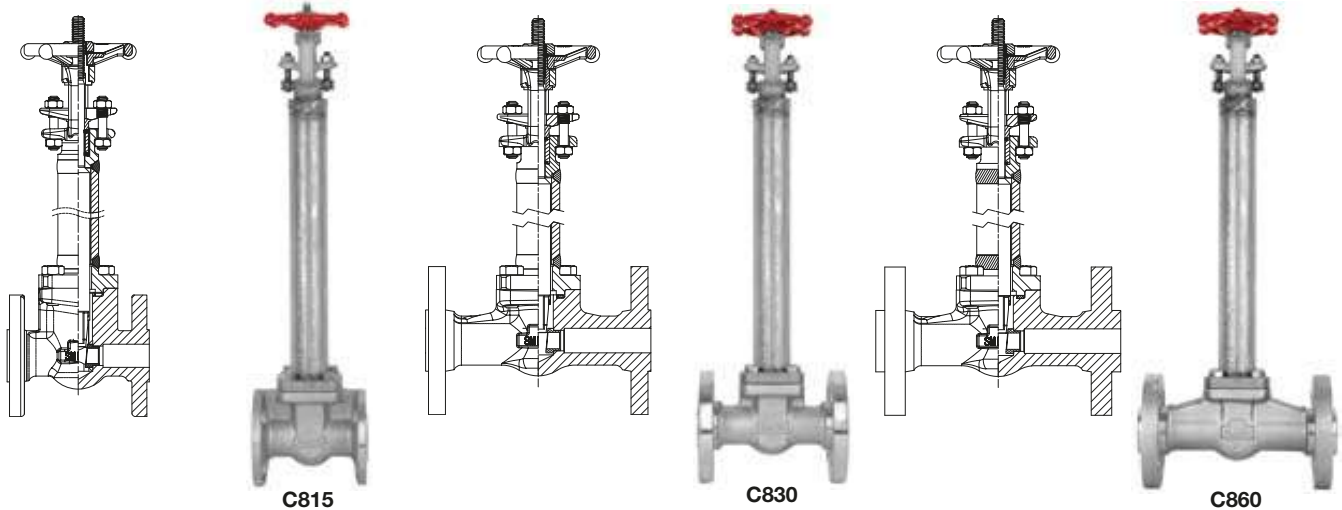
A Trademark of the Newdell Company

**SMITH**

**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)



A Trademark of the Newdell Company

**SMITH**

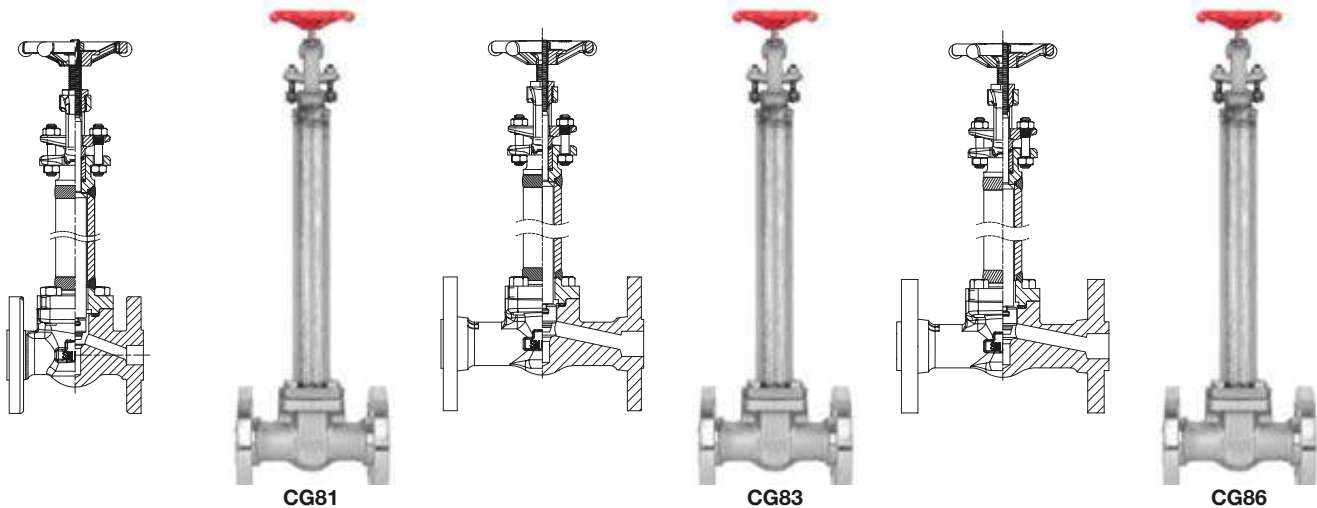
**CG81-CG83-CG86**  
**Cryogenic Globe Valves**

**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)



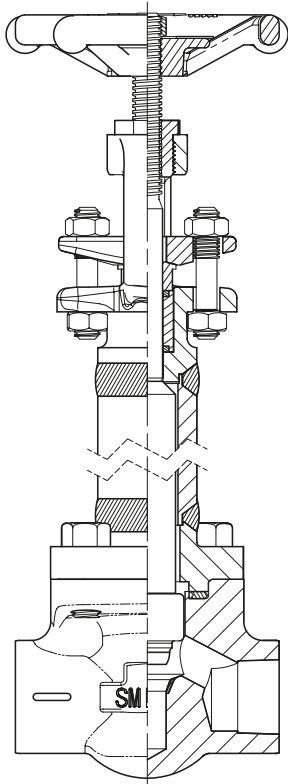
A Trademark of the Newdell Company

**SMITH**

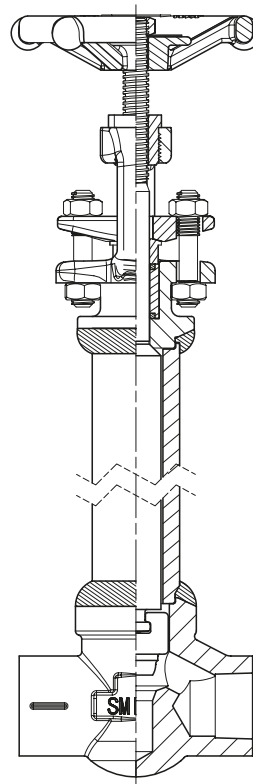
**CG80-CG87  
Cryogenic Globe Valves**

**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)



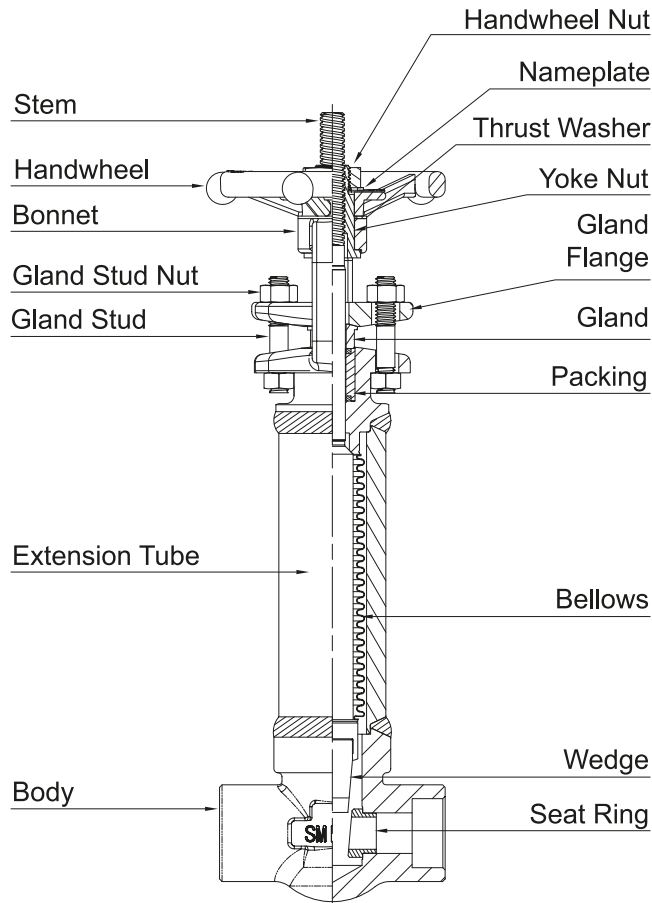
A Trademark of the Newdell Company

**SMITH**

**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 (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)	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)



A Trademark of the Newdell Company

**SMITH**

**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. -20 to 100°F	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			
200 °F	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			
300 °F	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			
400 °F	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			
500 °F	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			
600 °F	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			
650 °F	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			
700 °F	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			
750 °F	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			
800 °F	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			
850 °F	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			
900 °F	50	230	460	613	690	1,150	1,200	2,245	995	1,870	1,200	2,245	1,107	2,075					
950 °F	35	135	275	365	410	685	850	1,595	733	1,370	1,005	1,885	1,032	1,930					
1000 °F	20	85	170	227	255	430	577	1,080	530	995	675	1,270	968	1,820					
1050 °F							383	720	383	720	458	855	960	1,800					
1100 °F							257	480	257	480	302	565	813	1,525					
1150 °F							173	325	165	310	200	375	632	1,185					
1200 °F							110	205	93	170	138	255	493	925					
1250 °F													392	735					
1300 °F													312	585					
1350 °F													257	480					
1400 °F													200	380					
1450 °F													155	290					
1500 °F													112	205					

**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	$Cv = Q \cdot \sqrt{\frac{Gf}{DP}}$	$Q = Cv \cdot \sqrt{\frac{DP}{Gf}}$	$DP = Gf \cdot \left(\frac{Q}{Cv}\right)^2$
COMPRESSIBLE	$Cv = \frac{q}{1,360 \cdot Y} \cdot \sqrt{\frac{T1 \cdot Gg}{DP \cdot P1}}$	$q = 1,360 \cdot Y \cdot Cv \cdot \sqrt{\frac{DP \cdot P1}{T1 \cdot Gg}}$	$DP = \frac{T1 \cdot Gg}{P1} \cdot \left(\frac{q}{1,360 \cdot Cv \cdot Y}\right)^2$

**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.







**CORPORATE HEADQUARTERS**

13750 Hollister Road  
Houston, Texas 77086-1213

713.590.1312  
Fax: 713.590.1319  
1.877.510.7853

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

The data presented in this catalog is for general information only.

Manufacturer is not responsible for acceptability of these products in relation to system requirements.  
Also, contents of this catalog can be changed with improvements of product design and performance without notice.

Copyright © Newdell. Printed in the USA

Cat. 2009