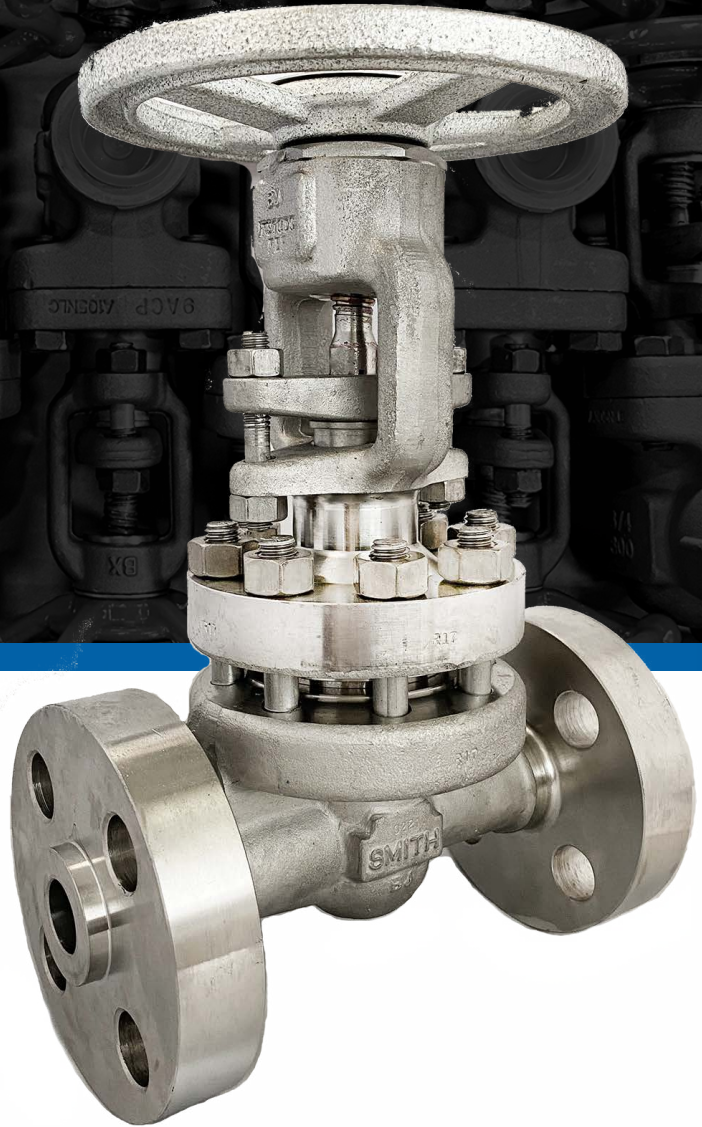




SMITH VALVES



FORGED STEEL VALVES

GATE / GLOBE / CHECK

SALES@SMITHVALVES.COM • 713.590.1312 • 13750 HOLLISTER RD. HOUSTON, TX

WWW.SMITHVALVES.COM

A REPUTATION FOR QUALITY AND SERVICE
THAT HAS BEEN **FORGED** OVER A SOLID
HALF CENTURY...



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OUR STORY

1956

THE BEGINNING

Smith Valves was founded by James Dewolf Smith in 1956 to produce forged gate, globe, and check valves for use primarily in the petrochemical industry. By the mid-1970s, the company had become one of the industry's largest producers of industrial gate, globe, check and ball valves under the 2.5" size. Soon thereafter, exotic stainless and alloy components were added to the product line.

2011

THE END OF AN ERA

In March of 2000, the Newdell Company bought Smith and moved production to Italy. Six years later operations returned to the United States in Houston, Texas. In 2011, ERIKS acquired the Newdell Company as part of its strategy to build a comprehensive platform for flow technology in North America. CNC Flow Control was created in 2017 as part of this initiative and Smith became a brand under the CNC Flow Control Group.

2020

NEW BEGINNINGS

In October 2020, Smith Valves Company, LLC purchased the trademarks and all assets related to Smith Valves from CNC Flow Control. Smith continues its customer-driven focus as a globally approved brand with a proven reputation of excellence in quality and service.



GATE • GLOBE • CHECK •
BELLOWS SEAL • CRYOGENIC
Y-PATTERN

FORGED STEEL

THREADED ENDS
SOCKETWELD ENDS
FLANGED ENDS
BUTTWELD ENDS

RISING HANDWHEEL
NON-RISING HANDWHEEL

SOLID WEDGE DISC
PLUG DISC

1/2" - 3"
CL150 - CL4500

CARBON STEEL
STAINLESS STEEL • CHROME
ALLOY 20 • DUPLEX
HIGH NICKEL ALLOY

PRODUCT PORTFOLIO

Smith Valves is one of the oldest valve brands for API 602 forged steel valves in the industry today. Producing a broad range of gate, globe and check valves utilized in the oil and gas, refinery, petrochemical and many other industries throughout the world, Smith delivers!



GATE VALVES



GLOBE VALVES



CHECK VALVES



CRYOGENIC VALVES



BELLOWS SEAL
VALVES



Y-PATTERN
VALVES



FORGED PRODUCTS

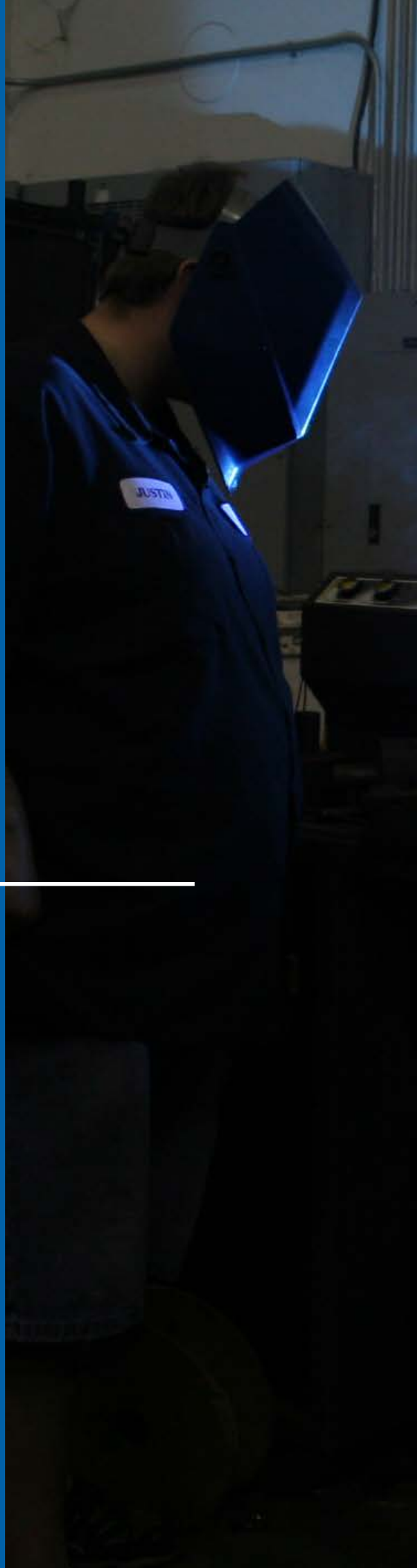
FOR THE PETROCHEMICAL MARKET

Smith stocks API 602 multi-turn valves in a variety of materials from carbon steel to nickel alloy and pressure classes ranging from 150 to 4500. In addition, both reduced and full ports and welded and bolted bonnet designs are available. Our facility allows for inventory storage and automated retrieval with our custom ASRS system.

We conduct in-house testing with NDE capabilities and a fully integrated machine shop. This allows for quick deliveries and unconventional customer requirements to be met in a timely, quality controlled manner. On-site testing capabilities include bellows testing per MSS SP-117, cryogenic testing, API-598 pressure testing and liquid dye penetrant testing. With low emission requirements as a basis, Smith Valves offers our complete line of forged products with API 624 certification.

Our facility carries a certified ISO-9001 quality system, CE-PED certification and an API 602 designation.

-
- **API 602, ASME B16.34**
 - **Bolted & Welded Bonnet Available**
 - **Full & Reduced Port Available**
 - **Threaded, Socketweld, Buttweld, Flanged Ends Available**
 - **API 622 & API 624 Qualified Packing for Low Fugitive Emissions**





GATE

EXTENDED BODY GATE

BELLOWS SEAL GATE

CRYOGENIC GATE

GLOBE

BELLOWS SEAL GLOBE

CRYOGENIC GLOBE

Y-PATTERN GLOBE

CHECK

Y-PATTERN CHECK

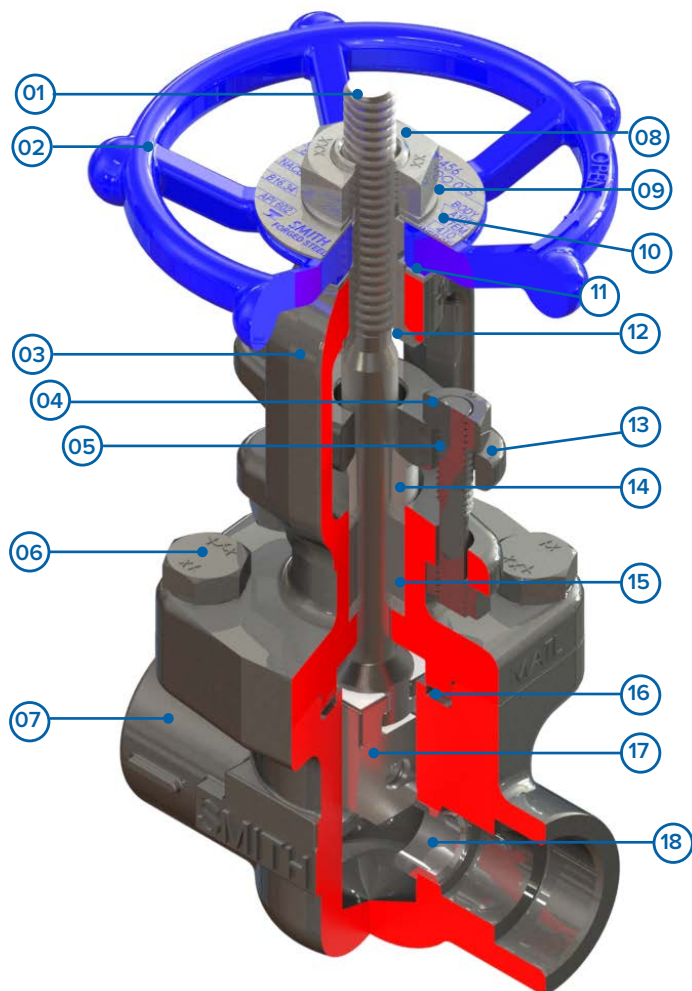
GATE VALVES



DESIGN & CONSTRUCTION

- API 602, ASME B16.34
- Bolted & welded bonnet
- Reduced and full port
- Threaded, Socketweld, Buttweld ends class 800 to 2500
- Flanged ends class 150 to 2500
- Bonnet constructed of forged steel with integral backseat
- Nameplate serialized for full traceability
- API 622 and API 624 qualified packing for low emissions

- 01** STEM
- 02** HANDWHEEL
- 03** BONNET
- 04** GLAND STUD NUT
- 05** GLAND STUD
- 06** BONNET BOLT
- 07** BODY
- 08** HANDWHEEL NUT
- 09** LOCK WASHER
- 10** NAMEPLATE
- 11** THRUST WASHER
- 12** YOKE NUT
- 13** GLAND FLANGE
- 14** GLAND
- 15** PACKING
- 16** GASKET
- 17** WEDGE
- 18** SEAT RING



**0800
0870**

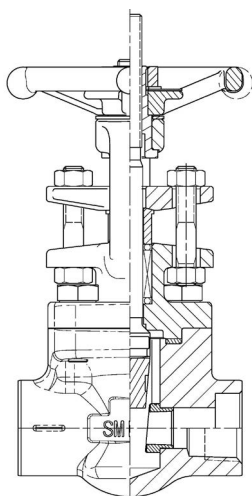
DIMENSIONAL DATA

Forged Gate OS&Y - Conventional Port

Sizes: 1/4" - 2"

Pressure Class: 800

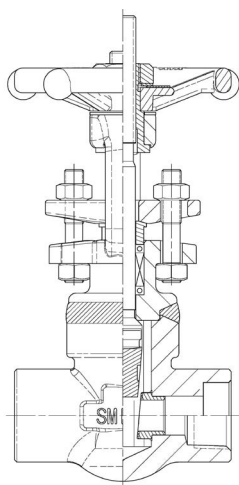
End Connections - Threaded, Socketweld or Buttweld



0800

**CLASS 800 BOLTED BONNET GATE VALVE
THREADED or SOCKETWELD ENDS (IN.)**

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.25	6.31	4.00	3.8
3/8	3.25	6.31	4.00	3.8
1/2	3.25	6.31	4.00	3.8
3/4	3.50	6.50	4.00	4.5
1	3.88	7.25	4.00	6.3
1 1/4	4.75	9.13	5.50	12.0
1 1/2	4.75	9.13	5.50	12.0
2	5.50	11.06	6.63	20.5



0870

**CLASS 800 WELDED BONNET GATE VALVE
THREADED or SOCKETWELD ENDS (IN.)**

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.25	6.19	4.00	3.3
3/8	3.25	6.25	4.00	3.3
1/2	3.25	6.25	4.00	3.3
3/4	3.50	6.50	4.00	3.8
1	3.88	7.25	4.00	5.3
1 1/4	4.75	9.13	5.50	10.3
1 1/2	4.75	9.13	5.50	9.8
2	5.50	11.00	6.63	16.0

**0888
5870**

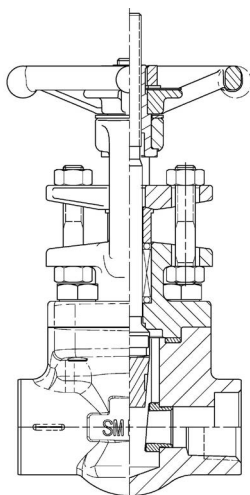
DIMENSIONAL DATA

Forged Gate OS&Y - Full Port

Sizes: 1/4" - 2"

Pressure Class: 800

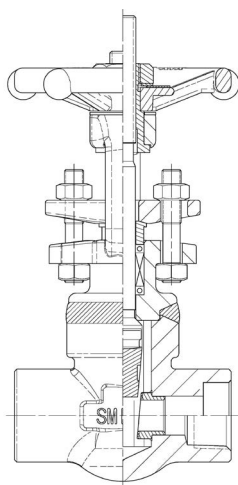
End Connections - Threaded or Socketweld



0888

**CLASS 800 BOLTED BONNET GATE VALVE
THREADED or SOCKETWELD ENDS (IN.)**

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.25	6.25	4.00	3.8
3/8	3.25	6.31	4.00	3.8
1/2	3.50	6.50	4.00	4.8
3/4	3.88	7.25	4.00	6.3
1	4.75	9.13	4.00	9.8
1 1/4	4.75	9.13	5.50	11.5
1 1/2	5.50	11.06	6.63	21.8
2	5.69	12.38	6.63	24.0



5870

**CLASS 800 WELDED BONNET GATE VALVE
THREADED or SOCKETWELD (IN.)**

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.25	6.25	4.00	3.3
3/8	3.25	6.25	4.00	3.3
1/2	3.50	6.50	4.00	4.3
3/4	3.94	7.25	4.00	5.8
1	4.75	8.94	5.50	10.5
1 1/4	4.75	9.13	5.50	10.3
1 1/2	5.50	11.00	6.63	17.0

**1500
1570**

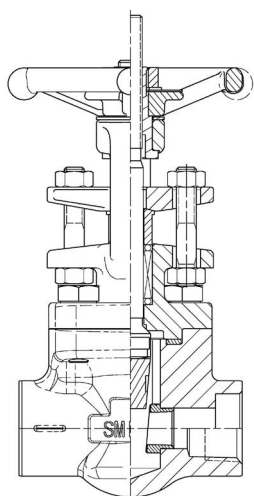
DIMENSIONAL DATA

Forged Gate OS&Y - Conventional Port

Sizes: 1/4" - 2"

Pressure Class: 1500

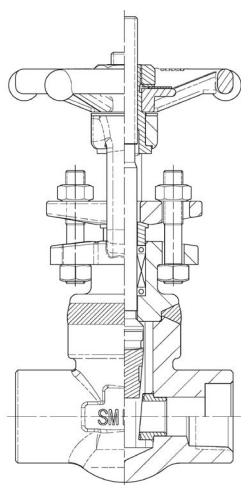
End Connections - Threaded, Socketweld or Buttweld



1500

**CLASS 1500 BOLTED BONNET GATE VALVE
THREADED or SOCKETWELD ENDS (IN.)**

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.50	6.50	4.00	5.3
3/8	3.50	6.50	4.00	5.3
1/2	3.50	6.50	4.00	5.0
3/4	3.88	7.25	4.00	7.3
1	4.75	8.94	5.50	14.0
1 1/4	5.50	11.00	6.63	23.0
1 1/2	5.50	11.00	6.63	22.5
2	6.25	11.56	6.63	29.5



1570

**CLASS 1500 WELDED BONNET GATE VALVE
THREADED or SOCKETWELD ENDS (IN.)**

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.50	6.31	4.00	4.8
3/8	3.50	6.38	4.00	4.8
1/2	3.50	6.38	4.00	4.5
3/4	3.88	7.00	4.00	6.0
1	4.75	8.75	5.50	11.3
1 1/4	5.50	10.69	6.63	17.8
1 1/2	5.50	10.69	6.63	17.5
2	6.25	11.06	6.63	24.2

1588
1578

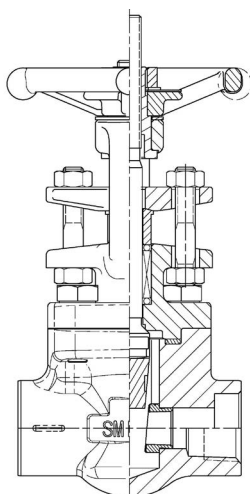
DIMENSIONAL DATA

Forged Gate OS&Y - Full Port

Sizes: 1/4" - 1 1/2"

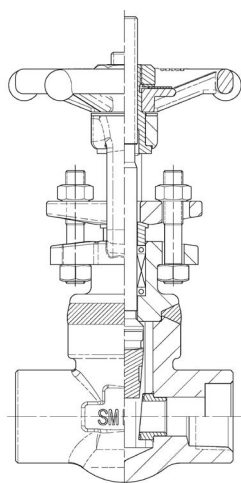
Pressure Class: 1500

End Connections - Threaded or Socketweld



1588

CLASS 1500 BOLTED BONNET GATE VALVE THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.50	6.44	4.00	5.3
3/8	3.50	6.50	4.00	5.3
1/2	3.94	6.88	4.00	7.5
3/4	4.75	8.94	4.00	14.8
1	4.75	9.06	5.50	23.5
1 1/4	5.50	11.00	6.63	23.0
1 1/2	6.25	11.56	6.63	30.5



1578

CLASS 1500 WELDED BONNET GATE VALVE THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.50	6.31	4.00	4.8
3/8	3.50	6.38	4.00	4.8
1/2	3.88	7.00	4.00	6.3
3/4	4.75	8.75	4.00	11.5
1	4.75	8.94	5.50	19.0
1 1/4	5.50	10.69	6.63	17.8
1 1/2	6.25	11.06	6.63	25.0

2578

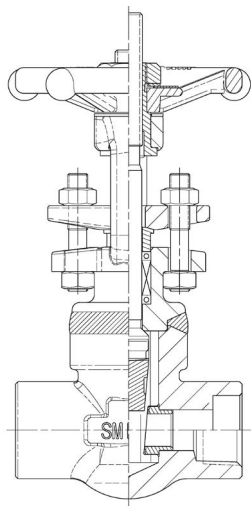
DIMENSIONAL DATA

Forged Gate OS&Y - Full Port

Sizes: 1/4" - 2"

Pressure Class: 2500

End Connections - Threaded or Socketweld



2578

CLASS 2500 WELDED BONNET GATE VALVE THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	3.88	7.26	4.00	6.3
3/4	4.65	9.05	5.50	11.3
1	5.40	9.44	5.50	17.8
1 1/2	6.15	12.06	6.63	18.5
2	6.15	12.06	6.63	18.5

0815
0830
0860

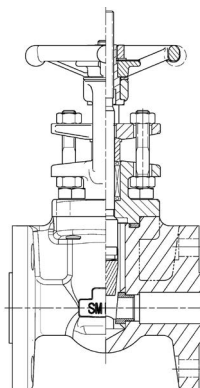
DIMENSIONAL DATA

Forged Gate OS&Y - Conventional Port

Sizes: 1/2" - 3"

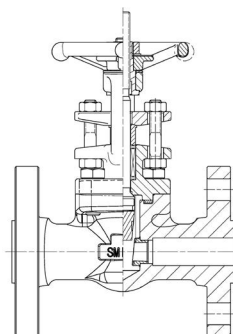
Pressure Class: 150 / 300 / 600

End Connections - Flanged



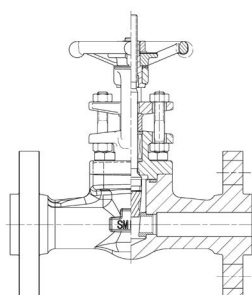
0815

CLASS 150 BOLTED BONNET GATE VALVE FLANGED ENDS (IN.)				
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.25	7.00	4.00	6.5
3/4	4.63	7.06	4.00	9.0
1	5.00	7.69	4.00	9.8
1 1/2	6.50	9.13	5.50	18.2
2	7.00	11.06	6.63	33.5
3	8.00	13.69	7.38	54.0



0830

CLASS 300 BOLTED BONNET GATE VALVE FLANGED ENDS (IN.)				
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	5.50	6.25	4.00	7.0
3/4	6.00	6.38	4.00	10.3
1	6.50	7.25	4.00	12.8
1 1/2	7.50	9.13	5.50	25.0
2	8.50	11.06	6.63	35.5
3	11.13	13.63	7.38	64.5



0860

CLASS 600 BOLTED BONNET GATE VALVE FLANGED ENDS (IN.)				
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	6.50	6.25	4.00	7.5
3/4	7.50	6.44	4.00	11.8
1	8.50	7.25	4.00	15.0
1 1/2	9.50	9.13	5.50	31.0
2	11.50	11.06	6.63	44.2

**5815
5830**

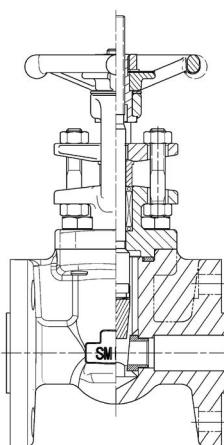
DIMENSIONAL DATA

Forged Gate OS&Y - Full Port

Sizes: 3/4" - 1 1/2"

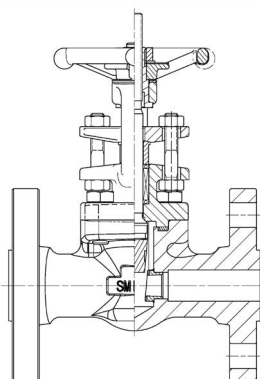
Pressure Class: 150 & 300

End Connections - Flanged



5815

CLASS 150 BOLTED BONNET GATE VALVE FLANGED ENDS (IN.)				
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
3/4	4.63	7.63	4.00	9.1
1	5.00	8.87	4.00	14.2
1 1/2	6.50	11.01	5.50	26.8



5830

CLASS 300 BOLTED BONNET GATE VALVE FLANGED ENDS (IN.)				
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
3/4	6.00	7.28	4.00	11.6
1	6.50	9.14	4.00	19.5
1 1/2	7.50	11.04	5.50	30.4

**0895
2595**

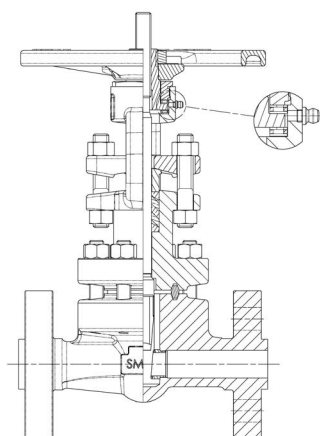
DIMENSIONAL DATA

Forged Gate OS&Y - Full Port

Sizes: 1/2" - 2"

Pressure Class: 1500 / 2500

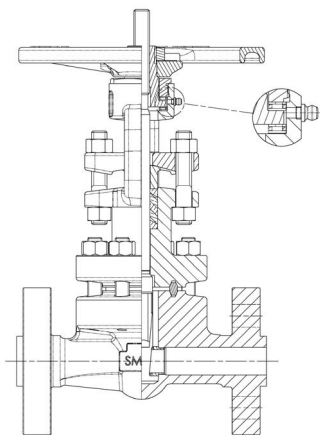
End Connections - Flanged



0895

**CLASS 1500 BOLTED BONNET GATE VALVE
FLANGED ENDS (IN.)**

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	8.50	8.18	4.00	17.0
3/4	9.00	9.47	5.50	23.0
1	10.00	9.93	5.50	34.0
1 1/2	12.00	12.82	6.63	54.0
2	14.50	13.46	6.63	97.0



2595

**CLASS 2500 BOLTED BONNET GATE VALVE
FLANGED ENDS (IN.)**

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	10.39	13.61	9.84	52.8
3/4	10.75	13.89	9.84	41.0
1	12.13	15.71	9.84	88.4
1 1/2	15.12	21.23	15.75	197.7
2	17.88	22.95	19.68	272.7

EXTENDED BODY GATE VALVES

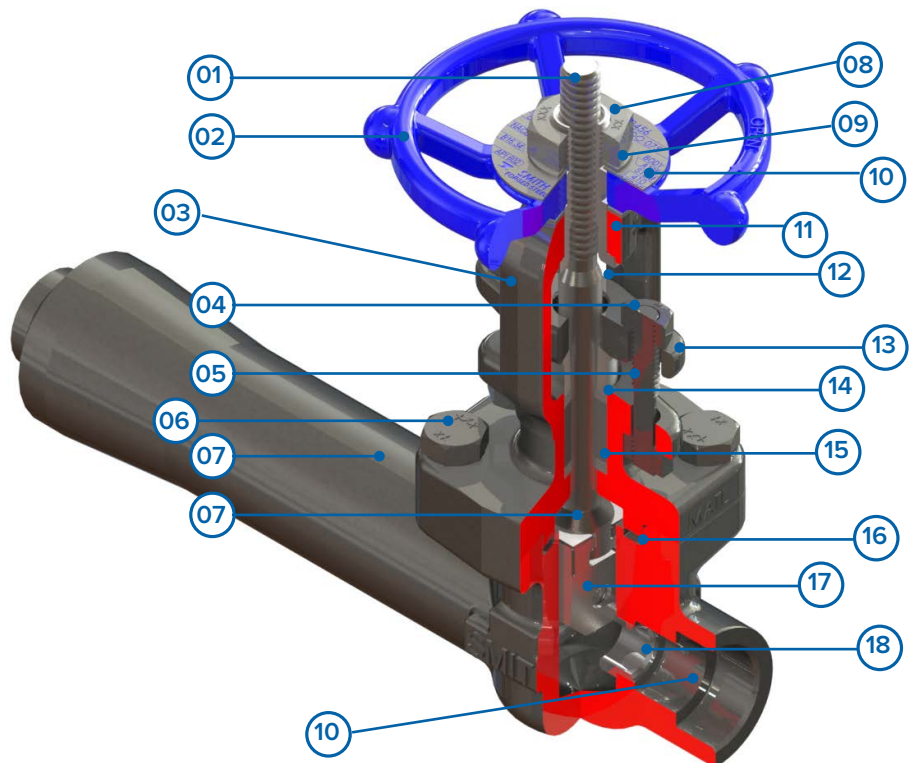
TAKEOFF & INTEGRAL REINFORCED EXTENDED BODY (IREB) VALVE



DESIGN & CONSTRUCTION

- API 602, ASME B16.34
- Bolted & welded bonnet
- Reduced port
- Take-off design and IREB class 800
- Bonnet constructed of forged steel with integral backseat
- Nameplate serialized for full traceability
- API 622 and API 624 qualified packing for low emissions

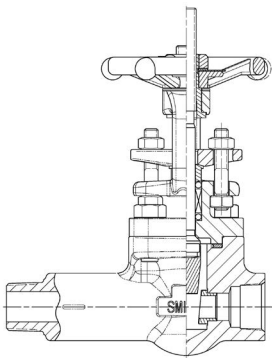
- 01 STEM
- 02 HANDWHEEL
- 03 BONNET
- 04 GLAND STUD NUT
- 05 GLAND STUD
- 06 BONNET BOLT
- 07 BODY
- 08 HANDWHEEL NUT
- 09 LOCK WASHER
- 10 NAMEPLATE
- 11 THRUST WASHER
- 12 YOKE NUT
- 13 GLAND FLANGE
- 14 GLAND
- 15 PACKING
- 16 GASKET
- 17 WEDGE
- 18 SEAT RING



0811-0814
0876-0879

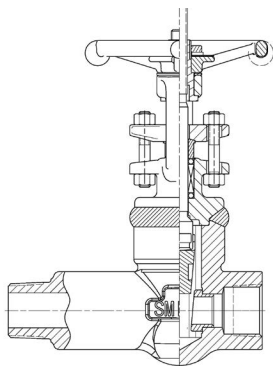
DIMENSIONAL DATA

Forged Gate OS&Y Male End
Port: Conventional
Sizes: 1/2" - 2"
Pressure Class: 800



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

CLASS 800 BOLTED BONNET GATE TAKE OFF DESIGN (IN.)					
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	CENTER TO END	APPROX. WEIGHT LBS
1/2	5.63	6.25	4.00	4.00	4.3
3/4	5.75	6.50	4.00	4.00	5.0
1	5.94	7.25	4.00	4.00	6.8
1 1/2	7.38	9.13	5.50	5.00	10.2
2	7.88	11.06	6.63	5.13	12.8



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

CLASS 800 WELDED BONNET GATE TAKE OFF DESIGN (IN.)					
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	CENTER TO END	APPROX. WEIGHT LBS
1/2	5.63	6.19	4.00	4.00	3.8
3/4	5.75	6.44	4.00	4.00	4.2
1	5.94	7.19	4.00	4.00	5.8
1 1/2	7.38	9.13	5.50	5.00	10.5
2	7.88	11.00	6.63	5.13	17.0

0874
0875

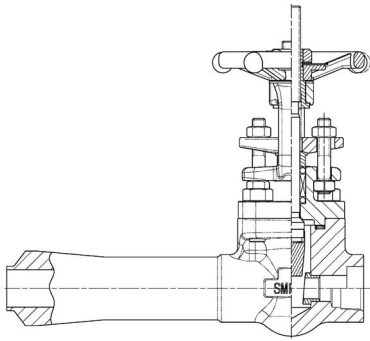
DIMENSIONAL DATA

Forged Gate OS&Y Integrally Reinforced Extended Body

Port: Conventional

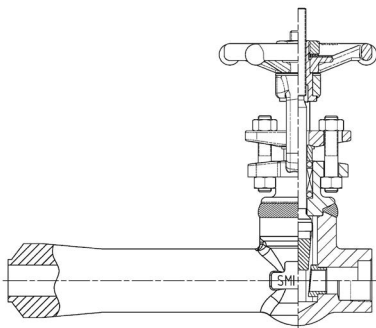
Sizes: 1/2" - 2"

Pressure Class: 800



0874

CLASS 800 BOLTED BONNET INTEGRALLY REINFORCED EXTENDED BODY GATE VALVE (IN.)					
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	CENTER TO END	APPROX. WEIGHT LBS
1/2	7.75	6.00	4.00	6.13	5.5
3/4	8.63	6.44	4.00	6.88	7.0
1	9.56	7.25	4.00	7.63	10.5
1 1/2	10.38	9.13	5.50	8.00	16.5
2	12.00	11.06	6.63	9.25	27.4



0875

CLASS 800 WELDED BONNET INTEGRALLY REINFORCED EXTENDED BODY (IN.)					
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	CENTER TO END	APPROX. WEIGHT LBS
1/2	7.75	6.00	4.00	6.13	5.5
3/4	8.63	6.44	4.00	6.88	7.0
1	9.56	7.25	4.00	7.63	10.5
1 1/2	10.38	9.13	5.50	8.00	16.5
2	12.00	11.06	6.63	9.25	27.4

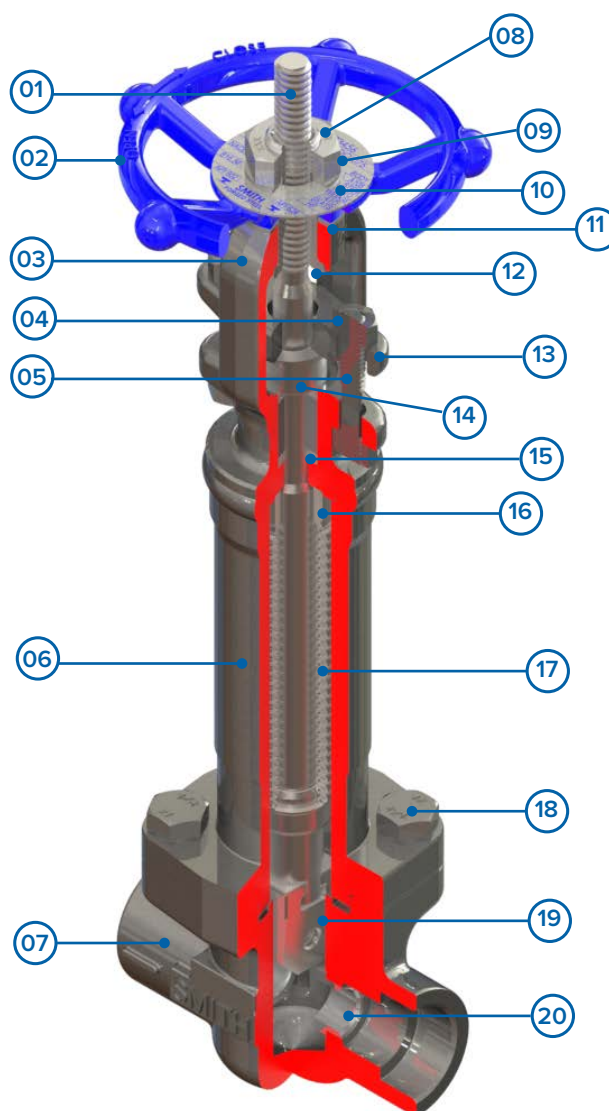
BELLOWS SEAL GATE VALVES



DESIGN & CONSTRUCTION

- API 602, ASME B16.34
- Bolted & welded bonnet
- Reduced and full port
- Threaded, Socketweld, Flanged ends class 150-600, 800 & 1500
- Bonnet constructed of forged steel with integral backseat
- Nameplate serialized for full traceability
- API 622 and API 624 qualified packing for low emissions

- | | |
|----|----------------|
| 01 | STEM |
| 02 | HANDWHEEL |
| 03 | BONNET |
| 04 | GLAND STUD NUT |
| 05 | GLAND STUD |
| 06 | EXTENSION TUBE |
| 07 | BODY |
| 08 | HANDWHEEL NUT |
| 09 | LOCK WASHER |
| 10 | NAMEPLATE |
| 11 | THRUST WASHER |
| 12 | YOKE NUT |
| 13 | GLAND FLANGE |
| 14 | GLAND |
| 15 | PACKING |
| 16 | BELLOWS COLLAR |
| 17 | BELLOWS |
| 18 | BONNET BOLT |
| 19 | WEDGE |
| 20 | SEAT RING |



**B800
B870**

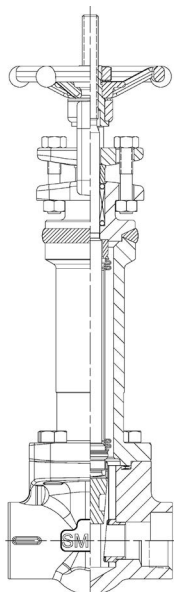
DIMENSIONAL DATA

Forged Gate OS&Y Conventional Port

Sizes: 1/2" - 2"

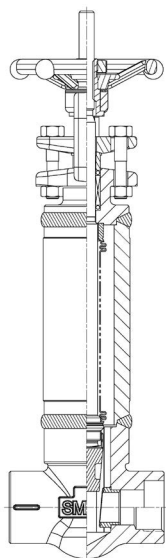
Pressure Class: 800

End Connections - Threaded or Socketweld



B800

CLASS 800 BOLTED BONNET BELLOWS GATE THREADED or SOCKETWELD ENDS (IN.)					
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	THREADED END	APPROX. WEIGHT LBS
1/2	3.25	11.37	4.00	1/2"-14	6.8
3/4	3.50	11.37	4.00	3/4"-14	6.7
1	3.88	12.43	4.00	1"-11 1/2	8.4
1 1/2	4.75	17.30	5.50	1 1/2"-11 1/2	16.4
2	5.50	20.43	6.63	2"-11 1/2	28.6



B870

CLASS 800 WELDED BONNET BELLOWS GATE THREADED or SOCKETWELD ENDS (IN.)					
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	THREADED END	APPROX. WEIGHT LBS
1/2	3.25	10.41	4.00	1/2"-14	6.8
3/4	3.50	11.38	4.00	3/4"-14	6.7
1	3.88	12.43	4.00	1"-11 1/2	8.4
1 1/2	4.75	17.30	5.50	1 1/2"-11 1/2	16.4
2	5.50	20.40	6.63	2"-11 1/2	28.6

B888

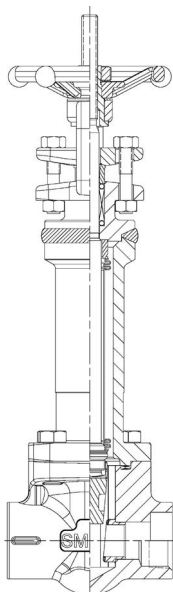
DIMENSIONAL DATA

Forged Gate OS&Y - Full Port

Sizes: 1/4" - 2"

Pressure Class: 800

End Connections - Threaded or Socketweld



B888

CLASS 800 BOLTED BONNET GATE VALVE THREADED or SOCKETWELD (IN.)				
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.25	6.25	4.00	3.8
3/8	3.25	6.31	4.00	3.8
1/2	3.50	6.50	4.00	4.8
3/4	3.88	7.25	4.00	6.3
1	4.75	9.13	4.00	9.8
1 1/4	4.75	9.13	5.50	11.5
1 1/2	5.50	11.06	6.63	21.8
2	5.69	12.38	6.63	24.0

**B815
B830
B860**

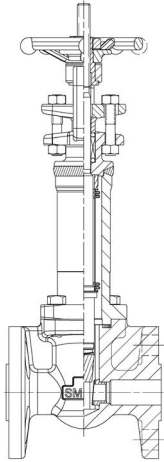
DIMENSIONAL DATA

Forged Gate OS&Y Conventional Port

Sizes: 1/2" - 2"

Pressure Class: 150 / 300 / 600

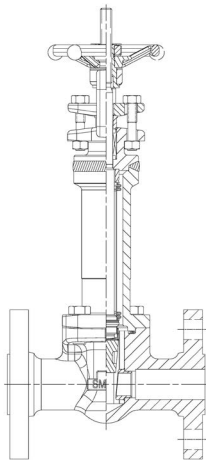
End Connections - Flanged



B815

CLASS 150 BOLTED BONNET BELLOWS GATE FLANGED ENDS (IN.)

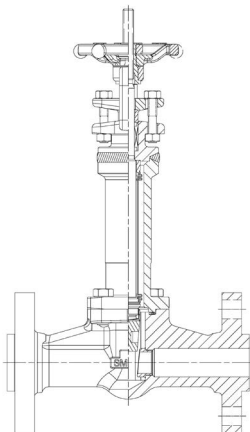
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.25	11.60	4.00	8.0
3/4	4.61	11.60	4.00	9.7
1	5.00	12.64	4.00	12.2
1 1/2	6.50	15.21	5.50	20.7
2	7.00	19.54	6.63	37.1



B830

CLASS 300 BOLTED BONNET BELLOWS GATE FLANGED ENDS (IN.)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	6.00	11.29	4.00	11.9
3/4	6.50	12.42	4.00	14.9
1	7.50	17.31	5.50	28.8
1 1/2	8.50	20.40	6.63	42.7
2	5.50	20.40	6.63	28.6



B860

CLASS 600 BOLTED BONNET BELLOWS GATE FLANGED ENDS (IN.)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	7.48	11.37	4.00	12.9
3/4	8.50	12.43	4.00	17.1
1	9.49	17.30	5.50	34.7
1 1/2	11.50	20.40	6.63	52.0
2	5.50	20.40	6.63	28.6

**B817
B837
B867**

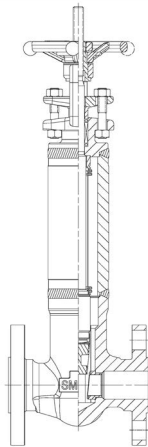
DIMENSIONAL DATA

Forged Gate OS&Y - Conventional Port

Sizes: 1/2" - 2"

Pressure Class: 150 / 300 / 600

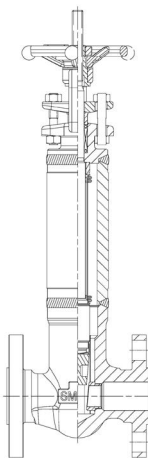
End Connections - Flanged



B817

CLASS 150 WELDED BONNET BELLOWS GATE FLANGED ENDS (IN.)

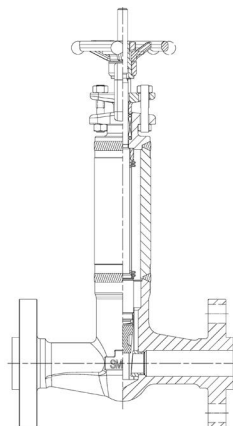
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.25	10.48	4.00	7.0
3/4	4.61	11.37	4.00	9.8
1	5.00	13.61	4.00	13.0
1 1/2	6.50	17.30	5.50	22.8
2	7.00	20.39	6.63	34.7



B837

CLASS 300 WELDED BONNET BELLOWS GATE FLANGED ENDS (IN.)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	5.51	10.48	4.00	8.0
3/4	6.00	11.37	4.00	10.9
1	6.50	13.61	4.00	15.5
1 1/2	7.50	17.30	5.50	27.5
2	8.50	20.39	6.63	39.1



B867

CLASS 600 WELDED BONNET BELLOWS GATE FLANGED ENDS (IN.)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HAND- WHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	6.50	10.48	4.00	8.7
3/4	7.48	11.37	4.00	11.9
1	8.50	13.61	4.00	17.3
1 1/2	9.49	17.30	5.50	33.2
2	11.50	20.39	6.63	46.3

**B811-B814
B876-B879**

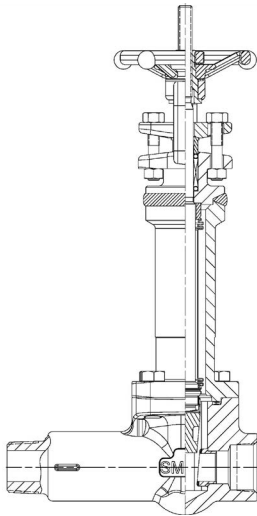
DIMENSIONAL DATA

Forged Gate OS&Y Male End

Port: Conventional

Sizes: 1/2" - 2"

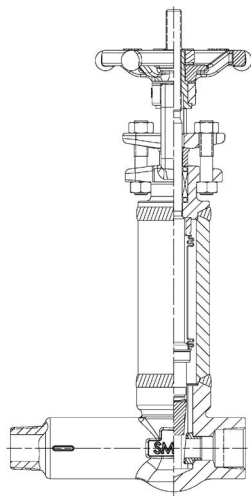
Pressure Class: 800



B811 Male Thread x Female Thread
B812 Male Plain x Female Thread
B813 Male Thread x Female S/W
B814 Male Plain x Female S/W

CLASS 800 BOLTED BONNET BELLOWS GATE TAKE OFF DESIGN (IN.)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	5.63	10.39	4.00	6.75
3/4	5.75	11.38	4.00	6.45
1	5.94	12.67	4.00	7.85
1 1/2	7.38	17.26	5.50	14.9
2	7.87	19.33	6.63	25.1



B876 Male Thread x Female Thread
B877 Male Plain x Female Thread
B878 Male Thread x Female S/W
B879 Male Plain x Female S/W

CLASS 800 WELDED BONNET BELLOWS GATE TAKE OFF DESIGN (IN.)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	5.63	10.39	4.00	6.75
3/4	5.75	11.38	4.00	6.45
1	5.94	12.67	4.00	7.85
1 1/2	7.38	17.26	5.50	14.9
2	7.87	19.33	6.63	25.1

**B874
B875**

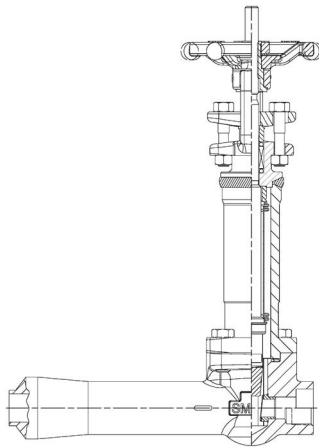
DIMENSIONAL DATA

Forged Gate OS&Y Integrally Reinforced Extended Body

Port: Conventional

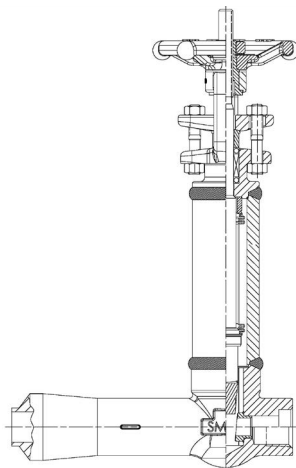
Sizes: 1/2" - 2"

Pressure Class: 800



B874

CLASS 800 BOLTED BONNET IREB BELLOWS GATE THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	7.76	11.37	4.00	7.7
3/4	8.63	11.37	4.00	7.5
1	9.56	12.43	4.00	9.3
1 1/2	10.37	17.30	5.50	17.6
2	12.00	20.43	6.63	30.9



B875

CLASS 800 WELDED BONNET IREB BELLOWS GATE THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	7.76	11.37	4.00	7.7
3/4	8.63	11.37	4.00	7.5
1	9.56	12.43	4.00	9.3
1 1/2	10.37	17.30	5.50	17.6
2	12.00	20.43	6.63	30.9

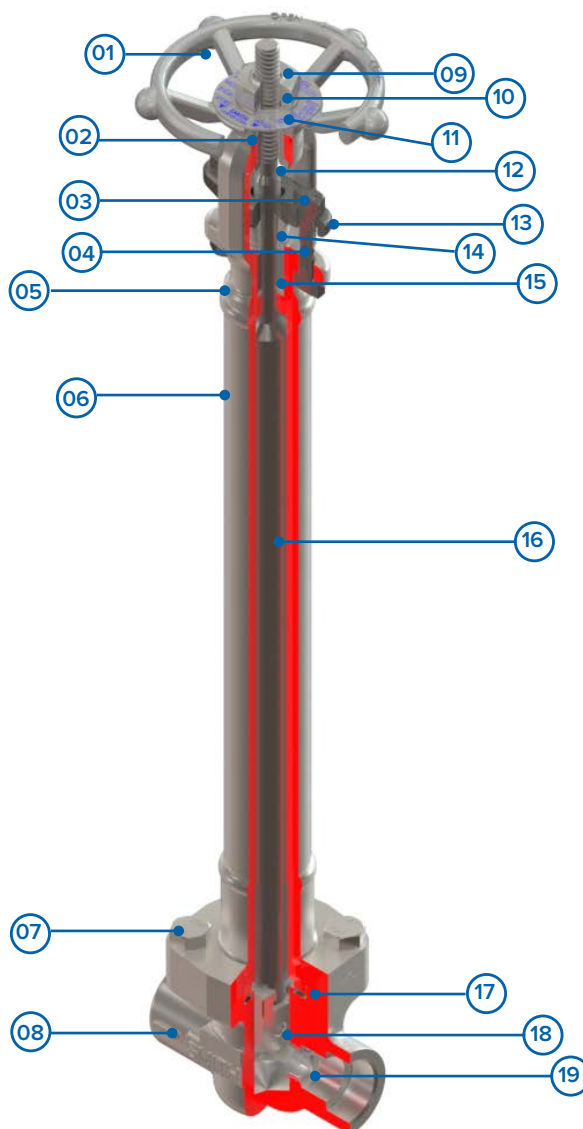
CRYOGENIC GATE VALVES



DESIGN & CONSTRUCTION

- API 602, ASME B16.34, MSS SP-134
- Tested in accordance to API 598
- Bolted & welded bonnet
- Conventional port reduced and full port
- Threaded, Socketweld class 800
- Flanged ends class 150-800
- Bonnet constructed of forged steel with integral backseat
- Nameplate serialized for full traceability
- API 622 and API 624 qualified packing for low emissions
- Optional degrease, clean and seal to prevent contamination

- | | |
|----|----------------|
| 01 | HANDWHEEL |
| 02 | THRUST WASHER |
| 03 | GLAND STUD NUT |
| 04 | GLAND STUD |
| 05 | BONNET |
| 06 | EXTENSION TUBE |
| 07 | BONNET BOLT |
| 08 | BODY |
| 09 | HANDWHEEL NUT |
| 10 | LOCK WASHER |
| 11 | NAMEPLATE |
| 12 | YOKE NUT |
| 13 | GLAND FLANGE |
| 14 | GLAND |
| 15 | PACKING |
| 16 | STEM |
| 17 | GASKET |
| 18 | WEDGE |
| 19 | SEAT |



**C800
C870**

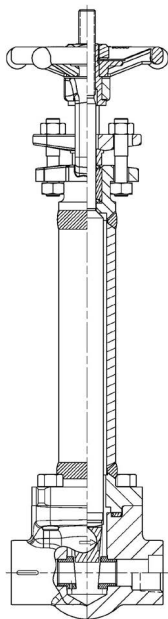
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

Sizes: 1/2" - 2"

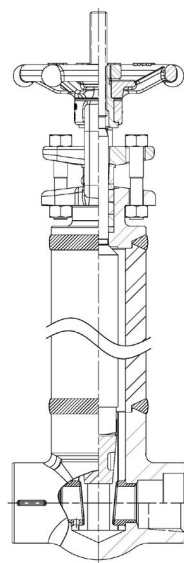
Pressure Class: 800

End Connections - Threaded or Socketweld



C800

CLASS 800 BOLTED BONNET CRYOGENIC GATE VALVE THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	3.25	18.25	4.00	8.0
3/4	3.50	18.44	4.00	8.7
1	3.88	19.81	4.00	12.1
1 1/2	4.75	21.12	5.50	19.3
2	5.50	23.00	6.63	30.0



C870

CLASS 800 WELDED BONNET CRYOGENIC GATE VALVE THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	3.25	18.25	4.00	10.6
3/4	3.50	18.50	4.00	11.8
1	3.88	19.19	4.00	15.6
1 1/2	4.75	21.19	5.50	22.2
2	5.50	23.12	6.63	32.2

**C815
C830
C860**

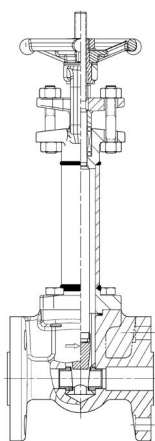
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

Sizes: 1/2" - 2"

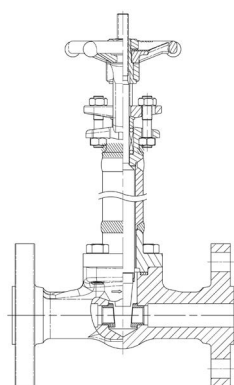
Pressure Class: 150 / 300 / 600

End Connections - Flanged



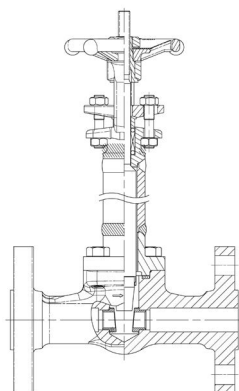
C815

CLASS 150 BOLTED BONNET CRYOGENIC GATE VALVE FLANGED ENDS (IN.)				
VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.25	18.88	4.00	10.8
3/4	4.63	19.06	4.00	13.3
1	5.00	20.25	4.00	15.2
1 1/2	6.50	21.12	5.50	25.0
2	7.00	23.00	6.63	42.2



C830

CLASS 300 BOLTED BONNET CRYOGENIC GATE VALVE FLANGED ENDS (IN.)				
VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	5.50	18.19	4.00	11.3
3/4	6.00	18.38	4.00	14.5
1	6.50	19.81	4.00	18.2
1 1/2	7.50	21.13	5.50	31.3
2	8.50	23.00	6.63	44.2



C860

CLASS 600 BOLTED BONNET CRYOGENIC GATE VALVE FLANGED ENDS (IN.)				
VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	6.50	18.19	4.00	11.8
3/4	7.50	18.38	4.00	16.0
1	8.50	19.81	4.00	20.5
1 1/2	9.50	21.12	5.50	37.2
2	11.50	23.00	6.63	53.9

GLOBE VALVES

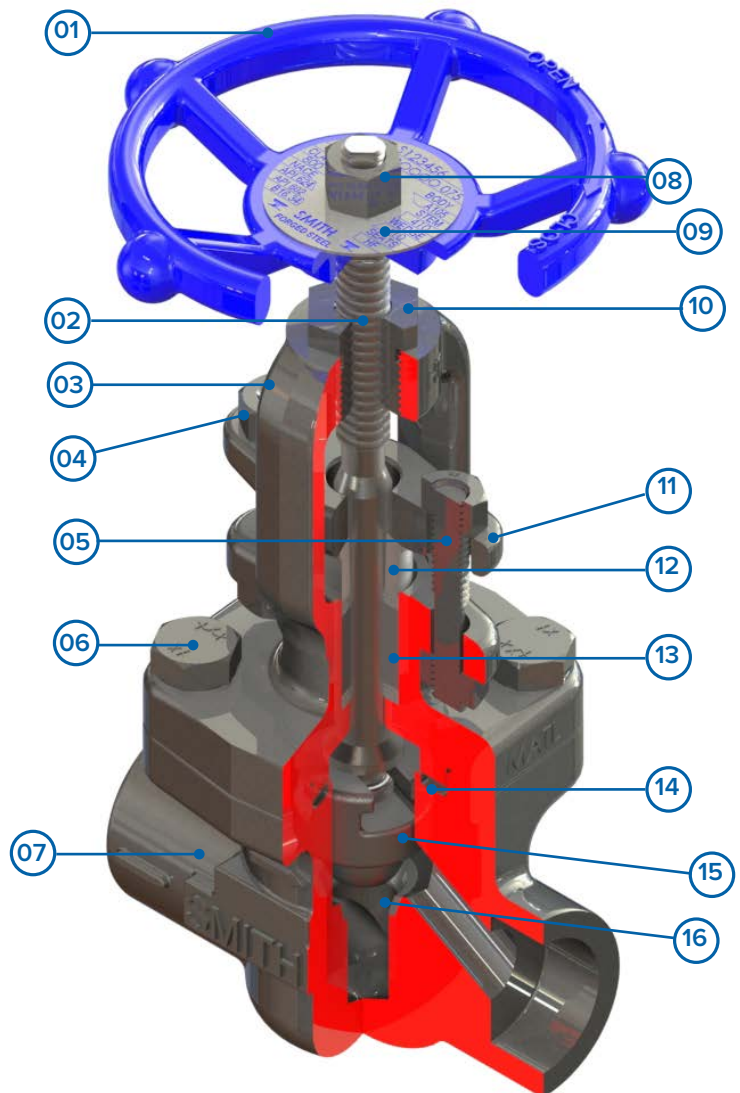
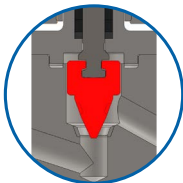


DESIGN & CONSTRUCTION

- API 602, ASME B16.34
- Bolted & welded bonnet
- Reduced and full port
- Threaded, Socketweld, Buttweld, ends class 800 to 1500
- Flanged ends class 150 - 2500
- Bonnet constructed of forged steel with integral backseat
- Nameplate serialized for full traceability
- API 622 and API 624 qualified packing for low emissions
- Forged arrow on the body indicates flow direction

- | | |
|----|----------------|
| 01 | HANDWHEEL |
| 02 | STEM |
| 03 | BONNET |
| 04 | GLAND NUT STUD |
| 05 | GLAND STUD |
| 06 | BONNET BOLT |
| 07 | BODY |
| 08 | HANDWHEEL NUT |
| 09 | NAMEPLATE |
| 10 | YOKE NUT |
| 11 | GLAND FLANGE |
| 12 | GLAND |
| 13 | PACKING |
| 14 | GASKET |
| 15 | DISC |
| 16 | SEAT |

Needle Globe Option



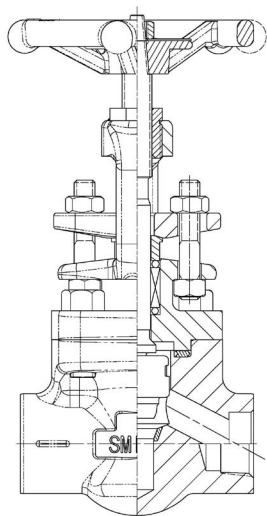
OG80 OG87

DIMENSIONAL DATA

Forged Globe OS&Y - Conventional Port
Sizes: 1/4" - 2"

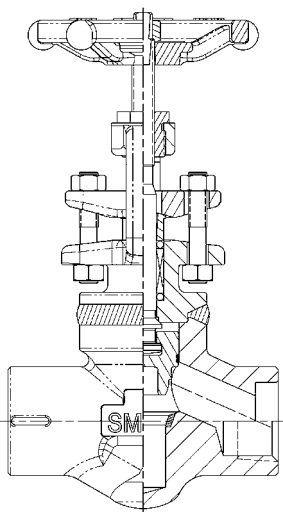
Pressure Class: 800

End Connections - Threaded or Socketweld



OG80

CLASS 800 BOLTED BONNET GLOBE VALVE THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.25	6.31	4.00	3.8
3/8	3.25	6.31	4.00	3.8
1/2	3.25	6.31	4.00	3.8
3/4	3.50	6.50	4.00	4.8
1	4.50	6.81	4.00	6.3
1 1/4	6.25	8.13	4.63	12.8
1 1/2	6.25	8.13	4.63	12.3
2	7.25	9.94	6.63	22.5



OG87

CLASS 800 WELDED BONNET GLOBE VALVE THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.25	6.38	4.00	3.5
3/8	3.25	6.38	4.00	3.5
1/2	3.25	6.38	4.00	3.5
3/4	3.50	6.50	4.00	4.5
1	4.50	6.81	4.00	6.0
1 1/4	6.25	8.19	4.63	12.3
1 1/2	6.25	8.19	4.63	11.8
2	7.25	10.00	6.63	22.0

G150 G157

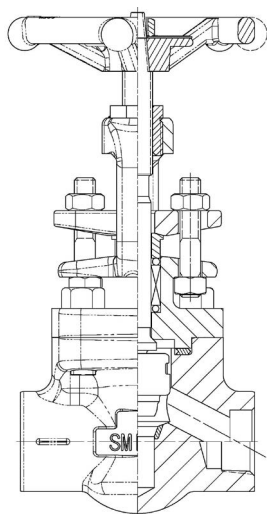
DIMENSIONAL DATA

Forged Globe OS&Y - Conventional Port

Sizes: 1/4" - 2"

Pressure Class: 1500

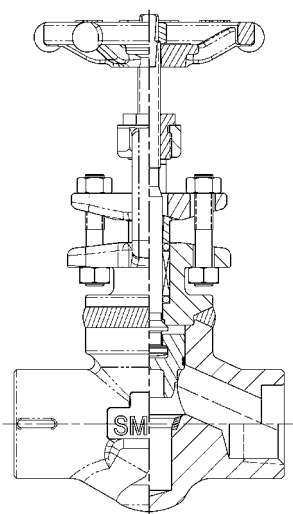
End Connections - Threaded or Socketweld



G150

CLASS 1500 BOLTED BONNET GLOBE VALVE
THREADED or SOCKETWELD ENDS (IN.)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.50	6.63	4.00	6.0
3/8	3.50	6.63	4.00	6.0
1/2	3.50	6.63	4.00	5.8
3/4	4.50	6.75	4.00	8.5
1	6.25	7.88	4.63	14.8
1 1/4	7.25	9.94	6.63	27.0
1 1/2	7.25	9.94	6.63	27.0
2	7.25	10.75	6.63	31.0



G157

CLASS 1500 WELDED BONNET GLOBE VALVE
THREADED or SOCKETWELD ENDS (IN.)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/4	3.50	6.56	4.00	4.3
3/8	3.50	6.56	4.00	4.3
1/2	3.50	6.56	4.00	4.0
3/4	4.50	6.88	4.00	6.0
1	6.25	8.19	4.63	12.5
1 1/4	7.25	10.31	6.63	19.5
1 1/2	7.25	10.31	6.63	19.5
2	7.25	10.38	6.63	24.0

**OG81
OG83
OG86**

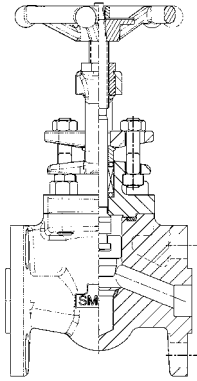
DIMENSIONAL DATA

Forged Globe OS&Y - Conventional Port

Sizes: 1/2" - 2"

Pressure Class: 150/300/600

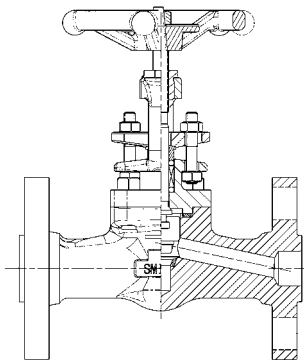
End Connections - Flanged



OG81

**CLASS 150 BOLTED BONNET GLOBE VALVE
FLANGED ENDS (IN.)**

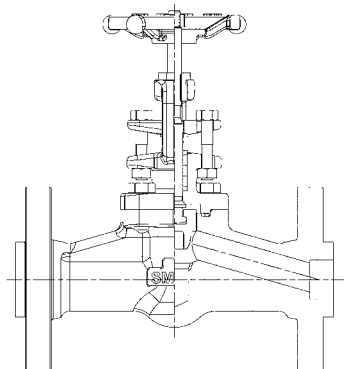
VALVE SIZE NPS (DN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.25	5.69	3.25	3.7
3/4	4.63	5.94	3.94	5.3
1	5.00	6.75	3.94	9.8
1 1/2	6.50	8.44	5.50	18.5
2	7.00	9.69	6.25	36.0



OG83

**CLASS 300 BOLTED BONNET GLOBE VALVE
FLANGED ENDS (IN.)**

VALVE SIZE NPS (DN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	6.00	6.31	4.00	7.3
3/4	7.00	6.50	4.00	11.0
1	8.00	7.19	4.00	14.5
1 1/2	9.00	8.88	4.63	31.0
2	10.50	10.63	6.63	41.2



OG86

**CLASS 600 BOLTED BONNET GLOBE VALVE
FLANGED ENDS (IN.)**

VALVE SIZE NPS (DN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	6.50	6.31	4.00	7.8
3/4	7.50	6.50	4.00	11.8
1	8.50	7.19	4.00	15.3
1 1/2	9.50	8.88	4.63	31.8
2	11.50	10.63	6.63	46.8

**G895
G259**

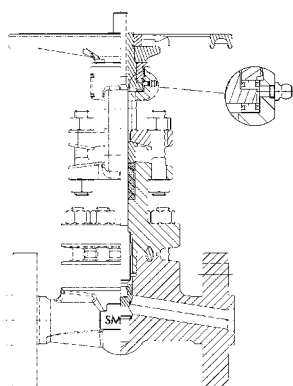
DIMENSIONAL DATA

Forged Globe OS&Y - Full Port

Sizes: 1/2" - 2"

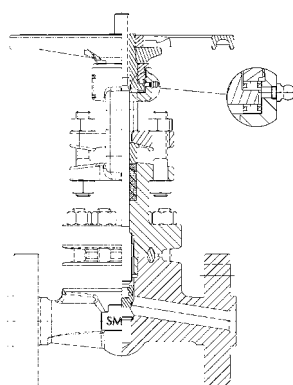
Pressure Class: 1500 / 2500

End Connections - Flanged



G895

CLASS 1500 BOLTED BONNET GLOBE VALVE FLANGED ENDS (IN.)				
VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	8.50	7.98	4.00	3.25
3/4	9.00	8.69	5.50	3.50
1	10.00	10.00	5.50	4.00
1 1/2	12.00	11.89	6.63	4.88
2	14.50	12.98	6.63	6.50



G259

CLASS 2500 BOLTED BONNET GLOBE VALVE FLANGED ENDS (IN.)				
VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	10.39	13.22	9.84	53.6
3/4	10.75	13.23	9.84	55.8
1	12.13	15.36	9.84	92.1
1 1/2	15.12	20.54	15.75	202.7

FG80 FG81

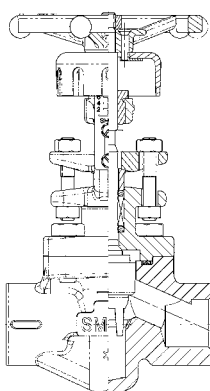
DIMENSIONAL DATA

Forged Globe OS&Y - Conventional Port

Sizes: 1/2" - 1"

Pressure Class: 150 / 800

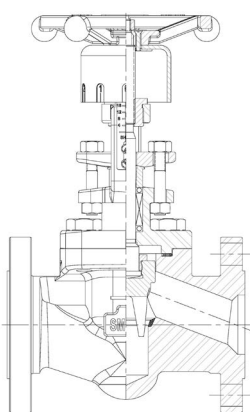
End Connections - Threaded, Socketweld or Flanged



FG80

**CLASS 800 BOLTED BONNET FLOW CONTROL GLOBE VALVE
THREADED or SOCKETWELD ENDS (IN.)**

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	3.25	6.50	4.00	4.3
3/4	3.50	6.58	4.00	5.3
1	4.50	6.71	4.00	7.0



FG81

**CLASS 150 BOLTED BONNET FLOW CONTROL GLOBE VALVE -
FLANGED ENDS (IN.)**

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.25	5.69	3.25	3.7
3/4	4.63	5.94	3.94	5.3
1	5.00	6.75	3.94	9.8
1 1/2	6.50	8.44	5.50	18.5
2	7.00	9.69	6.25	36.0

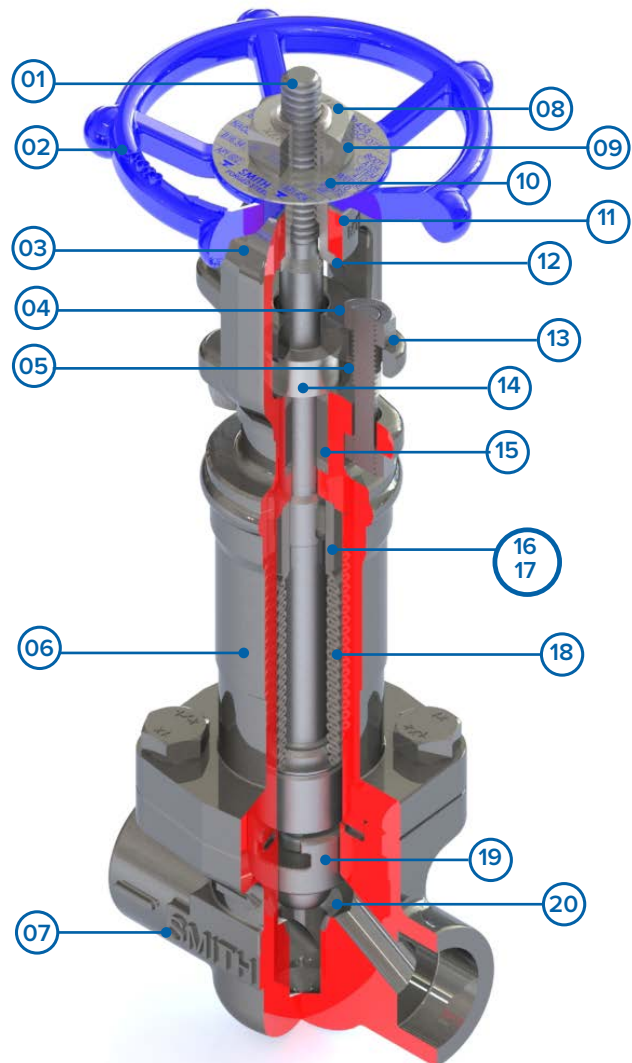
BELLOWS SEAL GLOBE VALVES



DESIGN & CONSTRUCTION

- API 602, ASME B16.34
- Bolted & welded bonnet
- Reduced port
- Threaded, Socketweld or Flanged ends class 150-600, 800, 1500
- Zero emissions
- Full strength weld
- Bonnet constructed of forged steel with integral backseat
- Nameplate serialized for full traceability
- API 622 and API 624 qualified packing for low emissions

- | | |
|----|----------------|
| 01 | STEM |
| 02 | HANDWHEEL |
| 03 | BONNET |
| 04 | GLAND STUD NUT |
| 05 | GLAND STUD |
| 06 | EXTENSION TUBE |
| 07 | BODY |
| 08 | HANDWHEEL NUT |
| 09 | LOCK WASHER |
| 10 | NAMEPLATE |
| 11 | THRUST WASHER |
| 12 | YOKE NUT |
| 13 | GLAND FLANGE |
| 14 | GLAND |
| 15 | PACKING |
| 16 | COLLAR |
| 17 | KEY |
| 18 | BELLOWS |
| 19 | WEDGE |
| 20 | SEAT RING |



BG80 BG87

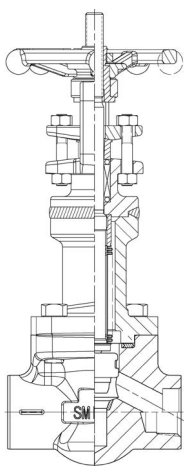
DIMENSIONAL DATA

Forged Globe OS&Y - Conventional Port

Sizes: 1/2" - 2"

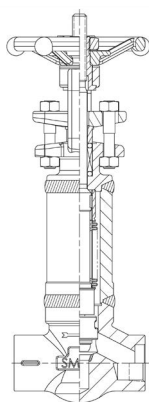
Pressure Class: 800

End Connections - Threaded or Socketweld



BG80

CLASS 800 BOLTED BONNET BELLOWS GLOBE VALVE THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	3.25	9.53	4.00	6.4
3/4	3.50	9.53	4.00	6.4
1	4.50	9.44	4.00	8.6
1 1/2	6.25	11.13	4.63	14.7
2	7.25	13.56	6.63	29.2



BG87

CLASS 800 WELDED BONNET BELLOWS GLOBE VALVE THREADED or SOCKETWELDS (IN.)				
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	3.25	9.27	4.00	4.5
3/4	3.50	9.35	4.00	5.1
1	4.50	9.45	4.00	6.9
1 1/2	6.25	10.77	4.63	15.1
2	7.25	13.89	6.63	19.3

BG15 BG17

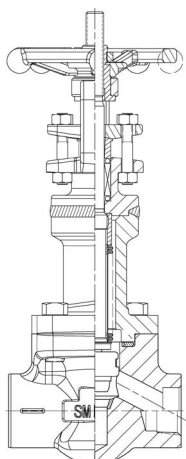
DIMENSIONAL DATA

Forged Globe OS&Y - Conventional Port

Sizes: 1/2" - 2"

Pressure Class: 1500

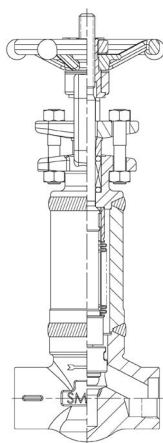
End Connections - Threaded or Socketweld



BG15

CLASS 1500 BOLTED BONNET BELLOWS GLOBE VALVE
THREADED or SOCKETWELD ENDS (IN.)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1	6.25	10.93	5.50	18.5
2	7.25	13.56	6.63	34.9



BG17

CLASS 1500 WELDED BONNET BELLOWS GLOBE VALVE
THREADED or SOCKETWELD ENDS (IN.)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	3.50	9.24	4.00	5.9
3/4	4.50	9.69	4.00	6.6

**BG81
BG71
BG83
BG73**

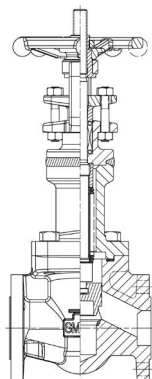
DIMENSIONAL DATA

Forged Globe OS&Y - Conventional Port

Sizes: 1/2" - 2"

Pressure Class: 150

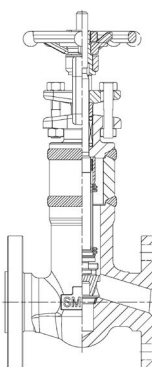
End Connections - Flanged



BG81

**CLASS 150 BOLTED BONNET BELLOWS GLOBE VALVE
FLANGED ENDS (IN.)**

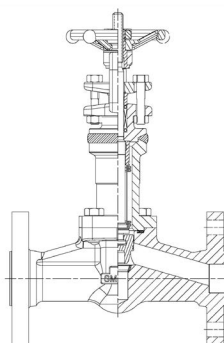
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.25	10.18	4.00	9.2
3/4	4.61	10.24	4.00	12.1
1	5.00	11.91	5.50	18.0
1 1/2	6.50	12.77	6.63	32.8
2	8.00	13.56	6.63	36.6



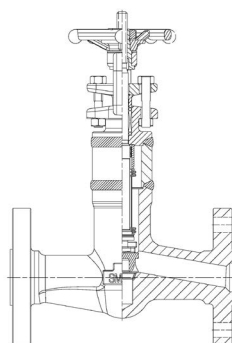
BG71

**CLASS 150 WELDED BONNET BELLOWS GLOBE VALVE
FLANGED ENDS (IN.)**

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.25	9.04	4.00	8.1
3/4	4.61	9.28	4.00	10.9
1	5.00	9.33	4.00	16.4
1 1/2	6.50	10.94	5.50	31.0
2	8.00	13.02	6.63	34.3



BG83



BG73

**CLASS 300 BOLTED / WELDED BONNET BELLOWS GLOBE VALVE
FLANGED ENDS (IN.)**

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	5.98	9.25	4.00	9.9
3/4	7.01	9.53	4.00	11.9
1	7.99	9.84	4.00	14.9
1 1/2	9.02	11.22	5.50	28.8
2	10.51	13.56	6.63	42.7

**BG86
BG76
BG89**

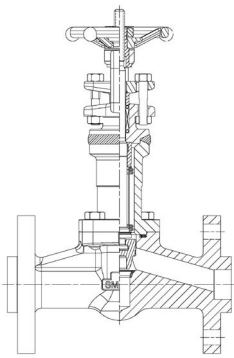
DIMENSIONAL DATA

Forged Globe OS&Y - Conventional Port

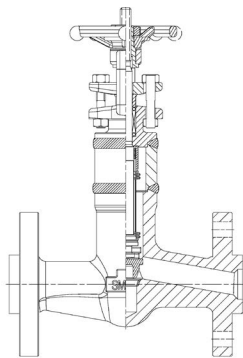
Sizes: 1/2" - 1"

Pressure Class: 600 / 1500

End Connections - Flanged



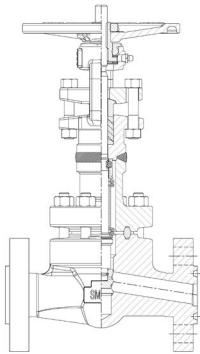
BG86



BG76

CLASS 600 BOLTED / WELDED BONNET BELLOWS GLOBE VALVE FLANGED ENDS (IN.)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	6.50	10.43	4.00	10.8
3/4	7.48	11.37	4.00	12.9
1	8.50	12.43	4.00	17.1
1 1/2	9.50	17.30	5.50	34.7
2	11.50	20.40	6.63	52.0



BG89

CLASS 1500 BOLTED BONNET BELLOWS GLOBE VALVE FLANGED ENDS (IN.)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1 1/2	12.01	18.17	9.84	93.7

BY15

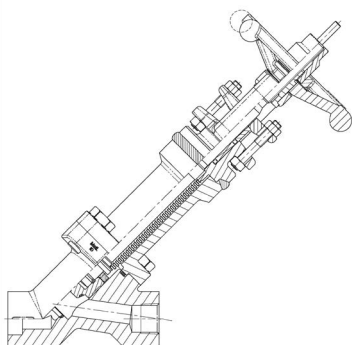
DIMENSIONAL DATA

Forged Globe OS&Y - Full Port

Sizes: 1/2" - 1"

Pressure Class: 1500

End Connections - Buttweld



BY15

CLASS 1500 BOLTED BONNET BELLOWS Y-PATTERN GLOBE VALVE
BUTTWELD ENDS (IN.)

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.72	7.87	4.00	7.2
3/4	5.12	10.31	5.50	11.2
1	7.17	14.21	6.63	27.5
1 1/2	7.68	13.93	6.63	35.9
2	7.68	13.72	6.63	35.1

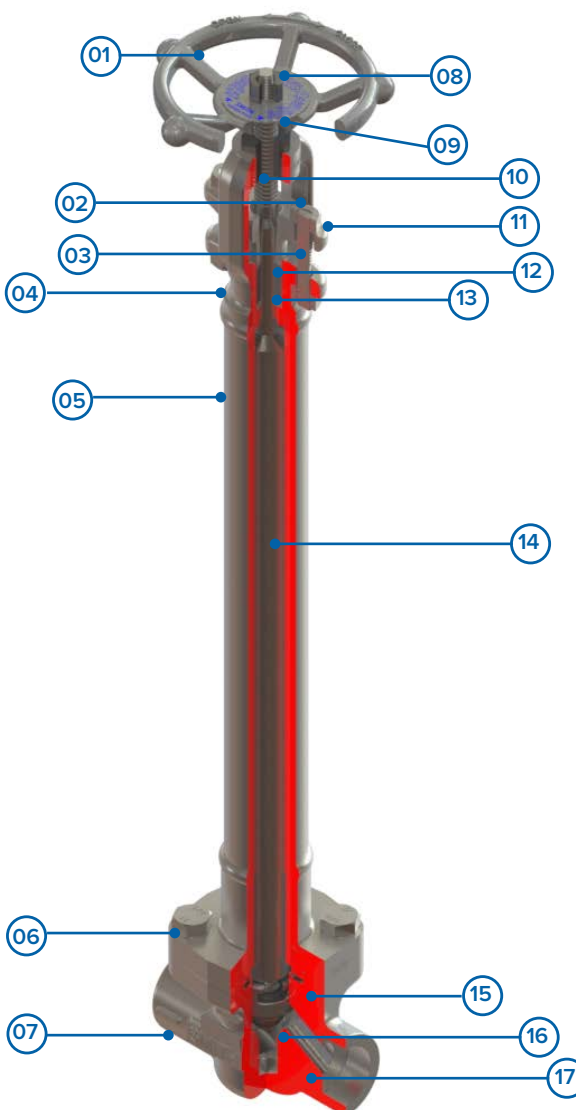
CRYOGENIC GLOBE VALVES

DESIGN & CONSTRUCTION

- API 602, ASME B16.34, MSS SP-134
- Tested in accordance to API 598
- Bolted & welded bonnet
- Conventional port
- Threaded, Socketweld, Flanged ends class 150-600 & 800
- Bonnet constructed of forged steel with integral backseat
- Nameplate serialized for full traceability
- API 622 and API 624 qualified packing for low emissions
- Optional degrease, clean and seal to prevent contamination



- | | |
|----|----------------|
| 01 | HANDWHEEL |
| 02 | GLAND STUD NUT |
| 03 | GLAND STUD |
| 04 | BONNET |
| 05 | EXTENSION TUBE |
| 06 | BONNET BOLT |
| 07 | BODY |
| 08 | HANDWHEEL NUT |
| 09 | NAMEPLATE |
| 10 | YOKE NUT |
| 11 | GLAND FLANGE |
| 12 | GLAND |
| 13 | PACKING |
| 14 | STEM |
| 15 | GASKET |
| 16 | DISC |
| 17 | SEAT |



**CG80
CG87**

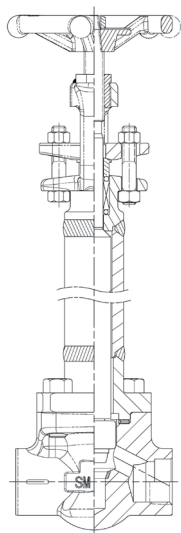
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

Sizes: 1/2" - 2"

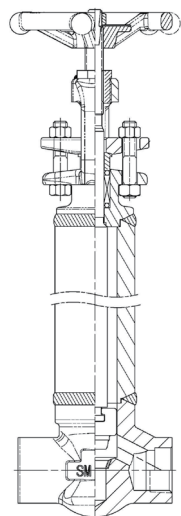
Pressure Class: 800

End Connections - Threaded or Socketweld



CG80

CLASS 800 BOLTED BONNET CRYOGENIC GLOBE VALVE THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	3.25	18.31	4.00	8.0
3/4	3.50	18.50	4.00	8.9
1	4.50	18.75	4.00	21.1
1 1/2	6.25	20.13	5.50	19.5
2	7.25	21.94	6.63	32.0



CG87

CLASS 800 WELDED BONNET CRYOGENIC GLOBE VALVE THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	3.25	18.38	4.00	10.9
3/4	3.50	18.56	4.00	12.6
1	4.50	18.81	4.00	16.4
1 1/2	6.25	20.06	5.50	24.2
2	7.25	22.12	6.63	38.3

**CG81
CG83
CG86**

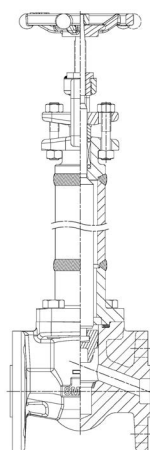
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

Sizes: 1/2" - 2"

Pressure Class: 150/300/600

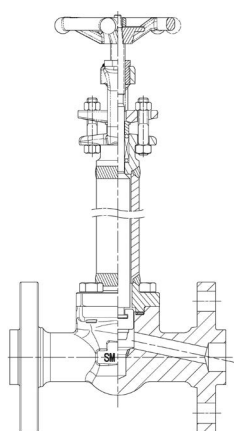
End Connections - Flanged



CG81

CLASS 150 BOLTED BONNET CRYOGENIC GLOBE VALVE FLANGED ENDS (IN.)

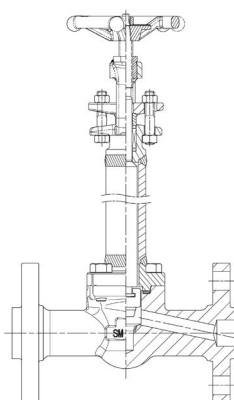
VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.25	18.88	4.00	10.8
3/4	4.63	19.06	4.00	13.3
1	5.00	20.25	4.00	15.2
1 1/2	6.50	21.12	5.50	25.0
2	7.00	23.00	6.63	42.2



CG83

CLASS 300 BOLTED BONNET CRYOGENIC GLOBE VALVE FLANGED ENDS (IN.)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	5.50	18.19	4.00	11.3
3/4	6.00	18.38	4.00	14.5
1	6.50	19.81	4.00	18.2
1 1/2	7.50	21.13	5.50	31.3
2	8.50	23.00	6.63	44.2



CG86

CLASS 600 BOLTED BONNET CRYOGENIC GLOBE VALVE FLANGED ENDS (IN.)

VALVE SIZE NPS (DIN)	FACE TO FACE	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	6.50	18.19	4.00	11.8
3/4	7.50	18.38	4.00	16.0
1	8.50	19.81	4.00	20.5
1 1/2	9.50	21.12	5.50	37.2
2	11.50	23.00	6.63	53.9

Y-PATTERN GLOBE VALVES

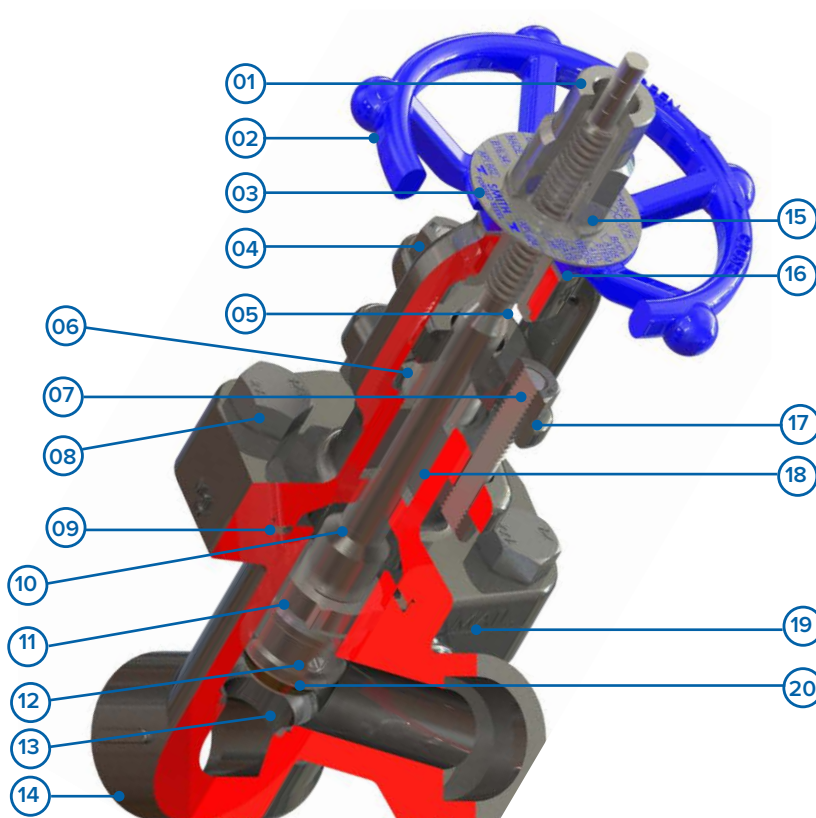
BOLTED OR WELDED BONNET



DESIGN & CONSTRUCTION

- API 602 & ASME B16.34
- Bolted bonnet & welded bonnet designs
- Conventional and Full port
- Threaded, Socketweld & Buttweld ends class 800 & 1500
- Nameplate serialized for full traceability
- API 622 and API 624 qualified packing for low emissions
- Integral Stellite Seat
- Non-rising handwheel
- Stem with position indicator

- 01 INDICATOR NUT
- 02 HANDWHEEL
- 03 NAMEPLATE
- 04 YOKE NUT
- 05 GLAND NUT
- 06 GLAND
- 07 GLAND BOLT
- 08 BONNET BOLT
- 09 GASKET
- 10 STEM
- 11 LOCK PLATE
- 12 DISC WIRE
- 13 SEAT HARD FACE
- 14 BODY
- 15 LOCK WASHER
- 16 THRUST WASHER
- 17 GLAND FLANGE
- 18 PACKING SET
- 19 BONNET
- 20 DISC



**YG80
YG87**

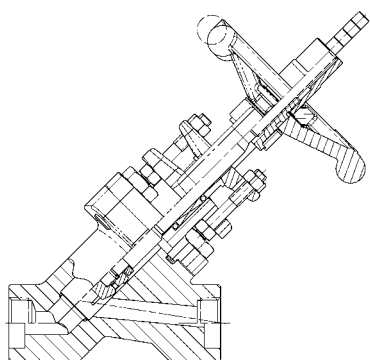
DIMENSIONAL DATA

Forged Globe OS&Y

Sizes: 1/2" - 2"

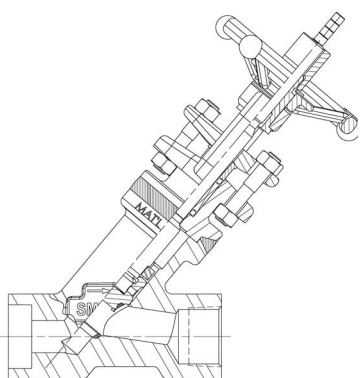
Pressure Class: 800

End Connections - Threaded or Socketweld



YG80

CLASS 800 BOLTED BONNET Y-PATTERN GLOBE VALVE - FULL PORT THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.72	6.23	4.0	5.8
3/4	4.72	6.23	4.0	5.7
1	5.12	7.52	5.5	9.0
1 1/2	7.17	10.12	6.6	20.4
2	7.68	10.75	6.6	26.0



YG87

CLASS 800 WELDED BONNET Y-PATTERN GLOBE VALVE - CONVENTIONAL PORT THREADED or SOCKETWELD ENDS (IN.)				
VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.72	6.23	4.0	5.8
3/4	4.72	6.23	4.0	5.7
1	5.12	7.52	5.5	9.0
1 1/2	7.17	10.12	6.6	20.4
2	7.68	10.75	6.6	26.0

**YG15
YG17**

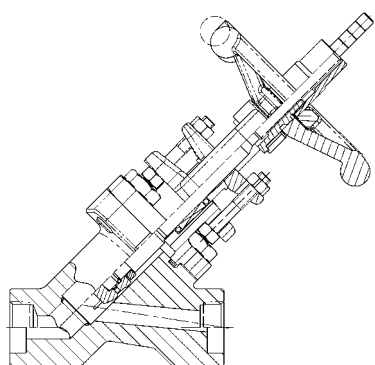
DIMENSIONAL DATA

Forged Globe OS&Y

Sizes: 1/2" - 2"

Pressure Class: 1500

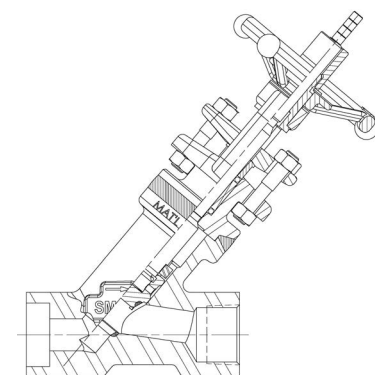
End Connections - Threaded or Socketweld



YG15

**CLASS 1500 BOLTED BONNET Y-PATTERN GLOBE VALVE - FULL PORT
THREADED or SOCKETWELD ENDS (IN.)**

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.72	6.23	4.0	5.8
3/4	4.72	6.23	4.0	5.7
1	5.12	7.52	5.5	9.0
1 1/2	7.17	10.12	6.6	20.4
2	7.68	10.75	6.6	26.0



YG17

**CLASS 1500 WELDED BONNET Y-PATTERN GLOBE VALVE - CONVENTIONAL PORT
THREADED or SOCKETWELD ENDS (IN.)**

VALVE SIZE NPS (DN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	4.72	6.23	4.0	5.8
3/4	4.72	6.23	4.0	5.7
1	5.12	7.52	5.5	9.0
1 1/2	7.17	10.12	6.6	20.4
2	7.68	10.75	6.6	26.0

Y-PATTERN GLOBE VALVES

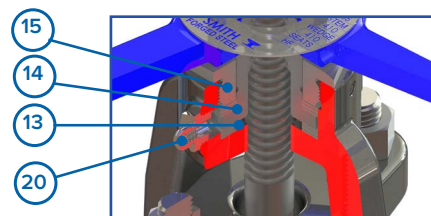
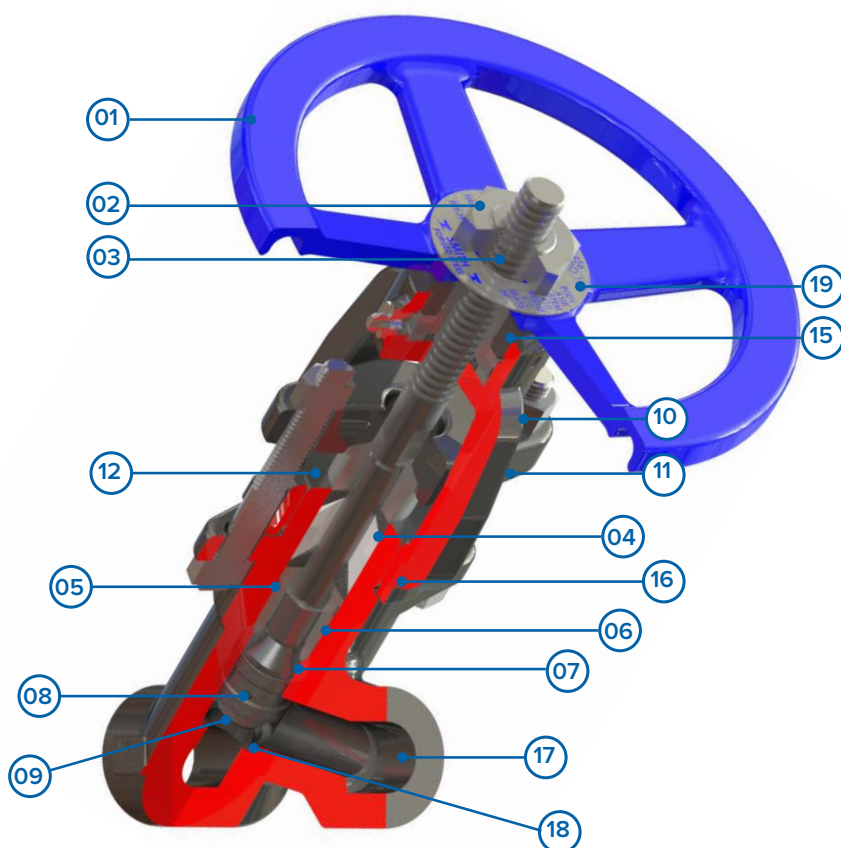
BONNETLESS DESIGN



DESIGN & CONSTRUCTION

- API 598 & ASME B16.34
- Bonnetless design
- Full port
- Threaded, Socketweld, Buttweld, ends class 1690, 2690 & 4500
- Bonnet constructed of forged steel with integral backseat
- Nameplate serialized for full traceability
- Non-rising handwheel

- 01 HANDWHEEL
- 02 HANDWHEEL NUT
- 03 STEM
- 04 PACKING
- 05 PACKING RING
- 06 BACK SEAT BUSHING
- 07 BACK SEAT RING
- 08 DISC WIRE
- 09 DISC
- 10 GLAND STUD NUT
- 11 GLAND FLANGE
- 12 GLAND BUSHING
- 13 THRUST BEARING
- 14 YOKE NUT
- 15 YOKE NUT RETAINER
- 16 YOKE
- 17 BODY
- 18 SEAT HARD FACE
- 19 NAMEPLATE
- 20 GREASE FITTING



**Y162
Y262
Y452**

DIMENSIONAL DATA

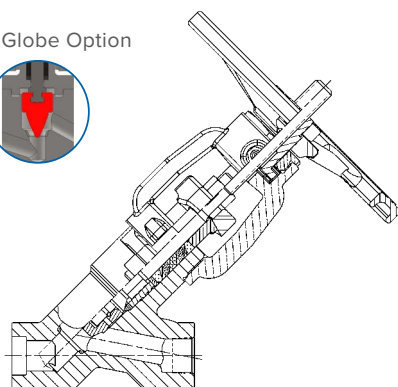
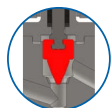
Forged Y-Globe OS&Y - Full Port

Sizes: 1/2" - 2"

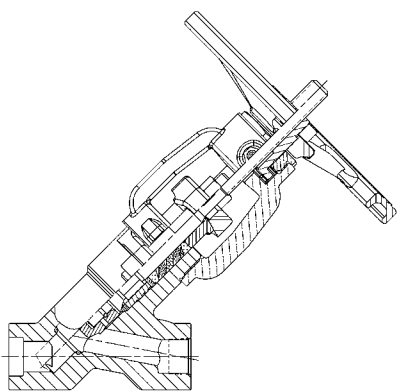
Pressure Class: 1690/2690/4500

End Connections - Threaded, Socketweld, or Buttweld

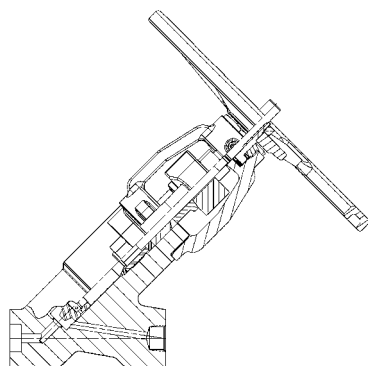
Needle Globe Option



Y162



Y262



Y452

CLASS 1690 BONNETLESS Y-PATTERN GLOBE VALVE THREADED, SOCKETWELD or BUTTWELD ENDS (IN.)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	5.51	11.3	9.8	22
3/4	5.51	11.3	9.8	22
1	6.30	11.9	9.8	27
1 1/4	8.27	17.6	15.7	85
1 1/2	8.27	17.6	15.7	85
2	10.24	21.3	19.7	138

CLASS 2690 BONNETLESS Y-PATTERN GLOBE VALVE THREADED, SOCKETWELD or BUTTWELD ENDS (IN.)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	5.51	11.3	9.8	22
3/4	5.51	11.3	9.8	22
1	6.30	11.9	9.8	27
1 1/4	8.27	17.6	15.7	85
1 1/2	8.27	17.6	15.7	85
2	10.24	21.3	19.7	138

CLASS 4500 BONNETLESS Y-PATTERN GLOBE VALVE SOCKETWELD or BUTTWELD ENDS (IN.)

VALVE SIZE NPS (DIN)	END TO END	CENTER TO TOP (OPEN)	HANDWHEEL DIAMETER	APPROX. WEIGHT LBS
1/2	8.27	17.6	15.7	89
3/4	8.27	17.6	15.7	89
1	10.24	21.3	19.7	145

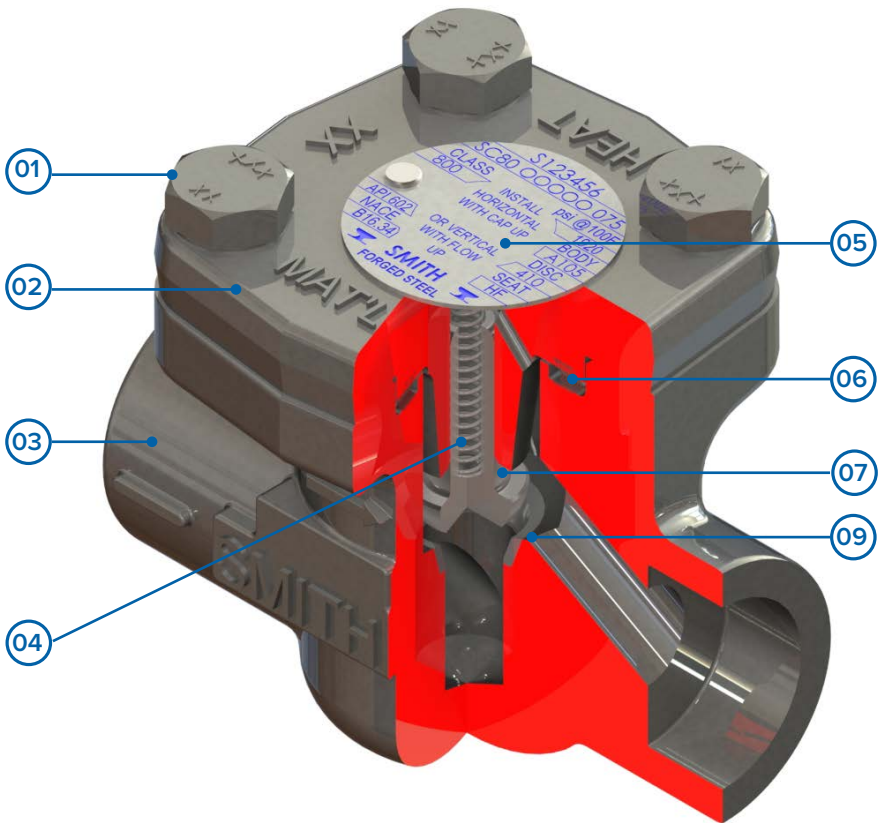
PISTON CHECK VALVES



DESIGN & CONSTRUCTION

Smith Piston Check Valves are available in non-spring loaded or spring loaded design in class 150-1500 and feature conventional ports. Available in bolted or welded caps with either threaded, socketweld or RF ends. All are manufactured in accordance with API 602 and ASME B16.34 standards.

- 01 BONNET BOLT
- 02 CAP
- 03 BODY
- 04 SPRING
- 05 NAMEPLATE
- 06 GASKET
- 07 PISTON
- 08 SEAT



OC80
SC80
OC87
SC87

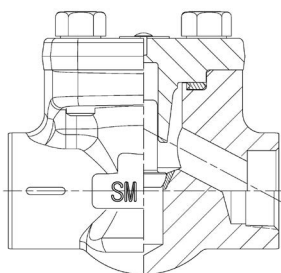
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

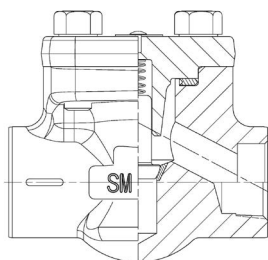
Sizes: 1/4" - 2"

Pressure Class: 800

End Connections - Threaded or Socketweld

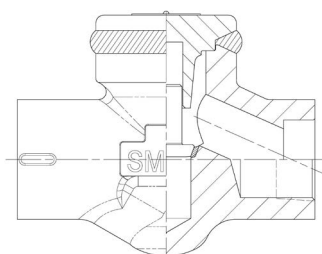


OC80

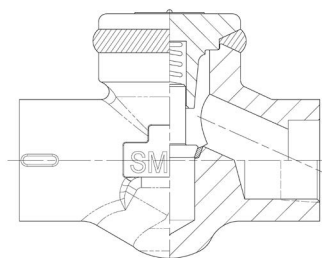


SC80

OC80/SC80 - CL800 BOLTED CAP PISTON CHECK THREADED or SOCKETWELD ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/4	3.25	2.00	2.50
3/8	3.25	2.00	2.50
1/2	3.25	2.00	2.30
3/4	3.50	2.25	3.30
1	4.50	2.25	5.00
1 1/4	6.25	2.88	10.50
1 1/2	6.25	2.88	10.00
2	7.25	3.56	18.30



OC87



SC87

OC87/SC87 - CL800 WELDED CAP PISTON CHECK THREADED or SOCKETWELD ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	3.25	1.88	2.00
3/4	3.50	2.13	2.90
1	4.50	2.19	4.50
1 1/2	6.25	2.76	9.00
2	7.25	3.56	16.40

**C150
SC15
C157
SC17**

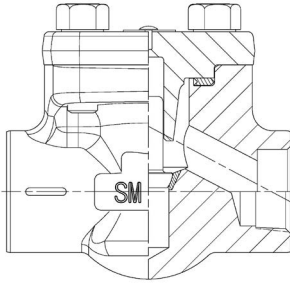
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

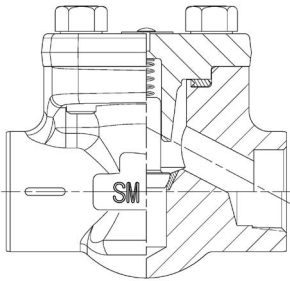
Sizes: 1/4" - 2"

Pressure Class: 1500

End Connections - Threaded or Socketweld

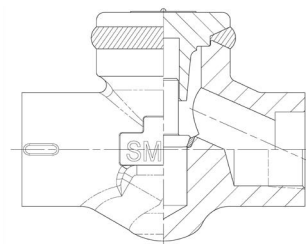


C150

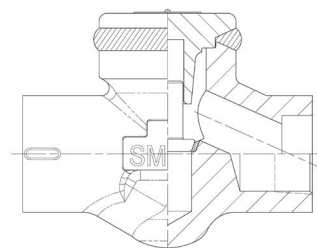


SC15

C150/SC15 - CL1500 BOLTED CAP PISTON CHECK THREADED or SOCKETWELD ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/4	3.50	2.38	4.80
3/8	3.50	2.38	4.80
1/2	3.50	2.38	4.50
3/4	4.50	2.44	7.00
1	6.25	3.13	12.80
1 1/4	7.25	3.94	22.50
1 1/2	7.25	3.91	22.20
2	7.25	4.50	26.50



C157



SC17

C157/SC57 - CL1500 WELDED CAP SPRING PISTON CHECK THREADED or SOCKETWELD ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	3.50	2.26	4.50
3/4	4.50	2.44	6.30
1	6.25	3.07	11.50
1 1/2	7.25	3.93	20.70
2	7.25	4.03	23.90

OC81
SC81
OC83
SC83

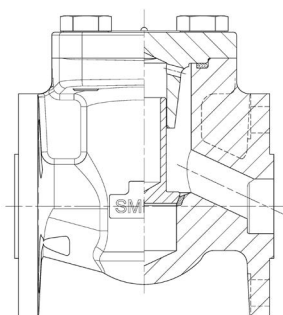
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

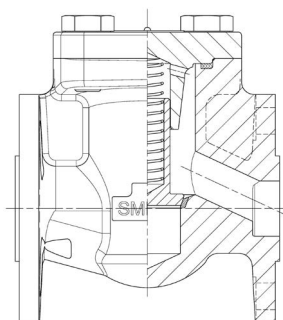
Sizes: 1/2" - 2"

Pressure Class: 150 and 300

End Connections - Flanged

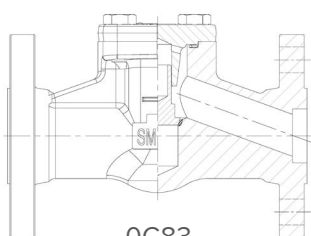


OC81

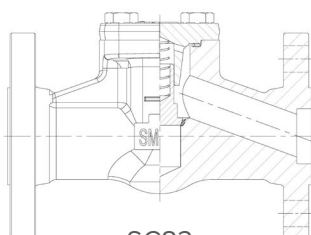


SC81

OC81/SC81 - CL150 BOLTED CAP PISTON CHECK FLANGED ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	4.25	2.83	4.40
3/4	4.61	3.00	5.50
1	5.00	3.66	8.80
1 1/2	6.50	4.37	17.60
2	8.00	3.58	24.10



OC83



SC83

OC83/SC83 - CL300 BOLTED CAP SPRING PISTON CHECK FLANGED ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	6.00	2.00	5.80
3/4	7.00	2.25	9.50
1	8.00	2.63	13.30
1 1/2	9.00	3.69	28.80
2	10.50	4.25	37.00

OC86
SC86
OC89
SC89

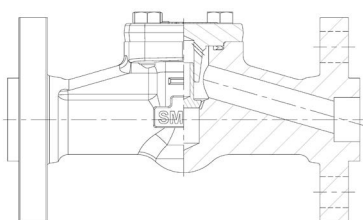
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

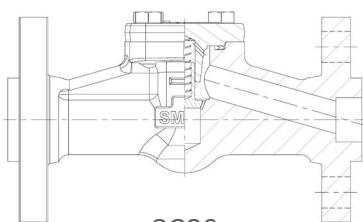
Sizes: 1/2" - 2"

Pressure Class: 600 and 1500

End Connections - Flanged



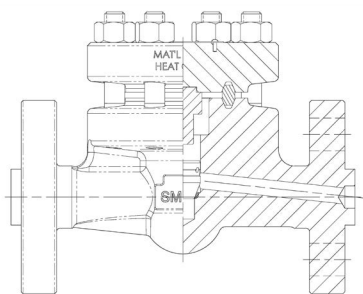
OC86



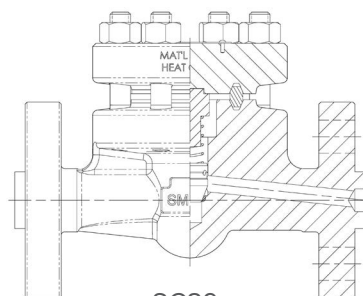
SC86

OC86/SC86 - CL600 BOLTED CAP PISTON CHECK
FLANGED ENDS (IN.)

VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	6.50	2.00	6.30
3/4	7.50	2.25	10.50
1	8.50	2.63	13.50
1 1/2	9.50	3.69	29.50
2	11.50	4.25	43.50



OC89



SC89

OC89/SC89 - CL1500 BOLTED CAP PISTON CHECK
FLANGED ENDS (IN.)

VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	8.50	4.56	23.00
3/4	9.00	4.56	25.90
1	10.00	4.93	37.80
1 1/2	12.01	6.52	71.10
2	14.49 (RF) 14.61 (RTJ)	7.77	131.90

SC29

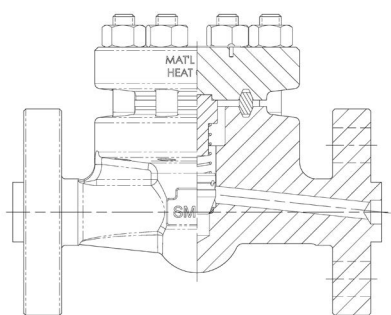
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

Sizes: 1/2" - 1"

Pressure Class: 2500

End Connections - Flanged



SC29

SC29 - CL2500 BOLTED CAP SPRING PISTON CHECK FLANGED ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	8.50	4.56	23.00
3/4	9.00	4.56	25.90
1	10.00	4.93	37.80
1 1/2	12.01	6.52	71.10
2	14.49 (RF) 14.61 (RTJ)	7.77	131.90

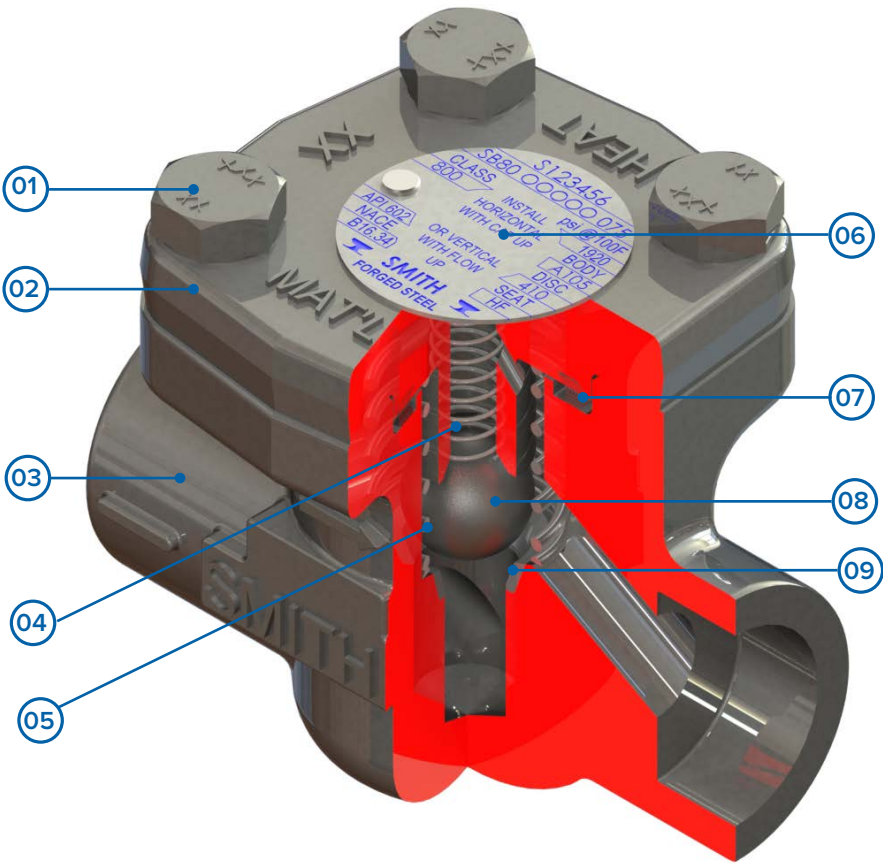
BALL CHECK VALVES



DESIGN & CONSTRUCTION

Smith Ball Check Valves are available in non-spring loaded or spring loaded design in Class 150-1500 and feature conventional ports. Available in bolted or welded caps with either threaded, socketweld or RF ends. All are manufactured in accordance with API 602 and ASME B16.34 standards.

- 01 BONNET BOLT
- 02 CAP
- 03 BODY
- 04 SPRING
- 05 CAGE
- 06 NAMEPLATE
- 07 GASKET
- 08 BALL
- 09 SEAT



**OB80
SB80
OB87
SB87**

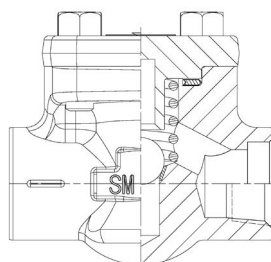
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

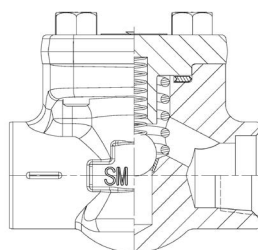
Sizes: 1/4" - 2"

Pressure Class: 800

End Connections - Threaded or Socketweld

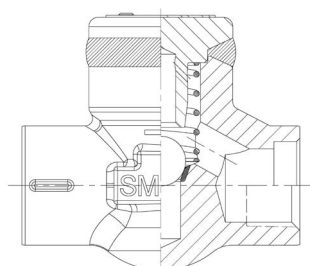


OB80

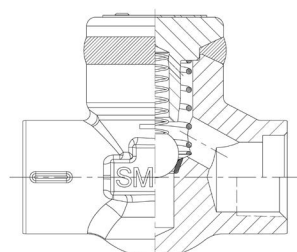


SB80

OB80/SB80 CL800 BOLTED CAP BALL CHECK THREADED or SOCKETWELD ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/4	3.25	2.00	2.50
3/8	3.25	2.00	2.50
1/2	3.25	2.00	2.30
3/4	3.50	2.25	3.30
1	4.50	2.25	5.00
1 1/4	6.25	2.88	10.50
1 1/2	6.25	2.88	10.00
2	7.25	3.56	18.30



OB87



SB87

OB87/SB87 CL800 WELDED CAP BALL CHECK THREADED or SOCKETWELD ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	3.25	1.88	2.00
3/4	3.50	2.13	2.90
1	4.50	2.19	4.50
1 1/2	6.25	2.76	9.00
2	7.25	3.56	16.40

**B150
SB15
OB17
SB17**

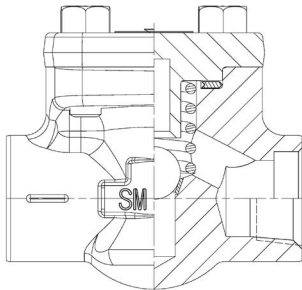
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

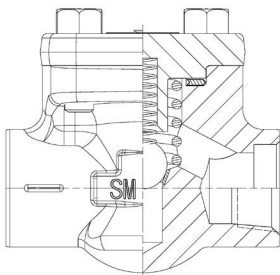
Sizes: 1/4" - 2"

Pressure Class: 1500

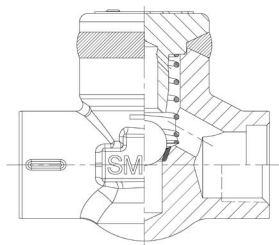
End Connections - Threaded or Socketweld



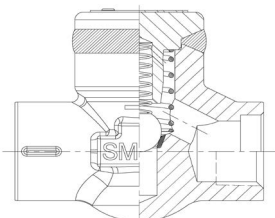
B150



SB15



OB17



SB17

**B150/SB15 - CL1500 BOLTED CAP BALL CHECK
THREADED or SOCKETWELD ENDS (IN.)**

VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/4	3.50	2.38	4.80
3/8	3.50	2.38	4.80
1/2	3.50	2.38	4.50
3/4	4.50	2.44	7.00
1	6.25	3.13	12.80
1 1/4	7.25	3.94	22.50
1 1/2	7.25	3.94	22.30
2	7.25	4.50	26.50

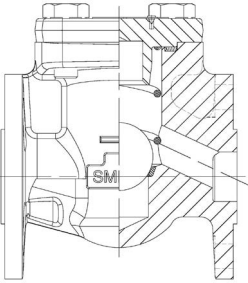
**OB17/SB17 - CL1500 WELDED CAP BALL CHECK
THREADED or SOCKETWELD ENDS (IN.)**

VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	3.50	2.26	4.10
3/4	4.50	2.44	6.30
1	6.25	3.07	11.50
1 1/2	7.25	3.93	20.70
2	7.25	4.03	23.90

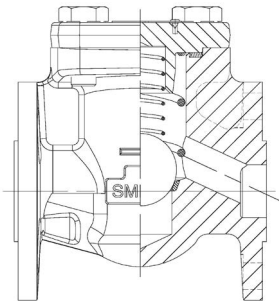
**OB81
SB81
OB83
SB83**

DIMENSIONAL DATA

Forged OS&Y - Conventional Port
 Sizes: 1/2" - 2"
 Pressure Class: 150 and 300
 End Connections - Flanged



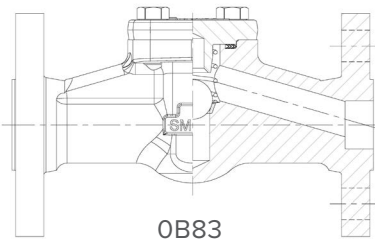
OB81



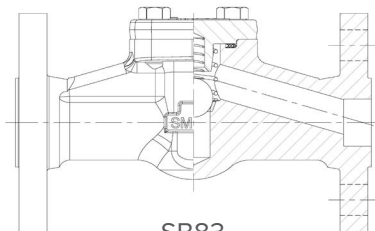
SB81

**OB81/SB81 - CL150 BOLTED CAP BALL CHECK
 FLANGED ENDS (IN.)**

VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	4.25	2.83	4.40
3/4	4.61	3.00	5.50
1	5.00	3.66	8.80
1 1/2	6.50	4.37	17.60



OB83



SB83

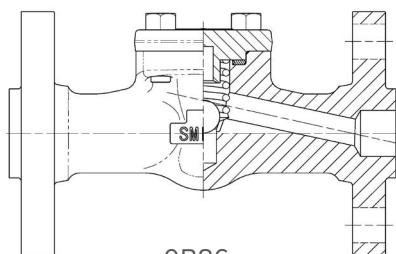
**OB83/SB83 - CL300 BOLTED CAP BALL CHECK
 FLANGED ENDS (IN.)**

VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	6.00	2.00	5.80
3/4	7.00	2.50	9.50
1	8.00	2.63	13.30
1 1/2	9.00	3.69	28.80
2	10.50	4.25	37.00

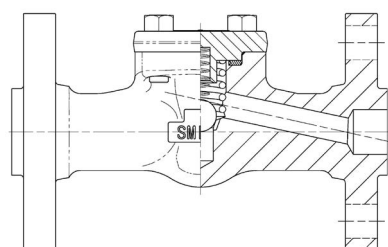
**OB86
SB86
OB89
SB89**

DIMENSIONAL DATA

Forged OS&Y - Conventional Port
 Sizes: 1/2" - 2"
 Pressure Class: 600 and 1500
 End Connections - Flanged

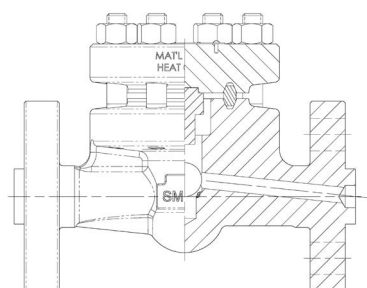


OB86

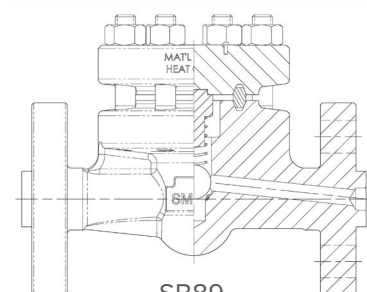


SB86

OB86/SB86 - CL600 BOLTED CAP BALL CHECK FLANGED ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	6.50	2.00	6.30
3/4	7.50	2.25	10.50
1	8.50	2.63	13.50
1 1/2	9.50	3.69	29.50
2	11.50	4.25	43.50



OB89



SB89

OB89/SB89 - CL1500 BOLTED CAP BALL CHECK FLANGED ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	8.50	4.56	23.0
3/4	9.00	4.56	25.9
1	10.00	4.93	37.8
1 1/2	12.01	6.52	71.1
2	14.49 (RF) 14.61 (RTJ)	7.77	131.9

SB29

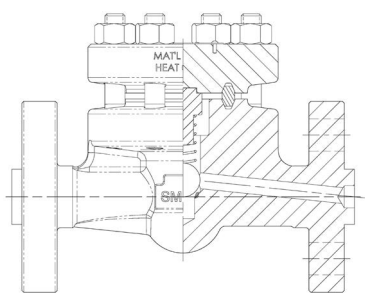
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

Sizes: 1/2" - 2"

Pressure Class: 2500

End Connections - Flanged



SB29

SB29 - CL2500 BOLTED CAP SPRING BALL CHECK FLANGED ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	8.50	4.56	23.0
3/4	9.00	4.56	25.9
1	10.00	4.93	37.8
1 1/2	12.01	6.52	71.1
2	14.49 (RF) 14.61 (RTJ)	7.77	131.9

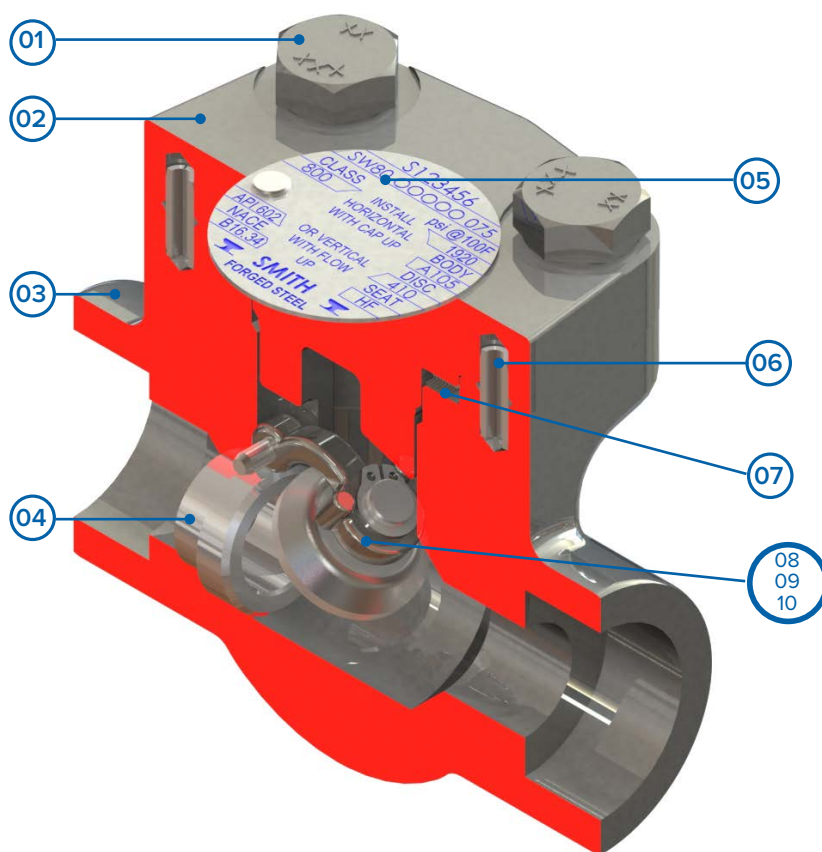
SWING CHECK VALVES



DESIGN & CONSTRUCTION

Smith Swing Check Valves are available in Class 150-600 & 800 and feature conventional ports with bolted caps. Available in either threaded, socketweld or RF ends. All are manufactured in accordance with API 602 and ASME B16.34 standards.

- 01 BONNET BOLT
- 02 CAP
- 03 BODY
- 04 RETAINING PIN
- 05 NAMEPLATE
- 06 SPRING PIN
- 07 GASKET
- 08 SEAT RING & DISC
- 09 HANGER
- 10 PIN



**SW80
SW81**

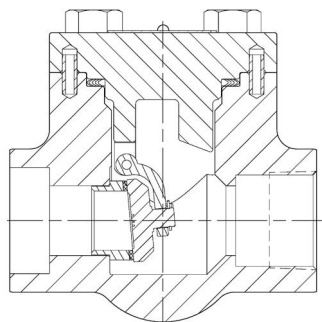
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

Sizes: 1/2" - 2

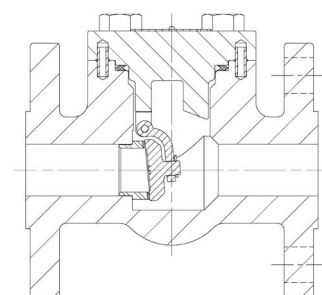
Pressure Class: 150, 800

End Connections - Threaded, Socketweld, Flanged



SW80

SW80 - CL800 BOLTED CAP SWING CHECK THREADED or SOCKETWELD ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	3.25	1.96	2.20
3/4	3.50	2.23	3.20
1	3.88	2.66	4.40
1 1/2	4.75	3.72	8.30
2	5.50	4.39	16.10



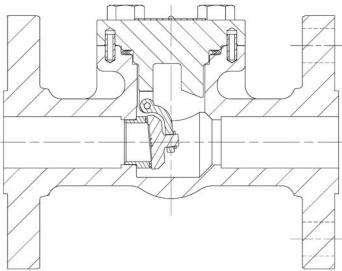
SW81

SW81 - CL150 BOLTED CAP SWING CHECK FLANGED ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	4.25	2.62	4.60
3/4	4.61	2.82	6.60
1	5.00	3.03	8.50
1 1/2	5.50	3.67	14.10
2	7.99	4.31	25.60

SW83 SW86

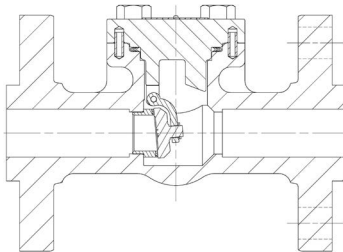
DIMENSIONAL DATA

Forged OS&Y - Conventional Port
 Sizes: 1/2" - 2"
 Pressure Class: 300 and 600
 End Connections - Flanged



SW83

SW83 - CL300 BOLTED CAP SWING CHECK FLANGED ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	5.98	1.93	5.40
3/4	7.01	2.20	8.70
1	7.99	2.63	11.90
1 1/2	9.02	3.67	23.50
2	10.51	4.31	33.40



SW86

SW86 - CL600 BOLTED CAP SWING CHECK FLANGED ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	6.50	1.93	5.90
3/4	7.48	2.20	9.30
1	8.50	2.63	12.70
1 1/2	9.49	3.67	26.20
2	11.50	4.31	37.50

UNION BALL CHECK VALVE

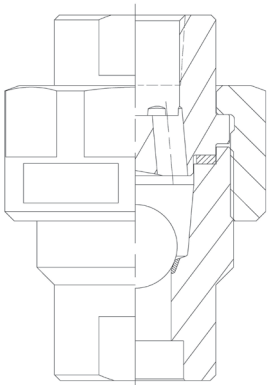
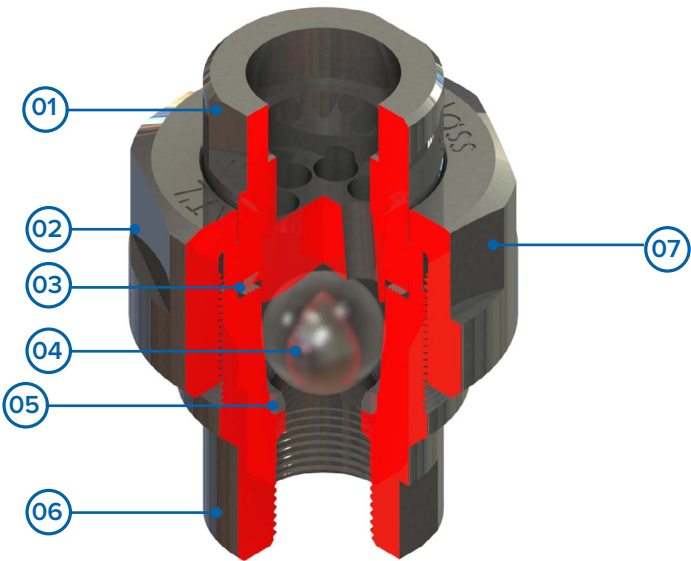
UB80



DESIGN & CONSTRUCTION

Smith vertical union cap check valves are available in Class 800 and feature conventional port with threaded caps. Available in either threaded or socketweld ends. All are manufactured in accordance with API 602 and ASME B16.34 standards. Tested to API 598

- 01 CAP
- 02 NAMEPLATE
- 03 GASKET
- 04 BALL
- 05 SEAT
- 06 BODY
- 07 THREADED LOCK NUT



UB80

CLASS 800 VERTICAL UNION BALL TYPE CHECK VALVE THREADED or SOCKETWELD ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	3.38	2.33	2.10
3/4	3.82	2.72	3.10

Y-PATTERN CHECK VALVES

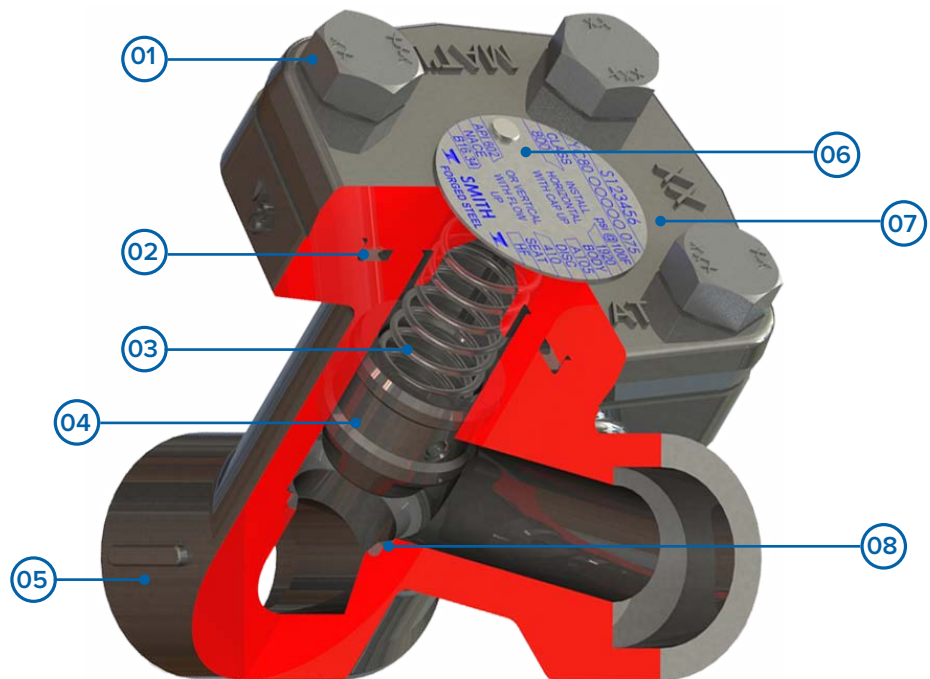
BOLTED / WELDED CAP



DESIGN & CONSTRUCTION

Smith Y-Pattern Piston & Ball Check Valves are available in Class 800, 1500. Available in bolted design in conventional port with either threaded or socketweld ends. All are manufactured in accordance with API 602 and ASME B16.34 standards.

- 01 BONNET BOLT
- 02 GASKET
- 03 SPRING
- 04 DISC
- 05 BODY
- 06 NAMEPLATE
- 07 CAP
- 08 SEAT



**YC80
YC87
YC15**

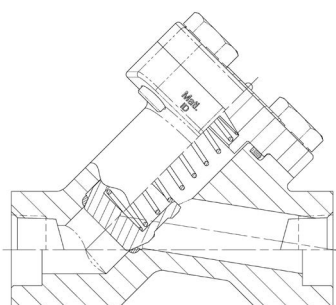
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

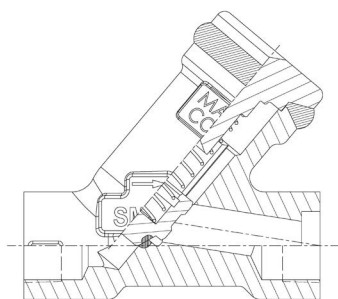
Sizes: 1/2" - 2"

Pressure Class: 800 and 1500

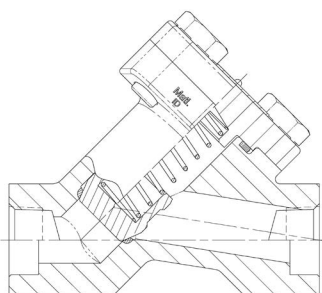
End Connections - Threaded or Socketweld



YC80



YC87



YC15

**YC80/YC87 - CL800 BOLTED / WELDED CAP Y-PATTERN PISTON CHECK
THREADED or SOCKETWELD ENDS (IN.)**

VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	4.72	3.25	4.10
3/4	4.72	3.24	3.80
1	5.12	3.78	5.60
1 1/2	7.17	5.14	14.50
2	7.68	5.62	19.40

**YC15 - CL1500 BOLTED CAP Y-PATTERN PISTON CHECK
THREADED or SOCKETWELD ENDS**

VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	4.72	3.38	4.50
3/4	5.12	3.89	6.40
1	7.17	5.27	17.70
1 1/2	7.68	6.00	24.80
2	7.68	6.02	24.00

**YB80
YB87
YB15**

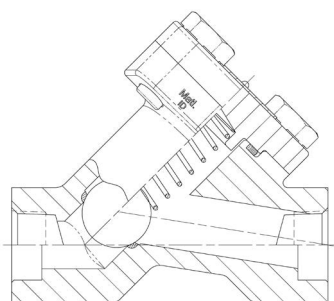
DIMENSIONAL DATA

Forged OS&Y - Conventional Port

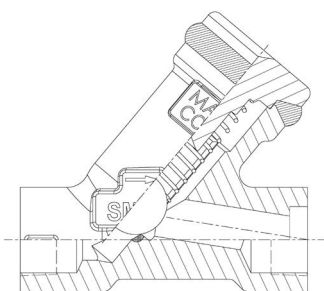
Sizes: 1/2" - 2"

Pressure Class: 800 and 1500

End Connections - Threaded or Socketweld



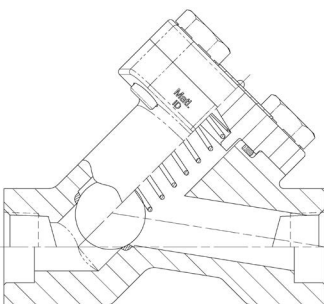
YB80



YB87

**YB80/YB87 - CL800 BOLTED / WELDED CAP Y-PATTERN PISTON CHECK
THREADED or SOCKETWELD ENDS (IN.)**

VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	4.72	3.25	4.10
3/4	4.72	3.24	3.80
1	5.12	3.78	5.60
1 1/2	7.17	5.14	14.80
2	7.68	5.62	19.90



YB15

**YB15 - CL1500 BOLTED CAP Y-PATTERN BALL CHECK
THREADED or SOCKETWELD ENDS**

VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT
1/2	4.72	3.25	4.10
3/4	5.12	3.24	3.80
1	7.17	3.78	5.60
1 1/2	7.68	5.14	14.80

Y-PATTERN CHECK VALVES

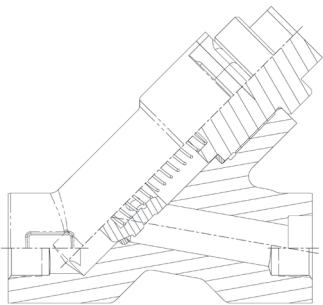
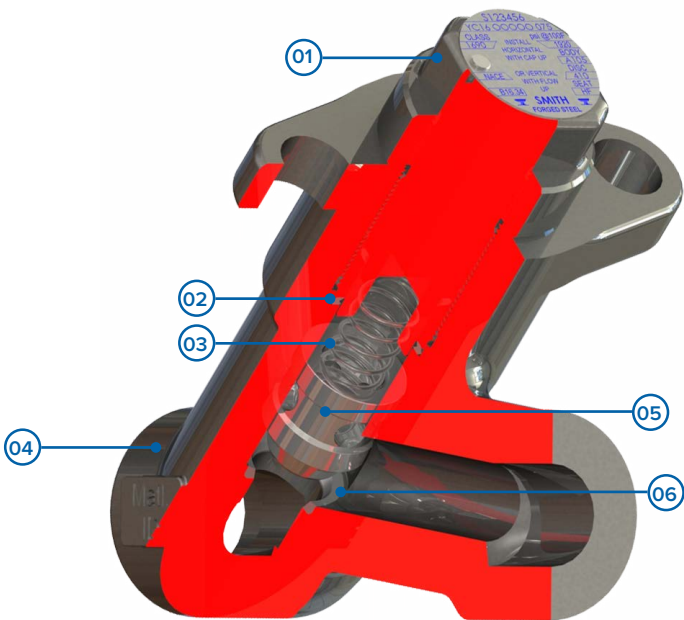
THREADED CAP



DESIGN & CONSTRUCTION

Smith Y-Pattern Piston Check Valves are available in Class 1690 & 2690. Available in conventional port with either threaded or socketweld ends. All are manufactured in accordance with API 602 and ASME B16.34 standards.

- 01 CAP
- 02 GASKET
- 03 SPRING
- 04 BODY
- 05 PISTON
- 06 SEAT



YC16/YC26 - CL1690/2690 THREADED CAP Y-PATTERN SPRING PISTON CHECK SOCKETWELD ENDS (IN.)			
VALVE SIZE NPS	END TO END	CENTER TO TOP	APPROX. WEIGHT LBS
1/2	5.51	4.53	8.00
3/4	5.51	4.53	20.00
1	6.30	5.01	19.40
1 1/2	8.27	7.12	28.00
2	10.24	9.52	51.00

Part Numbering System

Valve Material Option Codes

(PREFIX) + STYLE CODE
(Reference pages 72-73) + MATERIAL SELECTION
PER TABLE BELOW

C E B 8 0 0 O S O

	BODY/BONNET COVER	API TRIM #	TRIM MATERIAL			PACKING	SPRING ⁶
			STEM	WEDGE/DISC ⁷	SEAT ⁷		
A	A182-F51	A	10	316	316	A	GRAPHITE V-RINGS
B	A182-F347	B	11	MONEL	MONEL	B	
C	A182-F5	C		MONEL K500	MONEL	C	CHESTERTON 1600
D	A182-F316H	D	9	MONEL NACE	MONEL NACE	D	
E	B564-N10276	E		INCONEL 625	HF	E	GARLOCK EVSP 9000
F	B462-N08020	F	13	ALLOY 20	ALLOY 20	F	
G	A182-F9	G		317L	317L	G	
H	A182-F321	H		347H	HF	H	
I	A182-F347H	I		347H	347H	I	INCONEL X-750 ⁶
J	A182-F316DC	J		316H	316H	J	
K	A182-F11, CL.2	K		410 NACE	420 NACE	K	
L	A182-F317DC	L		321	HF	L	
M	B564-N06625	M		316H	HF	M	BRAIDED TFE
N	A182-F22, CL.3	N		304L	304L	N	
O	A105 ²	O	8	410	420	O	GRAPHITE W/BRAIDED ENDS ⁶ 302/316L ⁶
P	A182-F91	P		INCOLOY 825	HF	P	
Q	B564-N04400	Q	18	ALLOY 20	HF	Q	
R	A182-F304DC	R		F51	F51	R	
S	A105 ²	S	12	316	316	S	SLADE 3300G
T	A350-LF2, CL.1 ³	T	5	410	HF	T	
U	A350-LF2, CL.1 ³	U		F53	HF	U	
V	A182-F304H	V		304H	304H	V	TFE V-RINGS VACUUM
W	B564-N08825	W	16	316	HF	W	GARLOCK - GRAPHITE W/ CERAMIC RING
X	A182-F53	X		HAST - C276	HAST - C276	X	TFE V-RINGS
Y	A105 ²	Y		304H	HF	Y	
Z	***	Z	***	***	***	Z	***

1. For ASTM material specification, refer to EDC 001 for body/bonnet, EDC 006 for stem, EDC 005 for wedge/disc, EDC 004 for seat, EDC 019 for packing, EDC 011 for spring

2. For A105 Body/Bonnet/Cover use O for Standard service, S for HF acid service, and Y for NACE service.

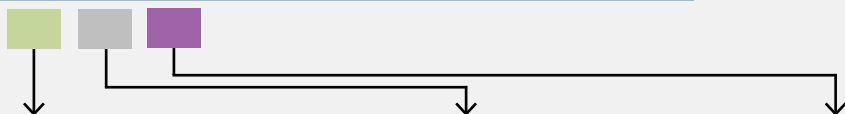
3. For A350-LF2, CL. 1 Body/Bonnet/Cover use T for Standard service, and U for NACE service.

4. For all welded valves, use "O" for the gasket code.

5. Wedges/discs base material shall be compatible with the pressure/temperature rating and at least equal in corrosion resistance as the body material.

+ VALVE SIZE - MANUFACTURING CODE
(See note 9)

G	W	1	0	0	-	#	#	#	#
---	---	---	---	---	---	---	---	---	---



GASKET		END CONNECTIONS		SIZE	
A	INCOLOY 825 + GRAPHITE	A	BWE SCH. 10	025	1/4 NPS / 8 DN
B	INCONEL 600/X750 + GRAPHITE	B	BWE SCH.20	037	3/8 NPS / 10 DN
C		C	BWE SCH. 40	050	1/2 NPS / 15 DN
D	INCONEL 600/X750 + TFE	D	BWE SCH. 80	075	3/4 NPS / 20 DN
E		E	BWE SCH.100	100	(1 NPS / 25 DN
F	ALLOY 20 + GRAPHITE	F	BWE SCH.160	125	1 1/4 NPS 40 DN
G	316 + GRAPHITE	G	BWE SCH. 180	150	1 1/2 / 40 DN
H	HAST - C276 + GRAPHITE	H	BWE SCH. XXS	200	2 NPS / 50 DN
I	347H + GRAPHITE	I		300	3 NPS / 80 DN)
J		J	RING TYPE JOINT (RTJ)		
K		K			
L	317L + GRAPHITE	L			
M	MONEL + GRAPHITE	M			
N		N			
O	316/316L + GRAPHITE OR NO GASKET ⁴	O	F- NPT THD RAISED FACE MALE EXTENSIONS		
P	X750 + THERMICULITE 835	P	PLAIN END FLANGE		
Q		Q	BRITISH (ISO 228) PARALLEL THD		
R		R	SW X REDUCED NPT		
S	METAL OCTAGONAL RING	S	NPT x REDUCED NPT		
T	316 + TFE	T			
U	304 + TFE	U	SOCKETWELD X F-NPT		
V	304L + GRAPHITE	V			
W		W	SOCKETWELD (SW)		
X	MONEL + TFE	X			
Y		Y	F-NPT X BUTTWELD		
Z	***	Z	***		

6. For spring loaded check valves only, the third digit of the material option code will represent the spring material. The letter "O" may be used for 302 or 316L stainless steel springs. 316L

7. HF = Stellite hardfaced overlay. For seats and wedges/discs where weld deposited facings are used, the base material is equal to the stem material or at least equal in corrosion

8. The grouping may be prefixed by "CE" to indicate compliance with the European Commission Pressure Equipment Directive 2014/68/EU.

9. For special requests, the grouping may also be suffixed with a MANUFACTURING CODE which will be separated from the rest of the valve figure number by a hyphen (-). New list of codes are added based on special customer requests and maintained in the Quality database. Check with Sales department for Manufacturing Code information not found here.

STYLE CODE INDEX

Gate Valves

Gate Valves				
Valve Style	Pressure Class	Flow Bore	Bonnet/Cover	End Connect
0800	800	CP	BB	THD, SWE, BWE
0870	800	CP	WB	THD, SWE, BWE
0888	800	FP	BB	THD, SWE
5870	800	FP	WB	THD, SWE
1500	1500	CP	BB	THD, SWE, BWE
1570	1500	CP	WB	THD, SWE, BWE
1588	1500	FP	BB	THD, SWE
1578	1500	FP	WB	THD, SWE
2578	2500	FP	WB	THD, SWE
0815	150	CP	BB	RF
0830	300	CP	BB	RF
0860	600	CP	BB	RF
5815	150	FP	BB	RF
5830	300	FP	BB	RF
0895	1500	FP	BB	RF
2595	2500	FP	BB	RF

Cryogenic Gate Valves				
Valve Style	Pressure Class	Flow Bore	Bonnet/Cover	End Connect
C800	800	CP	BB	THD, SWE
C870	800	CP	WB	THD, SWE
C815	150	CP	BB	RF
C830	300	CP	BB	RF
C860	600	CP	BB	RF

Bellows Seal Gate Valves				
Valve Style	Pressure Class	Flow Bore	Bonnet/Cover	End Connect
B800	800	CP	BB	THD, SWE
B870	800	CP	WB	THD, SWE
B888	800	FP	BB	THD, SWE
B815	150	CP	BB	RF
B830	300	CP	BB	RF
B860	600	CP	BB	RF
B817	150	CP	WB	RF
B837	300	CP	WB	RF
B867	600	CP	WB	RF
B811	800	CP	BB	Male Thread x Female Thread
B812	800	CP	BB	Male Plain x Female Thread
B813	800	CP	BB	Male Thread x Female S/W
B814	800	CP	BB	Male Plain x Female S/w
B876	800	CP	WB	Male Thread x Female Thread
B877	800	CP	WB	Male Plain x Female Thread
B878	800	CP	WB	Male Thread x Female S/W
B879	800	CP	WB	Male Plain x Female S/w
B874	800	CP	BB	Integrally Reinforced Extended Body (IREB)
B875	800	CP	WB	Integrally Reinforced Extended Body (IREB)

Extended Body Gate Valves				
Valve Style	Pressure Class	Flow Bore	Bonnet/Cover	End Connect
0811	800	CP	BB	Male Thread x Female Thread
0812	800	CP	BB	Male Plain x Female Thread
0813	800	CP	BB	Male Thread x Female S/W
0814	800	CP	BB	Male Plain x Female S/W
0876	800	CP	WB	Male Thread x Female Thread
0877	800	CP	WB	Male Plain x Female Thread
0878	800	CP	WB	Male Thread x Female S/W
0879	800	CP	WB	Male Plain x Female S/W
0874	800	CP	BB	Integrally Reinforced Extended Body (IREB)
0875	800	CP	WB	Integrally Reinforced Extended Body (IREB)

Globe Valves

Globe Valves				
Valve Style	Pressure Class	Flow Bore	Bonnet/ Cover	End Connect / Notes
OG80	800	CP	BB	THD, SWE
OG87	800	CP	WB	THD, SWE
NG80	800	CP	BB	NEEDLE GLOBE
NG87	800	CP	WB	NEEDLE GLOBE
G150	1500	CP	BB	THD, SWE
G157	1500	CP	WB	THD, SWE
OG81	150	CP	BB	RF
OG83	300	CP	BB	RF
OG86	600	CP	BB	RF
G895	1500	FP	BB	RF
G259	2500	CP	BB	RF
FG80	800	CP	BB	THD, SWE, RF
FG81	150	CP	BB	THD, SWE, RF

Y-Pattern Globe Valves				
Valve Style	Pressure Class	Flow Bore	Bonnet/ Cover	End Connect
YG80	800	FP	BB	THD, SWE
YG87	800	CP	WB	THD, SWE
YG15	1500	FP	BB	THD, SWE
YG17	1500	CP	WB	THD, SWE
Y162	1690	FP	Bonnetless	THD, SWE, BWE
Y262	2690	FP	Bonnetless	THD, SWE, BWE
Y452	4500	FP	Bonnetless	THD, SWE, BWE

Bellows Seal Globe Valves				
Valve Style	Pressure Class	Flow Bore	Bonnet/ Cover	End Connect/ Notes
BG80	800	CP	BB	THD, SWE
BG87	800	CP	WB	THD, SWE
BG15	1500	CP	BB	THS, SWE
BG17	1500	CP	WB	THD, SWE
BG81	150	CP	BB	RF
BG71	150	CP	WB	RF
BG83	300	CP	BB	RF
BG73	300	CP	WB	RF
BG86	600	CP	BB	RF
BG76	600	CP	WB	RF
BG89	1500	CP	BB	RF
BY15	1500	FP	BB	BWE / Y-Pattern

Cryogenic Globe Valves				
Valve Style	Pressure Class	Flow Bore	Bonnet/ Cover	End Connect
CG80	800	CP	BB	THD, SWE
CG87	800	CP	WB	THD, SWE
CG81	150	CP	BB	RF
CG83	300	CP	BB	RF
CG86	600	CP	BB	RF

Check Valves *All check valves available in conventional port only

Piston Check Valves			
Valve Style	Pressure Class	Bonnet/ Cover	End Connect
OC80	800	BC	THD, SWE
SC80	800	BC	THD, SWE
OC87	800	WC	THD, SWE
SC87	800	WC	THD, SWE
C150	1500	BC	THD, SWE
SC15	1500	BC	THD, SWE
C157	1500	WC	THD, SWE
SC17	1500	WC	THD, SWE
OC81	150	BC	RF
SC81	150	BC	RF
OC83	300	BC	RF
SC83	300	BC	RF
OC86	60	BC	RF
SC86	600	BC	RF
OC89	1500	BC	RF
SC89	1500	BC	RF
SC29	2500	BC	RF

Ball Check Valves			
Valve Style	Pressure Class	Bonnet/ Cover	End Connect
OB80	800	BC	THD, SWE
SB80	800	BC	THD, SWE
OB87	800	WC	THD, SWE
SB87	800	WC	THD, SWE
B150	1500	BC	THD, SWE
SB15	1500	BC	THD, SWE
OB17	1500	WC	THD, SWE
SB17	1500	WC	THD, SWE
OB81	150	BC	RF
SB81	150	BC	RF
OB83	300	BC	RF
SB83	300	BC	RF
OB86	600	BC	RF
SB86	600	BC	RF
OB89	1500	BC	RF
SB89	1500	BC	RF
SB29	2500	BC	RF

Swing Check Valves			
Valve Style	Pressure Class	Bonnet/ Cover	End Connect
SW80	800	BC	THD, SWE, RF
SW81	150	BC	THD, SWE, RF
SW83	300	BC	RF
SW86	600	BC	RF

Union Ball Check Valves			
Valve Style	Pressure Class	Bonnet/ Cover	End Connect
UB80	800	Vertical	THD, SWE

Y-Pattern Check Valves			
Valve Style	Pressure Class	Bonnet/ Cover	End Connect
YC80	800	BC	THD, SWE
YC87	800	WC	THD, SWE
YC15	1500	BC	THD, SWE
YB80	800	BC	THD, SWE
YB87	800	WC	THD, SWE
YB15	1500	BC	THD, SWE
YC16	1690	TC	THD, SWE
YC26	2690	TC	THD, SWE

HANDWHEEL COLOR CODING

Unique color coding for gate & globe valves. Handwheel color indicates body-bonnet material or special packing.

BLUE ASTM A105 Carbon Steel
WHITE ASTM 182 F5 5 Cr, 1/2 Mo
PURPLE MONEL
YELLOW ASTM A182 F11 1 1/4, Cr, 1/2 Mo
GREEN ASTM 182 F9 9 Cr, 1 Mo
ORANGE ASTM A350 LF2 Low Temp
PINK F20 (ALLOY 20)
SILVER ASTM A182 F316 ASTM A182 F316L 316 SS
BROWN ASTM A182 F22 2 1/2 Cr, 1 Mo
RED Teflon Packing Gaskets or Seals 500F/250C Max Temp



Stainless steel nameplate color indicates trim material (gate, globe, check)



13 Cr Stainless
Soft Stem, Wedge &
Seats per NACE



316 Stainless Steel Trim



Standard 13 Cr Trim,
Stem, Wedge
Hard-Faced Seat Rings



Special Trim



Monel Trim

75



SMITH VALVES

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