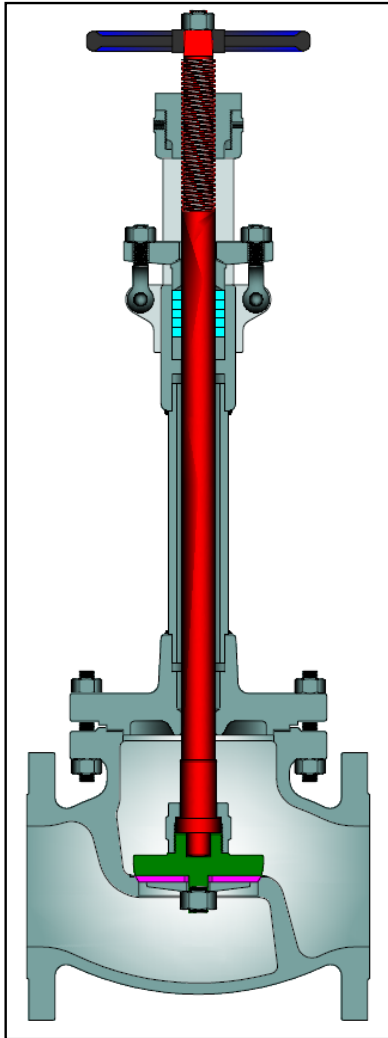


ASME B16.34 GLOBE VALVES

BOLTED BONNET, ASME CLASSES 150 - 300
 6" - 12" (150 - 300mm), FLANGED OR BUTTWELD ENDS
 CAST STAINLESS STEEL



Class	Fig. No.
150	2475
300	2447

STANDARD MATERIALS (Other materials available)

PART	MATERIALS
Body	A351 Gr. CF8M (1)
Bonnet	A351 Gr. CF8M
Yoke	A351 Gr. CF8M
Disc or Disc Holder (2)	A276 316
Disc Insert (2)	PCTFE
Disc Washer (2)	SST 316
Disc Insert Nut (2)	A194 Gr. 8
Disc Locknut	A276 316
Stem	A276 316
Stem Bushing	A439 D-2
Gland Flange	A351 Gr. CF8
Eye Bolt	A193 Gr. B8
Eye Bolt Nut	A194 Gr.8
Gland	A276 316
Packing	PTFE
Packing Washer / Packing Spacer	A276 316
Gasket	Graphite
Extension Column	SST 304
Hand Wheel	Malleable Iron or Steel
Hand Wheel Nut	Steel
Body / Bonnet Stud	A193 Gr. B8
Body / Bonnet Nut	A194 Gr.8
Identification Plate	Series 300 SST

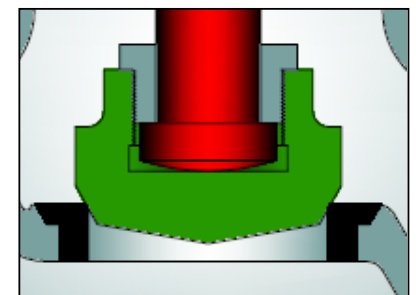
1. CF3M for weld end bodies.
2. Soft seat design.

Design Specifications

Item	Applicable Specification
Wall thickness	ASME B16.34
Pressure - temperature ratings	ASME B16.34
General valve design	B16.34
End to End dimensions	ASME B16.10
Flange design	ASME B16.5
Butt Weld design	ASME B16.25
Materials	ASTM

DESIGN FEATURES:

- Seat face: Ground and lapped to a smooth finish.
- Body and bonnet joint accurately machined.
- Swivel disc for optimal seating and longer seat life.
- Stems of hand wheel operated design are rotating / rising design.
- Each valve is shell, seat and backseat pressure tested.
- Integral seats are standard. Renewable seat rings available on special order.
- Gland has two-piece construction for easy alignment.
- Weld ends are available per ASME B16.25 or per customer's specification.
- Flanges:
 - Classes 150-300: 1/16" raised face.
 - Finish 125-250 AARH for all valves.
- Valves are specially cleaned and processed for oxygen or cryogenic service and are then sealed to prevent contamination.
- Each valve has a unique certification number that is traceable to the valve certification sheet which includes MTR data, pressure test, inspection result and certificate of conformance.
- Heavier walled API 600 design available.
- Other available options as follows:
 - » Alternate valve materials
 - » Alternate trim materials
 - » Non-extended design
 - » Other options available as specified

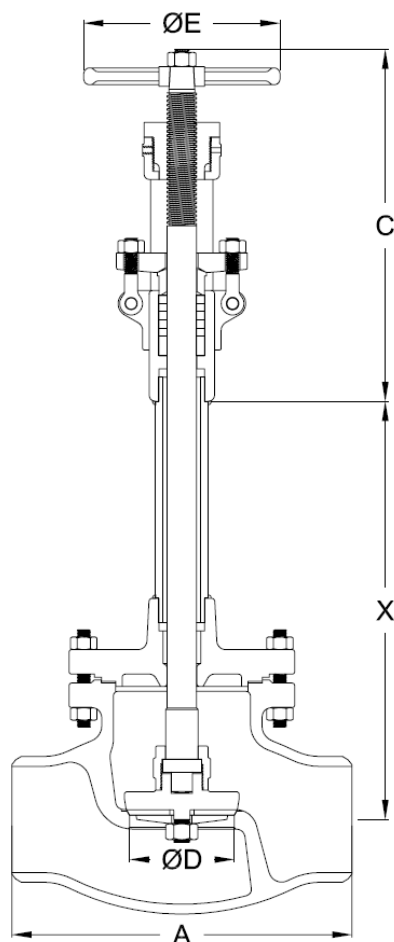


Metal Disc

GLOBE VALVE DIMENSIONS (CLASSES 150 - 300)

SIZE	ASME 150										ASME 300											
	in	A	C	D	E	X (1)	WT	lb	WT	lb	C_v	A	C	D	E	X (1)	WT	lb	WT	lb	C_v	
							FE	kg	WE	kg							FE	kg	WE	kg		
6	16.0	18.5	6.0	15.8	20.0		241		197		480	17.5	18.5	6.00	17.7	20.0		352		283		480
150	406	470	152	400	508		109		89			445	470	152	450	508		160		128		
8	19.5	18.5	8.0	17.7	24.0		266		225		880	See Powell Engineering for More Information										
200	495	470	203	450	610		121		102													
10	24.5	19.5	10.0	21.7	28.0		433		362		1370											
250	622	495	254	550	711		196		164													
12	27.5	25.6	12.0	23.6	28.0		575		560		2050											
300	699	650	305	600	711		261		254													

(1) Other extensions available. Consult Powell Engineering.



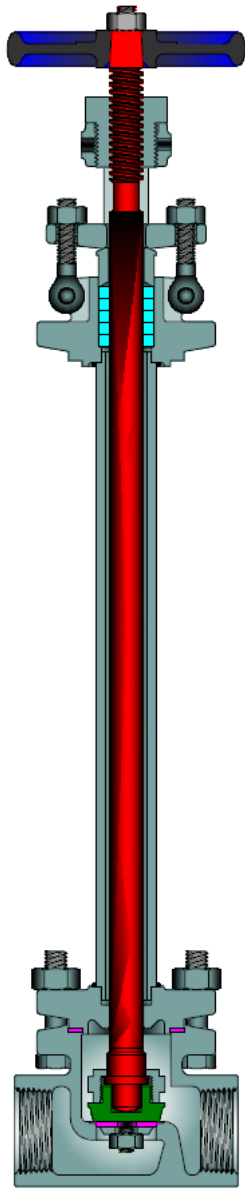
Weld End Design

C = Bottom of yoke flange to top open
X = Center to bottom of yoke flange (Std)

FE = Flanged ends
WE = Buttweld ends
WT = Weight
 C_v = Flow coefficient

ASME B16.34 GLOBE VALVES

BOLTED BONNET, ASME CLASSES 200 - 600
 1/4" - 2" (6 - 50mm), THREADED OR SOCKET WELD ENDS
 CAST STAINLESS STEEL



STANDARD MATERIALS (Other materials available)

PART	MATERIALS
Body	A351 Gr. CF3M
Bonnet	A351 Gr. CF8M
Yoke	A351 Gr. CF8M
Disc or Disc Holder (2)	A276 316
Disc Insert (2)	PCTFE
Disc Washer (2)	SST 316
Disc Insert Nut (2)	A194 Gr. 8
Disc Locknut	A276 316
Stem	A276 316
Gland Flange	A351 Gr. CF8
Eye Bolt	A193 Gr. B8
Eye Bolt Nut	A194 Gr. 8
Gland	A276 316
Packing	PTFE
Gasket	Graphite
Extension Column	SST 304
Hand Wheel	Malleable Iron or Steel
Hand Wheel Nut	Steel
Stem Bushing	A582 416
Body / Bonnet Bolt	A193 Gr. B8
Body / Bonnet Nut	A194 Gr.8
Set Screw	Steel
Identification Plate	Series 300 SST

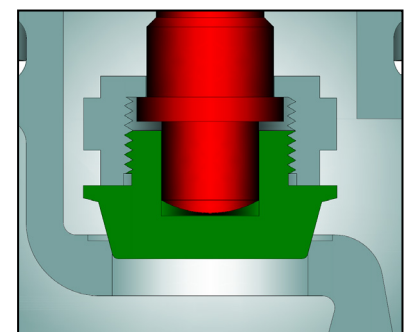
DESIGN FEATURES:

- Seat face: Ground and lapped to a smooth finish.
- Body and bonnet joint accurately machined.
- Swivel disc for optimal seating and longer seat life .
- Stems are rotating / rising design.
- Each valve is shell, seat and backseat pressure tested.
- Body and bonnet castings are precision machined.
- Gland has two-piece construction for easy alignment.
- Valves are specially cleaned and processed for oxygen or cryogenic service and are then sealed to prevent contamination.
- Each valve has a unique certification number that is traceable to the valve certification sheet which includes MTR data, pressure test, inspection result and certificate of conformance.
- Other available options as follows:
 - » Alternate valve materials
 - » Alternate trim materials
 - » Non-extended design
 - » Other options available as specified

1. See pages 33-34 for flanged and butt-weld designs.
2. Soft seat design.

Design Specifications

Item	Applicable Specification
Wall thickness	ASME B16.34
Pressure - temperature ratings	ASME B16.34
General valve design	ASME B16.34
End Threads-NPT	ASME B1.20.1
Socket Weld Ends	ASME B16.11
Materials	ASTM



Metal Disc

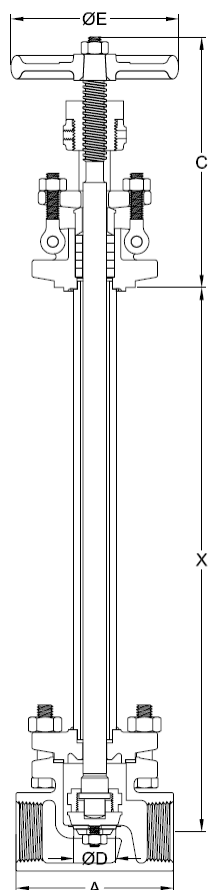
Class	Fig. No.
150	2474
300	2447 (1)
600	1983 (1)

NOTE: Powell reserves the right to convert threaded ends to socket weld when needed, which will result in thread remnants as pipe stop.

GLOBE VALVE DIMENSIONS (CLASSES 200 - 600)

SIZE	ASME 200							ASME 300								
	A	C	D	E	X (1)	WT	$\frac{lb}{kg}$	C_v	A	C	D	E	X (1)	WT	$\frac{lb}{kg}$	C_v
¼	2.88	5.5	0.50	3.0	12.0	5.3		2.5	2.88	5.5	0.50	3.0	12.0	5.4		2.5
7	73	140	13	76	305	2.4			73	140	13	76	305	2.4		
3/8	2.88	5.5	0.50	3.0	12.0	5.3		2.5	2.88	5.5	0.50	3.0	12.0	5.4		2.5
10	73	140	13	76	305	2.4			73	140	13	76	305	2.4		
½	2.88	5.5	0.50	3.0	12.0	5.3		2.5	2.88	5.5	0.50	3.0	12.0	5.6		2.5
13	73	140	13	76	305	2.4			73	140	13	76	305	2.5		
¾	3.25	5.9	0.75	3.5	12.0	6.1		5.8	3.25	5.9	0.75	3.5	12.0	6.2		5.8
20	83	149	19	89	305	2.8			83	149	19	89	305	2.8		
1	3.75	6.5	1.00	4.0	13.0	9.8		10.7	3.75	6.5	1.00	4.0	13.0	10.2		10.7
25	95	165	25	102	330	4.4			95	165	25	102	330	4.6		
1½	5.50	7.6	1.50	5.0	13.0	18.3		25	5.50	7.6	1.50	5.0	13.0	23.7		25
38	140	194	38	127	330	8.3			140	194	38	127	330	10.8		
2	6.00	8.2	2.00	6.0	14.0	25.9		50	6.00	8.2	2.00	6.0	14.0	31.9		50
50	152	208	51	152	356	11.7			152	208	51	152	356	14.5		

(1) Other extensions available. Consult Powell Engineering.



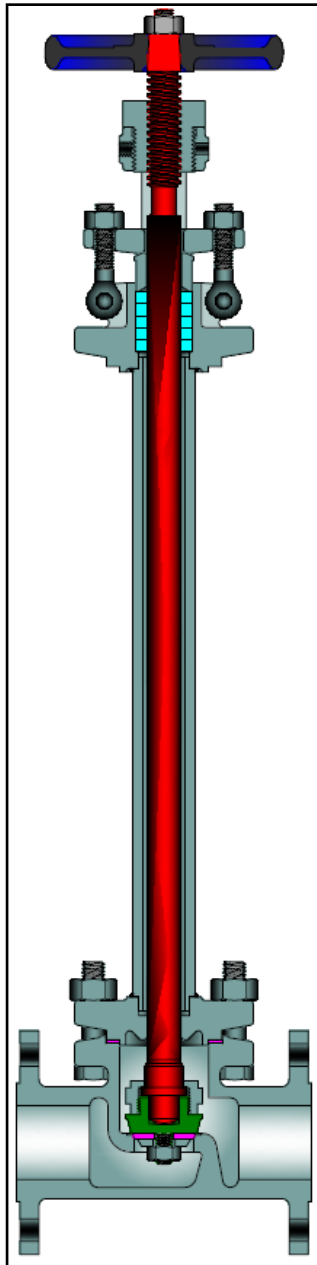
SIZE	ASME 600							
	A	C	D	E	X (1)	WT	$\frac{lb}{kg}$	C_v
½	2.88	5.5	0.50	3.0	12.0	5.5		2.5
13	73	140	13	76	305	2.5		
¾	3.25	5.9	0.75	3.5	12.0	6.4		5.8
20	83	149	19	89	305	2.9		
1	3.75	6.6	1.00	5.0	13.0	10.5		10.7
25	95	167	25	127	330	4.8		
1½	5.63	8.1	1.50	7.0	13.0	27.1		25
38	143	206	38	178	330	12.3		
2	6.25	9.1	2.00	8.0	14.0	54.4		50
50	159	232	51	203	356	24.7		

C = Bottom of yoke flange to top open
X = Center to bottom of yoke flange (Std)

WT = Weight
 C_v = Flow coefficient

ASME B16.34 GLOBE VALVES

BOLTED BONNET, ASME CLASSES 150 - 600
 1/2" - 4" (13 - 100mm), FLANGED OR BUTTWELDED ENDS
 CAST STAINLESS STEEL



Class	Fig. No.
150	2475
300	2447 (3)
600	1983 (3)

STANDARD MATERIALS (Other materials available)

PART	MATERIALS
Body	A351 Gr. CF8M (1)
Bonnet	A351 Gr. CF8M
Yoke	A351 Gr. CF8M
Disc or Disc Holder (2)	A276 316
Disc Insert (2)	PCTFE
Disc Washer (2)	SST 316
Disc Insert Nut (2)	SST 316
Disc Locknut	A276 316
Stem	A276 316
Gland Flange	A351 Gr. CF8M
Eye Bolt	A193 Gr. B8
Eye Bolt Nut	A194 Gr. 8
Gland	A276 316
Packing	PTFE
Gasket	Graphite
Extension Column	SST 304
Hand Wheel	Malleable Iron or Steel
Hand Wheel Nut	Steel
Stem Bushing	A582 416
Body / Bonnet Bolt	A193 Gr. B8
Body / Bonnet Nut	A194 Gr.8
Set Screw	Steel
Identification Plate	Series 300 SST

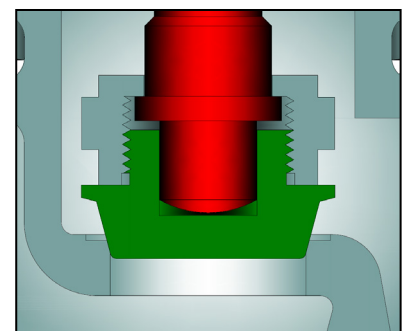
1. CF3M for weld end bodies.
2. Soft seat design.
3. See pages 31-32 for threaded and socketweld designs.

Design Specifications

Item	Applicable Specification
Wall thickness	ASME B16.34
Pressure - temperature ratings	ASME B16.34
General valve design	ASME B16.34
Flanged ends	ASME B16.5
Buttweld ends	ASME B16.25
Materials	ASTM

DESIGN FEATURES:

- Seat face: Ground and lapped to a smooth finish.
- Body and bonnet joint accurately machined.
- Swivel disc for optimal seating and longer seat life.
- Stems are rotating / rising design.
- Each valve is shell, seat and backseat pressure tested.
- Body and bonnet castings are precision machined.
- Gland has two-piece construction for easy alignment.
- Valves are specially cleaned and processed for oxygen or cryogenic service and are then sealed to prevent contamination.
- Weld ends are available per ASME B16.25 or per customer's specification.
- Flanges:
 - Classes 150-300: 1/16" raised face.
 - Class 600: 1/4" raised face.
 - Finish 125-250 AARH for all valves.
- Each valve has a unique certification number that is traceable to the valve certification sheet which includes MTR data, pressure test, inspection result and certificate of conformance.
- Other available options as follows:
 - » Alternate valve materials
 - » Alternate trim materials
 - » Non-extended design.
 - » Other options available as specified



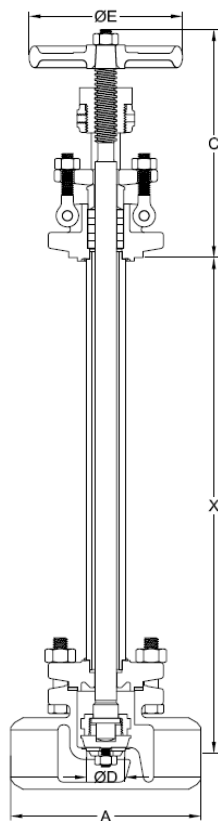
Metal Disc

NOTE: Powell reserves the right to convert threaded ends to socket weld when needed, which will result in thread remnants as pipe stop.

GLOBE VALVE DIMENSIONS (CLASSES 150 - 600)

SIZE	ASME 150										ASME 300										
	in	A	C	D	E	X (1)	WT	lb	WT	lb	CV	A	C	D	E	X (1)	WT	lb	WT	lb	CV
							FE	kg	WE	kg							FE	kg	WE	kg	
½	4.25	5.5	0.50	3.5	12	6.8		5.3		2.5	6.0	5.5	0.5	3.5	12	8.3		5.6		2.5	
13	108	140	13	89	305	3.1		2.4			152	140	13	89	305	3.8		2.5			
¾	4.62	5.9	0.75	4.0	12	8.1		6.1		5.8	7.0	5.9	0.75	4.0	12	12.9		6.2		5.8	
19	117	149	19	102	305	3.7		2.8			178	149	19	102	305	5.9		2.8			
1	5.00	6.5	1.00	4.5	13	12.4		9.8		10.7	8.0	6.5	1.0	4.5	13	16.2		10.2		10.7	
25	127	165	25	114	330	5.6		4.4			203	165	25	114	330	7.3		4.6			
1½	6.50	7.6	1.50	6.0	13	24.6		18.3		25	9.0	7.6	1.5	6.0	13	29.9		23.7		25	
38	165	194	38	152	330	11.2		8.3			229	194	38	152	330	13.6		10.8			
2	8.00	8.2	2.00	7.0	14	35.6		25.9		50	10.5	8.2	2.0	7.0	14	40.2		31.9		50	
50	203	208	51	178	356	16.1		11.7			267	208	51	178	356	18.2		14.5			
2½	8.50	9.1	2.50	7.0	14	53		45		75	11.5	9.1	2.5	7.0	14	78		64		75	
65	216	232	64	178	356	24		20			292	232	64	178	356	35		29			
3	9.50	10.3	3.00	7.0	14	98		82		110	12.5	10.3	3.0	9.0	14	128		106		110	
80	241	262	76	178	356	44		37			318	262	76	229	356	58		48			
4	11.5	13.7	4.00	9.0	16	143		116		200	14.0	14.4	4.0	10	16	173		140		200	
100	292	348	102	229	406	65		53			356	365	102	254	406	78		64			

(1) Other extensions available. Consult Powell Engineering.



Weld End Design

SIZE	ASME 600										
	in	A	C	D	E	X (1)	WT	lb	WT	lb	C _v
							FE	kg	WE	kg	
½	6.5	5.5	0.5	3.5	12	9.9		5.6		2.5	
13	165	140	13	89	305	4.5		2.5			
¾	7.5	5.9	0.75	4.0	12	14.4		6.4		5.8	
19	190	149	19	102	305	6.5		2.9			
1	8.5	6.6	1.0	5.0	13	19.6		10.5		10.7	
25	216	167	25	127	330	8.9		4.8			
1½	9.5	8.1	1.5	7.0	13	41.9		27.1		25	
38	241	206	38	178	330	19.0		12.3			
2	11.5	9.1	2.0	8.0	14	72.4		54.4		50	
50	292	232	51	203	356	32.8		24.7			

C = Bottom of yoke flange to top open
X = Center to bottom of yoke flange (Std)

FE = Flanged ends
WE = Buttweld ends
WT = Weight
C_v = Flow coefficient