

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.

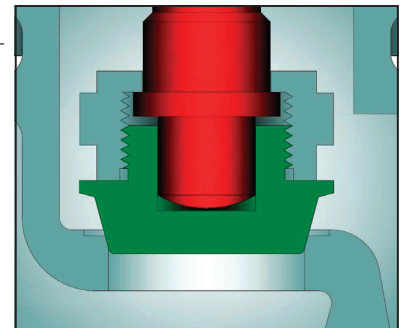
Design Specifications

Class	Figure Number	Item	Applicable Specification
150	2475	Wall thickness	ASME B16.34
300	2447 (3)	Pressure - temperature ratings	ASME B16.34
600	1983 (3)	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

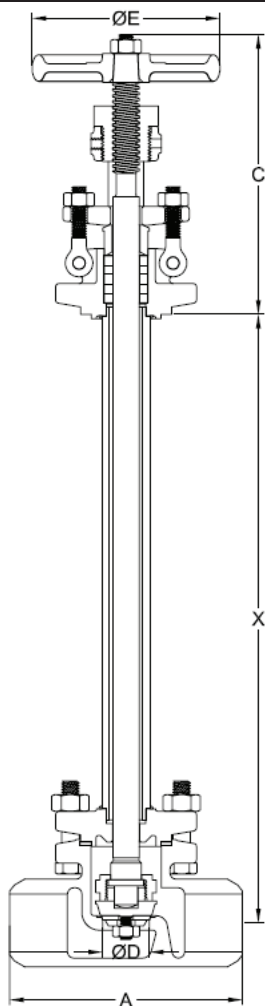


Metal Disc

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	C _V	A	C	D	E	X (1)	WT lb	WT lb	C _V		
mm						FE kg	WE kg								FE kg		WE kg	
½	4.25	5.5	0.50	3.5	12.0	6.8	5.3	2.5	6.00	5.5	0.50	3.5	12.0	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	12.0	8.1	6.1	5.8	7.00	5.9	0.75	4.0	12.0	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	13.0	12.4	9.8	10.7	8.00	6.5	1.00	4.5	13.0	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	13.0	24.6	18.3	25	9.00	7.6	1.50	6.0	13.0	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	14.0	35.6	25.9	50	10.50	8.2	2.00	7.0	14.0	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	14.0	53	45	75	11.50	9.1	2.50	7.0	14.0	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	14.0	98	82	110	12.50	10.3	3.00	9.0	14.0	128	106	110		
80	241	262	76	178	356	44	37		318	262	76	229	356	58	48			
4	11.50	13.7	4.00	9.0	16.0	143	116	200	14.00	14.4	4.00	10.0	16.0	173	140	200		
100	292	348	102	229	406	65	53		356	365	102	254	406	78	64			



Weld End Design

SIZE	ASME 600									
in	A	C	D	E	X (1)	WT	lb	WT	lb	C _v
mm						FE	kg	WE	kg	
½	6.50	5.5	0.50	3.5	12.0	9.9		5.6		2.5
13	165	140	13	89	305	4.5		2.5		
¾	7.50	5.9	0.75	4.0	12.0	14.4		6.4		5.8
19	190	149	19	102	305	6.5		2.9		
1	8.50	6.6	1.00	5.0	13.0	19.6		10.5		10.7
25	216	167	25	127	330	8.9		4.8		
1½	9.50	8.1	1.50	7.0	13.0	41.9		27.1		25
38	241	206	38	178	330	19.0		12.3		
2	11.50	9.1	2.00	8.0	14.0	72.4		54.4		50
50	292	232	51	203	356	32.8		24.7		

(1) Other extensions available. C = Bottom of yoke flange to top open
Consult Powell Engineering. X = Center to bottom of yoke flange (Std)

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