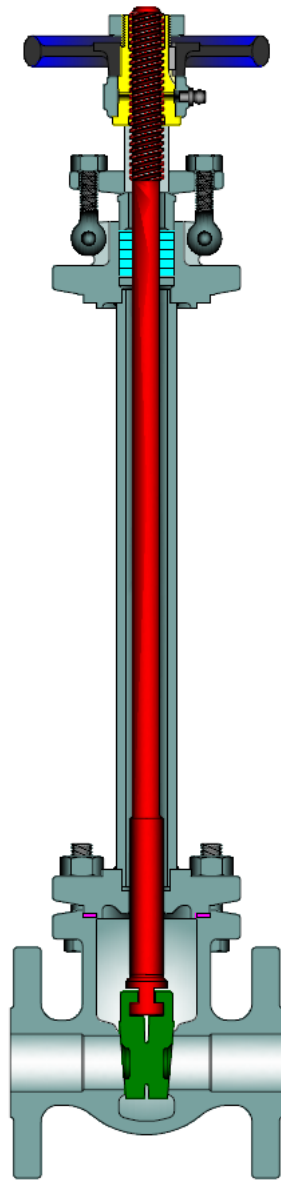


ASME B16.34 GATE VALVES

BOLTED BONNET, ASME CLASSES 150 - 600
 1/2" - 6" (13 - 150mm), FLANGED OR BUTTWELDED ENDS
 CAST STAINLESS STEEL



Class	Figure Number
150	2456
300	2467 (2)
600	1973 (2)

STANDARD MATERIALS (Other materials available)

PART	MATERIALS
Body	A351 Gr. CF8M (1)
Bonnet	A351 Gr. CF8M
Yoke	A351 Gr. CF8M
Wedge	A351 Gr. CF8M
Stem	A276 316
Stem Bushing	A 439 Gr. D2
Gland Flange	A351 Gr. CF8
Eye Bolt	A193 Gr. B8
Eye Bolt Nut	A194 Gr.8
Groove Pin	Series 300
Gland	A276 316
Packing	PTFE
Gasket	Graphite
Extension Column	304 SST
Hand Wheel	Malleable Iron or Steel
Hand Wheel Nut	Malleable Iron or Steel
Key	Steel
Lubricant Fitting	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. See pages 25-26 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

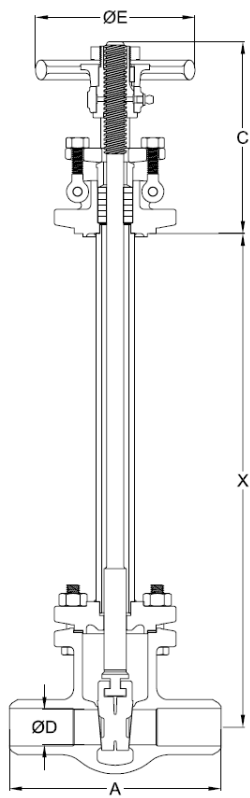
DESIGN FEATURES:

- Seat face: Ground and lapped to a smooth finish.
- Flexible Wedge with low center stem –wedge contact. Wedge is ground and lapped to a smooth finish and closely guided to prevent dragging and seat damage.
- Non-rotating stem with precision ACME threads and burnished finish. Double ACME threads for faster operation.
- Body and bonnet joint accurately machined.
- Each valve is shell, seat and backseat pressure tested.
- Yoke bushing can be lubricated to minimize friction and prolong life of the stem.
- 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.
- Bonnet chamber ventilation, in order to prevent excess pressure build up caused by trapped cryogenic liquids, is available upon request.
- Each valve has a unique certification number that is traceable to the valve certification sheet which includes MTR data, pressure test report, inspection report and certificate of conformance.
- Other available options as follows:
 - » Alternate valve materials
 - » Alternate trim materials
 - » Non-extended design
 - » Other options available as specified

NOTE: Powell reserves the right to convert threaded ends to socket weld. Remnant of threads will exist as pipe stop behind socket bore.

GATE VALVE DIMENSIONS (CLASSES 150 - 600)

SIZE	ASME 150										ASME 300										
	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	WE					FE	kg	WE	kg							FE	kg	WE	kg	
½	4.25		5.6	0.5	3.5	13	8.7		7.5	12.6	5.5	5.6	0.5	3.5	13	10.0		7.3		12.6	
13	108		141	13	89	330	3.9		3.4		140	141	13	89	330	4.5		3.3			
¾	4.62		6.3	0.75	4.0	13	11.5		9.6	30	6.0	6.3	0.75	4.0	13	14.3		9.2		30	
19	117		189	19	102	330	5.2		4.4		152	189	19	102	330	6.5		4.2			
1	5		6.8	1.0	4.5	14	16.6		13.1	55	6.5	6.8	1.0	4.5	14	19.5		13.2		55	
25	127		171	25	114	356	7.5		5.9		165	171	25	114	356	8.8		6.0			
1½	6.5		8.4	1.5	6.0	14	29.7		23.8	130	7.5	8.4	1.5	6.0	14	38.9		23.8		130	
38	165		213	38	152	356	13.5		10.8		190	213	38	152	356	17.6		10.8			
2	7.0	8.50	9.7	2.0	7.0	16	34.2		29.5	240	8.5	9.7	2.0	7.0	16	42.6		33.6		240	
50	178	216	246	51	178	406	15.5		13.4		216	246	51	178	406	19.3		15.2			
2½	7.5	9.50	10.4	2.5	7.0	19	56		50	390	9.5	10.4	2.5	7.0	19	63		49		390	
65	190	241	264	64	178	483	25		23		241	264	64	178	483	29		22			
3	8.0	11.12	11.3	3.0	7.0	19	68		63	560	11.12	11.3	3.0	9.0	19	72		67		560	
80	203	282	286	76	178	483	31		29		282	286	76	229	483	33		30			
4	9.0	12.00	13.6	4.0	9.0	20	110		99	1020	12.0	13.6	4.0	10	20	148		130		1020	
100	229	305	344	102	229	508	50		45		305	344	102	254	508	67		59			
6	10.5	15.88	18.4	6.0	11	24	175		165	2440	15.88	18.9	6.0	14	24	278		225		2440	
150	267	403	467	152	279	610	79		75		403	479	152	356	610	126		102			



Weld End Design

SIZE	ASME 600										
	A		C	D	E	X (1)	WT	lb	WT	lb	C _v
	FE	WE					FE	kg	WE	kg	
½	6.5		5.6	0.50	3.5	13	11.0		7.8	12.6	
13	165		141	13	89	330	5.0		3.5		
¾	7.5		6.3	0.75	4.0	13	18.1		10.2	30	
19	190		189	19	102	330	8.2		4.6		
1	8.5		6.8	1.00	5.0	14	25.0		14.7	55	
25	216		171	25	127	356	11.3		6.7		
1½	9.5		8.4	1.50	7.0	14	43.9		27.1	130	
38	241		213	38	178	356	19.9		12.3		
2	11.5		9.7	2.00	8.0	16	82.2		62.2	240	
50	292		246	51	203	406	37.3		28.2		

(1) Other extensions available. Consult Powell Engineering.

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