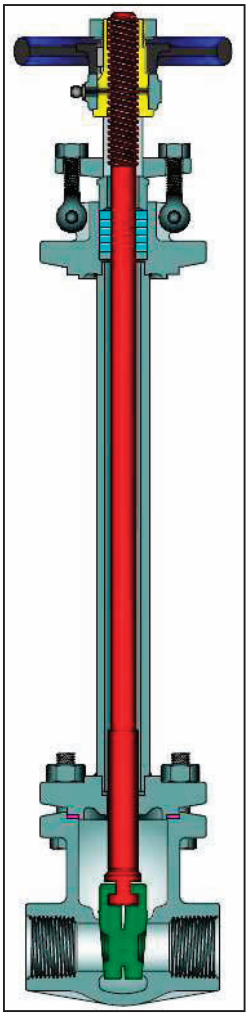
ASME B16.34 GATE VALVES
BOLTED BONNET, ASME CLASS 200-600
¼" to 2" (6 TO 50 mm), THREADED OR SOCKET WELD ENDS
CAST STAINLESS STEEL



Class	Figure Number
200	2490
300	2467 (1)
600	1973 (1)

STANDARD MATERIALS (Other materials available)

PART	MATERIALS
Body	A351 Gr. CF3M
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) See pages 27-28 for flanged and buttweld designs.

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

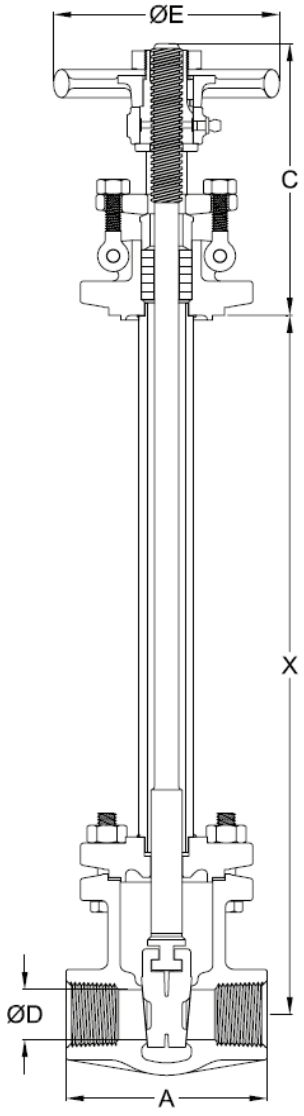
DESIGN FEATURES:

- **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.
- **Valves** are available with socket weld ends.
- **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 200-600)

SIZE	ASME 200								ASME 300							
in / mm	A	C	D	E	X (1)	WT	lb / kg	C_V	A	C	D	E	X (1)	WT	lb / kg	C_V
¼	2.13	5.1	0.38	3.0	13.0	5.4		7.1	2.13	5.1	0.38	3.0	13.0	5.3		7.1
6	54	130	10	76	330	2.4			54	130	10	76	330	2.4		
⅜	2.13	5.1	0.38	3.0	13.0	5.4		7.1	2.13	5.1	0.38	3.0	13.0	5.3		7.1
10	54	130	10	76	330	2.4			54	130	10	76	330	2.4		
½	3.00	5.6	0.50	3.5	13.0	7.5		12.6	3.00	5.6	0.50	3.5	13.0	7.3		12.6
13	76	141	13	89	330	3.4			76	141	13	89	330	3.3		
¾	3.50	6.3	0.75	4.0	13.0	9.6		30	3.50	6.3	0.75	4.0	13.0	9.2		30
19	89	189	19	102	330	4.4			89	189	19	102	330	4.2		
1	4.00	6.8	1.00	4.5	14.0	13.1		55	4.00	6.8	1.00	4.5	14.0	13.2		55
25	102	171	25	114	356	5.9			102	171	25	114	356	6.0		
1½	4.63	8.4	1.50	6.0	14.0	23.8		130	4.63	8.4	1.50	6.0	14.0	23.8		130
38	117	213	38	152	356	10.8			117	213	38	152	356	10.8		
2	5.00	9.7	2.00	7.0	16.0	29.5		240	5.00	9.7	2.00	7.0	16.0	34.5		240
50	127	246	51	178	406	13.4			127	246	51	178	406	15.6		



SIZE	ASME 600							
in / mm	A	C	D	E	X (1)	WT	lb / kg	C_V
¼	2.13	5.1	0.38	3.0	13.0	6.2		7.1
6	54	130	10	76	330	2.8		
⅜	2.13	5.1	0.38	3.0	13.0	6.2		7.1
10	54	130	10	76	330	2.8		
½	3.00	5.6	0.50	3.5	13.0	7.8		12.6
13	76	141	13	89	330	3.5		
¾	3.50	6.3	0.75	4.0	13.0	10.2		30
19	89	189	19	102	330	4.6		
1	4.00	6.8	1.00	5.0	14.0	14.7		55
25	102	171	25	127	356	6.7		
1½	5.00	8.4	1.50	7.0	14.0	27.1		130
38	127	213	38	178	356	12.3		
2	5.75	9.7	2.00	8.0	16.0	37.2		240
50	146	246	51	203	406	16.9		

(1) Other extensions available. Consult Powell Engineering.

C = Bottom of yoke flange to top open

X = Center to bottom of yoke flange (Std)

WT = Weight

C_V = Flow coefficient