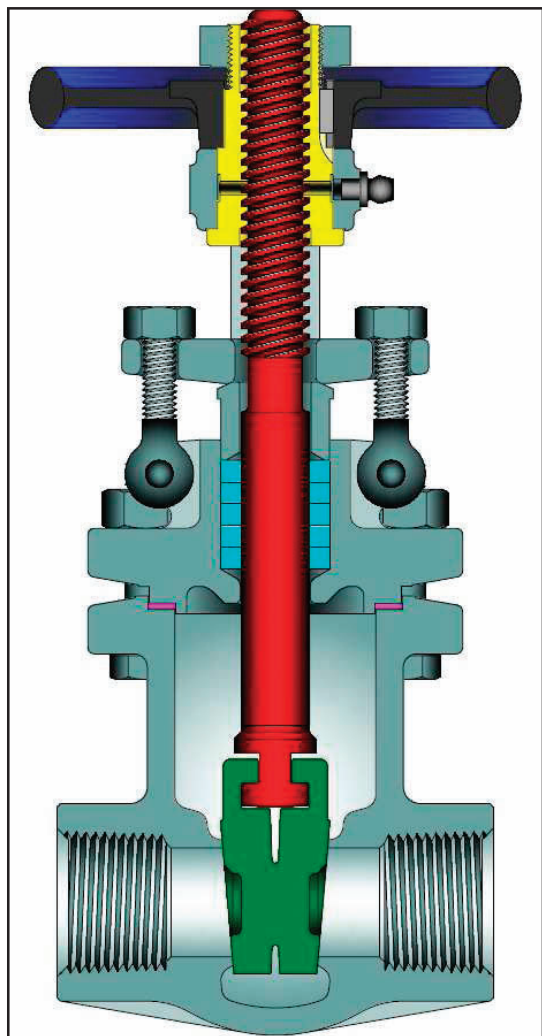


API 603 GATE VALVES
BOLTED BONNET, ASME CLASS 200-600
¼" to 2" (6 TO 50 mm), THREADED OR SOCKET WELD ENDS
CAST STAINLESS STEEL



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

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. Gasket materials and details on page 6.
- **Each** valve is shell, seat and backseat pressure tested per industry standard API 598.

- **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.
- **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
-NACE service
-Special cleaning for applications such as oxygen or chlorine
-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.

STANDARD MATERIALS (Other materials available)

PART	MATERIALS
Body	A351 Gr. CF3M
Bonnet	A351 Gr. CF8M
Wedge	A351 Gr. CF8M
Stem	A276 316
Stem Bushing	A 439 Ductile NI-Resist Gr. D2
Gland Flange	A351 Gr. CF8M
Eye Bolt	A193 Gr. B8
Eye Bolt Nut	A194 Gr.8
Groove Pin	Series 300
Gland	A276 316
Packing	PTFE (2)
Gasket	PTFE (2)
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

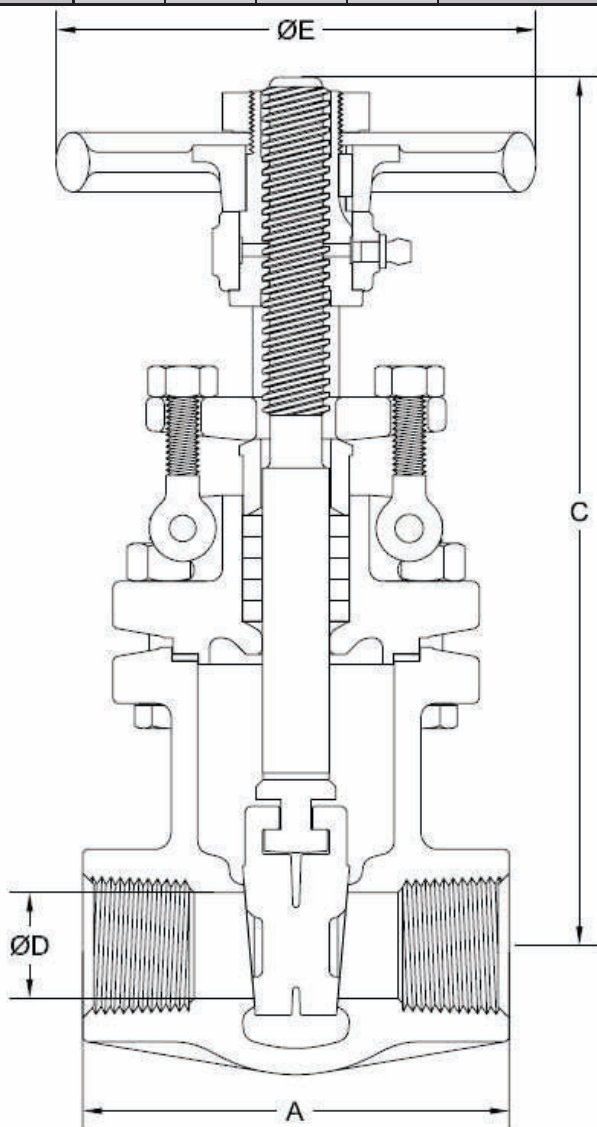
- 1) See pages 10-12 for flanged and buttweld designs.
- 2) For API 603 compliance, optional graphitic packing and gasket are required.

Design Specifications

Item	Applicable Specification
Wall thickness	API 603 + B16.34
Pressure - temperature ratings	ASME B16.34
General valve design	API 603 & B16.34
End threads—NPT	ASME B1.20.1
Socket weld ends	ASME B16.11
Materials	ASTM

GATE VALVE DIMENSIONS (CLASSES 200-600)

SIZE	ASME 200						ASME 300							
in	A	C	D	E	WT	lb	C _v	A	C	D	E	WT	lb	C _v
mm						kg							kg	
¼	2.13	6.5	0.38	3.0	3.5	7.1	2.13	6.5	0.38	3.0	3.4	7.1		
6	54	165	10	76	1.6		54	165	10	76	1.5			
¾	2.13	6.5	0.38	3.0	3.5	7.1	2.13	6.5	0.38	3.0	3.4	7.1		
10	54	165	10	76	1.6		54	165	10	76	1.5			
½	3.00	7.8	0.50	3.5	4.8	12.6	3.00	7.9	0.50	3.5	4.6	12.6		
13	76	198	13	89	2.2		76	200	13	89	2.1			
¾	3.50	8.6	0.75	4.0	6.5	30	3.50	8.9	0.75	4.0	6.1	30		
19	89	219	19	102	2.9		89	225	19	102	2.8			
1	4.00	9.4	1.00	4.5	9.0	55	4.00	9.4	1.00	4.5	9.1	55		
25	102	240	25	114	4.1		102	240	25	114	4.1			
1¼	4.63	10.8	1.50	5.0	13.1	130	4.63	10.8	1.25	5.0	13.1	87		
32	140	274	38	127	6.0		178	274	32	127	6.0			
1½	4.63	12.1	1.50	6.0	18.0	130	4.63	12.1	1.50	6.0	18.0	130		
38	117	308	38	152	8.2		117	308	38	152	8.2			
2	5.00	14.3	2.00	7.0	24.3	240	5.00	14.3	2.00	7.0	28.9	240		
50	127	362	51	178	11.0		127	362	51	178	13.1			



SIZE	ASME 600						
in	A	C	D	E	WT	lb	C _v
mm						kg	
¼	2.13	6.6	0.38	3.0	4.3		7.1
6	54	168	10	76	2.0		
¾	2.13	6.6	0.38	3.0	4.3		7.1
10	54	168	10	76	2.0		
½	3.00	7.9	0.50	3.5	5.1		12.6
13	76	202	13	89	2.3		
¾	3.50	8.9	0.75	4.0	7.1		30
19	89	225	19	102	3.2		
1	4.00	9.8	1.00	5.0	10.6		55
25	102	248	25	127	4.8		
1¼	4.50	11.1	1.25	6.0	15.7		87
32	229	281	32	152	7.1		
1½	5.00	12.4	1.50	7.0	21.3		130
38	127	316	38	178	9.7		
2	5.75	14.3	2.00	8.0	32.0		240
50	146	362	51	203	14.5		

C = Center to top open

WT = Weight

C_v = Flow coefficient