

INDDOP ENGINEERING & MARKETING PRIVATE LIMITED

GATE VALVE

Characteristics:

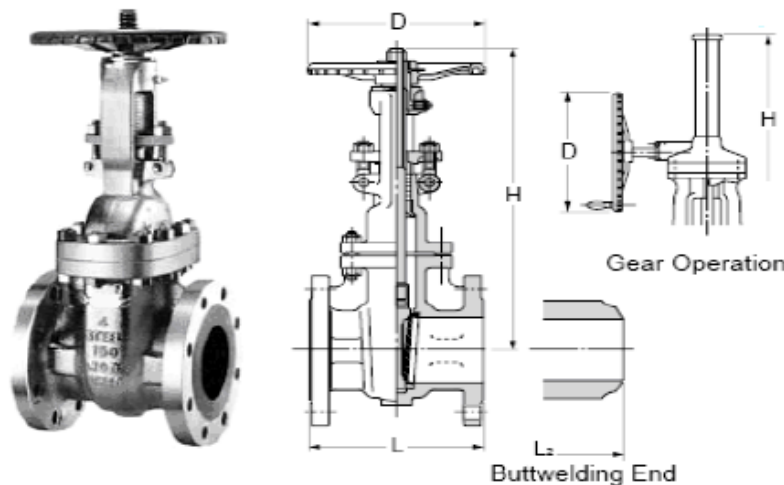
Gate Valves serve as efficient stop valves with flow in either direction. They are commonly used where a minimum pressure drop is important. Throttling is not recommended because partially open gate valves exhibit flow characteristics not conducive to accurate and consistent flow control.

They function best fully open or fully closed.

Gate valves are linear motion valves in which a flat closure element slides into the flow stream to provide shut-off. Gate valves are designed to minimize pressure drop across the valve in the fully opened position and stop the flow of fluid completely. The direction of fluid flow does not change, and the diameter through which the process fluid passes is essentially equal to that of the pipe. Hence, they tend to have minimal pressure drop when opened fully. They can also be used where throttling capabilities are desired, although this is not generally recommended as erosion of the seat and disc occurs due to the vibrations of the disk in throttling applications.

CLASS 150 – 300 – 600

Bolted Bonnet, Outside Screw-and-Yoke, Rising Spindle, Non-Rising Hand Wheel.



Material Specification:

Parts	Materials
Body	ASTM A216 Gr. WCB
Bonnet	ASTM A216 Gr. WCB
Spindle	AISI SS410
Wedge	ASTM A216 Gr. WCB + 13%Cr.
Seat Ring	CS + 13%Cr.
Gland Bush	AISI SS410
Gland Packing	Grafoil Rings
Gland Flange	IS 2062 Gr B.
Handwheel	Fabricated Steel
Gasket	Spiral Wound SS304 + CAF
Stud / Nut	ASTM A193 Gr.B7 & ASTM A194 Gr.2H
Eye Bolt & Nut	ASTM A 307 Gr. B
Bonnet Bush	AISI SS410
Yoke sleeve	ASTM A439 Gr.D2
Grease nipple	Commercial
Grub Screw	Commercial
Yoke Bush	Carbon Steel

Testing Standard: As per API 598

Test Pressure in PSI				
	Class	150	300	600
Hydro	Shell	450	1125	2225
	Seat/Back seat	315	815	1630
Air	Seat	80	80	80

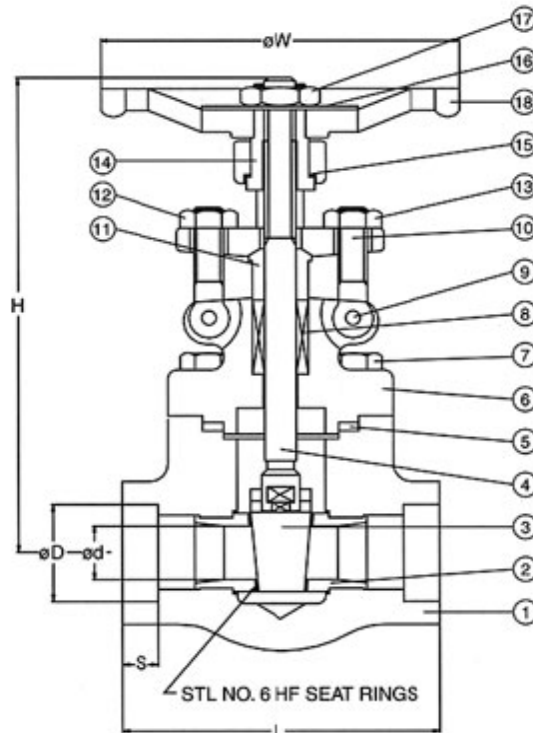
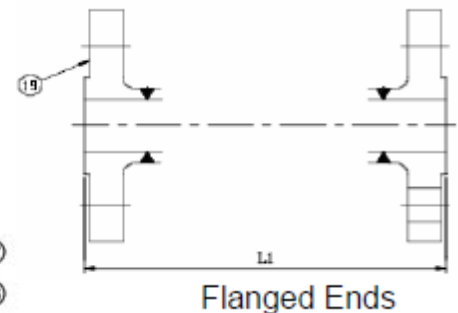
INDDOP ENGINEERING & MARKETING PRIVATE LIMITED

FORGED STEEL GATE VALVE 800#

Bolted Bonnet, Outside Screw-and-Yoke, Rising Spindle, Non-Rising Hand Wheel.

APPLICABLE STANDARDS:

- Design as per API 602 / BS 5352
- Socket Weld & Threaded End as per ANSI B16.11
- Pipe Threads as per ANSI B1.20.1
- Flanged End as per ANSI B16.5
- Inspection & Testing as per API 598.



Material Specification

Part No.	Part Name	Specification
1	Body	ASTM A105
2	Seating	AISI SS410
3	Wedge	AISI SS410
4	Spindle	AISI 410
5	Gasket	Spiral wound SS304 with CAF
6	Bonnet	ASTM A105
7	Stud & Nut	ASTM A193 Gr. B7 & ASTM A194 Gr. 2H
8	Gland Packing	Graphite
9	Eye Bolt Pin	Carbon Steel
10	Eye Bolt & Nut	ASTM A193 Gr. B7 & ASTM A194 Gr. 2H
11	Gland Bush	AISI 410
12	Gland Flange	ASTM A105
14	Yoke Sleeve	ASTM A439 D2 Ni Resist / S.G. Iron
16	Name Plate	SS304
17	H/W Nut	Carbon Steel
18	Hand wheel	Malleable Iron
19	Side Flanges	ASTM A105

Testing Standard: As per API 598

Test Pressure in PSI		
Hydro	Class	800
	Shell	3000
Air	Back seat	2200
	Seat	80

Also available in Welded Flanged Ends

Also available in seal weld Body & Bonnet

INDDOP ENGINEERING & MARKETING PRIVATE LIMITED

OUR PRODUCT RANGE

Valve Type	ASME Class	Design Standard		Valve Material		Size Range
		P-T Rating	Complies to	Shell	Trim	
Gate Valve	150	ANSI B16.34	API 600/BS 1414	WCB, LCB, CF8, CF8M, CF3, CF3M, C5,WC6, CD4MCu, Etc.	AISI: SS410, 304,304L, 316, 316L, ST6, Hard Faced, Etc.	1" TO 24"
	300					1" TO 24"
	600					2" TO 12"
	900					2" TO 12"
	1500					2" TO 12"
	2500					2" TO 8"
Globe Valve	150		API 600/BS 1873	WCB, LCB, CF8, CF8M, CF3, CF3M, C5,WC6, CD4MCu, Etc.	AISI: SS410, 304,304L, 316, 316L, ST6, Hard Faced, Etc.	1" TO 16"
	300					1" TO 12"
	600					2" TO 12"
	900					2" TO 12"
	1500					2" TO 12"
	2500					2" TO 8"
Non-Return Valve	150		API 600/BS 1868	WCB, LCB, CF8, CF8M, CF3, CF3M, C5,WC6, CD4MCu, Etc.	AISI: SS410, 304,304L, 316, 316L, ST6, Hard Faced, Etc.	2" TO 24"
	300					2" TO 24"
	600					2" TO 12"
	900					2" TO 12"
	1500					2" TO 12"
	2500					2" TO 8"
Forged Steel Gate Valve	800	API 602/BS 5352	A105, F304, F316, F304L, F316L, Etc.	- do -	¼" TO 2"	
	1500				¼" TO 1½"	
Forged Steel Globe Valve	800		API 602/BS 5352	A105, F304, F316, F304L, F316L, Etc.	- do -	¼" TO 2"
	1500					¼" TO 1½"
Forged Steel Check Valve	800		API 602/BS 5352	A105, F304, F316, F304L, F316L, Etc.	- do -	¼" TO 2"
	1500					¼" TO 1½"
Wafer Type Check Valve	150/PN 10		API 594/API 6D	Cl, WCB, CF8, CF8M, Etc.	Seat: EPDM, Viton, Nitrile, Silicone, PTFE, Etc.	1" TO 28"
	300/PN 16					1" TO 28"
Ball Valve	150		API 6D/BS 5351	WCB, CF8, CF8M, A105, Etc.	PTFE, Reinforced PTFE, Etc.	2" TO 6"
	300					2" TO 6"
	800					½" TO 2"
Butterfly Valve	150/PN 10		API 609/BS 5155	Cl, WCB, CF8, CF8M, Etc.	Seat: EPDM, Hyplone, PTFE Nitrile, Silicone, etc	1" TO 48"
	300/PN 16	1" TO 48"				

- + Any other special materials or requirements available on request.
- + Gear Box & actuator operated valves available upon request.
- + Stellite or Hard facing of valve seats available upon request.
- + Position Indicator, By-Pass arrangement, Locking arrangement available upon request.
- + Seal welded body seating available upon request.
- + Butt Weld Ends available upon request.
- + Swing Check Valves available with Dash Pot & counter Weight Arrangement upon request.
- + Butt Weld Ends available upon request.

INDDOP ENGINEERING & MARKETING PRIVATE LIMITED

DESIGN SPECIFICATIONS

Items	American Standard	British Standard
Shell wall thickness and general valve design specifications for Cast Steel & Forged Valves	API 600 / API 6D / API 602 / ASME B 16.34	BS1414 (Gate valve) BS1873 (Globe valve) BS1868 (Check valve)
Pressure-temperature ratings	ASME B16.34	BS1560
Face-to-face dimensions for Flanged Ends End-to-end dimensions for Butt Weld Ends	ANSI B16.10	BS2080
End flange dimensions for Flanged Ends	ANSI B16.5	BS1560
Welding end dimensions for Butt Weld	ANSI B16.25	BS1414 (Gate valve) BS1873 (Globe valve) BS1868 (Check valve)
Welding end dimensions for Socket Weld	ANSI B 16.11	
Testing & Inspection Standard	API 598	BS 6755 (Part-I)
Radiography & NDT	ASME 16.34	

INSPECTION AND WARRANTY POLICY

Each & every valves are subjected to 100% pressure tests, according to API 598 or BS 6755 Part 1 requirements. Material test reports and inspection certificates are available on your request, while each valve is guaranteed for 12 months after placement in service, but not exceeding 18 months after shipment from our factory.

Some of the additional inspections and tests performed are:

- Random Radiograph Inspection of Body and Bonnet Castings to ASME B16.34 Appendix B
- Random Chemical Composition and Mechanical Properties Verification of Fasteners to ASTM A-193/A-194
- Liquid Penetrate Inspection of Seat Rings
- Visual Inspection of Casting to MSS-SP-55
- Receiving, In-Process, and Final Dimensional Inspections to Relevant Valve Standards.

Test / Inspection Item	Complies to	Evaluation
Chemical composition analysis		Relevant ASTM Std.
Mechanical property test	ASTM A370	Relevant ASTM Stds.
Pressure tests	API 598 or BS 6755 Part 1	API 598
Radiographic inspection	ASTM E142 / E49	ASME B16.34
Wet magnetic particle inspection	ASTM E138	
Liquid penetrant inspection	ASTM E165	
Low temperature impact test	ASTM E23	
Dimensional inspection		ASTM A352
Visual inspection		Relevant Valve Stds.
		MSS SP-55

Other inspections or tests can be performed or evaluation criteria applied when specified by the customer.