

# FORGED STEEL

## GATE VALVE (Class-1500)

### INTRODUCTION

Leader forged steel gate valves adopts solids gate, renewable seat, rising stem and non-ring hand wheel. It plays the role of pipe opening and closing ultimately through the rotation of the hand wheel to drive the lifting of gate.

### PRINCIPAL FEATURES

- Design Std.: API 602, BSEN ISO 15761, ASME B16.34.
- Pressure Temperature Rating as per ASME B16.34, API 602.
- Compact but extremely sturdy design for high pressure & temperature service.
- The body is available in both the full or standard port design.
- Welded body-bonnet O&S Yoke type rising stem design, Welded body-bonnet joints offers an additional level of safety against fugitive emission.
- Die-formed graphite inner packing rings and braided graphite end rings with Inconel wire reinforcement and corrosion inhibitor.
- T-head stem-disc connection of gate valve fully meets strength requirements of API 602 and API 598.
- Tapered shoulder on the stem for back seating.
- The gland, gland flange assembly utilizes a separate, two piece design. This self aligning design allows the flange to be unevenly tightened while the gland maintains its parallel alignment with the stem and stuffing box.
- The yoke sleeve is of forged stainless steel material having a high melting point and is resistant to wear and corrosion.
- Socket welded ends as per ASME B16.11.
- Butt weld ends as per ASME B16.25 available on request.
- Robust construction of hand wheel in open spoke design.
- Valves can be offered with electrical actuators on request.
- Low Temperature Carbon Steel & Austenitic SS forging for body and bonnet with extended bonnet design qualified as per BS 6364 for Cryogenic service available on request.
- Valves can be offered to NACE MR-0175 and other special NACE requirements.
- Valves are available with IBR certification.
- Low Emission, FET qualified valves as per API 624 / ISO 15848-1 can be offered with API 622 (FET), API 607 (Fire Safe) qualified gland packing.

### END CONNECTION

Socket Weld / Screwed ends / Butt Welded Ends.

### WORKING PRESSURE

Maximum working pressure 255 Bar.  
See Pressure / Temperature Chart at Page No.38.

### TEMPERATURE LIMITS

Maximum working temperature 425°C.  
See Pressure / Temperature Chart at Page No.38.



- **Item Code:** FCS005
- **Pressure Rating:** CL-1500
- **Testing Standard:** API-598, BSEN 12266 Part-1
- **Size Range:** 15mm to 40mm
- **Product Standard:** API 602, BSEN ISO 15761, ASME B16.34

### SUITABLE FOR

Water	Oil	Air	Gases	Steam
✓	✓	✓	✓	✓

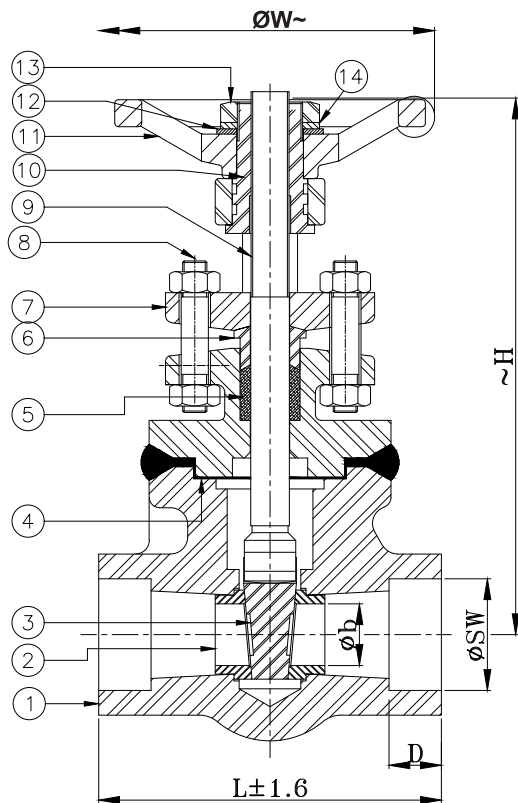
### TEST PRESSURE (Hydrostatic)

<b>Rating</b>	<b>CL-1500</b>
Body (Hyd.)	384 Bar
Seat (Hyd.)	281 Bar
Seat (Air)	6.9 Bar

### TRIM MATERIAL COMBINATION (ON REQUEST)

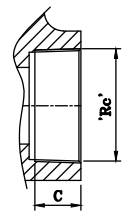
Trim No.	Seat Ring Face	Wedge Seat Face	Stem	Backseat Bush	Lantern Ring
2	F304	F304	F304/AISI304	F304/AISI304	F304/AISI304
5	STELLITE(#6)	STELLITE(#6)	F6a/AISI410	F6a/AISI410	F6a/AISI410
8	STELLITE(#6)	F6a/13%Cr.	F6a/AISI410	F6a/AISI410	F6a/AISI410
9	MONEL	MONEL	MONEL	MONEL	MONEL
10	F316	F316	F316/AISI316	F316/AISI316	F316/AISI316
12	316+Stellite(#6)	316	F316/AISI316	F316/AISI316	F316/AISI316
13	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20

Note : The above data is subject to change without notice due to our continuing product improvement program.

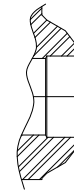


### DIMENSIONAL DATA CLASS-1500

SIZE (mm)	15	20	25	32	40	
L	100	114	104	116	116	
Øb	11.5	15	19.5	22	27	
ØW~	95	108	127	127	127	
~H	170	192	228	245	245	
C	21.5	25	27	27	27	
Rc	1/2"	3/4"	1"	1-1/4"	1-1/2"	
ØSW	AS PER ASME B16.11	22.2	27.6	34.3	43.1	49.2
		21.8	27.2	33.9	42.7	48.8
D	11	14	14	14	14	



SCREWED ENDS



BUTT WELD ENDS

### MATERIAL SPECIFICATION

P.No.	NAME OF PART	CARBON STEEL		ALLOY STEEL				STAINLESS STEEL			
		A105	A350 LF2	A182 F5	A182 F11	A182 F22	A182 F9	A182 F304	A182 F316	A182 F304L	A182 F316L
1	BODY	A105	A350 LF2	A182 F5	A182 F11	A182 F22	A182 F9	A182 F304	A182 F316	A182 F304L	A182 F316L
2	SEAT RING	ASTM A276 TYPE 410 SS 304		SS 410	SS 410	SS 410	SS 410	SS 304	SS 316	SS 304L	SS 316L
3	WEDGE	ASTM A217 Gr.CA15/ ASTM 276 TYPE 410 SS 304		CA15/ SS 410	CA15/ SS 410	CA15/ SS 410	CA15/ SS 410	SS 304	SS 316	SS 304L	SS 316L
4	BONNET	A105	A350 LF2	A182 F5	A182 F11	A182 F22	A182 F9	A182 F304	A182 F316	A182 F304L	A182 F316L
5	PACKING	FLEXIBLE GRAPHITE									
6	GLAND	A182 F6a	SS 304	A182 F6a	A182 F6a	A182 F6a	A182 F6a	SS 304	SS 316	SS 304L	SS 316L
7	GLAND FLANGE	A105	A350 LF2	A182 F5	A182 F11	A182 F22	A182 F9	A182 F304	A182 F316	A182 304L	A182 F316L
8	STUD & NUT	A193 B7 / A194 2H	A320 L7 / A194 GR.4	A193 B7 / A194 2H	A193 B7 / A194 GR.4	A193 B16 / A194 GR.4	A193 B16 / A194 GR.4	A193 B8 / A194 GR.8	A193 B8 / A194 GR.8	A193 B8 / A194 GR.8	A193 B8 / A194 GR.8
9	STEM	ASTM A276 TYPE 410 SS 304		SS 410	SS 410	SS 410	SS 410	SS 304	SS 316	SS 304L	SS 316L
10	YOKE SLEEVE	ASTM A582 TYPE 416									
11	HAND WHEEL	DI. A536 Gr. 80-55-06									
12	NAME PLATE	ALUMINIUM / STEEL									
13	YOKE SLEEVE NUT	CARBON STEEL									
14	WASHER	CARBON STEEL									