

FORGED STEEL

GATE VALVE

(Class-150, 300, 600)

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 FEATURE

- Design Std.: API 602, BSEN ISO 15761, ASME B16.34.
- Pressure Temperature Rating as per ASME B16.34, API 602.
- Sturdy design for high pressure & temperature service.
- Bolted body-bonnet O&S Yoke type rising stem design, Valves with welded bonnet also available on request.
- Bolted body-bonnet joints provided with spiral-wound stainless steel gasket and graphite filler for protection against leaks.
- 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.
- Flanged ends as per ASME B16.5 Raised Face.
- 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

Welded on flanges as per ASME B16.5 Raced Face.

WORKING PRESSURE

Maximum working pressure 20 Bar (CL-150), 52 Bar (CL-300), 103 Bar (CL-600).
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:** FCS040, FCS043, FCS001
- **Pressure Rating:** CL-150, CL-300, CL-600
- **Testing Standard:** API-598, BSEN 12266 Part-1
- **Size Range:** 15mm to 50mm
- **Product Standard:** API 602, BSEN ISO 15761, ASME B16.34

SUITABLE FOR

Water	Oil	Air	Gases	Steam
✓	✓	✓	✓	✓

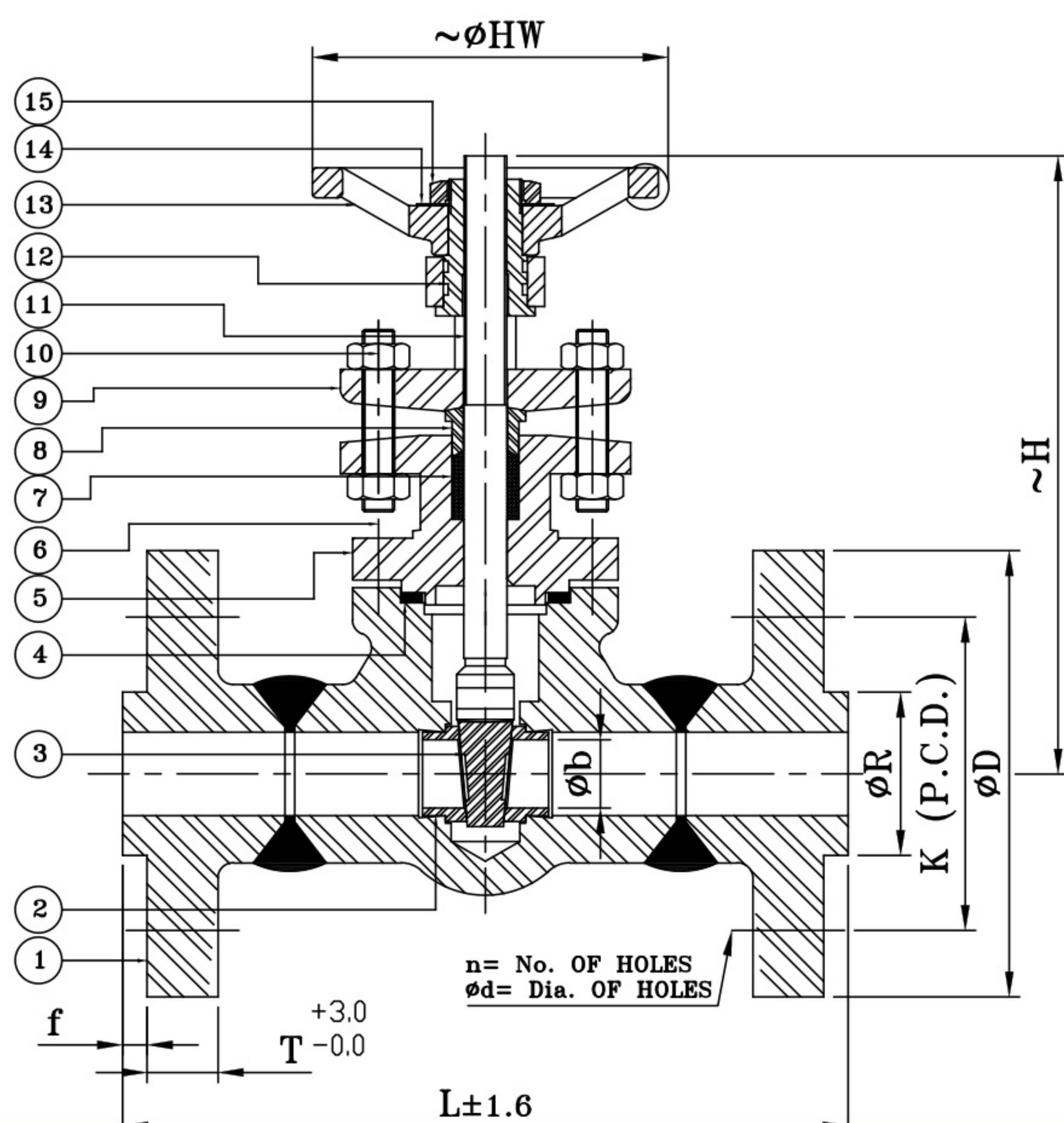
TEST PRESSURE (Hydrostatic)

Rating	CL-150	CL-300	CL-600
Body (Hyd.)	30 Bar	77 Bar	154 Bar
Seat (Hyd.)	22 Bar	57 Bar	113 Bar
Seat (Air)	6.9 Bar	6.9 Bar	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-300

SIZE (mm)	15	20	25	32	40	50
L	140	152	165	178	190	216
~H	128	150	165	175	222	235
Øb	9.5	12.5	18	24	31	38
~ØHW	83	90	96	103	125	135
ØD	95	117	124	133	155	165
T	12.7	14.2	15.7	17.5	19	20.6
ØR	35.1	42.9	50.8	63.5	73	91.9
f	1.5	1.5	1.5	1.5	1.5	1.5
K	66.5	82.6	88.9	98.6	114.3	127
n	4	4	4	4	4	8
Ød	15.8	19.1	19.1	19.1	22.3	19.1

DIMENSIONAL DATA CLASS-150

SIZE (mm)	15	20	25	32	40	50
L	108	117	127	140	165	178
~H	128	150	165	181	222	251
Øb	9.5	12.5	18	24	31	38
~ØHW	83	90	96	114	125	125
ØD	89	99	108	117	127	152
T	7.9	8.6	9.7	11.2	12.7	14.2
ØR	35.1	42.9	50.8	63.5	73	91.9
f	1.5	1.5	1.5	1.5	1.5	1.5
K	60.5	69.8	79.2	88.9	98.6	120.6
n	4	4	4	4	4	4
Ød	15.8	15.8	15.8	15.8	15.8	19.1

DIMENSIONAL DATA CLASS-600

SIZE (mm)	15	20	25	32	40	50
L	165	190	216	229	241	292
~H	145	170	192	220	220	252
Øb	12.5	18	24	31	33	35
~ØHW	90	95	108	125	125	125
ØD	95	117	124	133	155	165
T	14.2	15.7	17.5	20.6	22.4	25.4
ØR	35.1	42.9	50.8	63.5	73	91.9
f	6.4	6.4	6.4	6.4	6.4	6.4
K	66.5	82.6	88.9	98.6	114.3	127
n	4	4	4	4	4	8
Ød	15.7	19.1	19.1	19.1	22.3	19.1

MATERIAL SPECIFICATION

P.No.	NAME OF PART	CARBON STEEL		ALLOY STEEL				STAINLESS STEEL			
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/ SS 304 ASTIM 276 TYPE 410		CA15/ SS 410	CA15/ SS 410	CA15/ SS 410	CA15/ SS 410	SS 304	SS 316	SS 304L	SS 316L
4	GASKET	SPIRAL WOUND STAINLESS STEEL GRAPHOIL FILLER									
5	BONNET	A105	A350 LF2	A182 F5	A182 F11	A182 F22	A182 F9	A182 F304	A182 F316	A182 F304L	A182 F316L
6	STUDS	A193 B7		A193 B7	A193 B7	A193 B16	A193 B16	A193 B8	A193 B8	A193 B8	A193 B8
7	PACKING	FLEXIBLE GRAPHITE									
8	GLAND	A182 F6a	SS 304	A182 F6a	A182 F6a	A182 F6a	A182 F6a	SS 304	SS 316	SS 304L	SS 316L
9	GLAND FLANGE	A105	A350 LF2	A182 F5	A182 F11	A182 F22	A182 F9	A182 F304	A182 F316	A182 F304L	A182 F316L
10	NUTS	A194 2H	A194 Gr.4	A194 2H	A194 Gr.4	A194 Gr.4	A194 Gr.4	A194 Gr.8	A194 Gr.8	A194 Gr.8	A194 Gr.8
11	STEM	ASTM A276 TYPE 410 SS 304		SS 410	SS 410	SS 410	SS 410	SS 304	SS 316	SS 304L	SS 316L
12	YOKE SLEEVE	ASTM A582 TYPE 416									
13	HAND WHEEL	DI. A536 Gr. 80-55-06									
14	NAME PLATE	ALUMINIUM / STEEL									
15	HAND WHEEL RETAINING NUT	STEEL									

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