FORGED STEEL

NEEDLE (REGULATING) VALVE
(Class-800)

INTRODUCTION
Leader forged steel Needle (Regulating) valve offers renewable seat by default with rising stem and hand wheel. It blocks the flow of pipeline through the rotation and lifting of hand wheel as well as stem to drive the lift of disc. There is no relative friction between disc and body sealing surface. The Needle (Regulating) valves has the feature of long service life for opening and closing, it can be used a shut-off valve for small size pipeline.

PRINCIPAL FEATURES
- Design Std.: API 602 / BSEN ISO 15761.
- Pressure Temperature Rating as per ASME B16.34, BSEN ISO 15761.
- Sturdy design for high pressure & temperature service.
- Bolted body-bonnet 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.
- Tapered shoulder on the stem for back seating.
- Self-aligning type gland assembly with stud-and-nut tightening.
- Socket welded ends as per ASME B16.11.
- Screwed Female Taper ends as per ASME B1.20.1 (NPT) / BS 21 & Screwed Female Parallel ends as per ISO 228 / BS 21 available on request.
- Butt weld ends as per ASME B16.25 available on request.
- 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 138 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:** FCS019
- **Pressure Rating:** CL-800
- **Testing Standard:** API-598, BSEN 12266 Part-1
- **Size Range:** 15mm to 50mm
- **Product Standard:** API 602 , BSEN ISO 15761

SUITABLE FOR

Water	Oil	Air	Gases	Steam
✓	✓	✓	✓	✓

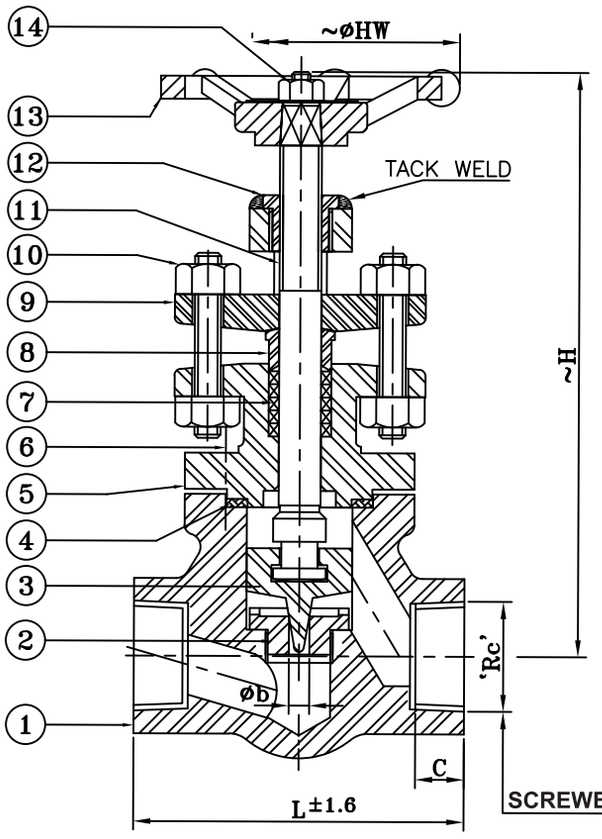
TEST PRESSURE (Hydrostatic)

Rating	CL-800
Body (Hyd.)	207 Bar
Seat (Hyd.)	152 Bar
Seat (Air)	6.9 Bar

TRIM MATERIAL COMBINATION (ON REQUEST)

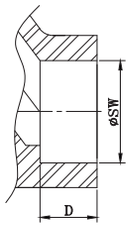
Trim No.	Seat Ring Face	Wedge Seat Face	Stem	Backseat Bush	Lantern Ring
2	F304	F304	F304/AISI304	F304/AISI304	F304/AISI304
5	STELLITE(#6)	STELLITE(#6)	F6a/AISI410	F6a/AISI410	F6a/AISI410
8	STELLITE(#6)	F6a/13%Cr.	F6a/AISI410	F6a/AISI410	F6a/AISI410
9	MONEL	MONEL	MONEL	MONEL	MONEL
10	F316	F316	F316/AISI316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

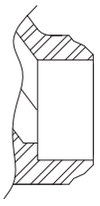
Note : The above data is subject to change without notice due to our continuing product improvement program.



DIMENSIONAL DATA CLASS-800

SIZE (mm)		15	20	25	32	40	50
L		80	88	100	124	145	170
Øb		5	6.5	8.5	12	15	18.5
~ØHW		82	90	96	114	155	155
~H		140	155	172	198	235	270
C		17	18	21	21	23	24
Rc		1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
ØSW	AS PER ASME B16.11	22.2	27.6	34.3	43.1	49.2	61.7
		21.8	27.2	33.9	42.7	48.8	61.2
D		11	14	14	14	14	17





SCREWED ENDS | SOCKET WELD ENDS | BUTT WELD ENDS

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	DISC	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	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	A320 L7	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	HAND WHEEL RETAINING NUT	STEEL									

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