

# FORGED STEEL

# HORIZONTAL LIFT CHECK VALVE (Class-150, 300, 600)

## INTRODUCTION

Leader forged steel check valve is to provide with single disc. With the force of medium, the disc will automatically open or close. When the media stops the flow, the disc will be closed under its own force. No manual intervention is involved in the whole process. Check valve is mainly to prevent the media reverse flow and ensure one-way flow of media channels only. It prevents accidents while a sudden loss of power in the pipeline medium such as the power equipment like pump damages, and the medium reserve flow against power source.

## PRINCIPAL FEATURES

- Design Std.: BS 5352, BSEN ISO 15761.
- Pressure Temperature Rating as per ASME B16.34, BSEN ISO 15761.
- Sturdy design for high pressure & temperature service.
- Bolted body-cover design, Valves with welded cover also available on request.
- Bolted body-cover joints provided with spiral-wound stainless steel gasket and graphite filler for protection against leaks.
- Piston / Disc is guided in the Cover assuring accurate return to seating to achieve leak tightness.
- Spring-loaded disc on check valves suitable for non horizontal applications too available on request.
- Minimum differential pressure of 1 bar required for operating the valve.
- Flanged ends as per ASME B16.5 Raised Face.
- Spring-loaded disc on check valves available for non-horizontal applications.
- Low Temperature Carbon Steel & Austenitic SS forging for body and cover 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.

## END CONNECTION

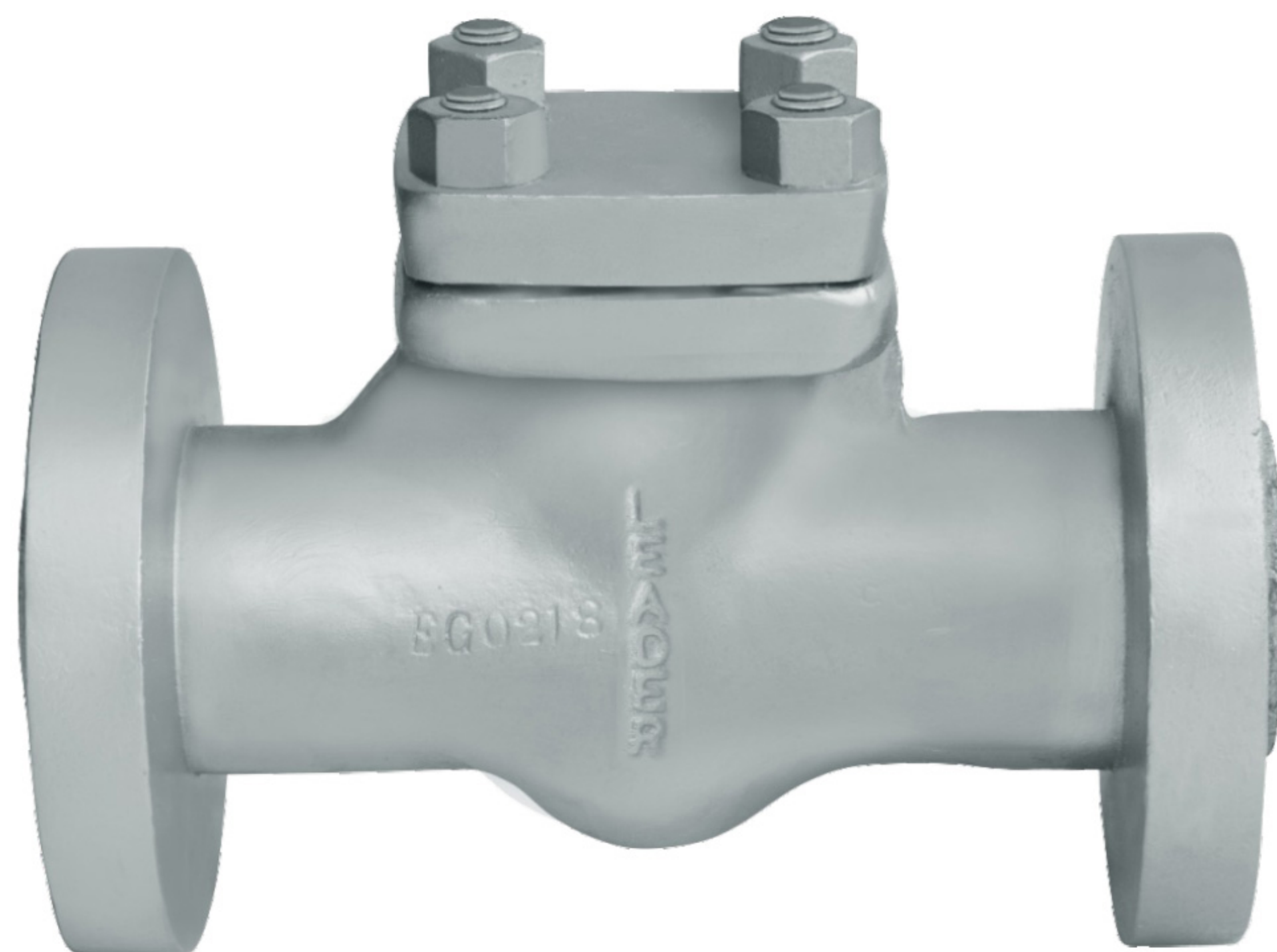
Welded on flanges as per ASME B16.5 Raced Face.

## 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:** FCS035, FCS044, FCS011
- **Pressure Rating:** CL-150, CL-300, CL-600
- **Testing Standard:** BS 5352
- **Size Range:** 15mm to 50mm
- **Product Standard:** BS 5352, BSEN ISO 15761

## SUITABLE FOR

Water	Oil	Air	Gases	Steam
✓	✓	✓ (#)	✓	✓

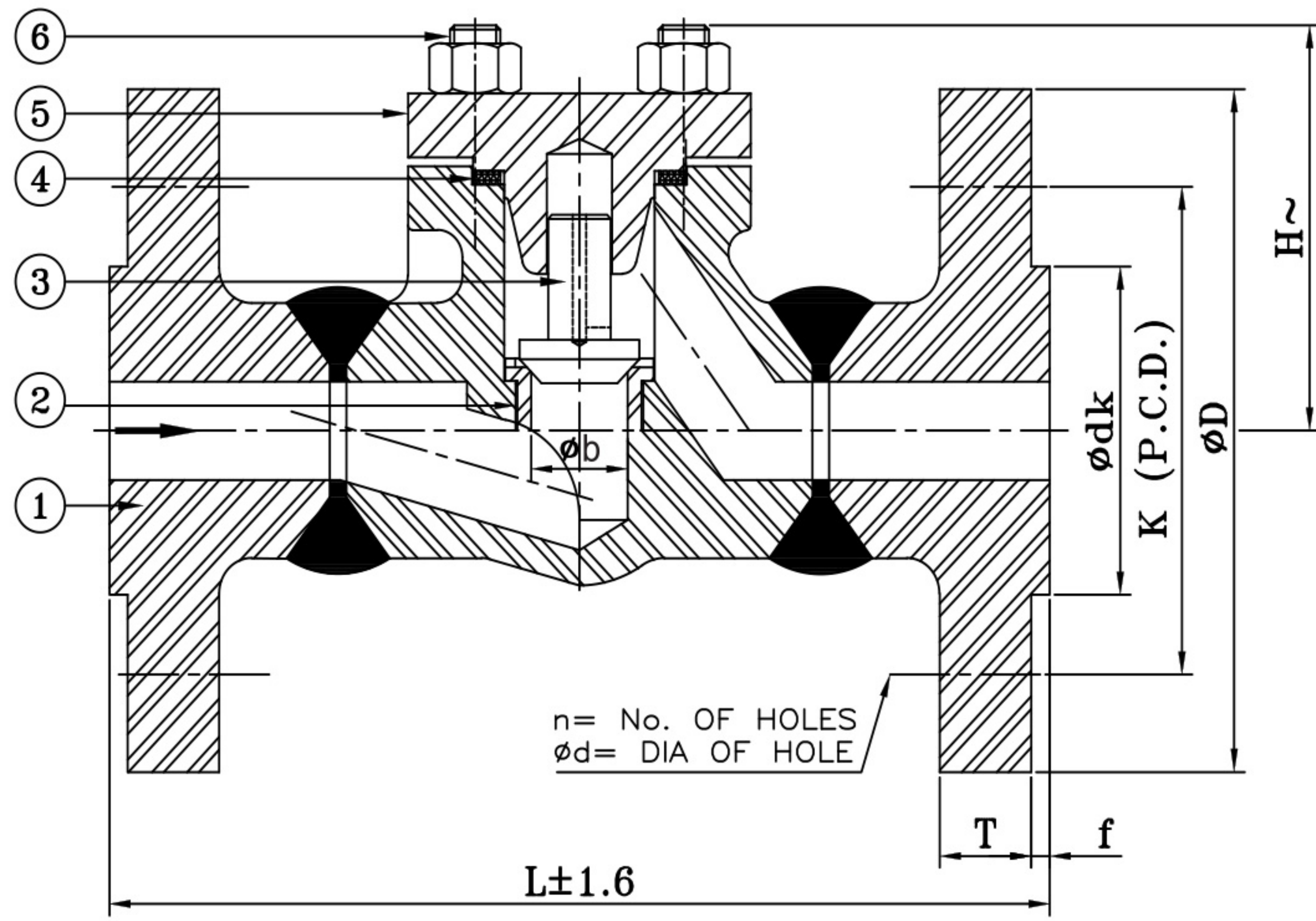
(#) Recommended with soft seating for tight sealing

## 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

## 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



### DIMENSIONAL DATA CLASS-150

SIZE (mm)	15	20	25	32	40	50
L	108	117	127	140	165	203
Øb	10	12.7	18	23	30	37
H~	54	58	75	77	92	126
ØD	89	99	108	117	127	152
T	7.9	8.6	9.7	11.2	12.7	14.2
Ødk	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-300

SIZE (mm)	15	20	25	32	40	50
L	152	178	203	216	229	267
Øb	9.5	12.7	17.5	23	30	36
H~	60	78	90	97	97	120
ØD	95	117	124	133	155	165
T	12.7	14.2	15.7	17.5	19	20.6
Ødk	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	15.9	19.1	19.1	19.1	22.2	19.1

### DIMENSIONAL DATA CLASS-600

SIZE (mm)	15	20	25	32	40	50
L	165	190	216	229	241	292
Øb	12.7	18	23	30	30	36
H~	60	78	90	97	97	120
ØD	95	117	124	133	155	165
T	14.2	15.7	17.5	20.6	22.4	25.4
Ødk	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	82.5	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			
		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	DISC	ASTM A217 Gr.CA15/ SS 304 ASTM 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	COVER	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