

Technical Details

Ball Valve



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BALL VALVE

Silent Features

- The valves are designed to ensure that ball port fully aligns with body throat port in fully open position.
- The blow out proof over size steam operated the valve safety even at high differential pressure a seal enabling replacement of gland packing even when valve may under pressure.
- Bi- directional shut off
- Ball is a heart of ball valves. Owing to the accurate manufacturing the ball is extremely spherical. Its mirror finish surface increase the sealing life and low operating torque.
- High flow capacity with negligible pressure loss.
- Unique flexible lip seats exert continues sealing pressure automatically compensate for wear and for changes in temperature & pressure, and provide extremely high cycle life.
- Full port valve offers and resistance to flow operation is always easy, even when valves are operated infrequently.
- The valve wrench (handle) is always parallel the flow passage of the valve.
- Joints between bodies and body connectors in the case of flanged valve do not affect normal bolting or unbolting connection pipe works.
- Body design provides adequate resistance against any permanent distortion under hydrostatic test and working condition.
- Screwed end valves intended for assembly with pipe threads according to IS-554/BSP thread.
- Flanged end valves are supplied undrilled unless otherwise specified by the customer at the time of placing order with us along with standard in which drilling is desired

Option

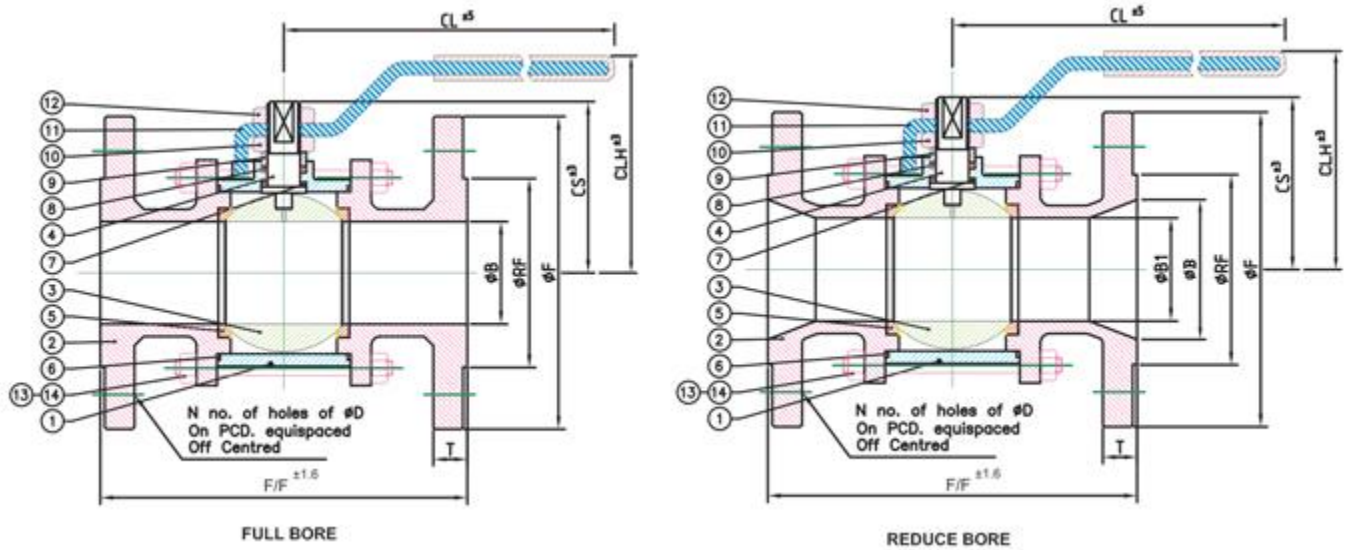
- Design available with mounting pad conforming to ISO for easy actuator adaptation.
- Electro less nickel plating ball are also available on request.
- Locking arrangement
- Gear box, electric or pneumatic actuator design available
- Single Piece, Two piece design available on request
- We can offer valves under X-ray quality on request



CONSTRUCTION :	3 Piece full bore, reduce bore, blow out proof stem , Floating ball, fire safe /non fire safe design.
MANUFACTURING STD :	BS 5351/BS 5159/API 607/API 6D
INSPECTION TEST STD :	BS 6755/ API 598/ ISO 5208
FACE TO FACE :	ASME B 16.10/ API 6D/ ISO - 14313
END CONNECTION :	Flanged to ASME B-16.5 RF 150#, Flanged to ASME B-16.1 FF 125#, Socket to ASME-B-16.11, Screwed to BSP/NPT/BSPT

Material of Construction

PART NO.	NOMENCLATURE	CAST IRON	ASTM A216,Gr.WCB	ASTM A351,Gr.CF8	ASTMA 351,Gr.CF8M
1	BODY	C.I.	WCB.	S.S.-304	S.S.-316
2	SIDE PIECE	C.I.	WCB.	S.S.-304	S.S.-316
3	BALL	AISI-304	AISI-304	AISI-304	AISI-316
4	STEM	AISI-304	AISI-304	AISI-304	AISI-316
5	SEAT	PTFE	PTFE	PTFE	PTFE
6	BODY SEAL	PTFE	PTFE	PTFE	PTFE
7	STEM SEAL	PTFE	PTFE	PTFE	PTFE
8	GLAND PACKING	PTFE	PTFE	PTFE	PTFE
9	GLAND	AISI-304	AISI-304	AISI-304	AISI-316
10	GLAND NUT	AISI-304	AISI-304	AISI-304	AISI-316
11	LEVER	C.S.PLATED	C.S.PLATED	S.S.-304	S.S.-316
12	LEVER NUT	C.S.PLATED	C.S.PLATED	S.S.-304	S.S.-316
13	BODY STUD	Carbon Steel	ASTM.A193 Gr.B7	ASTM.A193 Gr.B7	ASTM.A193 Gr.B7
14	BODY NUT	Carbon Steel	ASTM.A194 Gr.2H	ASTM.A194 Gr.2H	ASTM.A194 Gr.2H

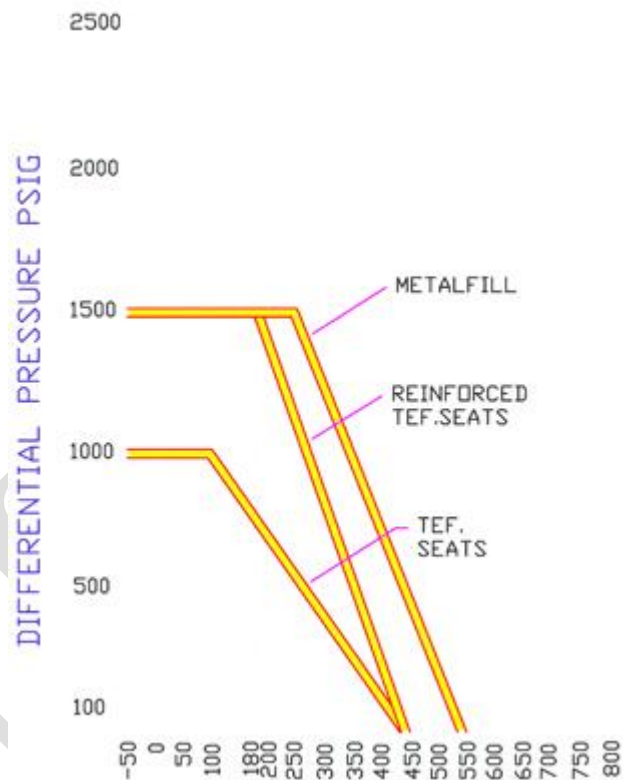


Dimension Details

SIZE		ØB	ØB	F/F	CS	CLH	CL	ØF	ØRF	PCD	T	ØD	N
INCH	MM	Port	Port										
1/2"	15	12.5	10	108	42	68	164	88.9	34.9	60.3	11	15.9	4
3/4"	20	17	12.5	118	48	75	128	98.4	42.9	69.9	11	15.9	4
1"	25	24	17	127	51	76	178	107.9	50.8	79.4	12	15.9	4
1-1/2"	40	37	24	165	76	99	234	127	73	98.4	14	15.9	4
2"	50	49	37	178	84	105	232	152.4	92.1	120.8	16	19	4

2-1/2"	65	64	49	191	105	132	296	177.8	104.8	139.7	18	19	4
3"	80	75	64	203	115	142	297	190.5	127	152.4	19	19	4
4"	100	98	75	229	132	170	394	228.6	157.2	190.5	24	19	8
5"	125	123	98	254	187	205	535	254	186	216	24	22.2	8
6"	150	148	123	267	211	235	525	279.4	215.9	241.3	25	22.2	8
8"	200	198	148	292.1	275	308	715	342.9	269.9	298.4	29	22.2	8
10"	250	248	198	330.2	345	388	*	406.4	323.9	362	30.23	25.4	12
12"	300	298	248	609.2	479	529	*	482.6	381	431.8	32	25.4	12

Pressure VS. Temperature



NOTE :-

1. Pressure And Temperature Curves Shown are for Standard Ball Valves, For Other Seat-Seal Combinations Through 5000 PSI And -450o to 1100oF (-232o to 539oC).

2. Reinforced TEF, may be used to 150 PSIG Steam Maximum.

3. Maximum Temperature for TEF. and Reinforced TEF. Seals is 450oF (232oC). Maximum Temperature for Flex Gaskets is 550oF (287oC).

Pressure and temperature curves shown apply to 1/4" -3" valves except 3" full port maximum pressure 1000 PSI.

Seat & Seal Insert

- A - ACETAL
- B - BFT
- C - CFT
- D - DELRIN
- E - PCTFE
- F - CGFT
- G - GFT
- Gr. - GRAPHITE
- L - DEVLON
- N - NYLON
- P - PEEK
- R - RPTFE (Reinforced)
- T - PTFE
- V - Pri. Metal & Sec.
- Softseat of Viton

IMPREGNATED SS 316

NYLON