

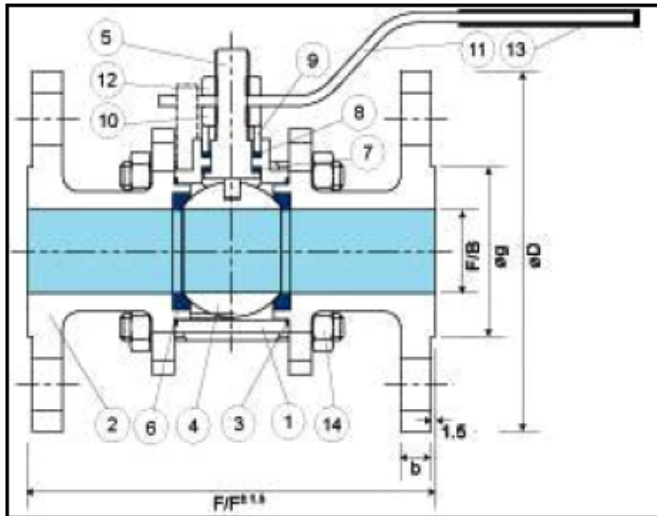
Ball Valves

Characteristics

Ball valves are quarter-turn, straight through flow valves that have a round closure element with matching rounded seats that permit uniform sealing stress. Ball valves are used in situations where tight shut-off is required. The type of seat can vary with the valve pressure rating and materials of construction.

In general, ball valves offer many advantages when contrasted with other valve types. They provide superior ease of operation and can maintain and regulate high volume, high pressure and high temperature flow. Additionally, the design of the regulating element allows the valve to function without the complications of side loads, typical of butterfly or globe valves, and the valve design permits inspection and repair of seats and seals without removing the valves' body from the line.

Ball valves are available in a variety of body styles, including one-piece, two-piece, three-piece and flanged body construction. Each of these ball valve forms offers specific advantages depending upon the requirements of the given application. Similarly, they are designed using a wide variety of materials, as required by their application.



APPLICABLE STANDARDS:

- Manufacturing Standard: BS 5351/ API 6D
- Testing as per BS 6755(PT-I)
- Face To Face As per ANSI B16.10
- End Flange & Drilled As per BS 6577 / API 598
- Anti – Static device available on request.

• Test Standard: BS 6755(PT-I)

Test pressure in PSIG			
	Class	150	300
Hydro	Body	450	1140
	Seat	315	840

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Material Specification:

Part No.	Part Name	Specification
01	Body	ASTM A216 Gr. WCB
02	Side piece	ASTM A216 Gr. WCB
03	Body Gasket	PTFE
04	Ball	AISI SS304
05	Stem	AISI SS304
06	Ball Seat	PTFE
07	Stem Seal	PTFE
08	Gland Packing	PTFE
09	Gland	AISI 304
10	Gland Nut	AISI 304
11	Lever	Malleable Iron / Cast Steel
12	Lever Nut	Carbon Steel
13	Lever Sleeve	PVC
14	Body Stud & Nuts	ASTM A193 Gr. B7 & ASTM A194 Gr. 2H

Any other special materials or requirements available on request.

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OUR PRODUCT RANGE

Valve Type	ASME Class	Design Standard		Valve Material		Size Range
		P-T Rating	Complies to	Shell	Trim	
Gate Valve	150	ANSI B16.34	API 600/BS 1414	WCB, LCB, CF8, CF8M, CF3, CF3M, C5,WC6, CD4MCu, Etc.	AISI: SS410, 304,304L, 316, 316L, ST6, Hard Faced, Etc.	1" TO 24"
	300					1" TO 24"
	600					2" TO 12"
	900					2" TO 12"
	1500					2" TO 12"
	2500					2" TO 8"
Globe Valve	150		API 600/BS 1873	WCB, LCB, CF8, CF8M, CF3, CF3M, C5,WC6, CD4MCu, Etc.	AISI: SS410, 304,304L, 316, 316L, ST6, Hard Faced, Etc.	1" TO 16"
	300					1" TO 12"
	600					2" TO 12"
	900					2" TO 12"
	1500					2" TO 12"
	2500					2" TO 8"
Non-Return Valve	150		API 600/BS 1868	WCB, LCB, CF8, CF8M, CF3, CF3M, C5,WC6, CD4MCu, Etc.	AISI: SS410, 304,304L, 316, 316L, ST6, Hard Faced, Etc.	2" TO 24"
	300					2" TO 24"
	600					2" TO 12"
	900					2" TO 12"
	1500					2" TO 12"
	2500					2" TO 8"
Forged Steel Gate Valve	800	API 602/BS 5352	A105, F304, F316, F304L, F316L, Etc.	- do -	¼" TO 2"	
	1500				¼" TO 1½"	
Forged Steel Globe Valve	800	API 602/BS 5352	A105, F304, F316, F304L, F316L, Etc.	- do -	¼" TO 2"	
	1500				¼" TO 1½"	
Forged Steel Check Valve	800	API 602/BS 5352	A105, F304, F316, F304L, F316L, Etc.	- do -	¼" TO 2"	
	1500				¼" TO 1½"	
Wafer Type Check Valve	150/PN 10	API 594/API 6D	Cl, WCB, CF8, CF8M, Etc.	Seat: EPDM, Viton, Nitrile, Silicone, PTFE, Etc.	1" TO 28"	
	300/PN 16				1" TO 28"	
Ball Valve	150	API 6D/BS 5351	WCB, CF8, CF8M, A105, Etc.	PTFE, Reinforced PTFE, Etc.	2" TO 6"	
	300				2" TO 6"	
	800				½" TO 2"	
Butterfly Valve	150/PN 10	API 609/BS 5155	Cl, WCB, CF8, CF8M, Etc.	Seat: EPDM, Hyplone, PTFE Nitrile, Silicone, etc	1" TO 48"	
	300/PN 16				1" TO 48"	

- + Any other special materials or requirements available on request.
- + Gear Box & actuator operated valves available upon request.
- + Stellite or Hard facing of valve seats available upon request.
- + Position Indicator, By-Pass arrangement, Locking arrangement available upon request.
- + Seal welded body seating available upon request.
- + Butt Weld Ends available upon request.
- + Swing Check Valves available with Dash Pot & counter Weight Arrangement upon request.
- + Butt Weld Ends available upon request.

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DESIGN SPECIFICATIONS

Items	American Standard	British Standard
Shell wall thickness and general valve design specifications for Cast Steel & Forged Valves	API 600 / API 6D / API 602 / ASME B 16.34	BS1414 (Gate valve) BS1873 (Globe valve) BS1868 (Check valve)
Pressure-temperature ratings	ASME B16.34	BS1560
Face-to-face dimensions for Flanged Ends End-to-end dimensions for Butt Weld Ends	ANSI B16.10	BS2080
End flange dimensions for Flanged Ends	ANSI B16.5	BS1560
Welding end dimensions for Butt Weld	ANSI B16.25	BS1414 (Gate valve) BS1873 (Globe valve) BS1868 (Check valve)
Welding end dimensions for Socket Weld	ANSI B 16.11	
Testing & Inspection Standard	API 598	BS 6755 (Part-I)
Radiography & NDT	ASME 16.34	

INSPECTION AND WARRANTY POLICY

Each & every valves are subjected to 100% pressure tests, according to API 598 or BS 6755 Part 1 requirements. Material test reports and inspection certificates are available on your request, while each valve is guaranteed for 12 months after placement in service, but not exceeding 18 months after shipment from our factory.

Some of the additional inspections and tests performed are:

- Random Radiograph Inspection of Body and Bonnet Castings to ASME B16.34 Appendix B
- Random Chemical Composition and Mechanical Properties Verification of Fasteners to ASTM A-193/A-194
- Liquid Penetrate Inspection of Seat Rings
- Visual Inspection of Casting to MSS-SP-55
- Receiving, In-Process, and Final Dimensional Inspections to Relevant Valve Standards.

Test / Inspection Item	Complies to	Evaluation
Chemical composition analysis		Relevant ASTM Std.
Mechanical property test	ASTM A370	Relevant ASTM Stds.
Pressure tests	API 598 or BS 6755 Part 1	API 598
Radiographic inspection	ASTM E142 / E49	ASME B16.34
Wet magnetic particle inspection	ASTM E138	
Liquid penetrant inspection	ASTM E165	
Low temperature impact test	ASTM E23	
Dimensional inspection		ASTM A352
Visual inspection		Relevant Valve Stds.
		MSS SP-55

Other inspections or tests can be performed or evaluation criteria applied when specified by the customer.

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TRUNNION MOUNTED BALL VALVE

API 6D Trunnion Mounted Ball Valve

Ultraflow Offers Pneumatic Actuator Operated, The Inconel Spring Trunnion Mounted Ball Valve is a robust API 6D monogrammed 2 piece design with bi-directional sealing. SRE Series trunnion mounted ball valves are designed for general industrial and chemical applications, and include the following features standard. chemical, oil, petrochemical, gas, pulp, paper processing and other industries. Chemical, Pharmaceutical, Food, Pharmaceutical, Petrochemical, Energy, Plastics, Oil & Gas, Cement & lubrication

Size Range : : 4" to 24" Flanged

DBB (Single Piston Design)

DIB – 1 : Double isolation and bleed valve (Double Piston Design On Request)

DIB – 2 : Double isolation and bleed valve

One side Single piston(uni-directional),one side double piston(bi-directional)



Standard	
Design And Manufacturer	API 6D
Valve Face To Face Dimension	API 6D
Flange Standard Conformity	ASME B 16.5 150# & 300#
Inspection & Testing	API – 6D

Accessories

- ➔ On / OFF Indicator
- ➔ NAMUR Standard Solenoid Valve in all Standard Coil Voltage (Flame Proof Solenoid Coil – On Request)
- ➔ Pneumatic & Electro-Pneumatic valve positioner
- ➔ Declutchable Manual Over – Ride
- ➔ Limit Switches for On / Off Indication at Panel Board
- ➔ Filter + Regulator Combination with Pressure Gauge
- ➔ Air Lock Valve

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Sr. No.	Description	Material
1	Body	WCB / CF8 / CF8M / CF3M
2	Connector	WCB / CF8 / CF8M / CF3M
3	Ball	CF8 / CF8M / CF3M
4	Ball Seat	PTFE
5	Adapter	CF8 / CF8M
6	Spring	Inconel
7	Stem Pin	S.S.304 \S.S. 316
8	Distance Bush For Stem	S.S.304
9	Key For Shaft	S.S.304
10	Spring & Ball For Anti Static	S.S.304
11	Acuator Plate	S.S.304
12	Body Fitting Stud + Hex Nut	M.S / S.S.304
13	Trunnion Pin	S.S.304 / S.S.316
14	Distance Bush For Trunnion	S.S.304
15	Trunnion Plate	S.S.304
16	Drain & Vent	S.S.304
17	Sealent	S.S.304