

Trunnion Ball Valve Fully Welded Body

Valves suitable for Oil & Gas production, processing, transportation, distribution, chemical and petrochemical refining on above ground and below ground installations.



GENERAL CONSTRUCTION

Trunnion ball valves have the obturator bounded by trunnions which do not allow axial displacements of the ball itself in the flow direction; line pressure compresses the seat onto the ball, the contact between surfaces generates the valve sealing; trunnion standard construction ensure automatic cavity relief in case of overpressure in body cavity; these valves can be selected for a wide range of applications with no specific limits to sizes and pressures. Fully welded constructions, both flanged or with welded ends, are preferable solution when no maintenance is required on above ground or below ground (buried) installations and allows a real 0 leakage feature.

MATERIALS OF CONSTRUCTIONS

Low Temperature and Low Alloy Carbon Steel
Stainless steel, Duplex and Super Duplex
Nickel alloys

APPLICATIONS

UTILITY

CORROSIVE & DIRTY

LOW TEMPERATURE

HIGH PRESSURE

STANDARD FEATURES

Construction	Fully welded body
Port	Reduced bore, full bore or fully piggable
Stem retention	Anti blow-out stem
Leakage rate	ISO 5208 rate A soft seated, rate D metal seated
Antistatic device	Included, the ball valve design includes an electric conductive connection between the internal parts of the ball valve and the body, providing the anti-static function.
Pressure relief	Automatic cavity relief to prevent overpressure in body cavity (self-relieving seats)
Sealing	Bi-directional, Double block & bleed (DBB) with sealing in both directions (DIB-1&2 upon request) Metal seated with Tungsten or Chrome Carbide coatings Primary metal secondary soft (PMSS) with differential hardness between the ball and seat to prevent galling of the substrate Soft seated with thermoplastic polymers (Nylon, PEEK, PCTFE), special polymers upon request Elastomers FKM, HNBR, EPDM O-Rings, special elastomers upon request
Drain	Drilled and threaded connections for all sizes
Vent	Drilled and threaded vent connections for sizes \geq DN150 (6") < DN150 upon request
Stem grease injectors	Included for all sizes
Seat grease injectors	Included for sizes \geq DN150 (6"), < DN150 upon request
Lifting points	Included for sizes \geq DN150 (6") or on valves of 250 kg min
Support feet	Included for sizes \geq DN150 (6") or on valves of 250 kg min
Stem extension	Available upon request
Pups pieces	Available upon request
Valve operation	Lever, Gear box or Actuator with position indicator and locking device
Material testing	Pressure containing & controlling parts to EN 10204 3.1 Materials in Sour Service according to NACE MR0175, MR0103, ISO 15156 Non-destructive testing (NDT) to API 6D, ASME B16.34 Welding & NDT according to ASME IX; WPS, PQR, WPQ as per project requirements
Valve testing	Hydrostatic & pneumatic testing to API 6D, ASME B16.34, ISO 5208 (other upon request)

TECHNICAL DATA

Design	API 6D, API 6DSS, ASME B16.34, ISO 14313, ISO 17292
Design pressure	ASME B16.34, EN 1092-1, ISO 17292
Body wall thickness	ASME B16.34, ASME VIII Div. I, ISO 17292
Face to Face	API 6D, ASME B16.10 Long pattern
Temperature range	-50° to 200°C (-58° to 392°F)
Pressures range	PN20 (ANSI 150) to PN420 (ANSI 2500)
Size range	DN15 (1/2") to DN1800 (72")
End connections	ASME B16.5 \leq DN600 (24") Flanged RF,FF,RTJ MSS-SP-44 = DN550 (22") Flanged RF,FF,RTJ ASME B16.47 A \geq DN650 (26") Flanged RF.FF.RTJ

APPROVALS

Safety Integrity Level	SIL 3
Fire Safe	API 607, API 6FA, BS 6755, ISO 10497-5
Area Classification	ATEX 94/9/EC
Pressure Equipment Directive	PED 97/23/EC
Fugitive Emission	ISO 15848/1
Construction	API 6D, API 6DSS