

**TRUNNION
BALL VALVES**



“We make valves since 1968”

JC Fábrica de Válvulas S.A.U, established in 1968, is a multinational company specialised in the manufacture and sale of high quality industrial valves.

The expertise and know how acquired over the years coupled with the continued investments in the design of valves, has made JC a world renowned company in the field of valve applications.

» TTV-JC World Wide

TTV-JC provides world wide coverage thanks to the strategic locations of its factories and offices in Canada, Mexico, Brasil, Russia, Middle East, South Africa, India, Singapore, China and Spain.

» Quality assurance

JC Valves are designed and produced to meet the major international standards and we take great care and put a lot of emphasis on QUALITY, which provides our customers with a total guarantee and trouble free operation of their process.

And in addition, we take great care to make our facilities and our products Environment friendly.

» Global services

JC Fábrica de Válvulas S.A.U offers its customers a world wide service, from technical advice to choose the right valve up to the design and manufacture of custom built valves to meet special service requirements.

Our R+D department is always ready to find solutions for severe applications and our global distribution network offers quick availability of JC valves and an efficient after sales service.

Global Service

Technical Support



Design



Manufacture



World Wide Distribution



After-Sales Service



» Market sectors

JC develops and designs valves for all applications, but the main focus is in Oil & Gas, Chemical, Petrochemical, Pulp & Paper and Energy sectors.



Oil



Chemical



Gas



Pulp & Paper

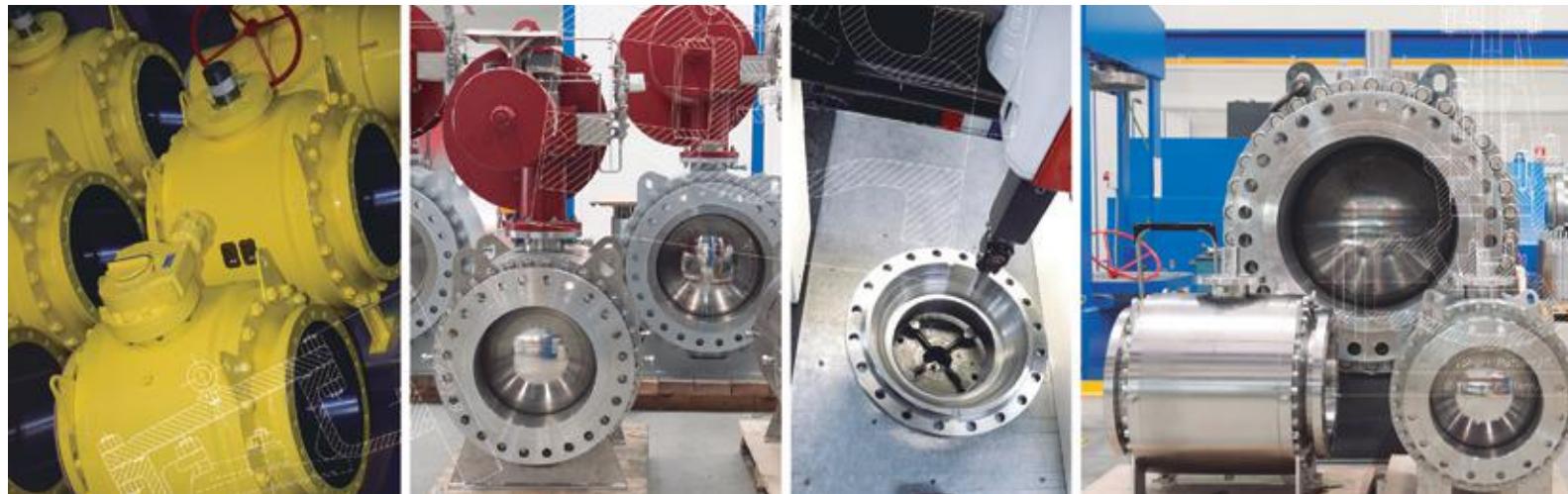


Petrochemical



Energy

The quality option



TRUNNION BALL VALVES
PRODUCT RANGE



3 Piece Forged Trunnion Mounted

- » **FORGED 6015** | Full Bore Class 150. From 2" to 42"
- » **FORGED 6030** | Full Bore Class 300. From 2" to 42"
- » **FORGED 6060** | Full Bore Class 600. From 2" to 36"
- » **FORGED 6090** | Full Bore Class 900. From 2" to 24"
- » **FORGED 6050** | Full Bore Class 1500. From 2" to 24"
- » **FORGED 6042** | Full Bore Class 2500. From 2" to 12"
- » **FORGED 7015** | Reduced Bore Class 150. From 3" to 42"
- » **FORGED 7030** | Reduced Bore Class 300. From 2" to 42"
- » **FORGED 7060** | Reduced Bore Class 600. From 3" to 36"
- » **FORGED 7090** | Reduced Bore Class 900. From 3" to 24"
- » **FORGED 7050** | Reduced Bore Class 1500. From 3" to 24"
- » **FORGED 7042** | Reduced Bore Class 2500. From 3" to 12"



Metal Seated 3- Piece Forged Trunnion Mounted

- » **FIG. 6015** | Full Bore Class 150. From 2" to 24"
- » **FIG. 6030** | Full Bore Class 300. From 2" to 24"
- » **FIG. 6060** | Full Bore Class 600. From 2" to 24"
- » **FIG. 6090** | Full Bore Class 900. From 2" to 20"
- » **FIG. 6050** | Full Bore Class 1500. From 2" to 20"
- » **FIG. 7015** | Reduced Bore Class 150. From 2" to 24"
- » **FIG. 7030** | Reduced Bore Class 300. From 2" to 24"
- » **FIG. 7060** | Reduced Bore Class 600. From 2" to 24"
- » **FIG. 7090** | Reduced Bore Class 900. From 2" to 20"
- » **FIG. 7050** | Reduced Bore Class 1500. From 2" to 20"



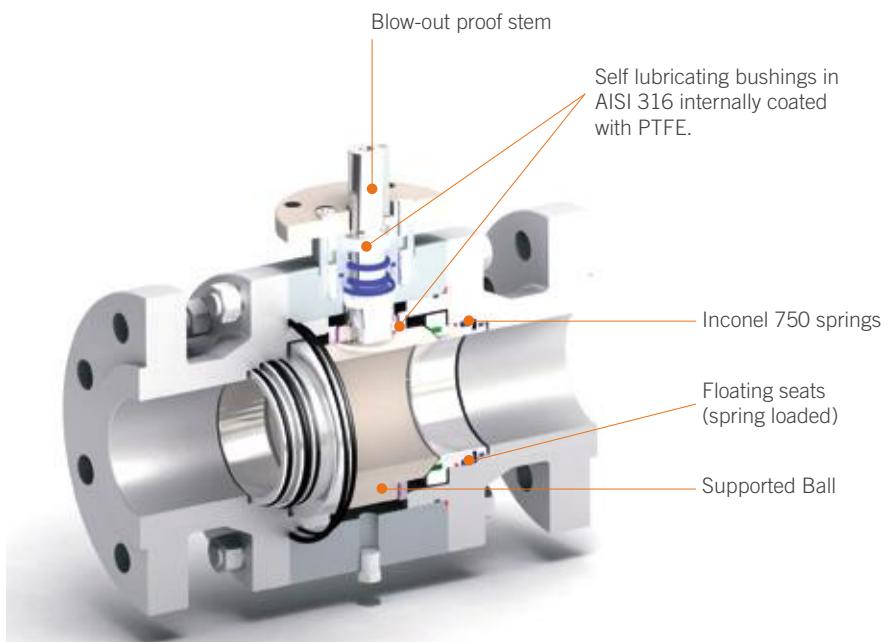
2 Piece Cast Trunnion Mounted

- » **CAST 2515** | Full Bore Class 150. From 2" to 16"
- » **CAST 2530** | Full Bore Class 300. From 2" to 16"
- » **CAST 2560** | Full Bore Class 600. From 2" to 12"

Description and working principle

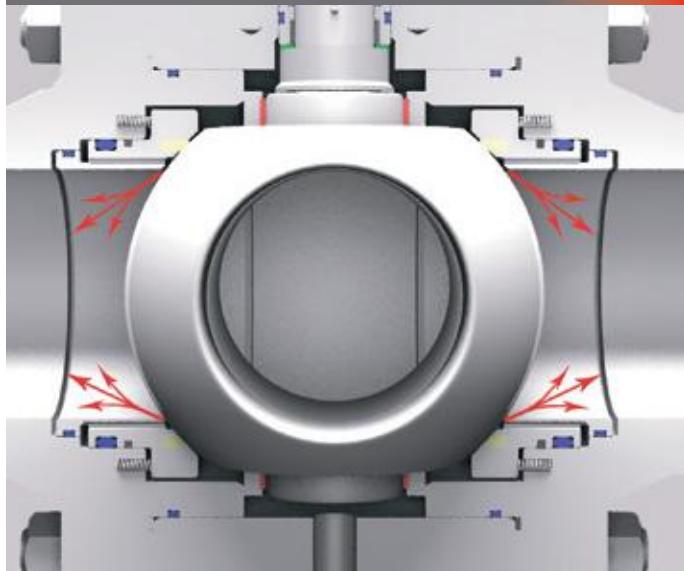
Trunnion mounted ball valves are based on a system that provide a fixed ball and floating seat rings. The side load given by the pressure acting on the ball is absorbed by the bearings. At low pressure the sealing on the seats is obtained by the spring action on the seat rings. The more the pressure increases, the more it pushes the seats against the ball.

The JC trunnion mounted ball valves range is specially designed to stand the harsh service conditions often presented in the hydrocarbon industry and in the gas storage and transportation field.

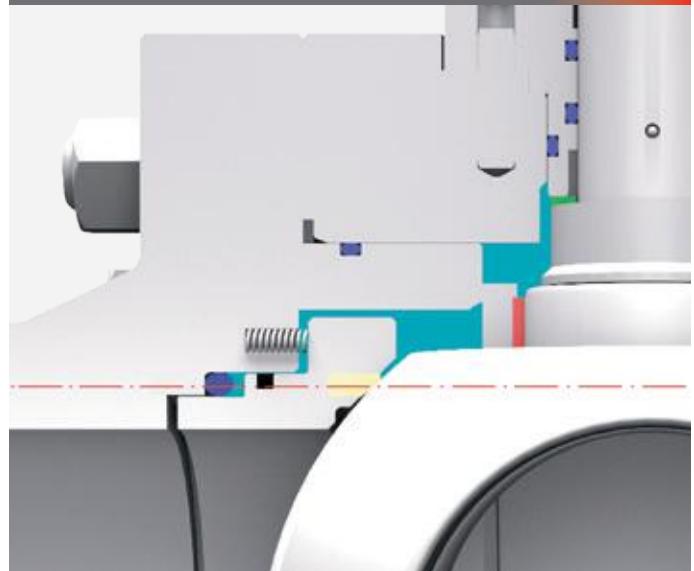


(*) Seats are also available in DPE (Double Piston Effect) and PMSS (Primary Metal, Secondary Soft).

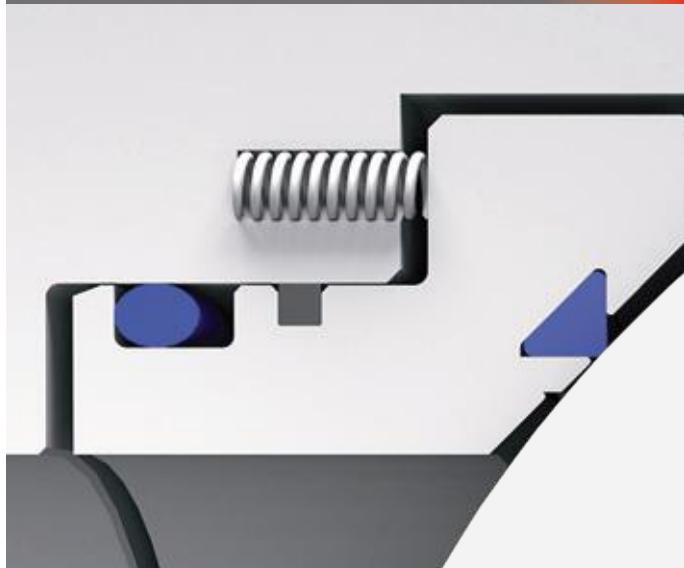


Single Piston Effect (SPE)

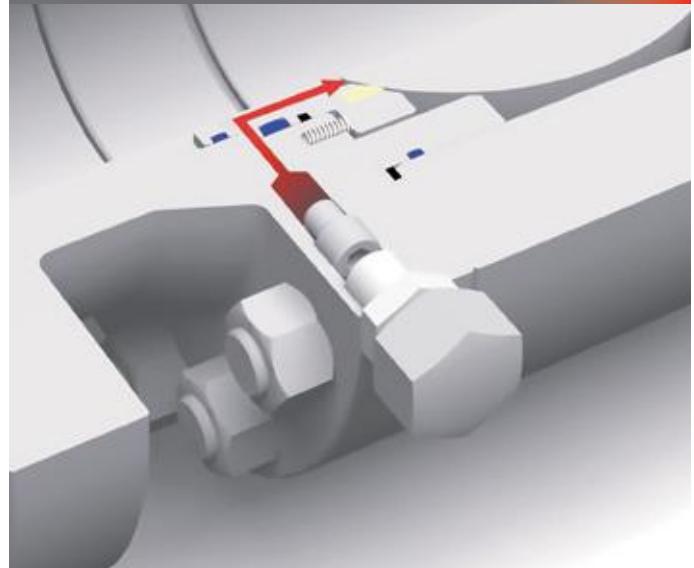
In a trunnion ball valve media will be trapped in the body cavity either in open or close position. As temperature rises, the trapped media will expand and the pressure increases. The SPE seat design allows automatic relief of excessive pressure built up inside the body cavity into the pipe. This is the standard JC construction.

Double Piston Effect (DPE)

On the other hand the DPE seats do not relieve the internal volume (cavity) pressure build-up caused by thermal expansion. The force generated by the fluid contained in the cavity will be balanced and will not affect the seat contact with the ball. When the valve is equipped with 2 identical DPE seats, the cavity relief must be realized by a specific external system (external safety or bleed valve).

Primary Metal Seat / Secondary Soft (PMSS)

Standard seat design is primary soft seal and secondary metal to metal seal but we can also offer on request the design with primary metal to metal seal and secondary soft seal seat design.

Emergency Sealing Injection

Emergency seat or stem sealant injection can be used to stop or strongly reduce a leakage with the valve in service. This will allow to schedule a proper maintenance reducing the risk of an accident due to valve failure.

Weld Overlay

JC Valves provides the best welding technology for any kind of welding needs. Weld Overlay is a welding process, offered on request, where one or more metals with specific characteristics are applied to a base metal to improve desirable properties or to restore the original dimension of the components that significantly enhances the service life of them.

This technology is cost effective for ball valves in highly corrosive or erosive services.



TRUNNION BALL VALVES SPECIAL CONFIGURATION

Metal Seated



JC offers also a large range of metal seated ball valves mainly used for heavy duty application such as:

- » High temperatures: above 260 °C the use of soft seats is not recommended.
- » Abrasive media: even small particles can damage soft seats.
- » High Velocity in opening/closing cycles: this action can perfectly deform the soft ring and destroy the seat.

Top Entry



When maintenance in line is required, top-entry ball valves are available. With the stem in the vertical position this valve design permits disassembly, replacement of the all internal parts and seals and reassembly without removing the valve from the line.

This type of valves are specially recommended for those which have to be welded to the pipes and for compact installations like off-shore platforms.



TRUNION VALVES

BY JC

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