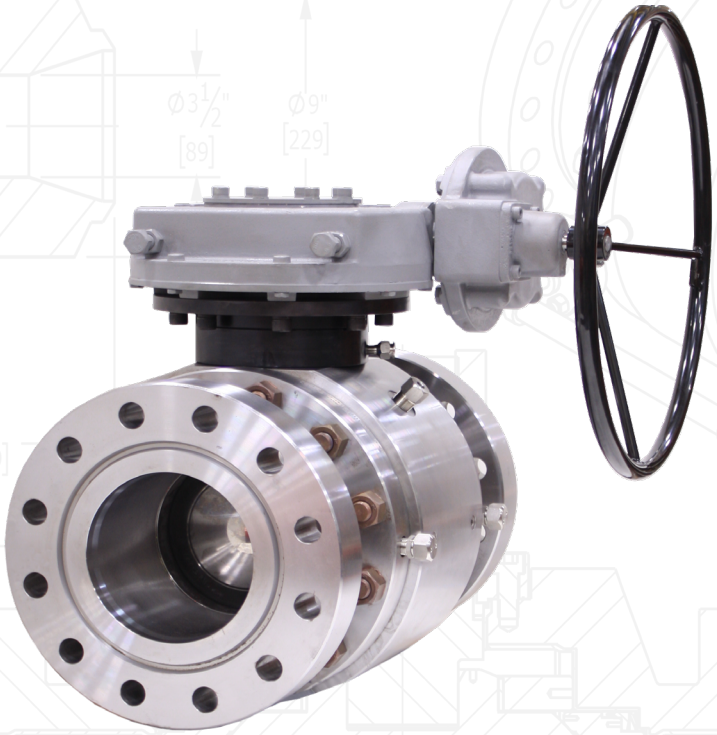


TrunTech®

Trunnion Mounted Metal Seated Ball Valves

VALV TECHNOLOGIES®

The Next Generation in Trunnion Technology

ValvTechnologies' TrunTech® is designed to address the severe service demands of the oil and gas industries. Its protected seat seals design provides long life and tight shut-off in abrasive / erosive conditions and meets stringent fugitive emission requirements.

- 2 - 36"
- ASME/ANSI Class 150 - 4500
- API 5000 - 15000
- Sized per API 6A and 6D

Applications

The advantages of the trunnion-mounted ball valve include: low operating torque, protected sealing surfaces when in the open and closed position, and the ability to operate in the presence of solids and other contamination. The TrunTech® design meets stringent emission requirements and provide long life in abrasive and erosive conditions.

- HIPPS
- ESD
- Manual isolation
- Injection
- Gas storage (withdrawal)
- Gas transmission
- Scraper receiver isolation
- Other gas treatment processes

The TrunTech® design provides a severe service solution for tough, high-cycling applications.

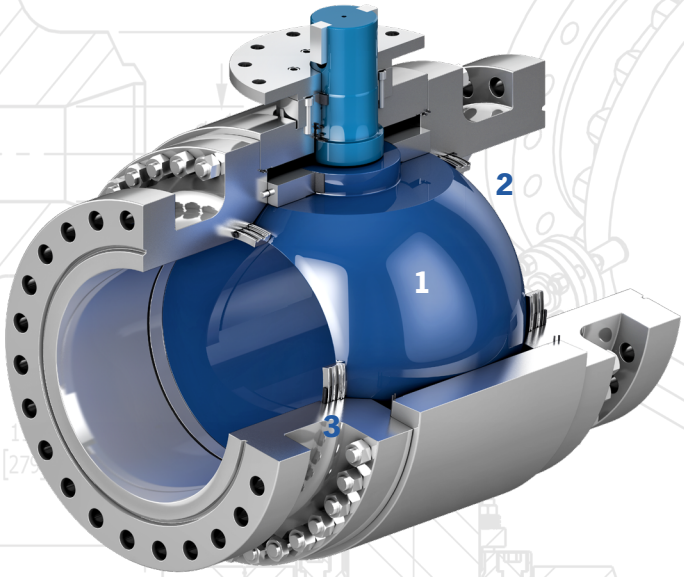
Features	Benefits
Guaranteed tight shut-off	Enhanced process safety and repeatable sealing allows operation under process excursions
True metal-to-metal sealing without using secondary elastomeric seals	Inherent fire safety
Solid-proofed by design	Process reliability
Exclusive HVOF RiTech® coating technology	Extended life
Grafoil® fire-safe seals	Reduced maintenance costs
Double block and bleed capability	Enhanced process safety
High-cycling capability	Process reliability
Bi-directional sealing by design	Enhanced process safety, lower maintenance, less downtime
Single-piece anti blow-out stem design	Enhanced process safety
Impervious to high thermal cycling	Enhanced process safety
Certified to use in SIL-3 loop in single-valve and SIL-4 loop in two-valve with minimum MTBF 1,280 years	Enhanced process safety
Fire safe certification: API-607 / API 6FA	Enhanced process safety
Stem fugitive emissions per ISO 15848-1 Class B and TA-Luft	Lower emissions and enhanced process safety

Long Life and Tight Shut-off in Severe Conditions

1. Carbide Sealing Surfaces
The sealing surfaces are overlaid with tungsten or chromium carbide using ValvTechnologies' exclusive HVOF RiTech® coating process. These surfaces have a hardness of 68 - 72 Rc to allow long periods of operation in the most severe conditions.

2. High Integrity Seals
To prevent leaks around the seats, ValvTechnologies has developed an innovative double seal design for erosive services operation in high-cycling applications. A secondary graphite seal is installed toward the body cavity.

3. Solids Resistance
In addition to the carbide coatings which will allow the valve to function in highly abrasive applications, the individual valve parts have additional seals to prevent interference from solids in the system. This provides for outstanding service in severe-service isolation applications with high particle content from sand, elemental sulfur, hydrate, perforation shrapnel and pipe corrosion products.



TrunTech® Features					
Design Standard	**End Size**	**Class**	**Body Materials**	**End Connections**	**Operating Temperature**
Per API 6D ISO 14313 and API 6A ISO 10423	2 - 36"	ASME 150 - 4500 API 6A 5000 - 15000	A105 A350 LF2 F51 Alloy 625 Cladded 4130	BW RF RTJ Grayloc®	-50°F to 450°F -46°C to 200°C

Actuation and control

- Pneumatic - single and double acting
- Hydraulic - single and double acting
- Electric
- Electro-hydraulic
- Self contained with pressure pilots
- SIL-III instrumentation and logic solver
- Gears and levers

Fluids

- Gas-oil-water mixture with CO2, chlorides H2S and particles
- Injection water and gas
- Brine and brine-containing oil
- LNG
- Two-phase hydrocarbons

Zero-leakage Valve Solutions

Worldwide Office Locations

Australia
Brazil
Canada
Chile
China
Colombia
India
Japan
Kazakhstan
Malaysia
Poland
Saudi Arabia
Singapore
South Korea
Spain
Thailand
Turkey
United Arab Emirates
United Kingdom
United States

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