TrunTech®
Trunnion Mounted Metal Seated Ball Valves
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 - 2500
- 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

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

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

<table>
<thead>
<tr>
<th>Design Standard</th>
<th>End Size</th>
<th>Class</th>
<th>Body Materials</th>
<th>End Connections</th>
<th>Operating Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per API 6D</td>
<td>2 - 36&quot;</td>
<td>ASME 150-2500 API 6A 5000-15000</td>
<td>A105, A350 LF2, F51, Alloy 625 Cladded 4130</td>
<td>BW, RF, RTJ, Grayloc®</td>
<td>-50°F to 450°F, -46°C to 200°C</td>
</tr>
</tbody>
</table>

Actuation and control
- Pneumatic - single and double acting
- Hydraulic - single and double acting
- Electric
- Electro-hydraulic
- Self contained with pressure pilots
- SILIII 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

Headquarters & Manufacturing
ValvTechnologies, Inc.
5904 Bingle Road
Houston, Texas 77092 U.S.A.
Telephone +1 713 860 0400
Fax +1 713 860 0499
info@valv.com.

To locate a distributor or satellite office near you, visit us online at:

To contact sales anywhere in the world, email sales@valv.com.