Optibarrier™ Mechanical Ball Valve
Provides unlimited mechanical opening and closing functionality

Applications
- Sand control
- Isolation of lower-completion system for upper-completion installation or workovers
- Platform for hydraulically setting production packers

Features and Benefits
- The Optibarrier mechanical ball valve can be operated via industry-standard shifting tools for operational flexibility.
- The ball valve has increased differential opening capacity.
- The ball valve has unlimited mechanical opening and closing functionality.
- Initial valve closure is achieved when the washpipe and collet shifting tool are retrieved through the valve.
- The full-bore inside diameter (ID) of the ball valve maximizes production and enhances access to the formation.
- The bidirectional sealing mechanism provides a robust downhole barrier.
- The ball mechanism is rotationally locked to facilitate contingency milling.
- The ball valve can be manufactured in a variety of metallurgies, ranging from basic 4140 to high-nickel premium alloys, to suit specific wellbore conditions and operational needs.
- By exceeding ISO 28781-V1 standards, and having passed extended debris and life-cycle testing, the ball valve demonstrates reliable performance.

Tool Description
The Weatherford Optibarrier mechanical ball valve is a tubing-mounted bidirectional ball valve that controls wellbore flow. It is opened and closed mechanically by using industry-standard shifting tools or a stinger module in the upper-completion system. The ball valve has a modular design that enables compatibility with the other Optibarrier products, including those that are operated mechanically, hydraulically, or remotely using radio-frequency-identification (RFID) technology.

The Optibarrier ball valve exceeds ISO 28781 standards and has undergone extended debris testing as evidence of life-of-well performance capabilities. The ball valve can be manufactured in a variety of metallurgies, from basic 4140 to high nickel premium alloys.
## Optibarrier™ Mechanical Ball Valve

### Specifications

<table>
<thead>
<tr>
<th>Size</th>
<th>Maximum OD</th>
<th>Minimum ID</th>
<th>Maximum Differential Rating Across Ball</th>
<th>Temperature</th>
<th>Connections</th>
<th>Qualification Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.50 in.</td>
<td>7.75 in. (114.30 mm)</td>
<td>3.75 in. (95.25 mm)</td>
<td>10,000 psi (68.90 MPa)</td>
<td>39 to 302°F (4 to 150°C)</td>
<td>4-1/2 in. premium</td>
<td>ISO 28781-V1</td>
</tr>
<tr>
<td>5.50 in.</td>
<td>8 in. (203.20 mm)</td>
<td>4.63 in. (117.60 mm)</td>
<td>7,500 psi (51.70 MPa)</td>
<td></td>
<td>5-1/2 in. premium</td>
<td></td>
</tr>
<tr>
<td>5.50 in.</td>
<td>8.25 in. (209.55 mm)</td>
<td>4.25 in. (107.95 mm)</td>
<td>10,000 psi (68.90 MPa)</td>
<td></td>
<td>5-1/2 in. premium</td>
<td></td>
</tr>
</tbody>
</table>

*Maximum differential ratings across ball are metallurgy dependent.*