RFID Optibarrier™ Ball Valve

Controls wellbore flow through unlimited mechanical opening and closing functionality

**Applications**
- Isolating the lower completion system for upper completion installation or workovers
- Hydraulically setting production packers
- Deepset barriers
- Fluid loss applications

**Features and Benefits**
- The RFID Optibarrier ball valve can be operated using industry-standard shifting tools for operational flexibility.
- The ball valve has increased differential opening capacity.
- The ball valve provides unlimited mechanical opening and closing functionality.
- The fullbore 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 rotationally locks to facilitate contingency milling.

**Tool Description**
The Weatherford Optibarrier ball valve is a tubing-mounted bidirectional ball valve that can be opened and closed remotely using a radio-frequency identification (RFID) enabled control module. It can also be opened mechanically using industry-standard shifting tools or a stinger module assembled into an upper completion or workstring.

Tested beyond the International Organization for Standardization (ISO) 28781-V1 standards and in accordance with the American Petroleum Institute (API) specification 19-V, the bidirectional sealing mechanism provides a reliable downhole barrier. When open, the fullbore ID maximizes flow area and enables access to the formation. The ball valve can be manufactured in a variety of metallurgies, ranging from basic 4140 to high-nickel premium alloys.

The Weatherford Optibarrier mechanical ball valve has a modular design that is compatible with other Optibarrier products.
RFID Optibarrier™ 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. (114.30 mm)</td>
<td>7.75 in. (196.85 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. (114.3 mm) premium</td>
<td>ISO 28781-V1</td>
</tr>
<tr>
<td>5.50 in. (216 mm)</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>5-1/2 in. (139.7 mm) premium</td>
<td>5-1/2 in. (139.7 mm) premium</td>
<td></td>
</tr>
<tr>
<td>5.50 in. (216 mm)</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>5-1/2 in. (139.7 mm) premium</td>
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</table>

*The maximum differential ratings across the ball are metallurgy dependent.