RFID Reservoir Isolation Valve
Isolates the toe of the completion and eliminates the need for a deep-set plug

Applications
- Enhancing circulation path and providing well control and fluid changeout
- Remotely setting hydraulic devices, such as packers, the ROk-ANkOR® openhole whipstock anchor system, and circulating valves
- Remotely delivering injection, production, or intervention operations

Features and Benefits
- Eliminates the need for intervention services and crew through remote interventionless operation
- Reduces health, safety, and environmental concerns by reducing intervention requirements
- Improves operating costs by eliminating the need for addition completions
- Interfaces with any hydraulic-set device
- Releases any fill and leaves a flush bore when remotely opened through fall-through-flapper technology
- Provides simple, programmable operating logic

Tool Description
The Weatherford RFID-operated reservoir isolation valve (RIV) is an interventionless barrier device that isolates the toe of the completion, which eliminates the need for a deep-set plug and reduces completion time and risk. Qualified according to the International Organization for Standardization (ISO) 28781 V1, the RIV is a cost-effective and safe means of isolating completion systems.

The robustly constructed RIV is designed with debris, mud solids, and cement in mind; the internal operating mechanism is contained with the flow path. The debris-tolerant RIV does not rely on debris-sensitive springs, check valves, or complex piston arrangements. Built on patented fall-through-flapper technology, any debris fill is relieved and released as the flapper opens down into its housing to leave a flush bore. The flapper also provides a bidirectional barrier against which the completion system can be tested and hydraulically set. The tool also features a ceramic flapper option, as applicable. The RIV is run in the open position and is closed by circulating RFID tags via a preprogrammed timer. The RIV can be reopened by a frequency modulated pressure signature.
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Specifications*

<table>
<thead>
<tr>
<th>Size</th>
<th>Maximum OD</th>
<th>Minimum ID</th>
<th>Flapper Pressure Rating</th>
<th>Absolute Pressure Rating</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.50 in. (114.3 mm)</td>
<td>5.63 in. (143 mm)</td>
<td>2.50 in. (63.5 mm)</td>
<td>7,500 psi (51.7 MPa)</td>
<td>10,000 psi (69.9 MPa)</td>
<td>39 to 302°F (4 to 150°C)</td>
</tr>
<tr>
<td>6 in. (152.4 mm)</td>
<td>2.25 in. (57.2 mm)</td>
<td>10,000 psi (69.9 MPa)</td>
<td>15,000 psi (103.4 MPa)</td>
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<td></td>
</tr>
</tbody>
</table>

* Customer specific specification variants are available on request.