

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 additional 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 within 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.



The Weatherford RFID RIV provides interventionless isolation in the toe of the completion without using a deep-set plug.



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Specifications*

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

* Customer specific specification variants are available on request.

