

RFID Remotely Operated Sliding Sleeve

Multi-cycle sleeve that manages flow from individual production/injection zones remotely

Applications

- Managing flow from individual production or injection zones
- Acid stimulation operations
- Annular fluid changeout

Features and Benefits

- Eliminates the need for washpipe, control lines, intervention, wires, services, or crew.
- Facilitates tests of individual compartments and select optimized well profile.
- Features selective remote opening and closing through radio-frequency identification (RFID) technology.
- Protects seals when opening in over-and-underbalanced applications through controlled equalization.
- Minimizes pressure drops.
- Provides operational reliability through built-in hydraulic reservoir.
- Features a robust, reliable, and straightforward design.
- Reverts to a standard mechanical sliding sleeve at the end of battery life.

Tool Description

The Weatherford remotely operated sliding sleeve combines advanced well sliding-sleeve technology with RFID technology to provide an intervention-less, control-line-free well management device. The tool provides remote means of managing flow from individual production or injection zones with no limit to the number of sleeves that can be installed in a single monobore completion.

When positioned above or below the production packer, the sleeve can be used to remotely open a flow path to the annulus to circulate out packer fluid. The flowpath can

The tool is preprogrammed to operator-specific applications and is opened and closed by circulating RFID tags, frequency-modulated pressure signatures, timers, or a combination of these. The debris-tolerant tool does not rely on any debris-sensitive springs, check valves, nor complex piston arrangements during operation; thus, its reliability is not compromised by the need for pre-charged or well-sensitive piston chambers.



An unlimited number of remotely operated sliding sleeves can be run in a single monobore completion.



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Specifications*

Size in. (mm)	Max. OD in. (mm)	Min. ID in. (mm)	Pressure Rating psi (MPa)	Absolute Pressure Rating psi (MPa)	Temperature °F (°C)	Minimum Flow Area in. ² (cm ²)	Maximum Differential Opening Pressure psi (MPa)
4.50 (139.7)	8.125 (206.3)	3.688 (109.5)	7,500 (51.7)	15,000 (103.4)	39-302 (4-150)	12.87 (83.03)	1,500 (10.3)
5.50 (139.7)	8.00 (203.2)	4.56 (115.8)	7,500 (51.7)	15,000 (103.4)	39-302 (4-150)	16.33 (105.4)	1,500 (10.3)

* Customer-specific specification variants are available upon request. 4-1/2 in. remotely operated sliding sleeve has grooved bypass to protect TEC / fiber / hydraulic lines.

