RFID-Operated i-Stim® Remote Activated Fracture Stimulation Sleeve

Eliminates the need for intervention during stimulation operations

Applications

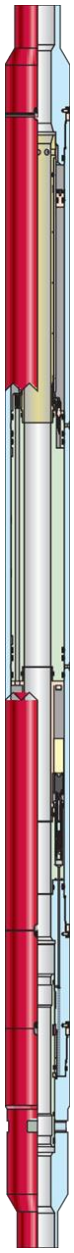
- The i-Stim sleeve replaces the traditional drop ball and composite plug systems used in stimulation operations.
- The system provides the necessary barrier to support upper completion installation and top side activities safely without the need for an intermediate completion.

Features and Benefits

- Remote intervention-less operation eliminates the need for wash pipe, intervention services and crew, improving health, safety and environment concerns whilst saving operating costs.
- Facilitates the ability to run the reservoir completion closed. The lower completion becomes the reservoir barrier and fluid loss device omitting the need for an intermediate completion.
- Unlimited number of zones in a monobore completion with no restrictive ball seats or milling requirements.
- Selective remote opening and closing via radio frequency identification (RFID), pressure modulation and/or timer.
- Facilitates staged start-up and well clean up from toe to heel.
- Sleeves can be cycled open and closed remotely, multiple times.
- Onboard clean hydraulic reservoir built in as standard, is debris tolerant, providing operational reliability.
- Set up in the factory to customer requirements minimizing non-productive time.
- Simple, user friendly, transferable operation provides operational efficiency.
- Robust, reliable, straightforward design.
- Mechanical contingency built in as standard.
- Reverts to a standard mechanical sliding sleeve at the end of battery life.

Tool Description

The Weatherford i-Stim Remote Activated Fracture Stimulation Sleeve is an RFID-operated stimulation sleeve that provides a versatile fluid placement system. There is no limit to the number of sleeves which may be run, there are no restrictive balls seats and there is nothing to mill out at the end of the job. Each sleeve has independent multi-cycle remote opening and closing capability, facilitating a wireless, intervention-less operation providing true selectivity.



The Weatherford RFID-operated **i-Stim remote activated fracture stimulation sleeve replaces the traditional drop ball and composite plug systems used in stimulation operations.**

Weatherford®

RFID-Operated i-Stim® Remote Activated Fracture Stimulation Sleeve

Tool Description (continued)

Each zone can be stimulated independently and in any order. By removing the restrictions and well interventions of other techniques the i-Stim sleeve will yield positive results, improved placement efficiency, improved clean up, better inflow across the whole well bore/reservoir contact. The i-Stim Sleeve also has an override profile which allows the sleeves to be mechanically manipulated in the well's later life.

Primarily designed for lower completion applications, the i-Stim sleeve has been designed with debris, mud solids and cement in mind. The internal operating mechanism is contained out with the flow path. The tool does not rely on any debris sensitive springs, check valves or complex piston arrangements during operation. The reliability is not compromised by the need for any pre- charged or well-sensitive piston chambers.

Specifications

Size in. (mm)	Max. OD in. (mm)	Min. ID in. (mm)	Pressure Rating psi (MPa)	Absolute Pressure Rating psi (MPa)	Temperature °F (°C)
4.50 (114.3)	5.85 (148.6)	2.81 (71.4)	7,500 (51.7)	15,000 (103.4)	39 to 302 (4 to 150)
5.50 (139.7)	8.00 (203.2)	4.56 (115.8)	7,500 (51.7)	15,000 (103.4)	39 to 302 (4 to 150)

Note: Client specific specification variants are available on request.