

ACTive Plug & Perf

CT real-time plug setting and perforating system

APPLICATIONS

- Multistage fracturing with plug setting and selective perforating in a single run
- Live-well interventions

BENEFITS

- Eliminates the need for ball drop, pressure pulse, and pumping fluid for gun detonation
- Increases efficiency with selective activation of plug setting tool and subsequent perforation
- Reduces surface equipment and personnel requirements
- Decreases the risk of overdisplaced fractures because of real-time downhole activation, measurements, and feedback

FEATURES

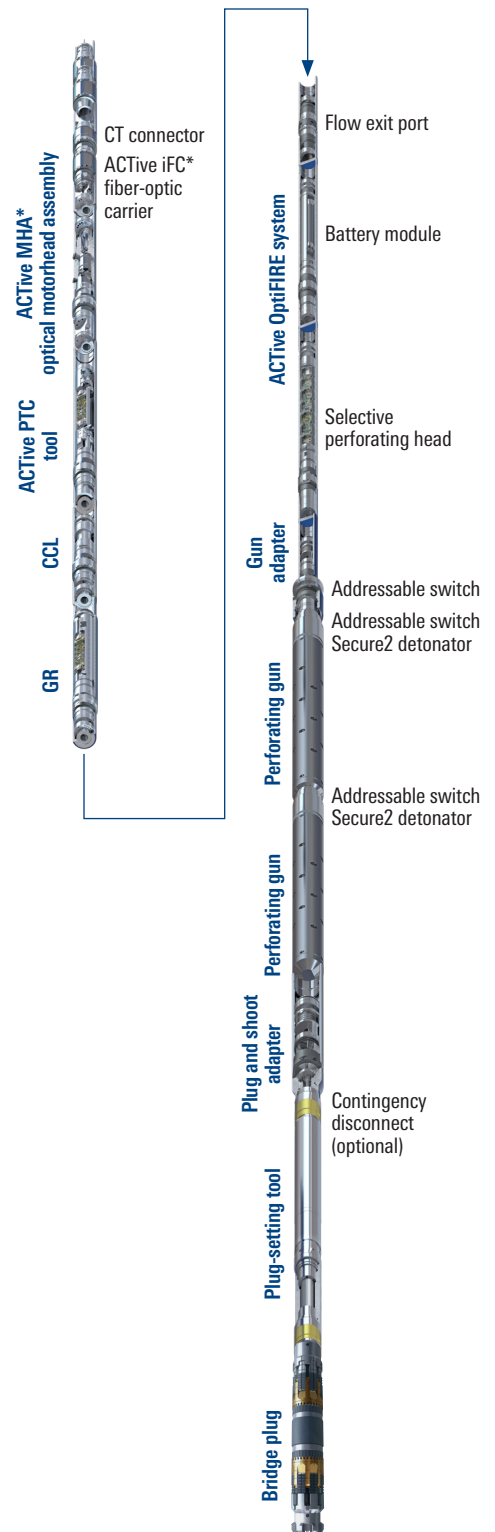
- Electronic safety key and pin reduce risk during perforating
- Advanced addressable switches on guns and Secure2* RF-safe electronic detonator improve safety and detonation reliability with immunity from radio frequency (RF) interference
- Can be used with ACTIVE PTC* CT real-time pressure, temperature, and casing collar locator tool for improved job efficiency or ACTIVE Xtreme* CT real-time rugged downhole measurement tool to assist with drag force measurements

Designed for use in high- or low-pressure wells, underbalanced perforating conditions, or unconsolidated reservoirs, the ACTIVE Plug & Perf* CT real-time plug setting and perforating system enables multistage fracturing in a single run. As compared with conventional plug and perf methods, the system improves efficiency by eliminating the need for ball drop, pressure pulse, and dependence on pumping fluid for gun detonation.

With the ACTIVE Plug & Perf system, operations are streamlined by deploying CT equipped with fiber-optic telemetry, the ACTIVE OptiFIRE* CT real-time selective perforating and activation system, perforating guns, and the plug setting tool with a bridge plug. Collectively, these key technologies are part of the ACTIVE Plug & Perf system and enable selective activation of the plug setting tool and subsequent detonation of each gun individually, with up to 10 selective activations in a single run. This eliminates excessive CT runs and overdisplacement of the fracturing treatment.

The ACTIVE Plug & Perf system increases operational efficiency and safety with real-time downhole feedback. The system provides bottomhole pressure and temperature verification for optimized fluid placement and hydrostatic pressure control, uses a casing collar locator (CCL) and gamma ray (GR) for depth accuracy in the same run, and features a fast-acquisition accelerometer to confirm gun detonation.

Because the CT units are already on site for toe preparation, cleanouts, and postfracturing plug milling, the system eliminates the need for wireline, decreases the surface footprint, and improves site utilization.



ACTIVE Plug & Perf system.

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ACTive Plug & Perf System Specifications

Operating temperature range, degF [degC]	-40 to 302 [-40 to 150]	
Pressure rating, psi [MPa]	12,500 [86]	
Flow rate, [†] bbl/min [m ³ /min]	2 [0.31]	
Max. gun size, in	3.375-in HSD* high shot density perforating gun system	
Gun compatibility	Carrier guns only	
Max. number of selective zones	10	
Max. OD (without guns or plug), in [cm]	2.125 [5.40]	
Tensile strength, lbf [N]	40,000 [177,900]	
Compressive strength, lbf [N]	10,000 [44,480]	
Max. number of guns	Depends on tensile strength [‡]	
Number of plugs per run	1	
Detonator type	Secure2 RF-safe electronic detonator	
	2.123 in-OD Tool with 1.69-in Adapter	2.125 in-OD Tool with 3.38-in Adapter
Diameter, in [cm]	2.123 to 1.69 [5.40 to 4.30]	2.125 to 3.38 [5.40 to 8.60]
Total weight, lbm [kg]	86.4 [39.2]	102.4 [46.4]

[†]Max. pumping rate above the firing head

[‡]Max. length of 500 ft [152 m]

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