

Pressure Deployment CT System

Optimized equipment for executing long-BHA operations

APPLICATIONS

- CT operations where height restrictions limit BHA length
- CT-conveyed perforating
- CT logging
- ACTive* real-time downhole coiled tubing services

BENEFITS

- Improves operational efficiency
- Reduces equipment footprint
- Increases flexibility for operations
- Eliminates many HSE risks associated with conventional bar deployment

FEATURES

- Powered sheave with dual-barrier packoff
- Hydraconn and work window with quick pressure test functionality
- Tool locator
- BOP with optimized ram configuration
- Ballistic and wired deployment bars
- Capability of handling 10,000 psi [69 MPa]
- Design rated for H₂S service

The pressure deployment CT system facilitates safer, more efficient running of BHA strings that are too long to be lubricated in the wellhead stack. The system combines several equipment innovations to surpass the capabilities of traditional bar deployment, circumventing stack height limitations while running long BHAs.

In contrast with traditional pressure deployment systems that have focused on long perforating strings, this system has the flexibility to deploy other long BHA types as well, including smart-CT applications and the ACTive services portfolio.

Minimize equipment footprint and improve location safety

The powered sheave conveys tools and eliminates the requirement for an additional slickline or wireline unit. A redundant wire sealing system provides dual barriers in addition to a blowout check.

The hydraulic quick connection system simplifies and expedites installation and removal of the lubricator and eliminates requirements for personnel to work at heights, improving safety on location.

The large work window simplifies BHA connection and disconnection without exposing operators to work under suspended loads. No-go pins prevent running wire through the BOPs, and a safety valve prevents opening the window under pressure.



Pressure deployment CT system.

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Save time and reduce human error

For both the hydraulic connection and the work window, a quick pressure test device eliminates the need to repeat time-consuming shell tests each time a new tool section is added.

An innovative tool locator eliminates human error and cumbersome spaceout calculations by positively locating each deployment joint across the sealing BOP rams. After locating, the rams close to form redundant, testable well barriers. A custom manifold streamlines the testing process and enables pressure testing of each cavity separately.

Ballistic deployment bars serve the dual purpose of transferring the detonation sequence among perforating guns while maintaining a well barrier for deployment and reverse deployment operations. The bars incorporate dual, testable seals on the leak paths.

A dual-purpose skid transports the equipment to location and facilitates temporary injector stacking.

Surface Equipment Specifications

Component	Connection	Working Pressure, psi [MPa]	Drift ID, in [mm]	Height, ft [m]	Weight, lbm [kg]
Powered sheave	CB-44	10,000 [69]	na	7.5 [2.28]	1,500 [680]
Hydraconn	4 $\frac{1}{16}$ -in 10M flange	10,000 [69]	4.06 [103]	3.2 [0.98] [†]	1,960 [890]
Work window [‡]	4 $\frac{1}{16}$ -in 10M flange	10,000 [69]	4.06 [103]	6.8 [2.06]	3,950 [1,790]
Deployment BOP	4 $\frac{1}{16}$ -in 10M flange	10,000 [69]	4.06 [103]	4.7 [1.42]	4,500 [2,040]

[†]Height includes a CB-44 crossover

[‡]Working area of work window is 22.4 in [569 mm] tall and 14.9 in [378 mm] wide

Downhole Equipment Specifications

Component	Working Tension, lbf [kN]	Working Pressure, psi [MPa]	Upset OD, in [mm]	Length, ft [m]	Weight, lbm [kg]	Connection
1.5-in deployment bar	40,000 [178]	10,000 [69]	1.88 [48]	6 [1.83]	37 [16.8]	Per application
1.75-in deployment bar	40,000 [178]	10,000 [69]	2.00 [51]	6 [1.83]	41 [18.6]	Per application

Deployment Wire Specifications

Component	Working Strength, lbf [kN]	Capacity, ft [m]	Working Length, ft [m]
0.160 wire	2,800 [12.4]	100 [30]	67 [20]
0.207 wire	4,470 [19.8]	100 [30]	67 [20]

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