

SMART-LINK™ System

Enables any coiled tubing unit to operate with real-time downhole data

Applications

- Milling operations
- Fishing interventions
- Stimulation
- High-temperature and high-pressure environments
- Depth correlation verification
- Axial and radial vibration monitoring

Features and Benefits

- Comprehensive measurement suite integrates pressure, temperature, and casing collar locator (CCL) sensors alongside force and torque sensors, complemented by accelerometers for accurate vibration analysis
- Real-time data empowers operators to make strategic decisions that optimize critical processes during all coiled-tubing operations
- Durable construction engineered for rugged environments, ensuring consistent and reliable performance under challenging operational conditions
- Accurate data acquisition delivers precise measurements essential for depth correlation and the assessment of vibration and wear on the whole toolstring
- Wide-ranging versatility is ideal for various well intervention activities, adapting effortlessly to different operational needs

Tool Description

The SMART-LINK system is designed to enhance any coiled-tubing operation with real-time downhole data. The system provides crucial information such as downhole pressures, temperature, torque, weight-on-bit, and vibration, which helps in making informed decisions for safe and efficient operations.

The system uses a tubing encapsulated cable (TEC), which is pre-injected inside the coiled tubing prior to use. Surface bulkhead and downhole components are installed to enable real-time data services. Prior to the job, the system is fully set up with a slip ring and surface data acquisition unit. Various components, compatible with the TEC, can be installed to suit specific applications. This can include a full sensor package for monitoring, or any other tool that can be run on wireline, such as logging tools, perforating guns, and cutters.



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Specifications

Diameter	2.125 in. (54 mm)	2.875 in. (73 mm)	3.125" (79 mm)
Cablehead length	25.5 in. (0.64 m)	24.4 in. (0.62 m)	24.69 in. (0.63 m)
Sensor tool length	71.6 in. (1.82 m)	76.2 in. (1.94 m)	45.26 in. (1.15 m)
Total length	97.1 in. (2.47 m)	100.6 in. (2.56 m)	69.95 in. (1.78 m)
Internal pressure (maximum)	15,000 psi (103 MPa)		17,000 psi (117 MPa)
External pressure (maximum)	10,000 psi (69 MPa)		15,000 psi (103 MPa)
Tensile load at max pressure	30,000 lbf (13,345 daN)	55,000 lbf (24,465 daN)	100,000 lbf (44,482 daN)
Compression load at max pressure	5,000 lbf (2,224 daN)	20,000 lbf (8,896 daN)	50,000 lbf (22,241 daN)
Torque	800 ft-lb (1,085 Nm)	2,100 ft-lb (2,856 Nm)	3000 ft-lbs (4067 Nm)
Temperature	302°F (150°C)		
Pass thru ball size	0.5 in. (12.7 mm)	0.875 in. (22.2 mm)	0.875 in. (22.2 mm)
Lower connection	1.5 in. AMMT	2.375 in. PAC	2-7/8 PAC

