



## COLT™ - Coiled Tubing Drilling Bottom Hole Assembly

COLT™ is a new generation Bottom Hole Assembly (BHA) equipped with a complete package of sensors, tuned to be protected from vibration and combined with an electric orienter that provides complete control when navigating complex reservoirs.

### Benefits

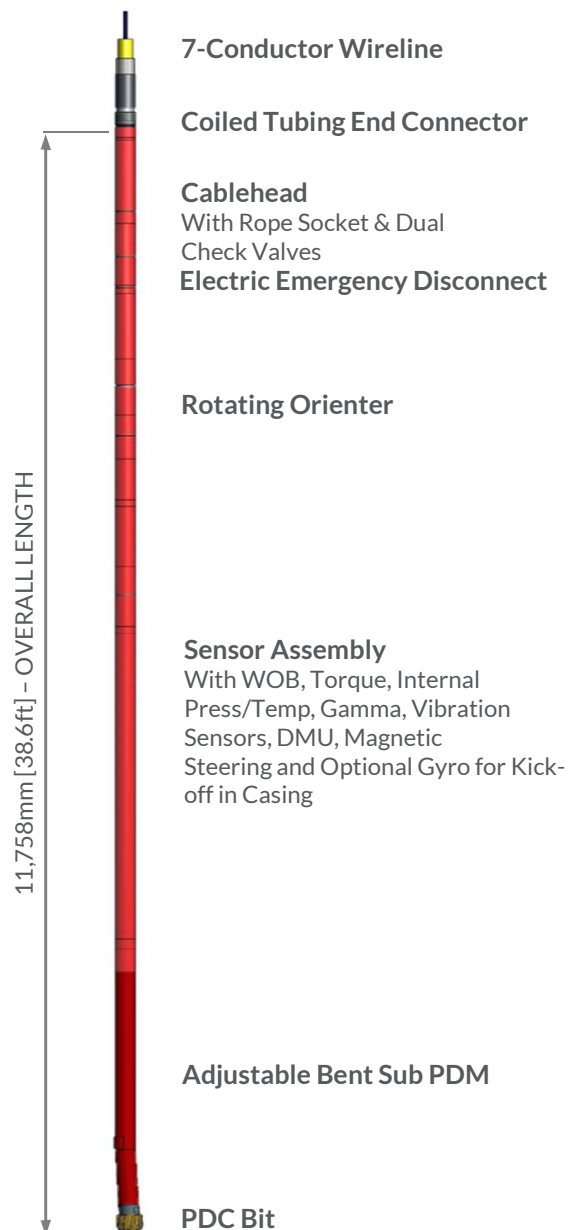
**Underbalanced drilling** - COLT™ enables immediate feedback in aerated and underbalanced conditions, protecting the reservoir, increasing the Rate of Penetration (ROP) and allowing production to continue whilst drilling.

**Increased production** - COLT™ can unlock the full potential of the well by accurately navigating complex reservoirs and drilling horizontal laterals and branches.

**Quicker rates of return** - Quicker rig-up and operation time together with the ease of mobilisation decrease the time on site and therefore the overall cost and time for production.

**Increased safety** - A closed system and simple rig-up process means improved safety and less human interaction onsite, reducing the chances of accidents.

**Full service offering** - COLT™ is supplied as part of a full service offering with fully trained specialist teams.



## Features

**Short length** – Tool rig-up is done in one single section above the master valve, speeding up operations, reducing connections and avoiding the need for live well deployment.

**All-electric system** – The wireline system is independent of the fluid in the well, so the tool can be used in aerated fluid applications and can operate in underbalanced conditions.

**Electric orienter** – A fully rotating electric orienter gives precise directional control and enables the tool to drill the build and straight section in one run.

**Complete sensor package** – Real time information is provided for Weight on Bit (WOB), Torque on Bit (TOB), temperature, pressure, vibration, inclination, azimuth, tool face and gamma ray. This allows real time monitoring of both tool position and drilling conditions for optimum performance.

**Tuned against vibrations** - COLT™ is designed to withstand harsh downhole vibrations in aerated fluids, with metal-to-metal seals improving sealing and protecting the tool's components.

**Straight flow path** – Drilling fluids flowing at high velocities can cause cavitation and erosion. The straight flow path through the tool minimises these problems, and the short length helps reduce the pressure drop along the BHA.

**Optional integrated orientation gyro** – The addition of the gyro allows the tool to be orientated to set whipstocks and to exit the casing in the right direction without being affected by magnetic interference.

## Applications

The COLT™ Tool is suitable for all types of Coiled Tubing Drilling. Typical applications include:

- Re-entry/Thru-tubing Re-entry Drilling
- Unconventional Gas Shales
- Coal Bed Methane
- Underground Coal Gasification (UCG)
- Gas Storage

## Specifications

Dimensions	
Outside Diameter	3.192" (81.1mm)
Inside Diameter	0.7" (18mm)
Length without motor and bit	25ft (7.6m)
Length with motor and bit	38.6ft (11.76m) (dependent on motor and bit used)
Mechanical	
Max. Operating Pressure	10,000psi (690bar)
Max. Differential Pressure	5,000psi (345bar)
Max. Tensile Rating (@ 80% yield)	50,000lbf (220kN)
Max. Compression Rating	15,000lbf (66kN)
Max. Torque Rating	1,000lb-ft (1,350Nm)
Max. Build Rate	50o/100ft (50o/30m)
Environment	
Max. Operating Temperature	302°F (150°C)
Fluid Types	All including air, nitrogen foam and mud with H2S
Vibration (continuous)	30G (@10-500Hz)
Vibration (shock)	50G Maximum (0.5ms half sine)
Electrical	
Wireline Conductors	7-conductor