

MLT 300

Benefits

All the benefits of a production logging tool in a compact modular designed package.

The Mini Logging Tool (MLT300) is Omega's compact version of a production logging tool and provides correlated data on depth, pressure, RTD temperature, CCL and flow. It is designed to be a modular tool consisting of three main modules which are the platinum Resistance Temperature Detector (RTD) module, the Casing Collar Locator (CCL) module and the Pressure/Flow module.

The unique dual platinum RTD module provides a fast response and a high resolution temperature profile along the wellbore. The electromagnetic CCL module measures depth by sensing each casing/tubing collar joint and achieves this by measuring the change in electromagnetic field that occurs at each joint. The Pressure/Flow module is a dual purpose housing containing a calibrated Pressure Gauge and also accepts an externally mounted Fixed Caged Spinner (optional) or a Full Bore Spinner (optional). A calibrated pressure gauge (5 available pressure ranges) is inserted into the housing depending on the pressure range required for an application. The Fixed Cage or Full Bore Spinner can be attached for Flow measurement if required and depending on the application.

The MLT300 uses a field replaceable electronic Memory Module as the controlling module. The memory module is always connected to the top of the string. Any combination of CCL and/or RTD modules can be used below the memory module with a single Pressure/Flow module run at the bottom of the string. Only one Pressure/Flow module can be run in a string and always at the bottom. During field operations, memory modules can be changed out efficiently providing a virtually uninterrupted service. Whilst data is being retrieved from the first, a second survey can be performed immediately with a new memory module fitted to the string.

Features

- A compact 1 1/2" OD allows for data gathering where other Logging Tools can't fit
- Modular design means combinations of modules can be used simultaneously
- Replaceable memory module allows for redeployment whilst retrieving data
- Correlated tool depth using the electromagnetic CCL
- Dual RTD's increase the tools sensitivity to temperature change and provide a fast, high resolution temperature profile along the wellbore
- Single external Pressure/Flow Housing is compatible with multiple calibrated modules, providing an accurate and economical tool for unique applications

Applications

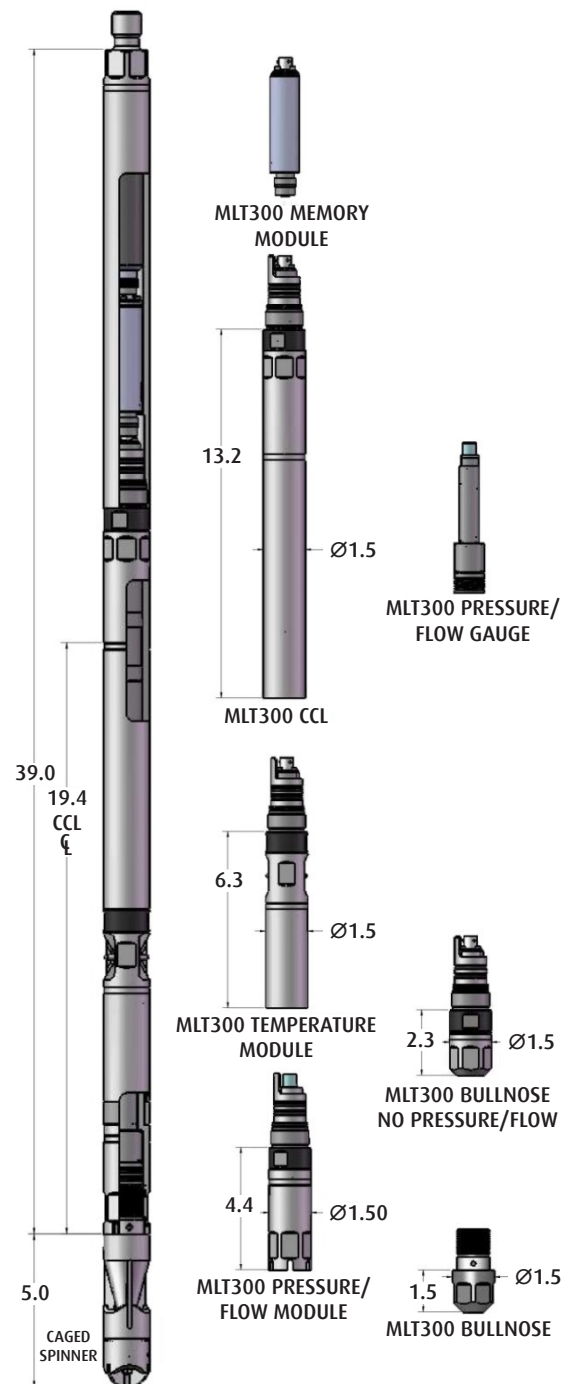
- Casing leak detection
- Pressure build up or drawdown test
- Production optimization
- Slickline operations
- Static flowing and build up survey
- Temperature logging



TECHNICAL SPECIFICATION

MLT 300

Specifications	
Pressure	
Maximum external pressure	Must not exceed sensor range or 25 ksi Max
Sensor range	5 options from 6 ksi to 25 ksi
Sensor type	Piezo-resistive
Accuracy	± 0.050% FSO
Long term stability	0.1% FSO
Drift	Less than 3 psi per year
Resolution	0.0003% FSO
Temperature	
Sensor	Dual platinum Resistance Temperature Detector
Maximum temperature	Must not exceed sensor range or 177°C Max
Operating range	0 to 150°C or 15 to 177°C
Accuracy	± 0.1°C
Repeatability	± 0.05°C
Resolution	0.0001% FSO
CCL	
Sensor	Electromagnetic Casing Collar Locator
Power	
Battery type	CC type lithium
Operating voltage	3.2 to 3.6 V
Current	15 – 20 mA
Memory	
Sampling interval	0.1 seconds to 1.82 hours
Program segments	31
Capacity	1,800,000 data sets
Record contents	Time, pressure, temperature, collars, spinner



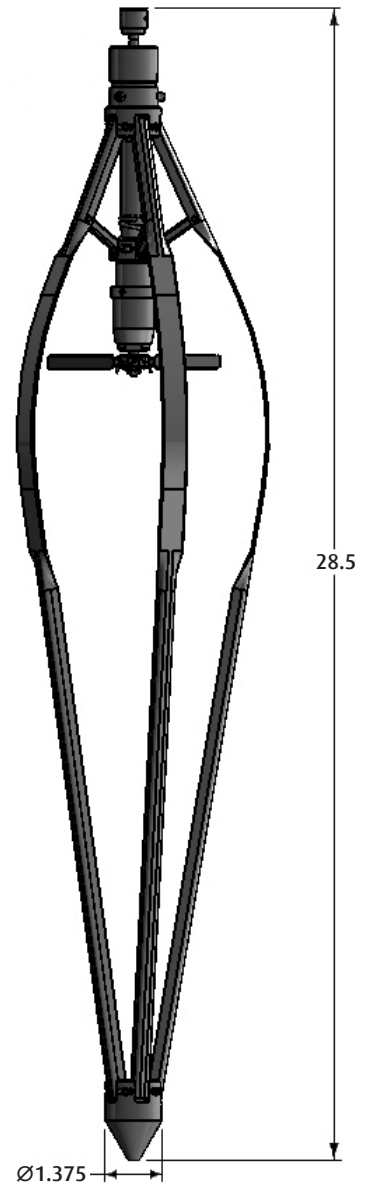
TECHNICAL SPECIFICATION

MLT 300

Specifications	
Caged Spinner	
Threshold	Average 8 fpm in clear water
Maximum flow rate	500 fpm
Output	6 pulses/revolution
Maximum temperature	177°C
Maximum Pressure	25 ksi
Accuracy	0.125 rps
Full Bore Spinner	
Threshold	Average 8 fpm in clear water. 2.6 fpm at approx. 5.2 fpm ² flowing acceleration
Maximum flow rate	500 fpm, 28000 bpd in 7" casing
Output	6 pulses/revolution
Maximum temperature	177°C
Maximum pressure	25 ksi
Accuracy	0.125 rps
Casing range	4.5" to 7"



Caged Spinner



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