

HPP-Tool (HIGH PRECISION PRESSURE)



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AREAS OF APPLICATION

The HPP (High Precision Pressure) tool combines maximum accuracy and resolution in pressure and temperature measurement. It is therefore used for high-precision logs in wells and caverns and enables, for example, the exact determination of the stored gas inventory.

Depth logs can be recorded along the borehole axis, as well as stationary time logs at selected depths.

MEASURING PRINCIPLE

Positioning the temperature sensor at the head of the tool (i.e. lowest point of the tool) and directly in the measurement axis allows optimum flow to the sensor. Falsification of the temperature reading by existing piping and the probe itself is therefore avoided. The tool has a plastic bullnose to protect the temperature sensor from damage.

The HPP tool is equipped with a CCL (Casing Collar Locator) to locate welded or threaded connections as well as the casing shoe of the inner tubing and a Multiple CCL (MCCL) to locate the connections and casing shoe of the outer tubings and the depth reference point (e.g. cemented casing shoe).

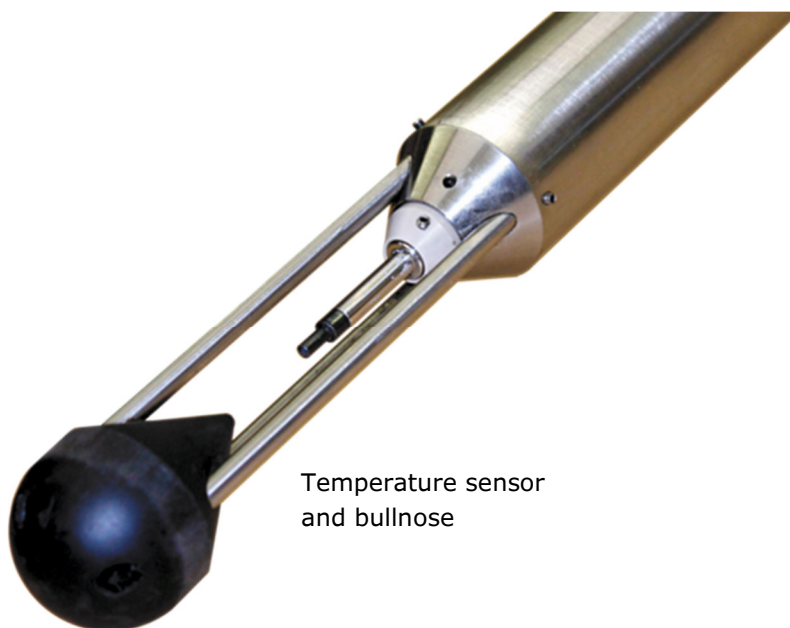
SURVEY PROCEDURE

The high-resolution pressure measurement result is provided by a stable, floating piezo-resistive transducer and a microprocessor with integrated 16 bit A/D converter. Temperature dependencies and non-linearities of the sensor are mathematically compensated.

The temperature is measured using a high-precision Pt 1000 resistance temperature sensor. Here too, the measurement results are digitised in the probe

TECHNICAL SPECIFICATIONS

Diameter:	42 mm
Length:	2.17 m
Weight:	8 kg
Temperature sensor:	Pt 1000 resolution: 0.01 K accuracy: ± 0.1 K
Pressure gauge:	resolution: 0.001 bar accuracy: ± 0.03 bar
Further measured values:	MCCL / CCL



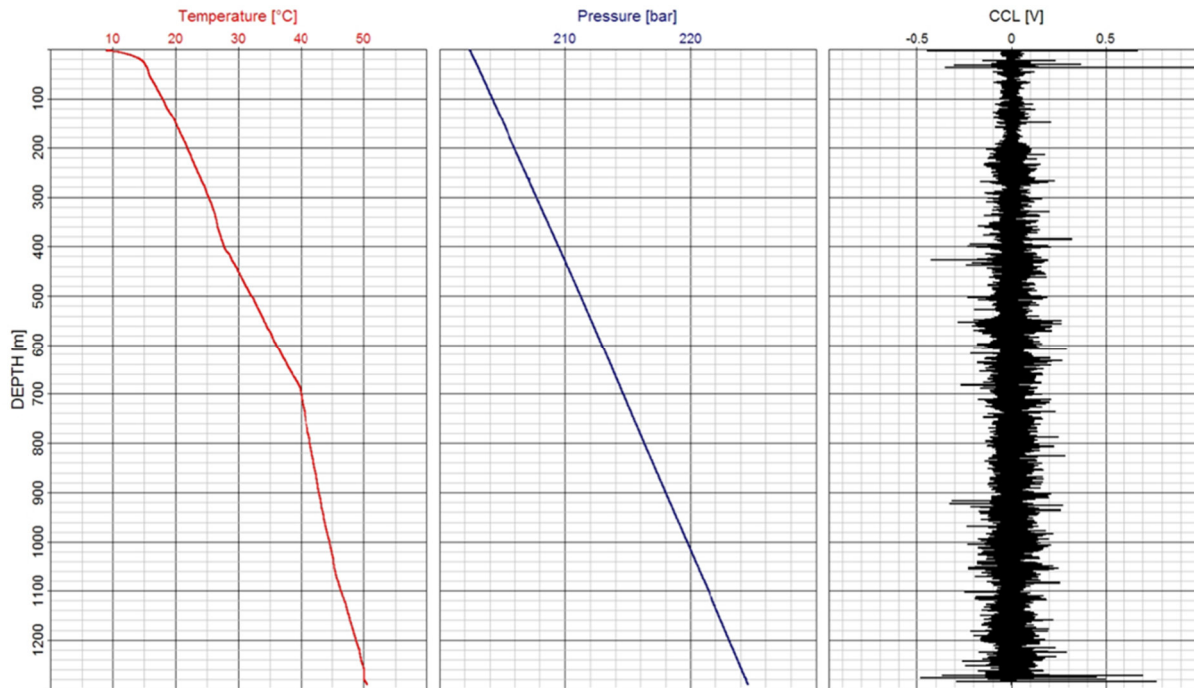
Temperature sensor
and bullnose

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EXAMPLES OF LOGGING



Temperature and pressure curve as well as CCL log in a cavern well measured with the HPP tool.

Display of the
HPP tool

