



CORE SCANNER X10

Core Scanner X10 is a complete system for scanning whole core, slabbed or core plugs for velocity measurements (P and S waves), gas permeability and resistivity. The system is compatible for probes available from New England Research's AutoScan.

The Core Scanner X10 has a robotic gantry that allows automatic measurement using an XY-reference frame for table measurements. GEMS designed this measurement platform for the testing of multiple core samples in a single automated experiment setup.

Physical properties measurements can be made on a grid defined by the operator on as small as 0.5 mm spacing. The system is fully automated both for positioning and data acquisition. The entire process is computer controlled. Data is acquired, processed, and plotted with minimal user intervention.

GEMS software allows for data analysis and interactive plotting, including petrophysical modeling, geostatistical model building, and rock type identification through cluster analysis.

Permeability

Permeability is measured using a steady-state gas injection technique. Permeabilities - from 0.1 millidarcies to 1 darcies. Fully automatic

Velocity

The Velocity Tip measures ultrasonic compressional and shear wave velocities. The Velocity Tip is integrated with the Permeability Tip, the two measurements can be made during the same scan.

Resistivity

The Resistivity Tip measures the spatial variability in electrical properties. The probe uses the true four-electrode device.

FTIR

The addition of an FTIR Probe provides a measurement sensitive to chemical composition. The spectrometer is configured as a non-contacting probe that measures IR reflectance over a broad spectral range (1330–26700 nm). Measurement spot size is 3 mm with typical point measurement times on rock samples of 20–40 seconds. The FTIR Probe option includes a mid-infrared spectrometer, data acquisition software, and custom spectral data viewing and support software that display data in real time.

Camera

Core Scanner X10 is available with a digital camera and LED lighting for quick and accurate photo-documentation of samples. Photos can be integrated with core.