Advanced, cost-effective permeability and porosity system

The M9170 High Pressure Porosity and Permeability System is an advanced system for performing porosity and permeability tests on plug-sized core samples under confining pressures of up to 10,000 psi with three different testing media: nitrogen, helium, and dry air*. The device can make porosity measurements based on the pressure to volume relationship given by Boyle's law. The M9170 conveniently measures low or high core gas permeability by using the unsteady state pulse decay method AND steady state flow method. When the M9170 uses the unsteady state pulse decay method, the gas permeability of low permeability cores is measured. When the M9170 uses the steady state flow method, the gas permeability of high permeability cores is measured.

The M9170 PC software is able to calculate the Klinkenberg-corrected permeability using the gas permeability measurements at different pressures.

M9170 PC software handles all control, measurement, data collection, and calculation of grain density, inertial coefficients, and rock compressibility based on the results of the porosity and permeability tests. Data is saved in .csv file format and can be exported to any spreadsheet software.

Operational Features:

- Porosity range from 0 to 60%
- Permeability measurement range from 0.0005 mD to 10 D
- Conveniently measures both high and low high permeability—uses unsteady pulse decay method AND steady state flow method
- Calculate Klinkenberg-corrected permeability based on multiple tests Calculate grain density, inertial coefficients and rock compressibility
- User friendly, Windows®-based system
- Software handles all control, measurement, data collection, calculation, and report generation
- Minimal maintenance required
- Supports nitrogen & helium as testing media

Specifications:

- Maximum confining pressure: 10,000 psi (690 bar)
- Maximum pore pressure: 500 psi (34 bar)
- Core Diameter: 1.5" (1" optional)
- Core Length: Up to 3"
- Wetted Material: SS-316 Stainless Steel
- Power Requirement: 110/220 VAC, 50/60 Hz

*Other specifications are available by customized request.