

THE ADVANCED PULSE DECAY PERMEAMETER

PMI-APDP-5K-C-1



Not just products...solutions.

Principle

The PMI Advanced Pulse Decay Permeameter is used to measure gas permeability of samples such as oil well cores, tight gas sandstones, and other very low permeability rocks. Gases are allowed to axially pass through the sample. The machine measures drop in pressure and flow rate through the sample during the test. PMI software uses Darcy's Law to compute permeability. A known amount of gas is allowed to expand in the sample chamber. Using the Ideal Gas Law, the porosity is computed from the loss in pressure.

Description

A rock sample is held in the sample chamber and compressive stress is applied. While the sample is under compressive stress, the desired properties are measured. The Pressure Decay Permeameter is used to determine the properties of cut samples at certain confining pressure.

The PMI Automated Pressure Decay Permeability System has been specially designed for testing core samples. Core samples are held in a sleeve which (pneumatic or hydraulically) compresses the sample to the desired pressure. The instrument measures the rate of a known amount of gas to compute permeability.

The equipment is fully automated. Execution of the test, data acquisition, data storage, & data management are all carried out by PMI Software. Operator involvement is minimal, and the instrument is robust and requires a minimal amount of care.

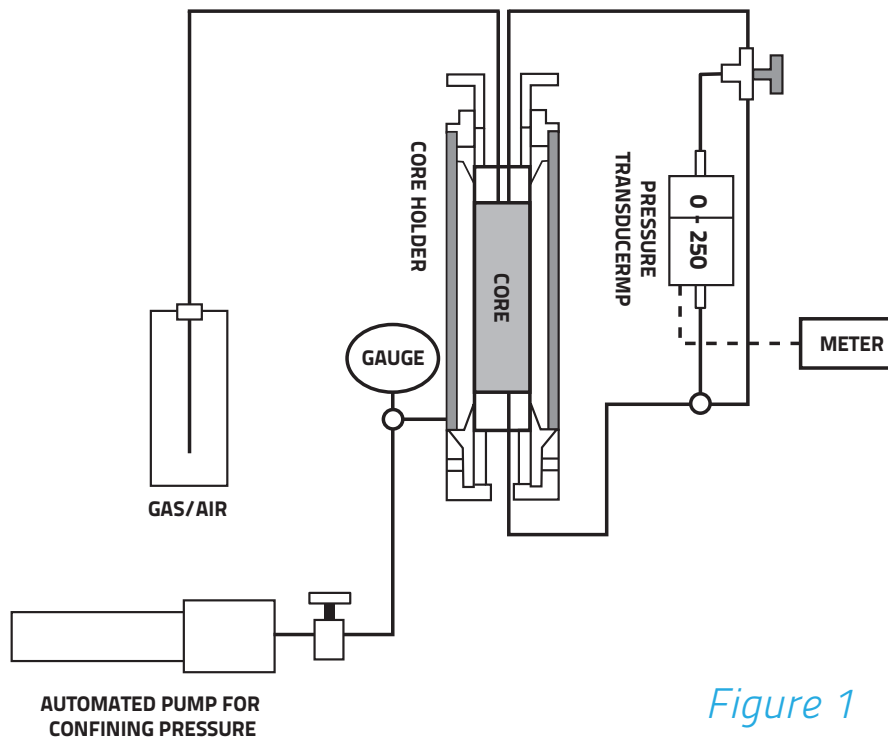


Figure 1

Outline of pulse decay permeability testing setup

Application

Industries worldwide utilize PMI Permeameters like the Advanced Pulse Decay Permeameter for R&D and quality control.

Applicable industries include: Oil Refineries, Oil Exploration Industries, Geotechnical Department, Geophysics, Automotive, and Battery Development.

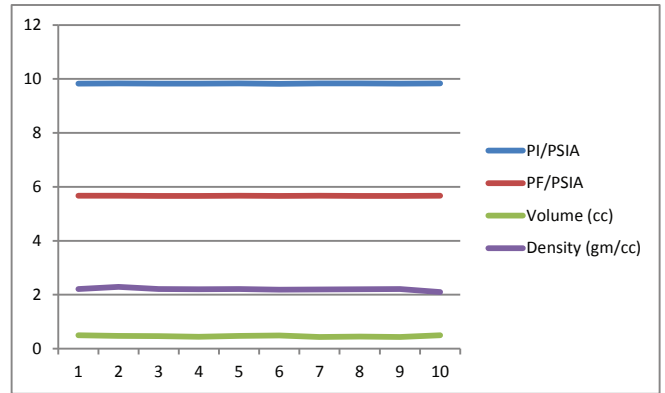


Figure 4

Typical test results

Testing Capabilities

Gas Permeability (md) is based on the unsteady state or steady state pressure fall off method.

PMI Software

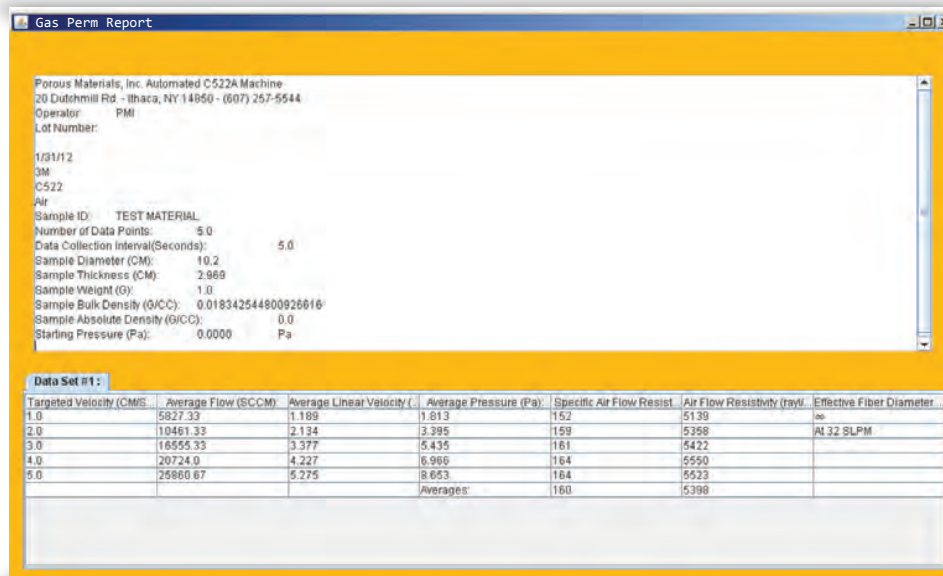


Figure 2

PMI Software Report Screenshot

PMI Software Continued

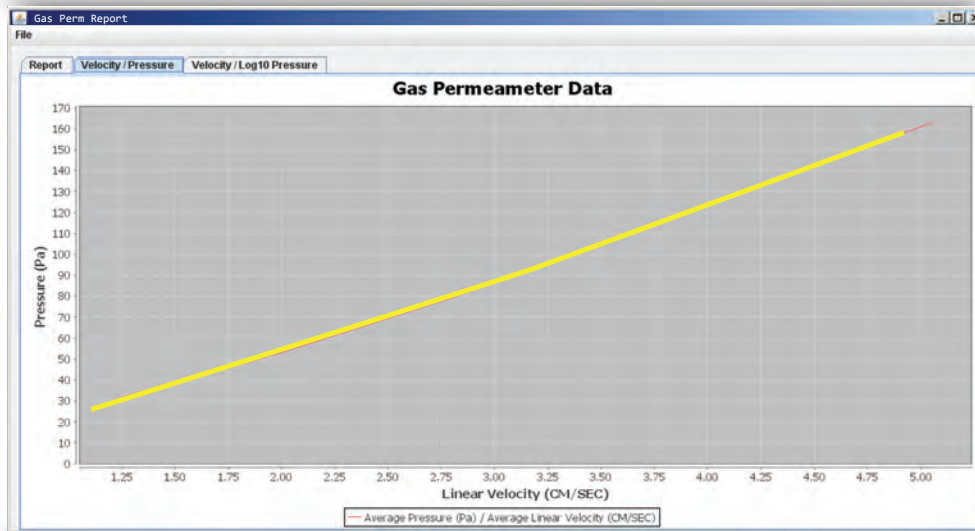


Figure 3
PMI Software Report Graph Screenshot

Features

- Uses Pulse Decay Measurement Techniques
- User-friendly, Windows-based software handles all control, measurement, data collection, and report generation; complete manual control also possible
- Compatible with Windows 97 or higher
- Real-time graphical test display depicts testing status and results throughout operation
- Computer Processing and Data Storage
- Non-destructive testing
- Length of test approximately 30 minutes
- Wide range of acceptable sample types and sizes
- Test Standard Core Plugs
- Multiple sample chambers available

Specifications*

- Permeability Range: 10 nD to 1 mD
- Confining Pressure: 2,500, 5,000 or 10,000 psi (Pneumatic/Hydraulic)
- Standard Core Plug: Up to 6" long
- Power Requirements: 220-240 VAC 50 Hz 1 Phase
- Multiple Sample Chamber Unit: Sample capacity up to 12 (all can be controlled simultaneously or individually)

* Other specifications for this machine are available. Specifications are subject to change without notice.

The most advanced, accurate, easy to use
and reproducible porometers in the world.



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Sales & Services

Our sales team is dedicated to helping our customers find which machine is right for their situation. We also offer custom machines for customers with unique needs. To find out what we can do for you, contact us.

We are committed to customer support including specific service products, short response times & customer specific solutions. To quickly & flexibly meet our customer's requirement, we offer a comprehensive range of services.



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