



PMI Advanced Automated Pulse Decay Permeameter APDP-10K-HP-101



Not just products... Solutions !

DESCRIPTION

The PMI's Advanced automated 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. The system creates a differential pressure across the core and monitors the resulting pressure decay over time using the steady state method. PMI software utilizes this data along with known system volumes to calculate permeability.

APPLICATIONS

Characterization of Rock Core permeability, grain volume, porosity, and density for Research and Development and Quality Control.

Industries:

- Oil Refineries
- Oil and Gas Exploration
- Geotechnical
- Geophysics

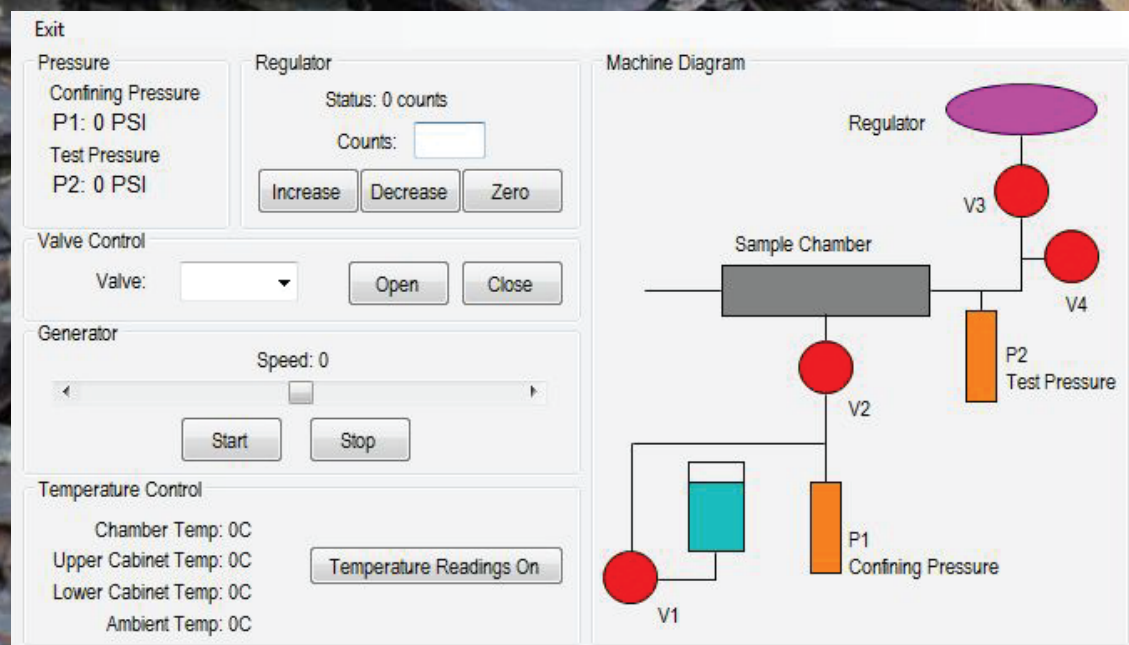


INSTRUMENT

The system is consisting of Core Holder, Pressure Sensors, Pressure reducer, Pulse decay system and an automatic pump for confining pressure. The system consists of advanced computer controlled automation package that allows precise data acquisition and handles all control measurement, data collection and report generation. Operator involvement is minimal, and the instrument is robust and requires a minimal amount of care

PROCEDURE

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 a controlled 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 hydraulically compresses the sample to the desired pressure. While at this controlled confining 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.



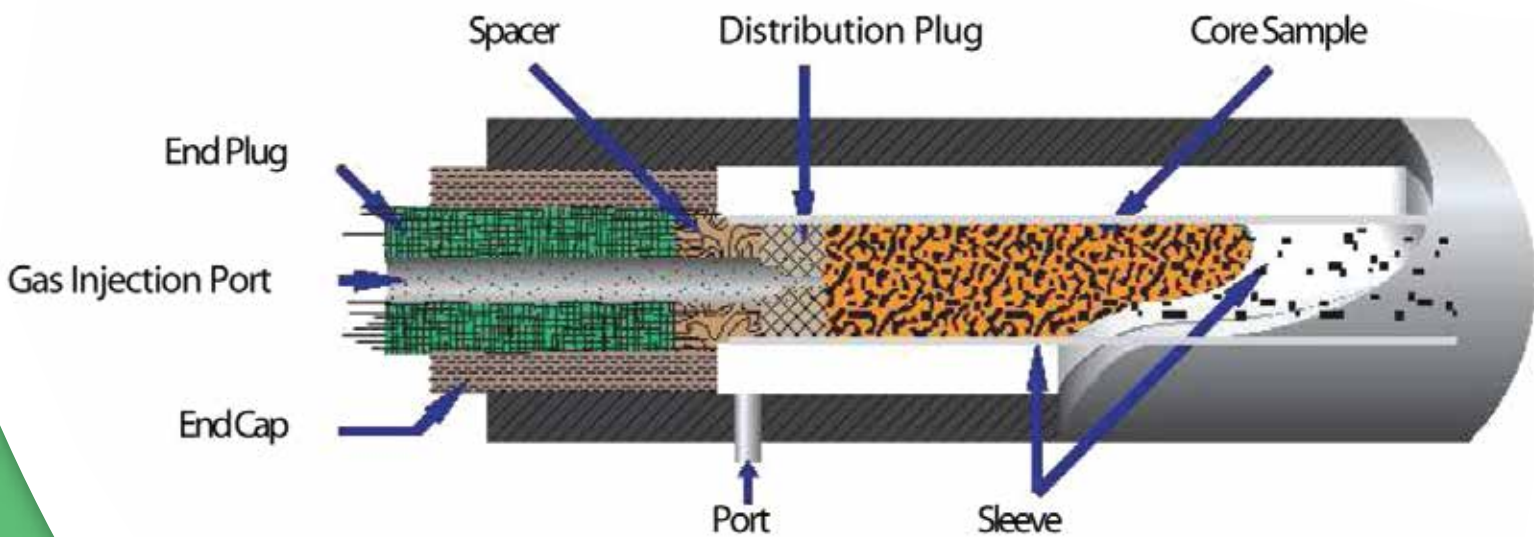
Manual Control Screen

Types of Samples:

- Rock Core
- Well Core
- Tight Gas Sandstones
- Very Low Permeability Rock Cores

CORE HOLDER

A Hassler type core holder with up to 10,000 PSI confining pressure. Features quick release aluminium core holder to accommodate core holders custom manufactured to meet your testing needs.

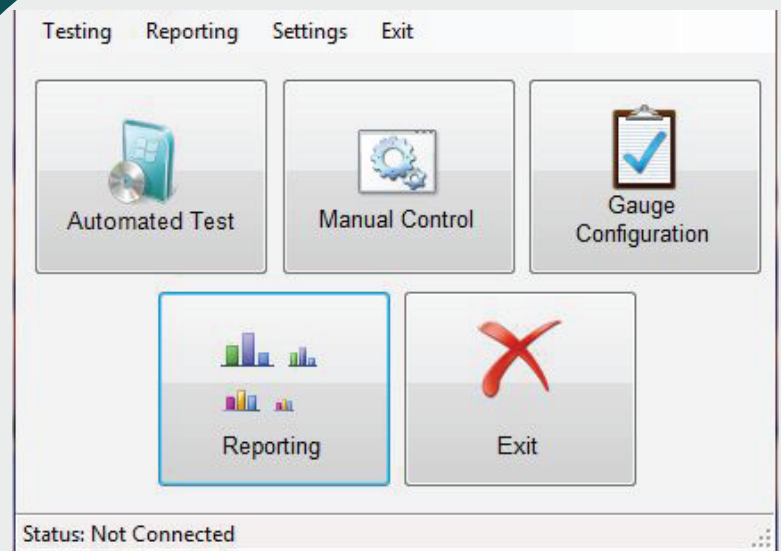


REPORTED VALUES

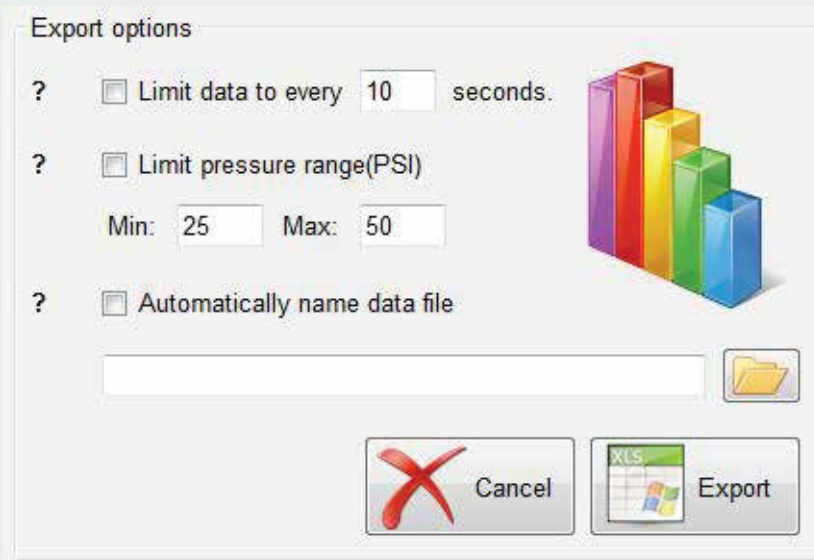
- Porosity
- Grain Density
- Bulk Density
- Permeability (Air & Klinkenberg)
- Pore volume
- Pressure over time
- Slip factor 'b'

UNIQUE FEATURES

- Integrated detailed help system
- Provision for off-line data processing
- Graphic presentation of the data to be evaluated and analysis results
- Exporting graphic files to window based word / excel processing files for report generation
- Capable to be programmed for automatic repeat measurements or for data acquisition under user selected tolerances



Main Screen



Report-Export to Excel

SPECIFICATIONS (others available)

- **Confining Pressure:** Upto 10,000 psi
- **Pore Pressure:** Upto 2,000 psi
- **Permeability Range:** 10 nano Darcy to 0.1 milli Darcy
- **Maximum Temperature:** 125°C with measurement accuracy of $\pm 0.5^\circ\text{C}$
- **Core sample diameter:** 1.0" & 1.5"
- **Core sample length:** Upto 3"
- **Power Requirements:** 220 VAC $\pm 10\%$, 50/60 Hz ± 1 Hz, single phase
- **Core Holder Sleeves Material:** High quality material like Viton, Aflas
- **Materials of Seals and Gasket are made of high quality Viton rubber**

FEATURES

- Automatic and highly accurate system for determining rock properties such as permeability and Klinkenberg correction factor at overburden pressure. The system uses a steady state pulse decay technique for the permeability measurement.
- Advanced fully computer controlled system that allows the operation for both automatic and manual modes and can provide precise monitoring and data acquisition.
- Custom-designed hydrostatic core holder for core samples upto 3.0" in length and working upto the confining pressure of 10,000 psi and temperature 125oC
- Automatic confining pressure control system. Confining pressure with intensifier.
- The sample loading and unloading is simple and takes only a few minutes.
Computer-controlled differential pulse generator increases the upstream pressure and equally decreases the downstream pressure to insure a constant median pressure gradient in the core sample and reduces the time to achieve a steady measurement.
- The system is consisting of advanced computer controlled automation package that allows precise data acquisition and handles all control measurement, data collection and report generation.
- Able to test up to 7 days or more continuously.
- All key components are insulated to eliminate possible error due to fluctuation in ambient temperature.
- All wetted parts (Tubing, Connector and Valves) are constructed of highly corrosion resistant materials Hastelloy and SS 316.



SALES & SERVICE

We at Porous Materials Inc., have dedicated sales team helping thousand's of our customers identify the right solution for their scientific problems. We are also proud to offer customized instruments for your unique needs. Our service and applications team is committed to effective support with short response times, we offer comprehensive range of solutions from new and customized systems, calibration and maintenance to testing services. Explore more about us at www.pmiapp.com



Customize your Machine Today !



*Disclaimer: *We are continuously improving our products, Design & Specification are subject to change without prior notice.*

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

Celebrating



of solutions



20 Dutch Mill Rd, Ithaca, NY 14850, USA
Toll Free (US & Canada): 1-800-TALK-PMI (1-800-825-5764)
Phone: 607-257-5544 Fax: 607-257-5639

Email: info@pmiapp.com

www.pmiapp.com

