



ADVANCED HELIUM POROSIMETER



Not just products...solutions!

APPLICATION

Helium porosimeter should measure the true volume and density of samples like coal, char and ash particles etc.

OPERATING PROCEDURE

PMI's Advanced Helium porosimeter is used to determine the true volume and true density of powders and bulk solids, including calcinated petroleum coke. The true volume of a solid is calculated from the measured drop in pressure when a known amount of gas is allowed to expand into a chamber containing the sample. Thus, the true volume obtained by porosimetry excludes any pore volume accessible to the gas. Helium is the preferred gas, because it exhibits ideal gas behavior. The Helium porosimeter measures the true volume and density of solid powders. Should be fully automatic, provide high-speed, high-precision volume measurements and density calculations.

AMBIENT CONDITIONS

The uncontrolled ambient room / Laboratory conditions include;
Temperature: 5 to 50 ° C, Relative Humidity: 100%, Dusty

SAMPLE TREATMENT

Samples are conditioned to remove any trapped air and contaminants. Option to purge by a suitable method.

VOLUME CALIBRATION

Calibration volume spheres supplied shall be calibrated by NIST test # 821/25B 592-97 performed in accordance with requirements of ANSI/NSCL 2640-1-94 and ISO 10012-1-92. Copy of certification of calibration will be included along with the supply.

OPERATION MODE

Automatic operation via personal computer (PC) and manual mode by panel buttons.

SAMPLE CHAMBERS

The PMI Helium porosimeter is supplied with 3 variable minimum sample chamber volumes.

GAS CYLINDER

Helium gas cylinder, double stage SS regulators, connectors, moisture trap, nuts, ferrules, tubes, gas flow meters and T/Y/Straight junctions, have to be supplied by the supplier of the instrument and those have to be connected and integrated with the main equipment.

Unit is supplied locally with a standard steel cylinder of 47 liters water volume filled up to 150 kg/cm² (g) and containing 7 m³ of gas and regulator with all relevant certificates for purity of gas and cylinder.

ACCESSORIES

- *Manuals-2 copies, both hard and soft copies*
 - *Dimensional details for preparing Civil Engineering Drawings-2*
 - *copies.*
 - *Space requirement around the equipment.*
 - *Foundation requirement for the equipment.*
 - *List of software.*
- All required specifications detailing*
1. *Water supply*
 2. *Instrument air and compressed air*

SOFTWARE FEATURES

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

UNIT SPECIFICATION

Volume Range: 1-100 cc or more

Accuracy: better than $\pm 0.1\%$

Reproducibility: Better than $\pm 0.1\%$

POWER SUPPLY

230V +/- 10% AC / 1 Ph / 50 Hz

DATA ACQUISITION

APC is required for data display and acquisition, display and analysis. Interface between the necessary software for analysis, data equipment and PC acquisition, and experiment control is included with the unit. Serial communications port should include connection to optional printer and computer.

COMPUTER SPECIFICATIONS

CPU chip: 3.2 GHz (minimum), Intel Core i5- 3470

Planar clock speed/FSB: 1333 MHz

Memory /RAM: 4GB 1333 MHz DDR3

Chip set & Board: INTEL Q75 chipset, INTEL original mother board

HDD Capacity: 500 GB

Monitor Size: 19 inch active matrix TFT

Keyboard Type: USB/PS2 Std keyboard

Pointing device: 2 button optical scroll mouse, OEM or MS-PS2/USB

DVD ROM Speed: 16x or higher

Ports: 1 USB ver 2.0

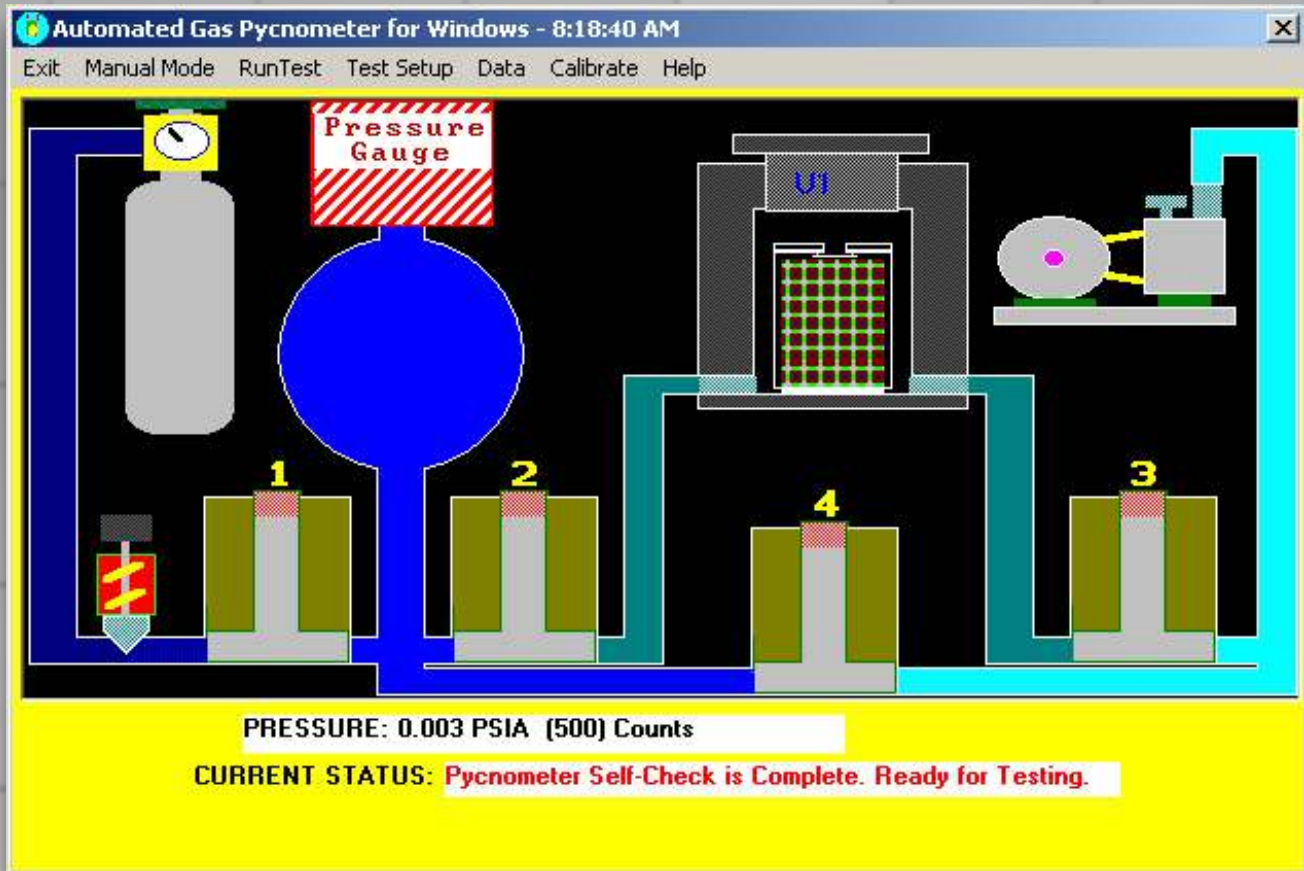
Free ports: At least 3 out of which 1 on front 2 USB ver 3.0 At least 1

Network connectivity Type: 100/1000 onboard integrated N/W port with remote booting facility, system installation, wake up, and out of band management using any standard management S/W **Application**

Software: Windows 7 Professional

Application software: Open Office

Warranty: 1 year comprehensive OEM onsite warranty for all components



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 special service products, short response times & customer specific solutions. To quickly & efficiently meet our customer's requirements, we offer a comprehensive range of services.



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



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