



Automotives



Food Processing



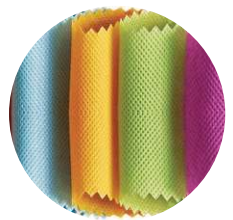
Battery/Fuel Cells



Ceramics



Chemicals



Non Wovens



Pharmaceuticals



Powder Metallurgy

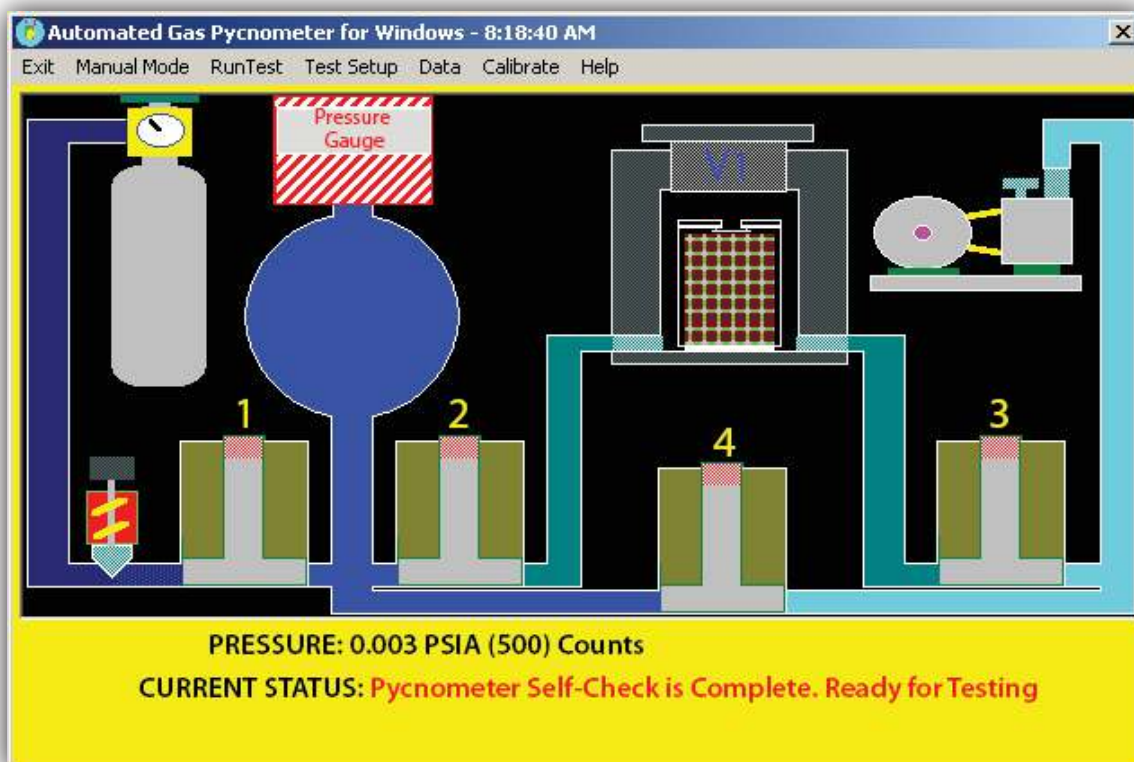


Not just products... Solutions !

# AUTOMATED GAS PYCNOMETER PYC-G100A

# HELIUM PYCNOMETER

PMI's Automated Gas/Helium Pycnometer is used to determine the true volume and true density of powders and bulk solids using high-precision volume measurements and density calculations. 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 sample. Thus, the true volume obtained by pycnometry includes any pore volume accessible to the gas. Helium is the preferred gas, because it exhibits ideal gas behavior. However, almost any non-corrosive gas including air can be used. The true density is obtained by dividing the weight of the sample by true volume.



## FEATURES

- Non destructive .
- Automated Control.
- Pore Structure Characteristics: Absolute Density.
- **Operating Mode:** PMI Automated Gas Pycnometer can be operated via personal computer (PC) in either automatic or manual modes.

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### GAS PYCNOMETRY ANALYSIS

Test Type: VACUUM  
 Test Date: 06-22-2014

Sample ID: Polypropylene resin  
 Mass: 10.481 gm

Reference Volume: 11.31 cc  
 Sample Chamber Volume: 24.96 cc

PFO PSIA	PIO PSIA	PI PSIA	PF PSIA	VOLUME (cc)	DENSITY (gm/cc)
00.003	00.003	09.798	04.399	11.073	00.947
-00.003	-00.002	09.802	04.394	11.051	00.948
-00.003	-00.002	09.796	04.392	11.055	00.948
-00.003	-00.003	09.792	04.394	11.076	00.946
-00.003	-00.003	09.796	04.393	11.060	00.948
Average Volume: 11.063 cc					
Average Density: 0.947 +/- 0.001					

# SOFTWARE FEATURES

- Capable to be programmed for automatic repeat measurements or for data acquisition
- Windows based graphic user interface (GUI)
- Automatic pressure and volume calibration routines
- 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 off-line data processing.
- Integrated detailed help system.
- True density is provided by the software.

# SPECIFICATIONS

- **Sample Size:** 100cc
- **Number of Sample Chambers:** 1
- **Sample Chamber Size:** 1"(dia) X 2.5"(length)
- **Sample Type:** Single sample loading feature, combined with automatic repeated run for user specified maximum no. of runs ease of operation & high performance.
- **Accuracy:**  $\pm 0.05\%$  of full scale volume
- **Total Analysis Time:** Less than 5 minutes
- Instrument can repeat measurements automatically with user defined settings
- **Gas type:** Helium and any non-corrosive gas including air can be used
- **Safety:** Mechanical relief valves prevent over pressurization at needed locations
- **Power Requirements:**  $220 \pm 10$  VAC,  $50 \pm 1$  Hz
- **Environmental Temp:** upto  $45^{\circ}\text{C}$
- **Environmental Humidity:** upto 85%
- Spare parts for one year Operation
- Operational and Maintenance Manual
- Spare Parts list
- Includes calibration volumes
- **Operating Mode:** PMI Automated Gas Pycnometer can be operated via PC in either automatic or manual modes.

# APPLICATIONS

- Automotive Industry
- Food Processing Industry
- Battery/Fuel Cells Industry
- Ceramic Industry
- Chemical Industry
- Nonwovens Industry
- Pharmaceutical/Medical Industry
- Powder Metallurgy Industry



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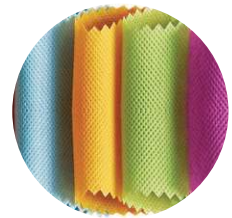
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# SALES & SERVICE

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](http://www.pmiapp.com)



**Customize Your Machine Today !**

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

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and easy to use Pycnometers in the world



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