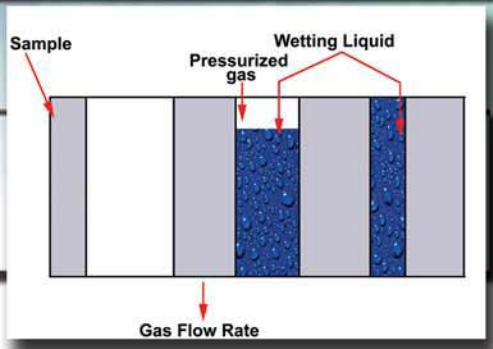
Clamp–On Porometer

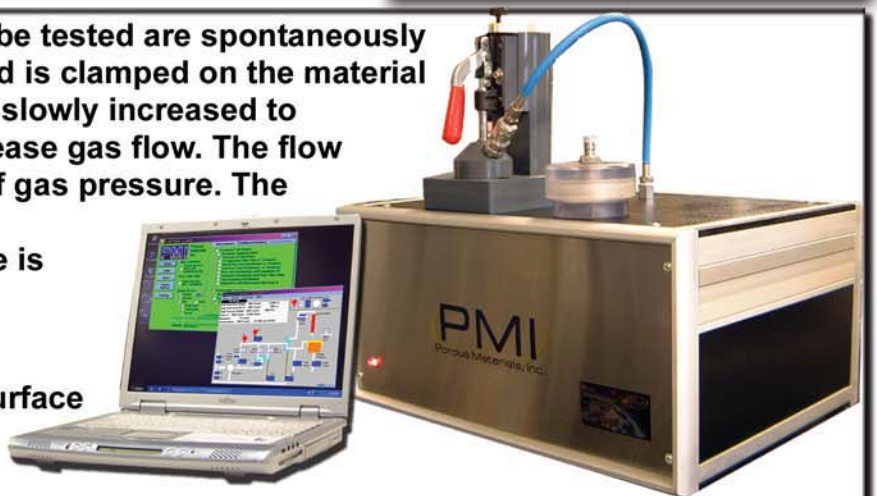
The Clamp-On Porometer:

The PMI Clamp–On Porometer provides porosity information quickly and accurately for your quality control, production control or R&D needs.



Principle of Operation:

The pores in the part of the material to be tested are spontaneously filled with a wetting liquid. The test head is clamped on the material and gas pressure behind the sample is slowly increased to displace the liquid in the pore and increase gas flow. The flow rate of gas is measured as a function of gas pressure. The flow rate verses pressure data is also generated using a dry sample. Pressure is related to pore diameter.

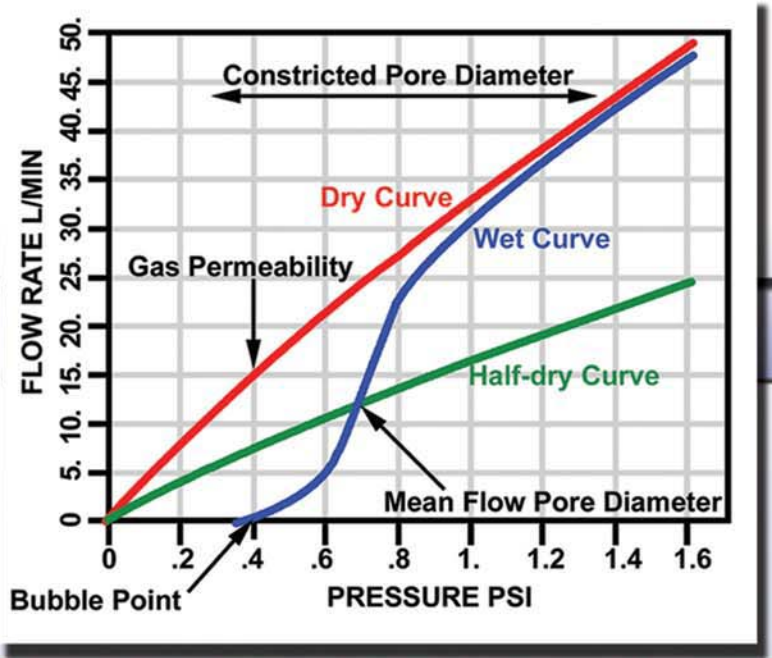


$$D = 4 \gamma \cos \theta / p$$

where D is the pore diameter, γ is the surface tension of liquid, θ is the contact angle of liquid, and p is the differential gas pressure. From these data the characteristics of the pore structure are calculated.

Features:

- Fully Automated Operation
- Windows Based
- Only a Few Minutes Per Test
- Very Little Operator Involvement
- Highly Reproducible
- Minimal Maintenance
- Economical

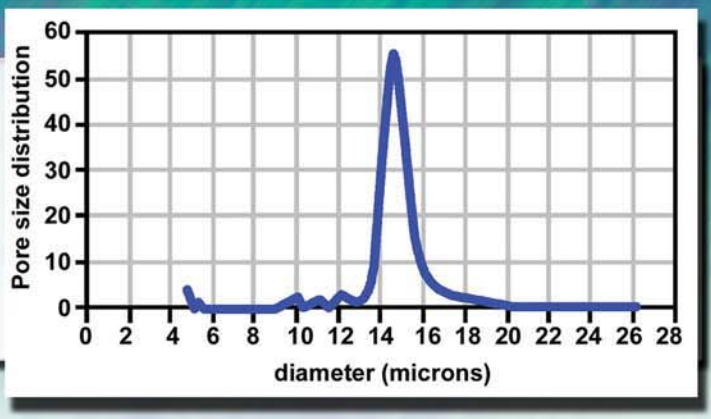


Testing Capabilities:

- Bubble Point
- Mean Flow Pore Diameter
- Gas Permeability
- Frazier Permeability
- Gurley Permeability
- Pressure Hold
- Pore Size Distribution

Unique Features

- On–line sample testing possible
- No need for cutting the sample and damaging the product
- Fast testing
- Determination of product uniformity by performing tests at multiple locations of the product without creating any damage



Application

Industries world–wide, ranging from the filtration industry to the battery industry, use the PMI Clamp–On Porometer for R&D and quality control. Materials often tested include: filter media, membranes, nonwovens, paper, powders, ceramics and battery separators.

Specifications

Test Pressure: 20 PSI
Pressure Accuracy: 0.15 % of reading

Flow Rates: Up to 200 SLPM (standard liters per minute)
Pressure and Flow Resolution: 1 part in 60,000

Pore Size Detectable

Fluid	Surface Tension, Dynes/cm	Minimum Pore Size, µm	Maximum Pore Size, µm
Water	72	1	800
Mineral Oil	34.7	0.7	700
Petroleum Distillate	30	0.6	700
Denatured Alcohol	22.3	0.5	600
Silwick	20.1	0.40	500
Porewick	16	0.33	400
Galwick	15.9	0.3	400
Any other wetting fluid can also be used for testing.			

Other Products

- Bubble Point, QC, In–Plane, Compression, and Cyclic Compression Porometers
- Liquid Extrusion Porosimeter
- BET Surface Area and Pore Analysis Sorptometers
- Pycnometers
- Mercury/Nonmercury Porosimeters
- Testing Services
- Liquid/Gas/Vapor Permeameters
- Envelope Surface Area Analyzers

Sale Rent Lease

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