

Accurately measure pore/grain volume of porous materials

The Grace Instrument M9145 Porosimeter is a nitrogen/helium gas instrument used to measure pore volume and grain volume of core samples. Porosity and grain density measurements may also be obtained from the M9145 data acquisition software.

The core sample is placed into a coreholder or cupholder cell, usually 1 and 1.5 inches in diameter. The cell is then seated within a reservoir of known volume and pressurized. Once the pressure has stabilized, a valve is opened to allow in helium gas that isothermally expands. After the pressure within the reservoir stabilizes again, the new pressure in the system is recorded and measured against the original known pressure. The porosity and grain density of the sample may be calculated through the use of Boyle's Law ($P_1V_1 = P_2V_2$).



M9145 Porosimeter with 1.5" Core Cup

Features

- Digital display of pressure and temperature
- Pressure transducer provides high accuracy
- Interchangeable sample holders for more test variation
- Data acquisition software allows for easy data logging and collecting
- Precision regulator and gauge for accurate pressure control
- Designed to test core samples with diameters up to 1.5" (or larger upon request)
- Built-in overpressure safety feature
- Compact size for easy test setup and maintenance



M9145 Porosimeter with Core Holder

Specifications

Core diameter:	up to 1.5" or larger upon request
Core length:	up to 3"
Electrical requirement:	110/220 VAC or 50/60 Hz
Pore Pressure:	200 psi
Confining Pressure	500 psi
Pressure sensor accuracy:	0.1% FSO
Power:	50W
Dimensions:	12.5" H x 22" W x 12" D
Weight:	40 lbs



Sample holder with core specimen