

Helium Porosity Measurement

Measuring of porosity of a rock is necessary in order to interpret the reservoir behavior and capabilities in terms of hydrocarbon storage and production. Moreover, this main property of rock is beneficial to geotechnical researches as well as non-petroleum areas. The porosity of a material is defined as the ratio of the volume of open space (pore volume) to the total volume (bulk volume).

In this experiment, helium percolates to the sample from a reference volume. Pressure drop during the test is measured. Pore volume is estimated from Boil-Mariot's law. Considering the bulk volume of the sample, effective porosity of the sample can be estimated.



Specification	HPR -BR01	HPR -PR01	HPR -PS01	HPR -PS02
Maximum Reference Cell Pressure	145 Psi	145 Psi	145 Psi	145 Psi
Core Diameter	1 in. & 1.5 in.	1 in. & 1.5 in.	1.5 in. & 4 in.	1.5 in. & 4 in.
Maximum Core Length	4 in.	4 in.	Plug 4 in./Whole Core 1 ft	Plug 4 in./Whole Core 1 ft
Input Power Supply	220 VAC, 50 or 60 Hz	220 VAC, 50 or 60 Hz	220 VAC, 50 or 60 Hz	220 VAC, 50 or 60 Hz
Automatic Control & Data Acquisition System	✗	✗	✓	✓
Data Acquisition System	✗	✓	✗	✗
Automatic Core Loading	✗	✗	✓	✓
Automatic Control Valves	✗	✗	✓	✓
Calibration Billets	✓	✓	✓	✓
Pressure Gauge	✓	✓	✓	✓
Digital Pressure Indicator	✗	✓	✓	✓
Pressure Accuracy	1% F.S.	0.5% F.S.	0.05% F.S.	0.05% F.S.
Confining Pressure	✗	✗	✗	4500 Psi

Contact info:

+98 71 3624 6968 / +98 71 3624 7604
info@petroazma.com
www.petroazma.com

Address:

Fars Science and Technology Park,
Aryan St., Dr.Hesabi Blvd., Shiraz, I.R.Iran
P.O Code: 7197687811