

اندازه‌گیری تراوایی نمونه با استفاده از گاز Gas Permeameter (MP-05)



Apex technologies co., provides a modern instruction focused measuring instrument that allows the operator to go through the experimental process in structured transparent or dark steps respect to the permeability measurement equipment models selected. Samples are hand loaded and experimental operating conditions are established manually, thus re-enforcing the previously learned theory. The instrument is based on Darcy's law allowing the operator to make permeability measurements due to gas and even due to liquid for some models on cylindrical or disk shape samples. Using any type of this equipment construct by Apex technologies co., make it possible to measure the permeability of sample in wide range of 0.01 to 5000 mD based on the high accurate instruments and operating procedure including several



essential steps. Besides, there is model including metering valves enabling the operator to investigate the Klingenberg effect and measuring the permeability of sample due to liquid without injection of any liquid. The instrument is forgiving in its operation and requires neither mercury nor significantly elevated confining pressures to operate, enhancing user safety. The dual injection system allows for the unsteady state displacement of one fluid with another at pressures up to 1500 psi.

Technical Specifications:

- ✓ Online software for data acquisition, data logging, controlling automatic valves and measuring the permeability both due to gas and due to liquid using Klingenberg effect
- ✓ Flow meter $\times 2$ (one of them for low permeability samples and the other for high permeability samples)
- ✓ Wetted Parts Material: S.S.316L (Except for Automatic Valves)
- ✓ Permeability and porosity measurement capability
- ✓ Sample length: based on the client order up to 4"
- ✓ Applicable to measure the klingenberg effect
- ✓ Pressure Transmitters Accuracy: 0.01 % F.S
- ✓ Metering valve for klingenberg effect $\times 2$
- ✓ Permeability range: 0.01-5000 mD
- ✓ Inlet Pressure Gauge $\times 2$ (16 bar)
- ✓ Automatic pressure regulator $\times 1$
- ✓ Automatic Pneumatic valves $\times 4$
- ✓ Main Cell: Easy Load Type
- ✓ Pressure Transmitters $\times 2$
- ✓ Sample Diameter: 1.5"
- ✓ Max. Pressure: 10 bar
- ✓ Valves: Swage LOK
- ✓ NUPRO Valves
- ✓ P.C. Port: USB