# Fully Automated Steady/Unsteady-State Gas Permeameter





### FULLY AUTO SS/US PERMEAMETER

### **Description:**

This apparatus is capable of permeability measurements from 10 nDarcy to 10 Darcy for different sizes of core plugs. To achieve this goal, PERM Inc. Instruments combined the steady-state and pulse-decay techniques into an integrated unit. The fully automated unit uses air-operated valves, an electric gas regulator, an electric BPR, and a high-speed data acquisition system. Pulse-decay covers the ultra-low to low permeability range, and steady-state covers the moderate to high permeability range. The confining pressure can be applied using an automated confining pressure system, which is controlled by the software. The developed software can show the status of the unit as well as the status of the equipment. The interpretation of transient pressure data leads to the determination of the gas permeability of the core plug during the pulse-decay technique.

### **Specifications:**

- ◆ Core holder diameter: 1.5 or 4.0 inches
- Core holder length: up to 6.0 inches
- Maximum pore pressure: up to 500 psi
- Confining pressure: up to 10,000 psi
- Gas type: Nitrogen or Helium
- Permeability range: 10 nD to10 D
- ◆ Maximum measurable flow rate: 10,000 SCCM
- Accurate pressure measurement with 0.1% FS
- Flow rate measurement accuracy: 1% FS
   Core holder material: stainless steel
- ◆ Three digital pressure displays for DP, outlet pressure, and confining pressure
- Two separate core holders
- ◆ Water as a confining pressure fluid having minimum damage in case of sleeve failure
- Fully automated systems with full control through the PC



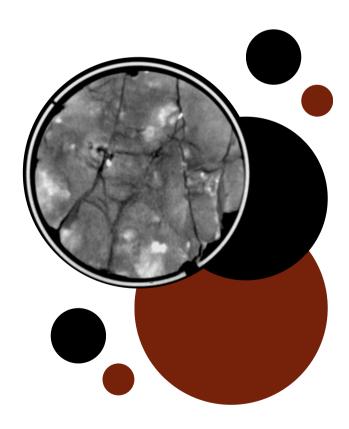
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### Benefits:

- ◆ Faster permeability measurement
- Wider range of permeability
- Wider range of core plug sizes
- ◆ Low dead volume system for more accurate measurements
- ◆ Adjustable core holder size

# Possible Upgrades:

- ◆ Core holder length and diameter can be increased to 12 inches and 4 inches, respectively
- ◆ Another gas entry can be added to the system for helium or other types of gas



# CONTACT

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