

# Temco, Inc.

Design Excellence in Core Analysis Instrumentation

## Mini-Perm/ Probe Permeameter MP-410

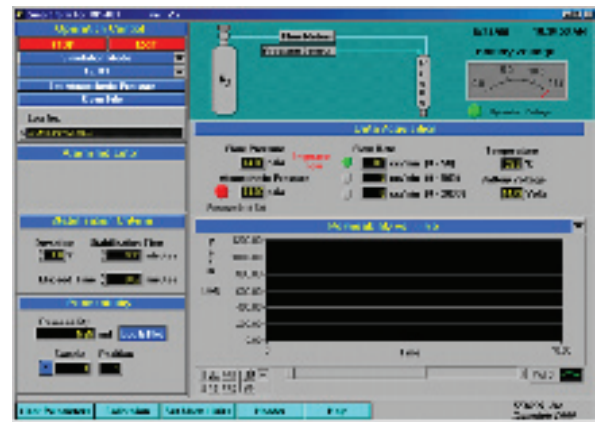
Temco sets the standard for field portable mini or probe type permeameters for routine and special core analysis. These field portable permeameters offer the end user several advantages over standard gas permeameters.

These features include:

- Field Portable, Compact, Light Weight, Durable
- Easy and Quick to Use
- Minimal Sample Preparation
- Test Irregular Shapes and Sizes of Core Samples
- Test Slabbed Cores and Core Plugs
- Test Outcrop Rocks in the Field
- Computer Processing
- Data Storage



The permeameter operates using a portable, DOT approved gas cylinder. Gas is injected into the rock sample through a small compressible tip. The gas flows into the rock and then back out through the surface. The gas flow rate is measured with one of three electronic mass flow meters. The injection pressure is monitored with an absolute pressure transducer.



To aid in the data collection and analysis, a portable computer with Temco's SmartPerm™ software for data acquisition and control program can be provided. The computer is connected via the serial port to the instrument. The computer screen displays the instrument operation, calibration, permeability calculation, and when equilibrium is reached. When equilibrium is reached, the software will advise the end user. The data can then be stored in the computer in a spreadsheet type format. The data can be processed in standard spreadsheet programs and printed as necessary.

The test sample permeability is calculated using a modified Darcy's equation. The equations were developed at the University of Texas at Austin and are covered under Patent Number 4,864,845.

For additional information, please refer to publication, SPE 14893 by Goggin, Chandler, Kocurek and Lake. Temco has an exclusive, worldwide license for this permeameter from the University of Texas.

A portable stand is also available for use in the field or in the laboratory. The probe tip is held against the test sample with the aid of an air cylinder. Constant, uniform, reproducible pressure is applied. The stand fits into its own carrying case for transportation.



### Specifications

Model	MP-401
Permeability Range	0.1 md to 5 Darcy
Flowmeters	0-50, 0-500, 0-2000 sccm
Accuracy	2% F.S.
Transducer	0-50 psia
Accuracy	0.1% F.S.
Electrical	Battery Operated
Battery	12 Volt Rechargeable
Gas Bottle Capacity	1000 cc to 1800 psig
Dimensions	8 ½" x 13" x 21" (HxDxW)
Weight	40 lbs
Computer	Portable computer
Software	SmartPerm™ Software