

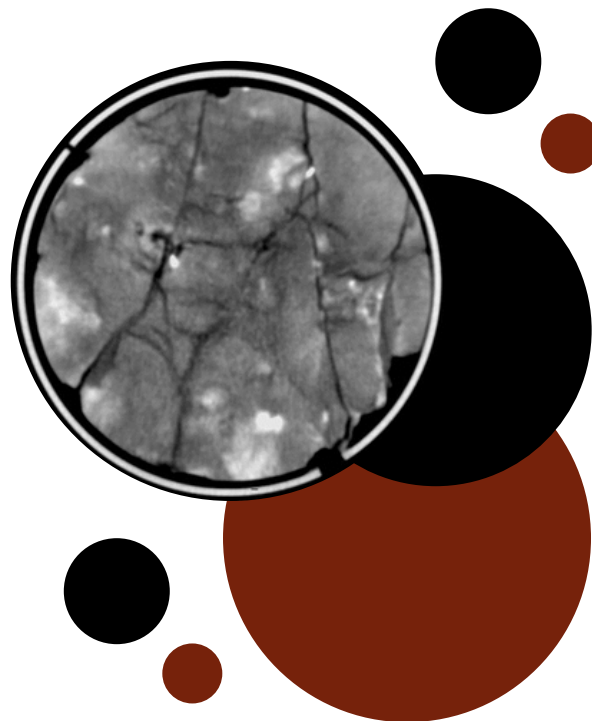
Capillary Pressure Apparatus



Description:

The Capillary Pressure Apparatus assists with Special Core Analysis (SCAL) by determining the capillary pressure-desaturation curve of a particular core plug (or multiple core plugs) using an inert gas, such as nitrogen. The high-pressure chamber of this apparatus is equipped with a porous plate with a 1500 kPa (218 psi) threshold pressure, which does not allow gas to enter its pore spaces if the applied injection pressure is less than 1500 kPa (218 psi).

A humidifier is included with this apparatus to ensure that the injected gas phase is saturated with water. In addition, the capillary pressure measurement can be run with low- and high-pressure modes, resulting in more accurate measurements, depending on the pore-size distribution.



Features:

- ◆ Measurements can be assessed during the imbibition process or the drainage process
- ◆ Designed to evaluate the capillary pressure-desaturation curve for the drainage process, where the gas phase displaces the water phase trapped in the pore-throat space of the core plug
- ◆ Enables the operator to measure the capillary pressure curve for multiple core plugs of various sizes at the same time within a broad range of pressures
- ◆ Unique, user-friendly design

Specifications:

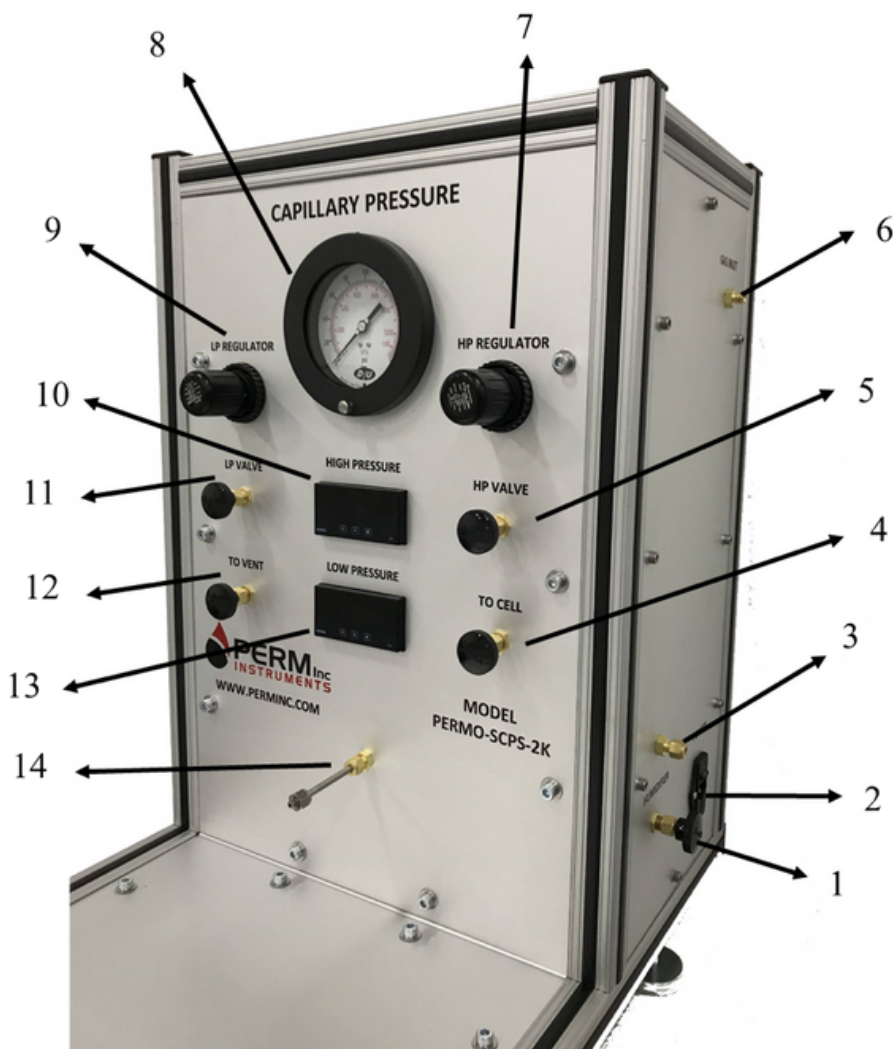
- ◆ Dimensions: 34 in x 34 in x 24 in
- ◆ Maximum inlet pressure: 2068 kPa (300 psi)
- ◆ Operating pressure⁽¹⁾: 0 - 1379 kPa (0-200 psi)
- ◆ Minimum desaturation pressure: 0.69 kPa (0.1 psi)
- ◆ Operating temperature: ambient temperature to 60°C
- ◆ Core holder inner diameter: 12.0 inches
- ◆ Core holder height: 5.0 inches
- ◆ Porous plate threshold pressure⁽²⁾: 1500 kPa (218 psi)
- ◆ Electrical requirement⁽³⁾: 110-240 VAC
- ◆ Pressure accuracy: 0.2% full range (<0.69 kPa)
- ◆ Humidifier capacity⁽⁴⁾: 100 mL

(1) Pressure can be set between 0-200 kPa (29.0 psi) at low-pressure mode and between 0-1379 kPa (200 psi) at high-pressure mode.

(2) A 1500 kPa porous ceramic is provided with the apparatus with the inner diameter of 10 inches.

(3) A 125V-10A power cable is provided with the apparatus.

(4) A syringe is provided with the apparatus to refill the humidifier with deionized water.



Component List :

Part	Description	Part	Description
1	Humidifier valve	2	Power switch
3	1/4" Swagelok fitting for humidifier	4	Vent valve
5	High-pressure mode valve	6	1/4" Swagelok fitting for gas stream
7	High-pressure gas regulator	8	Pressure guage
9	Low-pressure gas regulator	10	Digital display of high-pressure
11	Low-pressure mode valve	12	Core holder valve
13	Digital display of low-pressure	14	1/4" Swagelok Fitting for Chamber

CONTACT

PERM Inc.

Bay 3, 2221 41 Avenue NE

Calgary, AB T2E 6P2

+1 (587) 794-3364

info@perminc.com

