



HM-4188B

Permeability Cells

HM-4188B permeability cells are constructed of high-quality materials throughout for long-lasting performance. The cell top and base are precision machined from 6061 T6 aluminum and then hard-coated and Teflon-impregnated for a durable finish. To facilitate sample setup, the chamber and cell top can be quickly and easily removed by loosening the three knobs that hold the upper assembly to the base. The clear acrylic chamber provides a working pressure of 150 psi (1,000 kPa) and is tested to 250 psi (1,700 kPa).

The cell has five, no-volume-change, valves aligned along the front of the cell for maximum convenience. Two valves handle top drainage, two valves handle bottom drainage, and one valve handles filling/emptying and providing confining pressure to the cell.

The removable base pedestal accommodates various sample diameters from 35mm to 4 inch, see charts below for model numbers corresponding to the size needed. Cells are available with black-anodized aluminum or stainless steel top caps and base pedestals, refer to chart below.

Brass valves are standard with these cells, but stainless steel valves (stainless steel is typically used with hazardous materials) are an option, please inquire. Cell dimensions are: 13-3/4" H x 8-3/4" dia. (349.2 x 222.3mm). Overall dia. is: 11" (279.4mm). Meets ASTM D5084.

Triaxial Cells— HM-4199

For those who plan to do triaxial tests in addition to permeability testing, consider using HM-4199B and HM-4199SS Triaxial Cells for the added convenience of using one cell for both tests.

Cell: Brass Valves, Aluminum Top and Base Pedestal

| Size | Cell | Top Cap | Base Pedestal |
|-------|----------|--------------|---------------|
| 35mm | HM-4188B | HM-4199.35T | HM-4193.35B |
| 1.4" | | HM-4199.14T | HM-4193.14B |
| 50mm | | HM-4199.50T | HM-4193.50B |
| 2.0" | | HM-4199.20T | HM-4193.20B |
| 70mm | | HM-4199.70T | HM-4193.70B |
| 2.8" | | HM-4199.28T | HM-4193.28B |
| 100mm | | HM-4199.100T | HM-4193.100B |
| 4.0" | | HM-4199.40T | HM-4193.40B |

Cell: Stainless Valves, Top and Base Pedestal

| Size | Cell | Top Cap | Base Pedestal |
|-------|-----------|----------------|----------------|
| 35mm | HM-4188SS | HM-4199.35TSS | HM-4193.35BSS |
| 1.4" | | HM-4199.14TSS | HM-4193.14BSS |
| 50mm | | HM-4199.50TSS | HM-4193.50BSS |
| 2.0" | | HM-4199.20TSS | HM-4193.20BSS |
| 70mm | | HM-4199.70TSS | HM-4193.70BSS |
| 2.8" | | HM-4199.28TSS | HM-4193.28BSS |
| 100mm | | HM-4199.100TSS | HM-4193.100BSS |
| 4.0" | | HM-4199.40TSS | HM-4193.40BSS |

Permeability, Three Cell Set, Typical Setup:

| Part # | Qty | Description |
|-------------|-----|--|
| HM-4150 | 1 | FlexPanel (1 cell unit) w/ Control Panel |
| HM-4160A | 1 | FlexPanel (2 cell unit add-on) |
| HM-4188B | 3 | Permeability Cell |
| HM-4199.XXT | 3 | Top Cap |
| HM-4199.XXB | 3 | Base Pedestal |
| HM-4180.XX | 1 | Latex Membranes |
| HM-4181.XX | 1 | Membrane Stretcher |
| HM-4182.XX | 1 | O-Rings, 12 pk |

| Part # | Qty | Description |
|-------------|-----|---|
| HM-4184.XX | 6 | Porous Stones |
| HM-4189.XX | 1 | Filter Paper, 100pk |
| HM-4198 | 1 | Vacuum Grease, 5.3 oz. |
| HM-4170 | 3 | Pore Pressure Transducer |
| HM-4170B | 3 | De-airing Block |
| HM-4187E | 1 | De-airing Tank, 6 liter |
| HM-3847.XX | 1 | Split Miter Box |
| HM-2325A.3F | 1 | MiniLogger 4 CH Analog Data Acquisition |

Part Numbers ending in .XX require a size code to be entered referring to the sample size to be tested.

For Permeability, sample sizes are: .14 = 1.4"; .15 = 1.5"; .20 = 2.0"; .28 = 2.8"; .40 = 4.0; .35 = 35mm; .38 = 38mm; .50 = 50mm; .70 = 70mm; .100 = 100mm