

PERMEABILITY PLUGGING APPARATUS (PPA)

5,000 psig Working Pressure



Complete PPA Assembly

The Permeability Plugging Apparatus (PPA) is designed to provide accurate simulation and measurement of down-hole static filtration. This **5,000 psig** rated PPA is ideal for predicting how a drilling fluid can form a permeable filter cake to seal off depleted/under pressure intervals. The PPA utilizes a conventional HTHP Heating Jacket to simulate reservoir temperature. The fluid cell is inverted, with pressure applied from the bottom of the cell and filtrate collected out the top. Pressure is transferred to the mud by a small hydraulic hand pump through a small floating piston within the cell. The PPA employs a ceramic filter disc, which is available in varying porosities. The disc offers a more authentic representation of the formation.



PPA Cell Assembly

Ordering Information

Complete Permeability Plugging Apparatus

- Pressure rating: 5,000 psig (34,473 kPa)
- Temperature rating: 500°F (260°C)

Part No. **206845** – 115 Volts/800 Watts

Part No. **206846** – 230 Volts/400 Watts

CERAMIC FILTER DISCS

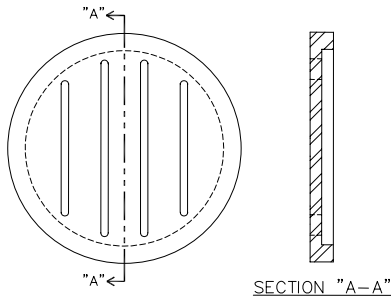
Ceramic filter discs are provided in order to more closely simulate the porosity and permeability of the natural formation. Ceramic filter discs are stronger and more durable than natural materials, allowing for testing with greater pressures and back pressures. A wide assortment of disc of varying porosities enables the user to select a filter porosity that closely matches the actual formation being drilled. This provides a more realistic simulation of filtration properties than using the conventional filter paper.

Ceramic Filter Discs Size: ¼" Thick X 2-1/2" Diameter

Part Number <i>Box of 10 discs</i>	Porosity <i>(Mean Pore Diameter)</i>	Permeability <i>(Air)</i>
210536	3 micron	500 milli-darcy
210537	5 micron	750 milli-darcy
210538	10 micron	950 milli-darcy
210539	20 micron	2.8 darcy
210540	35 micron	5.5 darcy
210541	60 micron	6.7 darcy
210542	90 micron	13.5 darcy
210543	150 micron	26.5 darcy
210544	190 micron	75 darcy

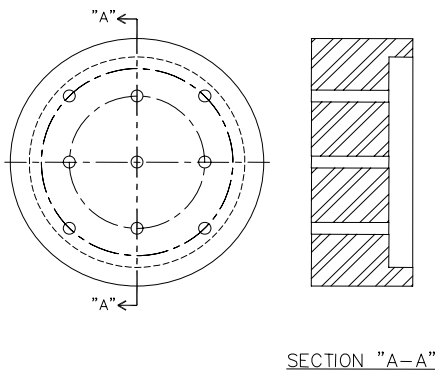
STAINLESS STEEL FILTER DISCS

Stainless steel filter discs are available for conducting Loss Circulation Test utilizing the PPA. Discs are constructed of 303 Stainless Steel and are available in both slotted configuration and with holes. All discs are 2-1/2" in diameter for use with the Fann PPA and HPHT Filter Press. With proper care and maintenance these stainless steel discs can be reused.



¼" Thick Discs

Part Number	Description
209461	1mm SLOT, 9 Slots, each 0.0394" wide
386828	2mm SLOT, 4 Slots, each 0.0787" wide
386830	3mm SLOT, 3 Slots, each 0.1181" wide
386827	2mm HOLE, 13 Holes, each 0.0787" diameter
386829	3mm HOLE, 9 Holes, each 0.1181" diameter



1" Thick Discs

Part Number	Description
209455	2mm SLOT, 4 Slots, each 0.0787" wide
209456	3mm SLOT, 3 Slots, each 0.1181" wide
209457	5mm SLOT, 1 Slot, 0.1968" wide
209452	2mm HOLE, 13 Holes, each 0.0787" diameter
209453	3mm HOLE, 9 Holes, each 0.1181" diameter
209454	5mm HOLE, 5 Holes, each 0.1968" diameter

Contact Fann for more information on the **Permeability Plugging Apparatus** and our complete line of Fluid Testing Equipment