

## DYNAMIC HTHP FILTER PRESS

#170-50 115-VOLT

#170-50-1 230-VOLT

The OFITE Dynamic High-Temperature High-Pressure (HTHP) filter press measures filtration properties under varying dynamic downhole conditions. A motor-driven shaft fitted with propellers turns at varying speeds inside a standard 500 mL HTHP cell. RPM settings from 1 to 1600 RPM impart laminar or turbulent flow to the fluid inside the cell. By varying the shaft length, the shear stress may be increased or decreased. Power is driven to the stirring shaft by a timing belt that is easily accessible for quick adjustment and removal. Other features include a variable-speed motor controlled through an SCR controller. RPM is indicated on a digital tachometer. The test procedure is exactly the same as that in the standard HTHP filtration test. The only difference is the fluid circulates inside the cell while filtrate is being collected. Since the filter medium is conventional disk material, the results are comparable with those of other laboratories or for comparing historical trends.

### Features Include:

- Variable-speed electric motor, ½ HP permanent magnet DC
- Auxiliary pipe connection for the cell top cap. Plug may be removed to add additional fluid additives.
- Safety-calibrated rupture disk guards against overpressure
- Motor and stirring shaft RPM operate at a one-to-one ratio
- Adjustable thermostat from 100° to 500°F
- Optional filter permeabilities available

**Size:** 12" x 15.5" x 36" (31 x 39 x 91 cm)

**Weight:** 95 lb (43.1 kg)

**Crated Size:** 31" x 21" x 40" (79 x 53 x 102 cm)

**Crated Weight:** 184 lb (83.5 kg)



#170-50 Dynamic HTHP Filter Press

### Components:

- #135-18 Set Screw Socket for Clamp
- #153-12 Graduated Cylinder, 100 mL x 1 mL, Glass
- #154-06 Thermometer, Traceable, Full-Scale: -58° - 500°F (-50° - 250°C)
- #165-44 Thread Lubricant, High-Temperature, 1 oz
- #170-50-033 Base
- #170-78 Retaining Ring Pliers, Internal
- #170-79 Retaining Ring Pliers, External
- #170-80 Mini-Jet Pump, 115-Volt 60 Hz, 79-153 GPH

- #170-81 Hex Adapter for Pump
- #170-82 Quick Connect, Male
- #170-83 Quick Connect, Female
- #170-84 Tubing, ¼", Polyurethane
- #170-85 T-Clip for Hoses
- #170-86 Grease Fitting, NPT Straight, ¼"
- #291-06 Cylinder, 1 Liter, Acrylic
- Cell Assembly Components:**
- #170-13-2 O-ring for Cell, Buna 90
- #170-16 Valve Stem for Cell
- #170-17 O-ring for Valve Stem, Viton®
- #170-19 Filter Paper, 2½", Package of 100
- #170-23 Screen, 60-Mesh
- #170-26 Cap Locking Screw, Stainless Steel
- #170-27 Allen Wrench for Cap Locking Screw, 5/32"
- #170-35 Adjustable Wrench, 6"
- #170-53 Ceramic Filter, 10 Darcy, 35 µm, 2.5" x ¼"
- #170-67 Propeller, 1½"
- #170-68 Propeller, 2"
- #170-69 Cell Cap, Scribed for Ceramic Disks, 2,500 PSI, 316 Stainless Steel
- #170-71 Pipe Plug, ¼" NPT, 316 Stainless Steel
- #170-77 O-ring for Stainless Steel Spacer
- #171-02 Cell Body for Ceramic Disks, Double-End, 10", 500 mL, 316 Stainless Steel
- #171-21 Cell Cap with 60-Mesh Screen, 2,000 PSI, 316 Stainless Steel

### Drive Assembly Components:

- #140-60-01 O-ring for Water Swivel Feed Tube
- #170-50-01 Splash Guard
- #170-54 Packing Ring, ⅝" x ⅛", Carbon
- #170-54-1 Packing Ring, ⅝" x ⅛", Teflon®
- #170-56 Retainer Ring for Water Swivel, External, ⅝"
- #170-57 Retainer Ring for Lower Seal Ring, Internal, 1⅛"
- #170-61-1 Thrust Bearing and Spacer, ⅛", Bronze
- #170-63 ⅝", Drive Belt
- #170-64 O-ring for Water Swivel
- #170-66 Adapter, ⅛" Tube x ⅛" Female Elbow
- #170-74 Retainer Ring for Bearing Housing, Internal
- #170-75 Ball Bearing for Bearing Housing

### Heating Jacket, Motor, and Stand Components:

- #170-10 Pilot Light for Thermostat
- #170-11 Heating Element, 115-Volt, 200-Watt
- #171-07 Heat Jacket
- #171-09 Leg
- #171-32 Midget Knob
- #171-36 Thermostat Cover
- #171-44 Rubber Foot, ¾"
- #171-71 Thermostat
- #171-87 Location Pin
- #171-94 Cell Rest Plunger Assembly
- #174-23 Terminal Strip, 10 Place

### Pressurization Assembly Components:

- #171-10 Back Pressure Receiver, 100 mL
- #171-24 Dual Nitrogen Manifold, 1,350 and 750 PSI

### Optional:

- #143-07 CONCOA/AIRCO Repair Kit
- #170-50-SP Spare Parts for One Year for #170-50
- #170-52 Carrying Case
- #170-58 Shaft Extension, ½"
- #170-59 Shaft Extension, 1"
- #170-60 Shaft Extension, 1½"
- #170-73 Cell Cap, Extra Long for Filter Paper, 316 Stainless Steel, 2,500 PSI