



DRILLING FLUIDS EQUIPMENT

For over 30 years OFI Testing Equipment (OFITE) has provided instruments and reagents for testing drilling fluids, well cements, completion fluids, and wastewater. In addition to these product lines we also offer a range of instruments for core analysis. From our manufacturing facility in Houston, TX we provide customers all over the world with quality products and exceptional service.

Our drilling fluids product line includes innovative designs such as the Model 900 Viscometer, which showcases our ability to develop new technology to meet customer and industry demands. We also offer Retorts, Aging Cells, Roller Ovens, Mud Balances, Filter Presses, and all other instruments required to evaluate drilling fluid properties according to API Recommended Practice 13B-1 and 13B-2.

As an independent manufacturer and supplier, OFITE has one priority, our customers.

Lubricity Evaluation Monitor

The Lubricity Evaluation Monitor (LEM) is a laboratory device designed to evaluate lubricants by direct comparison. It determines the coefficient of friction between an interchangeable well-bore sample (casing, formation, sandstone, etc.) pressed against a rotating steel bob while immersed in a circulating cup of test fluid.



Features

- Pneumatic ram applies side load pushing the bob against the sample
- Periodic refresh of test fluid by pulling bob away from sample at definable intervals
- Clamp allows samples of casing, formation, sandstone, etc. to be tested in the same fixture
- Computerized data acquisition and control
- Optional heat cup allows heating the fluid up to 180°F (82.2°C)
- Software
 - Operator inputs rotational speed, side load, and refresh period
 - Test archive provides access to historical data
 - Graphs rotational speed (RPM), torque (in-lb), side load (lb), and coefficient of friction with respect to time





Technical Specifications and Requirements

- #113-00 Lubricity Evaluation Monitor
- #113-00-101 Optional Heat Cup

Specifications

- Sample cup capacity: 350 mL
- Range of Mud Weights: 0.83 - 18.0 lb
- Torque Transducer Maximum Range: 100 lbf-in
- Torque Resolution: $\pm 0.1\%$ of full scale combined
- Maximum Side Load: 60 lbf
- Maximum Rotational Speed: 200 RPM
- Maximum Temperature (with optional Heat Cup): 180°F (82.2°C)
- Speed of Circulating Pump: 20 - 500 RPM
- Calibration: Coefficient of Friction of Water = .32 - .36
- Test Cell Material: Acrylic
- Bob Material: 4140 Steel - Rockwell Hardness of 37
- Crated Size: 41" \times 31" \times 42" (104 \times 79 \times 107 cm)
- Crated Weight: 380 lb (172.4 kg)

Requirements

- Electrical Supply: 220 Volts
- Air Supply: 60 - 100 PSI