



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.

Differential Sticking Tester

The Differential Sticking Tester measures the "Stuck Pipe Tendency Coefficient" of drilling fluids, and also determines how effective lubricants or treatments might be with any given drilling fluid. By measuring the area of cake building during a test, the Bulk Sticking Coefficient is obtained and read directly at the conclusion of the test. This coefficient takes into account both the friction, or "stickiness" of the filter cake, as well as the amount of cake building that would occur to stick the pipe in the hole.



Features

- Pressurized with a standard CO₂ Pressure Assembly
- Torque plate with 12.5" radius to simulate casing
- Field portable





Technical Specifications and Requirements

- #150-50 Differential Sticking Tester

Specifications

- Standard Test Pressure: 477.5 PSI (3,291 kPa)
- Working Temperature: Ambient
- Working Volume: 200 mL
- Size: 6" × 6" × 18" (15 × 15 × 46 cm)
- Weight: 26 lb (11.8 kg)

Optional



#155-20 - Interval Timer



#143-05 - CO₂ Bulbs

Intro

The OFITE Differential Sticking Tester measures the “Stuck Pipe Tendency Coefficient” of drilling fluids, and also determines how effective lubricants or treatments might be with any given drilling fluid. This coefficient takes into account both the friction, or “stickiness”, of the filter cake, as well as the amount of cake building that must occur in order to freeze or stick the pipe in the hole. The coefficient is determined by running a Timed Filtration test. By measuring the area of cake building during a test, the “Bulk Sticking Coefficient” is obtained and read directly at the conclusion of the test. How likely a given fluid will be to produce a stuck pipe situation and how effective a given treatment may be, can be immediately determined on-site.

Description

The unit is normally pressurized by a CO₂ pressuring assembly, but any nitrogen source will also work. If nitrogen is used, the tester apparatus must be fitted with a suitable nitrogen regulator, gauges, valves, and high-pressure hoses. The standard test uses 477.5 PSI (3,291 kPa) applied to a 200-mL stainless steel vessel. The unit includes both a flat-faced plate and a plate of 12½" (31.75 cm) spherical radius, which simulates the pipe inside the casing or collars in the borehole. For samples that adhere more to the plate than to the filter paper, stainless steel micro-corrugation disks are provided. For convenience a stainless steel carrying case is available as an optional item.

Components

#130-10-52	Jam Nut, 3/8-24, Qty: 2
#142-56	O-ring
#150-52	Neoprene Gasket
#150-53	Plastic Gasket
#150-54	Torque Wrench
#150-55	Spanner Wrench
#150-56	Test Cell O-ring
#150-57	5/16" Socket with 3/8" Drive
#150-58	Torque Plate; Flat Bottom
#150-59	Torque Plate; Spherical
#153-16	Glass Graduated Cylinder; 25 mL × 3/10 mL
#170-04	CO₂ Pressurization Unit:
#143-02-10	CO ₂ Puncture Head Assembly
#143-03	Barrel for CO ₂ Cartridge
#170-08	Regulator
#170-20	Manifold Block
#170-32	1/8" × 1/8" NPT Male Needle Valve
#171-22	Retainer Pin
#171-34	1500-PSI Gauge; 2"; 1/4" NPT Bottom
#170-13	Test Cell O-ring; Buna N
#170-15	Base
#170-16	Valve Stem; Qty: 2
#170-17	Valve Stem O-ring; Qty: 10
#170-19	2 1/2" (6.35 cm) Filter Paper; Specially Hardened for Filter Presses
#170-35	6" Adjustable Wrench
#170-44	1/2" Rubber Foot; Qty: 4
#171-79	1/4" Hex Wrench

Optional:

#150-50-SP Spare Parts for #150-50:

- #142-56 O-ring; Qty: 12
- #143-02-13 O-ring for Puncture Pin Holder Assembly; CO₂ Cartridge; Qty: 6
- #143-02-14 O-ring for Puncture Pin Holder Assembly; Qty: 4
- #143-05 EZ Puncture CO₂ Bulbs; 8-Gram; UN #1013; Package of 10; Qty: 30
- #143-06 Safety Bleeder Valve
- #143-07 Regulator Repair Kit for #143-00
- #143-22 Gasket for Puncturing Pin; Qty: 12
- #150-51 Locking Mesh Disc; Qty: 10
- #150-52 Neoprene Gasket; Qty: 10
- #150-53 Plastic Gasket; Qty: 8
- #153-16 Glass Graduated Cylinder; 25 mL × $\frac{3}{10}$ mL; Qty: 2
- #170-13 Test Cell O-ring; Buna N; Qty: 4
- #170-16 Valve Stem; Qty: 2
- #170-17 Valve Stem O-ring; Qty: 20
- #170-19 2½" (6.35 cm) Filter Paper; Specially Hardened for Filter Presses; Qty: 5
- #170-23 60-Mesh Screen; Qty: 8
- #171-22 Retainer Pin; Qty: 2
- #171-79 ¼" Hex Wrench