



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.



Portable Roller Oven

The Portable Roller Oven (U.S. Patent No. 4,677,843) is an effective aid in determining the effects of temperature on drilling fluid as it circulates through the well bore. Aging the drilling fluid in pressurized containers effectively demonstrates the thermal effects on viscosity and how various additives behave at elevated temperatures. Aging is done under conditions that vary from static to dynamic and from ambient to highly elevated temperatures.



Features

- Portable Roller Oven has 3 rollers
- Holds (2) 260 mL cells or (2) 500 mL cells
- Specifically designed for the field
- Variable-speed controlled
- Enclosure is constructed of stainless steel for longer life
- Stainless steel rollers promote a cleaner environment inside the oven
- Glass-impregnated Teflon® bearings extend the life of the rollers and allow for longer maintenance free service
- Digital temperature controller that can be read directly from outside the oven
- Temperature is controlled by an electronic solid state thermostat and operates between 100°F and 450°F (38° - 232.2°C)



Technical Specifications and Requirements

- #174-00 Portable Roller Oven (115 Volt)
- #174-00-1 Portable Roller Oven (230 Volt)

Specifications

- 150 Watt Heater
- Temperature Range: 100 - 450°F (38 - 232°C)
- Digital Temperature Controller
- Motor Speed: 25 RPM
- Capacity:
 - 260 mL Aging Cells: 2 (Sold Separately)
 - 500 mL Aging Cells: 2 (Sold Separately)
- Crated Size: 25" × 22" × 11" (63.5 × 30.5 × 27.9 cm)
- Crated Weight: 53 lb (24.1 kg)
- Power Requirements: 115 Volt/230 Volt

Optional Items

#175-25: Aging Cell, Stainless Steel Grade 303, 260 mL, Pressurized

#175-30: Aging Cell, Stainless Steel Grade 303, 500 mL, Pressurized

#175-50: Aging Cell, Stainless Steel Grade 316, 500 mL, Pressurized

#175-40: Corrosion Test Cell, Stainless Steel Grade 303, 500 mL

#175-60 - Teflon® Liner for Aging Cells for 500 mL Aging Cells

#175-60-6 - Teflon® Liner for Aging Cells for 260 mL Aging Cells

#175-46: O-ring for Outside of Aging Cell, Teflon

#175-54: O-ring for Outside of Aging Cell, Buna N

#170-04 CO₂ Pressuring Assembly



#170-40 Test Cell Removal and Carrying Tool



Introduction

The OFITE Roller Oven (U.S. Patent No. 4,677,843) is an effective aid in determining the effects of temperature on drilling fluid as it circulates through the well bore. Aging the drilling fluid in pressurized containers effectively demonstrates the thermal effects on viscosity and how various additives behave at elevated temperatures. Aging is done under conditions that vary from static to dynamic and from ambient to highly elevated temperatures.

The Portable Roller Oven, with 3 rollers, can hold four 260 mL or two 500 mL jars and is specifically designed for the field. OFITE rollers are variable-speed controlled (factory preset to 25.0 RPM) and constructed of stainless steel for longer life and a cleaner environment inside the oven. Glass-impregnated Teflon® roller bearings extend the life of the rollers and allow for longer maintenance-free service.

The Portable Roller Oven features a digital temperature controller that can be read directly from outside the oven. The temperature is controlled by an electronic solid-state thermostat and operates between 100°F and 450°F (38°C–232°C).

Description

The OFITE Roller Ovens are designed to provide heating and rolling functionality simultaneously or independently. Therefore, they can be put to many practical uses, for instance:

1. Heating Mode Only:
 - Drying Oven
 - Aging Oven
 - Baking Oven

2. Rolling Mode Only:
 - Ball Mill Roller
 - To make homogenous mixtures of liquids
 - To make homogenous mixtures of powders
 - To agitate chemicals into solutions
 - To de-aerate liquids

Components

#135-17	Switch Plate; Qty: 2
#140-60-04	E-Ring for Base Cap; Qty: 6
#163-26	Small Clip
#164-30	230V Power Receptacle
#165-14-8	Type "J" Thermocouple 1/8" x 6"
#165-40	115V Power Cable
#165-40-1	230V Power Cable
#165-45	Red Neon Lamp
#165-45-1	Clear Neon Lamp
#165-47	115V Receptacle
#170-05	Thermostat
#171-44	3/4" Rubber Foot; Qty: 4
#172-02	Chain; Foot; Qty: 6
#172-03	Sprocket; Qty: 6
#172-04	Connecting Link for Chain; Qty: 3
#172-05	2-Amp Fuse for 230V Oven; Qty: Box of 5
#172-07	5-Amp Fuse for 115V Oven; Qty: Box of 5
#172-08	Bearing for Roller Shaft (Glass Impregnated Teflon); Qty: 6
#172-13	Fuse Light Holder; Qty: 2
#172-14	On/Off Toggle Switch; Qty: 2
#172-20	150-Watt Heater; Qty: 2
#172-24	Solid State Relay; 240 Volt - 25 Amp
#174-03	Electronic Controller
#174-13	Motor
#174-14	Motor Controller
#174-19	Motor Bracket
#174-21	115/230 Voltage Converter Switch
#174-22	Mounting Plate for 115/230 Voltage Converter Switch
#174-23	10-Place Terminal Strip

Optional:

#175-46	O-ring for Outside of Aging Cell; Teflon
#175-54	O-ring for Outside of Aging Cell; Buna N

#174-00-SP Spare Parts for One Year for #174-00 (115V)

#174-00-1-SP Spare Parts for One Year for #174-00-1 (230V):

#165-40	Power Cable (115V Only)
#165-40-1	Power Cable (230V Only)
#165-45	Red Neon Lamp
#165-45-1	Clear Neon Lamp
#172-02	1' Chain; Qty: 6
#172-03	Sprocket; Qty: 6
#172-04	Connecting Link for Chain; Qty: 3
#172-05	2-Amp Fuse for 230V Oven; Qty: Box of 5
#172-07	5-Amp Fuse for 115V Oven; Qty: Box of 5
#172-08	Bearing for Roller Shaft (Glass Impregnated Teflon); Qty: 8
#172-13	Fuse Light Holder; Qty: 2
#172-20	150-Watt Heater; Qty: 2
#172-24	Solid State Relay; 240 Volt - 25 Amp; Qty: 2

Specifications

- 150-Watt Heater
- Temperature Range: 100–450°F (38–232°C)
- Digital Temperature Controller
- 25 RPM Motor
- Capacity:
 - 260 mL Aging Cells: 2
 - 500 mL Aging Cells: 2
- Crated Size: 25 × 22 × 11 inches (63.5 × 30.5 × 27.9 cm)
- Crated Weight: 53 lbs (24.1 kg)

The following aging cells are available from OFITE and are recommended for use with the Roller Ovens:

- #175-25 Aging Cell; Stainless Steel Grade 303, 260 mL, Pressurized
- #175-30 Aging Cell; Stainless Steel Grade 303, 500 mL, Pressurized
- #175-40 Corrosion Test Cell; Stainless Steel Grade 303, 500 mL
- #175-50 Aging Cell; Stainless Steel Grade 316, 500 mL, Pressurized

Safety

Aging Cells can be very dangerous if handled improperly. Elevated temperature and pressure within the cell can cause the contents to be released with explosive force.

Always allow the cell to cool to ambient temperature before opening.

Always point the cell away from people and equipment when opening the valve stems.

Do not overfill the cell. Refer to the instruction manual for Aging Cells #175-25, #175-30, #175-50 to determine the appropriate fluid volume for the test conditions.