



# FALEX Panel Coking Test Apparatus

The Falex Panel Coking Test determines the tendencies of finished oils to form coke when in contact with surfaces at elevated temperatures. It is designed to perform Federal Test Standard 791B Method 3462.

The unit is equipped with three programmable temperature controllers (for regulation of the test panel, test oil in the sump, and air flow), a variable drive motor with digital speed display, and an air flow regulation system.



The Falex Panel Coking Test Apparatus provides an economical method for the evaluation of coking tendencies of lubricants under a wide range of test parameters and test materials. Test panels are available in many different alloy types of steel, stainless steel, aluminum and other materials.

## STANDARD TEST METHODS

FTM-791B Method 3462, Coking Tendencies of Lubricating Oils

## SPECIFICATIONS AND FEATURES

### **Drive System/Motor Control:**

The Standard System includes a 1/8 HP Motor with Variable Speed Control - 100 to 1950 rpm.

### **Temperature:**

The Standard System includes three independent temperature control systems:

Panel: 540° C (1000° F) maximum

Sump: 300° C (572° F) maximum

Air: 40° C (104° F) maximum

### **Atmospheres:**

The Standard System includes variable flow control of air or other inert gases (0.2 to 1.0 L/m).

### **Test Duration:**

The Standard System includes a Digital Timer with automatic test shut down.

### **Power:**

The Standard System requires 220 VAC, Single Phase, 60 Cycles, 20 Amps.

An optional 220 VAC, Single Phase, 50 Cycle, 20 Amp, system is available upon request.

### **Test Specimens:**

The Standard Test uses an Aluminum Test Panel, 3-7/16 x 1-1/4 x 1/4 inch. Optional Test Panels are available in a variety of materials upon request.

### **Space Requirements:**

Bench Top: 50 in. (l) x 20 in. (d) x 30 in. (h)

### **Shipping Information:**

200 lb., 31 in. (l) x 31 in. (w) x 36 in. (h)

Shipping weights and dimensions are typical and may vary depending on options ordered.

## **F-1521 Falex Panel Coking Test Apparatus**

The Standard Falex Panel Coking Test Apparatus includes:

Variable Speed Motor and Controller, Test Oil Sum with Heater and Oil Reservoir, Test Panel Fixture and Heater, Air flow Control and Heater, and Digital Timer.

### **Options and Accessories:**

**F-1521-A** 50 Cycle Power Option

**F-1521-B** Export Crating Option

### **Spare Parts:**

**021-104-001** Drive Assembly Replacement – Complete  
Includes 1/8 HP DC Motor and Tach Assembly with Drive Coupling

**021-105-001** Spinner Shaft Assembly

**021-105-006** Oil Reservoir (Graduate) Assembly

**021-105-007** Oil Tank (Sump) Assembly

**021-005-002** Outboard Bearing

**F-1521-13B** Thermocouple, Type K 3<sup>7</sup>/<sub>8</sub> in.

**650-009-010** Thermocouple, Type K, 3<sup>3</sup>/<sub>4</sub> in.

**650-010-058** Heater Cartridge for Test Panel

**650-010-013** Heater Cartridge for Oil Tank (Sump)

**F-1521-14** Air Heater Assembly

### **Test Specimens:**

**021-500-001** Aluminum, 3003-F

**021-500-004** Aluminum, 2024-T351 (QQ-A-355)

**021-500-002** 1018 Steel

**021-500-003** Stainless Steel, 321

*Other Materials Available Upon Request*



# For All of Your Lubricant and Materials Testing

## Lubricants

- Pin and Vee Block
- Block-on-Ring
- Timken EP
- Tapping Torque
- Panel Coker
- High Temperature/High Speed Bearing
- Four Ball Wear
- Four Ball EP
- High Temperature Wheel Bearing
- Thermal Oxidation Stability (L60-1)
- Fretting Wear
- Hydrolytic Stability
- Grease Corrosion Test
- Isothermal Oxidation
- Hydraulic Fluid Pump Stand (Vickers and Conestoga)

## Fuels and Solvents

- Ball on Three Disk Fuel Lubricity
- Thin Film Evaporator
- Fuel Deposit Simulator

## Materials

- Journal Bearing
- Multi-Specimen
- Crossed Cylinders
- Low Velocity Friction Apparatus
- Pin on Disk
- Coefficient of Stoption
- Magnetic Media and Paper Wear
- Life Performance Face Clutch System
- Thin Coating Wear (Electrical Contacts)
- Dual Drive Rolling Contact Fatigue
- High Speed Bearing/Mechanical Clutch

## Abrasion and Erosion

- Dry Sand/Rubber Wheel
- Air Jet Erosion
- Miller Number Slurry