Ball-on-Three Disks Test Machine

Suitable for testing:
A test method using this test configuration is currently under review within the Diesel Fuel Subcommittee of ASTM Committee D2 on Petroleum Products and Lubricants.
GENERAL INFORMATION

The Ball on Three Disk (BOTD) Test Stand is a light weight, compact, dedicated system for evaluating wear properties of diesel fuels and other low viscosity fluids.

The test stand incorporates an upper ½ inch diameter ball rotating at 60 rpm against three ¼ inch diameter disks in a tetrahedral orientation. The test stand predicts a diesel fuel’s ability to prevent wear of moving parts in fuel injection systems.

SYSTEM DESCRIPTION

F-1519-S Falex Ball-on-Three Disk Test Stand 110 V, 60 Cycle:
• 0.013 HP Motor
• Test Chamber
• Upper Ball Collet
• Timer
• Automatic Shutoff
• Lever Assembly
• 2.5 kg Test Load Weight
• 15 Specimen Test Sets
• (quantity pricing available on request)

F-1519-SA 220 V, 50 cycle Option
F-1519-SB 220 V, 60 Cycle Option
F-1519-SC Export Packaging

F-1519-S10 Friction Measurement System:
Panel mounted digital display of the Coefficient of Friction.
Displayed to .001

F-1519-S15 Chamber Assembly:
Includes two piece chamber, 0-rings, TFE disk and specimen disk adapter.

F-1519-31A High Precision Scar Measurement System:
Includes binocular microscope with X-Y base and digital display of measurement accurate to 0.001 mm.
Used for reading of ball scar diameters
F-1519-SS-150 Ball-on-Three Disk Special set 150:
Includes 450 specimen disks and 50 ceramic specimen balls.
(Runs 150 evaluations.)

**Dimension:**
Tabletop: 18 in x 7 in x 12 in

**Shipping Weight:**
20 pounds, est.

**Attributes to perform a BOTD test:**
- Cleaning fluids (acetone, white spirit and ethanol)
- Test fluid (ex. Diesel)
- Sample holder and cup assembly
- Ceramic balls and steel disks (or other materials)
Falex for all your lubricant testing and material selection needs.

- the world’s largest manufacturer of test equipment specializing in the measurement of friction and wear.
- The world leading consulting and testing organization.

**Falex offers:**
- Contract Laboratory Testing in the United States of America (Chicago) and Europe (Belgium)
- Maintenance and Calibration Services
- Instructional Seminars
- Custom Engineering
- Standard & Custom Test Equipment
- Surface/Subsurface Characterization
- Repair/Rebuild Services

**Strengths of Falex:**
- Engineering and manufacturing facilities (Chicago, USA)
- Reliable and established service and support
- Comprehensive test laboratories in Europe and the United States of America
- Innovative and open minded
- Members of STLE, ASTM, NLGI, ASME
- Experienced staff is ready to answer all your questions,

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Falex Test Apparatus for 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)
- Dry Bath Turbine Oil Rust
- Fretting Wear
- Hydrolytic Stability
- Grease Corrosion Test
- Isothermal Oxidation
- Hydraulic Fluid Pump Stand (Vickers)

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

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

If you like to receive more information on these test equipment mark them and fax this page back to us:
+1 (630) 556 3679 for The United States
+32 (0)16 40 51 28 for Europe
Of course all other questions and remarks are also welcome.