The most widely recognized EP tester!

The Falex Timken Extreme Pressure Test Rig is one of the first commercially manufactured and most widely recognized testers for evaluating the load carrying capacity of extreme pressure lubricants. Originally developed in the 1930’s by The Timken Company, this tester evaluates fluid lubricants and greases containing extreme-pressure additives.

Manufactured by Falex Corporation since 1982, the Falex Timken Test Rig is supplied as a complete system to conduct ASTM Standard Test Methods D2509 and D2782.

Improvements include controlled rate test load and mechanical grease feeder systems, a test fluid recirculation system with temperature control, and an automatic fluid flow interrupter. Optional accessories include a variable speed motor and reservoir cooling system to improve versatility and performance.

**Standard Test Methods**

Specifications & Features

**Speed & Velocity**  
Variable Speed (850 rpm max), Unidirectional, 2 HP Motor with RPM Indicator.

**Load**  
Dead Weight Load applied through 10:1 Lever Arm.

**Maximum Test Pressure**  
Timken test block pressure (.022 in. Scar width): 92,300 psi.

**Temperature Control**  
Digital Temperature Control for Test Fluid Circulating System (80°C max)  
Oil Reservoir Jacket for use with optional refrigerated system to cool test oil.

**Fluid Circulating System**  
3 liter reservoir with heater, oil pump and control valve.

**Automatic Grease Feeder**  
Electro/mechanical System to feed test grease at 45 ± 9 grams per minute.

**Automatic Loading Device**  
Pneumatic System to lower test weights at 2 to 3 lbs/sec

**Cabinetry**  
Heavy construction steel with electro/mechanical compartment, weight storage area, accessory drawer, and instrumentation panel.

**Wear**  
Measurement of scar width at specified load.

**Friction**  
Friction Lever System and weights (optional)

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
</table>
| **System Description** | Falex Timken Test Machine  
Standard Items include:  
• Timken Lubricant Test Machine (1750), 220 VAC, 60 Hz  
Pneumatic Loading Device (2 to 3 lbs/sec) Air required  
Load Lever Arm Assembly  
• Variable Drive Motor with RPM Indicator (850 rpm max)  
Temperature Controller (80°C max)  
• Oil Reservoir Jacket  
• Grease Feeder (45 ± 9 grams g/min)  
• Test Weight Set (114 lbs)  
• Test Cabinet |
| 002-001-003   | Falex Timken Test Machine  
Standard Items include:  
• Timken Lubricant Test Machine (1750), 220 VAC, 60 Hz  
Pneumatic Loading Device (2 to 3 lbs/sec) Air required  
Load Lever Arm Assembly  
• Variable Drive Motor with RPM Indicator (850 rpm max)  
Temperature Controller (80°C max)  
• Oil Reservoir Jacket  
• Grease Feeder (45 ± 9 grams g/min)  
• Test Weight Set (114 lbs)  
• Test Cabinet |

**System Options**  
002-040-001 Inspection and Alignment Kit  
For inspection and alignment of Timken Test Rig; Includes:  
• Dial Indicator (Shaft Run-out and Bearing End-play)  
Magnetic Base (for use with Dial Indicator)  
• Insert Tool (Stud Insert to Shaft Taper)  
• Lever Level (Knife Edge to Shaft)  
• Digital RPM Indicator  
• Nozzle Tool (Nozzle to Shaft and Shaft Wear) Tool Storage Case

002-102-003 Load Lever Group  
Complete Load Lever Assembly, including: Load Lever, Load Lever Weight Hanger, Load Lever Spring, and Top and Bottom Load Lever Inserts.

002-011-011 Stud Insert (Knife Edge Support)

002-015-002 Friction Lever Stop

002-011-006 Load Lever Insert (Knife Edge) - Top

002-011-007 Load Lever Insert (Knife Edge) - Bottom

002-101-001 Friction Lever Group  
Complete Friction Lever Assembly, including: Friction Lever and Sliding Weight, Friction Lever Block, Stud Insert, and Friction Lever Stop.

002-004-009 High Precision Scar Measurement System  
Binocular microscope with X-Y base and digital micrometer. 0.001 mm display.

002-200-023 Digital Scar Measurement System  
Binocular microscope with CCD camera and Falex software™ for image capture and scar measurement. 0.001 mm display.

002-200-004 Test Weight Set  
Calibrated Weight Set for Test Load Application

002-101-002 Load Lever Group  
Complete Load Lever Assembly, including: Load Lever, Load Lever Weight Hanger, Load Lever Spring, and Top and Bottom Load Lever Inserts.

002-101-002 Load Lever Weight Hanger

002-027-002 Load Lever Spring

002-015-002 Friction Lever Stop

Options & Accessories

<table>
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| 100-200-009 | High Precision Scar Measurement System  
Binocular microscope with X-Y base and digital micrometer. 0.001 mm display. |
| 100-200-023 | Digital Scar Measurement System  
Binocular microscope with CCD camera and Falex software™ for image capture and scar measurement. 0.001 mm display. |
| 002-200-004 | Test Weight Set  
Calibrated Weight Set for Test Load Application |
| 002-101-001 | Friction Lever Group  
Complete Friction Lever Assembly, including: Friction Lever and Sliding Weight, Friction Lever Block, Stud Insert, and Friction Lever Stop. |
| 002-101-002 | Load Lever Group  
Complete Load Lever Assembly, including: Load Lever, Load Lever Weight Hanger, Load Lever Spring, and Top and Bottom Load Lever Inserts. |

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| 002-004-009 | High Precision Scar Measurement System  
Binocular microscope with X-Y base and digital micrometer. 0.001 mm display. |
| 002-200-023 | Digital Scar Measurement System  
Binocular microscope with CCD camera and Falex software™ for image capture and scar measurement. 0.001 mm display. |
| 002-200-004 | Test Weight Set  
Calibrated Weight Set for Test Load Application |
| 002-101-001 | Friction Lever Group  
Complete Friction Lever Assembly, including: Friction Lever and Sliding Weight, Friction Lever Block, Stud Insert, and Friction Lever Stop. |
| 002-101-002 | Load Lever Group  
Complete Load Lever Assembly, including: Load Lever, Load Lever Weight Hanger, Load Lever Spring, and Top and Bottom Load Lever Inserts. |

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| 002-101-002 | Load Lever Group  
Complete Load Lever Assembly, including: Load Lever, Load Lever Weight Hanger, Load Lever Spring, and Top and Bottom Load Lever Inserts. |
| 002-101-002 | Load Lever Weight Hanger |
| 002-027-002 | Load Lever Spring |
| 002-015-002 | Friction Lever Stop |
| 002-011-011 | Stud Insert (Knife Edge Support) |
| 002-015-002 | Friction Lever Stop |
| 002-011-006 | Load Lever Insert (Knife Edge) - Top |
| 002-011-007 | Load Lever Insert (Knife Edge) - Bottom |

6057-061-003 Circulation Chiller Model LWM-016  
230V, 50/60 Hz, Working temperature range: -10 to 40°C  
For use with Test Oil Cooling System
### Ordering Information (contd.)

<table>
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<tr>
<td>002-011-008</td>
<td>Friction Lever Insert</td>
</tr>
<tr>
<td>002-100-001</td>
<td>Bushing, Test Shaft</td>
</tr>
<tr>
<td>002-016-001</td>
<td>Test Ring Lock-Nut</td>
</tr>
<tr>
<td>659-200-070</td>
<td>Spanner Wrench for Test Ring Lock-Nut</td>
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<tr>
<td>002-105-109</td>
<td>Control Valve Assembly</td>
</tr>
<tr>
<td>002-007-003</td>
<td>Timken Size Crescent Guide for Liquid or Grease</td>
</tr>
<tr>
<td>002-028-002</td>
<td>Oil Splash Guard</td>
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<tr>
<td>002-021-004</td>
<td>Grease Splash Guard</td>
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<tr>
<td>100-105-011</td>
<td>Fluid Thermal Reservoir</td>
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<tr>
<td>002-105-013</td>
<td>Falex Standalone Timken Air Loader</td>
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<tr>
<td>100-200-008</td>
<td>Falex Standalone Timken Grease Feeder</td>
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<tr>
<td>002-008-013</td>
<td>Grease Feeder Tube</td>
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<tr>
<td>002-008-014</td>
<td>Grease Feeder End Eap (Top)</td>
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<tr>
<td>002-103-001</td>
<td>Spanner Wrench for Grease Feeder</td>
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**Test Specimens**

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<tr>
<td>002-560-002</td>
<td>Falex Timken Test Block (formerly F-45349 or F-25001) Conforms to ASTM D 2782 and D 2509 Carburized Steel, 58 to 62 HRC, four ground test surfaces 0.485 ± 0.002 in. Wide and 0.750 ± 0.016 in. Long, 20 to 30 µin. Box of 10 Blocks</td>
</tr>
<tr>
<td>002-560-001</td>
<td>Falex Timken Test Ring (Cup) (formerly F-48651 or F-25061) Conforms to ASTM D 2782 and D 2509 Carburized Steel, 58 to 62 HRC, axial surface roughness 20 to 30 µin. 0.514 ± 0.002 in. Wide and 1.938 ± 0.001, - 0.005 In. Diameter, maximum radial run-out of 0.0005 in. Box of 25 Rings</td>
</tr>
</tbody>
</table>

Falex Corporation follows a policy of continuous product improvement. Specifications are subject to change without notice.