



Falex Tribology Product Datasheet

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The Falex Timken Test Machine



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.

Standard Test Methods

ASTM D2509

Standard Test Method for measurement of load-carrying capacity of lubricating grease

ASTM D2782

Standard Test Method for measurement of extreme-pressure properties of lubrication fluids

Timken Key Features

- Variable Speed (850 rpm max), Unidirectional, 2 HP Motor with RPM Indicator
- Dead Weight Load applied through 10 : 1 Lever Arm
- Timken test block pressure (.022 in. scar width): 92,300 psi
- Digital Temperature Control for Test Fluid Circulating System (80° C max)
- Oil Reservoir Jacket for use with optional refrigerated system to cool test oil
- 3 liter reservoir with heater, oil pump and control valve
- Electro/mechanical System to feed test grease at 45 ± 9 grams per minute
- Pneumatic System to lower test weights at 2 to 3 lbs/sec
- Heavy construction steel with electro/mechanical compartment, weight storage area, accessory drawer, and instrumentation panel
- Measurement of scar width at specified load
- Friction Lever System and weights (*optional*)



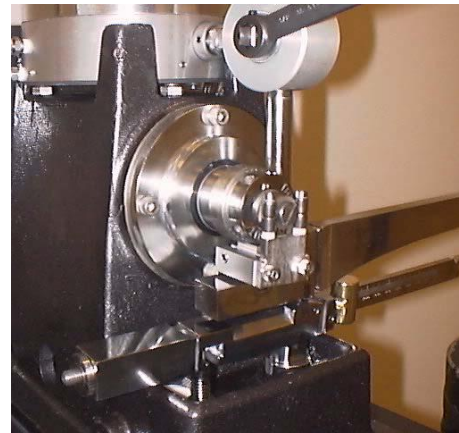
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Timken Test Machine Characteristics	
Contact	Line
Motion	Sliding
Speeds	800 +/- 5 rpm, 0-3600 rpm
Loads	1.000 kg max
Temperatures	150° C (300° F)
Environments	Liquid, semi-liquid

Timken Standard System elements

- 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 Weights (114 lbs)
- Test Cabinet



Block and Ring in Test Position

Timken System Options

- **Inspection and Alignment Kit**
 - 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
- **Friction Lever Group**
 - Complete Friction Lever Assembly, including: Friction Lever and Sliding Weight, Friction Lever Block, Stud Insert, and Friction Lever Stop
- **Circulation Chiller**
 - 230V, 50/60 Hz, Working temperature range: -10 to 40° C
 - For use with Test Oil Cooling System