

The Original, Most Versatile Block-on-Ring!

The Falex Block-on-Ring test machine dependably evaluates the friction and wear characteristics of materials and various coatings and lubricants in a multitude of simulated test conditions. This versatile, easy-to-use machine was developed for specific use by the Falex Corporation and is widely used today in research, quality control and technical service operations. It gives the user control over the load, speed, and environment of the test, and allows remarkably efficient download of the data into Excel spreadsheets with the Falex 330 SoftWEAR™.

Each Block-on-Ring Includes Hardworking Features!

- » Variable Speed Servo Drive System
- » Friction Measurement System (High Range)
- » FALEX Style Test Spindle
- » Temperature Sensors for Fluid Chambers and Specimen
- » Friction Sensor Calibration Fixture
- » Dynamic Test Wear Indicator
- » Pneumatic Test Load System [50 to 1,300 lbs]
- » Test Chamber Drain Pan
- » Test Ring Locknut and Washer
- » Test Block Holder

Suitable for Testing

- Fluid Lubricants
- Greases
- Additive Packages and Base Stocks
- Dry Film Bonded Coatings
- Materials
- Hardface Coatings
- Refrigeration Lubricants
- Sliding Wear

ASTM Standards For:

- » Automotive
- » Aerospace
- » Lubricants
- » Materials & Coatings
- » Oil & Gas

Used in Standard Test Methods

| | |
|--------------|--------------------------------------------------------------------------------------------------------------------|
| ASTM D2509 | Extreme Pressure Properties of Lubricating Greases |
| ASTM D2714 | Calibration and Operation of the Falex Block-on-Ring Friction and Wear Testing Machine |
| ASTM D2782 | Extreme Pressure Properties of Lubricating Fluids |
| ASTM D2981 | Wear Life of Solid Film Lubricants in Oscillation Motion |
| ASTM D3704 | Wear Preventive Properties of Lubricating Greases Using the Falex Block-on-Ring Test Machine in Oscillating Motion |
| ASTM G77 | Ranking Resistance of Materials to Sliding Wear Using Block-on-Ring Wear Test |
| Proposed STM | Measuring Wear Properties of Dry Film Solid Lubricants Using a Block-on-Ring Machine in Unidirectional Motion |
| Proposed STM | Ranking Resistance of Polymeric Materials to Sliding Wear Using Block-on-Ring Wear Test |

Enjoy Complete Control Over Your Test!

| | |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Speed and Velocity | Set the test shaft RPM and test specimen configuration and program the RPM set points, ramp rates, test parameter cycles and test start sequences. 60-3600 rpm standard, 1/2-7200 optional. |
| Load | Select the test load and test specimen configuration and program desired load set points, ramp rates, test parameter cycles and test start sequences using a dual range [Low 10 to 100 lbs. High 50 to 1,300 lbs.] Pneumatic load system. |
| Temperature | Select the chamber and heat configuration, regulating environment or test specimen temperature and program temperature set points, ramp rates, test parameter cycles and test start sequences. Ambient to 250°C. External cooling options allow for sub-ambient testing environment temperatures. |
| Test Motions | Set the standard unidirectional drive system and program an optional reversible drive system and oscillation range [5° to 720°], and test cycle patterns. |
| Test Duration | Set elapsed time, number of test cycles or through high-limit cutoff. |

Utility Requirements:

- » 220 VAC, Single Phase, 50/60 Hz
- » 80 psig clean, dry air supply required

Weights and Dimensions:

Bench top - Complete System

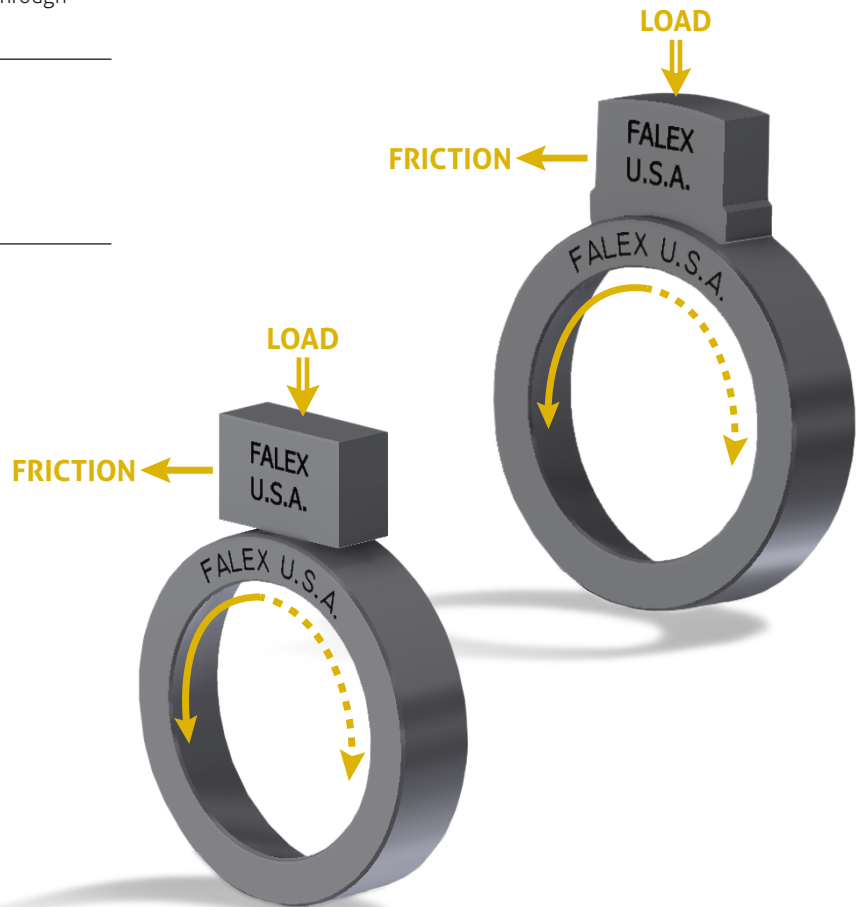
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|--------------------|------------------------------------------|
| Space (L x W x H): | 72" x 24" x 30" [1829 x 610 x 762 mm] |
| Estimated Weight: | 360 lbs [163 kg] |

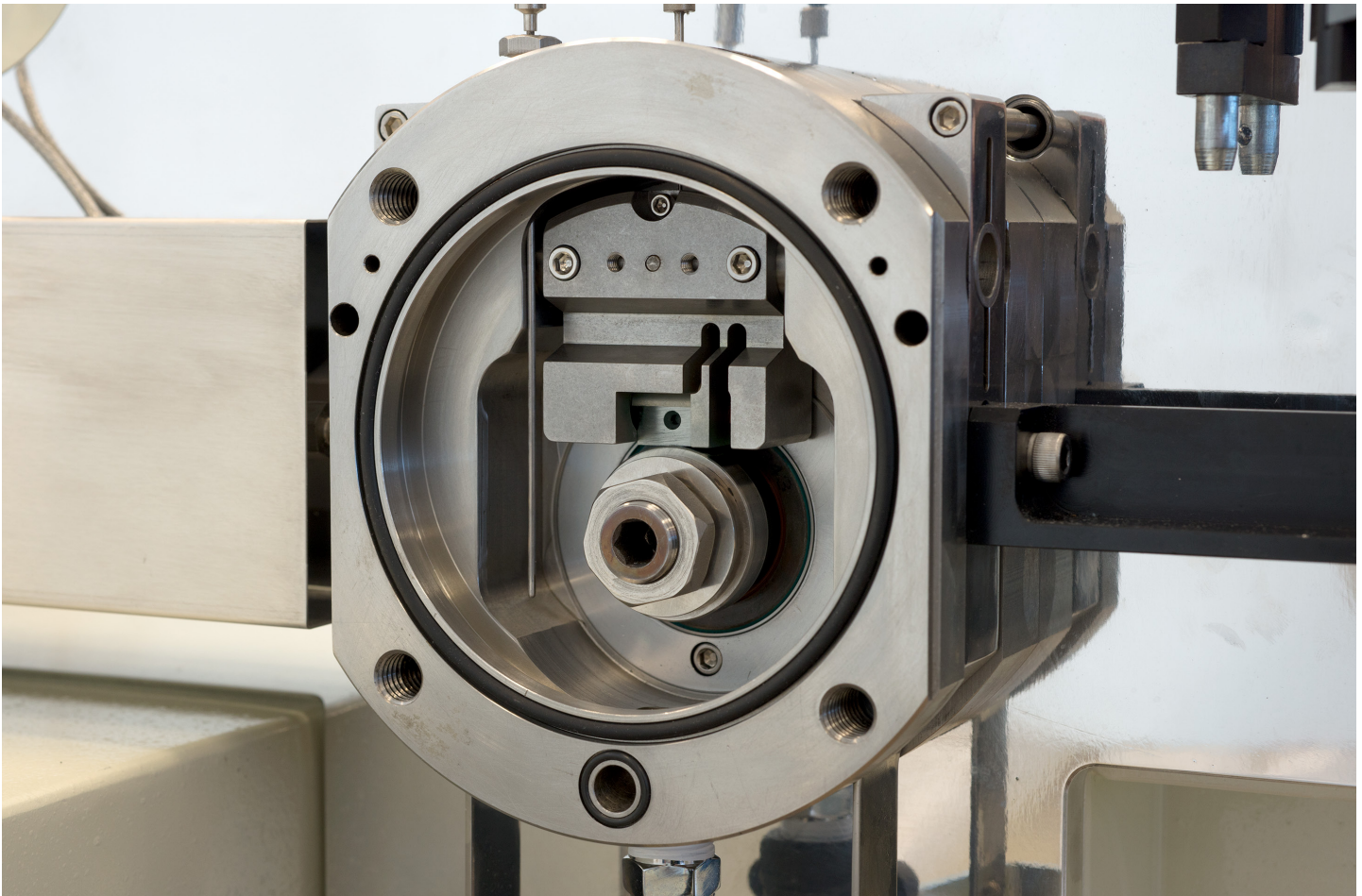
Shipping

| | |
|-------------------------|-----------------------------------------------|
| Dimensions (L x W x H): | 48" x 40" x 42" ea [1220 x 1016 x 1067 mm] |
| Estimated Weight: | 540 lbs [246 kg] |

Block-on-Ring Also Features...

| | | | | | | | |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------------------------------------------------------------------------|------|---------------------------------------------------------------------|-------|--------------|
| Standard Test Chamber | for testing fluid lubricants, greases, coatings or dry environment testing. Optional chamber seal kit allows for atmosphere containment, purged or environments and pressurization to 150 psig max. | | | | | | |
| Friction Force Load Cell | standard measuring system range from 0 to 250 lbs. Optional 0 to 25 lb. measuring system for lower range friction forces. | | | | | | |
| Continuous Display | of test specimen dimensional changes to monitor rate of wear and/or total wear | | | | | | |
| Test Geometries | <table border="0"> <tr> <td>Line</td> <td>Block-on-Ring, Falex Block-on-Ring, Timken Canted Cylinder Chip-on-Ring</td> </tr> <tr> <td>Area</td> <td>Conforming Block-on-Ring, Falex Conforming Block-on-Ring, Timken</td> </tr> <tr> <td>Point</td> <td>Ball-on-Ring</td> </tr> </table> | Line | Block-on-Ring, Falex Block-on-Ring, Timken Canted Cylinder Chip-on-Ring | Area | Conforming Block-on-Ring, Falex Conforming Block-on-Ring, Timken | Point | Ball-on-Ring |
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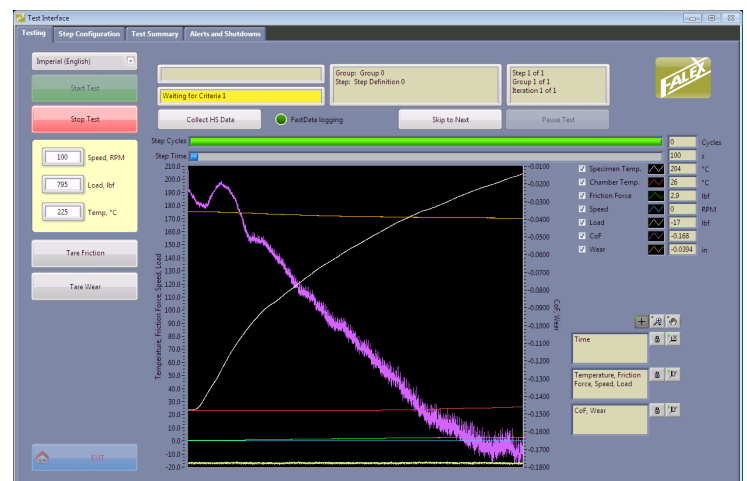
Falex 330 SoftWEAR™ : Designed for Easy Data Collection and Download!

Block-on-Ring test program creation, parameter control, data acquisition and instrument calibration has never been easier with the FALEX 330 SoftWEAR™! The fully programmable software component offers versatile monitoring of each test with a maximum rate for data acquisition of at least 30hz. FALEX 330 SoftWEAR™ easily generates test results into real time data graphing or download to Excel spreadsheets.

FALEX 330 SoftWEAR™ offers ample storage for acquired data and critical, programmable control over:

- » Test RPM Display
- » Test Temperature Display and Set Point [Chamber or Test Specimen]
- » Test Load Display [Pneumatic Load System]
- » Test Duration/Status Display, with Time and/or Cycle
- » Parameter Loop Sequence
- » Dynamic Test Wear Display and Sensor

The software also includes a Fast Triggered Data Acquisition PC Kit.



Ordering Information

| Part Number | Description | |
|-------------|----------------------------------------------------------------------------------------------------------|------------|
| 001-001-331 | Falex Automated Block-on-Ring Test Machine with SoftWEAR™ Data Acquisition System and Control System | |
| | <i>Options & Spare Parts</i> | |
| 001-200-024 | Reversible Drive Motor Option for Block-on-Ring Test Machine | |
| 001-109-001 | Low Range Friction-Force Load Cell Assembly (25 lb) | |
| 001-097-003 | Chamber Seal Kit | |
| 001-020-006 | Dual Nozzle - Falex Size | |
| 001-020-007 | Crescent Guide - Falex Size | |
| 001-104-004 | High Speed Pulley Option | |
| 001-011-068 | See Through Chamber Cover | |
| 001-108-001 | Canted Cylinder-On-Ring Test Adapter | |
| 001-016-003 | Specimen Retainer Nut (5/8-18) | |
| 001-007-005 | Specimen Retainer Washer | |
| 001-099-005 | Specimen Block Holder | |
| 001-105-029 | Timken Size Specimen Holder & Spindle Assembly | |
| 001-020-004 | Dual Nozzle - Timken Size | |
| 001-020-008 | Crescent Guide - Timken Size | |
| | <i>Specimens</i> | <i>UOM</i> |
| 001-560-025 | Test Ring, Falex S-25, SAE 4620, Rc 58-63, 22-28 µin rms Conforms to ASTM D2981, D3704 and G77 | 25/box |
| 001-500-025 | Test Ring, Falex S-25 | ea |
| 001-560-010 | Test Ring, Falex S-10, SAE 4620, Rc 58-63, 6-12 µin rms Conforms to ASTM D2714, D3704 and G77 | 25/box |
| 001-500-010 | Test Ring, Falex S-10 | ea |
| 001-560-030 | Flat (HP) Test Block, Falex H-30, SAE 01, Rc 27-33, 4-8 µin rms Conforms to ASTM D2714, D3704 and G77 | 25/box |
| 001-501-030 | Flat (HP) Test Block, Falex H-30 | ea |
| 001-560-060 | Flat (HP) Test Block, Falex H-60, SAE 01, Rc 58-63, 4-8 µin rms Conforms to ASTM D2714, D3704 and G77 | 25/box |
| 001-501-060 | Flat (HP) Test Block, Falex H-60 | ea |

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