

### 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!

<b>Speed and Velocity</b>	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.
<b>Load</b>	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.
<b>Temperature</b>	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.
<b>Test Motions</b>	Set the standard unidirectional drive system and program an optional reversible drive system and oscillation range [5° to 720°], and test cycle patterns.
<b>Test Duration</b>	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

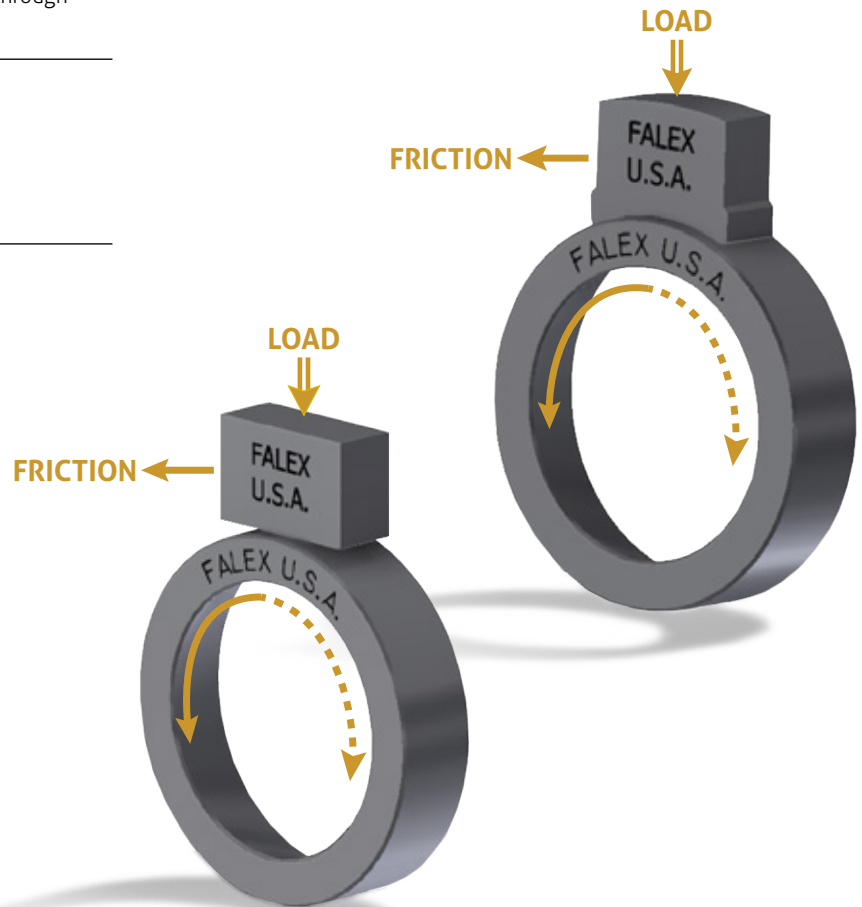
Space (L x W x H):	72" x 24" x 30" [1829 x 610 x 762 mm]
Estimated Weight:	360 lbs [163 kg]

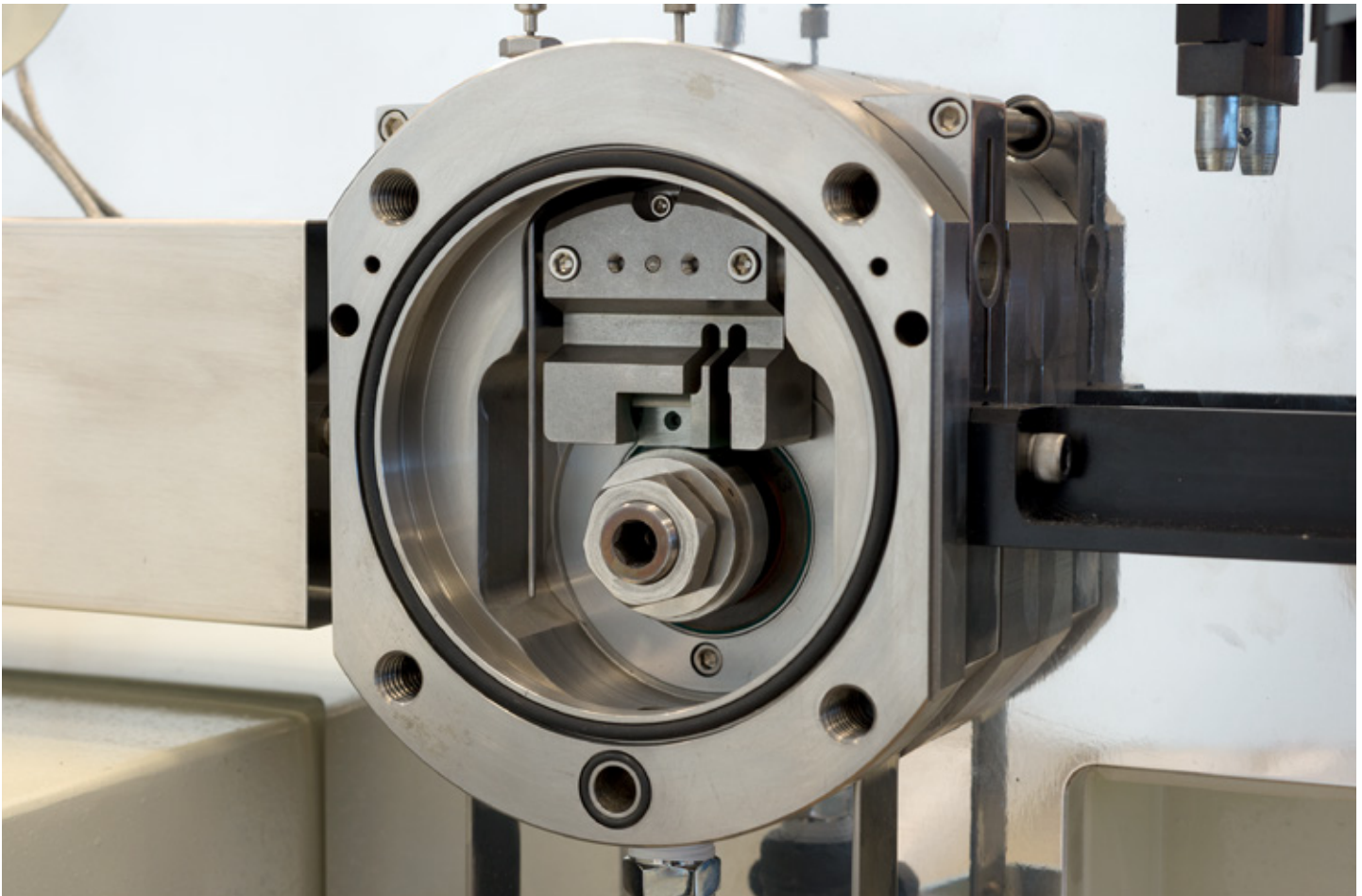
#### Shipping

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...

<b>Standard Test Chamber</b>	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.						
<b>Friction Force Load Cell</b>	standard measuring system range from 0 to 250 lbs. Optional 0 to 25 lb. measuring system for lower range friction forces.						
<b>Continuous Display</b>	of test specimen dimensional changes to monitor rate of wear and/or total wear						
<b>Test Geometries</b>	<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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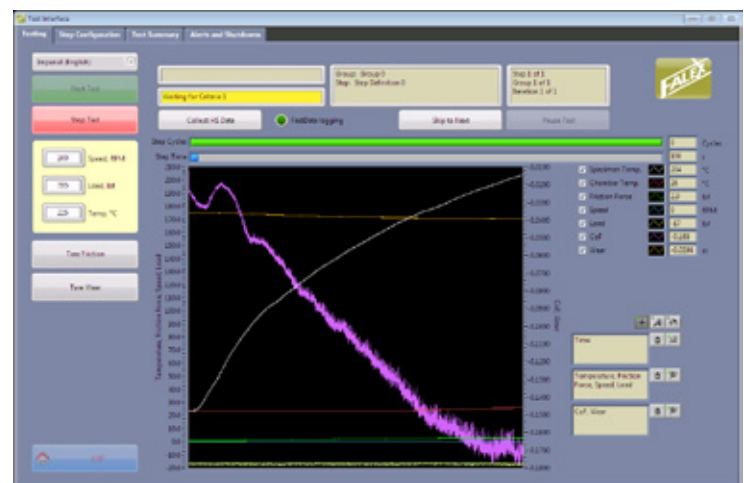
## Falex 330 SoftWEAR™ : Designed for Easy Data Collection and Download!

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 &amp; 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

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

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