



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 specifically 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.

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 to generate the linear velocity needed. Program the RPM set point, ramp rates, test parameter cycles and test start sequences. 60-3600 RPM standard, 1/2-7200 RPM optional.
Load	Select the test load and program desired load set points, ramp rates, and other test parameters using dual range pneumatic loading system, controlling from 10 to 100lbs on the low side and 50 to 1,300lbs on the high.
Temperature	Select the chamber environment or test specimen temperature as control, and program the set points, ramp rates all the way up to 250°C. External cooling options allow for sub-ambient testing environmental temperatures.
Test Motions	Set the standard unidirectional drive system or reversible drive system with oscillation ranging from 5° to 720°.
Test Duration	Set elapsed time, number of test cycles, or utilize high-limit cutoffs.

Block-on-Ring Also Features...

Standard Test Chamber	For standard testing. Environmental chamber option available with chamber seal kit allows for atmosphere containment, purging, or controlled environments up to 150psig.
Friction Force Load Cell	Standard measuring system ranges from 0 to 250 lbs. Optional 0 to 25 lb. measuring system for lower range friction forces.
Continuous Display	Test specimen dimensional changes to monitor rate of wear and friction
Test Geometries	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

Utility Requirements:

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

Weights and Dimensions:

Bench top - Complete System

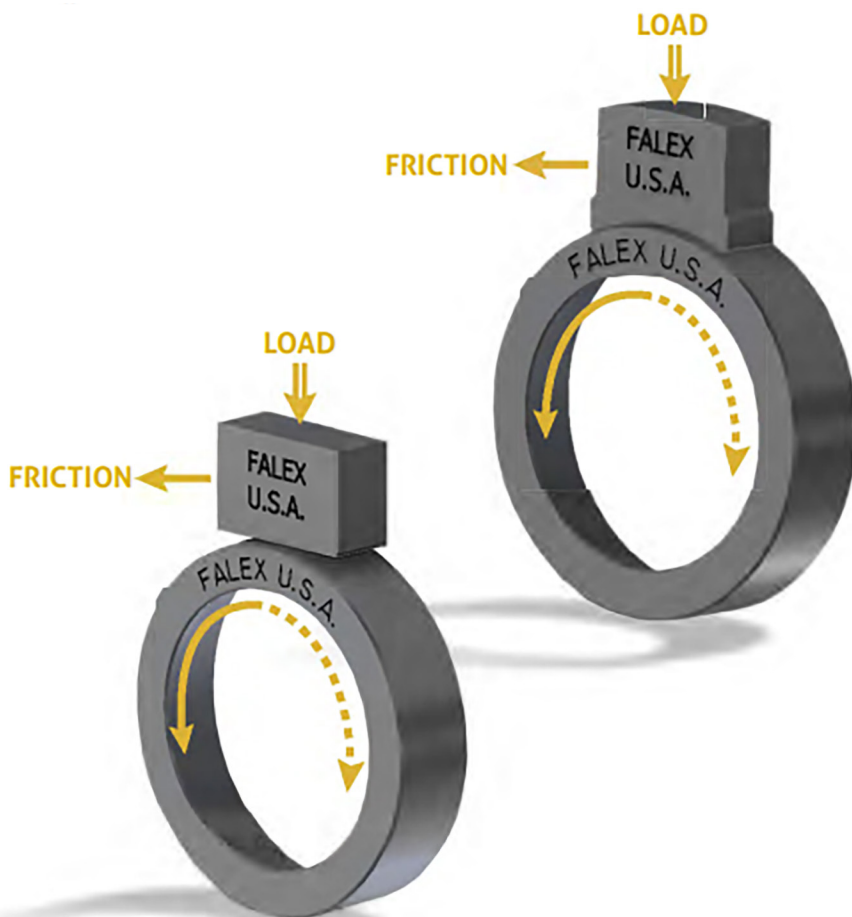
Space (L x W x H): 72" x 24" x 30" [1829 x 610 x 762 mm]

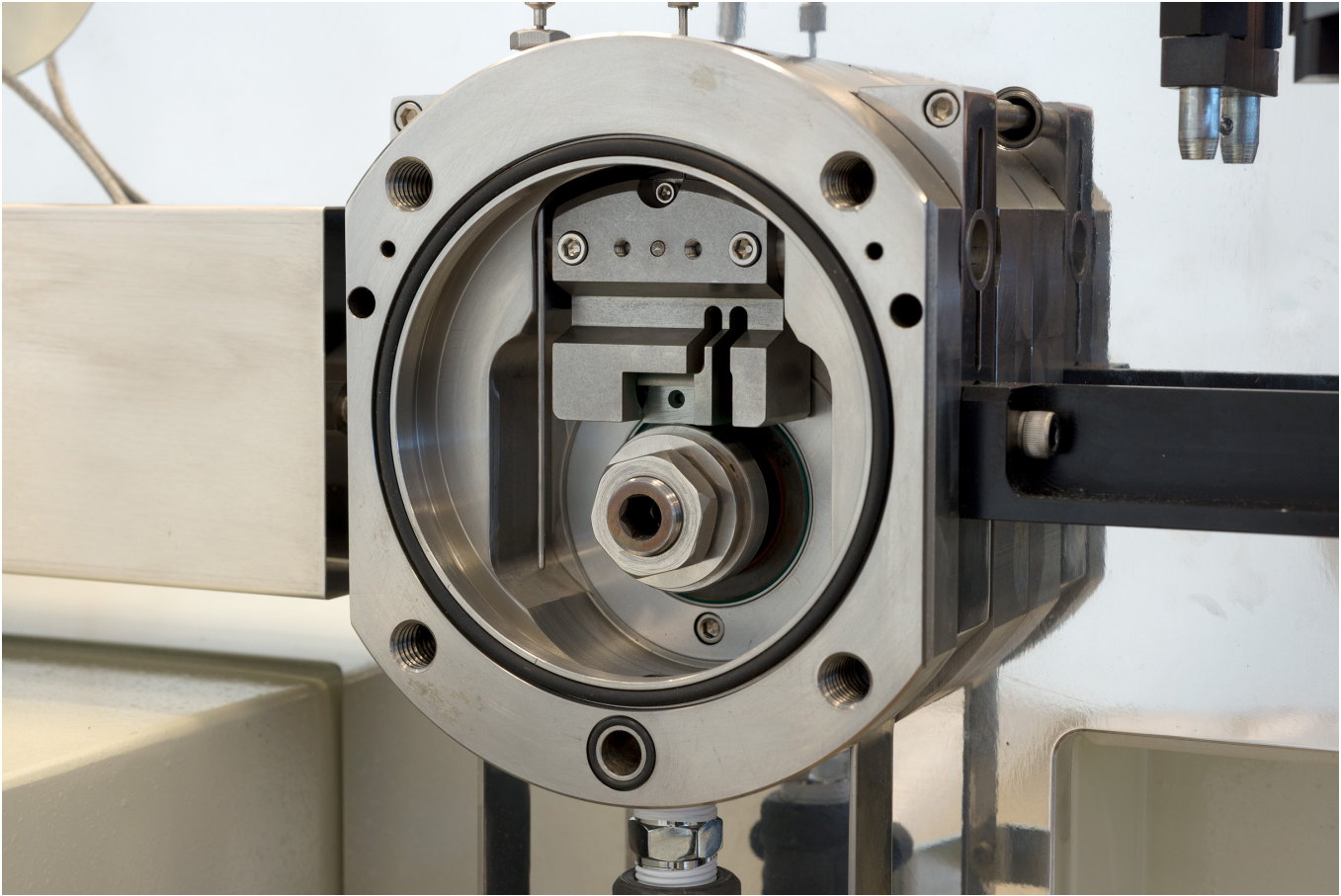
Estimated Weight: 360 lbs [163 kg]

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]





Falex Software : 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 software. The fully programmable software component offers versatile monitoring of each test with a maximum rate for data acquisition of at least 30hz. It easily generates test results into real time data graphing or download to Excel spreadsheets.

Falex software 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



Ordering Information

Part Number	Description	
001-001-345	Falex Automated Block-on-Ring Test Machine with Data Acquisition System and Control Sys-	
001-001-355	Falex Automated Block-on-Ring Test Machine with Data Acquisition System and Control System, Elevated Environ-	
<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 μ in 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 μ in 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 μ in 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 μ in 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.