

FALEX

FOUR-BALL TESTER

Introducing Our Brand New Four-Ball Tester!



Four-Ball Tester

The new and improved Falex Four-Ball introduces a new approach to the time-tested tribology concept of four-ball testing.

From the original test developed by Shell Oil Company, we've kept the best elements from our 60 years of mechanical upgrades and system automation and reimagined the rest for peak performance in today's advanced labs. This revolutionary concept for the Falex Four-Ball yields an instrument that is smaller, safer, and more versatile with improved automation, calibration, and increased capabilities. It is the first in a new line of Falex Tribology test instruments.

The best can get better...
Falex - 90 years new!

Standard Test Methods

The new Falex Four-Ball can be configured to meet any or all of the following standard test methods

ASTM D2266	Standard Test Method for Wear Preventive Characteristics of Lubricating Grease (Four-Ball Method)	IP 300	Rolling Contact Fatigue Tests for Fluids in a Modified Four-Ball Machine
ASTM D4172	Standard Test Method of Wear Preventive Characteristics of Lubricating Fluids (Four-Ball Method)	CEC L-45-A-99 (KRL)	Viscosity Shear Stability of Transmission Lubricants
ASTM D5183	Standard Test Method for Determination of the Coefficient of Friction of Lubricants Using the Four-Ball Wear Test Machine	IP 239	Determination of Extreme Pressure and Anti-Wear Properties of Lubricating Fluids and Greases (Four-Ball Method)
ASTM D2596	Standard Test Method for Measurement of Extreme-Pressure Properties of Lubricating Grease (Four-Ball Method)	DIN 51350-1	Testing of lubricants; testing in the Shell-Four-Ball tester, general working principles
ASTM D2783	Standard Test Method for Measurement of Extreme-Pressure Properties of Lubricating Fluids (Four-Ball Method)	DIN 51350-2	Testing of lubricants; testing in the Shell-Four-Ball tester, determination of welding load of fluid lubricants
		DIN 51350-4	Testing of lubricants; testing by the Shell-Four-Ball tester; determination of welding load of consistent lubricants
		DIN 51350-6	Determination of shear stability of polymer-containing lubricating oils by the Shell Four-Ball Tester



Safety. Simplicity. Precision.

Falex Four-Ball Specifications

Variable test drive with a RPM range of 1 to 1800RPM

Enclosed pneumatic loading system

Standard loading range 1 to 800Kg

Optional low range from 0 to 50Kg +/- 0.2 Kg

Programmable temperature control to 200C max
(with auto start on temperature)

Cycle counter with programmable cut-off

Test duration timer with programmable cut-off

Friction system with standard range of 0 to 250lbs

Optional low range friction system (0 to 10lbs)

Safety shield

Compact design

Width 17in

Depth 24in (28in with connections)

Height 34in

Network connection

3 USB connections one in the front and two in the back

1 Ethernet connection in the back

Utility requirements

220V, 50/60Hz

20AMPs

80 PSI of clean dry air



Falex Four-Ball Comparison Chart



Features	Falex Four-Ball 089-001-003	Falex Four-Ball Wear 020-001-003	Falex Four-Ball EP 018-001-012
Meet requirements for ASTM D2596 and D2783	✓		✓
Meets requirements for ASTM D2266 and D4172	✓	✓	
Programmable variable spindle speed	✓	✓	
Programmable pneumatic auto test load 0 to 800 Kg	✓		
(Optional) Programmable pneumatic auto test load 0 to 50 Kg accurate to +/- 0.2 Kg at 15 and 40 Kg test load	✓		
Touch screen user interface	✓		
Test specimen wear optional but required for ASTM D2596 and D2783	✓		
Ability to run CEC L-45-A-99 with KRL option and optional cooler	✓		✓
Enclosed loading system	✓		
Test section safety shield	✓		

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