

Four-Ball Wear Test System – FBW130

◆ General Information

The **FBW130** performs Four-Ball testing according to ASTM D2783, ASTM D2266, ASTM D4172 and ASTM D2596 standards. It is manufactured with sufficient frame strength and the use of air pressure for heavy test loads ensures smooth pressure application.

By using the using the Four-Ball test method and the extreme pressure properties measurement method, it measures the wear resistance characteristics and extreme-pressure performance for a diverse range of lubrication oils and greases.

Also, this equipment performs the Load-Wear Index (Mean-Hertz Load) and Weld Point, by means of the Four-Ball Extreme-Pressure (EP) Test.

Lubrication oils are evaluated using AISI standard Steel No. E-52100 (bearing steel) 12.7 mm, grade 25 EP (Extra Polish) Rockwell C hardness 64-66 as its default test steel ball.



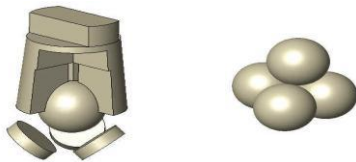
◆ Control Parameters

- Rotation speed (rpm)
- Load (N)
- Temperature (°)
- Time (sec)
- Cycle

◆ Recorded Parameters

- Rotation Speed (rpm)
- Friction Force (N)
- Temperature (°)
- Test Time (sec)
- Test Cycle (cycle)
- Friction Coefficient (μ)

◆ Test Modes



◆ Accessories

- Wear scar measuring system
- Four-Ball Jig: ASTM D2596

◆ Specifications

Load Range	Max. 8,000 N
RPM	30 – 2,000 rpm
Temperature	RT100°C \pm 2°C
Test Ball	12.7 mm steel ball
Optional Ball	\varnothing 3 1/8", \varnothing 5/16", \varnothing 1/2"
Loading Method	Air Pressure
Optional Function	100 kgf at 20,000 rpm 300 kgf at 15,000 rpm 600 kgf at 3,000 rpm 800 kgf at 1,700 rpm
Weight	\approx 25kg
Friction Force	
Friction Coefficient	
Dry and Wet Tests	