

Reciprocating Friction Wear Test System – RFW160

◆ General Information

The **RFW160** system evaluates friction and wear characteristics of material by reciprocating motion and it is developed to perform various contact conditions at high and low speeds.

The motor-operated reciprocating motion system is specially designed to solve the common problem of instable speed of three-point link devices. It enables stable reciprocating friction testing. This device strokes up to 40 mm and is designed to be driven by the high speed vibrator for frequencies above 30 Hz.

Data acquisition of RFW160 system uses National Instrument's DAQ module, which enables computer-based control. It can collect a lot of data, which allows for identification of changing friction force and friction surface during the wear test. In addition, it can accommodate low capacity testing or high capacity testing according to the pressure load selection.

Data acquisition systems normally store data at above 100 Hz. It is configured using a USB serial port and it is designed to handle a maximum of 1 KHz of data acquisition.



◆ Control Parameters

- Load
- Frequency (Hz)
- Temperature (°)
- Test Time
- Test Cycle

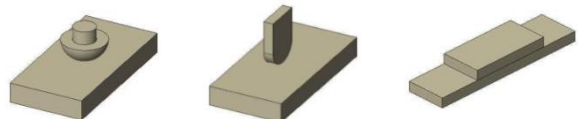
◆ Recorded Parameters

- Friction Torque
- Load
- Sliding Speed (m/sec)
- Friction Coefficient (μ)
- Temperature (°)
- Test Time
- Test Cycle
- Wear

◆ Sample Adaptor & Accessories

- **Upper and Lower Roller Sample**
 - Roller Size: 35 – 50 mm
- **Ball and Roller Sample**
 - Ball Size: 6 – 12.7 mm
- **Block-on-Ring Sample**
 - Block Size: 5 mm x 5 mm x 20 mm (adjustable)

◆ Test Modes

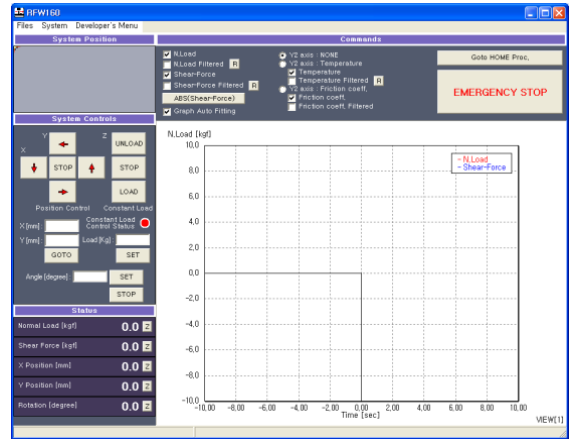


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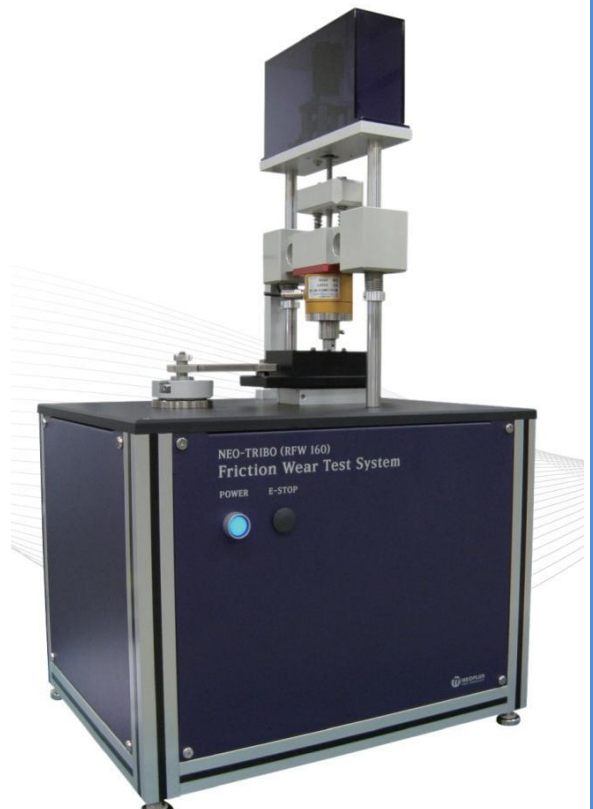
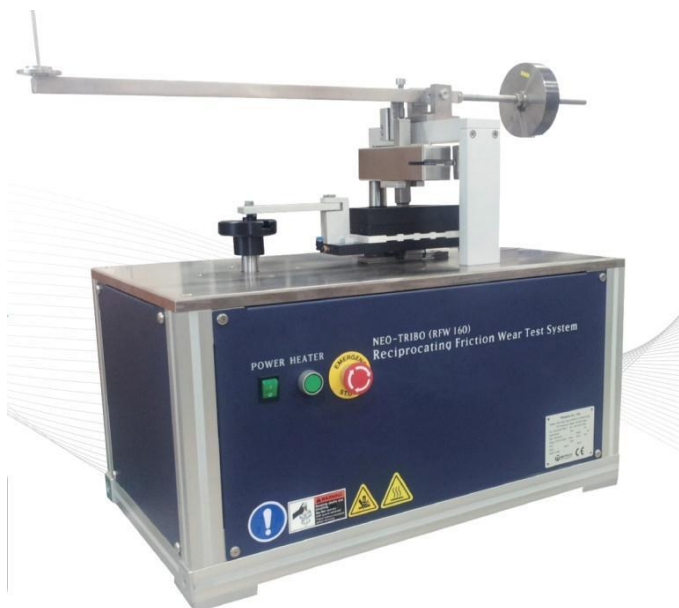
◆ Specifications

Load Range	2.5 – 50 N
Load Control	Motor and Spring Force Control
Temperature Range	Ambient – 150°C
Heating Power Cartridge	400 W
Temperature Sensor	K-type Thermocouple
Frequency Range	1 – 30 Hz or 30+ Hz (optional)
Stroke	Max. 40mm
Friction Transducer	Piezo Electric Type
Place Specimen	80 mm x 30 mm x 5 mm
Software	<ul style="list-style-type: none"> - Neo-Plus Sequence Control - Data Acquisition Software
Area Contact	
Line Contact	
Point Contact	
Interface Neo-Plus Serial Link Interface Module	

◆ Software



Operating system is designed to be user-friendly.



The static load device enables the load weight to be controlled and fixed. The Hz load controls the sine wave.