

限りある資源と美しい自然を大切に

MODEL AB-1150 LAMBOURN ABRASION TESTER

Outline

The AB-1150 is designed to perform the improved Lambourn test described in JIS K 6264-1:2005 (Rubber, vulcanized or thermoplastic - Determination of abrasion resistance - Guide) and JIS K 6264-2:2005 (Rubber, vulcanized or thermoplastic - Determination of abrasion resistance - Testing methods), being suitable for testing the abrasion resistance of rubber such as tires, belts, shoe soles, etc. The circumference of a disk-shaped sample is pressed against the circumference of the grindstone with a constant load, and the speed of each is controlled independently to wear the sample by the slip caused by the difference in speed. Since the state of the sample wear surface can be made close to the wear state of the product, the test can be performed with a high correlation to the wear of the product.



MODEL AB-1150



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Feature

- O The slip rate and load settings cover a wide range of severity, allowing the user to freely select the test conditions that best simulate the wear characteristics of the various products under test, depending on the conditions of use.
- O The load on the sample is detected by a load cell and fed back to the air cylinder, enabling extremely accurate and stable load control.
- O Both the sample and grindstone rotation axes are independently driven by servomotors for feedback control, enabling testing under more stable surface speed and slip ratio conditions.
- O The torque meter on the sample shaft allows stable test conditions to be always monitored. The data including speed and load can be transferred to a PC (recorded in a CSV file), making it easy to perform secondary processing and analysis on the PC from the measurement data.

Specification

MODEL	AB-1150
Reference Standard	JIS K6264-1-2005, JIS K6264-2-2005, ISO23337-2007
Dimensions of testpiece	Diameter 49mm, Inner dia. 23mm, Thickness 5mm or 10mm
Dimensions of grindstone	Diameter 175mm, thickness 25mm
Material of grindstone	Grain: C, grain size:80, binding strength: K, (JIS R6210)
Circumferential speed of testpiece	10 to 200m/min., driven & controlled by AC servo motor
Circumferential speed of grindstone	10 to 200m/min., driven & controlled by AC servo motor Grindstone speed is automatically determined by setting the sample speed and slip ratio.
Indication of circumferential speed	Digital 4 digits indication (testpiece & grindstone)
Slip ratio setting	Arbitrary setting in the 5 to 80% range. (Setting unit 0.1%)
Loading load	Load can be arbitrarily set in the 5 to 80N range. Air cylinder drive, load cell detection feedback control.
Torque	Sample axis 5Nm
	Load, torque DC 0 to 5V / Collected data (CSV): test time,
Output	sample speed, road speed, slip rate, sample torque, load,
	chamber temperature, sample temperature
Setting time	Max.999min.59sec.
Temperature inside test chamber(option)	Room temperature +10°C to 120°C
Sand dropping device	Capacity 4 liters, helical gear drive, collection box Sand type: carborundum grit 80 (JIS R 6111)
Electric and air sources	3 Phases, AC200V, 50/60Hz, 30A Air: Dry clean air 0.55 to 0.7Mpa
Outside dimensions	810W x 853D x 1125H(2015 with optional stand)(H)mm
Weight	380kg (main body and Stand)
Option	Thermostatic chamber, test piece thermometer, stand, test piece mold



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