

# **MODEL AB-1150**

# LAMBOURN ABRASION TESTER

#### Outline

Among various abrasion tester for rubber such as tire, belt, and sole etc., it is Lambourn Type Abrasion Tester that is evaluated as the best reappearance in JIS K6264(Abrasion Testing Method of Vulcanized Rubber) as well as high correlation with the result of product test.

We, UESHIMA, who produced MODEL AB-1120 equivalent for JIS K6264, developed MODEL AB-1150 with high accuracy and stability invented in the method of load which has the largest influence on abrasion test result. As the result, high-performance & low-cost material tester which is available for direct simulation of quality test, was introduced to the field of tribology.



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### **Feature**

- OThe most suitable test condition to simulate the particular product such as tire, belt, roller, and sole etc., , can be selected.
- OInstead of dead weight method for pressing force to the testpiece, feed back control method(Patent Pending) which is loaded by air cylinder and is detected by load-cell, is adopted.
  - As a result, not only highly accurate and stable test condition can be obtained, but also bounding problem is solved by highly corresponding damping.
- OBoth rotating axis of testpiece and glindstone are feed back controlled independently by servo motor to test under conditions of more stable circumferential speed and slip ratio.

## **Specification**

MODEL	AB-1150
Applicable Standard	JIS K6264-2- <sub>2005</sub> , ISO23337- <sub>2007</sub>
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 5 to 80% range. (Setting unit 0.1%)
Loading load	Load can be arbitrary set in 5 to 80N range.  Air cylinder drive, load cell detection feedback control.
Torque	Sample axis 5Nm
Output	Load, torque DC 0 to 5V
Setting time	Max.999min.59sec.
Temperature inside test chamber(option)	Room temperature +10°C to 120°C
Sand dropping device	Container capacity 4 liter, helical gear drive sand drop type, sand collection in box placed at bottom of the chamber. Kind of sand: carborundum grit 80(JIS R 6111)
Electric and air sources	3 Phases, AC200V, 50/60Hz Air: Dry clean air 0.5 to 0.8Mpa
Outside dimensions	810W x 830D x 1150H(1980 With optional stand)(H)mm
Weight	380kg (Body and Stand)
OPTION	Temperature measuring device for testpiece, stand, mold for testpiece preparation



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