

# UL 719 Abrasion Resistance Tester

Flat Cable Jacket Abrasion Test System

**Model: KP-AR03**



Designed for UL 719 Clause 7.14 flat cable jacket abrasion testing

**UL 719**

Clause 7.14

**6**

Test Stations

**30 / min**

Reciprocating Rate

**150 mm**

Approx. 6 in Stroke

## Controlled, Repeatable Abrasion Testing

The KP-AR03 is designed to evaluate the abrasion resistance of finished flat cable jackets. Straight cable specimens are secured on a horizontal steel plate while weighted abrasion tools contact the required test area. The plate then reciprocates under controlled speed and stroke conditions to reproduce repeated mechanical wear.

<b>APPLICABLE STANDARD</b>	UL 719 Clause 7.14
<b>TEST OBJECT</b>	Finished flat cable jacket
<b>TYPICAL USERS</b>	Cable labs, manufacturers, R&D and QC



6-station test area and front control panel

## Key Features

1

### Six test stations

Supports simultaneous setup of six specimens for efficient laboratory testing.

2

### PLC + touch screen

Centralized parameter setting, run control and cycle-count management.

3

### Servo motor drive

Provides stable, repeatable reciprocating movement during abrasion testing.

4

### Settable run counter

Cycle count can be set from 0 to 9999 for controlled test execution.

5

### Defined abrasion load

Six abrasion weights rated at 13.34 +/- 0.14 N.

6

### Laboratory-ready enclosure

Protective cover improves separation between the operator and moving parts.

**Typical Applications** | Product development | Incoming inspection | Quality verification | Compliance preparation

## Test Performance and Control

PARAMETER	SPECIFICATION
Product name	UL 719 Abrasion Resistance Tester
Model	KP-AR03
Applicable standard	UL 719 Clause 7.14
Test stations	6 stations
Control system	PLC + touch screen
Drive mode	Servo motor
Moving distance	150 mm (approximately 6 inch stroke)
Moving speed	30 times per minute
Number of runs	0 to 9999, settable
Abrasion load	13.34 +/- 0.14 N, 6 pieces

## Equipment and Installation

PARAMETER	SPECIFICATION
Overall dimensions	1320 x 660 x 1250 mm
Equipment weight	Approximately 100 kg
Power supply	AC 220 V +/- 10%, 50-60 Hz
Calibration documentation	ISO/IEC 17025 documentation available upon request; scope to be confirmed
Order quantity	1 set minimum
Typical delivery period	35 working days; final schedule subject to order confirmation



Specifications are based on the current product configuration and should be confirmed in the final quotation.



## Laboratory operation example

Touch-screen control and multi-station specimen setup for repeatable abrasion testing.

## Three-Step Test Workflow

1

### Specimen fixing

Prepare straight, untwisted flat cable specimens and secure them parallel on the steel plate.

2

### Reciprocating abrasion

Position the weighted tools and run the plate at the defined 30 times/min rate and 150 mm stroke.

3

### Result evaluation

Observe the jacket condition and record penetration or the achieved cycle count according to the laboratory procedure.

## Preparation and Good Practice

- Verify the abrasion tools, applied load, stroke length and movement rate before starting the test.
- Ensure each specimen remains flat and firmly fixed; movement or tool misalignment may affect repeatability.
- Reset the counter and document the cycle count, visible jacket condition and any penetration event.
- Keep the steel plate, tools and fixtures clean; inspect worn components as part of routine maintenance.

## KingPo Technology Development Limited

Factory Address: No.9 University Road, Songshan Lake, Dongguan City,  
Guangdong Province 523770, China

Tel: +86-769-81627526

Email: sales@kingpo.hk

Website: www.dgkingpo.com



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