



# J.A.KING

PRECISION MEASUREMENT PROFESSIONALS

# TAILORED FOR TEXTILES

## CATALOG 2014



6541 Franz Warner Parkway  
Whitsett, NC 27377 USA

Info.TextileTestKing@JAKing.com  
+ 1 866 802 6703

[WWW.TailoredForTextiles.COM](http://WWW.TailoredForTextiles.COM)



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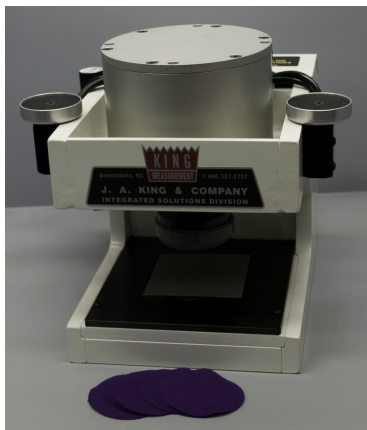
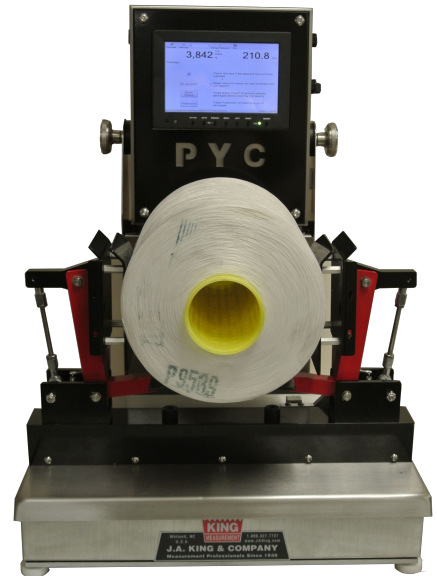
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## **OHAUS BALANCES, KING YIELD SCALES, KING YIELD SYSTEMS, KING CUTTING PADS and KING TAILORED FOR TEXTILES PRODUCTS**





## PRODUCT GUIDE

Part Number	OHAUS BALANCES
AV64	ADVENTURER PRO ANALYTICAL BALANCE - 65g x 0.1mg with draft shield
AV64C	ADVENTURER PRO ANALYTICAL BALANCE - 65g x 0.1mg with draft shield and InCal
AV114	ADVENTURER PRO ANALYTICAL BALANCE - 110g x 0.1mg with draft shield
AV114C	ADVENTURER PRO ANALYTICAL BALANCE - 110g x 0.1mg with draft shield and InCal
AV264	ADVENTURER PRO ANALYTICAL BALANCE - 260g x 0.1mg with draft shield
AV264C	ADVENTURER PRO ANALYTICAL BALANCE - 260g x 0.1mg with draft shield and InCal
AV53	ADVENTURER PRO PRECISION BALANCE - 51g x 0.001g with draft shield
AV213	ADVENTURER PRO PRECISION BALANCE - 210g x 0.001g with draft shield
AV213C	ADVENTURER PRO PRECISION BALANCE - 210g x 0.001g with draft shield and InCal
AV313	ADVENTURER PRO PRECISION BALANCE - 310g x 0.001g with draft shield
AV313C	ADVENTURER PRO PRECISION BALANCE - 310g x 0.001g with draft shield and InCal
AV212	ADVENTURER PRO PRECISION BALANCE - 210g x 0.01g
AV212C	ADVENTURER PRO PRECISION BALANCE - 210g x 0.01g with InCal
AV412	ADVENTURER PRO PRECISION BALANCE - 410g x 0.01g
AV412C	ADVENTURER PRO PRECISION BALANCE - 410g x 0.01g with InCal
AV812	ADVENTURER PRO PRECISION BALANCE - 810g x 0.01g
AV812C	ADVENTURER PRO PRECISION BALANCE - 810g x 0.01g with InCal
AV2102	ADVENTURER PRO PRECISION BALANCE - 2100g x 0.01g
AV2102C	ADVENTURER PRO PRECISION BALANCE - 2100g x 0.01g with InCal
AV3102	ADVENTURER PRO PRECISION BALANCE - 3100g x 0.01g
AV3102C	ADVENTURER PRO PRECISION BALANCE - 3100g x 0.01g with InCal
AV2101	ADVENTURER PRO PRECISION BALANCE - 2100g x 0.1g
AV2101C	ADVENTURER PRO PRECISION BALANCE - 2100g x 0.1g with InCal
AV4101	ADVENTURER PRO PRECISION BALANCE - 4100g x 0.1g
AV4101C	ADVENTURER PRO PRECISION BALANCE - 4100g x 0.1g with InCal
AV8101	ADVENTURER PRO PRECISION BALANCE - 8100g x 0.1g
AV8101C	ADVENTURER PRO PRECISION BALANCE - 8100g x 0.1g with InCal

## PRODUCT GUIDE

Part Number	KING YIELD SCALES
AV212-2	Yield Scale - Provides Measurement in g/sq. yard for 8 samples with English Blade
AV212-3	Yield Scale - Provides Measurement in g/sq. meter for 8 samples with Metric Blade
AV212-4	Yield Scale - Provides Measurement in g/sq. meter for 8 samples with English Blade
AV212-5	Yield Scale - Provides Measurement in g/sq. meter for 1 sample with English Blade
AV212-6	Yield Scale - Provides Measurement in oz/sq. yard for 1 sample with 100sq cm Blade
AV212-7	Yield Scale - Provides Measurement g/sq. meter for 8 samples with Suter(2.0311") Blade
AV212-8	Yield Scale - Provides Measurement in g/sq. meter for 1 sample with 100sq cm Blade
AV212-9	Yield Scale - Provides Measurement in oz/sq. yard for 1 sample with English Blade
AV212C-2	Yield Scale with internal calibration - Provides Measurement in oz/sq. yard for 8 samples with English Blade
AV212C-3	Yield Scale with internal calibration - Provides Measurement in g/sq. meter for 8 samples with Metric Blade
AV212C-4	Yield Scale with internal calibration - Provides Measurement in g/sq. meter for 8 samples with English Blade
AV212C-5	Yield Scale with internal calibration - Provides Measurement in g/sq. meter for 1 sample with English Blade
AV212C-6	Yield Scale with internal calibration - Provides Measurement in oz/sq. yard for 1 sample with 100sq cm Blade
AV212C-7	Yield Scale with internal calibration - Provides Measurement g/sq. meter for 8 samples with Suter(2.0311") Blade
AV212C-8	Yield Scale with internal calibration - Provides Measurement in g/sq. meter for 1 sample with 100sq cm Blade
AV212C-9	Yield Scale with internal calibration - Provides Measurement in oz/sq. yard for 1 sample with English Blade
AV212C-KTV	Yield scale with internal calibration, 210g x 0.01g, preprogrammed for yarn counts and fabric yields in all systems.
AV212-KTV	Yield scale, 210g x 0.01g, preprogrammed for yarn counts and fabric yields in all systems.
AV64-KTV	Yield scale, 65 x 0.0001g, preprogrammed for yarn counts (short lengths) and fabric yields in all systems.
AV64C-KTV	Yield scale with internal calibration, 65 x 0.0001g, preprogrammed for yarn counts (short lengths) and fabric yields in all systems.

## PRODUCT GUIDE

Part Number	KING YIELD SYSTEMS
UYS-AV212-2	Yield System with SASD-688 Sample Cutter, AV212-2 Yield Scale and 100 Cutting pads, oz/sq. yd with 8 samples
UYS-AV212-4	Yield System with SASD-688 Sample Cutter, AV212-4 Yield Scale and 100 Cutting pads, oz/sq. yd and g/sq. m with 8 samples
UYS-AV212-5	Yield System with SASD-688 Sample Cutter, AV212-5 Yield Scale and 100 Cutting pads, oz/sq. yd with 8 samples and g/sq. m with 1 sample
UYS-AV212-9	Yield System with SASD-688 Sample Cutter, AV212-9 Yield Scale and 100 Cutting pads, oz/sq. yd with 8 samples and oz/sq. yd with 1 sample
UYS-AV212C-2	Yield System with SASD-688 Sample Cutter, AV212C-2 Yield Scale with InCal and 100 Cutting pads, oz/sq. yd with 8 samples
UYS-AV212C-4	Yield System with SASD-688 Sample Cutter, AV212C-4 Yield Scale with InCal and 100 Cutting pads, oz/sq. yd and g/sq. cm with 8 samples
UYS-AV212C-5	Yield System with SASD-688 Sample Cutter, AV212C-5 Yield Scale with InCal and 100 Cutting pads, oz/sq. yd with 8 samples and g/sq. m with 1 sample
UYS-AV212C-9	Yield System with SASD-688 Sample Cutter, AV212C-9 Yield Scale with InCal and 100 Cutting pads, oz/sq. yd with 8 samples and oz/sq. yd with 1 sample
UYS-AV212C-K	Yield System with SASD-688 Sample Cutter, AV212C-K Yield Scale with InCal and 100 Cutting pads, programmed for most yarn count and fabric yield systems

Part Number	KING CUTTING PADS
CP10	KING CUTTING PADS CASE OF 1000, 3.25" SQ for 3090 series manual sample cutter
CP3620	KING CUTTING PADS CASE OF 1000, 3.62" SQ for SASD-688 universal manual sample cutter and PSC5 or 6R-AC pneumatic sample cutter with standard blade
CP6	KING CUTTING PADS CASE OF 100, 6" SQ for PSC5 or 6R-100 pneumatic sample cutter with 100sq cm (4.4424"/113mm) blade



## PRODUCT GUIDE

Part Number	KING TAILORED FOR TEXTILES PRODUCTS
KRC-1	KING ROLLED CLOTH SCALE, 15"x60" V PAN
KRC-2	KING ROLLED CLOTH SCALE, 15"x24" V PAN
KRC-3P	KING FABRIC ROLL MEASUREMENT SYSTEM (PORTABLE)
KRC-3S	KING FABRIC ROLL MEASUREMENT SYSTEM (STATIC)
MB45	OHAUS MOISTURE ANALYZING Balance, 45g x 0.001g/0.01%
MSS-32	KING SWEATER/GARMENT/SOCK SCALE, 32 oz capacity, conversion scale to 24 lbs. per dozen.
PSC5R-100	KING PNEUMATIC SAMPLE CUTTER, 5" dia cylinder, with 100 sq. cm blade and 100 6" sq. cutting pads
PSC5R-AC	KING PNEUMATIC SAMPLE CUTTER, 5" dia cylinder, with 2.6974" dia blade and 100 3.62" sq. cutting pads
PSC6R-100	KING PNEUMATIC SAMPLE CUTTER, 6" dia cylinder, with 100 sq. cm blade and 100 6" square cutting pads
PSC6R- AC	KING PNEUMATIC SAMPLE CUTTER, 6" dia cylinder, with 2.6974" dia blade and 100 3.62" square cutting pads
PTA-967-3	KING BLADE, CUTTER, 4.4424" DIA, 1/2-20THDS (100 SQ CM)
PTB-1187	KING BLADE, CUTTER (AC), 2.6974" DIA, 1/2-20 THDS
SASA-9369	KING YARN & FABRIC ANALYZER for all yarn count and fabric yield systems , AV213 balance 210g x 0.001g, USB output to any PC, software included.
SASD-672-DFS-10	KING PNEUMATIC FABRIC STIFFNESS TESTER with 10lb/5kg/50n digital gauge
SASD-672-DFS-100	KING PNEUMATIC FABRIC STIFFNESS TESTER with 100lb/50kg/500n digital gauge
SASD-672-DFS-25	KING PNEUMATIC STIFFNESS TESTER with 25lb/12.5kg/125n digital gauge
SASD-672-DFS-50	KING PNEUMATIC STIFFNESS TESTER with 50lb/25kg/250n digital gauge
SASA-624	KING BALL BURST KIT FOR SASD-672 - equates to ASTM D3787
KFG-2000	Fabric stiffness tester
SASD-684	KING Package Yarn Classifier (Short Jaws) with touchscreen controller
SASD-684-2	KING Package Yarn Classifier (Tall Jaws) with touchscreen controller
PGA-49	Analysis and Archiving software for Package Yarn Classifier
SASD-684-UPGRADE	Upgrade kit for existing KING PYC to touchscreen controller

## ANALYTICAL AND PRECISION LABORATORY BALANCES

### AV Electronic Laboratory Balances

The Ohaus Adventurer Pro range of analytical and precision balances provide a complete solution for laboratories with ranges from 65g X 0.0001g to 8100g X 0.1g, with or without internal calibration (selected models) available with the RS 232 output as standard and optional USB output. Large LCD display, multiple weighing units and custom weighing mode.

### AV Precision Balances

- AV53 – 51g x 001g with 3.5 in high Round Draft Shield
- AV213 – 210g x 001g with 5.25 in high Square Draft Shield
- AV213C – 210g x 001g InCal & 5.25 in high Square Draft Shield
- AV313 – 310g x 001g with 5.25 in high Square Draft Shield
- AV313C – 310g x 001g InCal & 5.25 in high Square Draft Shield
- AV212 – 210g x 0.01g
- AV212C – 210g x 0.01g with InCal
- AV412 – 410g x 0.01g
- AV412C – 410g x 0.01g with InCal
- AV812 – 810g x 0.01g
- AV812C – 810g x 0.01g with InCal
- AV2102 – 2100g x 0.01g
- AV2102C – 2100g x 0.01g with InCal
- AV3102 – 3100g x 0.01g
- AV3102C – 3100g x 0.01g with InCal
- AV2101 – 2100g x 0.1g
- AV2102C – 2100g x 0.1g with InCal
- AV4101 – 4100g x 0.1g
- AV4101C – 4100g x 0.1g with InCal
- AV8101 – 8100g x 0.1g



## **ANALYTICAL AND PRECISION LABORATORY BALANCES**



### **AV Analytical Balances**

- **AV64** – 65g x 0.1mg
- **AV64C** – 65g x 0.1 mg w/InCal
- **AV114** – 110g x 0.1mg
- **AV114C** – 110g x 0.1mg w/InCal
- **AV264** – 260g x 0.1mg
- **AV264C** – 260g x 0.1mg w/InCal.

USB Accessory kit for Adventurer Pro balances **83033014**



## PROGRAMMED FABRIC YIELD BALANCES

### AV212

The King Yield Balances provide accurate fabric yield at the touch of a button in grams per square meter or ounces per square yard, using all the known sample sizes and quantities of samples:

- 2.6974" Diameter (English Blade) - 1 or 8 Samples
- 2.8271" Diameter (Metric Blade) - 1 or 8 Samples
- 2.0311" Diameter (Suter Blade) - 1 or 8 Samples
- 4.4424" Diameter (100sq.cm Blade) - 1 Sample



## PROGRAMMED FABRIC YIELD BALANCES

### **AV212-2**

**210g X 00.01g**

Provides Fabric Yield in Ounces per Square Yard using 8 samples 2.6974" Diameter (English Blade)

### **AV212C-2**

As above, substitutes balance with internal calibration

### **AV212-3**

**210g X 00.01g**

Provides Fabric Yield in Grams per Square meter using 8 samples 2.8271" Diameter (Metric Blade)

### **A212C-3**

As above, substitutes balance with internal calibration

### **AV212-4**

**210g X 00.01g**

Provides fabric Yield in both Ounces per Square Yard and Grams per Square meter using 8 samples 2.6974" Diameter (English Blade)

### **AV212C-4**

As above, substitutes balance with internal calibration

### **AV212-5**

**210g X 00.01g**

Provides Fabric Yield in Grams per Square meter using 1 sample 2.6974" Diameter (English Blade)

### **AV212C-5**

As above, substitutes balance with internal calibration

### **AV212-6**

**210g X 00.01g**

Provides Fabric Yield in Ounces per Square Yard using 1 sample 4.4424" Diameter (100 sq.cm Blade)

### **AV212C-6**

As above, substitutes balance with internal calibration

### **AV212-7**

**210g X 00.01g**

Provides Fabric Yield in Grams per Square meter using 8 samples 2.0311" Diameter (Suter Blade)

### **AV212C-7**

As above, substitutes balance with internal calibration

### **AV212-8**

**210g X 00.01g**

Provides Fabric Yield in Grams per Square meter using 1 sample 4.4424" Diameter (100sq.cm Blade)

### **AV212C-8**

As above, substitutes balance with internal calibration

### **AV212-9**

**210g X 00.01g**

Provides Fabric Yield in Ounces per Square Yard using 1 sample 2.6974" Diameter (English Blade)

### **AV212C-9**

As above, substitutes balance with internal calibration

## FABRIC YIELD AND YARN COUNT BALANCES

(KTV Series)

### AV212- KTV

Ohaus Adventurer Pro Precision balance programmed internally for most known yarn counts and fabric yield systems. No external computer required. 210g x 0.01 g capacity.

#### System

Denier (Grams per 9000 meters)  
 Yarn Count English (840 yard lengths per lb)  
 Tex (Grams per 1000 meters)  
 Decitex (Grams per 10,000 meters)  
 Metric Count (Kilometers per Kilogram)

Ounces/Square Yard  
 Dia (King Cutter)  
 Grams/Square Meter  
 Dia (King Cutter)  
 Grams/Square Meter  
 Dia (King Cutter)  
 Ounces/Square Yard  
 Dia (King Cutter)  
 Grams/Square Meter  
 Dia (100 sq.cm Cutter)  
 Ounces/Square Yard  
 Dia (100 sq.cm Cutter)

#### Sample

90 Meters of yarn  
 120 Yards of yarn  
 100 Meters of yarn  
 100 Meters of yarn  
 100 Meters of yarn

8 samples 2.6974"

8 samples 2.6974"

1 sample 2.6974"

1 sample 2.6974"

1 sample 4.4424"

1 sample 4.4424"

### AV212C-KTV

As above, substitutes balance with internal calibration System (inCal)

### AV64- KTV

Ohaus Adventurer Pro Analytical Balance programmed internally for most known yarn counts in short lengths (0.9 meter, 1 meter or 1 yard depending on count system) also displaying fabric yield exactly as AV212-KTV. No external computer required. 64g x 0.00001g (0.1mg) capacity,





## FABRIC YIELD SYSTEMS

J.A. King and company Inc. has produced quality fabric/material cutters for over 30 years. A cutter combined with a digital balance makes up the Fabric Yield Test Systems, meeting the ASTM Standard for Yield Testing. All King UYS Series Yield Systems are shipped with SASD-688 cutter, 100 Cutting Pads (CP362) and Yield balance.

**UYS-AV212-2** w/o internal calibration

**UYS-AV212-5** w/o internal calibration

**UYS-AV212C-2** with internal calibration

**UYS-AV212C-5** with internal calibration

- 210 oz/sq. yd x .01 w/ 8 samples

- 210 oz/sq. yd x .01 w/ 8 samples

**UYS-AV212-4** w/o internal calibration

- 56960 g/sq. m x 5 w/ 1 sample

**UYS-AV212C-4** with internal calibration

**UYS-AV212-9** w/o internal calibration

- 210 oz/sq.yd x .01 w/ 8 samples

**UYS-AV212C-9** with internal calibration

- 7120 g/sq. m x.5 w/ 8 samples

- 210 oz/sq. yd x .01 w/ 8 samples



## CUTTING PADS



Part Number	KING CUTTING PADS
CP10	KING CUTTING PADS CASE OF 1000, 3.25" SQ for 3090 series manual sample cutter
CP3620	KING CUTTING PADS CASE OF 1000, 3.62" SQ for SASD-688 universal manual sample cutter and PSC5 or 6R-AC pneumatic sample cutter with standard blade
CP6	KING CUTTING PADS CASE OF 100, 6" SQ for PSC5 or 6R-100 pneumatic sample cutter with 100sq cm (4.4424"/113mm) blade

## FABRIC ROLL SCALES

### KRC-1

Narrow “V” design platform permits installation at inspection frame or wrapping table so weight is determined without additional lifting.

- Panel controls: zero, tare, print lbs./kg. 12 key pad.
- Output: Programmable bi-directional RS-232  
(Optional Printers available).
- 500lb with 15” x 60” V Pan

### KRC-2

Narrow “V” design platform permits installation at inspection frame or wrapping table so weight is determined without additional lifting.

- Panel controls: zero, tare, print lbs./kg. 12 key pad.
- Output: Programmable bi-directional RS-232 (Optional Printers available).
- 500lb with 15” x 24” V Pan

Other configurations available on request.





## FABRIC ROLL MEASUREMENT SYSTEM

### KRC-3

Fabric Roll inventory made simple ! Measure roll length, weight and fabric yield without tedious unrolling and rerolling. This complete system determines fabric yield in ounces per square yard or grams per square meter using the King sample cutter and yield balance. Based on the accurately measured roll weight and width the integrated digital controller determines the roll length in yards or meters and can print a bar-coded and time/date stamped ticket to attach to the fabric roll.

The system is available as a static mains-powered table-mounted system or mounted on a sturdy cart with a battery operated rechargeable power supply for use anywhere in the warehouse.

### Specifications (portable) KRC-3P

Aluminum v-pan fabric roll cradle 15" wide x 60" long with two electronic scale bases, total 500 lbs. capacity with programmable digital indicator on tower with remote push button station. Displays all parameters including roll weight and width, fabric yield, core weight (tare), roll length, date, time and roll identifiers.

UYS-AV212-2 Fabric yield system including SASD-688 manual sample cutter and AV-212-2 electronic yield balance to determine fabric yield in oz/sq. yd or g/sq. m.



Rechargeable battery operated electric scissors to cut yield sample from fabric width and steel tape measure to determine fabric width. Hand-held bar code reader and label/barcode printer. Export Comma Delimited Text file with serial cable. All connections and cables as required. ISO 17025 Calibration including certificates. Operation manuals. Up to 3 hours of telephone training support.

All equipment securely mounted on heavy duty mobile cart with DC (battery) power supply and charging station.

### Specifications (static) KRC-3S

As portable unit but without cart or power supply system, requires standard electrical power and suitable platform or table.

## MOISTURE DETERMINATION BALANCES

Measures moisture content in yarn, fabric or fiber easily, quickly, and accurately. Meets the highest requirements in moisture analysis. Automatically determines moisture or solid content and displays both in grams and percentages.

### More Info

- Specially developed software and RS-232 bi-directional interface.
- Easily programmable temperature and time setting.
- Moisture range 0 to 100%.
- Power 120/220/240 V, 50/60 Hz

### Models:

**MS-70** 71g x 0.0001g (0.01%/0.1% moisture content)

**MX-50** 51g x .001g (0.01% moisture content)

**MF-50** 51g x 0.002g (0.05% moisture content)

**MB-35** 35g x 0.00g (0.05% moisture content)

**MB-45** 45g x 0.001g (0.01% moisture content)



## KING SWEATER AND HOSIERY SCALES

### MSS-32

To determine the weight of sweaters, hosiery and garments traditionally packaged, sold and shipped in dozens (12 pieces). The inner scale converts weight per dozen to weight per individual item and the outer scale converts the weight of individual items to weight per dozen. Scaled in fractions of lbs. and ounces, capacity 2lbs/32 ounces.

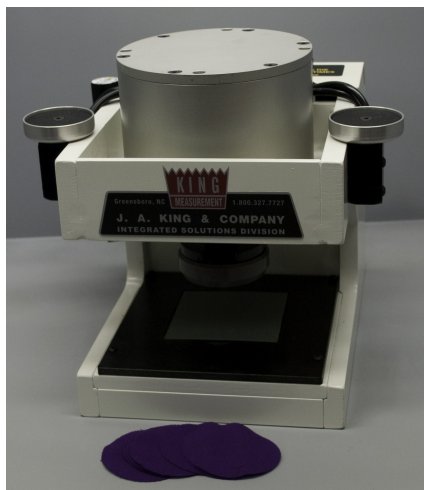


## FABRIC YIELD SAMPLE CUTTERS



**Manual Sample Cutter**  
**SASD-688**

Building on the quality of the 3090 series the King Universal Manual Sample Cutter utilizes a durable cast construction and hardened steel dies. The unit features a high cutting force and cuts material up to ½" thick. Samples are automatically ejected. The non-rotating head allows a variety of blade sizes and shapes. Cutter is supplied with 2.6974" diameter blade. Larger samples can be cut, up to (3.2" x 3.2").



**Pneumatic Sample Cutter**

The King Pneumatic sample Cutter available in 5" or 6" diameter bore cylinders, provides 1960 or 2825 lbs. of force (respectively) at 100PSI. Easily cuts through multiple fabric layers, using fewer standard fiber cutter pads than a manual cutter. Ejection device removes samples from cutting die. Completely air operated – no wiring required. Two hand control for safety. Regulator/filter provided. OSHA approved air supply shut off valve can be locked in "OFF" position. Standard models have "rotating" cylinders and round cutting dies. Models are available with non-rotating cylinders and rectangular dies.

- **PSC5R-AC** 5" cylinder with 2.6974 inch diameter blade With sample ejector, cutting pad locating plate and box of 100 cutting pads
- **PSC6R-AC** 6" cylinder with 2.6974 inch diameter blade with sample ejector, cutting pad locating plate and box of 100 cutting pads.
- **PSC5R-100** 5" cylinder with 4.4424 inch diameter blade (for 100sq. cm sample). With sample ejector, cutting pad locating plate and box of 100 cutting pads.
- **PSC6R-100** 6" cylinder with 4.4424 inch diameter blade (for 100sq. cm sample). With sample ejector, cutting pad locating plate and box of 100 cutting pads.

**Other Models of Pneumatic Cutters similar to above are available with round dies of special diameters as well as rectangular dies of special sizes. Rectangular dies require cutters with non-rotating cylinders.**



# YARN, SLIVER, ROVING COUNT BALANCE AND ANALYSIS SYSTEM

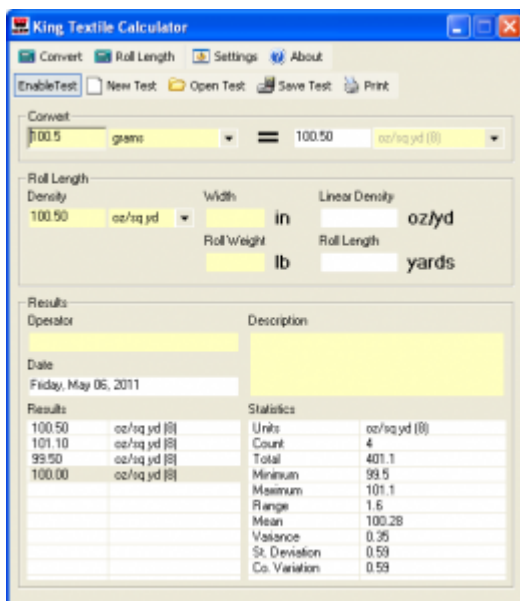
**SASA-9369**

A powerful Windows based software system. Includes an accurate electronic balance (210 grams x 0.001 grams). It calculates yarn, sliver and roving counts in most commonly used count systems, using wrap skeins or short lengths.



## More Information:

The system will also determine fabric yield using King 2.6974" diameter samples or 100 cm<sup>2</sup> samples. This system will also provides statistic on any number of tests including totals, averages, coefficient of variation and standard deviation calculations.



**King Textile Calculator**

Convert Roll Length Settings About

EnableTest New Test Open Test Save Test Print

Convert: 100.5 grams = 100.50 oz/sq yd (8)

Roll Length: Density 100.50 oz/sq yd Width in Linear Density oz/lyd Roll Weight lb Roll Length yards

Results:

Operator	Description

Date: Friday, May 05, 2011

Results	Statistics
100.50 oz/sq yd (8)	Units oz/sq yd (8)
101.10 oz/sq yd (8)	Count 4
99.50 oz/sq yd (8)	Total 401.1
100.00 oz/sq yd (8)	Minimum 99.5
	Maximum 101.1
	Range 1.6
	Mean 100.28
	Variance 0.35
	St. Deviation 0.59
	Co. Variation 0.59

In addition, the system includes all cables as well as a security data key and will connect to PC and Printer with Microsoft Windows XP or newer via USB port.

\*PC and Printer not included

## FABRIC STIFFNESS TESTERS ASTM



**Fabric Stiffness Tester (Pneumatic)  
SASD-672-1**

Provides the fabric and apparel industries with a consistent fast, and accurate method of determining fabric stiffness in compliance with ASTM Spec. D4032, Circular Bend Test Method.

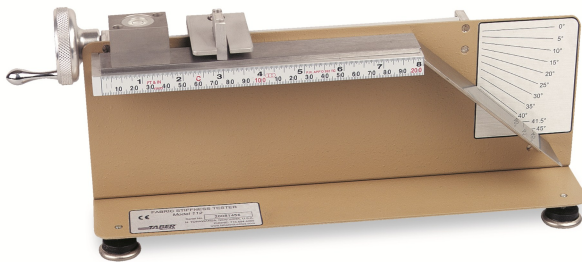
- With Digital Gauge 50lb capacity
- With Digital Gauge 100lb capacity

### Description:

The Fabric Stiffness Tester is a simple to use, rugged instrument based on a design described in internationally recognized test standards such as ASTM D1388. Employing the principle of cantilever bending, a rectangular specimen is supported on a smooth low-friction horizontal platform with a 41.5" (0.724 rad) or 45" (0.785 rad) adjustable bend angle indicator below the plane of the platform surface. A weighted slide is placed over the specimen and is advanced at a constant rate.

**Fabric Stiffness Tester  
KFG-2000**

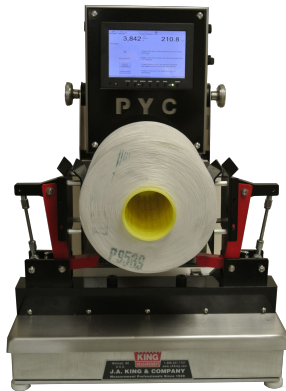
As the leading edge of the specimen projects from the platform, it bends under its own mass. Once the material flexes enough to touch the bend angle indicator, the test is stopped. The length of the overhang is then measured and flexural rigidity and bending modulus can be calculated. Ideal for testing most textile fabrics (e.g. woven; layered; pile; knitted; napped) this instrument has been utilized to evaluate the stiffness properties of blankets, airbag fabrics, protective clothing, geotextiles, etc. Fabrics may be untreated or treated, including those that are heavily sized, coated with resin-treated. Taber's Fabric Stiffness tester can be used to evaluate leather, paper, plastic films, and other flexible sheet materials.



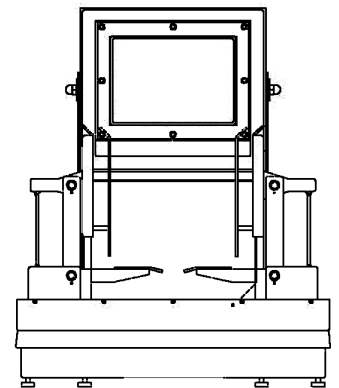
## YARN PACKAGE CLASSIFIER

### SASD-684

Sorting yarn packages, analyzing production, and adjusting winding machinery has never been easier. The Package Yarn Classifier quickly classifies by weight, diameter, and density with a complete set of dispersion statistics to predict trends in your winding process. Unit is an excellent quality control device for package winding operations, assuring uniform package pressure for yarn dyeing and color control.



1. An unlimited number of package types can be stored in the memory of the classifier which comprises a new state-of-the-art PC-based controller with 7 inch touch screen full-color display (network enabled) providing the following parameters:
  - Ideal Weight with Upper/Lower Tolerances
  - Ideal Diameter with Upper/Lower Tolerances
  - Ideal Density with Upper/Lower Tolerances (weight per unit volume).
  - Denier (Optional-at no cost)
  - Ideal Length with Upper/Lower Tolerances (Optional-at no cost)
  - Tare Weight of the Tube/Spring
  - Diameter of the Tube/Spring
  - Taper Angle
  - Initial Stroke Length
2. A complete summary of each classification can be printed as it occurs with Weight, Diameter, Density, and Length (Optional--at no cost).
3. A complete statistical report at the end of the run can be printed including the following dispersion statistics for weight, diameter, density, and length:
  - Minimum Value
  - Maximum Value
  - Range
  - Standard Deviation
  - Variance
  - Coefficient of Variation
4. Three different run modes for Production, Quality Control, and Quick type runs
5. Password protected product input and classifier setup
6. Faster operation - up to twice as fast as previous models
7. All components are stainless steel and sealed from the environment



### PGA-49

Analysis and archiving software for Package Yarn Classifier

### SASD-684-UPGRADE

Upgrade kit to convert existing JA King Package Yarn Classifiers to touchscreen controller.

## **FIBER AND YARN TESTING EQUIPMENT AND ACCESSORIES**



## PRODUCT GUIDE

### Part Number FIBER AND YARN TESTING EQUIPMENT AND ACCESSORIES

KFY-1000	AATCC Fiber cross-section kit
KFY-1010	Fiber microscope - digital
KFY-1015	Laboratory Carding Machine
KFY-1021	Micronaire tester for cotton fineness
KFY-1022	Micron tester for wool fineness
KFY-1025E11	International Calibration Cotton
KFY-1025E12	International Calibration Cotton
KFY-1025E3	International Calibration Cotton
KFY-1025F1	International Micronaire Calibration Cotton
KFY-1025F2	International Micronaire Calibration Cotton
KFY-1025F3	International Micronaire Calibration Cotton
KFY-1025F4	International Micronaire Calibration Cotton
KFY-1025F5	International Micronaire Calibration Cotton
KFY-1025F6	International Micronaire Calibration Cotton
KFY-1025H1	HVI Calibration Cotton ELS Short-Weak
KFY-1025H2	HVI Calibration Cotton ELS Long-Strong
KFY-1025I1	HVI Calibration Cotton Universal Short-Weak
KFY-1025I2	HVI Calibration Cotton Universal Long-Strong
KFY-1025U1	HVI Mic. Calibration Cotton
KFY-1025U2	HVI Mic. Calibration Cotton
KFY-1031	Rapid oil extractor - 1 position
KFY-1032	Rapid oil extractor - 2 positions
KFY-1033	Rapid oil extractor - 3 positions
KFY-1034	Foil residue trays - pack of 50
KFY-1041M	Hand sliver reel 1 meter circumference
KFY-1041Y	Hand sliver reel 1 yard circumference
KFY-1042M	Electronic sliver reel 1 meter
KFY-1042Y	Electronic sliver reel 1 yard
KFY-1051-54	Yarn wrap reel 54 inch hand operated
KFY-1051-M	Yarn wrap reel 1 meter hand operated
KFY-1051-Y	Yarn wrap reel 1 yard hand operated
KFY-1052-54	Yarn wrap reel 54 inch electronic
KFY-1052-M	Yarn wrap reel 1 meter electronic
KFY-1052-Y	Yarn wrap reel 1 yard electronic
KFY-1061	Yarn twist tester - hand operated
KFY-1062	Yarn twist tester - electronic, digital
KFY-1063	Yarn twist tester - electronic, semi-automatic
KFY-1070	Yarn examining machine, board winder
KFY-1071A	ASTM Yarn appearance standard 1-12
KFY-1071B	ASTM Yarn appearance standard 12-24



## PRODUCT GUIDE

Part Number	FIBER AND YARN TESTING EQUIPMENT AND ACCESSORIES
KFY-1071C	ASTM Yarn appearance standard 24-36
KFY-1071D	ASTM Yarn appearance standard 36-50
KFY-1071E	ASTM Yarn appearance standard 50-75
KFY-1071F	ASTM Yarn appearance standard 75-135
KFY-1091	Portable yarn friction tester
KFY-1092	Drive unit/test stand for friction tester
KFY-1093	Digital yarn friction tester
KFY-1100F	Fiber Strength Testing System
KFY-1100Y	Yarn Strength Testing System,
KFY-1110	Yarn length and speed meter
KFY-1121	Yarn package density durometer - 2.5mm ball
KFY-1122	Yarn package density durometer - 5.0mm ball
KFY-1123	Shore durometers
KFY-1131	Yarn tension meter - digital - 50 grams/cN
KFY-1132	Yarn tension meter - digital - 100 grams/cN
KFY-1133	Yarn tension meter - digital - 200 grams/cN
KFY-1134	Yarn tension meter - digital - 500 grams/cN
KFY-1135	Warp yarn tension meter - analog
KFY-1136	Digital Yarn/Wire Tension Meters
KFY-1140	Refractometer for sizing solutions (% starch)
KFY-1150	Single yarn sample winder
KFY-1160	Melt Flow Index Tester for ASTM D1238 method A with one weight
KFY-1161	Melt Flow Index Tester for ASTM D1238 method A and B with one weight
KFY-1162	Stainless steel piston weight for MFI, 225 gm
KFY-1163	Stainless steel piston weight for MFI, 1100 gm
KFY-1164	Stainless steel piston weight for MFI, 2060 gm
KFY-1165	Stainless steel piston weight for MFI, 3700 gm
KFY-1166	Stainless steel piston weight for MFI, 4900 gm
KFY-1170	Muffle Furnace 1100 deg C, chamber 10.2 x 9.5 x 11.4 cm deep
KFY-1171	Muffle Furnace 1100 deg C, chamber 12.7 x 10.8 x 15.2 cm deep

## AATCC Microscopy Cross Section Kit

KFY-1000

The Microscopy Cross Sections Kit contains the necessary equipment for making fiber and yarn cross-sections as presented in AATCC Test Method 20 Fiber Analysis: Qualitative.



## **FIBER MICROSCOPE**

### **KFY-1010**

The Digital Compound Microscope combines a quality compound microscope with a built-in digital camera. They have built-in high-resolution 8.5 mm (1/3) CCD camera, which can produce images on monitors with approximately 80% field of view through the eyepiece. A built-in capture card converts an analog signal to a digital signal for easy viewing through either a monitor or a computer.



Mountable reversed quintuple nosepiece has a ribbed grip for easy rotation and is positioned closer to the microscope body for easy access to the specimen.

Microscope features a Siedentopf trinocular phototube inclined at 30 degrees, 12V, 20W halogen Kohler Illumination, plug and play computer applications with simple USB connector.

Abbe condenser with Iris diaphragm for maximum flexibility and user friendly image processing and analyzing software.

Microscopes are provided with Achromatic objectives 4x, 10x, 40x, and 100x In combination with the included 10x eyepieces resulting in total magnifications of 40x, 100x, 400x and 1000x.

Suitable for fiber identification and measurement as well as general microscopy with the included image analysis, measurement and archiving software.

## Laboratory Carding Machine

**KFY-1015**

Small scale complete carding machine for Laboratory use, working/web width 500mm. Used to accurately simulate the working condition of all types of common fibers (wool, cotton and synthetics) under conditions preset by the operator. By means of easy adjustments it is possible to analyze both short and long fibers.



### Main technical features:

- For safety reasons the machine is covered with a steel frame, whilst its main functional parts are protected by Perspex plates permitting kind of visual assessment or inspection.
- The output of the Card is a fiber web.
- Suitable to prepare homogeneous colored fiber samples under variable conditions.
- Downstream, such samples can be used for any type of analysis or verification.
- For producers of synthetic man-made fibers (acrylic, polyester, polyamide, polypropylene, etc.) the use of the laboratory carding machine is essential to test both the quality and the homogeneity of fibers. It can be also used for the quality testing of the enzymes used during fiber processing.

The mean production is of about 4 kg per hour with a supply ranging from a minimum of 20 to a maximum of about 150 g/m.

Instrument conceived for traditional textile laboratories, institutes, textile schools, as well as for the research and development of new fibres or blends.

Size in cm: 86x146x173 h

Origin: Italy

Power Supply: 220V 50/60 Hz three phases

Packing estimated specifications (1 wooden crate)

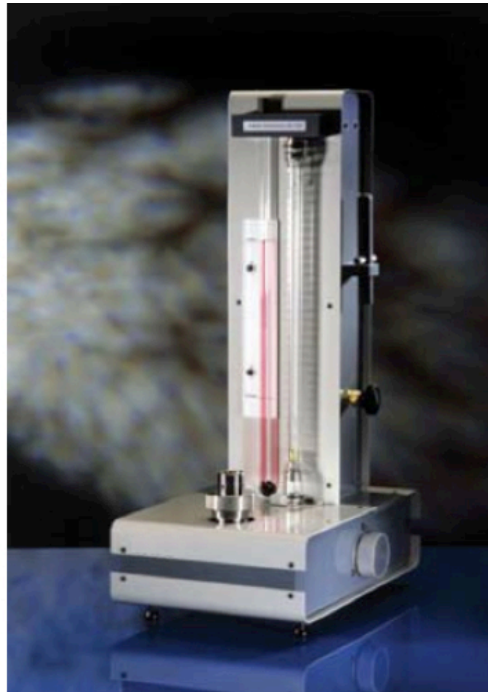
Size in cm: 202x94x162 h

Volume: 3,076 m<sup>3</sup>

Gross weight: 620,0 kg

**KFY-1021 COTTON FINENESS METER**

**KFY-1022 WOOL FINENESS METER**



The original Wool Fineness Meter (KFY-1022) has gained wide popularity and acceptance, and is in use in quality control laboratories and test rooms worldwide.

- Average fiber diameter in a few minutes
- IWTO standard method of test.
- Operates on the well-known airflow principle
- Includes air pump and non-hygroscopic calibration plug

The instrument can also be calibrated as a Cotton Fineness Meter (**KFY-1021**), to give a direct reading of micronaire

*Dimensions:*

*Width: 240mm*

*Depth: 330mm*

*Height: 580mm*

*Power Consumption: 250W*



## USDA CALIBRATION COTTON STANDARDS

Standardized calibration cottons are available to ensure cotton testing equipment is calibrated and providing the same readings anywhere in the world.

### HVI Calibration Cottons

Part Number	Description	Length	Uniformity	Strength	Mic	Pack
KFY-1025I1	Universal Short - Weak	Below 1.00"	77-81%	22-25 G/Tex	3.6-4.4	5Lbs
KFY-1025I2	Universal Long-Strong	1.13-1.20"	83.90%	30-34 G/Tex	3.6-4.4	5Lbs
KFY-1025H1	ELS Short-Weak	1.10-1.17"	82-84%	30-32 G/Tex	3.6-4.4	5Lbs
KFY-1025H2	ELS Long - Strong	1.30" +	84-90%	37 + G/Tex	3.6-4.4	5Lbs

### HVI Micronaire Calibration Cottons

Part Number	Type	Description	Mic	Pack
KFY - 1025U1	Av	American Upland	approx. Mic 5.5	1Lbs
KFY-1025U2	Gu	American Upland	approx. Mic 2.6	1Lbs

### International Micronaire Calibration Cottons

Part Number	Type	Description	Mic	Pack
KFY-1025F1	Am	American Upland	approx. Mic 5.5	1LB
KFY-1025F2	Bm	American Upland	approx. Mic 4.5	Pack 1Lb
KFY-1025F3	Cm	American Upland	approx. Mic 3.5	Pack 1Lb
KFY-1025F4	Dm	American Upland	approx. Mic 4.0	Pack 1Lb
KFY-1025F5	Gm	American Upland	approx. Mic 2.6	Pack 1Lb
KFY-1025F6	Im	American Upland	approx. Mic 5.0	Pack 1Lb

### International Calibration Cottons

Part Number	Type	Description	Stelometer		Pack
KFY-1025E3	C-39	American Upland	25.1G/Tex	7.10%	½ Lb
KFY-1035E11	L-2	American Upland	18.0G/Tex	5.60%	½ Lb
KFY-1025E12	M-1	American Upland	30.8G/Tex	6.40%	½ Lb



## OIL AND FIBER FINISH EXTRACTORS

Rapid test method designed for laboratory or production areas. To determine the natural oil (Lanolin) content of raw and processed wools and lubricating oil or finish content of synthetic fibers. Uses solvent percolation and evaporation on a temperature-controlled hotplate. Can also be used with shredded yarns, fabrics or non-woven materials.

### Models:

- **KFY-1031** Oil Extractor single position
- **KFY-1032** Oil Extractor dual position
- **KFY-1033** Oil Extractor triple position
- **KFY-1034** Foil Residue Trays – Pack of 50.



## **SLIVER AND ROVING REELS**

### **Hand Driven Reels for Slivers and Rovings KFY-1041**

To determine the count (Density) of Slivers and Rovings Fitted with digital counter and severance device for accurate cutting of the sliver sample. Supplied with cone holder. Hand driven reels for slivers and rovings with 1 meter (KFG-1041M) or 1 yard (KFG-1041Y) drum circumference, equipped with digital counter and battery.



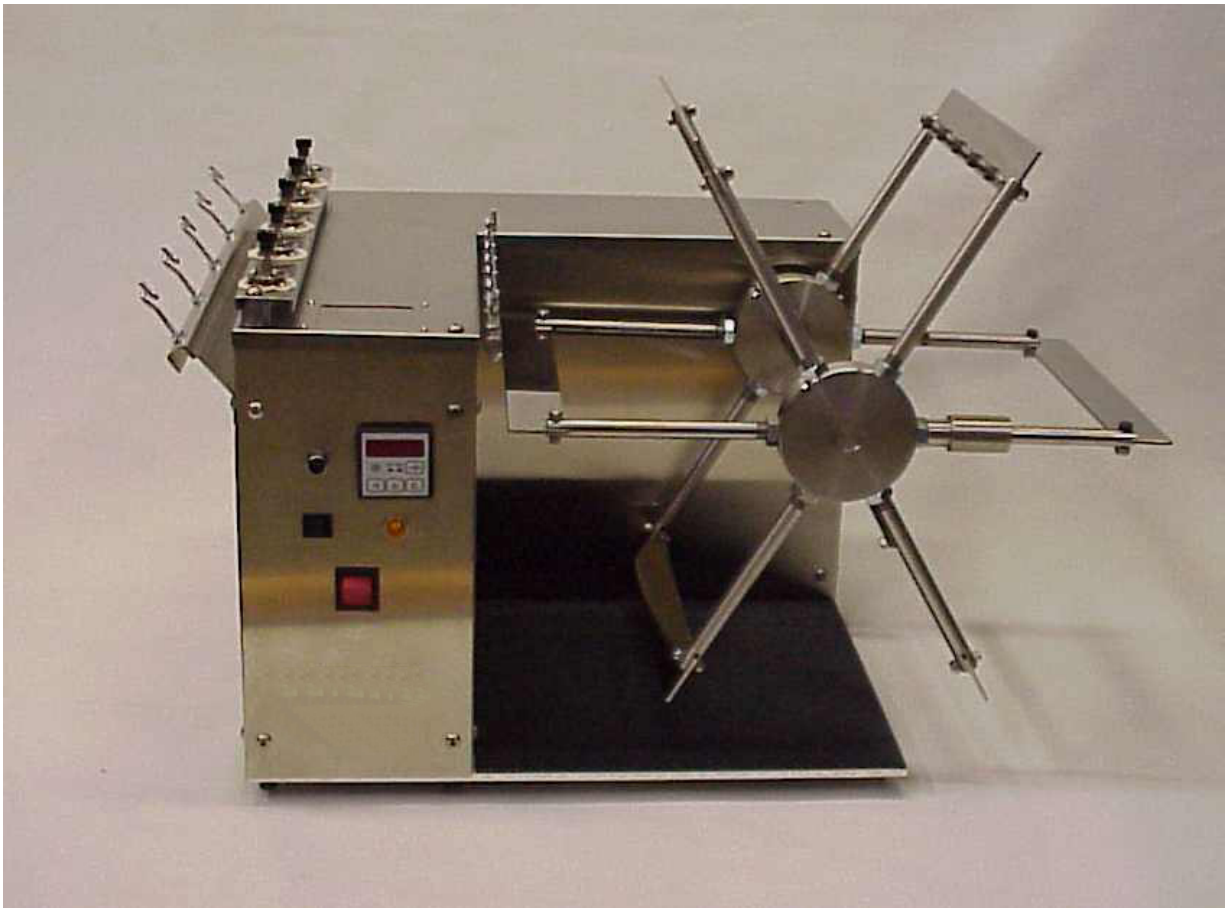
### **Electronic motorized Reel for Slivers and Rovings KFY-1042**



To determine the count (Density) of Slivers and Roving. Variable speed with electronic digital predetermined counter. Available to read in meters (KFY -1042M) or yards (KFY - 1042Y).

## YARN WRAP AND SKEIN REELS

To produce up to 5 skeins of yarn of an accurately predetermined length and number of wraps for further count (Linear Density) determination or skein strength testing. Fitted with 1 meter, 1 yard or 54 inch circumference collapsible swift/reel. Provided pre-tension device and pre-determining electronic counter. Available with hand operated crank or electronic variable speed drive with soft start and braking for accurate length determination.



### Manual Reels

**KFY-1051-M** Wrap reel hand operated (1 meter)  
**KFY-1051-Y** Wrap reel hand operated (1 yard)  
**KFY-1051-54** Wrap reel hand operated (54 inches)

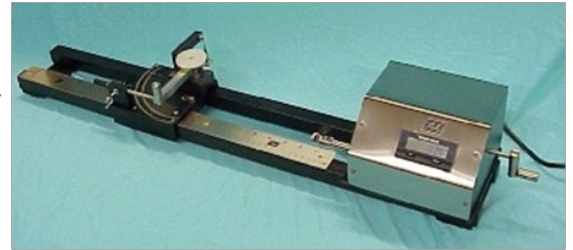
### Electronic Reels

**KFY-1052-M** Wrap reel electronic (1 meter)  
**KFY-1052-Y** Wrap reel electronic (1 yard)  
**KFY-1052-54** Wrap reel electronic (54 inches)

## **YARN TWIST TESTERS**

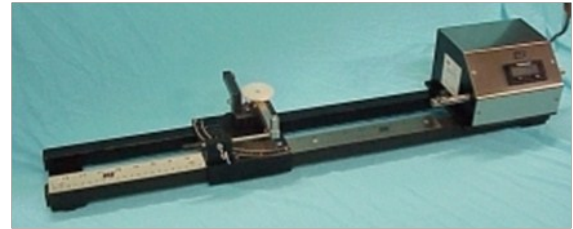
### **Yarn Twist Tester, Hand Operated, with Digital Counter KFY-1061**

Hand operated twist tester, for plied and singles yarn, 0-20 inches and 0-50 centimeters. For both S and Z Twist. Battery activated lamp indicates proper tension and completed test for singles yarns. Counter power supply: specify 120-220 Vac, or battery pack.



### **Yarn Twist Tester, Electronic, Digital Counter KFY-1062**

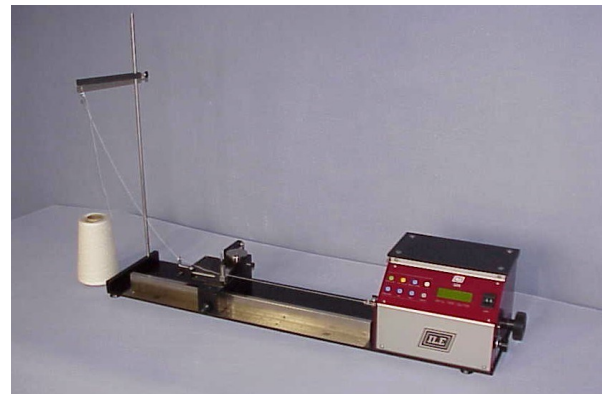
Motor operated twist tester, for plied and singles yarn, 0-20 inches and 0-50 centimeters. For both S and Z Twist. Battery activated lamp indicates proper tension and completed test for singles yarns.



### **Yarn TwistT Tester, Electronic, Semi-Automatic**

#### **KFY-1063**

Semi-Automatic testing of single or plied yarns. Digital displays of twist for sample length tested, as well as twist per unit selected (twist per inch, twist per centimeter). Automatically stops at end of test. Allows multiple test of same sample. Variable speed. Specify 110 or 220 volts, 50/60 Hz.

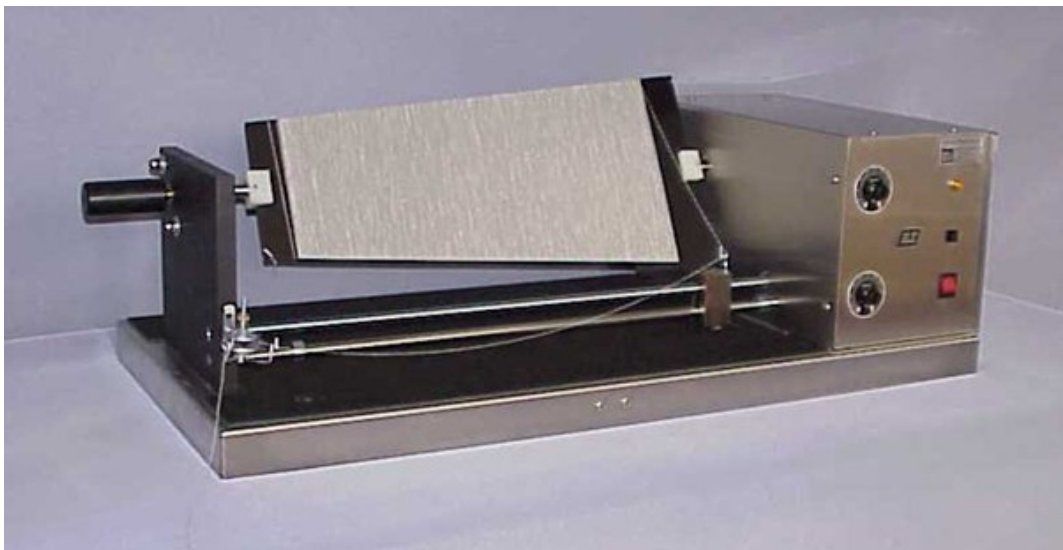




## **YARN EXAMINING MACHINE AND BOARD WINDER**

### **Yarn Examining Machine and Board Winder (Planofil) KFY-1070**

Instrument to check the hairiness and regularity of yarns, thin and thick places and imperfections. It is equipped with electronic speed adjustment, 3 black anodized aluminum maximum boards (trapeziform) of 225x600x155mm dimensions.



**KFY-1071E** 50-75 Yarn count  
**KFY-1071F** 75-135 Yarn count

### **ASTM Yarn Appearance Standards**

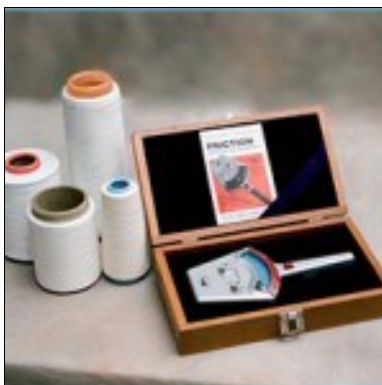
For grading yarns prepared on KFY-1070. Grades A, B, C or D. Six different sets of mounted photographs covering a range of yarn counts (Standard Cotton Counts)

**KFY-1071A** 1-12 Yarn count  
**KFY-1071B** 12-24 Yarn count  
**KFY-1071C** 24-36 Yarn count  
**KFY-1071D** 36-50 Yarn count

## YARN FRICTION METERS

### Portable Yarn Friction Meter KFY-1091

Friction and friction build-up cause yarn breaks as textile yarns come into contact with different surfaces during the manufacturing processes. The interaction between yarn and the other elements such as guides, needles, and machine parts will cause friction. The Yarn Friction Meter is a small, hand held, portable instrument that measures the coefficient of friction very quickly and accurately. It provides feedback on effects of wax, paraffin or sizing materials on the overall yarn friction values.



### Drive unit for Yarn Friction Meter KFY-1092

The drive unit transports yarn through the friction meter, converting it to a laboratory instrument. Fixed drive speed and variable yarn tension.



## DIGITAL FRICTION METER

### KFY-1093

The Digital Friction Meter is a reliable economical method of computing yarn coefficient of friction. Windows software has been added which allows the DFM readout to be connected to your personal computer or lap top with a complete statistical package. Readout data includes coefficient of friction, OF averages with standard deviation, statistical limits for high and low and one-button transfer of results to Excel or a CSV file. Printable graphs and histograms are provided.



### Software

Simple operational friendly, yet powerful software is now available at low cost using Windows OS, in this powerful friction test system, the software includes setup limits for high and low coefficient of friction, S.D. (Standard Deviation) and C.V. % (coefficient of variation) The software automatically stores the data to a preset file for communication with the user's main quality control database or can transfer data to an Excel file with one computer command. The software is able to graph the results and produce a histogram.

### Special Features:

Ability to delete undesirable tests.

Ability to arrange only rejected packages results.

Graph and histogram adjustable scale r automatic mode.

Ability to pre-select length of yarn o run before the test starts, in order to get equilibrium to the new package.

One-step zero calibration.

Printout of test results.

Ability to give alphanumeric identification number to each package tested.

Work with laptop or desktop systems.

USB connection to computer.

# FIBER STRENGTH TESTING SYSTEM

## KFY-1100F

Fibers form the basis of an extensive range of yarns, fabrics and technical textile products. It is essential that elongation and tensile strength is monitored at all stages of production to ensure the base material is suited to the requirements of the finished product. To conduct tests on such fragile material it is necessary that a highly precise delicate strength tester is used, we offer a tester specifically designed for this purpose. It has precision force measurement with a capacity resolution of 500gf x 0.01g and smooth precise crosshead movement with up to 300mm travel x 0.001mm resolution.

Due to the delicate nature of both natural and synthetic fibers very special grips are required. They need to have excellent gripping characteristics and be lightweight yet strong. We have developed pneumatic grips made from special alloy that meet all these requirements. They have hands free operation which is essential for testing such fine materials and are provided with footswitch controls.

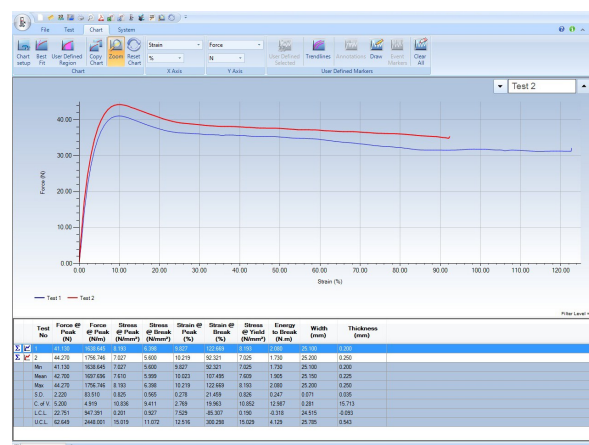


## Software

We provide comprehensive software for fiber testing. It has pre-defined test methods to international standards that include all relevant calculations including tensile strength, elongation, and tenacity among others. Includes graphical results, reports analysis and archiving.

## Meets all international standards including:

ASTM D 1294 Breaking tenacity of wool fiber bundles.  
 ASTM D 5079 Tensile tests on spun fibers.  
 ASTM D 2524 Tensile tests on wool fiber bundles/  
 ASTM D 3106 Residual deformation of elastomeric fibers.  
 ASTM D 3217 Loop tensile test of spun fibers.  
 ASTM D 1445 Bundle strength of cotton fibers.  
 BS 3411 Tensile properties of individual textiles fibers.  
 BS 4029 Tensile elastic recovery of single fibers and filaments.  
 BS 5116 Breaking tenacity of flat bundles of cotton fibers.  
 BS EN 12751 Sampling of fibers for testing.  
 DIN 53843-2 Loop tensile tests of spun fiber.  
 EN ISO 5079 Tensile tests on spun fibers.  
 EN 13895 Tensile tests on monofilament.  
 ISO 3060 Bundle strength of cotton fibers  
 Certain tests will require special grips -Details on request



## YARN STRENGTH TESTING SYSTEM

### KFY-1100Y

As yarn forms the basis for the production of all types of fabrics it is essential that the strength and elongation of the yarn is monitored to ensure that it is suitable for today's high speed production techniques and its performance matches the requirements of the finished product. To ensure high levels of accuracy and repeatable result, we offer testing systems specifically designed for precision yarn testing.

Standard system includes a 500 n (50 kgf) x 0.01g loadcell, 1000mm x 0.001mm crosshead travel, pneumatic yarn grips with footswitch controls and comprehensive test software.

#### Pneumatic Yarn Grips

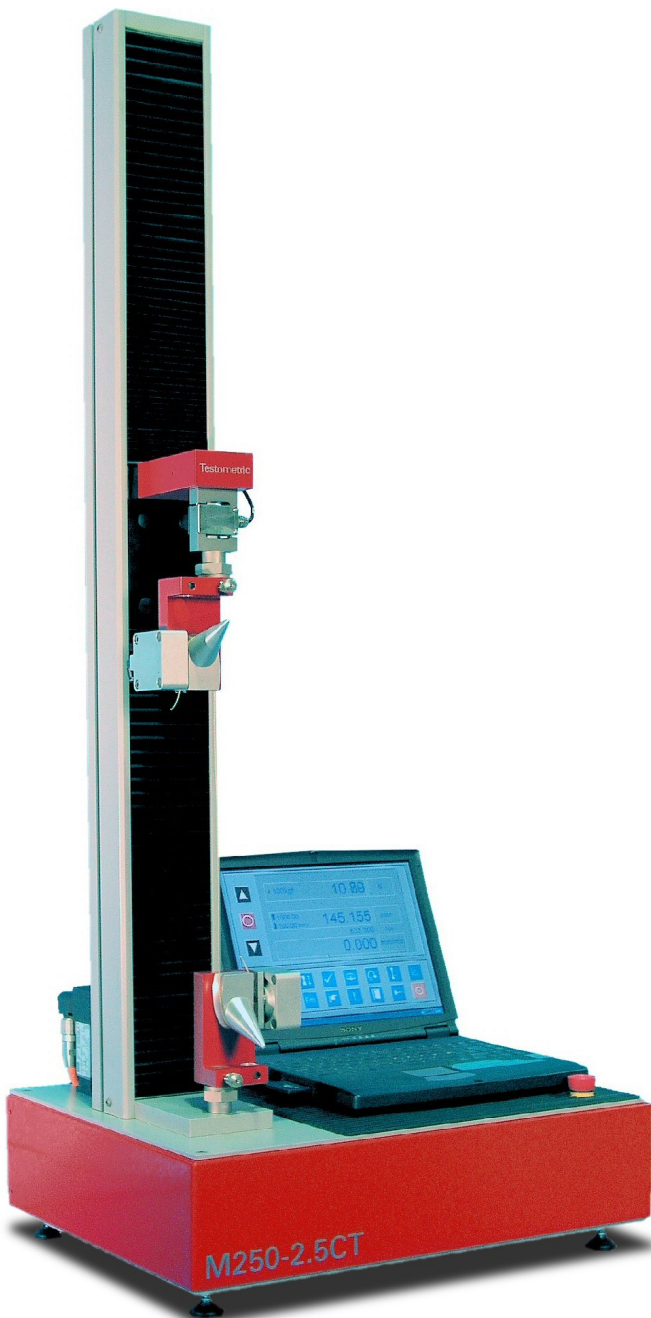
Easy to use capstan and clamp pneumatic yarn grips. Guarantee precision testing without jaw breaks. Individual footswitches for ease of loading and ideal for both research and volume testing.

#### “WINTEST”

Windows software package that covers a complete range of yarn testing. It has pre-defined calculations to international standards including tensile strength, elongation and tenacity among others with graphical displays, reports, analysis and archiving.

Configurable standards include :

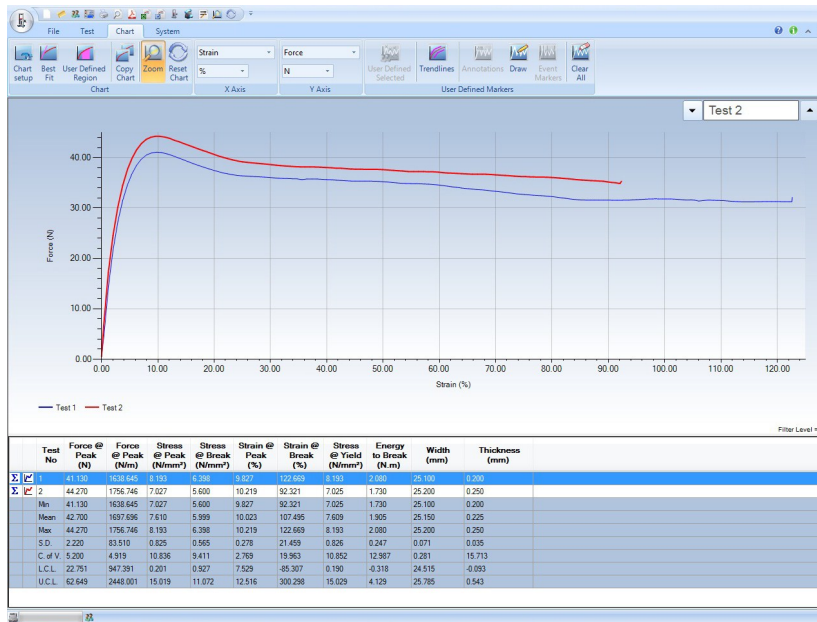
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# YARN STRENGTH TESTING SYSTEM

## “WINTEST” Software Solution



ASTM D 204 Test methods for sewing thread.  
 ASTM D 434 Resistance to slippage of yarns.  
 ASTM D 1578 Breaking strength of yarn in skein form.  
 ASTM D 2256 Tensile properties of yarn single strand method.  
 ASTM D 2653 Tensile properties of elastomeric yarn  
 ASTM D 2731 Elastic properties of elastomeric yarn  
 ASTM D 3106 Permanent deformation of elastic yarns  
 ASTM D 4034 Determination of yarn slippage for upholstery  
 ASTM D 5344 Extension force of partially orientated yarn  
 ASTM D 6720 Recoverability of stretch yarns.  
 BS 1932-1 Knot strength of yarn.  
 BS 1932-2 Loop strength of yarn.  
 BS 4650 Tensile strength of yarn.  
 BS 4674 Tensile strength of yarns.

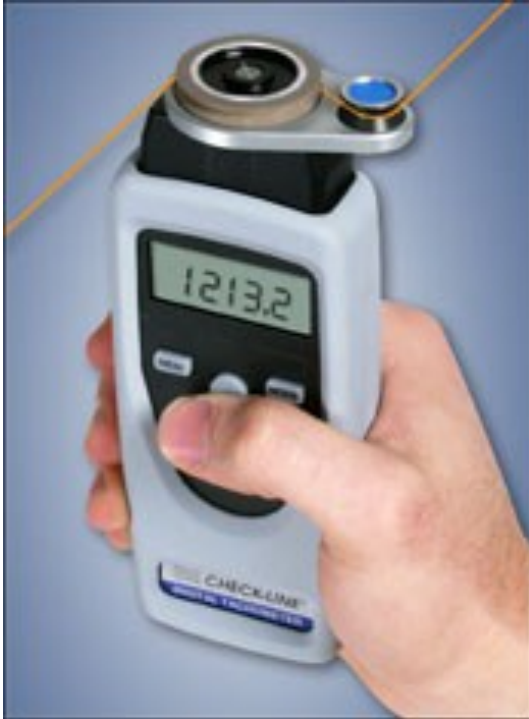
BS 6372 Breaking strength of yarn, skein method.  
 BS EN ISO 2962 Single-end breaking force and elongation.  
 DN 53834-2 Tensile tests of yarn in oven dried state.  
 DN 53835-2 Tensile loading of elastomeric yarns in constant strain limits.  
 DN 53835-3 Tensile loading of yarn between constant strain limits.  
 DN 53835-4 Tensile loading of yarns between constant force limits  
 DN 53842-1 Yarn knot tensile test.  
 DN 53843-1 Tensile test of yarn loops.  
 EN ISO 2062 Tensile test of yarns.  
 ISO 2060 Tensile strength of yarns  
 ISO 2062 Breaking strength of yarns.  
 ISO 3341 Breaking force of textile yarns.  
 ISO 6939 Tensile test of yarn from packages, skein method.

Certain of the above tests will require special machine configurations- Details on request.

## YARN LENGTH AND SPEED METER

### KFY-1110

Two slide-on measuring heads (included) make it simple to rapidly convert from one function to another. The KFY-1110 combines the functions of three separate instruments in one easy-to use device. It accurately measures the speed and length of yarns and filaments using a unique “wrapper roller”. This precision roller directs the filament onto the low-inertia, U-grooved measuring wheel to maximize contact and eliminate yarn or filament slip and breakage. The KFY-1110 also functions as a contact or non- contact tachometer to measure rotational speeds of shafts, motors, pulleys or linear speeds of moving surfaces such as conveyor sssselts, webs of fiber or fabric.



#### More Info:

- Accuracy of +/- 0.02%
- Built in memory for last, maximum, and minimum value.
- NIST Certification Included.

## YARN PACKAGE DENSITY DUROMETERS

The Yarn Package Density Durometer models accurately measure the winding density of textile bobbins, beams, spools, cones, dye packages, rolls, etc.

**Features:**

Constant-pressure indicating system assures uniform test pressure eliminating false reading due to differences between operators. Operation is as easy as pressing the spring loaded knurled aluminum shell down to the red line. Supplied in a foam-fitted carrying case.

**KFY-1121 – Indentor Ball Size 2.5mm**

Application: Closely wound synthetic, hard finish fibers and filaments.

**KFY-1122 – Indentor Ball Size 5.00mm**

Application: Average yarns, threads, fibers, etc, wound with moderate winding density



## KFY-1123 SHORE DUROMETER FOR RUBBER



Available Scales: A, B, C, D, DO, O

HP Series durometers are designed to measure the hardness or firmness of a wide variety of parts and test samples. This unit is designed in accordance with ASTM and DIN quality standards which specify the bottom contact area (working diameter), sensing pin configuration and internal spring forces. Additionally, the displacement of the sensing pin, relative to the dial indicator, is specified by these standards.

The HP Series provides an analog dial indicator calibrated for a range of 0-100 Shore units, an optional memory pointer is available to record the highest recorded reading.

These durometers feature a unique spring-operated test pressure shell, which helps assure that similar test pressures are used for each measurement. This system significantly enhances the measurement repeatability, especially between different operators.

Oversized flat bottom surface makes position of working face (area of contact as specified in ASTM/DIN Standards) convenient and consistent which limits variability between operators.

The HP series is supplied as a complete kit including gauge and instruction manual in a foam-fitted carrying case.

## YARN TENSION METERS

The new Digital Tension Meters employs a strain-gauge system for accurately measuring the running tensions on a wide variety of yarns, fibers and fine wires. Its trigger-operated roller shifting mechanism makes it easy to acquire the running material. Single-button, automatic zero permits operation in any orientation while maintaining highest accuracy.

### Models:

**KFY-1131** – Capacity 50 Grams/cN

**KFY-1132** – Capacity 100 Grams/cN

**KFY-1133** – Capacity 200 Grams/cN

**KFY-1134** – Capacity 500 Grams/cN



### Features:

- Easy-to-read LCD display with auto power off.
- Zed V-grooved guide rollers are rated for speeds up to 2000 m/mm, or optionally, 3500 m/mm
- Powered by rechargeable Lithium Ion batteries, 90 hr battery life with 3.5 hr charge.
- NIST-traceable calibration optionally available.
- Supplies in an attractive foam-fitted case.
- Automatic Zero in all positions.
- User adjustable Damping to “average-out” tension fluctuations.
- \*Please specify Grams or cN readings with order



## WARP TENSION METER

KFY-1135

The Warp Tension meter measures the tension of a section of threads on a warp beam in warping or weaving operations. Multiple applications can detect tension variations across the width of the warp. Mechanical operation, analog readout 0-100 scale. We also offer a wider range of mechanical and digital tension meters for other applications.



## DIGITAL YARN/WIRE TENSION METERS

### KFY-1136-8

Large, easy to read backlit, graphic display with adjustable backlighting and contrast.

#### Features:

- Display shows tension, name of calibration selected, running line minimum and maximum tension values, and battery charge level.
- Select tension values to display in grams, lb., newtons, or cN
- Instruments come with calibrations for numerous yarn and filament sizes
- Up to 10 additional custom calibrations may be programmed into instrument (all calibrations are password protected)
- Choose your calibration by first highlighting and selecting the material (either wires, filaments, or custom), then the units of measurement (inches, mm or custom). Lastly, select the material size or gauge number, and push "Enter". The instrument automatically adjusts to the calibration you've selected with a full-scale accuracy of  $\pm 1\%$ .
- Selectable LCD refresh rates allow for stable digital readings.
- Re-chargeable NIMH batteries and power supply provided. Approximately 9 hours of operation per battery charge. Automatic shut-off after 10 minutes of non-use.
- Instruments may be operated continuously while connected to power supply.
- Numerous application-specific models available.
- All instruments factory-calibrated and ready for use. Calibration certificate included.
- All calibration values traceable to National Standards.



Model No.	Range	Resolution	Tension Units
KFY-1136	0-125g	0.1 to 1g	cN, grams or lb
KFY-1137	10-1000g	1 to 5g	N, grams or lb
KFY-1138	50-5000g	5 to 10g	N, grams or lb

## **REFRACTOMETER FOR SIZING SOLUTIONS**

### **KFY-1140**

Portable refractometer, to measure the percentage of starch or solids in a solution.  
Scaled 0-30% x 0.2%



## YARN SAMPLE WINDER

### KFY-1150

Yarn sample winder for single card to be used for spectrophotometer analysis and archive purposes. It is equipped with mechanical pretension device and digital counter. The number of passages can be preset. Adjustable winding pitch with automatic forward and reverse movement. Variable winding width. 220V 50Hz or 110V 60Hz available.



## MELT FLOW INDEX TESTERS

The New **KFY-1160X MFI** series melt flow indexers are designed to meet or exceed the ASTM D1238 specifications as well as international standards. They provide an accurate, cost-effective means of monitoring material flow characteristics for lot-to-lot consistency. The new KFY-1160X LMI replaces the KFY-1160 series and incorporates key features:

**Touch-Screen Display...** Replacing the 2-line vacuum fluorescent display, the larger, backlit touch-screen allows for easier programming and viewing of testing status and results.

**Digital Encoder...** An optional digital encoder provides an accurate measurement of piston displacement during Method B tests. By detecting the speed of encoder movement, the LMI can automatically determine flag length.

**USB connectivity.** With 3 USB ports (1 master, 2 slaves) users can connect to devices for networking, printing, weigh scale measurements and data storage capability.

**LAVA suite Software...** The MFI is capable of delivering a wider range of data in digital form. This includes not only melt index values, but also shear stress, shear rate, viscosity and apparent melt density, as well as testing conditions. Optional software makes it possible to record these values and present them in various reports.



### Meets international standards:

ASTM D1238 & D3364, ISO 1133, BS2782, DIN 53735, JIS K7210

### KFY-1160X MELT FLOW INDEXER (ASTM D1238 METHOD A)

Includes (1) tungsten carbide orifice, touch screen programmer, operation to 500 degrees C, choice of (1) stainless steel weight: 225, 1100, 2060, 3700, or 4900 grams, GO/NOGO gauge, cleaning and operating tools.

Note: The KFY-1160X LMI is capable of performing Method A testing only. It cannot be upgraded for Methods A/B or B testing.

### KFY-1161X DIGITAL ENCODER

The Digital encoder provides a high precision measurement of piston displacement and is a required option to enable the performance of ASTM D1238 Method A/B and B tests. It can only be factory-fitted to new model KFY-1160X LMI

### Optional extra weights in addition to the one supplied as above :

- KFY-1162** 225 gm, stainless steel piston weight
- KFY-1163** 1100 gm, stainless steel piston weight
- KFY-1164** 2060 gm, stainless steel piston weight
- KFY-1165** 3700 gm, stainless steel piston weight
- KFY-1166** 4900 gm, stainless steel piston weight

**KFY-1167 LAVA SUITE SOFTWARE...** With the optional software the MFI is capable of delivering a wider range of data in digital form. This includes not only melt index values, but also shear stress, shear rate, viscosity and apparent melt density, as well as testing conditions and reports.

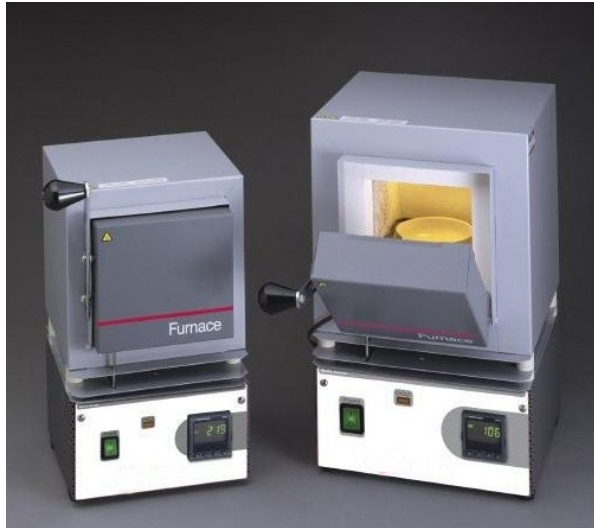
**KFY-1168 Basic Cleaning Tool Kit (recommended)** - cleaning tools and accessories for LMI that includes - brushes, bubble level, cleaning drill bit, go-no/go gauge, palette knife, funnel, cleaning patches and inspection mirror.



## ASHING OR MUFFLE FURNACES

### KFY-1170/KFY-1171

Used in the textile & fiber industries for high temperature ashing tests on wool, other fibers or fabrics and ignition tests.



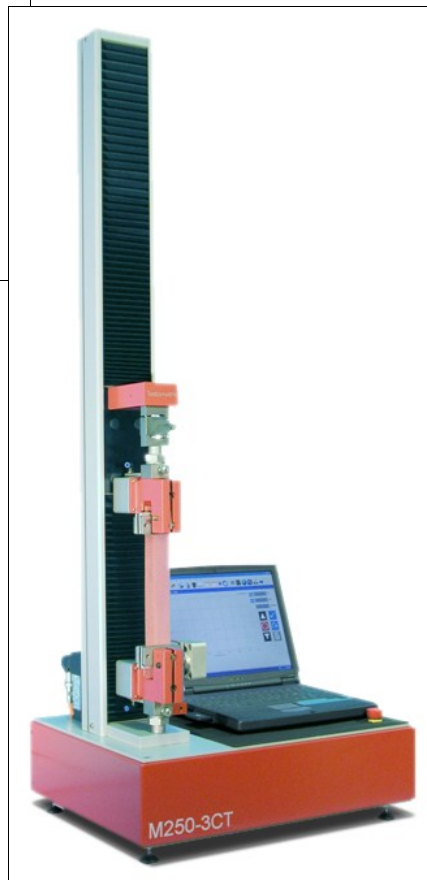
#### Additional Information

- Quick heat up to 1100°C maximum
- Digital single set point control
- Chamber capacities of 76 or 129 cu. in.

Small benchtop muffle furnaces feature ceramic fiber insulation that provides fast heat up while lowering energy use. Embedded heating elements on top and sides promote uniform temperature within the chamber over a range of 100° to 1100°C. A 0.38" diameter port at the rear of the chamber allows insertion of an independent measuring device to monitor chamber temperature. Chambers have a volume of 76 (5300A01) or 129 cubic inches (5300A05). Chamber interiors measure 5" D x 3.8" H x 4" W and 5.6" x 4.9" x 4.7", respectively. Operation is via a digital single setpoint control and a single display shows actual temperature or setpoint. Furnace design incorporates a variety of safety features including a door safety switch that cuts off power to the heating elements when opened and a thermocouple break protector cuts power to the heating elements to prevent overheating in the event of thermocouple failure. Applications also include heat-treating of small steel parts, determination of volatile and suspended solids, ashing of organic and inorganic samples, ignition tests and gravimetric analysis.

- **KFY-1170** Muffle Furnace 1100 deg C, chamber 10.2 x 9.5 x 11.4 cm deep, wt 7.1 kg
- **KFY-1171** Muffle Furnace 1100 deg C, chamber 12.7 x 10.8 x 15.2 cm deep, wt 10.4 kg

## FABRIC AND GARMENT TESTING EQUIPMENT AND ACCESSORIES



6541 Franz Warner Parkway  
Whitsett, NC 27377 USA

Info.TextileTestKing@JAKing.com  
+ 1 866 802 6703

[WWW.TailoredForTextiles.COM](http://WWW.TailoredForTextiles.COM)

## PRODUCT GUIDE

Part Number	FABRIC AND GARMENT TESTING EQUIPMENT AND ACCESSORIES
KFG-2005A	Rotary Hand Cutter
KFG-2005B	Spare 45mm dia. Blade
KFG-2006A	Salem Cutting Mat 18.5 x 24.5"
KFG-2006B	Salem Cutting Mat 24.5 x 36.5"
KFG-2006C	Salem Jumbo Cutting Mat 47.5 x 96.5"
KFG-2010	SE8 Clicker Press, Hydraulic
KFG-2010A	Spare cutting pad for SE8
KFG-2010B	SE20C Clicker Press, Hydraulic
KFG-2010C	Spare cutting pad for SE20C
KFG-2011	Clicker press pneumatic model 700
KFG-2011A	Cutting table/stand for model 700 clicker press
KFG-2011B	Spare cutting bed for clicker 700
KFG-2012	Clicker press pneumatic model 1500
KFG-2012A	Cutting table/stand for model 1500 clicker press
KFG-2012B	Spare cutting bed for clicker 1500
KFG-2013	Clicker dies-forged steel 1.25" x 0.25" sandblasted & ptfе coated
KFG-2021	DIGITAL THICKNESS TESTER- for ASTM D1771 option 1, 1.129" dia presser foot, 0.6 psi load, 1" range
KFG-2022	DIGITAL HANDHELD THICKNESS GAUGE 2" THROAT, 1/2" RANGE, 1/2" dia anvils
KFG-2023	DIGITAL HANDHELD THICKNESS GAUGE 6" THROAT, 1" RANGE, 1/2" dia anvils
KFG-2024	ANALOG HANDHELD THICKNESS GAUGE 0.375" THROAT, 0.312" RANGE
KFG-2025	ANALOG HANDHELD THICKNESS GAUGE 9.5mm THROAT, 7.9mm RANGE
KFG-2031	Crockmeter manual
KFG-2032	Crockmeter electronic
KFG-2035	Gakushin Rubbing and Colorfastness tester - 6 position
KFG-2041	Perspiration tester
KFG-2042	Acrylic separator plates (pack of 42)
KFG-2043	Set of chemicals for perspiration tests
KFG-2045	Steaming Cylinder
KFG-2050A	Colorfastness to washing tester, 8 positions
KFG-2050B	Colorfastness to washing tester, 12 positions
KFG-2051	550ml washing container, each
KFG-2052	1200ml washing container, each
KFG-2053	6mm dia steel balls for wash tests (250)
KFG-2054	10mm dia rubber balls for wash tests (200)
KFG-2055	Stainless steel discs for dry-cleaning (25)
KFG-2056	Seals for 550ml containers (8)
KFG-2057	Seals for 1200ml containers (8)

## PRODUCT GUIDE

### Part Number FABRIC AND GARMENT TESTING EQUIPMENT AND ACCESSORIES

KFG-2061	Taber abrasion tester, single station
KFG-2062	Taber abrasion tester, dual station
KFG-2065	Wyzenbeek Abrasion tester - 4 position
KFG-2065A	Wyzenbeek Mesh Screen abradent (pack of 4)
KFG-2065B	No 10 Cotton Duck abradent fabric 60 " wide x 5 yds
KFG-2065C	Wyzenbeek pressure pad (pack of 8)
KFG-2065D	Sample Support foam 12 x 12 x 1/4" (pack of 50)
KFG-2070	Universal strength and elongation testing systems
KFG-2075	Static Extension Tester
KFG-2081	Horizontal flammability tester
KFG-2082	45 degree Automatic flammability tester
KFG-2082A	Brushing device
KFG-2082B	Spare burners (5)
KFG-2082C	Spare sample holders (5)
KFG-2083	Vertical flammability tester
KFG-2083A	Accessories for ASTM D6413
KFG-2083B	Accessories for 16 CFR 1615/1616
KFG-2083C	Accessories for TB-112
KFG-2084	Manual gas control for KFG-2081 or 2083
KFG-2085	Automatic gas control for KFG-2081 or 2083
KFG-2086A	Fume hood complete 47" wide
KFG-2086B	Fume hood complete 70" wide
KFG-2091	Oven/Incubator 30 liter capacity
KFG-2092	Oven/Incubator 120 liter capacity
KFG-2093	Economy Incubator only 30 to 90 degrees C, 1.4 cu ft/40 liter capacity
KFG-2094	Economy Oven only 50 to 210 degrees C, 1.7 cu ft/48 liter capacity
KFG-2095	Laboratory timer and stopwatch-large digital display
KFG-2100	Laboratory centrifuge - 120v
KFG-2100A	Laboratory centrifuge - 230v
KFG-2110	Laboratory conditioning chamber 1.5 cu ft
KFG-2111	Laboratory conditioning chamber 6.0 cu ft
KFG-2112	Laboratory conditioning chamber 10.0 cu ft
KFG-2113	Two channel automatic programmer
KFG-2114	Recirculating humidity system
KFG-2115	Laboratory Air Conditioning System 10 KW/3 TON/49000 BTU
KFG-2116	Laboratory Air Conditioning System 17.5 KW/5 TON/86000 BTU
KFG-2117	Spares and Consumables Package for KFG-2115-2116 (For 1 year)

## PRODUCT GUIDE

### Part Number FABRIC AND GARMENT TESTING EQUIPMENT AND ACCESSORIES

KFG-2121	Temperature and humidity recorder
KFG-2122	Pack of 100 recorder charts - 7 day
KFG-2123	Pack of 5 recorder pens - red
KFG-2124	Pack of 5 recorder pens - blue
KFG-2125	RH and temperature meter - digital
KFG-2130	Water quality system, Reverse Osmosis, Deionizer, 200 g/day
KFG-2130A	Deionized water quality monitor for KFG-2130
KFG-2130B	One year operating supply package for KFG-2130
KFG-2140	Silent laboratory compressor 2.1 cfm
KFG-2141	Silent laboratory compressor 4.2 cfm
KFG-2150	Color assessment cabinet
KFG-2151	45 degree fixed angle table
KFG-2152A	AATCC Viewing Board
KFG-2153	Pilling Assessment Viewer
KFG-2154	Light Cabinet 1200mm/48 inches wide
KFG-2155	FM100 Hue test kit
KFG-2156	Ishihara Color Blindness Test Volumes
KFG-2161	Compound microscope, digital
KFG-2162	Stereo zoom microscope, digital
KFG-2163	Illuminated pocket zoom microscope
KFG-2164	Universal microscope illuminator
KFG-2171	pH and temperature meter, digital
KFG-2171A	Bench stand for pH meter and electrodes
KFG-2172	pH and temperature pocket tester
KFG-2180	Folding pocket thermometer, digital
KFG-2190	Textile moisture meter - digital
KFG-2191	Calibration probes (set of 2)
KFG-2201	Digital tachometer
KFG-2202	Pocket stroboscope
KFG-2203	High-speed LED stroboscope
KFG-2210	Light meter digital
KFG-2221	Steel Ruler 12", calibrated
KFG-2222	Steel Ruler 20", calibrated
KFG-2223	Steel Ruler 40", calibrated
KFG-2224	Steel tape measure 144", calibrated
KFG-2231F	Lunometer thread counter 25-60 lines/inch
KFG-2231G	Lunometer thread counter 38-86 lines/inch
KFG-2231R	Lunometer thread counter 50-120 lines/inch
KFG-2232	Illuminated magnifier
KFG-2233	Pick counting/piece glass/thread counter
KFG-2234	Dissecting needles/picking sticks (12)
KFG-2235	Automatic pick/thread counter, digital
KFG-2236	Laboratory stand for automatic pick counter



## PRODUCT GUIDE

Part Number	FABRIC AND GARMENT TESTING EQUIPMENT AND ACCESSORIES
KFG-2237	Digital Fabric Pick Counter
KFG-2240	AATCC Wrinkle tester
KFG-2241	AATCC Wrinkle recovery replicas
KFG-2250	Digital stirring hotplate
KFG-2251	Magnetic Hot Plate Stirrer
KFG-2252	Magnetic Hot Plate Stirrer, only
KFG-2253	Magnetic PTFE Stirrer Bars
KFG-2260	Spray rating tester
KFG-2261	AATCC spray rating chart
KFG-2262	Replacement spray nozzle
KFG-2270	Easy Cutter electric scissors
KFG-2280	Laboratory padder
KFG-2281	Liquor trough for padder
KFG-2291	Viscometer - digital, low viscosity
KFG-2292	Viscometer - digital, medium viscosity
KFG-2300	Euro fabric yield system
KFG-2300A	Euro fabric yield - cutter only 100 sq. cm, blades and pad
KFG-2300B	Euro fabric yield - programmed balance only, 210g x 0.01g
KFG-2301	Spare cutting pads - Pack of 10
KFG-2302	Spare cutting blades - Pack of 100
KFG-2310	Certified top loading washing machine
KFG-2311	Certified front loading dryer
KFG-2312	Wascator FOM71CLS reference washer to ISO6330/1984/2000
KFG-2312A	Stability template and shrinkage rule for ISO 6330/ Wascator
KFG-2313	Precision digital tumble dryer 5 kg to ISO6330
KFG-2314	Miele PW 6065 Washer Extractor
KFG-2314A	Miele PT 7136 Precision Tumble Dryer
KFG-2315	Durawash Plus
KFG-2320 V	Veslic Rub Fastness tester
KFG-2320PB	Black felt pads for Veslic (pack of 100)
KFG-2320PW	White felt pads for Veslic (pack of 1000)
KFG-2330	Bally Flexometer
KFG-2330B	Bally Flexometer with remote controls
KFG-2330C	Bally Cold Flexometer System
KFG-2340	ICI Mace Snag Tester
KFG-2341	Viewing Cabinet for KFG-2340
KFG-2350	Hexapod Tumbler Carpet Tester
KFG-2351	Hexapod Tumbler PU Feet - pack of 6
KFG-2360	Pilling Tester for fabric, brush and pad, to ASTM D3511
KFG-2361	Pilling Tester, for fabric, brush, sponge and Velcro to Ford BN 108-03
KFG-2361	Pilling Tester, for leather with 25lb weights and clamps to Ford BN 108-14
KFG-2370	KFG-2370 ICI Pilling Tester with 2 boxes
KFG-2371	KFG-2371 ICI Pilling Tester with 4 boxes

## PRODUCT GUIDE

Part Number	FABRIC AND GARMENT TESTING EQUIPMENT AND ACCESSORIES
KFG-2380	Random Tumble Pilling Tester (2 Test Chambers)
KFG-2381	Random Tumble Pilling Tester (4 Test Chambers)
KFG-2390	4 position Martindale Abrasion Tester
KFG-2391	6 position Martindale Abrasion Tester
KFG-2392	8 position Martindale Abrasion Tester
KFG-2393A	Pilling test accessories to ISO 12945-2 (4 position)
KFG-2393B	Pilling test accessories to ISO 12945-2 (6 position)
KFG-2393C	Pilling test accessories to ISO 12945-2 (8 position)
KFG-2394A	38mm diameter sample cutter
KFG-2394B	140mm diameter sample cutter
KFG-2395A	EMPA pilling photographs knitted fabrics
KFG-2395B	EMPA pilling photographs woven fabrics
KFG-2401	Solarbox 1500e Xenon Arc light fastness tester enhanced model
KFG-2402	Solarbox 1500e RH Xenon Arc light fastness tester with humidity control
KFG-2403	Solarbox Calibration multimeter without sensors
KFG-2403A	Calibration Sensor 295-400nm. Wide band total UV sensor
KFG-2403B	Calibration BST (Black standard temperature) sensor
KFG-2403C	Solarbox 1500 watt xenon arc lamp (spare)
KFG-2403D	Solar box air filters (pack of 3 - spare)
KFG-2410	Dry Cleaning and Washing Cylinder
KFG-2420	Scorch and Sublimation Tester
KFG-2430	Bean Bag Snag Tester
KFG-2440	Gas Fume Chamber
KFG-2450	Elmendorf Tear Tester
KFG-2460	Dart Drop Impact Tester
KFG-2500	Pneumatic Padder
KFG-2505	Minidryer and Stenter
KFG-2510	Laboratory Pad-Steam Range
KFG-2515	Laboratory Pad-Thermosol Range
KFG-2550	Infrared Laboratory Dyeing System
KFG-2560	Eco Dyer Laboratory Dyeing Machine

## HAND SAMPLE CUTTERS AND CUTTING MATS



### Rotary Hand Cutter

#### KFG-2005

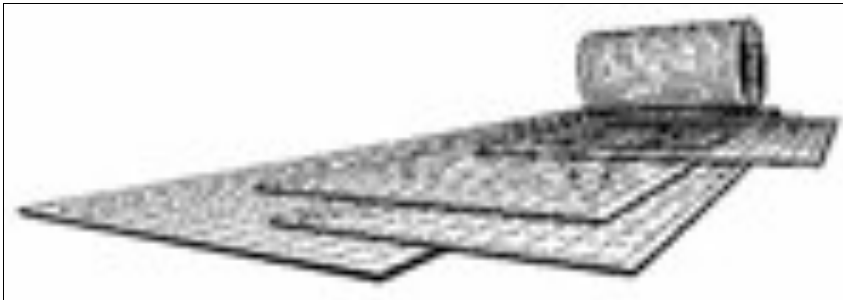
With a safety guard and release button.

Ergonomically designed to reduce hand fatigue.

45mm diameter hardened steel blade mounts on either side for left or right handed users.

#### KFG-2005B

Spare Blade 45mm diameter



### Salem Self-Healing Cutting Mats

Ship rolled up for economical shipping costs; flatten out on table-top easily, more quickly with the help of a hair dryer. Tough enough to cut on, but soft enough to accept push-pins to stabilize fabrics. Standard size mats have 1" square grids printed in red. All mats are 1/8" thick reversible and semi-transparent.

- KFG-2006A Salem Cutting Mat 18" x 24.5"
- KFG-2006B Salem Cutting Mat 24.5" x 36.5"
- KFG-2006C Salem Jumbo Cutting Mat 47.5" x 96.5"

(for full size cutting table – can be trimmed to size).

## CLICKER PRESS

Swing Arm (Clicker Presses) are used for a wide variety of die cutting applications. The most common uses are cutting soft to semi-rigid materials such as fabrics, leather, cork, rubber, foam and other like materials. Our clicker presses are used in many laboratories and testing facilities.

### Features:

- Completely hydraulic and made of strong casting material, ensuring powerful, yet quiet running.
- Ensures maximum beam strength and performance. All moving parts are made of hardened steel and are self-lubricating
- Automatic stroke end setting
- Different height cutting die without adjustment
- Control push buttons with built in device for 3/10 of second maximum delay operation to ensure safety
- Overload protection
- 1 year warranty on parts, excluding cutting pads

### Clicker Press, Hydraulic Model SE8

#### KFG-2010

Cutting table 12 x 24 inches  
Top arm width 12 inches  
Cutting pressure 8 tons  
Maximum stroke 3.5 inches  
Dimensions /weight 24 x 27 x 53 inches x 946 lbs

### Clicker Press, Hydraulic Model SE20C

#### KFG-2010B

Cutting table 14.5 x 36 inches  
Top arm width 14.5 inches  
Cutting pressure 20 tons  
Maximum stroke 3.5 inches  
Dimensions /weight 36 x 33 x 56 inches x 1350 lbs



#### KFG-2010A

Replacement cutting bed for the SE8 clicker press, 12 x 24 x 1" thick, white HDPE.

#### KFG-2010C

Replacement cutter pad for SE20C, 14.5 x 36 x 1 inch thick HDPE

## **CLICKER PRESSES, PNEUMATIC MODELS 700/1500**

The Clicker 700 delivers 7 tons of cutting pressure at the touch of a button. With this kind of cutting power, you can count on the Clicker 700 to deliver a perfect die cut every time. The Clicker can cut a wide range of materials such as plastics, rubber, fabrics, gaskets, leather, paper, stocks, etc.

The Clicker cast-iron "C" frames allow for easy loading of dies and materials. Just place the die and material on the Cutting Deck, press the Dual Palm Buttons, and in less than three seconds you will have a perfect die cut.

Designed with very few moving parts, Clickers are easy to operate and maintain. The patented Air System raises the Cutting Deck to give you 7 tons of cutting pressure. Requiring no electricity or hydraulics, this die cutter operates off 80-100 PSI of air pressure.

The Clicker 700's medium capacity cutting area 12" x 12" allows for countless die cutting patterns, we also offer the Clicker 1500 which delivers up to 15 tons of cutting pressure and has a 12" x 24" cutting area.

**\*\*Don't forget to view our custom die section. We can manufacture just about any custom die to your exact specifications. See below.**

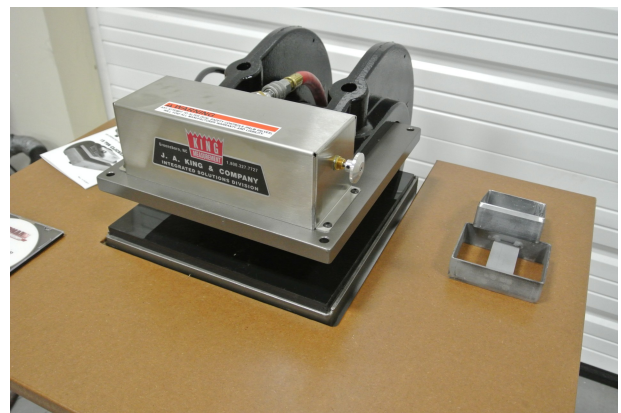


**Clicker 700**

**KFG-2011**

- Cutting Pressure 7 Ton
- Cutting Area 12" x 12"
- Deck clearance 2.0"
- Travel of deck is adjustable up to 1.0"
- Recommended die height 1.25"
- Approximate Shipping weight 260 lbs.
- Operating Pressure 80-110 PSI
- Overall Dimensions 12" W, 19" D, 13" H

6541 Franz Warner Parkway  
Whitsett, NC 27377 USA



**Clicker 1500**

**KFG-2012**

- Cutting pressure 15 ton
- Cutting Area 24" x 12"
- Deck clearance 2.0"
- Travel of deck is adjustable up to 1.0"
- Recommended die height 1.25"
- Approximate Shipping weight 560 lbs.
- Operating Pressure 80-110 PSI
- Overall Dimensions 24" W, 20" D, 14" H

Info.TextileTestKing@JAKing.com  
+ 1 866 802 6703

**[WWW.TailoredForTextiles.COM](http://WWW.TailoredForTextiles.COM)**



## **CUTTING TABLES FOR CLICKER 700 AND 1500**

To ensure ease of operation, the lower deck of the Clicker Press needs to be level with surrounding table for ease of loading samples and dies. Rather than fabricating a custom-built table or bench, our prebuilt tables have the correct ergonomics and features to match your Clicker Press.

**KFG – 2011A** Cutting Table for Clicker 700

**KFG – 2012A** Cutting Table for Clicker 1500

**KFG – 2011B** Replacement Cutting Bed for the Clicker 700

The replacement cutting beds are constructed of durable high density polyethylene (HDPE) 12" x 12" x ½" Thick.

**KFG-2012B** Replacement Cutting Bed for the Clicker 1500

The replacement cutting beds are constructed of durable high density polyethylene (HDPE) 12" x 24" x ½" thick.

### **Clicker Dies – Forged Steel**

#### **KFG-2013**

Custom – made Forged Steel Clicker Dies, 1/¼" x ¼" cross-section, with straight or pinked cutting edges, sandblasted and PTFE coated for durability and ease of sample removal. The hardened cutting edges will last for years, although a resharping and reconditioning service is

available for dull or damaged dies. Suitable for all Hydraulic or Pneumatic presses. Provide dimensions or sketch for your personal 48 hour quotation.



## FABRIC THICKNESS TESTERS

### KFG-2021

Digital thickness tester designed to accommodate testing to ASTM D1777, option 1, with pressure foot of 1.129" dia under a load of 0.6 Psi, digital display of thickness up to 1" or 25mm.



### KFG-2022

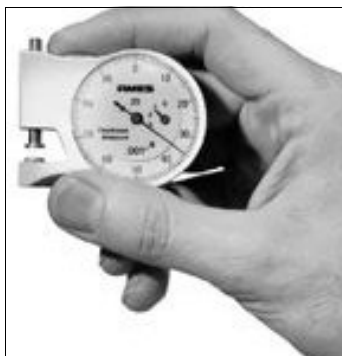
Hand held digital thickness tester, 1/2" dia contacts, 1/2"/12.5mm range, 2" throat depth.

### KFG-2023

Hand held digital thickness tester, 1/2" dia contacts, 1"/25mm range, 6" throat depth.

### KFG-2024

Pocket thickness tester, 1/2" dia contacts, 0.312" x 0.001" range, 0.375" throat depth, supplied with leather case.



### KFG-2025

Pocket thickness tester, 12.7mm dia contacts, 7.9mm x 0.01mm range, 9.5mm throat depth, supplied with leather case.

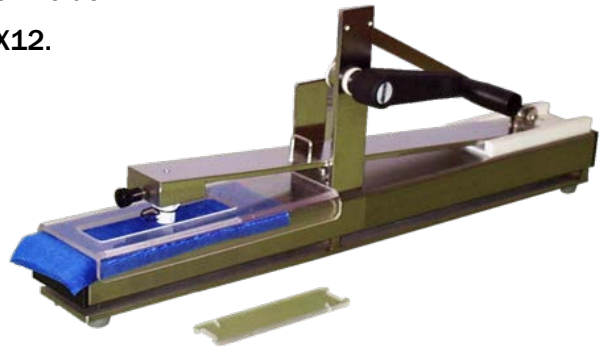
## **CROCKMETERS, MANUAL AND ELECTRONIC**

### **Manual Crock Meter**

#### **KFG-2031**

Measures colorfastness to rubbing of textiles. Fitted with hand crank and mechanical counter.

- 16mm dia Acrylic Test Finger and steel specimen holder.
- Complies with AATCC TM 8/165 and ISO 105 D02 X12.



### **Electronic Crockmeter**

#### **KFG-2032**

Measures colorfastness to rubbing of textiles.

- Motor driven with digital presettable counter for up to 1000 rubs.
- 16mm dia Acrylic Test Finger and steel specimen holder.

Complies with AATCC TM 8/165 and ISO 105 D02 X12.

#### **KCT-3020**

Precut Crocking Cloths 2" x 2" (Pack of 1000)

#### **KCT-3030**

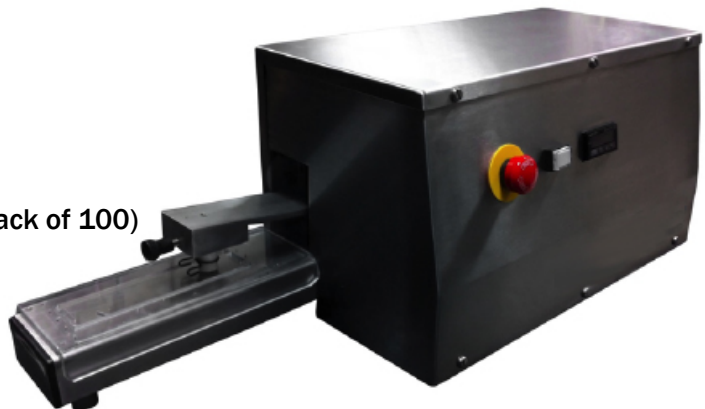
Crockmeter Calibration Fabric (Pack of 25)

#### **KCT-3031**

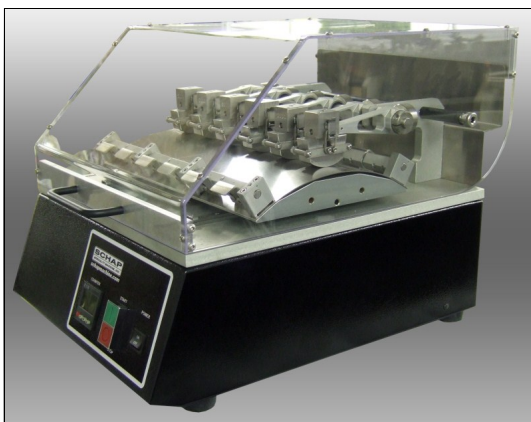
Emery Paper for Crockmeters 4.5" x 5.5" (Pack of 100)

#### **KCT- 3061**

Gray Scale (Staining)



## **GAKUSHIN TYPE RUBBING AND COLOR FASTNESS TESTER**



### **KFG-2035**

A six station bench top machine used for evaluating a material resistance to rubbing motion. Each station includes a pair of suitable clamps for attaching the test sample to the moving platen and a weighted rubbing arm with two suitable clamps for attaching the rubbing material. The operator loads as many stations as desired and flips back the rubbing arms on the unused stations. The desired number of test cycles is entered on the cycle counter and the test is started. Once the cycle count is reached the machine will automatically stop. Test samples are visually evaluated. This is a heavy duty machine capable of operating with 1300g of weight on each station.

#### **Features:**

Cycle counter with automatic stop.

Two complete set of test heads, one set of test head weighing 200 grams each and one set of test heads weighing 500 grams each.

A complete set of additional weights six of 100 grams, six of 300 grams, six of 400 grams, and six of 800 grams. All weights fit both 200 and 500 gram test heads.

Each test arm is counterbalanced to offset its own weight.

1/8 H P. 90 VDC motor with an internal adjustable speed control.

#### **Standards:**

- JIS L0823 Section 3 2
- JIS L0849 Type 11
- Mazda MES MN 405
- Nissan NES M0155
- Section 16
- JIS 10801
- JIS 0862
- JIS 1084
- TR 396B

## **COLORFASTNESS TO PERSPIRATION TESTERS**

### **Perspiration Test Kit**

#### **KFG-2041**

Determines Colorfastness of Textiles to human perspiration. Consisting of two stainless steel frames which can each be loaded with up to 20 samples of 10 x 4 cm between the supplied acrylic separator plates. Loading weights for AATCC TM 15/106/107 and ISO 105 E01/2/4 are included.

### **Acrylic Separator Plates**

#### **KFG-2042**

Spare set of 42 Acrylic Separator Plates.

### **Oven/Incubator**

#### **KFG-2093**

Incubator 30-90 degrees C, 40 liters capacity

### **AATCC and ISO Perspiration Tests Chemicals**

#### **KCT-2043**

Set of chemicals for AATCC and ISO Perspiration Tests, includes:

- 500g Sodium Chloride
- 500g Sodium Dihydrogen Orthophosphate
- 500g Disodium Hydrogen Orthophosphate
- 200g L'Histidine Monohydrochloride

### **Multifiber Adjacent Fabric**

#### **KCT-3001-CC**

Multifiber Adjacent Fabric AATCC, 2 x 2" cold cut  
(Pack of 1000) for static colorfastness tests.

### **Multifiber Warp Stripe Ribbon**

#### **KCT-3002**

Multifiber Warp Stripe Ribbon ISO, 4 x 10cm (Pack of 1000).

### **AATCC Gray Scale**

#### **KCT-3061**

AATCC Gray Scale (Staining)





## STEAMING CYLINDER

### KFG-2045

The Steaming Cylinder subjects four cloth specimens at a time to dry saturated steam at atmospheric pressure. The specimens are given no mechanical restraint and there is no subsequent vacuum cooling.

The device provides a reproducible measure of the component of shrinkage occurring in steam pressing attributable to latent strains in the cloth supplied. Any further shrinkage that may occur arises from the characteristics of the pressing process itself.

The Steaming Cylinder is invaluable in maintaining good communications between clothiers and their suppliers on the specification and performance of woven and knitted fabrics.

#### Features:

- Recommended by leading retailers and manufacturers
- Facilitates prediction of cloth shrinkage in making -up
- Gives a reproducible measure of “relaxation” shrinkage
- International standard test method
- Provides a rapid routine test for process control
- Extensive use throughout industry and large retailers
- Ergonomic design crafted in fine stainless steel



Conforms to: ISO 3005:1978

BS 4323:1979 [1995] IWT0-29-76[E]

Marks & Spencer standard test method P8

Dimensions: Width: 550mm Depth: 480mm

Height: 340mm

Power Consumption: 3 kW

## COLORFASTNESS TESTERS



### Colorfastness to Washing and Dry Cleaning Testers

#### KFG-2050

Determines color fastness to washing and dry cleaning to ISO and AATCC standards. Programmer determines water bath temperature and rotational speeds in accordance with test methods selected.

#### More Information:

Stainless Steel Rotor holds 8 or 12 stainless steel specimen containers of 550ml or 1200ml capacity. Stainless Steel Balls or Discs assist in sample agitation during rotation of the containers within the heated water bath.

**KFG-2050A:** Capacity 8 Specimen containers x 550ml or 1200ml

**KFG-2050B:** Capacity 12 Specimen Containers x 550ml or 1200ml

#### Specimen Containers & Accessories

**KFG-2051:** 550ml Specimen Containers

**KFG-2052:** 1200ml Specimen Containers



#### Other Accessories

**KFG-2053:** 6mm dia Stainless Steel Balls for AATCC/ISO Wash Tests (Pack of 250)

**KFG-2054:** 10mm dia Rubber Balls for AATCC 1B Wash Test (Pack of 200)

**KFG-2055:** Stainless Steel Discs for AATCC/ISO Dry Cleaning Tests (Pack of 25)

**KFG-2056:** Neoprene Seals for Specimen for 550 ml Specimen Containers (Pack of 8 )

**KFG-2057:** Neoprene Seals for Specimen for 1200 ml Specimen Containers (Pack of 8 )

## TABER ROTARY ABRASION TESTER

### Dual Platform

#### KFG-2062

Taber abrading wheels produce characteristic rub wear action. Mounted in a rotating turntable, specimens are subjected to the rub-wear action of two abrasive wheels. Driven by test sample the wheels produce abrasion marks that form a pattern of crossed arcs over a circular ring approximately 30 square centimeters. This reveals abrasion resistance at all angles relative to the weave or grain of the material. Referenced in numerous international test standards and specification.

Simple to operate, this instrument has been accepted worldwide as a standard for wear and abrasion research, quality and process control, materials evaluation, and product development. Taber Rotary Abrasers are capable of providing reliable data in a matter of minutes, compared to the years that may be required with in-use testing.

### Single Platform

#### KFG-2061

The Taber Abraser can be used to test virtually any flat specimen. Its field of application has included tests of painted, lacquered, powder coated, and electroplated surfaces, textile fabrics ranging from sheer silks to heavy upholstery and carpeting, and solid materials such as metals, stone and ceramics. Other materials include paper, glass, plastics, leather, rubber, linoleum, laminates, plus many others.



#### More Information:

- Taber Rotary Abraser Includes:
- Auxiliary Weights 500g load & 1000g load
- Specimen Holder (E100-125)
- Hold Down Ring (E100-101)
- Refacing discs (S-11)
- Specimen Mounting Card Sample Package (S-36)
- Calibrase® Abrading Wheel Set (CS-10)
- Calibrade® Abrading Wheel Set (H-18)
- Vacuum Unit with Suction Hose & Round Brush

#### Standard Features:

- Platform speeds 60 and 72 rpm
- Quick Release Wheel Hub
- Balanced calibrated and wheel mounts
- Vacuum system with precision height adjustment
- Rugged aluminum housing
- Membrane control panel with digital display
- Precision stainless steel weights

## WYZENBEEK ABRASION TESTER

### KFG-2065

The Wyzenbeek Tester is a four station abrasion test device. It abrades the surface of textiles or leather to determine the amount of marring and wear of the surface finish.

Each sample is held under measured tension and measured pressure. Securely fastened, the samples are subjected to the selected abrasive material clamped on the oscillating drum operating underneath the samples. Cycle speed is adjusted with the variable speed control on the front panel. The number of test cycles desired is entered on the pre-set cycle counter on the front panel indicating when the test will be completed. A vacuum unit is built into the machine. Two slotted vacuum pipes are suspended over the abrasive drum. The large volume of air being extracted from the abrasive surface keeps it free from lint and dust during operation.

- **KFG-2065A** Wyzenbeek Mesh Screen Abradent (Pack of 4)
- **KFG-2065C** Wyzenbeek Pressure Pad (Pack of 8 )
- **KFG-2065B** Cotton Duck Abradent Fabric 60" wide x 5yds
- **KFG-2065D** Sample Support Foam for furniture industry standard (Pack of 50)

*Specify 1/4 "or 3/8" thick*

### Standards

ASTM D3597

ASTM D4157

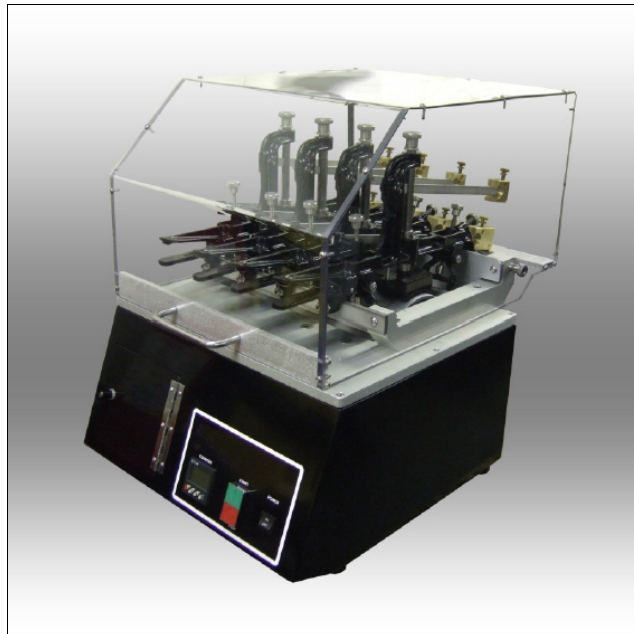
FED- STD -191/5304

SAE J 948

SAE J 1530

GM 2756M

Toyota TSL 5101G 3 9



## UNIVERSAL STRENGTH AND ELONGATION TESTING SYSTEMS



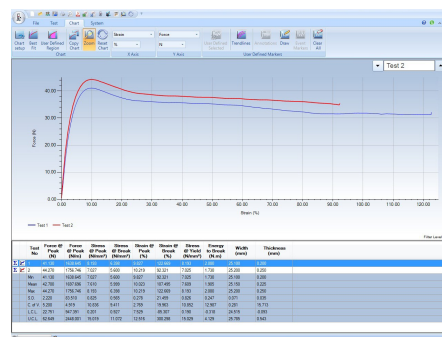
### KFG-2070

Fabrics are the end result of many complex procedures and there are many factors that can influence their final quality and performance. An effective way of monitoring fabric quality is to conduct tensile and related strength tests at various stages of production. Ensures that your fabric has the strength and integrity for its intended purpose.

To ensure the high levels of accuracy and repeatability of results, we offer testing systems specifically designed for precise fabric testing. All models have grade 0.5 load cells with high resolution readout and grips specifically designed for fabric testing that have no slippage or jaw breaks and ensure correct values are measured. Single and dual column testers from 1 kn (200lb) to 100 kn (20,000lb) capacity are available.

When testing fabrics it is essential that the grips used will hold the material without slippage or damaging the material.

We offer a wide range of manual and pneumatic grips that are ideally suited for testing an extensive range of fabrics and similar materials. The testers can also be equipped for testing yarns, zippers, buttons and many other components. To allow us to provide you with the best offer to suit your particular requirements, please complete the questionnaire in our electronic catalog or on our website and email it back to us.



### Software:

Our "Wintest" windows software package covers a complete range of fabric testing. It features pre-defined test methods that include all relevant calculations such as tensile strength, elongation, tear strength, seam strength, and burst strength, among others.

Includes graphical results, reports, analysis and archiving.





# J.A. KING

PRECISION MEASUREMENT PROFESSIONALS

## Meets all international standards including:

ASTM D 434 Seam slippage strength of fabrics.  
ASTM D 751 Standard test method for coated fabrics.  
ASTM D 885 Test methods for tyre cord fabrics.  
ASTM D 1117 Standard test methods for nonwoven fabrics.  
ASTM D 1682 Tension and elongation of fabrics, strip method.  
ASTM D 1683 Fabric failure of seams.  
ASTM D 1775 Tension and elongation of wide elastic fabric.  
ASTM D 2261 Tearing strength of fabric, tongue procedure.  
ASTM D 2724 Test procedures for laminated apparel materials.  
ASTM D 2970 Test methods for tyre cord fabric.  
ASTM D 3107 Stretch properties of woven fabrics.  
ASTM D 3787 Burst strength of knitted fabric.  
ASTM D 4034 Yarn slippage in upholstery fabrics.  
ASTM D 4851 Test methods for laminated fabrics used in roofing materials.  
ASTM D 4964 Tension and elongation of elastic fabric.  
ASTM D 5034 Breaking strength and elongation of fabric, grab method.  
ASTM D 5035 Breaking force and elongation of fabric, strip method.  
ASTM D 5278 Narrow elastic static load tests.  
ASTM D 5446 Properties of fabrics used in inflatable restraints.  
ASTM D 5587 Tearing strength of fabric, trapezoid procedure.  
ASTM D 5733 Tearing strength of nonwoven fabrics, trapezoid procedure.  
ASTM D 5735 Tearing strength of nonwoven fabrics, tongue procedure.  
ASTM D 5822 Seam strength of inflatable restraints.  
ASTM D 6614 Fabric stretch properties.  
ASTM D 6479 Edge-comb resistance of woven fabrics in inflatable restraints.  
ASTM D 6775 Breaking strength and elongation of webbing, tape and braid.  
ASTM D 6797 Bursting strength of fabric, ball burst method.  
BS 2543 Seam slippage of upholstery fabrics.  
BS 2576 Breaking strength and elongation of fabrics, strip method.  
BS 3320 Slippage resistance of yarns in woven fabric.  
BS 3424-4 Coated fabric breaking strength and elongation.  
BS 3424-5 Coated fabric tear strength.  
BS 3424-6 Coated fabric burst strength, ball method.  
BS 3424-7 Coated fabrics coating adhesion.  
BS 3424-10 Coated fabrics, determination of surface drag.  
BS 4304 Resistance to tear, wing rip method.  
BS 4952 Methods of test for elastic fabrics.  
BS 5131 Seam Strength.  
BS EN ISO 9073-4 Tear resistance of nonwovens.  
BS EN ISO 13934-1 Tensile properties of fabrics.  
BS EN ISO 13934-2 Tensile properties of fabrics, grab method.  
BS EN ISO 13935-1 Seam strength, strip method.  
BS EN ISO 13935-2 Seam strength, grab method.  
BS EN ISO 13937-2 Tear properties of fabrics, trouser method.  
BS EN ISO 13937-3 Tear properties of fabrics, wing rip method.  
BS EN ISO 13937-4 Tear properties of fabrics, tongue method.  
DIN 53356 Tongue tear tests on coated fabric.  
DIN 53835-13 Fabric loading between constant strain limits.  
DIN 53835-14 Knitted fabrics loading between force limits.  
DIN 53859-4 Nonwovens tear, trouser method.  
DIN 53859-5 Fabric tear, trapezoidal method.  
DIN 53868 Seam slippage resistance.  
DIN 53934 Displacement resistance of fabrics.  
DIN EN 12332-1 Burst test, ball method.  
EN ISO 1421 Tensile tests on coated textiles.  
EN ISO 2411 Adhesive strength of coatings on fabrics.  
EN ISO 4674-1 Tear tests on coated fabrics.  
EN ISO 9073-4 Nonwovens tears, trapezoidal method.  
EN ISO 13934-1 Fabric tensile tests, strip method.  
EN ISO 13934-2 Fabric tensile tests, grab method.  
EN ISO 13935-1 Fabric strip tensile tests on seams.  
EN ISO 13935-2 Fabric grab tensile tests on seams.  
EN ISO 13936-1 Seam opening of yarns in fabric, fixed opening.  
EN ISO 13936-2 Seam opening of yarns in fabric, set force.  
EN ISO 13937-2 Fabric tear, trouser method.  
EN ISO 13937-3 Fabric tear, wing rip method.  
EN ISO 13937-4 Fabric tear, tongue method.  
EN 1875-3 Trapezoidal tear of coated textiles.  
ISO 4637 Adhesive strength of rubber coating.  
ISO 9073-3 strip tensile test for nonwovens.  
ISO 9073-4 Tear resistance of nonwovens.  
ISO 13936-1 Seam slippage, fixed opening method.  
ISO 13936-2 Seam slippage, fixed opening method.  
LTD 03 Power and recovery of stretch fabrics.  
LTD 06 Elastic stretch and recovery.  
LTD 07 Bra band elongation.  
LTD 10 Comfort value of seamless garments.  
LTD 11 Garment form load and elongation.  
LTD 24 Seam stretchability of knitted garments.  
P11 Fabric tensile strength.  
P12 Seam slippage strength.  
P13 Peel bond strength.  
P14 Extension and modulus of elastomeric fabrics.  
P14A Extension and modulus of stretch laces.  
P14B Elastic properties of lycra fabrics.  
P14C Extension and modulus of bare rubber tapes.  
P15 Residual extension of stretch woven fabrics.  
P15A Extension modulus and residual extension of stretch fabric.  
P35 Baumann tear strength.  
P42 Single tear strength.  
P43 Breaking load and extension of woven and coated fabrics.  
P98 Tear strength, wing rip method.  
NXT 16 Slippage resistance.  
NXT 21 Extension and modulus.  
NXT 25 Wing rip tear test.  
NXT 27 Breaking strength and elongation.  
SL 2 Stretch test.  
TM 177 Seam slippage.  
TM 128 Dimensional stability.  
TM 172 Tear, 5 highest peaks.  
TM 264 Bond strength, 5 highest peaks.

6541 Franz Warner Parkway  
Whitsett, NC 27377 USA

Info.TextileTestKing@JAKing.com  
+ 1 866 802 6703

[WWW.TailoredForTextiles.COM](http://WWW.TailoredForTextiles.COM)



# J.A.KING

PRECISION MEASUREMENT PROFESSIONALS

## UNIVERSAL STRENGTH AND ELONGATION TESTING SYSTEM QUESTIONNAIRE

Customer .....

Contact .....

Address .....

Telephone .....

Fax .....

E-mail .....

PRODUCTS TO BE TESTED ☒

PRODUCT SIZES (min/max)

☐ Single Fibres ☐ Yarns ☐ Cords/Ropes

☐ Fabrics ☐ Tape/Webbing ☐ Laminates

☐ Cords/Ropes ☐ Tape/Webbing ☐ Laminates

Others (describe) .....

Diameters (Denier) .....

Diameters (Count) .....

Diameters (mm/inch) .....

Test Widths (mm/inch) .....

Widths (mm/inch) .....

Test Widths (mm/inch) .....

TEST PARAMETERS (min/max) .....

TYPE OF TEST ☒

Expected loads .....

Units (grams, kg, pounds, N, KN) .....

Preload (if required) .....

Extension (%) .....

Test length or gauge length .....

(mm/inch, nip point to nip point)

Test speed (mm/min or inch/min) .....

☐ Load at break

☐ Extension %

☐ Tear strength

☐ Seam slippage

☐ Load at specific extension %

☐ Extension % at specific load

☐ Load at ball burst

☐ Extension (mm/inch) at ball burst

☐ Delamination strength

INTERNATIONAL TEST METHODS USED

Standard ..... Number ..... Year .....

REQUIREMENTS ☒

☐ Computer driven tester with appropriate accessories

☐ Tester with display console and appropriate accessories

☐ Computer Required (*You may supply your own*).

☐ Printer Required (*You may supply your own*).

If you require samples testing with printouts and graphs, please supply enough samples for at least 10 tests each of strongest and weakest product of each type.

## STATIC EXTENSION TESTER

### KFG-2075/6

The **Static Extension Tester** is available in 2 forms – the standard **KFG-2075** (single position), and the **KFG-2076**. These fixtures are designed and manufactured to meet the testing requirements of **ASTM D3107**. The Static Extension Tester was developed to determine the stretch and recovery properties of woven stretch fabrics. Although particularly designed for woven fabrics, this test may also be applicable for knit fabrics, provided that the elongation at 2 pounds/inch is less than 85%. In the determination of fabric stretch, good correlation between per cent fabric stretch at 2 pounds/inch and “hand stretch” was observed for a broad range of stretch fabrics.

The single station tester consists of a vertical frame with a fixed clamp at the top, a 50 cm vertical scale and a sliding clamp that operates within the scale range. The 5 -station tester consists of one single station tester and five fixed clamps mounted on a board. It allows three tests each for two specimens at one time. The single tester is used to determine the fabric stretch. The 5 station tester together with the single station tester is used to determine the growth after elongation to a predetermined extension.

**Fabric Stretch** – The extension of a sample at a load of 2 pounds/inch width, expressed as percent of the original length.

**Power** – The force required to extend an exercised sample to an extended length equal to 85% of the “fabric stretch”, expressed in pounds/inch width.

**Unrecovered Tensile Strain Per Cent** – The unrecovered length of a sample which has been held in the extended state for a specified time (2 hours), expressed as a per cent of the original length.



## SNAP AND BUTTON STRENGTH TESTER

### KFG-2078

To assess the pull-out or breaking strength of strength of buttons, snap fasteners and other garment attachments

The attachments are gripped in one of the specially designed stainless steel top grips and the garment or fabric samples are fixed in the lower fabric clamp or optional vise.

Conforms to **ASTM test method D4846**

### Standard Configuration

Test stand with hand wheel and lever operation

Imada analog force gauge 30 kgf x 0.1 kgf

Lower fabric or garment clamp with button/snap grasp kit, with both 15 and 25mm diameter apertures.

Upper snap clamp

Long nose vise grip

Upper stud clamp

Three-pronged clamp

### Optional items

KFG-2078A Upper grasp button clamp

KFG-2078B Lower vise for sample garments or fabrics

KFG-2078C Calibration weight 15 lbs

Weight 40 kg (88 lbs)

Dimensions 240mm (10") W x  
290mm (12") D x 750mm (30") H



## KFG-2079 SHARP EDGE TESTER

The Sharp Edge Tester is used to determine whether accessible edges on child-related products are likely to cause injury before or after use or abuse. It is applicable to child-related products for children of no more than ninety-six months. A self-adhesive PTFE tape is attached onto the mandrel which is then rotated for a single 360° revolution along the accessible edge to test and applies 1.35lbs on the accessible edge. If the tape is cut in half or longer in length (approx. 0.5inch), the edge is identified as a hazardous sharp edge.

Kit comprises :

- |   |                   |       |
|---|-------------------|-------|
| 1 | Sharp edge tester | 1set  |
| 2 | Charger           | 1pcs  |
| 3 | Foot switch       | 1pcs  |
| 4 | PTFE tape         | 1roll |

Optional: KFG-2079A Spare roll of PTFE tape

Force applied: 1.35lb

Dimensions: 29×19×10mm (L×W×H)

Weight: 3.61kg

Standards: ASTM F963, EN-71, 16 CFR 1500



## KFG-2079B TORQUE TEST KIT

To determine whether components of toys can be removed by a certain torque force. A torque-measuring device is used in conjunction with a torque clamp to record the applied force. Any projection, part or assembly of a toy that a child can grasp with at least the thumb & forefinger or the teeth shall be subject to the torque test.

Consists of :

TORQUE GAUGE 9 BTG

TORQUE CLAMP - Central screw type

TORQUE TEST CLAMP - Standard

FLAT VISE CLAMP

TABLE VISE



Standards : ASTM F963, EN-71, 16 CFR 1500



## TEXTILE FLAMMABILITY TESTERS AND FUME HOODS

### KFG-2081

#### Horizontal Flammability Tester

Measures the burning rate of materials used in Automotive and Aircraft interiors

Stainless Steel Construction, Automatic operation with solid state digital timer, Stationary burner with gas pilot tube, U-frame specimen holder included

Standards and test methods: Airbus AITM 2.003, Boeing BSS 7230, FMVSS 302, CMVSS 302, FAR part 25 App F Part 1, SAE J369, ASTM D5132, ISO 3795

KFG-2081A Spare specimen holder



### KFG-2082

#### Automatic Flammability Tester 45 degrees

Measures the burning rate of apparel fabrics and certain upholstery materials

Fully automatic and adjustable solid state timing control in 1 second increments, Stainless steel construction, Easily replaceable burner, One specimen holder included

Standard and test models: 16 CFR 1610 - Apparel, ASTM D1230 - Fabrics, NFPA 702 - Hospital Apparel and bedding fabrics, CA TB 117 C & E Upholstery materials

KFG-2082A Brushing device

KFG-2082B Spare burners - pack of 5

KFG-2082C Spare sample holders - pack of 5

Note: Some of the above tests may require different sample holder configurations which may cost extra. Please specify the test methods you require

Electrical specifications: 220-240v 50hz or 110-120v 60hz - please specify



## VERTICAL FLAMMABILITY TESTER

### KFG-2083-1 Vertical Flammability Tester - Manual

Measures ignition resistance of children's sleepwear and draperies

Stainless steel construction  
Manual ignition and timing - stopwatch included  
Burner moves on a sliding track  
Specimen holder included

#### Standards and test models

NFPA 701 small scale  
CPAI 84 - tents  
UL 214 small flame  
CA TB 117 A1 & B  
16 CFR 1615 & 1616

### KFG-2083-2 Vertical Flammability Tester - Automatic

Measures ignition properties of Aircraft and transport materials, tents and protective clothing

Stainless steel construction  
Solid state digital timer controls flame application time and records afterflame time  
Stationary burner with gas pilot tube  
Specimen holder included

#### Standards and test models

Airbus AITM 2.003  
Boeing BSS 7230  
FRM 5903  
CPAI-84 Tents  
PAR Part 25 App F Part 1  
NFPA 1971, 1975, 1976, 1977, 1981, 2112  
ASTM D6413  
ASTM F1506

**Note:** some of the above tests may require different sample holder configurations which may cost extra. Please specify the test methods you require.

**Electrical specifications:** 220-240v 50hz or 110-120v 60hz - please specify



## LABORATORY FUME HOODS

### KFG-2086

Fitted with Clear tempered glass balanced sash access door and integral exhaust blower, Construction 16g epoxy coated steel. Airfoil with adjustable baffle, 100-watt light fixture, 4" pass-through port. Suitable for flammability testers or general laboratory use.

**Base cabinet not included (please order separately)**

**KFG-2086A** Fume hood complete 47" wide x 22" deep

**KFG-2086B** Fume hood complete 70" wide x 22" deep.



## LABORATORY OVENS AND INCUBATORS

### KFG-2091

Combination ovens and incubators are dual purpose for both low-temperature colorfastness to perspiration and high-temperature oven-drying tests.

#### More Information:

- 30 Liter Capacity
- Internal Dimensions 12.5" (310mm) Width x 12" (300mm) Depth x 14" (350mm) Height
- Dual temperature Scales (25 -110c +/- 0.25c, 50-250c +/- 0.75c)
- Stainless Steel Interior
- Circulation Fan
- 2 Shelves
- Digital Temperature Display

### KFG-2092

Combination ovens and incubators are dual purpose for both low-temperature colorfastness to perspiration and high-temperature oven-drying tests.

#### More Information:

- 120 Liter Capacity
- Internal Dimensions 19" (480mm) Width x 18.5" (460mm) Depth x 22" (550mm) Height
- Dual temperature Scales (25 -110c +/- 0.25c, 50-250c +/- 0.75c)
- Stainless Steel Interior
- Circulation Fan
- 2 Shelves
- Digital Temperature Display

Other sizes of laboratory ovens are available on request.



## ECONOMY INCUBATOR, OVEN, AND TIMER

### Economy Incubator 1.4 cu ft/40 liter capacity KFG-2093



Ideal for colorfastness to perspiration and water tests. Digital temperature display with 0.1dgs C resolution, maximum temperature 90 dgs C, excellent temperature stability and uniformity. Metal door with magnetic latch, 2 stainless steel shelves included.

- Chamber: 13.5 x 13.5 x 13.5 in (34 x 34 x 34 cm)
- External: 15.1 x 19 x 19.5 in (38 x 48 x 50 cm)
- Shipping Wt: 36 lbs./ 17 kg

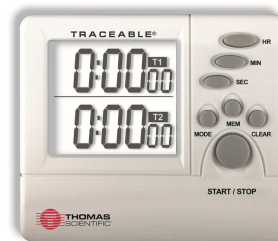
### Economy Oven, 1.7 cu ft/48 liter capacity KFG-2094

Ideal for drying of fabrics and other samples. Uniform heating, precise temperature control (50 – 210 dgs c) with hydraulic thermostat, LED temperature display. Stainless steel chamber and door liner, supplied with 3 shelves.



- Chamber: 11.5 x 16 x 16 in (29 x 41 x 41 cm)

### Laboratory Timer and Stopwatch KFG-2095



Large dual digital display, up to 2- hours x 1 second resolution, accuracy 0.01 %. 2 Channels, with memory, count-up or count down, easel stand and magnet for fixing to ovens or incubators. Includes traceable calibration certificate to NIST/A2LA/ISO 17025.

- External: 18.4 x 15.6 x 25 in (47 x 40 x 64 cm)
- Shipping Wt: 85 lbs./30 kg



## LABORATORY CENTRIFUGE

### KFG-2100

For the rapid removal of water from samples after washing and dyeing. Removes 90% of moisture in 10-20 seconds at spin speeds of 2850 rpm, 1000 grams (Wet) capacity.



## LABORATORY CONDITIONING CHAMBERS

For conditioning of samples prior to testing or for long-term ramping/soak testing.

Model	Size	Dimensions Internal	Dimensions External
<b>KFG-2110</b>	1.5 Cubic Ft	13" x 14" x 13"	33" x 27" x 26"
<b>KFG-2111</b>	5.8 Cubic Ft	24" x 20" x 18"	46" x 33" x 31"
<b>KFG-2112</b>	10 Cubic Ft	30" x 24" x 24"	52" x 36" x 37"



**KFG-2113** Two Channel Automatic Programmer

**KFG-2114** Recirculating Humidity System

## LABORATORY AIR CONDITIONING SYSTEM

Laboratory Air Conditioning Systems for close control of laboratory conditions to ASTM and ISO standards for textile testing.

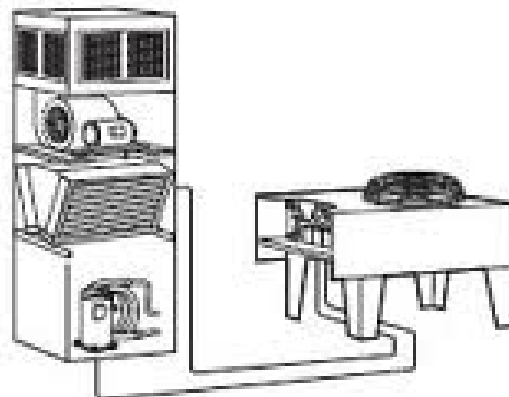
Two systems available to suit laboratory volumes up to 9000 cubic feet (280 cubic meters)

Internal units with compressor, air handler, digital controller to set and display temperature and humidity. Includes plenum chamber for efficient air distribution (can also be ducted if required), air return at front of unit. External condenser unit for ground, wall or roof mounting

**KFG-2115** Laboratory Air Conditioning System 10KW/3 TON/4900BTU, Max room volume 5600 cu ft (160 cu m)

**KFG-2116** Laboratory Air Conditioning System 17.5KW/5TON/8600BTU, Max room volume 9000 cu ft (280 cu m)

**KFG-2117** Spares and Consumables Package for 1 year of operation



## TEMPERATURE AND HUMIDITY RECORDERS

### Temperature and Humidity Recorder (Thermohygrograph)

#### KFG-2121

Quartz-controlled drive for accuracy  
Runs for 6 months on single AA battery  
Dimensions 6" W x 3.9" D x 7.4" H.

#### More Information:

Records temperature and humidity on a 7-day rotation chart. Uses a bi-metallic strip for temperature and one human hair bundle for humidity. Humidity sensor features +/- 2 degrees accuracy. Protective acrylic cover removes easily, yet latches securely in place. Includes one red and blue felt -tipped pen, one 7-day rotation chart paper and one AA battery. Additional charts and pens should be ordered separately.



Pack of 100 Charts, 7 days, -6 to 40 degrees Celsius

#### KFG-2122

Pack of 5 Red Pens

#### KFG-2123

Pack of 5 Blue Pens

#### KFG-2124

### Digital Temperature and Humidity Meter

#### KFG-2125

- Relative humidity range 10.0 to 95%
- Resolution is 0.1% RH
- Accuracy is +/- 2% mid-range and +/- 4% elsewhere
- Temperature range 0 to 199.9 degrees F and - 18 to 93 degrees C
- Resolution 0.1 degree
- Accuracy is +/- 1° C between 0 to 40° C, otherwise +/- 2% C

Device offers minimum/maximum memory and hold features. Unit measures 7 1/8 x 2 3/4 x 1 1/4". Probe is 8 1/2" long with 2/3" diameter with a 3 foot cable. Weight is 10 3/4 ounces. With accuracy of +/- 2% RH. Dew point display (range 0 to 50 degrees C with a resolution of 0.1 and an accuracy of +/- 2% C) and with a programmable alarm element. To assure accuracy, an individual serial numbered Traceable Certificate from an ISO 17025 calibration laboratory accredited by A2LA. Certificate indicates traceable to standards provided by NIST.



## REVERSE OSMOSIS/DEIONISED WATER QUALITY SYSTEM

### KFG-2130

A small economical completely pre-assembled Reverse Osmosis Water System that includes a pre-treatment section, a high performance Reverse Osmosis Unit, a Pressure type Water Storage Tank, and a Deionised Water "Polisher." Except for the Pressure Tank, the entire system is pre-assembled and is provided with quick connect/disconnect fitting for easy low cost installation.

### Applications

- Xenon Arc Weather-Ometers & Fade-Ometers
- Corrosion & Humidity Cabinets
- UV-Condensation weathering devices
- Laboratory applications requiring high purity Water Standard

### Features

- TFC Membranes with 98% Rejection
- Includes Booster Pump and Electric Shut-off Valve for higher performance
- Capacity of 200 Gallons/800 liters/Day
- Delivers RO or RO/DI water under pressure
- Includes Pretreatment, RO, RO Quality Monitor, Storage Tank, Post DI water "Polarizer"
- Choice of RO water for Corrosion/Humidity Cabinets or RO/DI water for high purity
- Compact Frame: floor or wall mounting
- 115VAC transformer with low voltage at Booster Pump

### Options

- Larger Pressure Storage Tanks up to 86 Gallons
- Permeate Pump for faster tank fill-up
- DI water Quality Monitor
- Water Softeners, UV Sterilizers, larger systems up to 400GPD



Production of RO Permeate/Product water is listed for 77 F. (25C) feedwater temperature. Production is reduced by 1.5% for each deg. F below 77 F. Example, at 45 F., production is reduced by 50%. Feedwater pressure and quality, tank pressure, and maintenance of filters and membranes also affect production.

### Deionized Water Quality Monitor for KFG-2130

#### KFG-2130A

Digital type, 0-20 Micro Siemens, for installation in RO/DI water outlet to equipment that is not equipped with a water quality monitor. Is used to determine when the DI Filter Cartridge is exhausted. (Micro Siemens is the reciprocal of Resistance in Meg-Ohms. 1 Meg-Ohm equals 1 M-S, 0.2 Meg-Ohms equals 5 M-S).

### One year operating supply package for KFG-2130

#### KFG-2130B

Includes 6-PFC-02 Sediment Cartridges, 3-CFC-05 Carbon Cartridges and 3-DIC-02 DI Cartridges.



## SILENT COMPRESSORS FOR LABORATORY USE

Generating a noise level of less than 42 dba and with negligible heat output, these portable and economical compressors are the ideal choice for Textile Testing Laboratories which cannot access an outside source of clean and dry compressed air at a reliable and constant pressure.

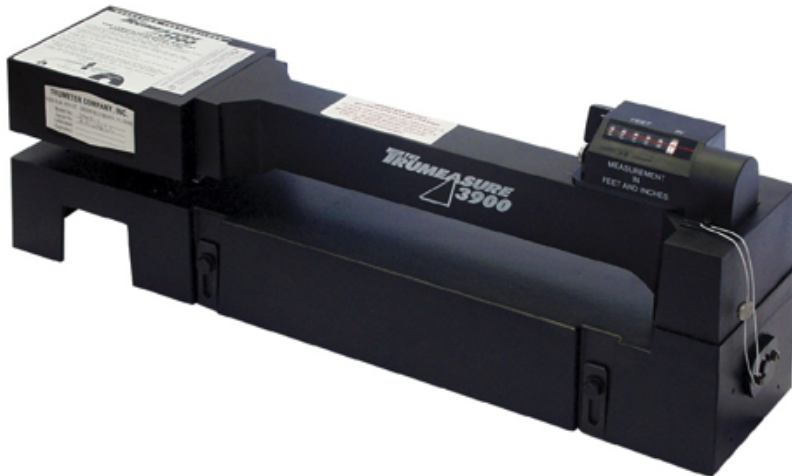


Specifications	KFG-2140	KFG-2141
Output	2.1 cfm/60 lm	4.2 cfm/120 lm
Max Pressure	120 psi/8 bar	120 psi/8 bar
Tank Capacity	6.3 gal/24 L	13 gal/50 L
Dimensions	16 x 16 x 27"	41 x 13 x 27"
Weight	62 lbs.	121 lbs.
Packed Dimensions	17 x 17 x 29"	43 x 18 x 33"
Packed Weight	66 lbs.	147 lbs.

Supplied complete with intake air filter, outlet oil/air filter, regulator, gauges, fitting and compressor oil.

## FABRIC LENGTH MEASUREMENT SYSTEMS

### KFG- 2143 Truemeasure Length Measurement System



Measures length of moving fabrics, carpets or composite structures up to 24mm thick. For fitting to Inspection, rolling machines, Tenter frames and other finishing machinery.

Measuring wheel in base and adjustable load top pressure roller allows measurement on the back of pile fabrics for greatest accuracy

Resettable mechanical counter up to 99,999 feet 11 inches or 999.99 meters with mechanical brake to prevent over-run.

Can be fitted with a digital encoder to output to electronic counting systems. ISO Calibration available



### KFG-2144 Trumeter Length Measurement System

This rugged instrument can be fitted to all kinds of fabric inspection, rolling equipment and finishing machinery, supplied with two measuring wheels in either imperial or metric configurations as below.

Yards and 1/8ths, Feet and inches or Meters and centimeters (6 digits).

Fitted with universal bracket and hinge for mounting to most structures.

## FABRIC INSPECTION, ROLLING AND MEASURING MACHINES

### KFG-2145 MiniRoller IM72 Portable Inspection and Re-rolling Machine

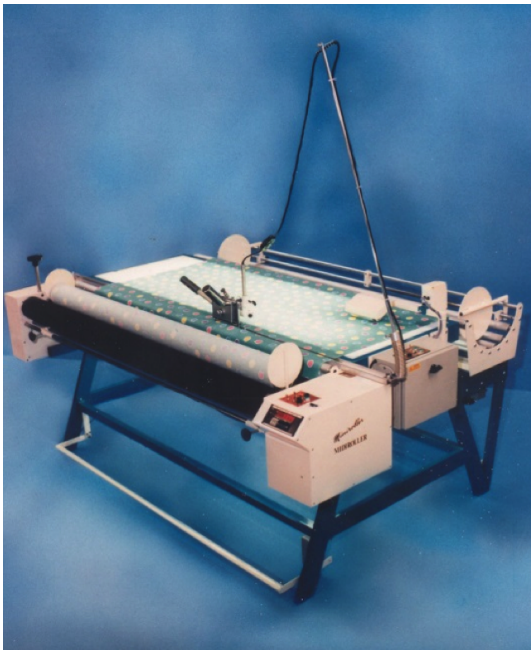


Suitable for Fabric warehouses , Cut and Sew operations and Retailers. Sits on table or benchtop, collapsible for ease of storage when not in use.

Maximum fabric width 72"/182cm, maximum roll diameter 18"/45cm, maximum roll weight 70lbs/33kg. Net weight 70lbs/33kg, packed weight 117lbs/53kg, packed dimensions 223 x 120 x 31cm, 88 x 48 x 13"

Metric or Imperial resettable mechanical counter with over-run brake, inspection screen with under lighting. 3 spring-loaded drive bars for cardboard tubes from 1"/25mm to 2"/50mm diameter. Variable speed drive from 3 to 50 meters/minute, foot pedal operation, edge alignment control.

### KFG-2146 MidiRoller MID72 Inspection, Measuring and Cut Length Machine



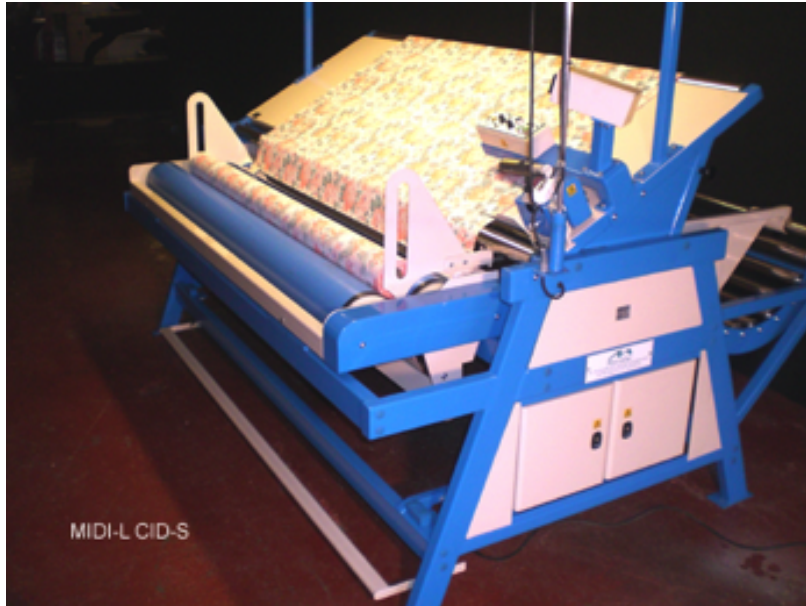
Suitable for Textile Manufacturers, Fabric Warehouses, Cut and Sew operations.

Roller input creel 12"/300mm diameter, output drive rollers 6"/150mm diameter, maximum fabric width 72"/185cm, variable speed drive with foot control, 3 to 30 meters/minute, electronic yard or meter counter with length preset, autostop, electric cross cutter and mechanical paddle edge control.

Flat inspection screen 21"/55cm deep with fluorescent underlighting

Weight net 374lbs/170kg, packed 691lbs/394kg, packed dimensions 241 x 175 x 122cm, 95 x 69 x 48"

## FABRIC INSPECTION, ROLLING AND MEASURING MACHINES



### KFG-2147 Midi-L78 Inspection, Measuring and Re-rolling Machine

Heavy-duty fully featured inspection machine for Textile Manufacturers

Roller input creel 20"/500mm diameter for 110lbs/50kg rolls, maximum fabric width 78"/200cm, digital presettable yard/meter counter with autostop, variable speed from 3 to 30 meters/minute, foot control. Automatic edge correction, adjustable re-tensioning, electric cross cutter.

30 degree sloped inspection screen with over and under fluorescent lighting.

Weight net 660lbs/300kg, packed weight 1190lbs/541kg, packed dimensions 269 x 178 x 150cm, 106 x 65 x 60"

#### General Note :

**KFG-2146** and **KFG-2147** are available for other fabric widths from 60"/150cm to 120"/300cm. They are also available with special drives, devices and controls to handle delicate and elastic fabrics like Lycra without stretch. In fact, with 54 years of experience, our suppliers can design and build a custom machine to your specifications.

Details on request



## KFG-2148 BLACK-RAY PORTABLE ULTRAVIOLET LIGHT, LONG-WAVE



- Battery operated
- Medium intensity, 365 nm; radiation intensity 1650  $\mu\text{W}/\text{cm}^2$
- Total radiating aperture is 146 x 57 mm
- Contains self- filtering, 6 watt mercury vapor tube (6282U64), 216 mm long, with reflector
- Lamp is equipped with built-in flashlight bulb for visible illumination and is mounted vertically on front of housing, of impact resistant plastic with reinforced handle
- Total weight 2 kg when equipped with batteries
- Three-position on/off starter which selects flashlight on UV lamp

Overall dimensions (L x W x H): 241 x 71 x 238 mm. Powered by two standard 6 volt lantern batteries which provide 10 hours of operation.

KFG-2148A Spare UV Lamp



## COLOR ASSESSMENT CABINETS, LIGHT BOOTHS, HUE TEST KIT



### KFG- 2149 MINI-MATCHER

The **Mini Matcher** is a compact multi-source viewing system for the inspection and color discrimination of: inks, paints, plastics, textiles, paper, colorants, and other colored materials.

**Three Light Sources:** D65 , Incandescent A, TL84 or CWF

**Features:** Accurate visual color assessment and color comparison with easy detection of metamerism

Munsell N7/ neutral gray surround. Viewing area 14" high, 24" wide, 13" deep.

**Simple to operate** with individual rocker switches for each source. Set up in minutes with no tools needed.



### KFG- 2150

A Quality Light Box with a choice of 4 Lights. Fitted with LED control panel which includes hour meter, auto sequence and warm-up facilities.

Standard light sources D65, TL84 or CWF, Incandescent Tungsten Filament, UV (black light). Other light sources available on request. Interior color Matt grey – Munsell N5

Dimensions	Width	Height	Depth
<b>Overall</b>	28"	21"	17"
<b>Viewing Area</b>	26"	13"	15"

### KFG-2151

45 degree fixed angle table for light booths

### KFG-2154

Light Cabinet-1200mm/48 inches wide, 5 lights

A larger sized Light Box but with a choice of 5 Light Sources - adding increased flexibility to the excellent viewing conditions and the consistency offered by all VeriVide Colour Control Cabinets, the first light source is usually **D65**.

Ideal for those who require two 'point of sale' light sources such as **840P15** with either **830** or **Cool White** in the same light box to satisfy the requirements of multiple customers. If required **A** or **H** can be supplied instead of **F** or **A** can replace **F** and **H** can be the fifth light source if both **A** and **H** are required.

## VIEWERS

### AATCC Viewing Board KFG-2152/A

- Built to American Association of Textile Chemists and Colorist (AATCC) approved test methods 88B/88C/124/128/143/178.
- The AATCC Viewing Board is designed for the evaluation of smoothness in the appearance of flat fabric and seams, and the retention of pressed creases in garments and other textile products after repeated laundering.
- Provides a standard lighting and viewing area by rating the appearance of samples compared to appropriate reference standards.
- Provided with 2x2400mm (8ft) cool white lamps as specified by AATCC
- Optionally with 2x1200mm (4ft) cool white lamps for ease of shipping
- Can be either wall mounted (KFG-2152) or mounted on a mobile frame (KFG-2152A).



### Pilling Assessment Viewer KFG-2153

A versatile unit that accepts the modified Martindale specimen head, enabling fabric to be assessed during three parts of EN ISO 12945 and these test methods:

- Part 1: ICI Pilling box method (BS 5811)
- Part 2: Modified Martindale method (SN 198 525)
- Part 3: Atlas random tumble method (ASTM D 3512-96)

Uses D65 Artificial Daylight, as specified by many specifiers. Other test methods which can be viewed include:

- BS 5811:1986 Determination of the resistance to pilling and change of appearance of fabrics.
- ICI modified pill Box for snagging.
- Fleece appearance and surface change after washing.
- Other test methods as specified by several major retailers.



## Color Vision Testing

### Hue Test Kit KFG-2155

Farnsworth-Munsell Hue Test Kit—For the determination of color vision anomalies and color aptitude. An essential test for technologists and assessors of color and color difference. Consists of 4 trays of 85 color reference disks which must be paced in order. Includes scoring software for numerical and graphical results. Supplied in fitted aluminum case.



### Ishihara Color Blindness Test Volumes KFG-2156

The Official Ishihara Color Blindness Test developed for color vision testing. This color vision test is designed to produce accurate test results in determining color blindness and the degree of color blindness.

The Official Ishihara Color Blindness Test is accepted by leading authorities as a simple and accurate method for discovering congenital color blindness and red-green blindness in both complete and incomplete forms. Also known as Protanomaly and Deuteranomaly, "red-weakness" and "green-weakness", respectively, are the two most common types of color deficiency.



## **MICROSCOPES, DIGITAL, COMPOUND AND STEREO**

### **Microscope, Digital, Compound**

#### **KFG- 2161**

The Digital Compound Microscope combines a quality compound microscope with a built-in digital camera. They have built-in high-resolution 8.5 mm (1/3) CCD camera, which can produce images on monitors with approximately 80% field of view through the eyepiece. A built-in capture card converts an analog signal to a digital signal for easy viewing through either a monitor or a computer.



#### **More Info**

- Mountable reversed quintuple nosepiece has a ribbed grip for easy rotation and is positioned closer to the microscope body for easy access to the specimen.
- Microscope features a Siedentopf trinocular phototube inclined at 30 degrees, 12V, 20W halogen Kohler Illumination, plug and play computer applications with simple USB connector .
- Abbe condenser with Iris diaphragm for maximum flexibility and user friendly image processing and analyzing software.

Microscopes are provided with Achromatic objectives 4x, 10x, 40x, and 100x. In combination with the included 10x eyepieces resulting in total magnifications of 40x, 100x, 400x and 1000x. Suitable for fiber identification and measurement as well as general microscopy with the included image analysis, measurement and archiving software.

## **MICROSCOPE, DIGITAL, STEREO-ZOOM**

### **KFG-2162**

The Digital Stereo Microscope features a built-in high-resolution 8.5 mm (1/3) CCD camera, which can produce images on TVs and monitors with approximately 80% field of view through the eyepiece. A built-in capture card converts an analog signal to a digital signal for easy viewing through either a standard video monitor or a computer.

#### **More Information:**

The digital stereo microscope features rugged die-cast metal construction, a trinocular phototube inclined at 45°, diopter adjustment on both eye tubes with interpupillary distance adjustment between 54-76mm and wide field highpoint 10x, 20mm eyepiece. Strong incident and transmitted halogen illumination is provided by a top 12V, 15W bulb and a bottom 12V, 10W bulb, both with intensity control. The working distance is 80mm without auxiliary objective, and the continuous zoom range of 1x to 4x requires no refocusing through the entire magnification range. Combined with the 10x eyepieces provides for a total magnification of 10x to 40x, ideal for analysis and measurement of yarns and fabrics. The microscopes also feature plug and play computer applications.



## **Illuminated Pocket Zoom Microscope**

### **KFG-2163**

Illuminated portable microscope features a large viewing area that is easy on the eyes. Provided with a snap-on microscope slide holder. Microscope measures 1.5 x 0.9 x 5.5" high and weighs only 3 ounces.

#### **More Information:**

- Zoom Range 60x to 100x with slide control.
- Battery Supplied
- Adjustable Focus





## UNIVERSAL MICROSCOPE ILLUMINATOR, 150 WATTS

### KFG-2164

This illuminator delivers 350,000 foot candles of high intensity cold light illumination with a lamp life of over 1000 hours. Audible noise and vibration is minimal and a convenient side door makes changing lamps fast and easy. Solid state 0 to 100% intensity control provides full variation in brightness. Lamp EKE, 21 V, 150 watts, 3250 K. Dimensions 6.0 x 8.5 x 5.3" H. Weight 7.75 lbs.

### More Information:

- Free-standing accessory suitable for all microscopy applications.  
Put the light where you need it!
- Lightweight compact unit
- UL. CE. C – UL approved
- Requires no adapters
- Supplied with dual flexible light guides



## PH AND TEMPERATURE METERS

### Waterproof pH Meter with Automatic Calibration and Temperature Compensation

**KFG-2171**

Portable pH meter offers the same performance as a Bench Meter. Temperature effects automatically or manually compensated for, from 0 to 100°C (32 to 212°F) The meter has three memorized buffer values (pH 4.01, 7.01, 10.01) and other automatic buffer recognition to avoid errors during calibration. When powered on, the percentage of remaining battery life is indicated on the display panel. Supplied with pH electrode and temperature probe, calibration and cleaning solution, battery, protective case and instructions.

- Range -2.00 to 16.00 pH
- Range +/-699.9 mV, +/-1999 mV
- Range -20 to 120.0 deg C, -4.0 to 248 deg F



### pH Meter and Electrode stand

**KFG-2171A**

Articulated stand holds pH meter, electrodes and temperature probe



### Waterproof pH Temperature Tester with Replaceable Electrode Accuracy $\pm 0.1$ pH

**KFG-2172**

Waterproof pH temperature tester with replaceable electrode and an accuracy of  $\pm 0.1$  pH. Item is also supplied with protective cap, electrode removal tool, batteries and instructions.

#### More Info

- Dual-level LCD.
- Battery level indicator.
- Replaceable pH electrode cartridge.
- Instability indicator.
- Automatic shut-off.
- Automatic calibration.
- Waterproof casing that floats



## THERMOMETERS – DIGITAL

### Checktemp Folding Pocket Thermometer

#### KFG-2180

Special attention was given to the Ergonomic form of Checktemp. This thermometer fits comfortably and securely in your hand. The LCD on the side of the handle is easy to see and read. The fast responding, fold away probe is made of high quality, stainless steel. When you are finished using your Checktemp wipe the probe clean and fold it away. Checktemp automatically turns OFF so you can safely carry it in your pocket.

### Specifications

As you unfold the stainless steel probe the Checktemp turns ON and immediately performs a calibration test.

- Range -50.0 to 220 °C
- Resolution 0.1 °C (- 50.0 to 199.9 °C)
- Resolution 1 ° C (200 to 220 °C)
- Probe Stainless Steel with penetration tip, 117 x dia 3.5mm (4.6 x dia 0.14")

### More Info

- $\pm 0.3^{\circ}\text{C}$  accuracy.
- CAL check.
- Stainless steel folding probe with penetration tip.
- Enables angled measurement
- Ergonomic
- Auto shut-off



## DIGITAL TEXTILE MOISTURE METER

The new **KFG-2190** Textile Moisture meter instantaneously measures the humidity percentage in fibers, yarns and bales of raw synthetic or mixed textile material as well as fabrics.

17 stored measurement scales for the following material, wool, rayon, cotton, linen, nylon, acrylic, polyester, 50% wool- 50% cotton, 60% cotton- 40% PES, 70%pac-30% wool, 67%pac-33% cotton, 70%PES-30% wool, 70%pes-30% rayon, 67% PES-33% cotton, 50% PES-50% cotton, 50%PES-50% rayon, 50% pes-50%pac.

Conversion for other materials is supplied.

The Moisture Meter is supplied with probe holder, connection cable, carrying case, needle probes for fiber and yarn and a roller probe for fabric.



### Accessories:

#### **KFG-2191 Set of two Calibration Probes**

For simple two-point calibration of the digital moisture meter



# TACHOMETERS AND STROBOSCOPES

## Non-Contact & Contact Tachometer KFG-2201

The Combination Hand Held Digital Tachometer combines the best features of both contact and non-contact models to accurately measure RPM, surface speed and length. When using the non-contact mode, rotational speed (RPM) is measured using visible beam light. The CDT-2000HD can be held up to 24 inches away from the small piece of reflective tape that is affixed to the rotating element. In the contact operating mode, the speed is sensed by directly contacting the rotating device using the cone tip or surface speed wheel supplied with the instrument.

### More Info:

- Accuracy of 0.02% with a resolution up to 0.01 rpm
- Built in memory stores maximum, minimum, average and last reading for recall to display
- NIST Certification included at no additional cost
- Molded Rubber Shell provides additional physical and environmental protection

Supplied in fitted hard case with accessories and reflective tape

### Measuring Range:

- Non-Contact 1.00 – 99.999 rpm
- Contact 1.00 – 19.999 rpm





## POCKET STROBOSCOPE

### KFG-2202

Internal rechargeable Lithium Ion battery uses the latest “smart charge” technology for the longest possible life and a 2-hour run time on a single charge.

#### Includes:

- Traceable Calibration Certificate
- Resolution of  $\pm 1$  RPM over the entire range with precise flash control and drift-free operation
- Bright XENON flash intensity (over 1200 Lux) with life of 200 million flashes
- Universal AC-Adapter/Charger (100 – 240v AC) with plug adapters provided for use in North America, Europe, United Kingdom and Australia
- The Pocket Stroboscope easily measures RPM of rotating or reciprocating parts without contact it allows moving parts/machinery inspection by “freezing” or “slowing down” the action using stroboscopic effect
- Provides one hand operation, yet delivers performance comparable to much larger and heavier pistol-grip type models. It is an ideal choice for industrial, laboratory, R&D and academic environments

Supplied in fitted hard case with accessories and charger



## High Speed LED Stroboscope

### KFG-2203

Perfect for high-speed spinning applications, the KFG-2203 strobe can operate at the highest flash rates for up to six hours continuously on a single set of three standard AA-batteries. Designed for maximum performance, portability and ease of use, the KFG-2203 is a hand-held battery powered Led Digital Strobe for use in speed measurement as well as for motion analysis. It is fitted with seven state-of-the-art, super bright LEDs mounted in a precision-machined aluminum head with optimized optics. The KFG-2203 features a high impact plastic case with rubber sleeve that provides additional protection and improves operator's grip. Lifetime LEDs never need replacing, which makes the strobe ideal for use on the factory floor, in the field or the laboratory.

#### More Info:

- Measuring Range: 30 – 300,000 FPM (5000Hz, max)
- Flash Brightness 1500 Lux (@6000 FPM)
- Produces the brightest flash and sharpest image over the entire range to 300,000 FPM
- Lifetime LEDs never need replacement
- Intuitive controls allow user to quickly adjust flash rate and shift phase
- Three AA-batteries provide six hours of continuous use operation (Six Supplied)
- User-selected units of Hz or FPM (Flashes per Minute)
- NIST-Traceable Calibration Certificate provided
- Supplied in fitted hard case

We also offer a wider range of Tachometers and Stroboscopes for other applications.



## LIGHT/LUX METER, DIGITAL

### KFG-2210

Color correction filter

Unit recalls highest lowest and average reading

Accuracy is +/- (5% plus 2 digits)

### More Information:

Ranges in Lux are 0 to 1999 (1 Lux resolution) 2000 to 19, 900 (10 Lux resolution)

Ranges in foot-candles are 0 to 199, 9 (0.1 Fc resolution) 200 to 1999 (1 Fc resolution) and 2000 to 5000 (10 Fc resolution)

Unit measures 6 1/2" x 3" x 1/2" and weighs 10 ounces. Cable length is 40 inches. Meters are traceable to NIST for accuracy. Certificate indicates traceability to standards by NIST.



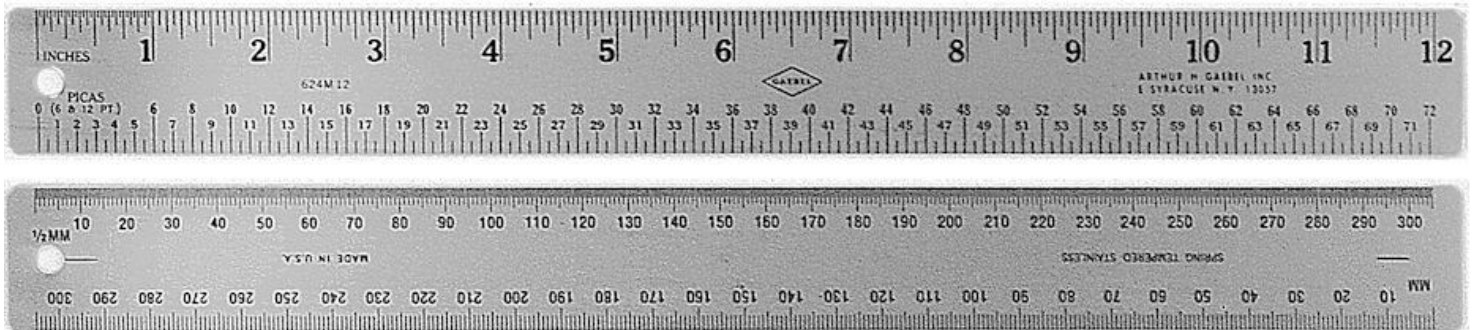
## STEEL RULERS, CALIBRATED, TRACEABLE

### Precision Steel Rulers Calibrated

Precision steel rulers and retractable steel tape measures, from Starrett USA. Graduated in inches and millimeters. Calibrated to ISO 17025/A2LA, for laboratory and production use.

- **KFG-2221** Steel rule in inches and millimeters – 12"/300 mm
- **KFG-2222** Steel rule in inches and millimeters – 20"/500 mm
- **KFG-2223** Steel rule in inches and millimeters – 40"/1000 mm
- **KFG-2224** Steel retractable tape measure in inches and millimeters, magnesium case – 144"/3600mm

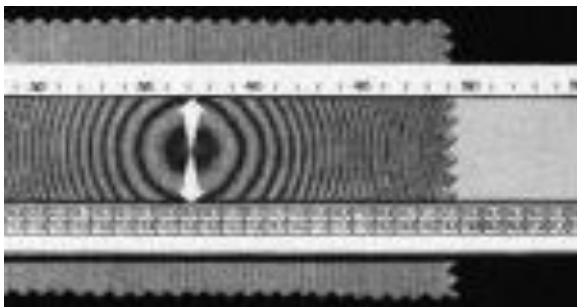
Rulers and tape measures in other configurations and lengths are also available-ask for details!



# MAGNIFIERS, PIECE GLASSES AND PICK COUNTERS

## Lunometer Automatic Fabric Density Counters (Line Gratings)

The Lunometer® is a transparent vinyl plate containing a high precision sequence of lines corresponding numbered graduations. When placed over woven or knitted material, it produces a measurement pattern that enables the Lunometer® to provide an accurate thread count; the number of warp and filling yarns in a square inch or centimeter of fabric. Using available daylight and/or artificial light, a thread count is quickly made by moving the Lunometer® over the fabric until the measurement pattern is seen. At the point where the waves converge, a circular or oval shaped image appears, as in the illustration, indicating the thread count.



### More Info

- Instantly produces an Accurate Thread Count
- No Magnification – No Eyestrain – No Counting
- Laboratory grade instruments recommended for precise quality control.
- Grid lines and graduations are laminated into a clear vinyl plate and cannot rub off in use.

Comprehensive instructions and protective case are included with each unit.

### Range Chart

Order Numbers	Range Inches	Range CM	Size Inches
KFG-2231F	25-60	10-24	9 X 2
KFG-2231G	38-86	15-34	6.5 X 1.75
KFG-2231R	50-120	20-47	6.75x 2





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## **Illuminated Magnifier**

### **KFG-2232**

Illuminated Magnifier fitted with circular fluorescent lamp, 45 inch spring loaded support arm and desk clamp/mounting bracket. enhanced examination of fabric and yarn defects in the laboratory or production areas. Higher magnifications available on request.



## **Piece Glass, Pick Counter, Linen Tester**

### **KFG-2233**

Fixed focal length corrected lens (5 x magnification) in folding black metal frame with both fractional inch and centimeter graduations.

Accurate 1"/25mm square viewing field. Graduated in 1/8" and 1cm increments. Includes protective carrying pouch.



## **Picking Sticks/ Dissecting Needles**

### **KFG-2234**

For use with pick counters or magnifiers for more accurate thread counting, also used of dissecting yarn or fabric samples for microscopic fiber examination. Stainless steel needles mounted in durable wooden handles. (Pack of 12)



## DIGITAL FABRIC PICK COUNTER

**KFG-2237**

Determines the thread density of woven fabrics and loop density of knitted fabrics automatically. Equipped with a portable high-precision microscope/camera to capture and magnify pictures of fabrics. The number of threads or loops on captured pictures can be counted easily on the screen of the computer with the “FABRIC-EYE” software.

### Applicable Standards

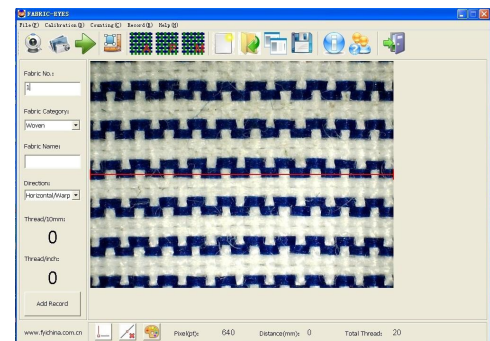
- ASTM D3775
- ISO 7211.2
- GB/T 4668



The stand-mounted portable microscope/camera is connected to the PC by a standard USB interface. Three measuring methods: “Auto Count”, “Positioning Count” and “Manual Count”; can be selected for different colors and patterns of fabric. The color of the measuring lines can be changed to contrast with the color of fabrics. The “FABRIC-EYE” software will automatically display a standard line on the picture to confirm the positioning is accurate after manual positioning.

### Specifications:

- Magnification: 1× - 50×
- Specimens: Woven fabrics, knitted fabrics
- Measuring direction: Vertical or Horizontal
- Counting direction: Warp/Weft (filling), Courses/stitches
- Display modes: Threads/10mm and threads/inch
- Mode of storing results: In text files



Standard configuration: No.	Item	Quantity
1	Camera and stand	1 pcs
2	Software	1 disc
3	Calibration ruler	1 pcs

## WRINKLE TESTER AATCC



### AATCC Wrinkle Tester

#### KFG- 2240

The AATCC Wrinkle Tester is used to induce uniform wrinkling according to AATCC Test Method 128 Recovery of Fabrics: Appearance Method.

#### KFG- 2241

The AATCC Wrinkle Recovery Plastic Replicas are used to evaluate fabrics tested according to AATCC Test Method 128 Wrinkle Recovery of Fabrics: Appearance Method.

## KFG-2245 Crease Recovery Tester and Loading Device



To determine the recovery characteristics of fabrics when creased in a loading device for a predetermined time using the appropriate test weight.

Includes loading device, appropriate test weights, tweezers and cutting templates.

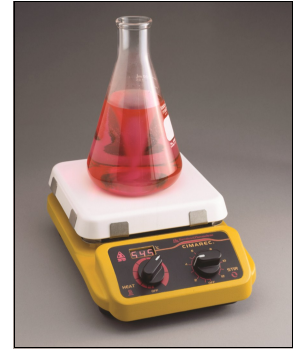
Includes 100 tissue papers.

Built in accordance with ISO 2313, AATCC 66, BS EN 22313 and M&S P22.

## STIRRING HOT PLATES

### Digital Stirring Hot Plate KFG-2250

Digital stirring hotplate has a large heating element for fast and uniform heating. Temperature is adjustable in 5 degree increments from 5 to 540 degrees C. Chemically resistant, seamless ceramic 7 x 7" hotplate keeps spills away from electronics. Repeatable temperature setting is easy with the digital display. Powerful motor keeps stirring speeds constant despite changes in viscosity and prevails slow-speed lurching. Includes integrated ring stand and detachable cord.



### Magnetic Hot Plate Stirrer, 10 positions KFG-2251

- Heating temperature up to 120°C
- High performance multi-position magnetic stirrer with uniform temperature distribution
- Individually controlled stirring for consistency with various samples
- Electronic speed control motor provides constant speed
- DC brushless motor maintenance free and quiet running
- Stainless steel plate with silicone films, anti-slip and anti-corrosion



### Magnetic Stirrer only, 10 positions KFG-2252

Specification as KFG-2251 without heating facility

### Magnetic PTFE Stirrer Bars, KFG-2253

Suitable for KFG2250, 2251 and 2252

6mm dia x 25 mm long- pack of 10



## SPRAY RATING TESTERS

### Spray Rating Tester

#### KFG-2260

To measure the surface wetting resistance of fabric. The tester allows water to be sprayed through a nozzle with a specific spray pattern and flow rate onto a test specimen oriented at 45 degrees and 150mm below the nozzle at the center of the sample. After dispersal of the surface water, the penetration marks are measured against a rating chart.



### AATCC Photographic Rating Chart

#### KFG-2261



### Replacement Spray Nozzle and Rubber Sleeve

#### KFG-2262

## **EASY CUTTER CORDLESS ELECTRIC SCISSORS**

### **KFG-2270**

**Cuts Fiberglass <sup>TM</sup>, Dyneema <sup>TM</sup>, Kevlar <sup>TM</sup>, Spectra <sup>TM</sup>, Vectran <sup>TM</sup>, Twaron <sup>®</sup>, and Similar Engineered Materials.**



### **More Info**

**The choice for composites, laminates, impregnated and coated fabrics as well as regular fabrics!**

- Ergonomic design for comfort and maneuverability.
- Weighs just 8 ounces.
- Powered by long lasting rechargeable and disposable Ni-H2 battery or AC.
- Use indoors or outdoors. Excellent for marine work.
- Short rapid blade action permits intricate, precise cuts.
- Tungsten carbide blades provide extra long life.
- Extra blade assembly with base plate to protect work surface.
- Cuts plies to 1/8" (3.175mm) thick.
- Choice of 110 or 220 volt models.
- Fully guaranteed.

**Includes rechargeable battery, charge, transformer, AC adapter and instructions.**

## DIGITAL VISCOMETER

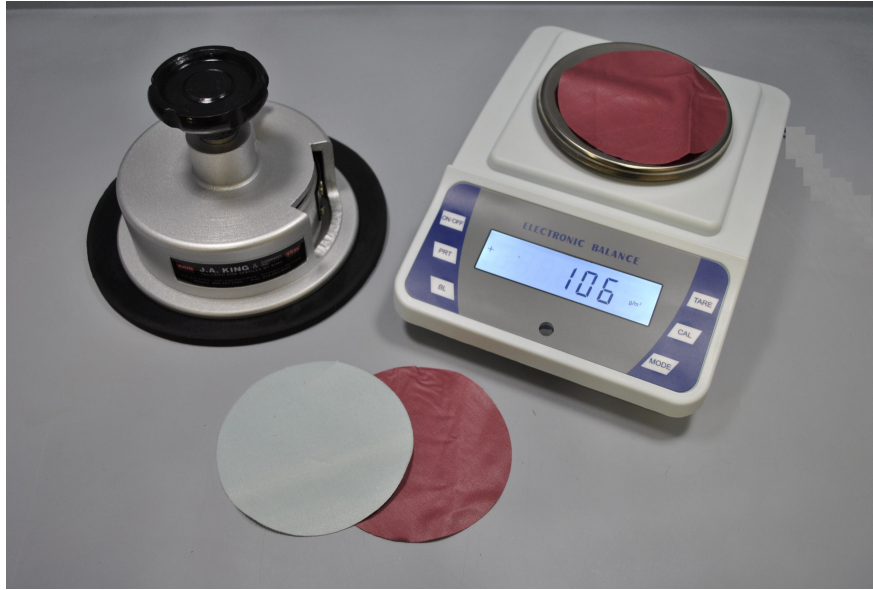
To determine the viscosity of dye solutions, printing pastes, sizing compounds, lubricants, finishes or adhesives. Measures viscosity in centipoise (cP) or millipascal seconds (mPa – s). Also displays torque in %, spindle recognition and speed. Provided with a set of spindles for low or medium viscosity(specify). 18 speed ranges from 0.3 to 100 rpm.



**KFG-2291:** Digital Viscometer with low viscosity spindle set (15–2m)

**KFG-2292:** Digital Viscometer with medium viscosity spindle set (100–13m)

## **FABRIC YIELD SYSTEMS (EUROPEAN/ISO)**



### **KFG-2300**

European standard fabric yield system comprises a manual circular sample cutter with 4 equally spaced blades around a circumference of 4.442 inches (113 mm), producing a circular sample, of exactly 100 sq. cm area (1/100 sq. meter) with one quarter turn of the spring-loaded knob. Also provided is a portable electronic balance with a capacity of 210 grams with a precision of 0.01 grams, complete with integral draft shield. The balance is programmed to read in grams/sq. meter or ounces/sq. yard.

Supplied with 2 sided cutting pad and 12 spare blades.

**KFG-2300A** Manual circular sample cutter ONLY with 4 equally spaced blades around a circumference of 4.442 inches (113 mm), producing a circular sample, of exactly 100 sq. cm area (1/100 sq. meter) with one quarter turn of the spring-loaded knob. Supplied with 2 sided cutting pad and 12 spare blades.

**KFG-2300B** Portable electronic balance ONLY with a capacity of 210 grams with a precision of 0.01 grams, complete with integral draft shield. The balance is programmed to read in grams/sq. meter or ounces/sq. yard.

### **Accessories:**

**KFG-2301** Pack of 10 spare cutting pads.

**KFG-2302** Pack of 100 spare cutting blades.

## **CERTIFIED WASHERS AND DRYERS**

### **Certified Top Loading Washing Machine for AATCC Shrinkage Testing**

#### **KFG-2310**

Certified Top Loading Washing Machine for AATCC Shrinkage Testing. For testing to current AATCC test methods specifying home laundering machines (TM 135 and others).



### **Certified Front Loading Tumble Dryer for AATCC Shrinkage Testing**

#### **KFG-2311**

Certified Front Loading Tumble Dryer for AATCC Shrinkage Testing. For testing to current AATCC test methods specifying home laundering machines (TM 135 and others).



### **More Info**

Available in various electrical specifications depending on country of use – Please specify



## **WASCATOR REFERENCE WASHER EXTRACTOR**



Meets IEC and ISO International standards. Suitable for testing washing effects of detergents and chemicals and for textile quality control. Suspended drum construction allows high extraction force. No foundation required. Small space between outer/inner drum for efficient use of water and detergent. Dual water control of volume (weight) and level. Built in scale for precise volume control, accuracy:-volume control +/- 0.2 liter/bath –level control +/- 0.8 liter/bath. Equipped with Clarus Control – a fully programmable electronic timer. Frequency controlled motor system for flexibility in programming and precise speed. Test tap for water samples. Stainless steel drum assembly, front, side and top panel. Suitable for all ISO, M&S, IEC, Next and BSI Textile Wash Test Programs.

- Dimensions: 720 x 690 x 1315mm
- Weight: 195kg
- Shipping: 272 kg x 0.90 m3

### **KFG – 2312A**

Stability template and shrinkage rule for ISO 6330/Wascator – Clear acrylic with marker pen slots.



### **Precision Digital Tumble Dryer KFG – 2313**

Carefully re-engineered domestic tumble dryer to control temperature to +/- 1 dgs c and cycle time to +/- 1 second. Capacity 5 kg, reversing action, 10 minute cooling time.

- Dimensions: 600 x 600 x 850mm (24 x 24 x 30 inches)
- Weight: 35 kg/77lbs
- Meets applicable ISO, M&S, Next and BS standards



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## MIELE WASHER EXTRACTORS & DRYERS

### MIELE PW 6065 WASHER EXTRACTOR KFG-2314

Specially prepared to meet Nike Wash Protocol 2006 – Elevated Temperature Wash

The Miele Professional PW 6065 is constructed of high grade stainless steel with a bearing designed for 25,000 operating hours. Cast iron counter weights lower vibration to accommodate high speed extraction, an astounding 1400 rpms and a G-force of 526 G's occurs during extraction. This reduces drying times and extends the life of the garment. The washer's powerful asynchronous motor with a frequency controlled drive system enables gentle starts and excellent machine life.

**Honeycomb Drum™:** A Miele exclusive, the Honeycomb drum™ provides superior garment care while enhancing overall cleaning

**Freely Programmable:** All Profitronic Plus programs are freely programmable, allowing the modification of wash temperatures, spin speeds, and starting times to pamper your exact laundry requirements. For even greater personalization, Miele offers unique Application Packages, featuring highly specific and extensively developed cleaning programs.

**Autoclean Dispenser:** A specially coated surface and powerful jets of water enable the detergent to be flushed out of both main wash and pre-wash compartments without leaving any residue.

Capacity 6.5 kg (15 lbs), 59 liters (17 gallons)

Electrical 208v or 230v 50 or 60 hz, 1 ph.

Weight 116 kg (256 lbs)

Dimensions 600mm (24") W, 700mm (28") D, 850mm (33") H



### MIELE PT 7136 PRECISION TUMBLE DRYER KFG-2314A

6.5kg to European standards

Commercial tumble dryer in accordance with EN standards

Type: front loader

Electronically guided (moisture controlled, not time)

Load: 6,5 kg

Energy efficiency class: C

Matches KFG- 2314 Miele PW 6065 Washer/Extractor



## DURAWASH PLUS



### **KFG-2315**

The **DURAWASH PLUS**, now incorporating a spin dryer/hydro extractor, simulates the conditions necessary to meet leading chain stores standard garment and fabric durability tests. The process control systems provide excellent accuracy and repeatability. The physical performance of the **DURAWASH PLUS** is compatible with that of the 'Hoovermatic' Twin Tub and complies with the Marks and Spencer Fabric Durability (C15) and Print Durability (P5) methods of test. The agitator speed is 560rpm +/-5%.

The **DURAWASH PLUS** incorporates a control console, which features the following controls:

Multi range timer with end of cycle audible alarm and automatic agitator shut off.

Temperature indication and control with an accuracy  $\pm 0.25\%$  of controller range. Display resolution  $0.1^{\circ}\text{C}$ .

System control and calibration accuracy better than  $\pm 1^{\circ}\text{C}$ .

Solid state relay for silent switching, reliability and zero electrical noise.

Push button tank drainage with inline filter.

Magnetically coupled drain pump for reliability.

Start button for the spin dryer

### **Other design features include::**

Process tank constructed in high-grade 316 stainless steel.

Lid interlock and latch for added safety.

Stainless steel bearing housing.

Industrial quality motor specification.

Level protection to disable heating.

Easy access for servicing.

Free standing machine on lockable wheels.

## VESLIC RUB FASTNESS TESTER

### KFG-2320

The machine is designed to carry out a rub fastness test on the surface of leather or coated fabrics to determine the marring of the surface finish and to assess the amount of color transfer from the sample to the rubbing pad. The test can be carried out under dry or wet conditions using a dry rubbing pad or a pre-wetting the rubbing pad in distilled water or a sweat solution prior to testing.

The abrasion effect of soiling on upper materials can also be tested on this machine. Using a small profiled rubber pad in place of felt pad, samples can be tested for the effect. Abrasion of shoe uppers by soiling material can be caused in normal wear particularly when wearers cross their legs and the sole of one foot rests on the upper of the other foot.

The sample is placed on the test surface and clamped using clamps provided. Pretension can be effected by adjustment of the knob in conjunction with the percentage scale on the testing table of the machine. A cycle counter is fitted to the machine causing the machine to stop when the pre-determined amount is reached. The square-rubbing element is inserted on the machined holder on the end of the rubbing head, which is lowered to the surface of the test sample.

### Specifications

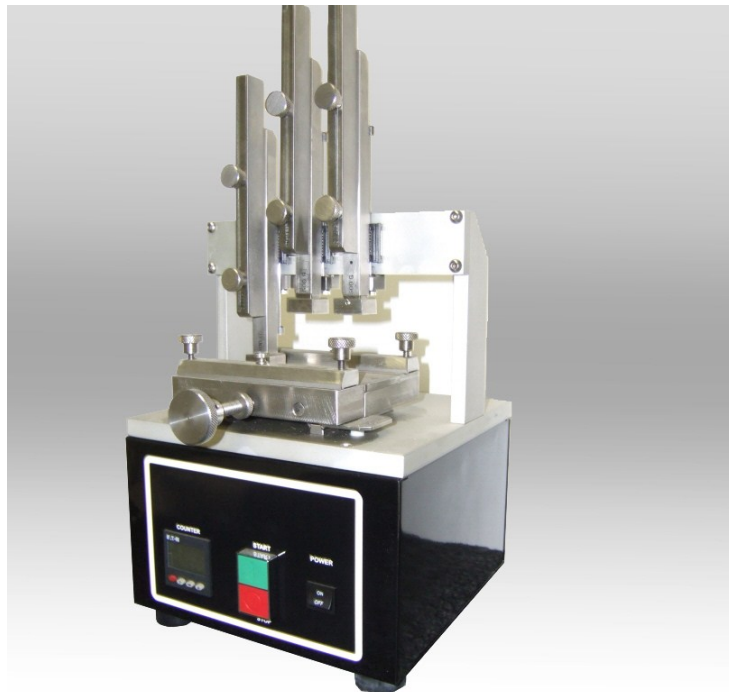
- Cycle counter with auto stop
- Easy adjustment for stretching the material
- Easy clamping for holding the material

**KFG-2320PW** – White felt pads, pack of 100

**KFG-2320PB** – Black felt pads, pack of 100

### Standards

- BS 1006 UK-LG
- IUF 450
- SLF 450
- DIN 53-339
- EN IO 11640
- Veslic C-4500



## BALLY STYLE FLEXOMETERS

### Bally Style Flexometer

#### KFG-2330

The standard Bally Style Flexometer is a twelve station, bench top machine used for the assessment of the flexing endurance of light leathers, coated fabrics and their surface finishes. The tendency for cracks to form in the creases caused by walking can also be determined.

Each station includes a pair of suitable clamps for attaching the test samples

Initially the operation loads as many stations as desired. Then, the desired number of tests cycles is entered on the cycle counter and the test is started. Once this cycle count is reached the machine will automatically stop. Test samples are visually evaluated.



**KFG-2330B Bally Remote** As above but with remote controls for mounting in customer's own chamber

### Bally Cold Flexometer System

#### KFG-2330C

A version is available to mount into a chest freezer, with external controls as well as raising and lowering control, for the cold test methods. Details on request.

### Standards

- BS 3144 Method 13
- SLP 14
- SLP 20
- EN ISO 540
- DIN 53351





## Mace Snag Tester (ICI)

### KFG-2340

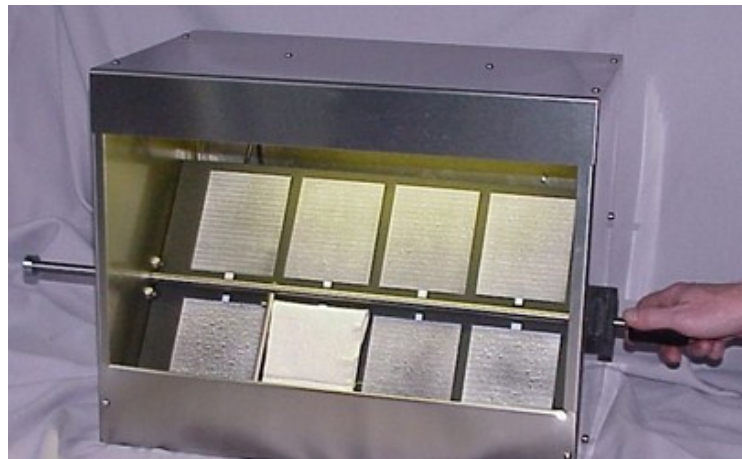
Rapidly determines the tendency of fabrics to snag in normal wear. Provided with 4 rotating cylinders fitted with sleeves of felt and test fabric, mace balls and controlled by a predetermined electronic counter. Meets ASTM D-3939 Standard.



## Mace Snag Tester Viewing Cabinet

### KFG-2341

Includes photographic standards and viewing cabinet with light source. Meets ASTM D-3939 Standard.



## HEXAPOD TUMBLER CARPET TESTER

### KFG-2350

Hexapod Tumbler Carpet Tester, for the evaluation of appearance retention of carpets, with or without padding or underlay.

Rapid test method, completion within 1 working day.

The weighted steel hexapod with 6 polyurethane feet tumbles within a rotating and reversing drum lined with the specimen under test for 2000 revolutions (1 hour) , removed, vacuumed and repeated for a total of 6 times before final assessment.

Provided with new touchscreen controller for ease of operation.



### Standards

ISO 10361:2000, ISO 9405:2001, BS EN 1471 1997

**KFG-2351** Hexapod Tumbler PU Feet - Pack of 6

## PILLING AND ABRASION TESTER



### **KFG-2360/62**

The Pilling Tester determines the resistance of fabrics or leathers ability to resist pilling or abrasion depending on the test method and pilling or abrasion medium in use. There are 6 test stations and the number of test cycles required by the standard being followed may be entered into the predetermined electronic cycle counter. After the required number of cycles the tester will stop allowing for visual examination of the samples. There are 3 versions of the tester available. At a later stage, users may purchase set of sample holders, weights and pilling or abrasion plates to complete the other test methods.

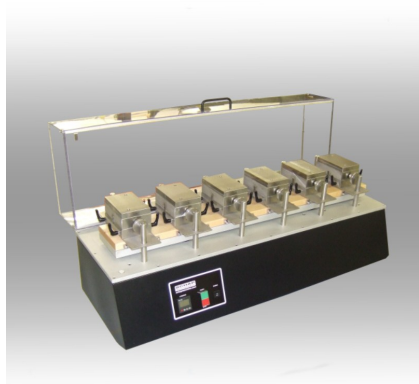
### **KFG-2360**

Brush Pilling tester for apparel fabrics to ASTM test method D3511



### **KFG-2361**

Pilling tester for automotive fabrics to Ford Motor Co test method BN 108-03. Supplied with plates equipped with brush, sponge and Velcro according to the different procedures in the standard.



### **KFG-2362**

Pilling and Abrasion tester for automotive leathers to Ford Motor Co test method BN 108-14 with 25 lb weights, clamps and baseboard as specified.

## ICI PILLING TESTER



### KFG – 2370

The ICI Pilling Tester fulfills the requirement of BS EN ISO 12945 part 1: 2001 – Determination of Fabric Propensity to Surface Fuzzing and Pilling. Available in two or four box versions. Standard accessories supplied with each ICI Pilling Tester.

**KGF-2370** ICI Pilling Tester with 2 boxes

**KGF-2371** ICI Pilling Tester with 4 boxes

- Polyurethane Pilling Tubes (Four per box)
- Cutting Template
- Pilling Tube mounting jig
- Photographic Standards
- PVC Adhesive Tape

### Consumable Products

**KCT-3155** Polyurethane sample tubes (pack of 4)

**KCT-3156** Unmounted cork liners for pilling box (pack of 6)

**KCT-3152** Set of 5 ASTM photographic standards for KFG-2380/1 RTPT

## DRUM PILLING TESTER - M&S



### KFG – 2375

Marks and Spencer Drum Pilling tester designed to meet the requirements of Marks and Spencer methods P18A and P18B

- Features inverter controlled drive system with ability to control speed at 60 rpm, 30 rpm and 30 rpm with reversing action.
- Electronic Counters automatically stop or reverse the drive when the preselected count has been achieved

Provided with standard accessories of :-

- Polyurethane Pilling Tubes and Locking Rings
- Liner Support
- Marks and Spencer Cutting Template
- Specimen Mounting Jig
- Photographic Standards
- Double Sided Adhesive tape

## RANDOM TUMBLE PILLING TESTER



### **KFG – 2380/1**

The Tester consists of individually lit aluminum chambers containing stain-less steel impellers continuously rotating the test samples against cork lin-ers for a pre-determined time. Compressed air is injected into the test chambers to assist the tumbling action. Available in both 2 and 4 test chamber versions. Supplied with cork liners (pack of 50), cotton sliver and set of 5 photographic standards.

Conforms to ASTM D3512, DIN 53867, ISO DIS 12945-3, JIS L1076-D, GB/T/4802-D

**KFG-2380** Random Tumble Pilling Tester (2 Test Chambers)

**KFG-2381** Random Tumble Pilling Tester (4 Test Chambers)

### Consumable Products

**KCT-3150** Cork liners for KFG-2380/1 RTPT (pack of 50) **KCT-3151** Cotton Sliver for KFG-2380/1 RTPT (10 yds/9m)



## MARTINDALE ABRASION AND PILLING TESTER

### KFG-2390/2



The Martindale Abrasion and Pilling Tester is internationally recognized and accepted as the standard method of determining the wear resistance of textiles or leather and the resistance to pilling. JA King are now able to offer a technically advanced machine that is easy to use and inexpensive to own.

Three models are available, with 4, 6 and 8 Abrading Tables respectively. All models include an advanced control system utilizing 'Touch Screen' technology and a powerful programmable control system that has been developed to provide maximum flexibility and user friendliness.

The tester conforms to BS EN ISO 12945-2, BS EN ISO 12947-1/-2/-4, ASTM D4966/D4970, M&S P17/P19/P19C among others.

- **KFG-2390** 4 position Martindale
- **KFG-2391** 6 position Martindale
- **KFG-2392** 8 position Martindale
- **KFG-2393A** Pilling test accessories to ISO 12945-2 (4 position)
- **KFG-2393B** Pilling test accessories to ISO 12945-2 (6 position)
- **KFG-2393C** Pilling test accessories to ISO 12945-2 (8 position)
- **KFG-2394A** 38mm diameter sample cutter
- **KFG-2394B** 140mm diameter sample cutter
- **KFG-2395A** EMPA pilling photographs knitted fabrics
- **KFG-2395B** EMPA pilling photographs woven fabrics

### Consumable Products:

- **SDC-2010** Martindale woven felt discs (24 x 90mm dia)
- **SDC-2011** Martindale woven felt discs (24 x 140mm dia)
- **SDC-2012** Martindale woven felt (1.5 x 1m piece)
- **SDC-2016** Martindale SM25 abradent fabric (1.6 x 5m piece)

## Solarbox Xenon Arc Light Fastness Testers



Solarbox 1500e RH

### KFG-2400 Solarbox 1500

Tabletop xenon system for accelerated sun exposure testing equipped with: Countdown timer up to 999 hours and total hour counter. 1500 Watt air cooled lamp designed to simulate sun exposure. Controlled system for constant irradiance. Infinitely variable irradiance via control knob up to 1.100 W/m<sup>2</sup> TWO SUN level region (290-800nm). Soda-lime glass UV filter 290 nm, extra long life, to simulate **outdoor exposure**. Horizontal removable sample tray, with exposure area 200 x 280 mm. Dimensions: 750 x 390 x 400 mm. Electrical connection to 230 Vac, 50/60 Hz.

### KFG-2401 Solarbox 1500e

Tabletop xenon system for accelerated sun exposure testing equipped with the following additional features: • Microprocessor for programming cycles and end point. • 4 lines, 20 character LCD display. • Control and display of irradiance. • Control and display of Black Standard Temperature. • Up to 15 memorized test programs, free programming. • Complete test report via RS 232 serial interface. • Horizontal removable sample tray, with exposure area 200 x 280 mm. • Dimensions: 750 x 390 x

### KFG-2402 Solarbox 1500e RH

Xenon system for accelerated sun exposure testing of plastic materials, textiles, paints, cosmetics and pharmaceuticals, equipped with: • 1500 Watt air cooled xenon lamp. • Horizontal removable sample tray, with exposure area 200 x 280 mm. • Soda-lime glass UV filter, extra-long life, to simulate **outdoor** exposure. • Control system for constant irradiance. Setting of irradiance from 300 to 1000 W/m<sup>2</sup> (300-800 nm) • Control and monitoring of Black Standard Temperature. Setting of BST temperature up to 80 °C. • Control and monitoring of R.H. relative humidity. • Microprocessor control panel with 4 lines (20 characters each) LCD display, friendly and intuitive operating system. • Free programming memorization power up to 15 tests. • RS 232 serial interface. • Complete test report is produced for each test you perform simply connecting your PC to RS 232 interface: press print push button and history of test is printed. • Extremely high-range ultrasonic humidifier allows to obtain high humidity values with negligible demineralized water consumption. • Humidifier tank for demineralized water of about 50 litres ensures weeks and weeks of continuous functioning. • Mains voltage: 230 V ac 50/60 Hz. • Dimensions: 810 x 550 x 1.600 mm. • Weight. 100 Kg.



### KFG-2403 Calibration Multimeter

MULTIMETER, portable, battery operated radiometer and thermometer for check and calibration with carrying case but without sensors

**KFG-2403A** Sensor 295–400nm. Wide band total UV sensor

**KFG-2403B** BST (Black Standard Temperature) sensor

**Note:** All Solarbox testers are also available as model 3000 with larger 200 x 420mm exposure area and 2500 watt xenon arc lamp. Details on request.

## DRY CLEANING AND WASHING CYLINDER

**KFG-2410**

**Dry Cleaning and Washing Cylinder.** To determine color fastness to dry cleaning and chlorinated pool water, to prepare samples for flammability testing. Comprises stainless steel rotating test chamber of 7650ml capacity, variable speed drive with digital timer and displays.

**Standards:** AATCC 162, CFR 16 CFR 1610

**Features:**

- Stainless steel cylinder, good sealing performance
- Variable speed drive with digital display
- Equipped with timer, range from 1~9999min
- Rotation angle 50°

**Dimension** 1050mm×580mm×820mm(L×W×H)



## SCORCH AND SUBLIMATION TESTER

### KFG-2420

To determine color fastness to hot pressing and dry heat and to conduct sublimation tests. Providing controlled conditions of dry heat and pressure with top and bottom heated surfaces, electronic temperature controllers and carefully controlled top plate weight.

- Controllers for time and temperature, with over-temperature safety function to shut down the unit in case of over-heating.
- Temperature sensor (Pt100), to control temperature accurately.
- Two separate heating elements for top or bottom plates, individually controlled
- 3 sets of plates can be individually controlled
- Heating mode  
Scorch: Single heating  
Sublimation: dual heating
- Heating plate dimensions 50×110mm
- Range of temperature Ambient to ~250°C
- Test pressure 4±1KPa
- Timer range 0~999S, LED display
- Instrument size 780×290×200 mm (L×W×H)
- Instrument Weight 20kg



## BEAN BAG SNAG TESTER

**KFG-2430**

Bean bag snag tester, to determine the snagging and picking characteristics of knitted fabrics by tumbling fabrics pillows containing a weighted bean bag within two separate test cylinders provided with eight pinned bars, rotating at 20 RPM for 100 revolutions, predetermined electronic counter.

### Standards

ASTM D5362 JIS L1058

With transparent Plexiglas security cover

LED display and resettable counter

Drum size 200 x 145mm

Testing speed  $20 \pm 3$  rpm

8 Pinned bars 8 x 127mm with 9 pins

Pin length 10mm, spacing 12mm, inclination  $30 \pm 5^\circ$

Specimen size 215 x 115mm

Bean bags  $450 \pm 10$ g





## **GAS FUME CHAMBER**

### **KFG-2440**

The Gas Fume Chamber is used to determine the colorfastness of textiles when exposed to atmospheric oxides of nitrogen derived from the combustion of chemically-pure butane gas or town gas.

#### **Related Standards:**

AATCC 23 ISO 105-G02

#### **Features:**

PLC control

Transparent window

Revolving speed of sample rack  
- 2 rpm

Test chamber-Made of SS, interior diameter of 550mm

Number of bars for mounting samples 6

Test temperature-  $\leq 60^{\circ}\text{C}$

Sample size- 40×100mm

Control mode- PLC control

Gas required- Butane gas (Chemically pure) or town gas

Dimensions- 650×620×820mm (L×W×H)

Weight- Approx. 75kg

Power supply- AC220V 50Hz 3A



## ELMENDORF TEAR TESTER

### KFG-2450

To determine the ballistic tear strength testing of textiles, plastic films, paper or board. Mechanical Elmendorf Tear Tester Stand 1600 Gram Pendulum Assembly Included with Manual Sample Clamps (2) Integral Sample Cutting Knife Included

**Standards:** ASTM D1424, D1922, BSEN ISO 13937, TAPPI T-414 amongst others

- **KFG-2451:** Additional 800 Gram Pendulum with manual sample clamp (1)
- **KFG-2452:** Additional 3200 Gram Pendulum with manual sample clamp (1)
- **KFG-2453:** Additional 6400 Gram Pendulum with manual sample clamp (1)
- **KFG-2450C:** Calibration weight for 1600 Gram Pendulum
- **KFG-2451C:** Calibration weight for 800 Gram Pendulum
- **KFG-2452C:** Calibration weight for 3200 Gram Pendulum
- **KFG-2453C:** Calibration weight for 6400 Gram Pendulum



## DART DROP IMPACT TESTERS

### KFG-2460-2

- Economical stand-alone testers for measuring impact resistance of films and laminated materials.
- Available with manual or pneumatic actuation.
- Configured for ASTM D1709 method A or methods A & B

### KFG-2460 MANUAL CLAMPING STYLE

- ASTM D1709 Method A
- All aluminum base with baked enamel finish
- Two steel clamp rings chrome plated
- Upper clamp ring pivoted, grooved for rubber ring
- Two manual toggle type clamps
- Stainless steel backpost for 66 cm (26 inch) drop height
- Aluminum dart holder with manual thumb screw release
- One 412 gram dart set with 0.750 inch radius phenolic dart head, dart weights are stainless steel, including: (2) 120 gr, (1) 60 gr, (1) 30 gr, (2) 15 gr, (2) 5 gr weights, and (1) set screw collar



## DART DROP IMPACT TESTERS

### KFG-2461 PNEUMATIC CLAMPING STYLE

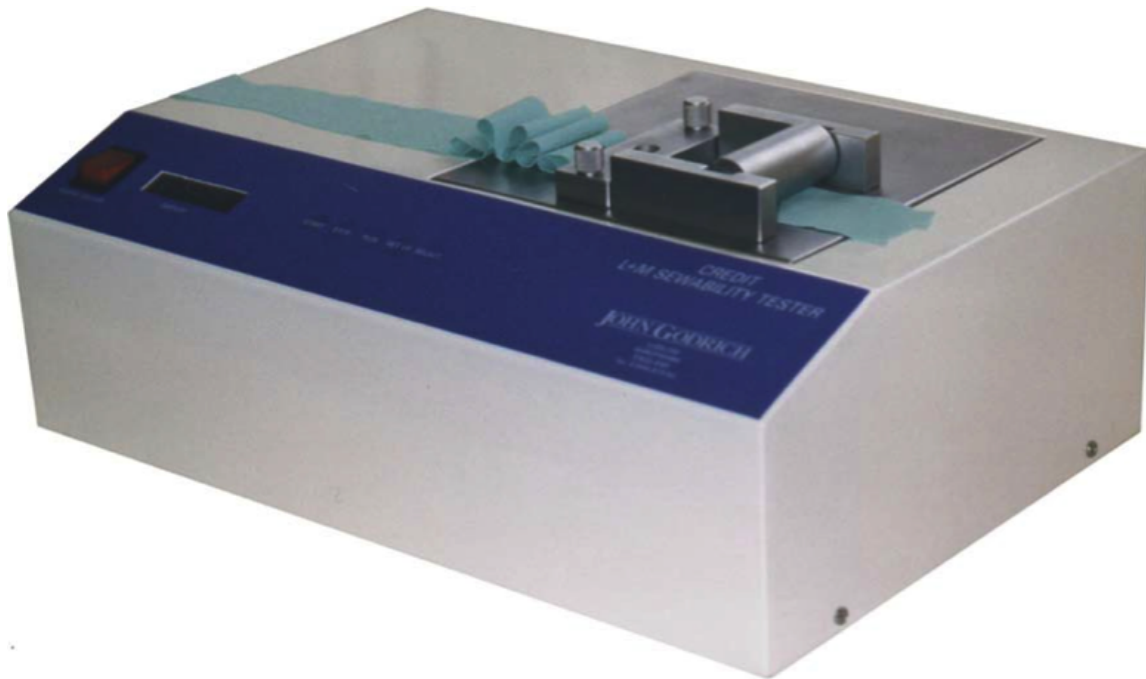
- ASTM D1709 Method A
- Two 2" air cylinders actuate upper clamp ring
- Aluminum dart holder with pneumatic dart release
- All aluminum base with baked enamel finish
- Two steel clamp rings chrome plated
- Stainless steel backpost for 66 cm (26 inch) drop height
- One 412 gram dart set with 0.750 inch radius phenolic dart head, dart weights are stainless steel, including: (2) 120 gr, (1) 60 gr, (1) 30 gr, (2) 15 gr, (2) 5 gr weights, and (1) set screw collar

### KFG-2462 PNEUMATIC CLAMPING STYLE

- ASTM D1709 Method A&B
- All aluminum base with baked enamel finish
- Two steel clamp rings chrome plated
- Upper clamp ring grooved for rubber ring
- Two 2" air cylinders raise/lower upper clamp ring
- Stainless steel backpost for 26 and 60 inch drop height
- Aluminum dart holder with pneumatic dart release
- One 412 gr. dart set with 0.75 radius phenolic dart head, with stem, collar, stainless dart weights: (2) 120 gr, (1) 60 gr, (1) 30 gr, (2) 15 gr, (2) 5 gr set



## KFG-2480 L&M Sewability Tester



The **L&M Sewability Tester** has been developed to give a standard reproducible test for sewability, i.e. a test which will indicate to the clothier whether any supplied fabric is capable of being sewn without difficulty. The information supplied by the machine is not subject to variations of sewing conditions or operator skill.

**The machine is useful to the fabric supplier:**

To ensure that fabric finish comes up to standard.

**The machine is useful to the clothing manufacturer:**

To ensure that the fabric will give a satisfactory sewing performance.

**Advantages of the instrument:**

1. Only a small sample of the fabric is needed.

2. The test is rapid and the operating procedure simple.

The machine stops automatically and the results are displayed.

3. The versatility of the machine enables other investigations to be carried out, such as effect of fabric finishes and constructions on sewability, studies of needle characteristics and of the optimum needle size for satisfactory sewing of a particular fabric.



## KFG-2480 L&M Sewability Tester

The ease which a sewing needle can penetrate a fabric is determined by the frictional characteristics of that fabric. In fabrics with low frictional characteristics, the fibers and yarns in the fabric can move easily to allow passage of the needle and hence the penetration force is low and no damage occurs. In fabrics which have high frictional characteristics the fabric components cannot move easily and so the force for penetration by the needle is high. This value may exceed the breaking strength of the yarn and so damage occurs, or alternatively the high frictional forces encountered by the needle will cause generation of heat which in high speed sewing will cause fusing of the fabric. The frictional characteristics of the fabric are determined by a number of factors. Of prime importance is the method of dyeing and finishing, for example, solvent-scoured fabrics from which lubricants have been removed, possess high frictional characteristics and poor sewability, and fabrics to which lubricants and softeners have been added have low forces for penetration and good sewability.

The **L&M Sewability Tester** enables consecutive readings of force for penetration of the fabric by a selected needle to be measured on a small sample of fabric at a rate of 100 penetrations/min. Using a threshold figure high counts are recorded when the threshold is exceeded. Good sewability is indicated by the absence of 'high' counts.

The **L&M Averager** (built into the main machine) will assist in looking at the distribution of penetration forces (particularly important for woven fabrics) and operates in two ways.

**Average** This shows the average force on the needle over a period of 100 penetrations and will automatically adjust the average at each successive 100 penetrations.

**Force gm** This will show the peak penetration force at each penetration. This can be useful for short-term tests and looking at short-term variation in fabrics. The average is automatically reset by resetting the total and high count buttons.

**While the Averager is operating**, the high count method of sewability testing is also in operation.

**Included** – Software for PC connection and recording individual penetration forces and results.

## KFG-2485 Needle and Metal Detector



High Sensitivity 360 degree encircling coil technology without magnets  
Designed in the UK by York Technology Ltd

Color touch screen controller with :  
Data logging and reporting to Flash drive memory  
Software with automatic product learn facility  
Multiple Languages

Detection tunnel Size 550mm wide x 125mm deep  
Sensitivity ferrous ball diameter better than 0.8mm  
Dimensions L-2200mm x W-1084mm x H-1128mm x Weight 360 kg  
Audible alarm with belt stop on detection  
Belt speed 30m/minute  
Average output 30,000 items per 8 hour shift  
Universal Power requirements,  
110-240v / 50-60 Hz Single phase – 400VA

Other sizes available

York detectors are approved by:



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6541 Franz Warner Parkway  
Whitsett, NC 27377 USA

Info.TextileTestKing@JAKing.com  
+ 1 866 802 6703

[WWW.TailoredForTextiles.COM](http://WWW.TailoredForTextiles.COM)



# J.A.KING

PRECISION MEASUREMENT PROFESSIONALS

## PNEUMATIC PADDERS

### KFG-2500 PNEUMATIC VERTICAL PADDER

All stainless-steel free-standing construction with following features:

- 1 pair of padding rollers 125mm diameter x 450mm wide, NBR material of 70° shore hardness, 3 ton nip pressure @ 5 kg/sq cm. Fixed fabric speed of 10 RPM
- 2 diaphragm valves with individual pressure gauges and regulating valves
- 1/4 HP electric motor with speed reducer 220V or 380V x 3PH x 60 or 50Hz
- Safety devices include a safety rod, emergency stop button and knee pad which will automatically stop the machine as well as release both padding rolls
- 1000cc capacity liquor trough with fabric guide bars and drain facility
- Fitted with water spray and air gun for cleaning and drying

Weight 340 kg (748 lbs) Dimensions 980mm (39") W, 560mm (22") D, 1500mm (60") H

### KFG-2501

Specifications as KFG-2500 except that the padding rollers are horizontally oriented and fitted with Teflon sealing plates at each end of the two rollers to allow liquor to be applied at the roller nip as well as by the liquor trough.

Weight 370 kg (814 lbs)

Dimensions 1000mm (40") W, 600mm (24") D, 1160mm (46") H



## MINIDRYER AND STENTER

### **KFG-2505 Minidryer and Stenter** FOR LABORATORY DRYING, FIXING AND CURING OF SMALL SAMPLE

- All stainless-steel construction with electrical heating
- Connection to 220V or 380V x 3PH x 50 or 60HZ (specify) X 6KW
- Sample size : 350 x 400 mm
- Automatic pin frame transport with preselectable dwell times from 10 seconds to 6 minutes
- Electric heating 6KW
- Temperature range from 30-250 degrees C by Hot-Air Circulation
- Digital display type temperature controller
- 3 sets of pin frames adjustable in length and width for sample sizes
- Audible alarm for end of test
- Air duct with adjustment for top and bottom air circulation



Weight 250 kg (550 lbs)  
Dimensions 650mm (26") W, 1064mm (42") D, 950mm (38") H

### **KFG-2506 Minidryer, Stenter and Steamer** FOR LABORATORY STEAMING, DRYING AND CURING OF SMALL SAMPLES

Has all the features of the Electric Minidryer. In addition it can be operated in steamer mode for dye and print fixation and setting by subjecting samples to superheated steam under pressure of 1kg/sq cm at 102 degrees C and high temperature steaming to 220 degrees C.

Since superheated steam is circulated in the air-tight steaming chamber, for even steam distribution

Automatic temperature controller

Pressure regulating valves and pressure indicator at steam inlet for fine control.

Weight 380 kg (840 lbs)

## LABORATORY PAD-STEAM RANGE

### KFG-2510

#### Features:

- Pick-Up for of 60% for 100% cotton, 45% for 50/50% polyester/cotton
- Adjustable fabric speed control, standard dwell time inside the steaming chamber from 30-90 seconds
- Padding roller pressure adjustable independently on RH/LH; permanently constant nip pressure
- Safety devices include a safety rod in between the padding rollers plus an emergency touch ON/OFF button which will automatically stop the machine as well as release both padding rollers
- Short distance between the padding rollers and the entry to the steaming chamber gives excellent reproducibility
- All stainless steel manufacture



#### Technical Specifications:

- Vertical padding mangle, roller diameter 125mm x 300mm effective working width.
- Padding rollers produced of N.B.R. rubber material of 70o shore hardness
- Pneumatically-Controlled padding roller pressure stays constant at all time.
- Maximum pressure 6kg/cm. Accessories include Air Filter, Pressure Regulating Valves, Pressure Gauges.
- Speed control by frequency inverter, standard dwell time 30-90 seconds
- Steam trap float-actuated FUO type.
- Steaming chamber highly insulated using quality asbestos material.
- Main drive of 3-Phase 6-pole motor (380V x 3PH x 50HZ)
- Adjustable dwell time in chamber from 30-90 seconds with digital display
- Digital display temperature indicator
- Steam consumption : 5 kg/hour for indirect steam
- 15 kg/hour for direct steam
- Machine weight : about 300 kg
- Liquor trough of padding mangle : about 1000cc capacity

\* Air compressor, External Steam Generator , steam/water pping, not included



## LABORATORY PAD-THERMOSOL RANGE

### KFG-2515

The test fabric padded by the horizontal pneumatic-type Padder is held on its both ends by special clip bars, this completes sample holder is again mounted on the chains which are running endlessly through the Machine. The test fabric is firstly led through the infra-Red Pre-Heater, then the intermediate Dryer and finally the Thermosoling zone. After testing, the test fabric is taken off automatically from the carrying chains and drops down into the reserve box.

**Size of test fabric:** Max. 230 mm by 400 mm L  
**Type of Padding Mangle:** Horizontal  
**Size of Padding Rollers:** 125 mm by 300 mm wide (x 2) Material Hardness 70 shore  
**Roller Weighing System:** Pneumatic Diaphragm Type Max. applicable Nip  
**Pressure:** 3 tons at 5 kg/cm<sup>2</sup>  
**Compressed Air Supply:** 5 bar  
**Type:** 12 Infra - Red Ray Heaters with Reflection Plates arranged in two rows  
**Electric Heater Capacity:** 3 Phase, 4.8KW with 2-Stage Switch for 6 Heater  
**Full Capacity Length of Setting Zone:** 900 mm  
**Accessories:** 70-120 mm Interval adjusting device  
**Fluid Bed:** 100 cc Capacity with 4 x Cross and Rotary Type Guide Bars

Accessories: Air Pressure Regulators, Pressure Gauges, Air Filter, Water Shower Head, Safety Devices

#### INTERMEDIATE DRYER

Length of Drying Zone: 1,800 mm  
 Maximum Temperature: 150°C by Automatic  
 Control System Heater Capacity: 3 Phase 10 kW  
 Fan Motor: 3 Phase 0.75 KW, Hot-Air Circulation with Vary-Speed Control

#### THERMOSOLING

Length of Thermosol Zone: 1,500 mm  
 Maximum Temperature: 250°C by Automatic  
 Control System Heater Capacity: 3 Phase 10 KW  
 Fan Motor: 3 Phase 0.75 KW, Hot-Air Circulation with Vary-Speed Control

#### PROCESSING TIME

Thermosoling Zone: 30 seconds to 2 minutes (Standard)  
 intermediate Dryer: 36 to 150 seconds  
 Pre-Heater: 18 to 72 seconds

#### OTHER ATTACHMENTS

Clip Chain Driving Device Padding Mangle Driving Device Fabric Detaching Device

#### OTHER ACCESSORIES

Test Fabric Clip Bars ( x 20 pcs.)  
 Control Panel 1 Set

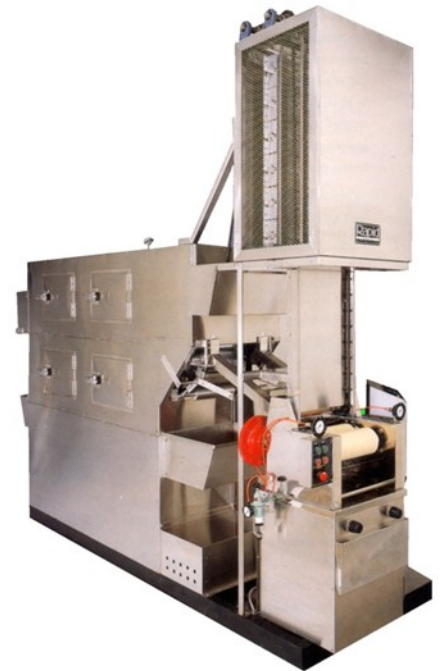
#### DRIVING MOTOR

3 Phase 0.75KW 4-pole Motor, Speed Variation by inverter

**TOTAL ELECTRIC CONSUMPTION:** Approx. 25 KW, 380V x 3PH x 50HZ

**Machine Dimension:** 3,000 x 1,200 x 2880mm ( L x W x H)

**Machine weight:** 1,600Kg



## INFRARED LABORATORY DYEING SYSTEM

### **KFG-2550**

This new Infra-Red Laboratory Dyeing System is a state-of-the-art dyeing unit. The air cooled IR unit addresses a very wide range of dyeing and testing requirements at an affordable price. The unit produces accurate laboratory sample dyeing with outstanding levelness and reproducibility. It can accommodate many different beaker sizes and quantities maximizing the versatility of the machine to change as your requirements change.

The IR LDS moves the beakers in a circular rotation with advanced infrared heating technology that eliminates glycol contamination and cumbersome beaker cleaning. The specially designed pressure tested beakers offer maximum safety and can be used for atmospheric and high temperature dyeing. Chemical auxiliaries can be easily added through our specially designed membrane beaker lid without removing the lid. The easy to operate multi-step controller makes operator error virtually impossible. The actual temperature inside the beaker is measured directly by a precision PT-100 probe and ensures the greatest temperature accuracy. The IR LDS is suitable for all types of substrates. State-of-the-art microprocessor technology ensures accurate temperature and process control.

**KFG-2550A:**Infra-Red Laboratory Dyeing System with 20 beakers x 150cc, membrane dosing

**KFG-2550B:**Infra-Red Laboratory Dyeing System with 15 beakers x 300cc, membrane dosing

**KFG-2550C:**Infra-Red Laboratory Dyeing System with 8 beakers x 500cc, membrane dosing

**KFG-2550D:**Infra-Red Laboratory Dyeing System with 8 beakers x 1000cc, membrane dosing

**KFG-2550E:**Infra-Red Laboratory Dyeing System with 1 container x 5000cc



## INFRARED LABORATORY DYEING SYSTEM

### KFG-2550

- Multiple beaker configurations (20 x 150 cc, 15 x 300 cc, 8 x 500 cc, 8 x 1000 cc, 1 x 5000 cc).
- Membrane dosing included. High-grade precision stainless steel construction.
- New controller interface uses symbols to relay programming information, eliminating the need for language translations.
- New See-through Door
- High temperature glass protected by a heat shield allows the user to visibly see the beaker motion in action.
- New Temperature Sensor
- High efficiency Infra-Red lamps and high output air cooling system reduce energy consumption
- Up to 20 dyeing positions available, many beaker sizes available, adaptable as the needs of the dye lab change.
- Low liquor ratio capable, down to 1:5 (natural fibers) or 1:3 (synthetic fibers)
- Beaker agitation options that offer smooth or aggressive agitation given the specific substrate requirement. Speeds 5-50 rpm with reversing.
- Up to 99 programs of 15 steps available to be stored locally for easy recall.
- Dyeing temperature measured inside the beaker.
- Standard operating package includes tools, spare temp probe, spare beaker seals, gaskets, membranes and 10cc injector syringe with spare needles
- Recommended sample sizes: for 150cc beaker-5g, for 300cc beaker-10g, for 500cc beaker-25g, for 1000cc beaker-50g, for 1000cc container-250g



Dimensions: 600 mm (24") W x 650 mm (26") D x 870 mm (34") H

Weight: 73 kg (160 lbs)

Electrical 220/240v AC, 50/60hz, 1ph

## ECO DYER LABORATORY DYEING MACHINE

### **KFG-2560**

New heat-conducting technology, to avoid uneven heating for individual beakers  
Axial type rotary system with 360 degree rotation for level dyeing  
Lowest energy consumption compared to Glycerin or Infrared machines  
In-pot sensor is not required, eliminating temperature probe  
Air cooling system, no water piping is required  
The rotary disc has an infinitely variable drive  
The direction of rotation is automatically reversed in intervals to meet all of dyeing application  
Dye pots and pot positions are numbered to avoid operating errors  
Armored observation window in door  
Beakers are manufactured from stainless steel 316L, produced by pressing, not welding

**Patented design for chemical addition system**, ECO Dyer uses “ONE TOUCH” injection system, no syringes required.

Temperature range 20-140 degrees C  
Heating consumption 4.5 KW  
Rate of temperature rise 0.5~4 degrees C/min  
Rotating drum with 18 positions of 420 cc beakers or 24 positions of 300 cc beakers  
“ONE TOUCH” injection lids with reserve cup  
LA2010 Microprocessor temp. Controller  
Dyeing programming and monitoring via 128x 64 graphical screen  
50 programs x 50 steps  
Power connection: 220/240V x 1PH x 50 or 60HZ

**KFG-2560A** ECO DYER with 18 beakers  
of 420 cc capacity

**KFG-2560B** ECO DYER with 24 beakers  
of 300 cc capacity

Weight 150 kg (330 lbs)

Dimensions 690 mm (27") W x 730 mm  
(29") D x 750 mm (30") H





## TEXTILE TESTING CONSUMABLES





## PRODUCT GUIDE

Part Number	TEXTILE TESTING CONSUMABLES
KCT-3001ACC	AATCC Multifiber fabric 2 x 4" cold cut (1000)
KCT-3001AHS	AATCC Multifiber fabric 2 x 4" heat sealed (1000)
KCT-3001AOL	Multifiber fabric 2 x 4" overlocked (1000)
KCT-3001CC	AATCC Multifiber fabric 2 x 2" cold cut (1000)
KCT-3001HS	AATCC Multifiber fabric 2 x 2" heat sealed (1000)
KCT-3001OL	AATCC Multifiber fabric 2 x 2" overlocked (1000)
KCT-3002	ISO Multifiber ribbon 10 meter roll
KCT-3002A	ISO Multifiber ribbon 4 x 10 cm (1000)
KCT-3002B	ISO Multifiber ribbon 5 x 10 cm (1000)
KCT-3012	AATCC Cotton/polyester ballast 36 x 36", 12 pieces 4lb load
KCT-3013	ISO Polyester ballast 30 x 30 cm 1kg
KCT-3014	ISO Polyester ballast 20 x 20 cm 1kg
KCT-3015	ISO Cotton ballast 92 x 92 cm 1kg
KCT-3020	Crockmeter fabric 2 x 2" (1000)
KCT-3030	Crockmeter calibration fabric (25 pcs)
KCT-3031	Emery paper for crockmeters 4.5 x 5.5 inches, 100 pieces
KCT-3041	AATCC Standard reference detergent without optical brightener
KCT-3042	AATCC Standard reference detergent with optical brightener
KCT-3051	AATCC Blue wool L-2
KCT-3052	AATCC Standard of fade L-2
KCT-3053	AATCC Blue wool L-4
KCT-3054	AATCC Standard of fade L-4
KCT-3055	ISO Blue wool standards 1-8
KCT-3056	AATCC Xenon reference fabric XRF-1
KCT-3057	AATCC Standard of fade XRF-1
KCT-3058	AATCC Chlorine test control fabric
KCT-3061	AATCC Grey scale - staining
KCT-3062	ISO Grey scale - staining
KCT-3063	AATCC Grey scale - color change
KCT-3064	ISO Grey scale - color change
KCT-3070	AATCC Chromatic transfer scales
KCT-3075	AATCC Uniformity reference scale
KCT-3081	AATCC Smoothness appearance replicas
KCT-3082	AATCC Crease appearance replicas
KCT-3090	AATCC Seam smoothness photographs
KCT-3101	AATCC Stain release replica

## PRODUCT GUIDE

Part Number	TEXTILE TESTING CONSUMABLES
KCT-3102	AATCC 5lb weight for stain release
KCT-3105	AATCC Standard Blotting Paper—10 x 10 inches, pack of 100
KCT-3106	AATCC Standard Blotting Paper—6 x 6 inches, pack of 100
KCT-3107	AATCC/ASTM Standard Soil—1 kg pack
KCT-3110	AATCC Shrinkage ruler
KCT-3121	Texpens medium ss point, pack of 6
KCT-3122	Texpens fine ss point, pack of 6
KCT-3123	Dalomarkers broad point
KCT-3124	Dalomarkers medium point
KCT-3130	pH pencils - pack of 3
KCT-3141	AATCC Technical Manual or CD
KCT-3142	ASTM Standards Volumes 7-01-02, set of 2 or CD
KCT-3150	Cork liners for KFG-2380/1 RTPT (pack of 50)
KCT-3151	Cotton Sliver for KFG-2380/1 RTPT (10 yds/9m)
KCT-3152	Set of 5 ASTM photographic standards for KFG-2380/1 RTPT
KCT-3155	Polyurethane sample tubes for ICI pilling box (pack of 4)
KCT-3156	Unmounted cork liners for ICI pilling box (pack of 6)
KCT-3160A	Calibration foils for bursting testers, pack of 10, 5-10psi
KCT-3160AA	Calibration foils for bursting testers, pack of 10, 11-20psi
KCT-3160B	Calibration foils for bursting testers, pack of 10, 21-30psi
KCT-3160C	Calibration foils for bursting testers, pack of 10, 31-50psi
KCT-3160D	Calibration foils for bursting testers, pack of 10, 51-65psi
KCT-3160E	Calibration foils for bursting testers, pack of 10, 66-80psi
KCT-3160F	Calibration foils for bursting testers, pack of 10, 81-110psi
KCT-3160G	Calibration foils for bursting testers, pack of 10, 111-130psi
KCT-3160H	Calibration foils for bursting testers, pack of 10, 131-170psi
KCT-3160J	Rubber Diaphragms ref 516 for Mullen C burst tester, textiles, pack of 12



## PRODUCT GUIDE

### Part Number SDC UK CERTIFIED TEXTILE TESTING CONSUMABLES

SDC-2010	Martindale woven felt discs (24 x 90mm dia)
SDC-2011	Martindale woven felt discs (24 x 140mm dia)
SDC-2012	Martindale woven felt (1.5 x 1m piece)
SDC-2016	Martindale SM25 abradent fabric (1.6 x 5m piece)
SDC-2021	Martindale PU foam (25 sheets 25 x 20cm)
SDC-2115	Multifibre DW (10 meter roll)
SDC-2120	Multifibre DW (50 meter roll)
SDC-2133	Multifibre 10 x 4 cm (250 Pack)
SDC-2143	Multifibre DW 10 x 5 cm (200 Pack)
SDC-2205	Multifibre TV high temperature (50 meter roll)
SDC-2408	ECE Non Phosphate Detergent (A) 2kg
SDC-2420	ECE Non Phosphate Detergent (A) 15kg
SDC-2458	ECE Phosphate Ref Detergent (B) 2kg
SDC-2470	ECE Phosphate Ref Detergent (B) 15kg
SDC-2508	IEC Non Phosphate Ref Detergent (A) 2kg
SDC-2520	IEC Non Phosphate Ref Detergent (A) 15kg
SDC-2558	IEC Phosphate Ref Detergent (B) 2kg
SDC-2570	IEC Phosphate Ref Detergent (B) 15kg
SDC-2821	ISO Blue Wool Pattern No.1
SDC-2822	ISO Blue Wool Pattern No.2
SDC-2823	ISO Blue Wool Pattern No.3
SDC-2824	ISO Blue Wool Pattern No.4
SDC-2825	ISO Blue Wool Pattern No.5
SDC-2826	ISO Blue Wool Pattern No.6
SDC-2827	ISO Blue Wool Pattern No.7
SDC-2828	ISO Blue Wool Pattern No.8
SDC-3305	ISO Grey Scale For Change in Colour - ISO 105 A02
SDC-3355	ISO Grey Scale For Staining - ISO 105 A03
SDC-3405	Standard Depths, set of 4 cards to BS1006 A01
SDC-3605	Humidity Test Control Fabric - ISO 105 B02
SDC-3810	Fluorescent Suppressor Laminated Plate
SDC-4105	Polyester Ballast 20x20cm x 25 pcs - ISO6330/1994
SDC-4110	Polyester Ballast 30x30cm x 20 pcs - ISO6330/2000
SDC-4115	Cotton Ballast 92x92cm x 10 pcs - ISO6330/2000
SDC-4220	Phenolic Yellowing Control fabric 10x3 cm (25 pcs)
SDC-4222	BHT-free 63 micron film 40x20cm (100 sheets)
SDC-4225	Phenolic Yellowing Test Papers (50 piece pack)
SDC-4227	Glass plates 100x40x3mm (10 piece pack)
SDC-4235	Nickel Detection kit (200 tests)

## CONSUMABLE TESTING FABRICS

### KCT-3001/2 Multifiber Adjacent Fabrics, AATCC and ISO



**Multi-fiber Fabrics consist of filling (weft) or warp stripes of:**

- Filament Acetate
- Bleached Cotton
- Spun Nylon 6.6
- Spun Polyester
- Spun Acrylic
- Worsted Wool

AATCC filling stripe fabrics have a repeat of 2" (5cm) or 4" (10cm) and are presented in cut pieces of various sizes which can be cold cut (For static tests) or with heat sealed or over-locked edges for tests involving agitation.

### AATCC Test methods 15, 61, 101, 106, 107, 162

- **KCT - 3001 CC**..... 2 x 2"..... Pieces Cold Cut Pack of 1000
- **KCT - 3001 HS**..... 2 x 2"..... Pieces Heat Sealed Pack of 1000
- **KCT - 3001 OL**..... 2 x 2"..... Pieces Over Locked Pack of 1000
- **KCT - 3001A CC**.... 2 x 4"..... . Pieces Cold Cut Pack of 1000
- **KCT - 3001A HS**.... 2 x 4"..... . Pieces Heat Sealed Pack of 1000
- **KCT - 3001A OL**.... 2 x 4".....Pieces Over-Locked Pack of 1000

**KCT-3002** ISO Warp Stripe Fabrics have stripes 15mm wide and are supplied in a 10cm wide ribbon to enable customers to cut their own test pieces of any size, or in ready cut pieces. ISO 105 Test Methods (various).

- **KCT –3002**..... 10m/11yd roll x 10cm wide
- **KCT –3002 A**..... 4 x 10cm pieces – Pack of 1000
- **KCT –3002 B**..... 5 x 10 cm pieces -Pack of 1000

**KCT-3010** Washing Ballast/Makeweights AATCC and ISO

Standard fabric pieces with sewn edges to be added to test samples in washing machine tests to

- **KCT-3011** AATCC ballast pieces 100% Cotton 36" x 36" (Pack of 12 pieces – approximately 4lb load)
- **KCT-3012** AATCC ballast pieces 50/50% Polycotton 36" x 36" (Pack of 12 pieces – approximately 4lb load) For AATCC test methods 88, 124, 130, 135, 142, and 150.
- **KCT-3013** ISO Polyester Makeweights to ISO 6330 1994, 30 x 30cm (Pack of 1kg)
- **KCT-3014** ISO Polyester Makeweights to ISO 6330:200, 20 x 20cm (Pack of 1kg)
- **KCT-3015** ISO Cotton Makeweights to ISO 6330:2000 92 x 92c (Pack of 1kg)
- **KCT-3020** Crockmeter test cloth/cotton lawn, for AATCC test methods 8, 116, 163 and 165, for ISO test method 105 – F09 Precision die cut to 50 x 50mm (2" x 2"), Pack of 1000 pieces
- **KCT-3030** Crockmeter calibration fabric, specially selected to stain crockmeter test cloth to specific gray scale grade, with test sheet. 50 x 150mm (2' x 6") Pack of 25 pieces.
- **KCT-3105** AATCC Standard blotting paper– 10x10 inches, pack of 100
- **KCT-3106** AATCC Standard blotting paper– 6x6 inches, pack of 100
- **KCT-3107** AATCC/ASTM Standard soil– 1 kg pack
- **KCT-3031** Emery paper for crockmeters 4.5 x 5.5 inches, 100 pieces
- **KCT-3155** Polyurethane sample tubes for ICI pilling box (pack of 4)
- **KCT-3156** Unmounted cork liners for ICI pilling box (pack of 6)
- **KCT-3150** Cork liners for KFG-2380/1 RTPT (pack of 50)
- **KCT-3151** Cotton Sliver for KFG-2380/1 RTPT (10 yds/9m)
- **KCT-3152** Set of 5 ASTM photographic standards for KFG-2380/1 RTPT
- **KCT-3160A** Calibration foils for bursting strength testers, pack of 10, 5-10psi
- **KCT-3160AA** Calibration foils for bursting strength testers, pack of 10, 11-20psi
- **KCT-3160B** Calibration foils for bursting strength testers, pack of 10, 21-30psi
- **KCT-3160C** Calibration foils for bursting strength testers, pack of 10, 31-50psi
- **KCT-3160D** Calibration foils for bursting strength testers, pack of 10, 51-65psi
- **KCT-3160E** Calibration foils for bursting strength testers, pack of 10, 66-80psi
- **KCT-3160F** Calibration foils for bursting strength testers, pack of 10, 81-110psi
- **KCT-3160G** Calibration foils for bursting strength testers, pack of 10, 111-130psi
- **KCT-3160H** Calibration foils for bursting strength testers, pack of 10, 131-170psi
- **KCT-3160J** Rubber diaphragms ref 516 for Mullen C burst tester, textiles, pack of 12



## REFERENCE DETERGENTS, AATCC, ISO, ECE AND IEC



### **KCT-3041**

AATCC 1993 Standard Reference Detergent WOB

The 1993 AATCC Standard Detergent WOB (without optical brightener) is used in AATCC Test Method 61 to evaluate the washfastness of fabrics. The detergent is available in a 24lb bucket, other quantities on request.

### **KCT-3042**

AATCC 1993 Standard Reference Detergent

The 1993 AATCC Standard Detergent (containing optical brightener) is used in AATCC Test Method 61 to evaluate the washfastness of fabrics. The detergent is available in a 24lb bucket, other quantities on request.

**NOTE:** Standard Reference Detergents for ISO, ECE and IEC standards are also available; see products SDC-2408 to SDC-2570.

# LIGHT FASTNESS STANDARDS, ISO AND AATCC



## KCT-3051

L-2 Blue Wool Light fastness standards are wool fabric used to calibrate and verify testing equipment during lightfastness testing as specified in AATCC Test Method 16 Colorfastness to Light, 20 x 30" piece.

## KCT-3052

Standard of Fading for L-2 is blue wool fabric that has been faded to the specified endpoint as described in AATCC Test Method 16 Colorfastness to Light

## KCT-3053

L-4 Blue Wool Light fastness standards are wool fabric used to calibrate and verify equipment during lightfastness testing as specified in AATCC Test Method 16 Colorfastness to Light, 20 X 30" piece

## KCT-3054

Standard of Fading for L-4 is blue wool fabric that has been faded to the specified endpoint as described in AATCC Test Method 16 Colorfastness to Light

## KCT-3055

ISO Light Fastness Standards pack of eight graded 1-8 for use in Light Fastness testing equipment, each piece 9.5 x 6".

## KCT- 3056

Xenon Reference Fabric (XRF-1) is a purple polyester fabric used to monitor conditions as specified in AATCC Test Method 16 Colorfastness to Light. 20 x 36" piece.

## KCT-3057

Standard of Fading for XRF -1 is a purple polyester fabric that has been faded to the specified endpoint as described in AATCC Test Method 16 Colorfastness to Light.

## KCT- 3058

Chlorine Test Control Fabric is used in AATCC Test Method 162 Colorfastness to water. Chlorinated Pool to determine if the test is performed correctly. 20 x 42" piece. We also offer a wider range of testing fabrics for the textile and related industries.



6541 Franz Warner Parkway  
Whitsett, NC 27377 USA

Info.TextileTestKing@JAKing.com  
+ 1 866 802 6703

[WWW.TailoredForTextiles.COM](http://WWW.TailoredForTextiles.COM)

## **GREY SCALES, AATCC AND ISO**

### **AATCC Gray Scale for Staining**

#### **KCT-3061**

The Gray Scale for Staining is used to visually evaluate staining on Multifiber samples due to colorfastness tests as described in Evaluation Procedure 2 which is included in the purchase of Gray Scale for Staining.



### **ISO Gray Scale for Staining to ISO 105 - A03**

#### **KCT- 3062**



### **AATCC Gray Scale for Color Change**

#### **KCT-3063**

The Gray Scale for Color Change is used to visually evaluate change in color due to colorfastness tests as described in Evaluation Procedure 1 which is included in the purchase of Gray for Color Change.



### **ISO Gray Scale for Color Change to ISO 105 - A02**

#### **KCT-3064**



## CHROMATIC TRANSFER SCALES, AATCC

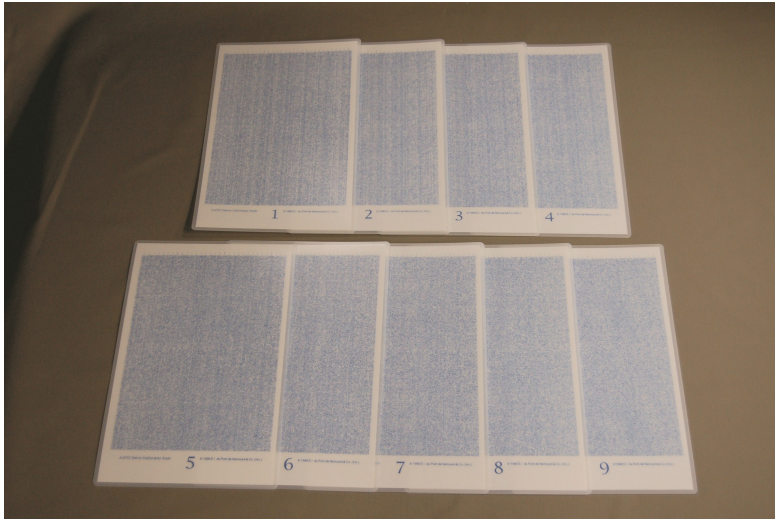


### AATCC 9 Step Chromatic Transference Scale

#### KCT- 3070

The 9 Step Chromatic Transference Scale is used to visually evaluate color transfer of staining. The scale has 5 hues which are red, yellow, green, blue and purple which were all selected from the Munsell Book of Color. Evaluation Procedure 8 with instructions on how to use the scale is included

## UNIFORMITY REFERENCE SCALES AATCC



### KCT- 3075

The AATCC Uniformity Reference Scale is a nine step visual scale used to evaluate the intensity of barre as discussed in AATCC Test Method 178 Barre. Visual Assessment and Grading.



## **CREASE AND SMOOTHNESS APPEARANCE REPLICAS AATCC**

### **AATCC Crease and Smoothness Appearance Replicas**

#### **KCT-3081**

AATCC Smoothness Appearance Replicas are used to evaluate fabrics that have been tested according to AATCC Test Method 124 Appearance of Fabrics after repeated Home Laundering & AATCC Test Method 143.

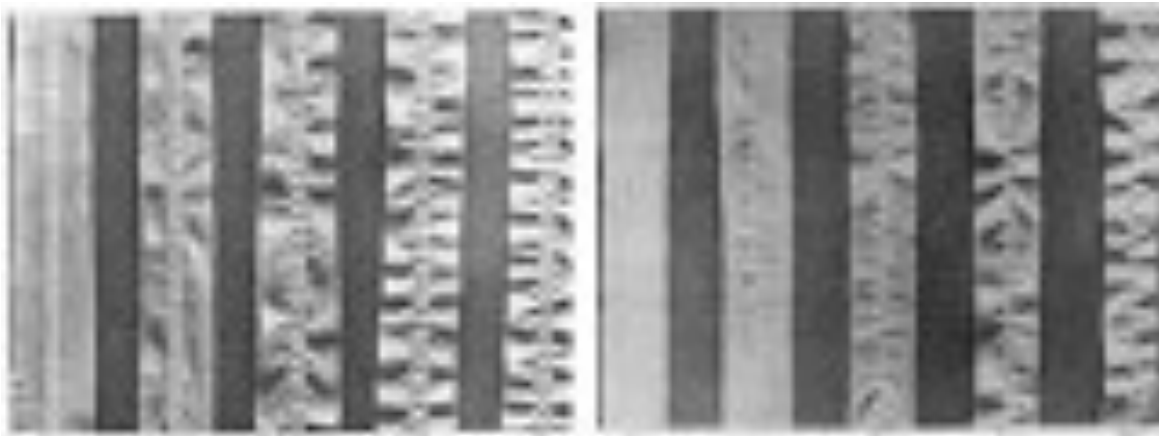


#### **KCT-3082**

AATCC Crease Appearance Replicas are used to evaluate fabrics that have been tested according to AATCC Test Method 88C Retention of creases in Fabrics after repeated Home Laundering.



## **SEAM SMOOTHNESS PHOTOGRAPHS, AATCC**



### **AATCC Seam Smoothness Photographs**

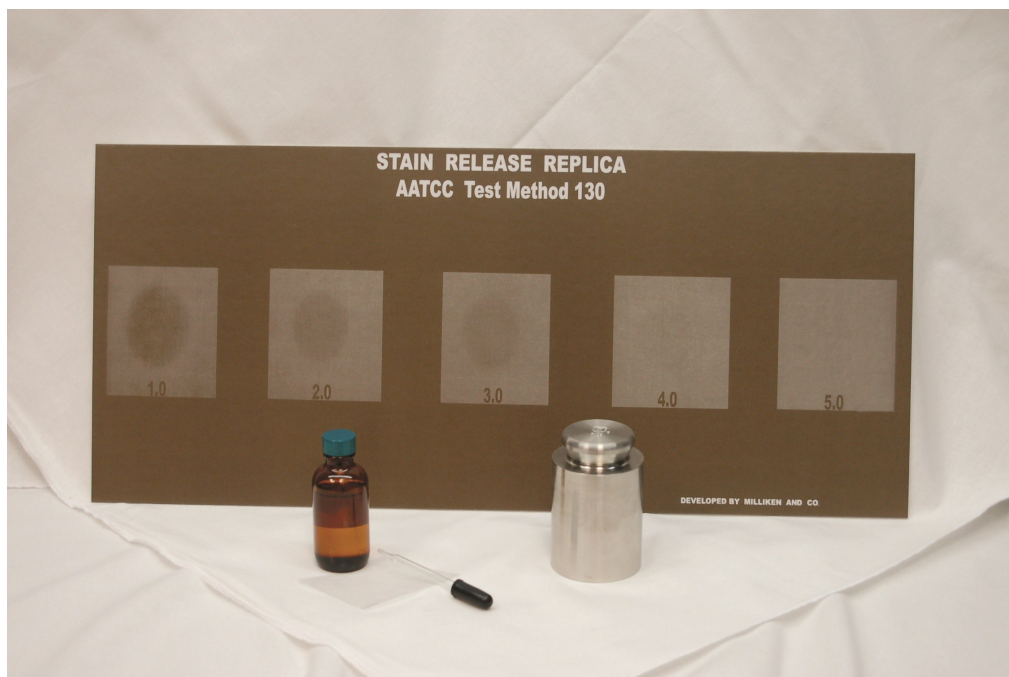
#### **KCT-3090**

The AATCC Photographs for Seams are two sets of photographs depicting single needle and double needle seams after laundering as described in AATCC Test Method 88B Smoothness of Seams in Fabrics after Repeated Home Laundering.

## STAIN RELEASE REPLICAS AATCC

### KCT-3101

AATCC Stain Release Replicas are used to evaluate fabrics tested according to Test Method TM 130 Soil Release. Oily Release Method (weight sold separately)



### KCT-3102

AATCC 5lb Stainless Steel Cylindrical Weight for use with Stain Release Replicas

## SHRINKAGE SCALE AATCC



### KCT-3110

The AATCC Shrinkage Scale is a template with two sets of benchmarks to determine dimensional change specified in AATCC Test Method 135 Dimensional Changes in Automatic Home Laundering of Woven and Knit Fabrics with 10" and 18" benchmarks reading in percentage change. Marker Pens are not included, see **KCT-3120**.



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## MARKING PENS FOR TEXTILES, INDELIBLE

### Texpen Textile Markers, Medium Point

#### KCT-3121

Provides bright, sharp, rapid drying permanent marking on cotton and synthetic fabrics. Heavy Duty aluminum body. Precision rolling stainless steel ball tip. Rubber bulb flow control.

### Texpen Textile Markers, Fine Point

#### KCT-3122

Provides bright, sharp, rapid drying permanent marking on cotton and synthetic fabrics. Heavy Duty aluminum body. Precision rolling stainless steel ball tip. Rubber bulb flow control with a fine point.



### Dalo Textile Markers, Broad Point

#### KCT-3123

Provides high capacity (more ink) broad point, bright, sharp, rapid drying permanent marking on cotton and synthetic fabrics. Heavy Duty aluminum body. Precision rolling stainless steel ball tip. Rubber bulb flow control.

### Dalo Textile Markers, Medium Point

#### KCT-3124

Provides high capacity (more ink) medium point bright, sharp, rapid drying permanent marking on cotton and synthetic fabrics. Heavy Duty aluminum body. Precision rolling stainless steel ball tip. Rubber bulb flow control.

### More Info

Note: All Textile Marking Pens are available in 6 colors; minimum quantity for ordering is 6 pieces per color. Choose Black, Green, Red, Orange, White, Yellow.



or

Add B,G,R,O,W,or Y to your part number.

Quantity Discounts available for 36+ and 144+ pens.



## pH PENCILS

### Mechanical pH Pencils

#### KCT-3130

Insta-Check 0-13 Mechanical pH Pencils measure the pH of any surface to the nearest full pH value. The Hydrion pH pencil can be used to test irregular or uneven surfaces, and is also effective on porous material and impervious solids. It offers clear bright single color matches at every 1.0 interval from pH 0.0-13.0.

The pH pencil is used to detect acid or alkali residues and may be used to measure the pH of any of the following:

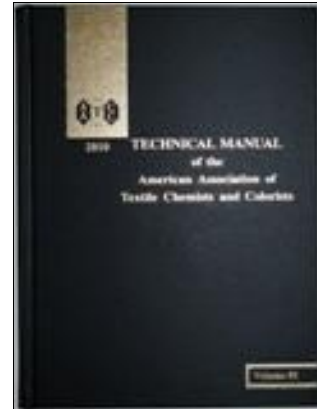
- Paper
- Lumber
- Concrete
- Cement
- Plasterboard
- Pre-painted surfaces
- Painted surfaces
- Textiles
- Leather/Skins
- Ceramics



To measure the surface pH just wet the surface with distilled water. Stroke the surface with pencil. Wait approximately 15 seconds and compare the resulting color change with the color chart.

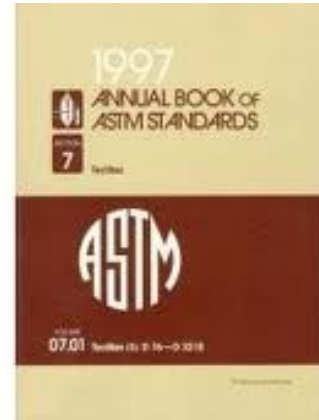
Each package contains 3 mechanical pencils and 3 color charts. Each pencil will provide the user 100 tests.

## AATCC, ASTM AND ISO TEST METHODS



### KCT- 3141M or KCT- 3141CD

AATCC Technical Manual. Includes all current AATCC Test Methods and evaluation procedures. Published annually, available in hard copy or CD.



### KCT-3142M or KCT-3142CD

ASTM Annual book of textile standards. Including all current ASTM test methods. Set of 2 volumes, available in hard copy or CD.



### KCT-3143

ISO Standards. Individual standards in printed or PDF format. Other world standards can be obtained on request.

## SDC UK CERTIFIED TEXTILE TESTING CONSUMABLE PRODUCTS



**ENTERPRISES LIMITED** JA King & Company are proud to be Associated with SDC Enterprises of the UK, a subsidiary of the world-famous Society of Dyers and Colorists.

We have been appointed as official distributors of their extensive range of Testing Products developed by users for users since 1926.

Strict tolerance levels and meticulous quality control procedures ensure that all SDCE test materials deliver the ultimate in performance and product confidence.

Specifically developed for users operating internationally to ISO, BS, EN, IEC, ECE and major international retailer standards and test methods.

A selection of products appears below, please contact us for a paper or electronic catalog featuring all available products. We can supply directly from our inventory for our North and South American customers or ship directly from the UK to other markets, saving considerable shipping costs.



**SDC-2011** Martindale woven felt discs (24 x 140mm dia)  
**SDC-2012** Martindale woven felt (1.5 x 1m piece)  
**SDC-2016** Martindale SM25 abrasent fabric (1.6 x 5m piece)  
**SDC-2021** Martindale PU foam (25 sheets 25 x 20cm)  
**SDC-2115** Multifibre DW (10 meter roll)  
**SDC-2120** Multifibre DW (50 meter roll)  
**SDC-2133** Multifibre 10 x 4 cm (250 Pack)  
**SDC-2143** Multifibre DW 10 x 5 cm (200 Pack)  
**SDC-2205** Multifibre TV high temperature (50 meter roll)  
**SDC-2408** ECE Non Phosphate Detergent (A) 2kg  
**SDC-2420** ECE Non Phosphate Detergent (A) 15kg  
**SDC-2458** ECE Phosphate Ref Detergent (B) 2kg  
**SDC-2470** ECE Phosphate Ref Detergent (B) 15kg  
**SDC-2508** IEC Non Phosphate Ref Detergent (A) 2kg  
**SDC-2520** IEC Non Phosphate Ref Detergent (A) 15kg  
**SDC-2558** IEC Phosphate Ref Detergent (B) 2kg  
**SDC-2570** IEC Phosphate Ref Detergent (B) 15kg  
**SDC-2821** ISO Blue Wool Pattern No.1  
**SDC-2822** ISO Blue Wool Pattern No.2  
**SDC-2823** ISO Blue Wool Pattern No.3

**SDC-2824** ISO Blue Wool Pattern No.4  
**SDC-2825** ISO Blue Wool Pattern No.5  
**SDC-2826** ISO Blue Wool Pattern No.6  
**SDC-2827** ISO Blue Wool Pattern No.7  
**SDC-2828** ISO Blue Wool Pattern No.8  
**SDC-3305** ISO Grey Scale For Change in Colour - ISO 105 A02  
**SDC-3355** ISO Grey Scale For Staining - ISO 105 A03  
**SDC-3405** Standard Depths, set of 4 cards to BS1006 A01  
**SDC-3605** Humidity Test Control Fabric - ISO 105 B02  
**SDC-3810** Fluorescent Suppressor Laminated Plate  
**SDC-4105** Polyester Ballast 20x20cm x 25 pcs - ISO6330/1994  
**SDC-4110** Polyester Ballast 30x30cm x 20 pcs - ISO6330/2000  
**SDC-4115** Cotton Ballast 92x92cm x 10 pcs - ISO6330/2000  
**SDC-4220** Phenolic Yellowing Control fabric 10x3 cm (25 pcs)  
**SDC-4222** BHT-free 63 micron film 40x20cm (100 sheets)  
**SDC-4225** Phenolic Yellowing Test Papers (50 piece pack)  
**SDC-4227** Glass plates 100x40x3mm (10 piece pack)  
**SDC-4235** Nickel Detection kit (200 tests)



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## MEMBERS OF :



6541 Franz Warner Parkway  
Whitsett, NC 27377 USA

Info.TextileTestKing@JAKing.com  
+ 1 866 802 6703

[WWW.TailoredForTextiles.COM](http://WWW.TailoredForTextiles.COM)