



Tailored for Textiles





We are excited to share with you that J.A. King is now Cross Company. This is exciting for you, our Tailored for Textiles customers, because you now will have access to Shopcross.com for online ordering. We believe that the added resources of Cross Company will help us to better serve you. In addition you will notice that our logos are changing from the J.A. King logo to which you are accustomed, to the Cross logo. Please know that the products themselves remain unchanged.

If you have any questions or concerns regarding the upcoming changes, please feel free to reach out to us. Your business is very important to us and we want to make sure we continue to exceed your expectations.

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Ohaus Balances, King Yield Scales, King Yield Systems, King Cutting Pads, and King Tailored for Textile Products



Analytical and Precision Laboratory Balances

PA Electronic Laboratory Balances

The Ohaus Pioneer range of analytical and precision balances provide a complete solution for laboratories with ranges from 160g x 0.001g to 4200g x 0.1g, with internal calibration available for select models. RS 232 output is standard with optional USB output. Large LCD display, multiple weighing units and custom weighing mode.

Ohaus Precision Balances

PX163/E	160g x 0.001g with draft shield
PX163	160g x 0.001g with draft shield
PX323/E	320g x 0.001g with draft shield
PX323	320g x 0.001g with draft shield
PX523/E	520g x 0.01g with draft shield
PX523	520g x 0.01g with draft shield
PX1602/E	1600g x 0.01g
PX1602	1600g x 0.01g
PX2202/E	2200g x 0.01g
PX2202	2200g x 0.01g
PX3202/E	3200g x 0.01g
PX3202	3200g x 0.01g
PX4202/E	4200g x 0.01g
PX4202	4200g x 0.01g
PX2201/E	2200g x 0.1g
PX2201	2200g x 0.1g
PX4201/E	4200g x 0.1g
PX4201	4200g x 0.1g



Other brands and models available, please inquire for details.

Analytical and Precision Laboratory Balances

(Cont.)

Ohaus Analytical Balances

- PX85 - 85g x 0.1mg with draft shield
- PX225D - 82g/220g x 0.01mg/0.1mg with draft shield
- PX84/E - 82g x 0.0001g with draft shield
- PX84 - 82g x 0.0001g with draft shield
- PX124/E - 120g x 0.0001g with draft shield
- PX124 - 120g x 0.0001g with draft shield

Other brands and models available, please inquire for details.



Programmed Fabric Yield Balances

SPX222

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 (100 sq. cm Blade) - 1 sample

The SPX222 balance is a specialty programmed version of the Scout balance, and can also be used as a standard laboratory balance, with a capacity of 220g.

Other configurations available, please inquire for details



Programmed Fabric Yield Balances

YS-2

220g x 0.01g

Provides fabric yield in ounces per square yard using 8 samples 2.6974" diameter (English Blade).

YS-3

220g x 0.01g

Provides fabric yield in grams per square meter using 8 samples 2.8271" diameter (Metric Blade).

YS-4

220g x 0.01g

Provides fabric yield in both ounces per square yard and grams per square meter using 8 samples 2.6974" diameter (English Blade).

YS-5

220g x 0.01g

Provides fabric yield in grams per square meter using 1 sample 2.6974" diameter (English Blade).

YS-6

220g x 0.01g

Provides fabric yield in ounces per square yard using 1 sample 4.4424" diameter (100 sq. cm. blade).

YS-7

220g x 0.01g

Provides fabric yield in grams per square meter using 8 samples 2.0311" diameter (Suter Blade).

YS-8

220g x 0.01g

Provides fabric yield in grams per square meter using 1 sample 4.4424" diameter (100 sq. cm. blade).

YS-9

220g x 0.01g

Provides fabric yield in ounces per square yard using 1 sample 2.6974" diameter (English Blade).

Note - Other configurations available, please inquire for details.

Fabric Yield and Yarn Count Balances

KTV Series

YS-KTV1

Ohaus Adventurer Pro Precision Balance programmed internally for most known yarn counts and fabric yield systems. No external computer required. 620g x 0.01g capacity

Unit of Measure

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 Size

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"



YS-KTV2

Ohaus Adventurer Pro Precision Balance is programmed internally for most known yarn counts in short lengths (0.9 meter, 1 meter, or 1 yard depending on count system). Also displays fabric yield exactly as YS-KTV1. No external computer required. 220g x 0.001g (1mg) capacity



Fabric Yield Systems

J.A. King has produced quality fabric/material cutters for over 30 years. Fabric Yield Test Systems include a cutter and digital balance, 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, Ohaus model YS-KTV1 (620g x 0.01g capacity).

UYS-2

220g x 0.01g

Provides fabric yield in ounces per square yard using 8 samples 2.6974" diameter (English Blade).

UYS-3

220g x 0.01g

Provides fabric yield in grams per square meter using 8 samples 2.8271" diameter (Metric Blade).

UYS-4

220g x 0.01g

Provides fabric yield in both ounces per square yard and grams per square meter using 8 samples 2.8271" diameter (Metric Blade).

UYS-5

220g x 0.01g

Provides fabric yield in grams per square meter using 1 sample 2.6974" diameter (English Blade).

UYS-9

220g x 0.01g

Provides fabric yield in ounces per square yard using 1 samples 2.6974" diameter (English Blade).

UYS-KTV1

620g x 0.01g

For KTV units see previous page.



Note - Other configurations available, please inquire for details.

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 100 sq. cm (4.4424"/113) 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)
- 500 lb. 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)
- 500 lb. with 15" x 24" V Pan

Other configurations available upon request.



Fabric Roll Measurement System

KRC-3

Fabric role inventory made simple! Measure roll length, weight and fabric yield without tedious unrolling and re-rolling. 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 of 500 lb. capacity with programmable digital indicator on tower and 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-4 Fabric Yield System including SASD-688 manual sample cutter and YS-4 electronic yield balance determine fabric yield on 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.

Handheld bar-code reader and label/bar-code 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 phone support.

All equipment securely mounted on heavy duty mobile cart with DC (batter) 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, fiber, pellets, or powders easily, quickly, and accurately. Meets the highest requirements in moisture analysis. Automatically determines moisture or solid content and displays both in grams and percentages.

Model MB120

- Capacity 120 g, Readability 0.01 % / 0.001 g
- Moisture Range 0.01 % to 100 %, (0.01 % to 1000 % for regain mode)
- Output RS232, USB Host, USB Device
- Heating Element Halogen
- Temperature Range 40 – 230 °C (1 °C Increments)
- Power 120 VAC
- Operating Temperature Range 50 – 104 °F / 10 – 40 °C
- Display Type 4.3 in/109 mm, QVGA, TFT touch screen
- Display Results %moisture, %solids, %regain, time, temperature, weight, method name, drying curve and statistics
- Pan Size 3.5 in / 90 mm
- Dimensions (W × H × D) 8.3 × 7.7 × 14.0 in / 211 × 180 × 355 mm
- Shipping Weight 18.4 lb / 8.35 kg

Model MB90

- Capacity 90 g
- Readability 0.01%/0.001 g
- Repeatability (Std Dev) (g) 0.18% (3 g sample)
- 0.02% (10 g sample)
- Moisture Range 0.01% to 100%
- (0.01% to 1000% for regain mode)
- Output RS232, USB Host, USB Device
- Heating Element Halogen
- Temperature Range 40–200 °C
- Power 120 VAC 60 Hz
- Operating Temperature Range 50–104 °F/10–40 °C
- Display Type 4.3 in/109 mm, QVGA, TFT touch screen
- Display Results %moisture, %solids, %regain, time, temperature, weight, method name, drying curve and statistics
- Pan Size 3.5 in/90 mm
- Dimensions (W × H × D) 8.3 × 7.7 × 14.0 in/211 × 180 × 355 mm
- Shipping Weight 18.4 lb/8.35 kg



Moisture Determination Balances

(Cont.)

MB25 110g x 5mg (0.005g), pan diameter 90mm

- Capacity 90g
- Repeatability (Std Dev) (g) 0.2% (3 g sample), 0.05% (10 g sample)
- Readability 0.01%/0.001 g
- Sample size 3g to 20g typical, 0.5g min.
- Interface Bidirectional RS232
- Timer 1-99 minutes, 30-second increments to 60 minutes
- Heating Technology Halogen
- Temperature Range 50 °C to 160 °C in 5 °C increments
- Power 100 to 240 VAC, 50/60 Hz
- Tare Range To capacity by subtraction
- Operating Temperature Range 41 °F to 104 °F/5 °C to 40 °C
- Display Type Back lit LCD
- Displays %moisture or %solids or weight (g), temperature, time
- Pan Size (Diameter) 3.5 in/90 mm
- Dimensions (W x H x D) 6.5 x 5 x 11 in/17 x 14 x 28 cm
- Shipping Weight 8.5 lb/3.9 kg

MB23 110g x 10mg (0.01g), pan diameter 90mm

- Capacity 110g
- Repeatability (Std Dev) (g) 0.3% (3g sample), 0.2% (10g sample), 0.2% (3g sample), 0.05% (10g sample)
- Readability (MB23) 0.1% / 0.01g
- Sample Size 3g to 20g typical, 0.5g min.
- Interface Bidirectional RS-232
- Timer 1 - 99 minutes, 30-second increments to 60 minutes
- Heating Technology Infrared (no glass) Halogen
- Temperature Range 50°C to 160°C in 5° increments
- Power 100 to 240 VAC, 50/60 Hz
- Tare Range To capacity by subtraction
- Operating Temperature Range 5° to 40°C
- Display Type Custom back lit LCD
- Displays % moisture or % solids or weight (g), temperature, time
- Pan Size (Diameter) 90 mm
- Dimensions (W x H x D) 17 x 13 x 28 cm
- Net Weight 2.3 kg & Shipping Weight 3.9 kg
- Sample Pans (Quantity 50) Standard
- In Use Cover Standard

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 is 2 lbs. or 32 oz.



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 1/2" 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 6" diameter bore cylinders, provides 1960 or 2825 lbs. of force (respectively) at 100 PSI. It 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 and round cutting dies. Model are available with non-rotating cylinders and rectangular dies.

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

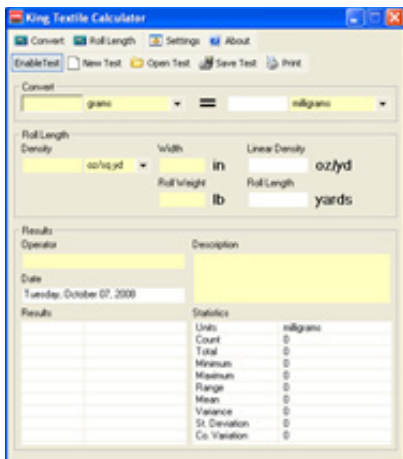
Yarn, Sliver, Roving Count Balance and Analysis System

SASA-9369

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



The system will also determine fabric yield using King 2.8974" diameter samples or 100 cm sq. samples. This system will also provide statistics on any number of tests including totals, averages, coefficients of variation and standard deviation calculations.



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 25 lb capacity
- With digital gauge 50 lb capacity
- With digital gauge 100 lb capacity

SASA-624 Ball Burst Option



Fabric Stiffness Tester KFG-2000

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.



As the leading edge of the specimen projects from the platform, it bends under its own mass. Once the material bends 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 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 Yarn Package 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/ 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/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

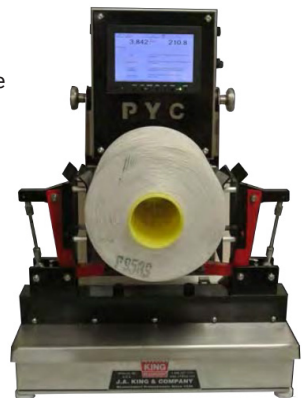
6. Faster operation - up to twice as fast as previous models

7. All components are stainless steel and sealed from the environment

PGA-49 Analysis and archiving software for Yarn Package Classifier.

SASD-684-UPGRADE Upgrade kit to convert existing J.A. King Yarn Package Classifier to touchscreen controller.

SASD-684-2 King package yard classifier (Tall Jaws) with touchscreen controller



Cornell Testing System

SASA-Cornell

A completely new approach and setup made easy - the J.A. King Cornell Tester is PC-Controlled for automatic testing - simply build the test steps (test to ASTM Standard or your standard), load the mattress and start - the test will run based on your specific test steps, log all the data and prepare a test result report!

- Industrial Solid-State PC-Controller
- Color Touchscreen Monitor
- Programmable Scale Interface for force
- Power Supply
- Ethernet Switch for network connectivity
- Servo Drive and Motor
- 8-Channel Isolated Analog Input
- 4-Channel Isolated Analog Output
- 6-Channel Relay Output
- Testing Frame with Linear Slides and Locks
- Adjustable Mattress Anchors to lock mattress in place for testing
- Adjustable Mattress Support Frame to accommodate height changes
- Load Cells
- Loading Ram Head with Seat
- Linear Measure System for Depth
- Alarm Horn/Red Light
- Data Storage for test types and completed test results
- Power: 230/3 phase

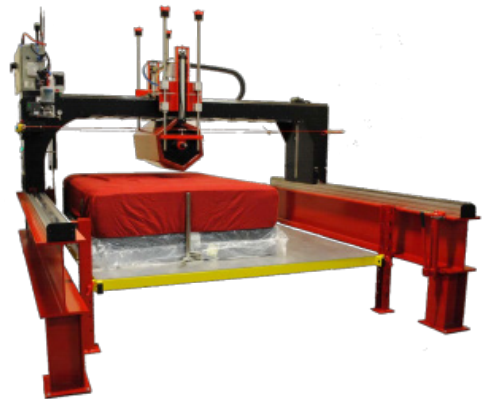


Rollator Testing System

SASA-Rollator

A completely new approach and setup made easy – the J.A. King Rollator tester is PC Controlled for automatic testing – simply build the test steps (test to ASTM Standard or your standard), load the mattress and start – the test will run based on your specific test steps, log all the data and prepare a test result report!

- Industrial Solid-State PC – Controller
- Color Touchscreen Monitor
- Programmable Scale Interface for force
- Power Supply
- Ethernet Switch for network connectivity
- Servo Drives and Motors
- 240 LB Hexagonal Roller
- Safety Pull E-Stop Cables
- 8-Channel Isolated Analog Input
- 4-Channel Isolated Analog Output
- 6-Channel Relay Output
- Testing Frame with Linear Slides and Locks
- Adjustable Mattress Anchors to lock mattress in place for testing
- Adjustable Mattress Support Frame to accommodate height changes
- Load Cells
- Loading Ram Head with Seat
- Linear Measure System for Depth/Deflection
- Alarm Horn/Red Light
- Data Storage for test types and completed test results
- Power: 230/3 phase
- Additional (non-mattress) configurations available, suitable for furniture testing and more



Fiber and Yarn Testing Equipment and Accessories



AATCC Microscopy Cross Section Kit

KFY-1000

The Microscopy Cross Section 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. It has a 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 nose-piece 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 trimocular 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 Small scale complete carding machine for Laboratory use, working/web width 500mm. Used to accurately simulate the working condition of all types of common fibres (wool, cotton and synthetics) under conditions preset by the operator. By means of easy adjustments it is possible to analyze both short and long fibres.

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 fibre web. Particularly suitable to prepare homogeneous colored fibre samples under variable conditions. Downstream, such samples can be used for any type of analysis or verification. For producers of synthetic man-made fibres (acrylic, polyester, polyamide, polypropylene, etc) the use of the laboratory carding machine is essential to test both the quality and the homogeneity of fibres. 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: 86 x 146 x 173 H

Origin: Italy

Power Supply: 220V 50/60Hz three phases

Packing Estimated Specifications

Size in cm: 202 x 94 x 162 H

Volume: 3076 m3

Gross Weight: 620,0 kg



Fineness Meter Wool

KFY-1022

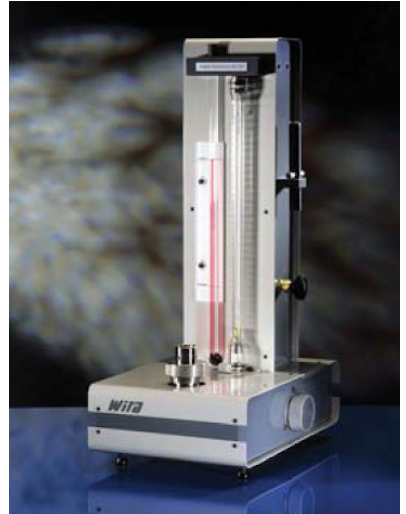
Measure the average fiber diameter in a few minutes with the wool fineness meter. It uses the IWTO standard method of testing and operates on the well-known airflow principle. Included is an air pump and non-hygroscopic calibration plug.

Specifications

Weight of Specimen: 5gm

Reading: Micronaire value 2.4 - 8

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



Melt Flow Index Tester

The New KFY-1160X LMI 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 LMII 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.

Melt Flow Index Tester

(Cont.)

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.



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	5 lbs
KFY-1025I2	Universal Long - Strong	1.13-1.20"	83-90%	30-34 G/Tex	3.6-4.4	5 lbs
KFY-1025H1	ELS Short - Weak	1.10-1.17"	82-84%	30-32 G/Tex	3.6-4.4	5 lbs
KFY-1025H2	ELS Long - Strong	1.30"+	84-90%	37+ G/Tex	3.6-4.4	5 lbs

HVI Micronaire Calibration Cottons

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



International Micronaire Calibration Cottons

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



USDA Calibration Cotton Standards (Cont.)

International Calibration Cottons

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

Hand-driven reel for slivers and rovings.
Available with either 1 meter (**KFY-1041M**), or 1 yard (**KFY-1041Y**), drum circumference.
Fitted with digital counter and cutter for accurate cutting of the sliver sample.

Weight: 17 kg
Dimensions: (L) 330 x (W) 270 x (H) 600 mm



Electronic Motorized Reel for Slivers and Rovings KFY-1042

Available with a drum circumference of either 1 yard (**KFY-1042Y**) or 1 meter (**KFY-1042M**). Adjustable drum speed from 0 to 100 m/min., with accuracy of +/- 1 cm; equipped with cutter. Designed to prevent any possible drawing of the fiber sample. Fitted with digital counter and cutter for accurate cutting of the sliver sample.

Power supply: 230 V, 50/60 Hz, single-phase or 120 V 60Hz
Weight: 52 kg
Dimensions: (L) 450 x (W) 300 x (H) 500 mm.



Yarn Wrap and Skein Reels

To prepare yarn skeins of a definite and preset length, that will then undergo testing for the determination of the related count. Equipped with electronic pre-selector for the automatic stop at the preset length. Supplied complete with a 7 position support creel (spool and small bobbin holder). Adjustable double bar yarn tensioner.

Manual Reels

KFY - 1051

Turns reading on suitable and accurate digital indicator.
Supplied with support creel and double bar yarn tensioner.

The hand driven wrap reel is available with the following 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)

Weight: 35 kg

Dimensions: (L)900 x (W)600 x (H)600 mm.



Electronic Reels

KFY- 1052

The electronic wrap reel is available with the following 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)

Power supply: 230 V, 50/60 Hz, single-phase or 120 V, 60 Hz

Weight: 40 kg

Dimensions: (L) 900 x (W)600 x (H)600 mm.

Built in accordance with: UNI EN ISO 2060, ASTM D1907, ASTM D2260.

Optional: (please inquire for pricing)

Stationary adjustable yarn tensioners

Fixed tensionmeter

10 Position Unit on the Electronic 1 Meter unit

Yarn Twist Testers

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

Hand-operated twist tester for piled 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 volts, or battery pack.



Yarn Twist Tester, Electronic, with Digital Counter KFY-1062

Motor-operated twist tester, for piled 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 Twist Tester, Electronic, Semi- Automatic KFY-1063

Semi-automatic testing of single or piled 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 the end of test. Allows multiple test of same sample. Variable speed. Specify 110 or 220 volts, 50/60 Hz.



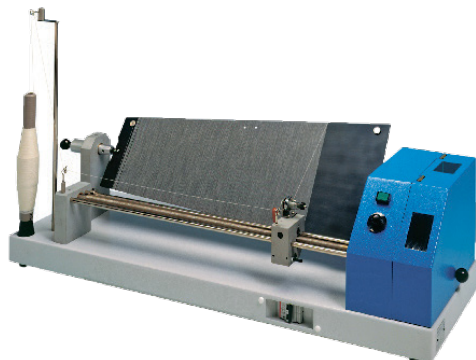
Yarn Examining Machine and Board Winder

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

Electrical instrument to assess yarn regularity. Endowed with electronic speed adjustment. Equipped with 2 black anodized aluminum trapezoidal tables (dimensions 255 x 600 x 155 mm). For very coarse and bulky woolen and blended yarns, a particular model is available, PLANOFIL PLUS, equipped with a set of special pulleys for a wider separation of coils.

For regular cotton yarns, the pulley is built in accordance with ASTM D2255 standards.
Black table Code 2520.580
White table Code 2520.590

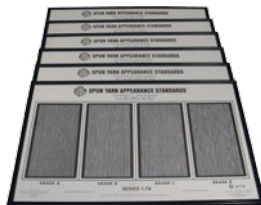
Power supply: single-phase, 230 V, 50 Hz or 120 V, 60 Hz
Weight: 24 kg
Dimensions: (L) 910 x (W) 330 x (H) 530 mm



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



Yarn Friction Meter

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 process. 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 Yarn Friction Meter

KFY-1093

The Digital Friction Meter is a reliable economical method of computing the yarn coefficient of friction. Windows software has been added which allows the DFM readout to be connected to your personal computer or laptop 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, standard deviation and 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 automatic mode
- Ability to pre-select length of yarn 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.



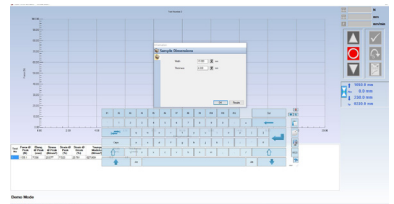
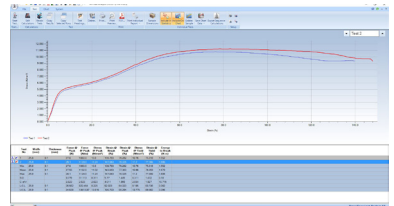
Software

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
- EN ISO 5079 Tensile tests on spun fibers
- EN 13895 Tensile tests on monofilament
- ISO 3060 Bundle strength of cotton fibers
- DIN 53843-2 Loop tensile tests of spun fiber

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.

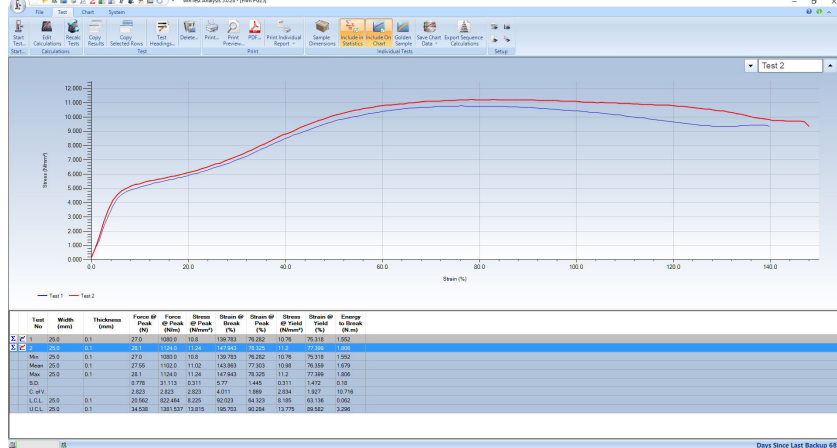
WINTEST

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.

See next page for configurable standards.

Yarn Strength Testing System

WINTEST Software Solution



ASTM D Test methods for sewing thread
 ASTM D 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 oriented 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 yarn
 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 53835-3 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 tests above will require special machine configurations
 - Details on request.

Cross Company

6541 Franz Warner Parkway
 Whitsett, NC 27377

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 belts, 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



Shore Durometer for Rubber

KFY-1123

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 Meter 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

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

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

Large, easy to read back lit, graphic display with adjustable back-lighting 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 +/- 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 are 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 lbs
KFY-1137	10-1000g	1 to 5g	N, grams or lbs
KFY-1138	50-5000g	5 to 10g	N, grams or lbs



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%.



Abbe 5 Refractometer

KFY-1141

The Abbe 5 is an affordable refractometer ideally suited for use where a wide refractive index measurement range is required such as in small contract laboratories or applications where sample throughput is relatively low. The instrument is also ideal for practical demonstrations and experiments in chemistry and physics laboratories of schools, colleges and universities.

The instrument features both refractive index and Brix scales, with the prism temperature being monitored electronically and displayed on the integral digital display. Water bath connections provide prism temperature control facilitating accurate readings to 4 decimal places RI (1 decimal Brix). Dispersion measurements of solids materials such as glass, contact lenses and fiber optics may be made in accordance with standard practice.

The Abbe 5 refractometer is supplied with a glass calibration plate, contact liquid, and instruction manual and is packed in a hard flight case for easy transportation and storage. Limited warranty is 24-months.

- Dual Scale
- Refractive Index & 0-95 Brix • Dispersion Measurement
- Optional Light Source



Yarn Sample Winder

KFY-1150

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

Maximum winding speed: 1000 rpm.

Up to 12 different colors can be wound simultaneously. Suitable for any card type (max. length 320 mm, max. width 95 mm).

Dimensions: (L)800 x (W)450 x (H)560 mm.

Weight: 75 kg



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 set point control and a single display shows actual temperature or set point. 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

Lab Knitter I

KFY-1999

Lab Knitter I is used for a combined use with lab dyeing machine to determine the dyeing performance of filament.

Features

- Selectable number of needles according to the knitted yarn count
- Positive yarn storage feeder achieves positive feeding with tension fluctuation less than 0.1g
- Adjustable fabric length
- Adjustable cylinder rotation speed from 0 to 350 rpm
- Uniform fabric stitch density
- Includes main machine and yarn storage feeder

Key Specifications

- Diameter of cylinder: 3.5 inch
- Speed of cylinder: 0~350RPM, adjustable
- Number of needles: 120~340N (Please inform us of the yarn count before placing the order)
- Applicable fineness: 6~300 dtex
- Applicable chemical fibers: POY
- Power Supply: AC 220V 50Hz
- Net Weight: Approx. 100kg
- Dimensions: 760cm x 480 cm x1850 cm



Lab Knitter II

KFY-2000

Lab Knitter II is used for a combined use with lab dyeing machine to determine the dyeing performance of filament.

Features

- Selectable number of needles according to the knitted yarn count
- Positive yarn storage feeder achieves positive feeding with tension fluctuation less than 0.1g
- Adjustable fabric length
- Adjustable cylinder rotation speed from 0 to 350 rpm
- Uniform fabric stitch density
- Ergonomic touchpad control, digital display, and easy operation
- Includes main machine and yarn storage feeder

Key Specifications

- Diameter of cylinder: 3.5 inch
- Speed of cylinder: 0~350RPM, adjustable
- Number of needles: 120~340N (Please inform us of the yarn count before placing the order)
- Applicable fineness: 300~1000 dtex
- Applicable chemical fibers: POY, DTY, FDY
- Power Supply: AC 220V 50Hz
- Net Weight: Approx. 100kg
- Dimensions: 760cm x 480 cm x1850 cm



Fabric and Garment Testing Equipment and Accessories



Hand Sample Cutters and Cutting Mats

Rotary Hand Cutter KFY-2005A

With a safety guard and release button, this cutter is ergonomically designed to reduce hand fatigue. 45mm diameter hardened steel blade mounts on either side for left or right-handed users.



KFY-2005B Spare blade 45mm diameter

Self-Healing Cutting Mats

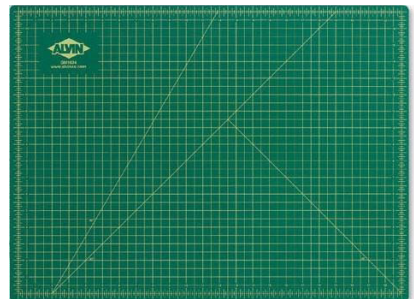
Ship rolled up for economical shipping costs; flatten out on table-top easily, more quickly with the help of a hair dryer. Tough enough to cut on, but soft enough to accept push-pins to stabilize fabrics. Standard size mats have 1" square grids. All mats are 1/8" thick reversible and semi-transparent.

KFY-2006A Cutting Mat 18.5" x 24.5"

KFY-2006B Cutting Mat 24.5" x 36.5"

KFY-2006C Cutting Mat 47.5" x 96.5"

For a full-size cutting table, mats 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 KFG-2010

KFG-2010C

Replacement cutter bed for KFG-2010B



Pneumatic Clicker Presses

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 **KFG-2013**.



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



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

Accessories for Clicker 700 & 1500

Cutting Tables for Clicker 700 & 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

Replacement Cutting Bed for the Clicker 700

KFG-2011B

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

Replacement Cutting Bed for the Clicker 1500

KFG-2012B

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, 1¼" 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 resharpener 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

Handheld digital thickness tester, ½" dia contacts, ½"/12.5mm range, 2" throat depth.

KFG – 2023

Handheld digital thickness tester, ½" dia contacts, 1"/25mm range, 6" throat depth.

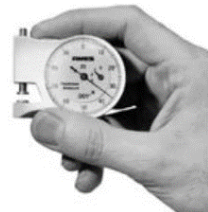


KFG – 2024

Pocket thickness tester, ½" 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 Crockmeter KFG – 2031

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

- 16mm diameter 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.

- 16mm diameter acrylic test finger and steel specimen holder
- Complies with AATCC TM 8/165 and ISO 105 D02 X12



KCT – 3020

Pre-cut crocking cloths 2" x 2" (pack of 1000)

KCT – 3031

Crockmeter calibration fabric (pack of 25)

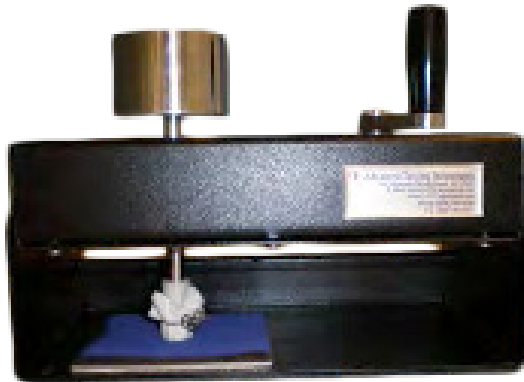
KCT – 3061

Gray Scale (staining)

Rotary Crockmeter

KFG-2033

The Rotary Crockmeter is used to determine the colorfastness of textiles to dry or wet rubbing particularly for printer fabrics. It applies 1134 grams of pressure on a 16mm crocking finger and rotates 1.125 turns clockwise, then counter clockwise. The operating handle is turned in only one direction. Complies with AATCC 116 and ISO 105 X-16.



Gaskushin Type Rubbing and Colorfastness 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 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° C, 40 liters capacity

AATCC and ISO Perspiration Test 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 – 3001CC

Multifiber Adjacent Fabric AATCC, 2 x 2" cold cut (Pack of 500) 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)



Colorfastness to Perspiration Testers (Cont.)

Multifiber Adjacent Fabric

- KCT-3001ACC - Pack of 250
- KCT-3001AHS - Pack of 250
- KCT-3001CC - Pack of 500
- KCT-3001HS - Pack of 500
- KCT-3001OL - Pack of 500

Multifiber Warp Stripe Ribbon

KCT – 3002

Multifiber Warp Stripe Ribbon ISO, 4 x 10cm - 10 Meter roll

AATCC Gray Scale KCT – 3061

AATCC Gray Scale (staining)

Steaming Cylinder

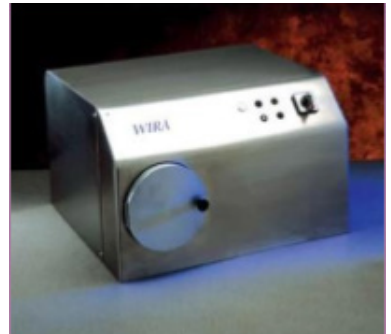
KFG-2045

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.

- Double-walled thermally insulated steaming chamber
- Automatic Operation
- An automatic timer is incorporated in the apparatus to give an indication of the 30-second cycle required for BS4323 and ISO3005.
- Standard shrinkage rule and colored pens are supplied to record shrinkage.
- Rapid routine test for process control

The specimens are:

1. Preconditioned in the standard atmosphere for testing textiles. Preconditioning ensures that in conditioning itself equilibrium is always approached from the dry side.
2. Marked using the measuring device and then measured.
3. Steamed for 30 seconds, followed by 30 seconds rest outside the cylinder, this cycle being performed three times in all.
4. Preconditioned, conditioned and re-measured.



Contact Heat Tester

Shrinkage, Scorch, and Sublimation

KFG-2047

Designed to allow a wide range of tests to be carried out which utilize accurately controlled dry heat

- Sublimation testing of dyestuffs
- Complies with the requirements of the Marks and Spencer fabric stability testing
- 200x200mm top and bottom heated plates, each plate has individual temperature control
- Top plates hinged so that they drop onto different material thicknesses
- Electronic timer is fitted with set point and double light to indicate the beginning and end of the time cycle
- Machine as supplied complies with ISO105 P01, X11, BS1006 1990



Contact Heat Tester

KFG-2048

The KFG-2048 Test Unit has been developed to allow a wide range of tests to be carried out, where accurately controlled dry heat conditions are required on the surfaces of two flat heater plates. Independent control of the top and bottom plate temperature is easily achieved and the compact 'desk top' design allows fast warm up and stabilization of the plate temperature. The top plate hinge is designed in such a way to accommodate samples of different thickness and will remain level when closed.

Model	Plate Size	Applicable Standards	Power Supply	Dimensions
KFG-2048M1	210 x 210mm	Marks&Spencer P10, EN ISO 105-X11	230V, 50-60Hz, 800W	485 x 270 x 528mm (Lid Open)
KFG-2048M2	178 x 103mm	EN ISO 105-X11	230V, 50-60Hz, 800W	655 x 270 x 528mm (Lid Open)
KFG-2048M3	178 x 103mm	EN ISO 105-X11	230V, 50-60Hz, 1200W	930 x 270 x 528mm (Lid Open)

The Contact Heat Range of test apparatus is available in single head (M1) and multi-head versions (M2, M3). The M1 version has a plate size of 210mm x 210mm to accommodate both the Marks and Spencer Thermal Stability (P10) and Color Fastness to Hot Pressing EN ISO 105-X 11 tests.

Range of Tests

- Sublimation Testing off Dyestuffs on Textiles
- Transfer Printing onto Textiles
- Fabric Stability Testing (M&S Method of Test P10 - Model M1 only)



Digital Ink Rub Tester

KFG-2049

The KFG-2049 Digital Ink Rub Tester is designed to measure scuffing or rubbing resistance. Several tests can be performed including dry rub-the amount of transfer ink from one dry surface to another, wet rub-the amount of transfer of ink from wetted surface to another, wet bleed or transfer-ink transfer to a water-saturated blotter, wet smear-similar to wet bleed with the addition or rub cycles, functional rub/ wet rub-smear or transfer tests using a liquid other than water and hot abrasion. An optional heated weight provides a uniform test for evaluating hot abrasion resistance of printed cartons, labels etc.

Features

- Five speeds - The standard speed (42 cycles per minute) and four additional speeds (21, 85, 100 and 106 cycles per minute) allow you to decrease the testing time for samples requiring a higher number of rubs
- Additional variable speed ranging from 20-115 cycles per minute
- Infinitely variable cycle count from 1-999
- Large character LCD Display
- Displays count up, count down, test status and configurations
- Preset counts remain in memory
- Automatic shut-off & selectable "test complete" alarm
- One-year warranty



Specifications

- Model 10-20-00-0001
- Includes (1) 1.8 kg(4 lb) weight, (1) 0.9 kg(2 lb) weight, spare rubber pads, and scoring fixture
- Heated weights 2 lb and 4 lb available
- Replacement Pads available
- Weight: 9.5 kg (21 lb) + weights
- Dimensions W x D x H: 356 mm x 216 mm x 229 mm (14 in x 8.5 in x 9 in)
- Power 120/240 VAC 50/60 Hz

Applications - Inks, Plastic film, Packaging, Paper, Labels, Coatings, Cartons, Printed Materials

Standards - ASTM D 5264, TAPPI T-830, ASTM F-1571 & 2497, FINAT FTM 27



Colorfastness Testers

Colorfastness to Washing and Dry-Cleaning Testers KFG-2050

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

Features

- 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

Other models and options upon request



Specimen Containers and Accessories

KFG-2051 550ml specimen containers

KFG-2052 1200ml specimen containers

KFG-2053 6mm dia Stainless Steel Balls for AATCC/ISO Wash Tests (Pack of 100)

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 50)

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

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

Taber Rotary Abrasion Testers

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, as well as solid materials such as metals, stone, and ceramics. Other materials include paper, glass, plastics, leather, rubber, linoleum, laminates, and more.



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.



KFG-2064 (Single Head) or **KFG-2064-1** (Dual Head) delivers reliable data in minutes. Used to evaluate a material's resistance to wear, a flat specimen is mounted to a turntable platform that rotates on a vertical axis. As the turntable rotates, contact of the specimen against the sliding rotation of two abrading wheels cause wear while a vacuum system removes loose wear debris during the test. The resulting abrasion marks form a pattern of crossed arcs in a circular band that covers an area approximately 30 cm².

- LCD operator touch screen
- Quick release wheel mounting hub
- Critical components easy to replace
- Compact abraser arm assemblies redesigned support frame and housing
- Direct flow vacuum nozzle tips for 8mm and 11mm
- Selectable display options (including language)
- Store test profiles



Each Unit Includes	KFG-2064	KFG-2064-1
Auxiliary Weight 500-gram load (each)	2	4
Auxiliary Weight 1000-gram load (each)	2	4
Specimen Holder	2	4
Hold Down Ring	1	2
Torx T25 Screwdriver	1	2
Hand Brush	1	1
Vacuum System (suction hose, round brush, filter)	1	1
Power Cord Kit	1	1
Operating Instructions	1	1

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 ¼ "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 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 predefined 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.



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 of 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

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 percent 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 Percent – The unrecovered length of a sample which has been held in the extended state for a specified time (2 hours), expressed as a percent of the original length.

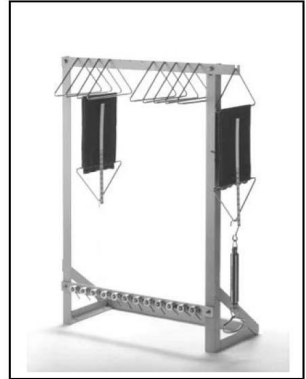
KFG-2076A Extra Weight Kit



Stretch and Recovery Frame

KFG-2077

An effective test to determine the stretch and recovery from stretch of stretch knit fabrics. This new test provides an adequate solution to the long-standing problem inherent when testing stretch knit fabrics, specifically the tendency of fabrics to roll at the edges and to assume a rope-like configuration when subjected to load in strip form.



Snap and Button Strength Tester

KFG – 2078

To assess the pull-out or breaking 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 for 15 lbs.

Weight: 40kg (88 lbs)

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



Digital Snap and Button Strength Tester

KFG – 2078-2

To assess the snap attachment strength of button which is very important to design and manufacturer of garments for infants and children. The measurement of the uniform force applied to the snap attachment shall be recorded by means of a force-measuring device.

Standards

ASTM D 4846

Standard Configuration

- Main machine
- IMADA digital force gauge (200N)
- Lower fabric or garment clamp
- Upper snap clamp



Key Specifications

- Load Capacity: 200N
- Load Gauge Accuracy: $\pm 0.2\%$ of full scale
- Readability 0.1N
- Diameter of Pressing Ring: phi coefficient 15mm - phi coefficient 35mm

Weight: 40kg (88 lbs)

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

Sharp Edge Tester

KFG – 2079

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 products for children of no more than 8 years. 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 :

- Sharp edge tester
- Charger
- Foot switch
- PTFE tape (1 roll)

Force applied: 1.35lb

Dimensions: 29 x 19 x 10mm (LxWxH)

Height: 3.61kg

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



KFG-2079A Spare roll of PTFE tape

Button Impact Tester

KFG – 2080

The Button Impact Tester is used to determine the impact resistance of plastic sew-through flange buttons. Individual buttons are placed on a surface centered under a tube through which a preselected mass falls from a preselected height. After the mass impacts the button the impacted button is removed and visually examined for breakage, cracking, or chipping which constitute failure.

Related Standard: ASTM D 5171

All stainless steel construction

6 standard drop heights

Actual drop heights 32,44,67,83,95,117 mm

Impact ram mass 840g/29.5oz



Textile Flammability Testers

Horizontal Flammability Tester KFG – 2081

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 7955

KFG-2081A Spare specimen holder



Automatic Flammability Tester 45 Degrees KFG – 2082

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

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.

KFG-2082A Brushing device

KFG-2082B Spare burners - pack of 5

KFG-2082C Spare sample holders - pack of 5



Vertical Flammability Testers

Vertical Flammability Tester - Manual KFG – 2083-1

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

Vertical Flammability Tester - Automatic KFG – 2083-2

- 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-84Tents
PAR Part 25 App F Part 1
NFPA 1971, 1975, 1976, 1977, 1981, 2112
ASTM D 6413
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

KFG-2083D - Spare Sample Holder (Single)

KFG-2083E - Set of Hanging Weights



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" W x 22" D

KFG-2086B Fume hood complete 70" W x 22" D

KFG-2086C Standard 2 Door Base Cabinet for 47"

KFG-2086D Standard 2 Door Base Cabinet for 70" (2 36" Cabinets)

KFG-2086E 47" Black Solid Epoxy Flat Work Surface, 48" W x 30" D x 1.25" Thick

KFG-2086F 70" Black Solid Epoxy Flat Work Surface, 72" W x 30" D x 1.25" Thick



Laboratory Ovens

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 upon request.



Economy Incubator, Oven & Timer

Economy Incubator (1.4 cu ft/40 liter capacity) KFG – 2093

Ideal for colorfastness to perspiration and water tests. Digital temperature display with 0.1° C resolution, maximum temperature 90° 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°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)



Economy Incubator, Oven & Timer (Cont.)

Laboratory Timer and Stopwatch KFG-2095

Two-Memory Timer delivers on-the-dot timing operations, whether counting up or down from 23 hours, 59 minutes, 59 seconds. Timer can be used as a time-of-day clock with user-selectable AM/PM or 24-hour format. To perform two tests at once, both countdown timing channels may be started simultaneously. As each countdown time expires, a unique alarm sounds and a visual "Time's Up" message is displayed. At zero, the display will begin counting up. The memory feature can perform countless repetitive tests. Both countdown timing channels may be set to recall a specific time. Unit includes magnet, flip-open stand and clip.

Dimensions: 2 3/4 x 2 1/8 x 7/8"

Weight: 1.0 oz

- NIST Traceable® Certificate Supplied
- 3/8" LCD digits for easy viewing
- Accurate to 0.01%
- Times two tests at once



Laboratory Centrifuge

KFG-2100

For the rapid removal of water from samples after washing and dyeing.

- Removes 90% of moisture in 10-20 seconds, without heat
- Ideal for rapid color measurement
- 1000 grams (wet) capacity
- Table or wall mounting for space saving
- No exposed moving parts
- Constructed of 304-series stainless steel & durable plastic



Technical Specifications

Model Number	KFG-2100	KFG-2100A
Description	Laboratory Centrifuge 115V	Laboratory Centrifuge 230V
Unit Dimensions	15 x 15 x 23 inches	38 x 38 x 58.4 cm
Spin Speed	3450 RPM	2850 RPM
Weight	55 lbs	25kg
Power Rating	115V, 60Hz, 8.6Amp	230V, 50Hz / 60Hz
Shipping Dimensions	18 x 18 x 26 inches	45.72 x 45.72 x 60.04cm

Laboratory Conditioning Chambers

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

Model	Size	Internal Dimensions	External Dimensions
KFG-2110	1.5 cubic ft.	13" x 14" x 13"	33" x 27" x 26"
KFG-2111	5.8 cubic ft.	24" x 20" x 18"	46" x 33" x 31"
KFG-2112	10 cubic ft.	30" x 24" x 24"	52" x 36" x 37"



- Interior Cabinet: Stainless Steel, Type 304
- Exterior Cabinet: Cold Rolled Steel, Heavy-Gauge, Powder Coat Finish, Color: Bone
- Full Opening Door, Left-Hand Hinge, and Manual Door Latch
- 12" x 12" Heated Multipane Viewing Window
- Interior Light with Exterior Switch
- Fully Adjustable Shelf Rails, Includes 1 Wire-Grid Shelf
- Port and Plug 3in (76.2mm) Diameter
- Port Configuration: Left Wall Access
- Centered in Workspace top-to-bottom and front-to-back
- Forced-Air Circulation
- Self-Contained Refrigeration System
- Steam Generator Humidity System
- Gas Purge Control
- Electrical Supply: 110VAC, 1PH, 60HZ
- Full Load Amps: 15A
- Power Requirement: NEMA 5-15

Accessories

KFG-2113 Two Channel automatic programmer

KFG-2114 Recirculating humidity system (with 6 gallon DI/DM water reservoir)

Temperature range -20°C to +94°C
(-4°F to +201°F)

Humidity: 10-95% RH, limited by +4°C Td

Ask about other models and options

Temperature and Humidity Recorders

Temperature and Humidity Recorder (Thermohygrograph) KFG-2121

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.

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

KFG-2122 Pack of 100 Charts, 7 days, -6 to 40 degrees Celsius

KFG-2123 Pack of 5 Red Pens

KFG-2124 Pack of 5 Blue Pens



Digital Temperature and Humidity Meter KFG-2125

Device offers minimum/maximum memory and hold features. Unit measures $7 \frac{1}{8} \times 2 \frac{3}{4} \times 1 \frac{1}{4}$ ". Probe is $8 \frac{1}{2}$ " long with $\frac{2}{3}$ " diameter with a 3 foot cable. Weight is 10 $\frac{3}{4}$ ounces. With accuracy of $\pm 2\%$ RH. Dew point display (range 0 to 50 degrees C with a resolution of 0.1 and an accuracy of $\pm 2\%$ 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.

- Relative humidity range 10.0 to 95%
- Resolution is 0.1% RH
- Accuracy is $\pm 2\%$ mid-range and $\pm 4\%$ elsewhere
- Temperature range 0 to 199, 9 degrees F and - 18 to 93 degrees C
- Resolution 0.1 degree
- Accuracy is $\pm 1^\circ$ C between 0 to 40° C, otherwise $\pm 2\%$ C



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.



Item Number	KFG-2140	KFG-2141
Output	2.1 cfm / 60 lm	4.2 cfm / 126 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.

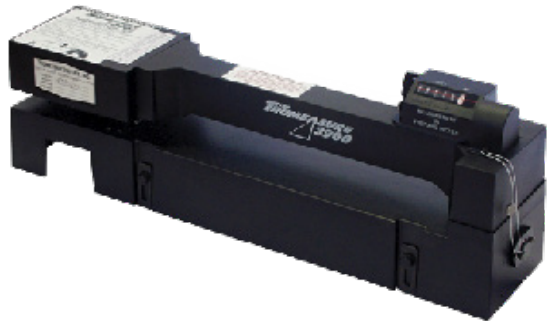
Fabric Length Measurement Systems

Truemeasure Length Measurement System KFG-2143

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.



Truemeter Length Measurement System KFG-2144

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.

Other Models and Options are offered



MiniRoller IM72 Portable Inspection and Re-rolling Machine

KFG-2145

Suitable for Fabric warehouses, Cut and Sew operations and Retailers. Sits on table or bench-top, 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.



MidiRoller MID72 Inspection, Measuring and Cut Length Machine

KFG-2146

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".



Midi-L72 Inspection, Measuring and Re-rolling Machine

KFG-2147

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 30meters/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.



Black-Ray Portable Ultraviolet Lamp

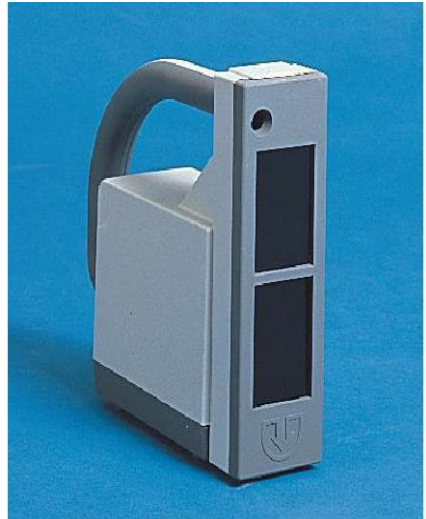
Long Wave

KFG-2148

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

- Battery Operated
- Medium intensity, 365nm; radiation intensity 1650 $\mu\text{W}/\text{cm}^2$
- Total radiating aperture is 146 x 57mm
- Contains self-filtering, 6-watt mercury vapor tube (6282U64), 216mm long, with reflector
- Total weight 2kg when equipped with batteries
- Three-position on/pff starter which selects flashlight on UV lamp

KFG-2148A Spare UV Lamp



Color Assessment Cabinets, Light Booths, & Hue Test Kits

Mini-Matcher KFG-2149

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.



Color Assessment Light Box 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 , Incandescent A, TL84 or CWF , Incandescent Tungsten Filament, UV (black light). Other light sources available on request. Interior color matte grey – Munsell N5

Overall Dimensions: 28" x 21" x 17"

Viewing Area Dimensions: 26" x 13" x 15"



KFG-2151 45 degree fixed angle table for light booths

Light Cabinet-1200mm/48 inches wide, 5 lights KFG-2154

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-2152A

- Built to AATCC approved test methods 88B/88C/124/128/143/178.
- The 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 required by many specifiers.
Other test methods which can be viewed include:

- BS 5811:1986 Determination of resistance to piling 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.



Verivide Pilliscope

KFG-2153A

Viewer for the assessment of pilling on fabrics against 5 standard photographs with halogen high incident angled illumination. Five sided drum fitted with comparison photographs of knitted or woven fabrics not included, but required.

KFG-2153B Knotted Fabric Drum

KFG-2153C Woven Fabric Drum

KFG-2153D Snagging Drum



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. It consists of 4 trays of 85 color reference disks which must be placed in order. Includes scoring software for numerical and graphical results. Supplied in fitted aluminum case.



Ishihara Color Blindness Test Volumes KFG-2155-1

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.



Digital Compound Microscope

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 Information:

- Mountable reversed quintuple nose-piece 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, and 1000x. Suitable for fiber identification and measurement as well as general microscopy with the included image analysis, measurement and archiving software.



Digital Stereo Microscope

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.

- 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. Lightweight compact unit
- UL. CE. C – UL approved
- Requires no adapters
- Supplied with dual flexible light guides



Handheld Digital Microscope

KFG-2165

This mobile microscope is ergonomically designed to hold easily while positioning the object in clear view on its 3 inch TFT screen. The zoom button is positioned on the side allowing you to conveniently zoom from 10x to 250x magnification.

More Information:

- Capture Resolution: 12MP, 9MP, 5MP, 3MP, 1.3MP, and VGA
- Focus Range: Manual Focus from 10mm to 30mm
- Frame Rate: Max 30 F/S under 600 Lux Brightness
- TV output available
- Battery: 3.7V 1050mAh rechargeable lithium battery
- Ports: Micro SD Card Slot up to 32GB SDHC, AV Out, Mini USB, 5V-1A



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°C, -40 to 248°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 ±0.1 pH KFG-2172

Waterproof pH temperature tester with replaceable electrode and an accuracy of ±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



KFG-2173 pH Buffer Kit - Includes pH 4, 7, 10 & cleaning solution

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

- 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 Information

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



Thermometers

Digital High Temperature Thermometer KFG-2181

Specifications

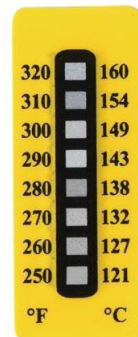
- Temperature range is -58° to 752°F and -50° to 400°C
 - Resolution is 0.01° below 200° and 0.1° above 200°
 - Accuracy is $\pm(0.1\% + 0.2^\circ\text{C})$ below 200°C and $\pm(0.15\% + 0.5^\circ\text{C})$ above 200°C
 - Minimum/maximum memory/hold/platinum probe
- Probe dimensions are 6" x 0.13" in diameter with an overall stem length of 12", cable length is 40". Provided with a NIST traceable calibration certificate from an ISO 17025 accredited laboratory.



Temperature Indicating Labels KFG-2185

Changes color to indicate maximum temperature achieved in processing. Self- adhesive and unaffected by oil, water, or steam. Dual ranges from 40°C (105°F) to 260°C (500°F). Supplied in packs of 100 per range.

Model Number	Temperature Range
KFG-2185A	105°-160°F, 40°- 71°C
KFG-2185B	170°-240°F, 77°- 116°C
KFG-2185C	250°-320°F, 121°- 160°C
KFG-2185D	330°-400°F, 166°- 204°C
KFG-2185E	410°-500°F, 210°- 260°C



Digital Textile Moisture Meter

KFG-2190

The 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, as well as a roller probe for fabric.



Set of Two Calibration Probes KFG-2191

For simple two-point calibration of the digital moisture meter

Textile Moisture Meter - Analog

KFG-2193

The textile moisture meter measures the moisture content in yarn, fabric rolls, filaments, fiber flocks and more. Easy to use and highly portable, these compact meters deliver instant results with an accuracy of 0.1%. Recommended by official test and research laboratories, Aqua-Boy moisture meters are the automatic choice of industrial specialists and scientists worldwide.



Features

- Easy to use for many applications
- Multiple scale for direct readings for wool, rayon and cotton
- Portable, battery-operated
- 0-100 scale for comparison tables used for other materials like polyester, polyamide and many material mixtures
- High accuracy and repeatable
- Manufacturer's Test Report optionally available

Supplied as a complete kit with leather carrying case, electrode holder.
Needle electrode for yarns, cross-wound bobbins and hanks (needle length 25mm).
Surface electrode for fabrics (surface 23mm).

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 Information

- 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 ± 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-adaptor/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 Information

- 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 \pm (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.



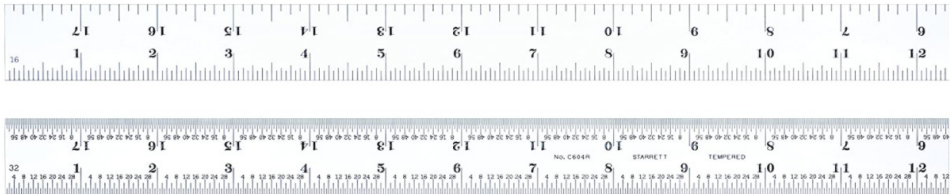
Steel Rulers

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 to 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, indicating the thread count.

More Information

- Instantly produces an accurate thread count
- No magnification – No eyestrain – No counting
- Laboratory grade instruments recommended for precise quality control
- Gridlines 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

Model Number	Range (Inches)	Range (Centimeters)	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	6.75 x 2

Magnifiers, Piece Glasses and Pick Counters

(Cont.)

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

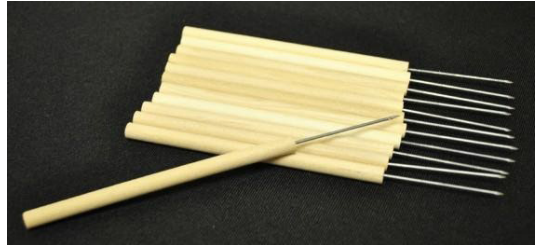
Fixed focal length corrected lens (5 x magnification) in folding black metal frame with both fractional inch and centimeter graduations.

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)



8x Metal Folding Pick Counting Glass KFG-2238

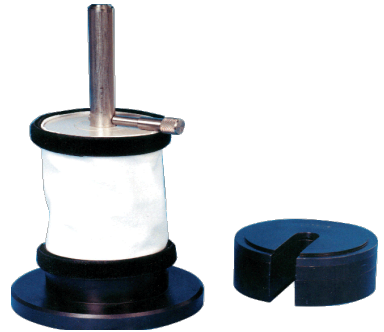
Folding magnifier with an 8x glass lens, LED light, and black metal body. Linen tester measurement loupe reads in millimeters and inches. Thread counter model has a 1 1/8" diameter 8x glass lens and is lighted with 2 white LED lights. Folds flat for compact storage. Batteries included, just remove battery cover and pull tab. Slide on/off switch. Black metal zinc alloy body has embedded etched ruler markings on base. Folding magnifier supplied with a black leather pouch.



Wrinkle Tester

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.



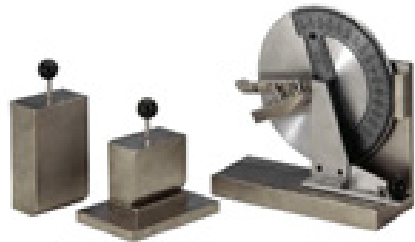
Wrinkle Recovery Replicas KFG-2241

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



Crease Recovery Tester and Loading Device KFG-2245

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° increments from 5 to 540°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 brush-less 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 Tester

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.

KFG-2261 AATCC Photographic Rating Chart

KFG-2262 Replacement Spray Nozzle and Rubber Sleeve



Rainproof Tester

KFG-2263

Used to determine the penetration resistance of fabrics or composites at different intensities of water impact. Simulated rain horizontally impacts fabric samples mounted vertically in a stainless-steel bath. Samples are backed with a standardized blotting paper which is weighted before and after each test. The rain is formed by a column of water and applied via a standardized nozzle. Water column height can be adjusted from 600mm (24in) up to 2400mm (96in) in 300mm (12in) increment.

Specifications

- Water column height: 0.6m, 0.9m, 1.2m, 1.5m, 1.8m, 2.1m, 2.4m
- Nozzle hole number: 13
- Nozzle hole diameter: Phi Coefficient $0.99 \pm 0.013\text{mm}$
- Distance from specimen to nozzle: 305mm
- Material: 304 stainless steel
- Dimensions: 650 x 800 x 2,700mm (LxWxH)
- Net weight: 82kg

Standard Configuration: Main Machine, Sample Holder, Throttle, Metal hose

Optional Accessories: AATCC Textile Blotting Paper

Standards

AATCC, ISO 22958, GB/T 2331

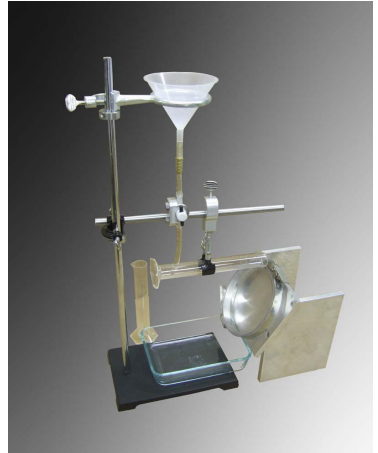
Note: Tester can conform to but not limited to the standards above, for more standards conformance, please contact us.



Water Absorption Tester

KFG-2265

This Device is designed to test the ability of fabric and leather to not absorb water in accordance with ASTM D 4772. A measures amount of water is poured through the funnel and onto the fabric that has been secured to the fixture. The volume of water captured in the lower pan is subtracted from the original volume to determine the amount of water absorbed by the sample.



Easy Cutter Cordless Electric Scissors

KFG-2270

Cuts Fiberglass™, Dyneema™, Kevlar™, Spectra™, Vectron™, Twaron®, and Similar Engineered Materials.

The choice for composites, laminates, impregnated and coated fabrics as well as regular fabrics! The ergonomic design offers comfort and maneuverability and weighs just 8 ounces.

- Powered by long lasting rechargeable and disposable Hi-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 lade assembly with base plate to protect work surfaces
- 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. Measure 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 100rpm.

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)

Fabric Yield System 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 spring-loaded knob. Also provided is a portable electronic balance with a capacity of 210 grams with a precision of 0.1 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



AATCC Shrinkage Tester - Washer

KFG-2310

AATCC Shrinkage Tester, including the standardized fabric washing shrinkage washer and dryer, are recommended by American Association of Textile Chemists and Colorists (AATCC). The testers are used to determine the dimensional stability of fabric or garment after washing, and assess the appearance after washing.

Features

- 6th sense
- Agitator
- White Porcelain Drum
- Lid Lock
- Dual Suspension System
- Imbalance Control
- Fabric Softener Dispenser
- Bleach Dispenser
- Program:
Jeans, Whites, Deep Clean, Bulky Items, Soak, Delicates,
Colors, Wash Only, Quick Wash, Clean Washer, Rinse &
Spin, Drain & Spin



Specifications

- Washing Capacity: 15kg/33lb
- Number of Washing Programs: 12+
- Number of Washing Options: 3
- Soil Level Options: 3
- Temperature Options: 4
- Color of Machine: White
- Product Dimensions (HxWxD) 1,080 x 685 x 650mm
- New Weight: 135kg

Standards

AATCC88B, AATCC88C, AATCC124, AATCC130, AATCC135, AATCC 142, AATCC143, AATCC150, AATCC159, AATCC172

Note: This tester can conform to but not limited to the standards above, for more standards conformance, please contact us

KFG-2310E Export item with the same features and specifications of the above item

AATCC Shrinkage Tester - Dryer

KFG-2311

AATCC Shrinkage Tester, including the standardized fabric washing shrinkage washer and dryer, are recommended by American Association of Textile Chemists and Colorists (AATCC). The testers are used to determine the dimensional stability of fabric or garment after washing, and assess the appearance after washing.

Features

- Automatic Dryer Sensor
- Large Drop Down Opening Door
- Wrinkle Shield Feature
- End of Cycle Signal
- Program:
Heavy Dry, Adjustable Drying Time of 30-70min,
Damp Dry, Fluff Air, Very Dry, More Dry, Energy
Preferred, Less Dry

Specifications

- Drying Capacity: 15kg/33lb
- Number of Drying Programs: 14+
- Temperature Options: 3
- Color of Machine: White
- Production Dimensions (HxWxD): 1,090 x 737 x 735mm
- Net Weight: 120kg



KFG-2311E Export item with the same features and specifications of the above item

Wascator Reference Washer Extractor

KFG-2312

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.

KFG-2312B Wascator locked program card for ISO 6330/2000 test method

KFG-2312C Wascator locked program card for ISO 6330/2012 test method

KFG-2312D Wascator locked program card for Marks & Spencer test methods

Precision Digital Tumble Dryer KFG-2313

Carefully re-engineered domestic tumble dryer to control temperature to ± 1 degrees Celsius 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



Miele Washer Extractor & Dryer

Miele PW 908 Washer Extractor KFG-2314

Little Giants Washer at-a-glance:

- M Touch Flex user interface (no buttons or dials)
- 73 l drum size (18 lb. capacity)
- 49-minute Cotton 140° F program (with HW connection)
- 25-minute Express wash cycle
- 50+ programs; 5 customizable
- High spin speed - G Force up to 704 g
- Cap Dosing
- 96-hour delay start

High temperature disinfection programs (up to 200°F)
Bearing designed for 30,000 operating hours
Stackable or Side-by-Side configuration

Miele PT 908 Tumble Dryer KFG-2314A

Little Giants Dryer at-a-glance:

- M Touch Flex user interface (no buttons or dials)
- Heat pump dryer technology
- 130 l drum size (18 lb. capacity)
- 35 programs; 5 customizable
- Dryer rated Energy Star Most Efficient
- Fragrance Dos capable
- Dryer featuring 4D filtration system
- Stackable or Side-by-Side configuration

NEW FEATURE



Machine	Washer KFG-2314	Dryer KFG-2314A
Version	Electric	Heat Pump or Vented
Application Area	Residential and Industrial	Residential and Industrial
Load Capacity	18 lb.	18 lb.
Machine Exterior	Stainless Steel or Lotus White	Stainless Steel or Lotus White
Machine Dimensions	33.5"H x 23.8" W x 28.25" D	33.5"H x 23.8" W x 30.6"D (HP) 33.5"H x 23.8" W x 28.25" D (Vented)
Drum Volume	19 gallon / 73 liter	34 gallon / 130 liter
Spin Speed	1500 rpm	-
G Force	704	-
Languages	32	32
Weight	227 lb.	114 lb.
Electrical Connection (Standard)	2 AC (2-pole) 208V-240V 60Hz	2 AC (2-pole) 208V-240V 60Hz
Fuse Rating (Standard)	2-pole 30 A	2-pole 30 A
Plug Type	NEMA L6-30	NEMA L6-30
Total Rated Load	4.0-5.2 kW	1.2 kW (HP), 3.2 - 4.2 kW (Vented)
Cold Water Connection	1 x cold water ½" hose with ¾" threaded union	-
Hot Water Connection	1 x hot water ½" hose with ¾" threaded union	-
Drainage Options / Exhaust Options	Sink, floor drain, or stand pipe	Drainage: sink, floor drain, or stand pipe (HP) Exhaust: 4" (100mm) hard or flexible pipe (Vented)
Vent Diameter	-	Ventless (HP), Vented (Vented)

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 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°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



Durawash without Extractor

KFG-2316

The DURAWASH 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 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 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°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.

Same specifications as the Durawash Plus KFG-2315.



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 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 operator loads as many stations as desired. Then, the desired number of test 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.



Bally Remote KFG-2330B

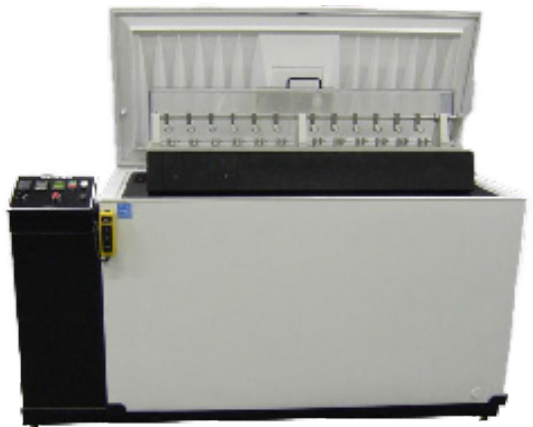
As above but with remote controls for mounting in customer's own chamber.

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



Scott Crease Flex Tester

KFG-2335

This tester is used for determining the degree of finish peeling or crazing due to roll flexing on leather, vinyl, or coated fabrics. The unit is designed with two sample clamps that can have the distance between adjusted to a required length. Once the samples are locked in place the clamps can be compressed together to a required load, thus forcing the samples to roll 180 degrees under pressure. Once samples are in the compressed state, the machine can be turned on and the drive engaged. This slides one of the sample clamps in a back and forth motion causing the crease flex action required. Slide length is also adjustable.

Lateral stroke: 0 – 65 mm (adjustable)

Sample size: 50 mm x 165 mm (maximum)

Sample pre-load: 0-40N (adjustable)

Cycle speed: 0 – 170 cycles per minute (adjustable)

Grip distance: 0 – 63 mm (adjustable)

Counter display: 0 – 999,999 (adjustable)

Machine size: 356 mm high x 406 mm deep x 737 mm wide

Machine weight: 34 Kg

This machine has an adjustable cycle counter with automatic shut off. Upon completion of the test, samples are removed and examined visually for damage.

Standards

- Toyota TSL5101G (Section 3.29)
- Nissan NES M0155 (Section 17)
- GMW3217

KFG-2335A Optional load cell system for controlling 1 Kg clamp pressure, with separate digital display.



Mace Snag Tester

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 a 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

KFG-2352 Hexapod Tumbler only with 6PU – 3.8kg

KFG-2353 Hexapod Drum with lid and liner

KFG-2350A Hexapod Drum with lid - no liner

KFG-2350B Hexapod Drum liner only

KFG-2350C Hexapod Tumbler only without feet



Pilling and Abrasion Testers

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.

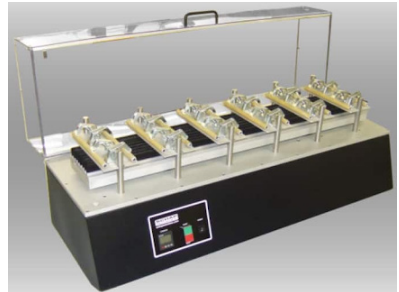
KFG-2360

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

The ICI Pilling Tester fulfills the requirements 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.

- KFG-2370** ICI Pilling Tester with 2 boxes
- KFG-2370A** ICI Pilling Tester with 2 boxes fitted with snagging points
- KFG-2371** ICI Pilling Tester with 4 boxes
- KFG-2371A** ICI Pilling Tester with 4 boxes fitted with snagging points

Polyurethane Pilling Tubes (Four per box)
Cutting Template
Pilling Tube Mounting Jig
Photographic Standards
PVC Adhesive Tape



Drum Pilling Tester - M&S

Designed to meet the requirements of Marks and Spencer methods P18A and P18B

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

- KFG-2375** Drum Pilling Tester M&S with 2 drums
- KFG-2376** Drum Pilling Tester M&S with 4 drums

Provided Accessories

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



Random Tumble Pilling Tester

The tester consists of individually lit aluminum chambers containing stainless steel impellers continuously rotating the test samples against cork liners 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 Piling Tester (2 Test Chambers)

KFG-2381 Random Tumble Piling Tester (4 Test Chambers)

Consumable Products

KCT-3150 Cork Liners (pack of 50)

KCT-3151 Cotton Sliver (10 yds/9m)



Martindale Abrasion and Pilling Testers

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. J.A. King is 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-2392-9	9 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-2393D	Pilling test accessories for ISO 12945-2 (9 position)
KFG-2394A	38mm diameter sample cutter
KFG-2394B	140mm diameter sample cutter
KFG-2394C	Circular Cutting Board / Mat (300mm x 200mm x 14mm)
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)

Tabletop Accelerated Exposure Test Chamber

Sun and Weathering

KFG-2399

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 irradiances from 25 to 80 W/m²(300-400 nm)
- Control and monitoring of Black Standard Temperature. BST range from 40 °C to 90 °C
- Control and monitoring of R.H. relative humidity
- Display of the conditions in the test chamber
- Potentiometer for setting of irradiances
- Potentiometer for setting of the BST temperature
- Potentiometer for setting of the Relative Humidity
- Timer to set the test time
- Extremely high-range ultrasonic humidifier allows to obtain high humidity values with negligible demineralized water consumption
- Built in demineralized water tank of about 20 liters ensures weeks and weeks of continuous functioning
- Mains voltage: 230 Vac +10% 50/60 Hz
- Dimensions W x D x H: 790 x 510 x 780
- Weight. 65 Kg



Spare Parts

KFG-2403C 1500-watt xenon arc lamp (spare) for Solarbox 1500 models

KFG-2403CA 1500-watt xenon arc lamp (spare) for Atlas Suntest CPS+

KFG-2403C3 2500-watt xenon arc lamp (spare) for Solarbox 3000 models

KFG-2403D Solarbox air filters (pack of 3 – spare)

Solarbox Xenon Arc Light Fastness Testers

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/m² 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-2400A Solarbox 3000 Xenon Arc light fastness tester standard model

KFG-2400B Soda-lime glass UV filter simulated outdoor exposure (1500)

KFG-2400C Soda-lime glass UV filter, extra-long life, to simulate indoor exposure

KFG-2400D Soda-lime glass UV filter, extra-long life, to simulate outdoor exposure with Infra-Red reflection coating

KFG-2400E Soda-lime glass UV filter, extra-long life, to simulate indoor exposure with Infra-Red reflection coating

KFG-2400AB Soda-lime glass UV filter simulates outdoor exposure (3000)

KFG-2400AC Soda-lime glass UV filter simulates indoor exposure (3000)

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 280mm
- Dimensions: 750 x 390 x 400mm

KFG-2401A Solarbox 3000e Xenon Arc light fastness tester enhanced model

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/m² (300-800 nm)
- Control and monitoring of Black Standard Temperature. Setting of BST temperature up to 80°C and 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 liters ensures weeks and weeks of continuous functioning
- Main voltage: 230 V ac/50/60 Hz.; Dimensions: 810 x 550 x 1.600 mm.; Weight: 100 Kg

KFG-2400F Flooding option for 1500e and 1500e RH

KFG-2402A Solarbox 3000e RH Xenon Arc light fastness tester with humidity control

KFG-2400AF Flooding option for 3000e and 3000e RH

Spare Parts

KFG-2403C 1500-watt xenon arc lamp (spare) for Solarbox 1500 models

KFG-2403CA 1500-watt xenon arc lamp (spare) for Atlas Suntest CPS+

KFG-2403C3 2500-watt xenon arc lamp (spare) for Solarbox 3000 models

KFG-2403D Solarbox air filters (pack of 3 – spare)

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

KFG-2403E Sensor 340nm narrow-band

KFG-2403F Sensor 420nm narrow-band

KFG-2403G Illuminance sensor up to 200.000 lux

KFG-2404 Solarbox Software XEN32 for PC, test reports and calibration

Dry Cleaning and Washing Cylinder

KFG-2410

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

Features

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

Standards AATCC 162, CFR 16, CFR 1610

Dimension 1050mm x 580mm x 820mm (LxWxH)



Scorch and Sublimation Tester

KFG-2420

Determine color fastness to hot pressing and dry heat and to conduct sublimation tests. Providing controlled conditions for 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 50x110mm
- Range of temperature Ambient to -250°C
- Test pressure 4±KPa
- Timer range 0-999S, LED display
- Instrument size 780 x 290 x 200mm (LxWxH)
- 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

More Information

- With transparent plexiglass security cover
- LED display and resettable counter
- Drum size 200 x 145mm
- Testing speed 20 ± 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 ± 10 g

KFG-2431 Bean Bags (pack of 4)



Gas Fume Chamber

KFG-2440

Gas Fume Chamber is used to determine the color fastness of all textiles (not including loose fibers) when exposed to atmospheric oxides of nitrogen derived from the combustion of chemically-pure butane gas or town manufactured gas. Power supply AC220V 50Hz 3A.

Standards

- AATCC 23
- ISO 105-G02
- GB/T 11039.2

Note: this tester can conform to but not limit to the standards above, for more standards conformance, please contact us.

Features

- Transparent window;
- Bunsen burner is imported abroad;
- Chamber, rotating components & accessories, gas duct are made of SUS304 material.
- Applicable to all fabrics (not including loose fibers);
- Exhaust fan runs automatically to exhaust air out of the testing chamber to maintain the temperature, the precondition is constant temperature environment of 20oC;

Key Specifications

- Revolving speed of sample rack
- Test chamber
- Number of bars for mounting sample
- Test temperature
- Sample Size
- Gas Required
- Dimensions
- Net Weight
- 2rpm
- Interior diameter of 550mm
- 6 bars for mounting samples
- Test temperature - ≤60 degree C
- Sample Size – 40x100mm
- LPG or methane
- 900x800x1000mm (LxWxH)
- 140kg



Accelerated Ozone Testing System

KFG-2445

Color Fastness to Ozone Tester, the tester is used to test color fastness of fabrics when they are exposed to ozone. The instrument consists of an ozone generator, a fan, a baffle, a sample holder, and a sample compartment. The ozone generator can discharge through the grid using a high voltage transformer. The generator is placed in front of the low-pressure fan. The ozone generator injects ozone into the test chamber. The sample holder is a separate clip mounted on the wire slip ring and can be used for samples of various sizes.

1. The equipment is equipped with a high-efficiency ozone generator, controller, closed-loop ozone concentration control and a rotating sample holder which can accommodate 24 samples. Through simple settings, pre-set parameters and current parameters can be displayed on the screen, thus the controllability of the device and the accuracy of the test results can be improved.

2. A sample and a standard sample are placed in the ozone test chamber at a box temperature of (64-82F) and a relative humidity of 67% until the color of the standard sample fades to the same level as the fading standard. This experimental phase is a cycle. Repeat the cycle until the sample reaches a defined discoloration or a predetermined number of cycles is reached. Observe the degree of discoloration to obtain the color fastness to ozone of the fabric.



Accelerated Ozone Testing System (Cont.)

Standards compliant

- GB/T 11039.3-2005 ISO 105 G03
- AATCC 109-2011 AATCC 129-2011

Smart touch screen control panel

The microcomputer control system is more efficient and reliable. The programmable 7-inch color LCD touch screen can realize control, detection, calculation, data display and other functions.

High-power ozone generator

The tester is equipped with a highly efficient ozone generator and equipped with an HMOS sensor. When the ozone concentration is 5 ppm, the control accuracy is $\pm 20\%$. It is also equipped with a durable counter. When the test box is fully loaded, it can reach an ozone concentration of 5ppm in about 5 minutes, with the maximum amount can reach 1000pphm.

Stainless steel body

The stainless-steel test box is equipped with a large UV-proof glass viewing window and can be used for closed-loop ozone concentration control. The rotating sample holder can hold up to 24 samples. The LED test box internal light with auto off function improves the observation effect of the test. G280 Color Fastness to Ozone Tester – Several Major Features

Elmendorf Tear Tester

KFG-2450

To determine the ballistic tear strength testing of textiles, plastic films, paper or board.

Includes

- Mechanical Elmendorf Tear Tester Stand
- 1600 gram pendulum assembly
- Manual sample clamps (2)
- Sample cutting knife

Standards

- ASTM D1424
- D1922
- BSEN ISO 13937
- TAPPI T-414

KFG-2451 Additional 800 Gram Pendulum with manual sample clamp

KFG-2452 Additional 3200 Gram Pendulum with manual sample clamp

KFG-2453 Additional 6400 Gram Pendulum with manual sample clamp

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



Digital Elmendorf Tear Tester

KFG-2455

The Digital Elmendorf Tearing Tester is designed to test the ballistic tearing strength of military uniforms, canopy sails, tents, umbrellas, hammocks and other woven fabric. It is also sometimes used to assess the durability of fabric after resin finishing, additive or coating.

- Digital encoder technology ensures accuracy test result up to $\pm 0.5\%$ FS
- PC control, print test reports and test data
- Pneumatic clamping, automatic cutting
- Alarm when outside valid measurement range displayed on LCD panel
- Automatic correction functions for pendulum friction damping to improve test accuracy
- Tearing force range 0~16N, 0~32N, 0~64N, 0~128N
- Test accuracy $\pm 0.5\%$ FS
- Force unit N, cN, kgf, gf, lbf (selectable)
- Tearing length 43mm
- Cut length 20 ± 0.2 mm
- $400 \times 640 \times 700$ mm (L×W×H)
- Instrument weight 100Kg
- 120VAC or 220VAC 50HZ

Test Standards

BS EN ISO 13937
BS EN ISO 4674-2
BS EN ISO 21974
ASTM D1424
ASTM D689B-96A
ASTM D5734
DIN 53128 JIS L1096 GB/T 3917.1 FZ/
T60006 FZ/T 75001 TAPPI T414

With sample template and 3 weigh hammers – 1000g, 3000g and 3500



Dart Drop Impact Tester

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 66cm (26inch) drop height
- Aluminum dart holder with manual thumb screw release
- One 412gm dart set with 0.750in radius phenolic dart head, dart weights are stainless steel, including: (2) 120gr, (1) 60gr, (1) 30gr, (2) 15gr, (2) 5gr weights, and (1) set screw collar

KFG-2461 Pneumatic Clamping Styler

- 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 66cm (26in) drop height
- One 412gm dart set with 0.750in radius phenolic dart head, dart weights are stainless steel, including: (2) 120gr, (1) 60gr, (1) 30gr, (2) 15gr, (2) 5gr 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 26in and 60in drop height
- Aluminum dart holder with pneumatic dart release
- One 412gr dart set with 0.750 radius phenolic dart head, with stem, collar, stainless dart weights: (2) 120gr, (1) 60gr, (1) 30gr, (2) 15gr, (2) 5gr set



Mullen C Burst Tester

KFG-2470

The Mullen C Burst Tester is engineered to gauge pressure readings up to 200psi for testing paper, plastics, textiles, and non-wovens. Its motorized drive ensures constant pressure and its hand lever clamp delivers quick, effortless testing. Generally supplied with 2 gauges on a manifold with valves for quick change-over. Standard gauges are 0-60psi and 0-200psi, other gauges are available.

Supplied with 2 spare rubber diaphragms, diaphragm wrench, hydraulic fluid and an instruction manual.

- 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, 21-30psi
- 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-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



Digital Bursting Strength Tester - Hydraulic

KFG-2475

For determining the bursting strength of woven or knitted fabrics, non-wovens, paper, leather, and board by application of a hydraulic load under a rubber diaphragm of a specific area. Provided with a digital readout of pressure with peak value hold facility, renewable rubber diaphragms, and manual clamping device with acrylic bell, forward reverse and neutral drive system. Provides accurate distention information on samples to 0.1mm accuracy.

- Uses 16-bit industry grade MCU (ATMEL, USA)
- Prints test reports with built-in thermal printer
- Dial pressure meters shows force applied to specimen
- Inner diameter of holder: $30.5 \pm 0.05\text{mm}$
- Diaphragm diameter: $80 \pm 1\text{mm}$
- Diaphragm thickness: 0.9mm
- Range of bursting strength: 60 Bars, 870 psi
- Bursting strength accuracy: $\leq \pm 1\%$
- Range and precision of elongation: 0.1 ~ 40mm, $\pm 0.1\text{mm}$
- Bursting duration: 0.1 to 99.9s
- Load speed: 18 grade
- Hydraulic fluid: Glycerin with 85% concentration
- Power supply: AC 220V 50Hz or 110V 60Hz
- Instrument dimensions: 710 x 540 x 800 mm (L x W x H)
- Instrument weight: 80 Kg
- Standards: ASTM D3786, ISO 13938-1 (for 30.5mm diameter option)

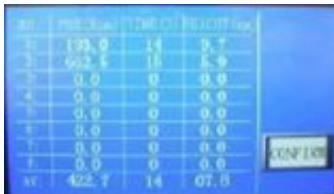


Digital Bursting Strength Tester II

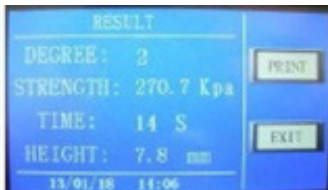
KFG-2476

The Digital Bursting Strength Tester is used to determine the bursting strength and distension of textile fabrics, such as knitted, woven, nonwoven and laminated fabrics. A hydraulic pressure is applied under the fabric by using a constant rate of pressure.

- Large easy to operate touch panel with concise and clear menu
- Two test areas of 7.3cm²(30.5±0.05mm dia) and 50cm²(79.8mm dia), interchangeable
- Special profile clamping bells eliminate slippage
- Manual clamping
- High quality and renewable rubber diaphragms 80 mm diameter, durable in use
- Built-in micro-printer
- Comprehensive and detailed test results
- Range of bursting strength 0~6000 x 0.1 kPa
- Distension range: 0.1~70 x 0.1 mm
- Load speed: Graduated to 8 levels
- Hydraulic fluid: Glycerin with concentration 85 %
- Power supply: AC 220V 50Hz or 110v 60hz
- Standards: GB/T 7742.1, ISO 13938-1, ASTM D3786



NO	Pressure	Time	Distension
1	100.0	14	9.7
2	200.0	18	5.9
3	0.0	0	0.0
4	0.0	0	0.0
5	0.0	0	0.0
6	0.0	0	0.0
7	0.0	0	0.0
8	0.0	0	0.0
AV	422.7	14	07.0



RESULT	
DEGREE:	2
STRENGTH:	270.7 Kpa
TIME:	14 S
HEIGHT:	7.8 mm
13/01/18 11:06	



Fully Automatic Air Permeability Tester

KFG-2478-2

Used to determine the air permeability of fabric automatically. The wide measuring range covers all kinds of knitted, woven, non-woven, coated fabrics, paper, film, leather, etc.

A specimen is clamped over the test head opening by pressing down the clamping arm which automatically starts the vacuum pump. The pre-selected test pressure is maintained, and after a few seconds the air permeability of the test specimen is displayed in the pre-selected unit of measure.

Standards

ISO 9237
BS 5636
ASTM D737
DIN 53887
GB/T 5453
JIS L1096
AFNOR G07-111

Note: Tester can conform to but is not limited to the standards above, for more standards conformance, please contact us.

Features

- New upgrade: the appearance of the equipment is redesigned, control of technology is fully upgraded
- Control accuracy: automatically replace the orifice plate, no human error, more accurate and faster
- Simple operation: using color touch screen, simple and elegant, easy to operate



Fully Automatic Air Permeability Tester (Cont.)

Interface Statistics

- Low noise: the fan with silencer making the testing without noise
- Powerful function: built-in continuous test mode, the test unit can be switched freely

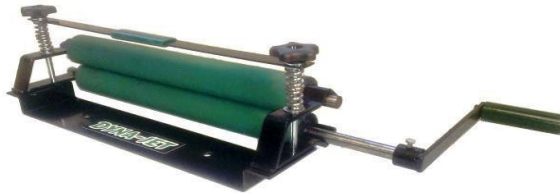
Key Specifications

- Pressure difference range: 1~1,000Pa
- Measuring range: 0.2~12,000mm/s
- Measure accuracy: $\leq \pm 2\%$
- Sample thickness: $\leq 12\text{mm}$
- Test head/area:
Standard: 20cm^2
Optional: 5cm^2 , 25cm^2 , 38cm^2 , 50cm^2 , 100cm^2
- Available unit: mm/s, Lm^2/s , $\text{cm}^3/\text{cm}^2/\text{s}$, dm/min, L/dm²/min, m/min, m/h, cfm
- Orifice plate: 8pcs in total (Automatic replacement)
- Human machine interface: Touch screen, embedded thermal printer
- Power Supply: AC220V \pm 10V, 50Hz
- Dimensions: 520*850*1050mm
- Net weight: 50kg

Hand-Operated Laboratory Wringer

KFG-2495

2-3/8 inches (60mm) diameter x 18 inches (450mm) length rubber covered rollers.
Heavy-duty powder-coated steel frame.
Adjustable spring tension.



Pneumatic Padder

Vertical KFG-2500

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

- 1 pair of padding rollers 125mm diameter x 450mm wide, NBR material of 70° shore hardness, 3ton nip pressure @ 5kg/sq cm. Fixed fabric speed of 10rpm
- 2 diaphragms valves with individual pressure gauges and regulating valves
- 1/4 HP electric motor with speed reducer 220V or 380V x 3HP 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 340kg (748lbs)

Dimensions 980mm (39") W, 560mm (22") D, 1500mm (60") H

Horizontal 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 370kg (814lbs)

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

Minidryers and Stenters

Minidryer and Stenter KFG-2505

For laboratory sample drying, fixing, and curing of small samples.

- 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°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 x 1064mm (42") D x 950mm (38") H



Minidryer, Stenter, and Steamer KFG-2506

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°C and high temperature steaming to 220°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 manufactures



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 piping, 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. 230mm by 499mm L

Type of Padding Mangle: Horizontal

Size of Padding Rollers: 125mm by 300mm wide (x2)

Material Hardness 70 shore

Roller Weighing System: Pneumatic Diaphragm Type

Max. applicable Nip

Pressure: 3 tons at 5kg/cm²

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: 900mm

Accessories: 70-120mm Interval adjusting device

Fluid Bed: 100cc 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: 1,800mm

Maximum Temperature: 150°C by Automatic

Control System Heater Capacity: 3 Phase 10kW

Fan Motor: 3 Phase 0.75KW, Hot-Air Circulation with Vary-Speed Control

Laboratory Pad-Thermosol Range (Cont.)

Thermosoling

Length of Thermosol Zone: 1,500mm

Maximum Temperature: 250°C by Automatic

Control System Heater Capacity: 3 Phase 10kW

Fan Motor: 3 Phase 0.75KW, 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 (x20pcs)

Control Panel 1 Set

Driving Motor

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

Total Electric Consumption: Approx. 25KW, 380V x 3PH x 50HZ

Machine Dimension: 3,000 x 1,200 x 2,880mm (LxWxH)

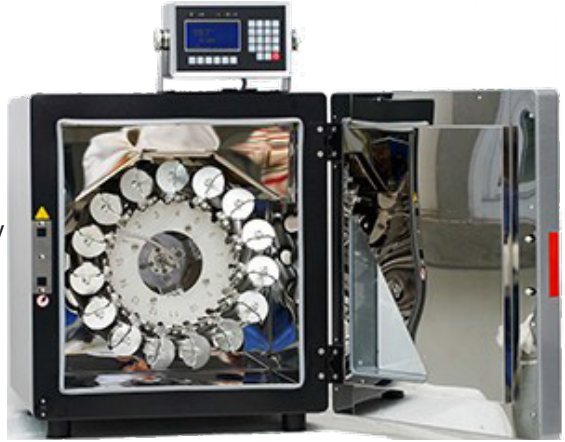
Machine Weight: 1,600kg

Infrared Laboratory Dyeing System

KFG-2550

This new Infrared 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 Infrared Laboratory Dyeing System with 20 beakers x 150cc, membrane dosing

KFG-2550B Infrared Laboratory Dyeing System with 15 beakers x 300cc, membrane dosing

KFG-2550C Infrared Laboratory Dyeing System with 8 beakers x 500cc, membrane dosing

KFG-2550D Infrared Laboratory Dyeing System with 8 beakers x 1000cc, membrane dosing

KFG-2550E Infrared Laboratory Dyeing System with 1 container x 5000cc

Infrared Laboratory Dyeing System (Cont.)

- Multiple beaker configurations (20 x 150cc, 15 x 300cc, 8 x 500cc, 8 x 1000cc, 1 x 5000cc).
- 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 infrared 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: cc 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° 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° C
- Heating consumption 4.5 KW
- Rate of temperature rise 0.5~4° C/min
- Rotating drum with 18 positions of 420cc beakers or 24 positions of 300cc 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
- Weight: 150kg (330 lbs)
- Dimensions: 690 mm (27") W x 730 mm (29") D x 750 mm (30") H



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

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

KFG-2560C ECO DYER with 24 beakers of 150cc capacity

QuickWash Plus

KFG-2570

This accelerated washing and drying system takes the guess work out of maximizing fabric yield. The QuickWash system is a compact, robust tabletop device that resembles a miniature top loading washing machine. The chambered basket is driven by a shaft that provides high speed agitation during the wash, rinse, and extraction sequences. Following the extraction sequence, the samples are subjected to a controlled flow of heated air which induces a tumbling action. An infrared sensor measures the sample's surface temperature, and the reading is displayed on the digital controller. QuickWash significantly reduces the labor in the lab by minimizing the number of time-consuming home laundry tests required to test dimensional stability.

Standards: AATCC 187, ISO 23231, M&S PID

Features

- Less than 20 minute wash and dry time
- Preloaded programs for AATCC and ISO test methods
- Table top mounting
- Automatic four liquid dispensing system (optional)
- Electronic air temperature control and display
- Electronic water temperature control and display
- Electronic air pressure regulator displays and controls the sample tumbling during drying cycle
- Three pre-settable air pressures can be stored with each program to provide uniform tumbling action for various fiber types
- Size: 690 mm x 590 mm x 640 mm (WxDxH)
- Weight: 163 kg
- Power: Single phase 208-240 volts 50/60 Hz 13amp
- Sample Sizes: 20 cm x 20 cm to 25 cm x 25 cm
- Cycle Time: 12-45 minutes
- Number of Samples: 1-20 per cycle, depending on weight
- Water Temperature Range: Ambient to 70° C
- Water Volume: 2-4.5 liters
- Air Temperature Range: Ambient to 90° C
- Air Pressure: 2.4-4.8 bar
- Air Volume: 0.6 m³/ min (20 cfm)



Terg-O-Tometer

KFG-2600

The six place Terg-O-Tometer is a versatile laboratory scaled multiple washing machine that is used for laboratory evaluation of perfumes and fragrances, soaps, detergents, dyes, and surfactants. This instrument simulates the action of an agitator type washer and performs the wash in all its six beakers (wash vessels) under controlled conditions of temperature and speed of agitation.

Features

- Modular electronics for easy on-site user servicing
- Microprocessor controlled with push-button panel controlled
- Variable speed, direct drive motors for agitation cycles
- Automatic electronic timer with digital display for wash and rinse cycles
- Microprocessor controlled water bath temperature monitor with digital temperature display

Applications

- Detergent value of soaps, detergents and other washing compounds.
- Washability of fabrics.
- Color fastness of materials.
- Adherence of perfumes and fragrances.

The Terg-O-Tometer is applicable to experimental formulations or to finished products, as a research tool or as a practical quality control device. The Terg-O-Tometer permits simultaneous checks and comparison runs. This instrument saves time, materials and labor.

Specifications

- Electrical: 220 VAC - 50/60 Hz., 15A, Single Phase
- Weight: 250 Pounds (Net) 350 Pounds (Gross)
- Net Dimensions: 48" x 21" x 28" (W x D x H)
- Gross Dimensions: 55" x 28" x 36" (W x D x H)

KFG-2601 Chiller for Terg-O-Tometer



Neck Stretch Tester

KFG-3000

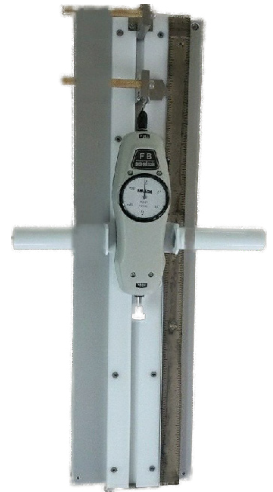
Used to measure tension for neck (collar) or stretchable fabrics found in items like underwear, swimwear, etc.

Standards

- Compliant with ZB W60 001 - 89

Specifications

- Equipped with Imada FD-30K Push – Pull Force Gauge or equal
- Shipping weight: 20 pounds
- Packing dimensions: 26" x 8.5" x 6.5"



Impact Penetration Tester

KFG-3003

Used to measure the resistance of fabrics to the penetration of water by impact, and thus can be used to predict the probable resistance of fabrics to rain penetration

Specifications

- Distance between spray head bottom and center of specimen: (610 ± 10) mm
- Diameter of funnel: phi coefficient 152mm
- Specimen size: (178 ± 10) mm \times (330 ± 10) mm
- Mass of spring clamp: (0.45 ± 0.05) kg
- Material: 304 stainless steel
- Dimensions: 500 x 600 x 850 (LxWxH)
- Net weight: 10kg

Standards

AATCC 42
BS ISO 18695
GB/T 33732



Universal Wear Tester

KFG-5000

Determine the wear and abrasion resistance of various fabrics, such as clothing, footwear, and other industrial textiles.

Features

- Digital controls for accurate cycle counting and timing
- Automatically obtain accurate test result
- Large application range
- Multifunctional and precise
- Supplied with surface abrasion head (inflated diaphragm method), tension and head weights and abrasive paper
- Imported accessories and domestic accessories are supplied to be chosen

Specifications

- Tension Weights: 1/2LB×2, 1LB×2, 2LB×2, 5LB×2
- Balance Weights: 1/2LB×2, 1LB×2, 2LB×2, 5LB×2
- Speed: 120 cycles/min
- Pressure Range: 1~9psi
- Stroke: about 1"
- Cycle Counter: 5 Figures
- Timer: 30min
- Surface Abrasion Head: 1
- Power Supply: AC220V, 50Hz
- Dimensions: 650 x 310 x 570mm (LxWxH)
- Net Weight: 48kg



Leather Softness Tester

KFG-5001

Determine the softness of leather and coated fabrics and other soft materials. Softness tester does not need samples to be cut from leather prior to testing. This enables a quality system to be set-up between supplier and customer whenever leather softness is a priority.

Standards

IULTCL IUP/36 (equivalent EN ISO 17235)

Weight: 15kg

Dimensions: 500 x 100 x 200mm
(LxWxH)



Moisture Management Tester

KFG-5002

Measure the dynamic liquid transport properties of textiles such as knitted and woven fabrics in three dimensions Absorption Rate - Moisture absorbing time of the fabric's inner and outer surfaces. One-way Transportation Capability – Liquid moisture one-way transfer from fabric's inner surface to outer surface Spreading / Drying Rate – Speed of liquid moisture spreading on fabric's inner and outer surfaces MMT permits the measurement of the following indexes:

- Wetting Time Top / Bottom (WTT / WTB)
- Absorption Rate Top / Bottom (TAR / BAR)
- Maximum Wetted Radius Top / Bottom (MWRT / MWRB)
- Spreading Speed Top / Bottom (TSS / BSS)
- Accumulative One-Way Transport Capacity (R)
- Overall Moisture Management Capacity (OMMC)

Specifications

- MMT Analysis Software is offered
- Interface USB 1.1/2.0
- Power Supply 110V~230V 50Hz/60Hz 0.5A
- Operation Temp & R. H. 18°C to 40°C, 20% to 80% (non-condensing)
- Pump on Time 20sec
- Test Solution Conductivity – 16mS \pm 0.2mS
- Upper Weight 4.65N \pm 0.05

Standards

AATCC 195

Weight: 60kg

Dimensions: 320 x 200 x 320mm (LxWxH)



Digital Hydrostatic Meter

KFG-5008B

Determine the resistance of fabrics (such as canvas, tarpaulin, manta, tent cloth, rain-proof garments) to water penetration under hydrostatic pressure whilst firmly clamped in the test rig of 100cm² area.

Features

- Made of stainless steel, durable in use
- Use industrial grade pressure sensor to get stable test result with high repeatability
- Pressure applied on specimen pass through a buffer device to effectively avoid over-pressured
- Hydrostatic pressure with range from 0 to 200kPa (2,000cmH₂O/mbar)
- LED illumination in clamp, convenient to observe the test process
- With level adjusting device



Specifications

- Display Mode: LCD display
- Measurement range: 0~200kPa (2,000cmH₂O/mbar)
- Pressure accuracy: $\pm 1\%$ F.S.
- Resolution: ± 0.01 kPa
- Test Area: 100cm²
- Loading Speed:
 - 1.0 \pm 0.05kPa/min (10 \pm 0.5cmH₂O/min),
 - 6.0 \pm 0.3kPa/min (60 \pm 3cmH₂O/min),
 - 10 \pm 0.5kPa/min (100 \pm 5cmH₂O/min),
 - 100 \pm 5kPa/min (1,000 \pm 50cmH₂O/min)
- Power supply: AC220V, 50Hz
- LED Illumination: With
- Package Dimension: 820x600x800mm (LxWxH)
- Gross Weight: 110kg

Fabric Drape Tester

KFG-5009

Measure and calculate the co-efficiency of drape of fabrics using image processing technology. It can be used to test the drape property of all kinds of fabrics. Equipped with CCD imaging system, dynamic and static images processing, it offers a variety of charts and data statistics, analysis, storage and output. Specimens in all colors can be tested without changing background color.

Specifications

- Working pattern computer controlled, CCD imaging, full-automatic processing of images and computer data.
- Imaging sensor CCD
- Drape coefficient range 0 ~ 100%
- Accuracy $\leq \pm 1.5\%$
- Diameter of specimen disc phi coefficient 120mm (optional phi coefficient 180mm)
- Dimension of specimen phi coefficient 240mm (optional phi coefficient 300mm, phi coefficient 360mm)
- Light source
- Rotation speed 10 ~ 120 rpm

Standards

BS EN 9073
BS 5058
ERT 90-1
AFNOR G07-109
UNI 8279
FZ/T01045

Power: 220V 50Hz 120W

Weight: 160kg

Dimensions: 480 x 540 x 870mm (LxWxH)



Launderometer – Washing Fastness Tester

KFG-5020

Determine color fastness to washing or dry cleaning to ISO, BSI, AATCC and Marks & Spencers standards. The washing fastness tester uses stainless steel rotor to holds washpots on each of four sides and rotates at a constant 40 rpm (+/-2 rpm). Washpots are preheated in appropriate test solution.

Equipped with two baths to offer a maximum combined capacity of 12 ISO washpots and 6 AATCC washpots, and the baths have completely separate controls and drive systems, so they can be used as two independent machines for both ISO and AATCC standards. Opening door, test-finished alarm, etc.

Specifications

- Rotation speed 40 +/- 2rpm
- AATCC canister 1200ml, 6 pcs
- ISO canister 550ml, 12 pcs
- Temp. Max 95 °C , adjustable
- Running time adjustable
- Steel Balls 200 pcs

Standards

AATCC 61/86/132/151/190
ISO 105-C06/C01/C02/C03/C04/C07/C08/C09/
D01/E03/E12
M&S C4A/C5/P3B/C10A/C11/C26/C37/C49A/
P137
NEXT 2/3/5
IWSTM 7/115/177/193/199/240/241
FTMS 191-5610/5622

Power: 380V 50Hz 10A

Weight: 185 kg

Dimensions: 1100 x 820 x 1180 (LxWxH)



Fabric Extensimeter

KFG-5030

Simple and economic instrument to determine stretch and recovery of textile fabrics, both knitted and woven. A very useful equipment to evaluate the stretch & recovery of woven, knitted/elastic or lycra fabric.

Features

- Specially developed equipment to evaluate stretch or extension of woven & knitted fabrics
- Stretch or extension percentage can be directly evaluated from the scale
- Two Scale graduated, 0-50% for woven fabrics & 0-300% for knitted fabrics
- Stainless steel knobs for tightening the jaws for holding samples
- Smooth, precision-engineered components for exceptional performance
- Complete with accessories-two dead weight 3kg
- Supplied with calibration & inspection certificates

Specifications

- Clamping width of Jaw: 10mm
- Size of Specimen Wove: 220(L) x 70mm(W)
- Size of Specimen Knitted: 95(L) x 70mm(W)
- Scale Reading Woven Fabric: 0-50%
- Scale Reading Knitted: 0-300%
- Dead Weight: 3kg (2 Nos)
- Dimensions: 650(L) x 130 (W) x 165mm (H)
- Weight: 16kgs



Standards

BS 4294

Textile Testing Consumables



Consumable Testing Fabrics

Multifiber Adjacent Fabrics, AATCC and ISO

Multifiber 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 12, 61, 101, 106, 107, 162

KCT-3001CC 2"x 2" Pieces Cold Cut Pack of 1000

KCT-3001HS 2"x 2" Pieces Heat Sealed Pack of 1000

KCT-3001OL 2"x 2" Pieces Over Locked Pack of 1000

KCT-3001ACC 2"x 4" Pieces Cold Cut Pack of 1000

KCT-3001AHS 2"x 4" Pieces Heat Sealed 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



Washing Ballasts and Makeweights

- **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 make up weight to recommended load.
- **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)

Testing Consumables

Crockmeter Consumables

- **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-3031** Emery paper for crockmeters 4.5 x 5.5 inches, 100 pieces
- **KCT-3032** Spring clip for fixing crockmeter cloth (spare)
- **KCT-3033** Nylon finger for crockmeter 16mm diameter (spare)

KCT-3103 Water repellency kit for AATCC test method 193

KCT-3104 Oil repellency kit for AATCC test method 118

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-3108 AATCC Standard blotting paper - 20x40 inches, pack of 125

Piling Testing Consumables

- **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-3153** White Adhesive for KFG-2380
- **KCT-3155** Polyurethane sample tubes for ICI pilling box (pack of 4)
- **KCT-3156** Unmounted cork liners for ICI pilling box (pack of 6)

Burst Tester Consumables

- **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, 21-30psi
- **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
- **KCT-3160K** Glycerin fluid for burst testers (KFG-2470, 2475, 2476) 1000 ml

Fabric Shrinkage Board KCT-3116 AATCC & KCT-3116 ISO

Used in the testing for tag printing and dimensional changes in the textile shrinkage test. Place the board on the specimen, taking care to avoid distortion of the specimen.

Features

- Smooth and flat surfaces
- Dimensions can conform to all sizes

Specifications

- Measuring Length: 500mm
- Dimensions: 600 x 600 x 40mm (LxWxH)
- Net Weight: 5kg

Standards

ISO 6330

AATCC 135



Reference Detergents AATCC, ISO, ECE, and IEC

AATCC 1993 Standard Reference Detergent WOB KCT-3041

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 16lb bucket, other quantities on request.

AATCC 1993 Standard Reference Detergent KCT-3042

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 16lb 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

AATCC and ISO

KCT-3051

L-2 Blue wool light fastness standards are wool fabric used to calibrate and verify testing equipment during light fastness 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-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- 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.



Gray 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

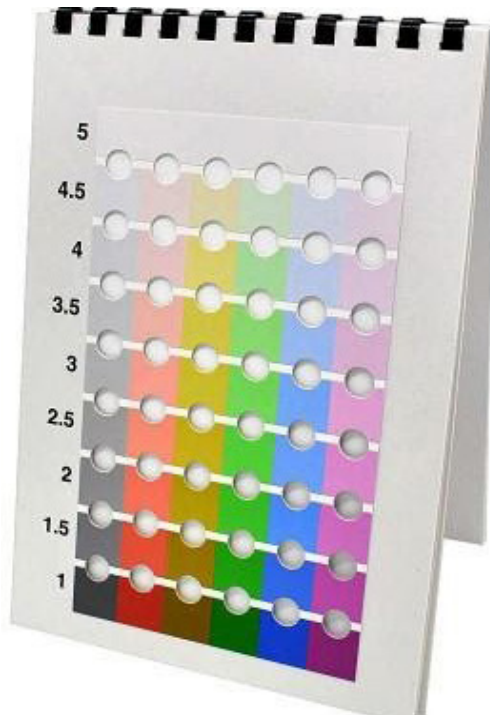


Chromatic Transfer Scales

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.



Crease and Smoothness Appearance Replicas

AATCC

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

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

AATCC Stain Release Replicas KCT-3101

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



KCT-3100
AATCC Standard glassine paper for TM 130, 1 packet

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 next page.



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

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

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.

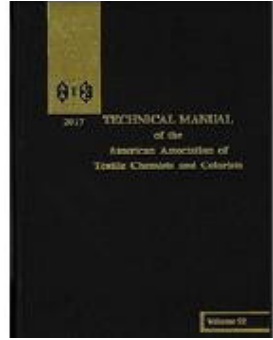
Each package contains 3 mechanical pencils and 3 color charts. Each pencil will provide the user 100 tests.

Test Methods

AATCC, ASTM, and ISO

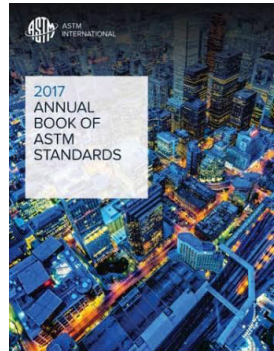
AATCC Technical Manual KCT-3141M or KCT-3141CD

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



ASTM Annual Book of Textile Standards 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.



ISO Standards 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

J.A. King is 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-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-2324 Standard Soap 2kg

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-2605 TAED Powder, 250g tub

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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