TOTAL SOLUTIONS
FOR
TEXTILE TESTING LABORATRIES

JARP Benelux
Musicalstraat 34B
1323 VP Almere
+31 36 26 000 16
info@jarp.nl

JARP España
Paseo de las Delicias, 1
41001 Sevilla
+34 954 56 00 56
jarp@jarp.eu

Fiber Testing Instruments

They are used for testing fiber,

such as Cotton, Wool, Silk, Jute, man-made fiber, etc.

to determine physical properties of many kinds of fibers,

such as fiber content, fiber fineness, fiber length, and tension strength…

TB300 Fiber Fineness & Content Analyser

Fiber composition (Qualitative) and content (Quantitative) analysis is a necessary test item for every laboratory and most cotton mills, cloth factories and garment factories. Currently, the detection methods commonly used are dissolution and combustion.

it will be a easy task to distinguish with the microscope natural fibers for they are structurally stable, differ in their longitudinal and cross-sectional morphological features. It is the same for chemical fibers; TB300 aims to make a quantitative analysis of the fibers by intercepting the points from the longitudinal or cross-sectional projection. The operation is simple, but the projection interface is clear, and the probability of error is low; moreover, this method has no pollution and does not cause any harm to the human body; TB300 will promise high working efficiency and save time and cost.

Fiber Fineness & Content Analyser, is used to determine the fineness of fiber and analyze the content and surface features of animal fiber, vegetable fibers and mineral fibers, such as cotton, wool, man-made fiber, etc.

Note: A customized PC is needed for this instrument.

Models & Standards

- TB300A Fiber Fineness Analyser – ISO 137
- TB300B Fiber Fineness & Content Analyser – ISO 137, ISO 17751
- TB300C Fiber Fineness & Content Analyser – AATCC 20/20A, ISO 137, ISO 17751

Power	220 / 110 V 50 / 60 Hz
Weight	70 kg
Dimensions	600 x 400 x 600 mm (L x W x H)

TB400C Single Fiber Strength Tester

Single Fiber Strength Tester, is used to test the tension strength and elongation of chemical fiber, cotton, wool, ramie, silk, glass fiber, fine metallic thread, etc.

Features

- Real-time display testing result and settings
- Force unit: N, kgf, lb, in, cN
- High accuracy and fast response
- Easy to load and unload specimen

Specifications

- The maximum load test 600cN
- Load measuring accuracy ≤1% (F.S)
- Resolution 0.01Cn
- Max Elongation range ≤140 mm
- Elongation measuring accuracy 0.01 mm
- The falling speed of lower clamping device 1 ~ 200 mm/min (adjustable)
- The accuracy of falling speed ≤1%
- The rising speed of lower clamping device 100 mm/min

Standards	GB/T14337, ISO5079
Power	220 / 110 V 50 / 60 Hz
Weight	75 kg
Dimensions	400 x 320 x 550 mm (L x W x H)

TB500 Cotton Trash Analyzer

Cotton Trash Analyzer, is to analyze lint, trash and dust content within a sample of raw cotton fiber up to 100 grams. Also it is used to determine non-fiber content of synthetic fibers and to open and clean fibers for further testing. The analyzer uses the carding principle with air separation of lint and non-lint content.

Specifications

- Working width 490 mm
- Size of feeding roller Dia.57.15
- Size of licker-in Dia. 238 mm
- Rotation speed 900 r/min

Standards GB/T 6499
Power 380 V 50 / 60 Hz 0.8 Kw
Weight 280 kg
Dimensions 1120 x 840 x 1180 mm (L x W x H)

TB510A Saw Gin Portable

Saw Gin Portable is used for separating seed cotton. After ginning, cotton fiber with trash, leaf, dust, etc. is collected, and cottonseed with a little clean lint is collected in another container.

This lab type saw gin is portable and can be conveniently used for trial ginning and as the pre-process of cotton trash analyzer at cotton collecting point and plant, laboratory only. It is just for lab use, not able to run for a long time as a production equipment.

Specifications

- High efficiency cleaning unit and feeding roller, running is stable and reliable
- Totally closed shield ensures safe operation
- Available for lightest and smallest model
- Saw 8pcs

Standards JB-T 7884.1
Power 220 V 50 Hz 0.28 kW
Weight 28 kg
Dimensions 460 x 340 x 490 mm (L x W x H)

TB510B Saw Gin Floor-type

Saw Gin Floor-type is used for separating seed cotton. After ginning, cotton fiber with trash, leaf, dust, etc. is collected, and cottonseed with a little clean lint is collected in another container.

This lab model gin is conveniently used for trial ginning and as the pre-process of cotton trash analyzer at cotton collecting point and plant, laboratory, etc.

Specifications

- High efficiency cleaning unit and feeding roller, running is stable and reliable
- Simple driving system, low impact, low noise
- Safe operation and power saving
- Can be placed on study ground at work
- Work capacity 300 kg/h
- Saw 20pcs

Standards JB-T 7884.1
Power 220 V / 380 V 50 Hz 2.2 kW / 4 kW
Weight 300 kg
Dimensions 1400 x 800 x 1300 mm (L x W x H)

TB510C Roller Gin Lab-type

Roller Gin Lab-type, used for cotton research labs, or low production of small and medium sized cotton factories to separate cotton fiber from seed cotton.

Specifications

- Roller size Dia. 120 mm, length 205 mm
- Roller rotation speed 88 rpm
- Crankshaft rotation speed 800 rpm
- Cotton yield >/= Raw cotton yield (According to cotton grade)
- Rotation speed 1400 rpm
- Pressure of roller 4-7kgf

Power 220 V 50 Hz 370 W
Weight 80 kg
Dimensions 450 x 450 x 750 mm (L x W x H)

Yarn Testing Instruments

They are used for the testing of yarn,

to determine the physical properties of many kinds of fibers,

such as yarn count, twist, moisture, elongation and breaking forces…

TY360A/B Wrap Reel

Wrap Reel, is to produce skeins of yarn of a pre-determined length and number of turns for count and strength testing. 1 Meter, 36" or 54" circumference collapsible swift (specify). Wrap reel is completed with yarn package stand and pre-tension device, and fitted with pre-determined counter.

Specifications5

- Circumference of winch
  TY360A 1000 ±1 mm
  TY360B 54 ± 1/16 inch
- Number of wraps 1 ~ 9,999 ad adjustable
- Pre-tension 2 ~ 100cn（accuracy 0.5cn/tex）
- Traveling reciprocating distance 35 mm
- Spacing of spindles 60 mm
- Reel speed 20 ~ 280 r/min (variable)

Standards
ISO 2060, ASTM D1907 Method1, GB/T4743, GB/T14343, GB/T6838

Power	220 / 110 V 50 / 60 Hz
Weight	75 kg
Dimensions	960 x 760 x 670 mm (L x W x H)

TY361 Yarn Count Tester

Yarn Count Tester, with automatically calculating yarn count systems, is used for sliver, roving, yarn and fabric. Yarn Count Tester consists of an accurate electronic balance and a built-in calculating program.

Specifications

- Weight range 151 g
- Readability 0.001 g
- Base size Dia. 120 mm
- Display Liquid Crystal Display (LCD) with Backlight
- Operation AC Adapter (Included)
- Construction Metal base, ABS top housing, stainless steel pan, glass draft shield with sliding top door, replaceable in-user cover
- Unit tex, den, Nm, g, mg

Standards ISO 2060

Power	220 / 110 V 50 / 60 Hz
Weight	24 kg
Dimensions	460 x 340 x 520 mm (L x W x H)

TY370 Twist Tester

Twist Tester, to determine yarn twist in single or plied yarns, is a quadrant type with auto stop & reverse for conventional or untwist/re-twist methods.

Twist tester offers adjustable test length up to 500 mm / 20 inches for S & Z twist yarns, and inching function helps operator to get an esteemed twist quickly. Test result in TPI / TPM is directly displayed on the touch screen.

Specifications

- Touch screen
- 4 test methods — Direct counting, untwist/re-twist, 3- times untwist/re-twist method, etc.
- Length of specimen — 10 ~ 500 mm adjustable
- Twist speed — 100 ~ 1900 rpm
- Yarn count range — 1 ~ 499.9 tex
- Units — TPM / TPI
- Twist range — 9999 twists

Standards ISO 2061, ASTM D1422/1423

Power 220 / 110 V 50 / 60 Hz
Weight 22 kg
Dimensions 1010 x 360 x 350 mm (L x W x H)

TY380 Yarn Board (Board Winder)

Yarn Board (Board Winder), used to assess the evenness, hairiness, neps and other imperfections in a representative sample of yarn wound at a pre-determined pitch onto a tapered black yarn board.

Specifications

- Black board — 250 mm (L) x 220 mm (W)
- Yarn winding density — 7, 9, 11, 13, 15, 19 wraps / cm
- Rotation speed — 10 ~ 400 rpm (adjustable)

Standards ASTM 2255, GB 9996
Power 220 / 110 V 50 / 60 Hz
Weight 39 kg
Dimensions 740 x 580 x 420 mm (L x W x H)

TY400C Automatic Single Yarn Strength Tester

Automatic Single Yarn Strength Tester, is to determine the breaking strength and elongation rate of single yarn made of cotton, wool and others up to 6000cN and equipped with air-driven clamps. The fully automatically test is up to test 20 cops at the same time.

Features

- Working pattern is CRE principle.
- Automatic feeding of yarn, and automatic clamping for test, fast and without damages to yarn
- Fitted with Waste yarn collecting device, to make labs clean
- Test up to 20 cops at the same time

Specifications

- Test range — 20cN ~ 6000cN
- Accuracy — ≤ 1% F. S
- Sampling range — 0 ~ 9 m
- Pre-tension load — 0 ~ 100cN, adjustable
- Elongation range — 800 mm
- Gauge length — 250 mm (stretching rate 220%), 500 mm (stretching rate 160%)
- Tensile speed — 50 ~ 5000 mm/min, adjustable

Standards ASTM D2256, ISO2062, GB5324, GB/T14344

Power / Air 220V 50 Hz 0.4 ~ 0.8mPa
Weight 140 kg
Dimensions 550 x 450 x 1600 mm (L x W x H)

Testing Instruments for Fabrics & Garments

To test the materials and accessories of garments and other textile products, such as fabrics, leather, non-woven, etc.

and zippers, buttons, velcro…

The testing of fabrics and garments includes the following:

strength of tension, tearing, bursting, etc.,

resistance to abrasion, pilling, snagging, etc.,

air permeability, water vapor permeability, etc.,

color fastness to light, rubbing, washing, perspiration, etc.,

water penetration after flexing of coated fabrics

and physical properties of zippers, buttons, etc.

TF001 Textile Tensile Testing Machine

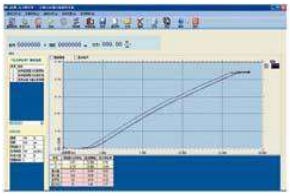
Textile Tensile Testing Machine is designed to test a wide range of tension, bursting, tear, elongation, constant load, elastic, thread slip, peeling and other mechanical properties.

A PC-controlled machine equipped with motor and quality ball-screw for ideal and smooth control. The machine talks directly with a PC running a data analysis software package in English or Chinese, via a high-speed RS232.

Equipped with a quality load-cell with an accuracy of 0.2% of the applied load value, from 1% to 100% of the load-cell capacity.

The machine has a huge assortment of specimen grips and fixtures available, allowing the wide range of test methods. Automatic pneumatic fixtures / clamps are offered.

Note: A customized PC is needed for this instrument.



Specifications

- Windows based software operated and closed-loop controller controls. AC servo motor drives quality Ball-screw
- High speed RS232 connects computer and machine, controlled by a special Textile Tensile Testing Software. All test methods which customer requires can be programmed before shipping
- Test capacity 2500 N
- Load measurement accuracy +/-2% (1% ~ 100%FS)
- Resolution of load 0.1 N
- Displacement resolution and accuracy 0.01 mm
- Speed range and accuracy 0.1 ~ 500 mm/min, error ± 2%
- Sample holder pneumatic clamping
- Built-in intelligent active force and displacement alarm system
- High-resolution digital closed-loop controller
- Operating temperature range 0 to 38℃
- Storage temperature range -10 to 45℃
- Humidity range 10% to 90% non-condensing, web bulb method
- Power must be free of sparks and surges exceeding 10% of the nominal voltage

Power	220 / 110 V 50 / 60 Hz
Weight	110 kg
Dimensions	680 x 580 x 1650 mm (L x W x H)

Standards

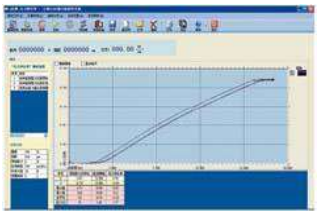
ISO 13934.1/2, ISO 13935.1/2, ASTM D5034 / 5035

TF002 Textile Tensile Testing Machine

Textile Tensile Testing Machine, to determine the physical and mechanical performance of tension, tearing, compression, bursting, rapture, flexibility, shear and peel and seam slippage. Especially designed to test a wide range of yarn, fabric and leather, with a huge assortment of specimen grips and software available; it can also be used for strength test of rubber, plastic, metal, wire, paper, packaging, and other materials.

TF002 is dual column type tensile testing machine, PC-operated, Japanese-made AC servo driving system and two quality ball-screws with load cell for ideal and smooth control. The machine is equipped with a standard PC running data analysis software package, via a high-speed RS232 in both ASCII and super high-speed binary modes.

Note: A customized PC is needed for this instrument.



Specifications

- Test method CRE principle
- Control system closed control system, quality motor and ball-screws
- Test capacity 5000 N
- Tensile speed 0.01-1000 mm/min digital speed, error ± 2%
- Elongation Resolution 0.01 mm
- Measuring system high-precision force sensor
- Sampling frequency of system 2000 times/sec.
- Force measurement range 1% of full scale to 100%
- Minimum scale value 0.1 N
- Force measurement accuracy ≤ ± 2% F · S
- Gauge distance limit control, digital setting
- Gauge distance accuracy ± 0.1 mm
- Sample holder pneumatic clamping
- Holder control foot switch
- Built-in intelligent active force and displacement alarm system
- High-resolution digital closed-loop controller
- Operating temperature range 0 to 38℃
- Storage temperature range -10 to 45℃
- Humidity range 10% to 90% non-condensing, web bulb method.
  Power must be free of sparks and surges exceeding 10% of the nominal voltage

Power 220 / 110 V 50 / 60 Hz

Weight 200 kg

Dimensions 840 x 600 x 1900 mm (L x W x H)

Standards

ISO 13934.1/2, ISO 13935.1/2, ISO4606

TF003 Ball-bursting Strength Tester

Ball-bursting Strength Tester, is used for testing the ball-bursting strength and expansion rate of cotton fabrics, elastic fabrics, sock and glove products.

Specifications

- CRE principle, Micro-computer controls quality motor and screws
- LCD displays displacement, force, speed, and other information
- Test range 2500 N
- Speed range 5 - 500 mm/min adjustable
- Bursting balls SΦ20 mm (or SΦ25 mm, SΦ38 mm)
- 1 set of Ball-bursting Strength Test rig is included

Standards

ASTM D6797, FZ/T01030 Method A, GB/T19976

Power 220 V 50 / 60 Hz
Weight 100 kg
Dimensions 680 x 570 x 1650 mm (L x W x H)

TF110 Crease Recovery Tester

Crease Recovery Tester & Loading Device, is to determine the recovery properties of fabrics by creasing in a loading device for a pre-determined time using a weight suitable for the test method specified (BS/ISO/AATCC). After transferring the specimen to the clamp of the tester, the specimen is allowed to recover and the angle of recovery recorded.

Equipped completely with a crease recovery tester and two loading device, and other required accessories.

Standards ISO 2313, AATCC 66, BS EN 22313, M&S P22
Weight 5 kg
Dimensions 170 x 170 x 360 mm (L x W x H)

TF112 AATCC Wrinkle Recovery Tester

AATCC Wrinkle Recovery Tester, is used for determining a fabric's ability to recover after wrinkling under a pre-determined load for a set period of time.
A set of 5"x3" dimensional plastic replicas is offered on request to grade the test samples 1 ~ 5.

Optional order
AATCC Wrinkle Recovery Tester Plastic Replicas (Set of 5)

Standards AATCC 128, ISO 9867, ENKA 3061
Weight 5 kg
Dimensions 150 x 150 x 330 mm (L x W x H)

TF113 Fabric Stiffness Tester

Fabric Stiffness Tester, is to determine the bending height, flexural rigidity and bending modulus of a fabric by simple procedures and calculation.

Specifications
- Tilt angle: 41. 5 º
- Accuracy: 0.1 º

Standards ISO 9073-7, ASTM D1388 Method A, BS 3356
Weight 8 kg
Dimensions 520 x 180 x 320 mm (L x W x H)

TF114 Stiffness Tester Pneumatic

Fabric Stiffness Tester Pneumatic, is used for testing the stiffness of fabric by the bending cycle test method of ASTM.

Test Procedure
A plunger of 25.4 mm (1 in) diameter pushes the fabric through a 38 mm (1.5 in) diameter orifice for a distance of 57mm (2.25 in) in 1.7 seconds and the maximum force is recorded.

Specifications
- Pneumatic cylinder
- Compressed air is required

Optional Order
- Digital force gauge 500N, Accuracy: 0.1 N

Standards ASTM D4032
Air Source 0.4-0.7Mpa
Weight 25 kg
Dimensions 430 x 320 x 950 mm (L x W x H)

TF116 Bally Flexing Tester

Bally Flexing Tester (Flexometer) is designed for flexing resistance test to bending or other types of failure at flexing creases.
The Flexometer is applicable to all flexible materials, in particular leathers, artificial leather below thickness of 3.0mm, and other coated fabrics, sheet materials, etc.

Specifications
- Work stations 12
- Counter 1 ~ 999,999 times

Standards ISO 5402, ISO 32100, SATRA TM55, DIN 53351
Power 220 V 50 / 60 Hz 4 A
Weight 72 kg
Dimensions 970 x 560 x 620 mm (L x W x H)

TF117C Crumple / Flex Tester

Crumple / Flex Tester, is to determine the degradation of water resistance of coated fabrics due to the crumpling and flexing in use.

The equipment tests a tube of fabric by twisting it through 90° stretching alternately compressing the tube at the same time. After the completion of the test, the fabric is tested for resistance to penetration by water. Crumple-Flex Tester is fitted with electronic pre-determined counter with automatic stop at a pre-determined number of cycles, and also fitted with acrylic plastic interlock safety cover.

Features
- Impact design of construction and appearance
- Acrylic safety cover ensures safety in operation

Model
- TF117C Crumple / Flex Tester - Single Head
- TF117C2 Crumple / Flex Tester - Double Heads

Standards ISO 7854 Method, GB/T 12586 Method
Power 220 / 110 V 50 / 60 Hz 3 A
Weight 90 kg
Dimensions 570 x 380 x 380 mm (L x W x H)

TF119 Scott Type Crease-Flex Abrasion Tester

Scott Type Crease-Flex Abrasion Tester, is to determine the crease-flex abrasion resistance of leather, rubber, cloth, etc. The force loaded on specimen, distance between grips and the two-way distance can be adjustable. And the force loaded on specimen is of spring type.

Clamp the two specimens in cross shape. Based on the various materials of the specimen, apply the appropriate load. During test, the two specimens are creased and flexed reciprocally. After reaching the specified number of abrasions, take off test samples to check if they are cracked, wrinkled or discolored.

Specification
- Specimen 25 x 120 mm
- Holders 0 ~ 50 mm (standard 20 mm)
- Pressure load 0.5 ~ 5kgf
- Friction distance 0 ~ 60 mm (standard 40 mm)
- Friction speed 120+/-2cpm

Standards GMW3217
Power 220 V 50 / 60 Hz
Weight 84 kg
Dimensions 790 x 580 x 660 mm (L x W x H)

TF120 Fabric Scale

Fabric Scale, is to determine the weight of fabric, paper, cardboard, film, etc. This electronic scale is provided with LCD display, stainless steel plate and wind-proof caps.

Specifications
- Measuring range 200 g
- Precision 0.01 g

Power 220 / 110 V 50 / 60 Hz
Weight 8 kg
Dimensions 380 x 300 x 300 mm (L x W x H)

TF121C Auto Thickness Gauge

Auto Thickness Gauge, is to determine the thickness of various woven and knitted fabrics under a certain pressure. Automatic lifting up and down is to avoid manual operation error; each test should be pre-set pressing time for 10s or 30s.

Specifications
- Digital display
- Range of thickness 0.01~25 mm
- Measuring accuracy 0.01 mm
- Lowering speed of pressing-foot 1.72 mm/s
- Area of pressing foot 100 mm2, 2000 mm2, 2500 mm2, 10000 mm2
- Load Weight 10cN × 2, 50cN × 2, 100cN, 400cN, 1000cN × 2
- Pressing duration 10s, 30s

Optional Order
Range of thickness 0.001~25 mm

Standards ISO5084, ISO 9073 Method A, ISO9863 Method A/B
Power 220 V 50 Hz 40 W
Weight 51 kg
Package Dimensions 590 x 530 x 430 mm (L x W x H)

TF123B Hand-held Textile Moisture Meter

Hand-held Textile Moisture Meter, is widely used in leather materials, fabrics, garments, yarn, axis, cheese, textiles and other industries that need rapid determination of moisture (moisture regain).

Features
- Textile moisture meter using high-frequency theory, LCD digital display, the probe and the host all in one
- Position the probe against the surface to be measured, determine moisture quickly within one second
- Measure accurately and without any damaging on the surface to be measured
- Small size, light Weight that can be portable for on-site rapid testing

Specifications
- Moisture range 0 ~ 40%
- Work environment -5 ℃ ~ +60 ℃
- Accuracy ± 0.5%
- Response time 1 second
- Display LCD digital display
- High-frequency scanning depth 50 mm
- Stall converter 0 ~ 10

Power 9V battery (6F22)
Weight 0.4 kg
Dimensions 200 x 90 x 110 mm (L x W x H)

TF124 Course Length Tester

Course Length Tester, is to determine the accurate length of a complete course of knitted fabric. When the yarn is attached to the clamp and wound round the pulleys, the length indicated on the ruler by the weighted clamp is added to that indicated on the appropriate location in use to give the total length of yarn.
Course length range is 50-900 cm (2-36 inches).

Standards BS 5441
Weight 25 kg
Dimensions 50 x 25 x 1550 mm (L x W x H)

TF128 Moisture Management Tester

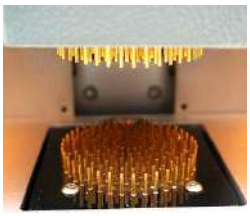
Moisture Management Tester, is to measure the dynamic liquid transport properties of textiles such as knitted and woven fabrics in three dimensions.

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.

Note: A customized PC is needed for this instrument.

This moisture management tester 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)



Gold-plating Pins

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

Standards AATCC 195
Weight 15 kg
Dimensions 320 x 200 x 320 mm (L x W x H)

TF129 Sweating Guarded Hotplate

Sweating Guarded Hotplate is the most professional, stable and advanced thermal and the evaporative resistance testing instrument in the world.

Human skin simulation test plate, automatic water supply system, wind speed stabilization system, test host and climate chamber are completely separated design. Automatically adjust the height of the hotplate according to the thickness of the test sample, ensures the wind sensor is 15mm above the hotplate.

A Windows based software is offered. The main machine inside the chamber is connected with the software by Wi-Fi, so operators may control and monitor the testing in the office.

An advanced Temperature & Humidity Chamber is offered with the machine.

Note: A customized PC is needed for this instrument.

Specifications

- (RCT)Thermal resistance range 0.002-2 .0 m²K/W
- Repeatability ≤ ± 2%
- Resolution 0.0001 m²K/W
- (Ret) evaporative Resistance range 0-1000 m²Pa/W
- Repeatability ≤ ± 2%
- Resolution 0.001 m²· Pa/W
- Test temperature range 0 - 35℃
- Temperature control accuracy ± 0.2℃
- Air velocity 0 ~ 1 m/s
- Air velocity accuracy ± 1%
- The sample platform lifts range 0 ~ 50 mm automatic lift
- Sample thickness 0 ~ 50 mm
- Test plate area 254 mm x 254 mm
- Guard ring size 512 mm x 512 mm
- Guard ring width 127 mm

Standards ISO 11092, ASTM F1868, GB/T 11048
Power 110 V / 220 V 50 Hz
Weight 62 kg
Dimensions 770 x 670 x 430 mm (L x W x H)

TF130 Thermal Resistance Tester

Thermal Resistance Tester, is to determine the thermal resistance, thermal conductivity, and CLO value of various fabrics, quilting products, and other heat insulation materials.

Microcomputer controlled, data processors and quality temperature sensors are used, ensuring high test speed and precise test result. All performances of the sample (Include Insulation rate, heat transfer coefficient) can be directly calculated. Test data and result are displayed on the large LCD display, and can be stored or printed out.

Specifications

- Temperature range 20-50℃
- Temperature accuracy ±0.5℃
- Resolution of temperature 0.1℃
- Range of Pre-heating Time 0 ~ 99.9 min
- Cycles 1-9 times
- Sample size 300 x 300 mm
- Testing plate size 250 x 250 mm

Standards GB/T 11048, FZ/T 73016
Power 220 V 50 Hz
Weight 70 kg
Dimensions 790 x 660 x 960 mm (L x W x H)

TF135 Feather & Down Filling Power Tester

Feather & Down Filling Power Tester, is to determine the filling power (massic volume) of feather and down.
Pressure on the sample by dropping the platen is applied to the filling material at a constant speed and the level of the platen is noted after a stipulated time. The massic volume is calculated through the height and the known diameter of the graduated cylinder.

Functions
- Automatic blowing system
- Individual filter system design
- DC gear motor driving
- SCM controlling
- Touch screen operation
- Automatically lower done the platen and display the height

Specifications
- Measuring speed 520±20 mm/min
- Measuring height 750 mm
- Measuring accuracy 0.1 mm
- Graduated cylinder internal diameter 289±1 mm
- Plunger and Measuring Rod diameter 285 mm, weight 94.3g
- Air velocity (310±50) L/min
- Equipped with printer

Standards BSEN12130, FZ/T80001, GB/T14272-2011, GB/T10288, IDFB－FP

Power 220 V 50 Hz 100 W
Weight 270 kg – 2 wooden cases
Dimensions 880 x 740 x 1460 mm
500 x 490 x 1070 mm (L x W x H)

TF142A/B Auto Bursting Strength Tester

Auto Bursting Strength Tester, is to determine the bursting strength of fabric and non-woven by the hydraulic load under a rubber diaphragm of a specific area.

Bursting tester provides with a digital readout of pressure with peak hold facility, and renewable rubber diaphragms. Automatic clamping device with clear acrylic bell, an LED lamp are equipped for easy observation.

Interchangeable test bells and clamping ring sets 7.3 cm^2 (Φ30.5 mm), 10 cm^2 (Φ35.7 mm), 50 cm^2 (Φ79.8 mm), 100 cm^2 (Φ112.8 mm).

Bursting tester is provided with three test methods, constant speed bursting, certain pressure bursting and certain extension.

Specifications / Features
- High-accuracy servo-motor driving system
- Automatic-clamping offers firm and reliable clamping
- Large colorful touch panel
- Automatic induction and bursting system.
- Equipped with memory and printing function.
- Resolution 2Kpa
- Test Head and Clamp: 50cm2(Φ79.8mm), 7.3cm2(Φ30.5mm), the other sizes are available on request.

Models
- TF142A 2000 kPa (290 psi)
- TF142B 10000 kPa (1450 psi)

Standards ISO 13938-1, GB/T 7742.1, ASTM D3786
Power 220 / 110 V 50 / 60 Hz
Weight 160 kg
Dimensions 650×560×1040 mm (L x W x H)

TF134 Down-proof Tester

Down-proof Tester, is to determine the down-proof capability of fabrics used for down-garment, quilt, etc, which are filled with down, feather and fibers.
Take an agreed size specimen from the fabric to be tested to sew a pocket at specified size, fill with a certain weight of down, feathers or a mixture of both, then sew the fabric up to be a testing bag. Clamp the both sides of the bag in the holder. Determine the down-proof ability of the fabric by calculating the number of down and feathers through the fabric.

Specifications
- Touch panel
- Fixture space 44 ± 1 mm
- Eccentricity 25 ± 0.5 mm
- Speed 0~160 r/min (Adjustable)
- Sample size 140 x 420 mm
- Cushion size 120 x 170 mm
- Test times 2700, settable
- Counter 0 to 99,999 times
- LED display

Standards EN 12132-1, GB/T 12705.1

Power 220 / 110 V 50 / 60 Hz
Weight 32 kg
Dimensions 690 x 430 x 460 mm (L x W x H)

TF142C Pneumatic Bursting Tester

Pneumatic Bursting Tester, is to determine the bursting pressure of fabrics using pneumatic test method, including knits, woven fabric, non-woven fabric, laminated fabric and other craft-made fabric.

A test specimen is clamped over an expansive diaphragm by a circular clamping ring; increasing compressed air pressure is applied to the underside of the diaphragm, causing distension of the fabric until the test specimen bursts; the bursting strength and distension are determined.

Specifications/ Features

- Automatic clamping and burst test, automatic calibration,
- Bursting pressure up to 800 KPa, accuracy ≤ ±0.2%F•S, run rate: ≤ 60 Kpa/s
- Burst distension up to 70 mm
- Equipped with lamp for clear observation
- Transparent acrylic cover ensures safe operation
- 4 most commonly used test areas are available and be easily shifted, Test Heads 100, 50, 10, 7.3 cm^2 (112.8, 79.8, 35.7, 30.5 mm Dia.)

Optional order

Diaphragms pack of 10

Standards	ISO 13938-2, FZ/T 01030 Method B, AS2001.2.4, GB/T 7742
Power/Air	220 / 110 V 50 / 60 Hz 0.4 ~0.7MPa
Weight	180 kg
Dimensions	560 x 450 x 580 mm (L x W x H)

TF143 Fryma Extension Tester

Fryma Extension Tester, is to simply and economically determine the stretch and recovery of textile fabrics that are both knitted and woven. The apparatus consists of a loading frame with clamps and a screw tension device and sample cutting templates.

Clamp the test sample. By rotating the shaft in the back anti-clockwise, the moving clamp is moved back to stretch the sample, so the stretch rate can be read directly on the scale, and both knitted fabrics and woven fabrics scales can be read. By pressing the knob on the right side, the moving clamp can be returned back to initial position quickly.

Specification

- Loading weights 3 kg or 6 kg

Standards	BS 4294
Weight	22 kg
Dimensions	640 x 340 x 200 mm (L x W x H)

TF145 Snap Tester (Button Pull Tester)

Snap Tester (Button Pull Tester), is to determine the holding or breaking strength of prong-ring attached snap fasteners onto garments or toys, also as a Push Pull Tester for compression and tensile testing of small samples (special attachments are available).

Our snap tester consists of an upper snap clamp, a lower fabric clamp and force gauge mounted on a stand, a hand wheel on the bottom of snap tester which allows fine control with convenient operation.

The snap component is gripped by the Upper Snap Clamp and the garment is fixed to the lower Fabric Clamp. By turning the hand wheel, the operator can apply a specific force and the holding force or the breaking strength can be recorded. The capability of the snap tester can be enhanced with clamps & accessories for testing of other Snaps, Jean Buttons, Four Hole Buttons & Garments Accessories such as Zippers, Bows, Appliqué, Toggles, Hooks/Bars, and D-Rings, amongst others.

Included Accessories

- 1 Upper Stud Clamp
- 1 Long Nose Vice Grip
- 1 Upper Snap Clamp
- 1 Three-Pronged Clamp
- 1 Two-Pronged Clamp with screw
- 1 Lower Grasp Button Kit (on the machine)
- 1 Lower Fabric Clamp, Lever Armlocking (on the machine)

Optional order
Sundoo Force Gauge (300 N, resolution 2 N, accuracy +/-1%FS)

Standards	ASTM F963, EN 71-1, 16 CFR 1500.51-53
Weight	42 kg
Dimensions	420 x 420 x 950 mm (L x W x H)

TF150 Zipper Reciprocation Tester

Zipper Reciprocation Tester, is to determine the resistance to reciprocation of zipper (slide fastener). The test specimen is subject to a specified number of cyclic operations whilst under lateral and longitudinal tension.

Zipper Tester catches the head of zipper to do reciprocating movement in a constant speed for 30 times per minute. Integral counter is set to stop the drive when a pre-selected count has been reached.

Equipped with a sensor so that the machine will stop automatically before the zipper is broke. Adjustable stoke 40 ~ 100 mm is offered as request.

Specifications

- Speed 30cpm
- 0 ~ 100 N lateral force
- 0 ~ 50 N longitudinal force
- Counter 1-999,999 times (adjustable)

Standards	QB/T 2171
Power	220 / 110 V 50 / 60 Hz 4 A
Weight	77 kg
Dimensions	660 x 450 x 860 mm (L x W x H)

TF151 Fastening Tape Tester

Fastening Tape Tester, is to determine the capability of Velcro used for shoes, garments, etc. Cut the specimen 540 mm by 20 or 50 mm in dimension from the sample being tested into the wheel of fastening tape tester to be fitted completely. To subject hook & loop to repeated stripping and peeling for a certain number of times. Use tensile machine (another purchase) to measure its peeling strength (AS) and shear strength (PA) after this test.

Features
- PLC closed-loop controller controlled. AC servo motor ensures accurate and durable running.
- Rigid construction and advanced AC servomotor ensures quiet running.
- Transparent plastic cover ensures safe and convenient operating.

Specifications
- Upper Roller — Dia. 162+/- 0.5 mm, 80 mm in width
- Lower Roller — Dia. 160+/- 0.5 mm, 80 mm in width
- Roller Speed — 60+/-5 r/min
- Load — 1+/-0.1 N/mm
- Number of test cycles — 5,000
- Counter — LCD display, 1- 9, 999 times, adjustable

Standards BS EN ISO 22776, SATRA TM 123
Power 220 / 110 V 50 / 60 Hz 3 A
Weight 83 kg
Dimensions 860 x 620 x 810 mm (L x W x H)

TF152 Dynamic Seam Fatigue Tester

Dynamic Seam Fatigue Tester, is to determine the strength of upholstery seam constructions covering a standard foam composite cushion by imposing a cyclic, impact and penetrating load.
A rubber-faced wheel of 127 mm (5") diameter impacts the fabric from a height of 150 mm (6") with a mass of 3.75 kg (8.25lbs), 25 times per minutes for 7000 cycles. Compressed air is required.
Dynamic Seam Fatigue Tester is 3 work positions, and 6 positions offered on request.

Specifications
- Testing frequency — 25+/-2 cycle/min
- Testing cycles — 7,000
- Impacting mass — 3.75 kg
- Foam composite — 228.5 x 280 x 178 mm
- Dimensions of sewn specimen — 360 x 255 mm
- Driving mode — Pneumatic

Standards ASTM D4033
Power/ Air Supply 220 / 110 V 50 / 60 Hz 0.4 ~ 0.7Mpa
Weight 350 kg
Dimensions 1600 x 860 x 1450 mm (L x W x H)

TF154 Woven Fabric Stretch Recovery Tester

Woven Fabric Stretch Recovery Tester, is to determine the stretch properties of fabrics woven from stretch yarns under a specified tension and extension.

Specifications
- Test station
- Made of stainless steel
- 4 lb and 3 lb tension weights are offered

Standards ASTM D3107
Weight 55 kg
Dimensions 700 x 300 x 1200 mm (L x W x H)

TF155 Knitted Fabric Stretch Recovery Tester

Knitted Fabric Stretch Recovery Tester, is to determine the stretch properties of knitted fabrics from stretch yarns under a specified tension and extension, including constant load test frame and constant extension test frame.

Specifications

- Test station 6
- Width of hanger 140 mm
- 5 lb tension weight 12
- Upper hanger 6
- Lower hanger 6
- Capable of providing total tensions of 5 lbf and 10 lbf to the specimen

Standards ASTM D2594
Weight 50 kg
Dimensions 1070 x 440 x 1080 mm (Packing, H x L x W)

TF159 Impact Penetration Tester

Impact Penetration Tester, is to determine the resistance of fabric to the penetration of water by impact, and thus can be used to predict the probable resistance of fabrics to rain penetration. It is especially suitable for measuring the penetration resistance of garment fabrics.

Specifications

- The size of the spray head 56mm diameter, the hole of spray head is 1mm diameter, 25 pcs.
- The distance from the bottom of spray head to the centre of specimen 600 mm
- The volume of tested water 500 ml
- The width of clamp 152 mm
- Angle 45°
- The specimen size 178 x 330 mm

Standards AATCC 42
Weight 27 kg
Dimensions 440 x 290 x 1280 mm (L x W x H)

TF160 Spray Rating Tester

Spray Rating Tester, is to determine the surface wetting resistance of fabrics, which may or may not have been given a water-resistant or water-repellent finish.
Spray rating tester consists of a metal framework allowing distilled water to be sprayed through a nozzle onto a test specimen at 45° and 150mm below the nozzle.

Specifications

- Nozzle 19 holes of Dia. 0.86 mm
- Angle of holder 45°
- Holder Dia. 150 mm, 150 mm below the nozzle
- Measuring Cup 250 ml

Optional order
Standard Photographic for AATCC 22

Standards ISO 4920, AATCC 22
Weight 11 kg
Dimensions 360 x 360 x 630 mm (L x W x H)

TF161 Rainproof Tester

Rainproof Tester, is 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 weighed before and after each test. The rain is formed by a column of water, which can be adjusted from 600mm to 2400 mm.

Specifications

- Test dimensions 200 x 200 mm
- Sample nip width 152 mm
- Sample nip space between 165mm(GB/T23321，ISO 22958)，155mm（AATCC35）
- Sample nip dimensions 178 x 279 mm
- Nozzle diameter 0.99 ± 0.013 mm
- Nozzle space between sample 305 mm

Optional order

AATCC Blotting Paper 500 x 1000 mm (20 x 40 in) 25 Sheets

Standards AATCC 35, BS EN ISO 22958, GB/T 23321
Weight 139 kg
Dimensions 460 x 460 x 3300 mm (L x W x H)

TF163A Hydrostatic Head Tester

Hydrostatic Head Tester, is used for determining the resistance of fabrics (canvas, coated fabrics, cover cloth, rainproof clothing fabrics and geotextile materials) and films to water penetration under pressure while firmly clamped in the test rig of standard area.

Specifications

- Equipped with a LED lamp to observe test process clearly
- Pressure Range 0 ~ 200kPa (20 m water column)
- Increasing rate of water pressure 1 ~ 60kPa/min stepless adjustable
- Units Pa, kPa, mmHg, cmH2O
- Standarad Test Head 100 cm^2

Standards AATCC 127, ISO 811/1420A, EN 20811
Power 220 V 50 Hz 200 W
Weight 100 kg
Dimensions 690 x 540 x 870 mm (L x W x H)

TF163C Hydrostatic Head Tester

Hydrostatic Head Tester, is used for determining the resistance of fabrics (canvas, coated fabrics, cover cloth, rainproof clothing fabrics and geotextile materials) and films to water penetration under pressure while firmly clamped in the test rig of standard area.

Specifications

- Closed-loop controlled servo motor drives pistons to achieve the unique water pressure raising rate balance system.
- Variable test method can be selected, test time and variable pressure increasing rate can be set and saved.
- Wide range of pressure increasing rate and freely adjustable. Real-time test results are shown on the large colourful touch panel
- Equipped with a LED lamp to observe test process clearly
- Pressure Range
  0 ~ 200kPa (20 m water column)
  0~ 500kPa (50 m water column)
  0 ~ 1000kPa (100 m water column)
- Increasing rate of water pressure 1 ~ 60kPa/min stepless adjustable
- Units Pa, kPa, mmHg, cmH2O
- Automatic clamp with holding force 5kN
- Standarad Test Head 100 cm^2

Standards
AATCC 127 Option 2, ISO 811, BS EN 20811,GB/T 4744
Optional standard
ISO 1420 Method B

Power 220 V 50 Hz 200 W
Weight 100 kg
Dimensions 690 x 540 x 870 mm (L x W x H)

TF164B Air Permeability Tester

Air Permeability Tester, is to determine the resistance of fabrics (woven, knitted and non-woven textile materials) to the passage of air (air flow) under constant pre-set air pressure while firmly clamped in the test rig of selected test head / area.

The specimen is loaded to the test area of the instrument easily by means of a automatic holder. By pressing down the holder to start the test. Air permeability tester equipped with a vacuum pump to draw air through an automatic interchangeable test head with a circular opening. The pre-selected test pressure is automatically maintained, and after a few seconds the air permeability of the test specimen is digitally displayed in the pre-selected unit of measure on the touch panel, or the next test nozzle required to be replaced will be displayed. After test the holder is released and the vacuum pump will be shut off.

Specifications

- Can be controlled by the touch panel
- Test result is displayed on touch panel, units can be shifted
- Equipped with printing function
- 11 nozzles are included
- Standard Test Heads 20 cm^2 and 38 cm^2
- Measuring Range 0.1~9999 mm/s (L/m2s)
- Test pressure 1 ~ 1000 Pa
- Max thickness of specimen ≤ 8 mm
- Measuring accuracy <+/-2%

Optional test heads 5 cm^2, 25 cm^2, 50 cm^2, 100 cm^2

Standards	ASTM D737, ISO 9237
Power	220 / 110 V 50 / 60 Hz
Weight	129 kg
Dimensions	790 x 620 x 1270 mm (L x W x H)

TF164E Auto Air Permeability Tester

Auto Air Permeability Tester, is used to determine the air permeability of fabric totally automatically. With its wide measuring range, it is suitable for all kinds of knitted, woven, non-woven, coated fabrics, paper, film, leather, etc.

A test sample is placed on the clamping head; parameters of test are set on the Android based software on the Samsung pad connected with machine. By pressing down the upper clamping arm the system automatically starts, the system automatically adjusts machine and shift nozzles if required; after a few seconds the test results are then displayed and the excel report is generated, and the test results are displayed on the Samsung pad.

Specifications

- units can be shift mm/s, cfm, cm3/cm2/s, l/m2/s, l/dm2/min, m3/m2/min, m3/m2/h and dm3/s
- Test Heads 20 cm^2
- Test pressure 10 ~ 2,500 Pa
- Max thickness of specimen 0 ~ 10 mm
- Measuring accuracy <+/-2%

Optional test heads 5 cm^2, 25 cm^2, 38 cm^2, 50 cm^2, 100 cm^2
Standards GB/T5453, ISO 9237, ISO 9073:15-2007
Optional Standards ASTM D737

Power	220 / 110 V 50 / 60 Hz
Weight	121 kg
Dimensions	1000 x 450 x 1140 mm (L x W x H)

TF165 Water Vapour Permeability Tester

Water Vapour Permeability Tester, is to determine the resistance of textiles and textile composites (particularly action wear fabrics) to water vapour penetration. Water vapour permeability tester consists of 8 containers with water reservoirs, a standard permeable fabric cover, sample holder ring and precision drive system.
Water vapour permeability tester should be worked in conditioning room or conditioning chamber. Wet-cup can be converted to do different tests.

Specifications

- Rotation Speed 2 rpm
- Wet-Cup 8Pcs
- Counter adjustable, automatically stop

Optional order
Reference Fabric for BS7209

Standards	ISO8096, BS 3424, BS 7209
Power	220 / 110 V 50 / 60 Hz 3 A
Weight	31 kg
Dimensions	540 x 540 x 470 mm (L x W x H)

(Pictures for reference only, will update)

TF165B Water Vapour Permeability Tester

Water Vapour Permeability Tester, is to determine the water vapour permeability of various textile and garment fabric, coating fabric, composite, sportswear and industrial fabrics.

This tester is equipped with touch panel to program and control the test.

Specifications

- Airflow speed 0.1 ~ 0.8 m/s
- Temperature 18 ~ 50℃ +/1 0.5℃
- Humidity 40% ~ 95%

Standards ASTM E96, GB/T 12704
Optional Standard JIS L1099
Power 220 V 50 / 60 Hz 3500 W
Weight 433 kg
Dimensions 1150 x 880 x 1990 mm (L x W x H)

TF167 Surface Water Absorption Tester

Surface Water Absorption Tester, is to determine the ability of a terry fabric to rapidly absorb and retain liquid water from surfaces such as human skin, dishes and furniture.

Specimens are placed at an angle on the base of the apparatus. After water flowing down the surface of each specimen, the amount of water retained in each specimen is measured. Six specimens are tested, three on the face of the fabric and three on the back of the fabric. The six observations are averaged to determine the surface water absorption of the fabric.

Specifications

- Pour Spout 30+/-2 mm (1.18 +/- 0.08 in.)
- Angle of hold 60°
- Time of water flow 50 ml within 8s
- Water dropping height 6 +/- 4 mm (0.24 +/- 0.16 in.)

Standards ASTM D4772-2009, GB/T 22799-2009 Method B
Weight 24 kg
Dimensions 560 x 360 x 740 mm (L x W x H)

TF176 Automatic Shrinkage Washer

Automatic Shrinkage Washer, is used for testing the dimensional stability of fabrics, clothing and other textiles after washing. Rated loading capacity is 5+/-0.05kg; with touch screen control, it is a model with similar functions of Wascator.

Specifications

- Interior rowing box diameter 520 ± 1 mm
- Interior rowing box depth 315 ± 1 mm
- Inside and outside cylinder radial distance 2.8 ± 0.1 cm
- Number of lift sheets 3 pieces
- Raised wing height 5 ± 0.5 cm
- Revolution speed Washing 52 r/min, Drying 500 ± 20 r/min
- Water Level Control low level = 10 cm, high level = 13 cm
- Temperature Detection Room temp. ~ 99℃±1℃, readability 0.1℃
- Heating power 5.4 ± 2% KW
- Rated loading capacity 5 +/- 0.05 kg
- Rotating Speed 30 ~ 800 r/min
- Interior rowing box volume 70 L

Standards ISO6330, ISO 5077, EN25077, GB/T8629, GB/T8630

Power 220 / 110 V 50 / 60 Hz 6.5 KW
Weight 285 kg
Dimensions 710 x 740 x 1200 mm (L x W x H)

TF178 Shrinkage Template & Ruler

Shrinkage Template & Ruler, is suitable for all shrinkage testing standards. With high transparent plexiglass plate and the unique design on appearance, it combines the different test standards in one template, including 500 mm, 350 mm, 250 mm. Frame size is 610 mm x 610 mm; Shrinkage Scale is 0%~20%, and Stretch Scale is 0%~ 20%.

Specifications

- Dimension of template 250 mm, 350 mm, 500 mm
- Shrinkage Scale 0%~20%
- Stretch Scale 0%~20%

Standards AATCC 135/150/179, BS EN 3759, ISO 3759
Weight 4 kg
Dimensions 670 x 650 x 80 mm (L x W x H)

TF210 Martindale Abrasion & Pilling Tester

Martindale Abrasion & Pilling Tester, is to determine the abrasion and pilling resistance of all kinds of textile structures. Samples are rubbed against known abrasives at low pressures and in continuously changing directions. The amount of abrasion or pilling is compared against standard parameters.
The unique design of our Martindale abrasion tester allows removal of individual sample holders for examination without lifting the top motion plate. It provides individual counters and parking function, interval time settable and a large touch-screen display.
The Martindale abrasion tester is available with 4, 6 or 9 test positions.

Specifications
Drive system is PLC, programmable control with large touch-screen
Abrasion test
a) Max stroke of movement 60.5+/-0.5 mm
b) Weight of holder and spindle 200+/- 1g
Pilling test
a) Max stroke of movement 24+/-0.5 mm
b) Weight of holder and spindle 155+/-1 g

Included Accessories (1 for each station)
Abrasion test (To ISO 12947-1)
a) Mounting weight (2.5+/-0.5 kg, for both abrasion and pilling test)
b) Abrasion tester holders (Dia. 38 mm)
c) Loading Weights (395+/-7g)
d) Loading Weights (595+/-7g)
Pilling Test (To ISO 12945-2)
a) Linear adaptor. To convert to straight-line motion
b) Sample Retaining Rings for pilling test
c) Pilling test holders (Dia. 90 mm)
d) Loading Weights (260+/-1 g)
1 Auxiliary device for specimen
1 Drawing pen
1 set of abradent fabric, wool felt, backing foam for each work station

Standards
EN ISO 12945-2/12947-1/12947-2/12947-3/12947-4, ISO 20344, ASTM 4966/4970, GB/T 4802.2/21196-1/21196-2

Optional orders

a) Specimen Cutter. (Dia. 38 mm)
b) Abrasive Fabric & Backing Felt Cutter. (Dia. 140 mm)
c) Standard Wool Abrasive Fabric (5 m/pack)
d) Standard Backing Foam
e) Standard Wool Felt pads 90 mm
f) Standard Wool Felt pads 140 mm
g) EMPA Photographic Standards for Pilling Test (3 x 4 knitted)
h) EMPA Photographic Standards for Pilling Test (3 x 4 woven)
i) SM 50 Photographs for Pilling Test IWS + ASTM

Power 220 / 110 V 50 / 60 Hz
Weight 118 kg, 139 kg, 160 kg
Dimensions A: 790 x 650 x 600 mm (L x W x H)
B: 1040 x 760 x 690 mm
D: 1040 x 760 x 690 mm

TF211 Pilling Assessment Viewer

Pilling Assessment Viewer / Viewing cabinet, is suitable for all standards where the assessment of pilling on fabrics is necessary, either against control fabrics or photographs.

The viewer is suitable for the following tests: Martindale Pilling, Random Tumble Pilling, ICI Pilling, ICI Snagging and Brush/Sponge Pilling.

Specifications

- Observe zone 340 x 165 x 240 mm

Standards ISO 12945
Power 220 / 110 V 50 / 60 Hz 1 A
Weight 7 kg
Dimensions 380 x 260 x 360 mm (L x W x H)

TF212 Oscillatory / Wyzenbeek Abrasion Tester

Wyzenbeek Abrasion Tester, made of modern ergonomic design, is to determine the abrasion resistance of fabrics when rubbed against a standard abrasive or a wire mesh screen with a backward and forward motion over a curved surface. Wyzenbeek abrasion tester applies to automotive and furniture industry fabric manufacturers working to US standards motor driven with 4 abrasion heads and electronic digital counter to control the number of cycles.

Specifications

- Suction manifolds to connect to auxiliary vacuum cleaner
- Sealed transmission drive for quieter operation
- Testing stations 4 groups
- Oscillatory frequency 90 CPM
- Oscillatory arc 76 mm
- Dimension of sample 245 x 73 mm
- Tension on sample 4 lbf (17.8 N), adjustable
- Load on sample 3 lbf (13.4 N), adjustable

Consumables (Optional order)

- Rubber Pads for Wyzenbeek (pack of 8)
- Wire mesh screens for Wyzenbeek (pack of 4)
- Abrasive Fabric #10 Cotton Duck – 60 in x 5yds

Standards ASTM D4157
Power 220 / 110 V 50 / 60 Hz 3 A
Weight 103 kg
Dimensions 990 x 630 x 900 mm (L x W x H)

TF213 Universal Wear Tester

Universal Wear Tester, is to determine the wear and abrasion resistance of fabric used in clothing, footwear and industries. Universal Wear Tester supplies with surface abrasion head (inflated diaphragm method) and flex abrasion head as well as necessary weights and blades. Accessories are available on request for conducting frosting, pilling and edge abrasion tests.

Universal Wear Tester is fitted with built-in timer and mechanical cycle counter; repeatable and reproducible testing is ensured by consistent motor speed providing 120 double strokes per minute of 25mm (1in) stroke length. Improved air injection system for more uniform inflation of the diaphragm used in surface abrasion testing, and a superior clamping mechanism for repeatable specimen tensioning.

Specifications
- Rotation Speed 100rpm
- Measuring Range 25 mm
- Touch panel
- Depth Abrasion kits
- Surface Abrasion kits
- Flex Abrasion kits

Optional order
- Frosting Attachment
- Edge and Fold Abrasion Clamp
- Elastomeric Friction Pad and Base Pad
- Photographic Standards for ASTM D 3514
- Abrasive '0' 50 yd/roll
- Abrasive '600A' 50 yd/roll
- Abrasive '320J' 50 yd/roll

Standards
ASTM D3514/D3885/D3886, AATCC 119/120,

Power	220 / 110 V 50 / 60 Hz
Weight	90 kg
Dimensions	800 x 490 x 740 mm (L x W x H)

TF214 A/B Taber Abrasion Tester

Taber Abrasion Tester (Taber Abraser), is to determine the wear resistance of all kinds of structures including fabrics, leather and rubber, paper, metals, paints, plated surfaces, coated materials, glass, etc.
Taber Abrasion Tester (Taber Abraser) uses the X pattern of abrasion produced by a rotary action of a pair of abrasive wheels. Taber abraser supplies with a full range of auxiliary weights, specimen holders. The abrasive wheels and wheel refacer are offered on request.

(Pictures for reference only, will update)

Specifications
- Wear Round Centre Spacing 52.4 mm
- Gyration Speed 60±1 rpm or 72±1 rpm
- Counter 0-999,999 times
- Weights 2pcs 250g, 2pcs 750g (used to produce 250g, 500 g, 1000 g mass on the specimen)

Optional order
- Grinding Wheel CS – 17 / CS - 10 or others
- Paster S - 36
- Sandpaper S - 11

Models
- TF214A Taber Abrasion Tester – 1 station
- TF214B Taber Abrasion Tester – 2 stations

Standards ISO 5470, ASTM D3884, GB/T1768, ASTMD4060

Power	220 / 110 V 50 / 60 Hz
Weight	40 kg, 58 kg
TF214A Dimensions	390mm x 300mm x 250mm (L x W x H)
TF214B Dimensions	530mm x 380mm x 280mm (L x W x H)

TF215 DIN Abrasion Tester

DIN Abrasion Tester, is to determine abrasion of flexible materials, such as rubber, tires, transmission belts, soles, leather, etc. The abrasion tester is provided with a wide testing area to meet the most requests. Additional balance is required.

Specifications

- Load Weight 5 N, 10 N
- Roll Dim Dia. 150 x Length 460 mm
- Rotation Speed 40rpm
- Holder Moving Distance 4.2 mm each rotation

Standards ISO 4649, GB/T9867
Power 220 / 110 V 50 / 60 Hz 3 A
Weight 70 kg
Dimensions 890 x 410 x 590 mm (L x W x H)

TF216 MIE Abrasion Tester

MIE Abrasion Tester, is to determine the wear resistance of textiles used for the automobile such as the interior material made of woven, knit, composite, coated fabrics by rubbing against an abrasive cloth.

Specifications

- 2 x 2 test positions. Each pair of tests runs at the same time
- The 2 couples can perform tests independently or simultaneously
- Large Touch panel to program or monitor the duration of each test station test program for each cycle speed, etc.
- Rubbing table is 90 +/-1 width
- Rubbing stroke is 150 mm
- Rubbing speed is 30cpm

Standards Renault - PSA D44 1073
Power 220 / 110 V 50 / 60 Hz 3 A
Weight 95 kg
Dimensions 770 x 550 x 560 mm (L x W x H)

TF220 ICI Mace Snag Tester

ICI Mace Snag Tester, is to determine the tendency of fabrics to snag (pull yarn loops from fabric) in normal wear (mace snag). Provided with 4 rotating test cylinders, fitted with sleeves of test fabric, mace balls with tungsten carbide points and controlled by a predetermined electronic counter. A set of 4 felt sleeves are included.

Specifications

- Snag Mace Diameter 31.75 mm
- Mace Weight 160 g
- Mace Prominent length 10 mm
- Rotation Speed 60+/-2rpm

Optional order

- Tungsten Carbide Points (Pack of 12)
- Felt Sleeves (Pack of 4)
- Snagging Photographs

Standards ASTM D3939, GB/T 11047, JIS L1058

(Pictures for reference only, will update)

Power 220 / 110 V 50 / 60 Hz
Weight 88 kg
Dimensions 1040 x 500 x 640 mm (L x W x H)

TF222 Brush or Sponge Pilling Tester

Brush or Sponge Pilling Tester, is to determine the pilling propensity and simulate normal wear of knitted and woven fabrics used in apparel and automotive interiors by brush and / or sponging specimens together in a circular motion to form pills. Specimens are evaluated under standard lighting conditions using a pilling assessment viewer, light cabinet or similar, against users' standard fabrics or pilling photographs.
A set of 8 standard (made in USA) brush is included.

Specification

- Circle sample holder 660 g
- Height of Nylon brush 24 mm
- Consists of 6 holders with polyurethane foam, rubber rings, sandpaper
- Rotation speed 58 r/min
- Sponge dimension 51 x 102 x 152 mm (optional)

Standards ASTM D3511

Power	220 / 110 V 50 / 60 Hz
Weight	106 kg
Dimensions	1220 x 560 x 620 mm (L x W x H)

TF223A/B ICI Pilling Tester

ICI Pilling Tester / Pilling Box, is to rapidly replicate pilling on fabrics in a fraction of the time due to normal wear.
ICI pilling tester uses a universal drive system with 2 or 4 position, electronic digital counter, and sample mounting fixture. The machine accepts ICI Pilling boxes and ICI pilling drums.

Specifications

- Rotation Speed 60 +/ -2 rpm
- Control Mode Single chip control
- Touch panel

Optional Accessories

- Pilling Assessment Viewer
- Set of 5 Photographic Standards
- Mounting Jig (used to install specimens easily)
- Cork liner – pack of 6
- Rubber tube – pack of 4

Optional Standards

- SnagPod for BS 8479
- Snagging pins for JIS L1058
- Pilling Drum for M&S P18, P19

Models

- TF223A ICI Pilling Tester – 2 stations
- TF223B ICI Pilling Tester – 4 stations

Standards ISO12945-1

Power	220 / 110 V 50 / 60 Hz
Weight	76 kg, 118 kg
Dimensions	A: 890 x 500 x 660 mm (L x W x H) B: 940 x 490 x 1010 mm (L x W x H)

TF224A/B Random Tumble Pilling Tester

Random Tumble Pilling Tester, is to determine the pilling and fuzzing characteristics of textile fabrics.
Random Tumble Pilling Tester uses stainless steel impellers that rotate within individually lit aluminum chambers constantly tumbling test fabrics against cork liners for a pre-determined time controlled by a timer and audible alarm.
Compressed air is also injected into the chamber to assist in the tumbling action. With 2 or 4 pilling test chambers. Laboratory standard compressed air supply is required.

Specifications

- Size of Testing cylinder Dia. 145 mm
- Rotation speed 1200 r/min

Optional order

- Cork Liner (Pack of 50)
- Cotton Sliver (pack of 9m)
- Photographic Standards (Set of 5)

Models

- TF224A Random Tumble Pilling Tester – 2 stations
- TF224B Random Tumble Pilling Tester – 4 stations

Standards ASTM D3512

Power	220 / 110 V 50 / 60 Hz
Weight	65kg, 95 kg - 2 Stations 100 kg - 4 stations
Dimensions	610 x 460 x 680 mm (L x W x H) 840 x 480 x 690 mm (L x W x H)

TF225 Circular Locus Tester

Circular Locus Tester, is to determine surface deterioration and quality of fabrics (wool, chemical fiber, mixed, kitted and woven fabrics). Using an active friction system, fabric is rubbed against a nylon brush and abrasive or an abrasive only under controlled conditions. Results of the test are achieved in minutes. The relative motion of the locus specimen grip and the abrasive platform is a circle with a relative speed of 60+/-1 r/min. The grip offers pressure to the specimen which is adjustable with a tolerance of +/-1%. For added control and safety, the machine is equipped with a self-stop switch.

Specifications

- Test motion — Circular Locus of Dia. 40 mm
- Test speed — 60 ± 1 r/min
- Height of brush — 2 ~ 12 mm, adjustable
- Pressure on specimen — 490cN, 590cN, 780cN.
- Dimension of specimen — Dia. 113 ± 0.5 mm (100 cm^2)
- Counter — 1 ~ 9,999 times, stops automatically

Optional orders

- Standard Abradant Gabardine
- Standard Backing Foam
- Standard Brush Set

Standards GB/T 4802.1
Power 220 / 110 V 50 / 60 Hz
Weight 45 kg
Dimensions 640 x 430 x 470 mm (L x W x H)

Fire Test

TF310 45 Degree Flammability Tester

45 Degree Flammability Tester, is to determine the fabric flammability (fabric burning test) under controlled conditions. Automatic igniter is equipped to ensure the 45 degree fabric flammability tester safe and easy to operate.

Stainless steel test cabinet with glass observation panel provides with automatic timing of flame spread in 0.1-second increments from ignition. Brushing Device is included.

Specifications

- Time Display and Accuracy — 0-999.9s, 0.1s
- Ignition Time — 1 +/- 0.05s
- Dimension of Holder — outside 205 x 76 mm, interior 165 x 40
- Distance from Nozzle to Specimen — 8 mm

Included Accessories

- 1 Brushing device
- 5 sets of sample holder

Standards ASTM D1230, 16 CFR -1610, GB/T14644

Power 220 / 110 V 50 / 60 Hz 2 A
Weight 36 kg
Dimensions 530 x 490 x 740 mm (L x W x H)

TF310C Dry Cleaning and Washing Cylinder

Dry Cleaning and Washing Cylinder, to determine color fastness to dry-cleaning and chlorinated pool water (AATCC 162), is applied to prepare samples for flammability testing of standard 16CFR-1610. Comprises stainless steel rotating test chamber of 7650ml capacity, ang variable speed drive with digital timer and displays. A drain valve is equipped in the bottom of the cylinder.

Specifications

- Touch panel
- Angle of cylinder axis — 50
- Stainless steel made
- Rotation speed — 45 ~ 50rpm
- Counter — 1 ~ 9999mins, automatically stops

Standards AATCC 162 Method B

Power 220 V 50 / 60 Hz 4 A
Weight 88 kg
Dimensions 820 x 560 x 1210 mm (L x W x H)

TF311 Horizontal Flammability Tester

Horizontal Flammability Tester, is to determine the comparative burn rates and burn resistance of textiles, particularly those for automotive interior use. Automatic igniter is equipped to ensure the horizontal flammability tester is safe and easy to operate, comprising draft free stainless-steel cabinet with observation window, sample holder and door mounted burner.

Specifications

- Fire nozzle dia. 9.5 mm
- Fire height 38 mm+/-2
- Sample clamp 360 x 100 mm / Interior dimension 330 x 50 mm
- The sample below 25 mm pitch between metal wire is 25 mm
- Marked line Starting point 38 mm / End point 292mm from Ignition point
- Nozzle to Sample 19 mm

Standards ISO 3795, GB/T 8410, DIN 75200, PSA D 45 1333
Optional Standard FMVSS 302 (Φ 10mm Flame nozzle)

Power 220 / 110 V 50 / 60 Hz 2 A
Weight 46 kg
Dimensions 560 x 460 x 780 mm (L x W x H)

TF312 Vertical Flammability Chamber

Vertical Flammability Chamber, is for measuring the vertical flame spread of children's sleepwear, fabrics (fabric burn test), and other textile materials or resilient filling materials used in upholstered furniture.

The burner ignites the specimen automatically, and ignition time is programmable; after-flame time and afterglow time are timed automatically and shown on the display. User-friendly design of the control panel, touch screen is equipped to make the operation conveniently, and the test results are displayed on the screen after test.

Comprises a draft free stainless-steel flammability chamber with observation window for easy test viewing. Specimen holders, burner and associated hardware are dependent on the test standard and must be specified.

Specifications

- System and display Programmable PLC and touch screen control
- Time Display and accuracy 0-999.9s, 0.1s
- Ignition time 12+/-2s or 3+/-0.2s
- Burner size Dia. 10 mm / 11 mm x barrel length 76+/-6 mm
- burner to specimen 19 or 17 mm
- Dimension of holder outside 442 x 76 / 442 x 89 mm, interior 356x51 mm
- Timing PLC controlled

Optional Standards
16CFR Parts1615/1616

Standards ASTM D6413, CALIF TB117 Method A, FTMS 191-5903, CPAI 84
Power 220 / 110 V 50 / 60 Hz
Weight 65 kg
Dimensions 650 x 580 x 1120 mm (L x W x H)

TT200 Toy Flammability Tester

Toy Flammability Tester, is to determine the flammability resistance of finery or toy and children clothing. The toy flammability tester is mainly for evaluating the burning speed and time of the following kinds of toys or children stuff.

- Toys to be worn on the head, such as beards, wig, mask, etc.
- Toy disguise costumes and toys intended to be worn by a child in play, such as cowboy suits, nurse's outfits, long flowing capes, etc.
- Toys intended to be entered by a child, such as toy tents, puppet theatres, wigwams and play tunnels.
- Soft filled toys (animals and dolls, etc.) with a piled or textile surface.
- System and Display: programmable PLC system to control automatically and display text

Specifications

- Time display and accuracy 0-999.9s,0.1s
- Burner size according to ISO 6941
- Burner can be positioned to vertical or 45 degree
- Equipped with U-shape holder and hanging holder
- PLC controlled

Standards BS EN 71-2

Power 220 / 110 V 50 / 60 Hz
Weight 90 kg
Dimensions 800 x 600 x 650 mm (L x W x H)

TF318 SPI Flammability Tester (Vinyl Material)

SPI Flammability Tester (Vinyl Material), is to determine the ignition properties of vinyl plastic film material according to CFR 16 Part 1611 – U.S.A.

The rate of burning shall not exceed 1.2 in./s as judged by the average of five determinations lengthwise and five determinations transverse to the direction of processing, when specimen is placed at an angle of 45 degree and exposed to the standardized flame (22# fire nozzle, 1/2 inch. in length).

Specifications

- The most advanced thread locking device and sample holder save 80% of operation time that faster than another suppliers' design
- Equipped with photoelectricity sensor accurately and automatically record burning time with no damage ensures 5 years life or longer
- Timer accuracy is up to 0.01 second
- 22# needle flame, 9/16inch from the specimen, flame length adjusted by flow-valve;
- Timing distance of burning 6 inches

Standards	CFR 16 Part 1611
Power	220 / 110 V 50 / 60 Hz
Weight	45 kg
Dimensions	500 x 450 x 65 mm (L x W x H)

TF319 Multi-purpose Flammability Tester

Multi-purpose Flammability Tester, is to determine the flammability resistance of textile fabrics and for the flammability test of toys and toy materials.
Its vertical test frame with changeable specimen holders and burner covers offer a wide range of vertical oriented textile fabrics. This machine meets almost all the BS, EN, ISO and other similar standards which is defined as a test method that a vertical oriented fabric subject to a small flame.

Specifications

- Meets most vertical oriented tests
- Programmable PLC system, optical scanning devices for threads breaking detection, timing range 0-999.9s and accuracy 0.1s
- Automatic flame ignition and flame, automatic gas open / off
- Automatic change for butane gas and propane gas
- Easy-set device for burner position (surface & edge ignition, toys test)
- Detachable controller ensures safety of operator
- interchangeable, precision test frames for different standards
- Vertical and horizontal marker threads
- Tray for filter paper and test debris

Optional Standards

- BS EN 71-2:2020
- ISO 10047:1993
- BS EN ISO 15025:2016
- BS 5438:1989

Standards	ISO 6940:2004, ISO 6941:2003, BS EN ISO 1102:2016, BS EN ISO 1103:2005, BS EN 14878:2007 ECE R118 ANNEX8
Power	220 / 110 V 50 / 60 Hz
Weight	97 kg
Dimensions	740 x 780 x 1200 mm (L x W x H)

TF320 NFPA 701-1 Flammability Tester

NFPA 701-1 Flammability Tester, is to determine the ignition resistance properties of draperies and other hanging fabrics according to test method NFPA 701#1, and it is suitable for single-layer or multi-layer fabrics, but not suitable for fabrics with density larger than 700g/m^2 (21oz/yd^2).

Specifications

- Open-type burning chamber structure;
- Chamber body in calcium silicate board, and wrapped by stainless steel external;
- Standard Maker laboratory burner;
- Record burning time automatically;
- Auto-ignition mode to avoid operative error;
- Timer accuracy up to 0.1second;
- Provide with a standard specimen holder.

Standards	NFPA 701-2004 Test Method 1
Power	220 / 110 V 50 / 60 Hz
Weight	100 kg
Dimensions	900 x 510 x 720 mm (L x W x H)

TF322 Upholstery Flammability Test Rig

Upholstery Flammability Test Rig, is to determine the ignition resistance properties of material combinations for upholstered seating. The test rigs are covered with the standard foam and the fabric under test. The assembly is then ignited using one of the standard ignition sources and the combustion process is monitored.

Included

- BS 5852 Test Rig – Big
- BS 5852 Test Rig – Small

Optional order

- BS 5852 Standard Cigarettes
- BS 5852 fire source, Crib 4
- BS 5852 fire source, Crib 5
- BS 5852 Standard White Shell Fabric
- BS 5852 Fire Resistance Foam
- BS 5852 Non-Fire Resistance Foam

Standards BS 5852 Part 1 / Part 2, ISO 8191 Part 1 / Part 2, EN1021-1
Weight 55 kg
Dimensions 450 x 300 x 450 mm (L x W x H)

TF328 UL94 Horizontal & Vertical Flammability Tester

UL94 Horizontal &Vertical Flammability Tester, is used to determine the flammability of plastic materials for parts in devices and appliances. The apparatus is supplied as a complete system incorporating all the features necessary for ease of use safety. It conforms to all five UL 94 horizontal and vertical burner tests and associated ASTM international standards.

Specifications and Features

- A bench mounted draft free combustion chamber having a large inside volume of 1.0m3 and fitted with an interior light and exhaust fan to enable simple evacuation of combustion products.
- Large door and window made from toughened safety glass giving a generous view of the specimen during a test.
- Specimen holders.
- Fully adjustable horizontal and vertical specimen supports.
- A burner in compliance with ASTM D 5025, with simple angle adjustment (0°, 20°, 45°) and precision gas control system including gas flow meter, pressure regulator and pressure gauge.
- Two access ports enabling easy entry to the chamber for movement of the burner and specimen.
- A burner wing tip.
- Three digital test duration timers for accurate but simplified operation.

Standards UL HB, UL94 V0, V1, V2, 5VA, 5VB, VTM-0, VTM-1, VTM-2, HF-1, HF-2, HBF. IEC 60695-11-10, 60707, ISO 1210, 9772, 9773, GB/T2408, 8332.

Power 220 / 110 V 50 / 60 Hz
Weight 160 kg
Dimensions 1190 x 870 x 1530 mm (L x W x H)

TF346 Glow Wire Tester

Glow Wire Tester, is to determine the fire hazard of electrical parts and components subjected to malfunctions such as overload, short circuit, poor connection, or others that may ignite and spread the flame to the rest of the product.

The Glow-Wire Tester simulates an overloaded resistor or other ignition source and applies heat to the specimen for a short period of time, and simulates as closely as possible actual effects occurring in practice.

A temperature controller is fitted with the thermocouple supplied, accurately measuring the glow wire temperature. The electrical circuit of the control unit is fully protected by fuses and a miniature circuit breaker. TESTEX Glow-Wire Tester is a fully automatic instrument contained in its own cabinet to maximize the safety of the operator, and large viewing window and black colored walls ensure convenient observation.

Specifications

- Glow Wire Ø 4 mm ± 0.04 mm Ni/Cr (80/20), standard
- Temperature Range 500 ~ 1 000 °C± 2 °C adjustable
- Sample pressure 1N ± 0.2 N
- Test speed 18 ± 3 mm/s
- Test mode automatic control, independent convulsions
- Chamber ≥0.5 m
- Control single chip microcomputer + touch screen control

Standards IEC 60695-2-10, ASTM D6194, GB/T 5169.10~13

Power 220 / 110 V 50 / 60 Hz
Weight 90 kg
Dimensions 1100 x 700 x 1300 mm (L x W x H)

Color Fastness

TU300A/B/C/D Color Light Box

Color Light Box / Color Matching Cabinet, is used for color matching or assessment of all industries and where there is a need to maintain color consistency and quality. e.g. automotive, ceramics, cosmetics, foodstuffs, footwear, furniture, knitwear, leather, ophthalmic, dyeing, packaging, printing, inks and textile.
It is very important to use standard light source to check color difference on night duty.
Besides D65 light source, TL84, CWF, UV, and F/A light sources are available in this color light box for metamerism effect.

Specifications

- Color matching cabinets provide several light sources, i.e. D65, TL84, CWF, UV, F/A.
- Microcomputer to switch between the light sources quickly.
- Super timing function to record use time of each light source separately.
- All fittings are improved, ensuring quality.

Optional order Viewing Board 2kg

Model	Light Sources	Dimension(mm)	G. Weight
TU300A	D65, TL84, F/A, UV	800 x 500 x 360	80 kg
TU300B	D65, TL84, CWF, F/A, UV	840 x 660 x 670	80 kg
TU300C	D65, TL84, CWF, F/A, UV, U30	860 x 680 x 510	56 kg
TU300D	D65, TL84, CWF, F, A, UV, U30	860 x 680 x 510	57 kg

Standards ASTM D1729, BS 950 PART1, M&S C1/C2

Power 220 / 110 V 50 / 60 Hz

TU320 Precise Lab Oven / Incubator

Precise Lab Oven, is for dual-purpose which is forced-air convection can provide direct assistance as well as reliable guarantee to colleges, scientific research institutes and laboratories.

Features

- Polished stainless-steel chamber, semicircular arcs at corners for easy cleaning, and the space between the shelves in the chamber is adjustable
- Large LCD display
- 25 mm dia. test hold in the left side of Chamber
- Microprocessor temperature controller ensures a precise and reliable control
- Uniform distribution of air temperature
- Forced-air convection
- Double layer glass door, larger viewing window
- Forced-air and heating stops automatically once the door opened

Specifications

- Temp. Range: RT+10-200℃
- Temp. Accuracy: 0.1℃
- Ambient Temp.: +5-40℃
- Timing Range: 1-9999 min
- Shelves: 2 pcs (40 L & 70 L), 3pcs (140 L & 240 L)
- Interior size:
- 40L 350*300*400 mm (WxDxH), 70L 400*320*550 mm (WxDxH) 140L 500*380*750 mm (WxDxH), 240L 600*450*900 mm (WxDxH)

Power 220 / 110 V 50 / 60 Hz
0.85 Kw-40 L 1.55 Kw-70 L 2.05 Kw-140 L
2.45 Kw-240 L
Weight 30 kg, 60 kg, 100kg, 180 kg
Dimensions 40L 340 x 300 x 400mm (WxDxH),
70L 490 x 580 x 600 mm (WxDxH)
140L 655 x 715 x 980 mm (WxDxH)
240L 755 x 785 x1130 mm(WxDxH)

TU340 Temperature Humidity Chamber

Temperature Humidity Chamber. For the conditioning of samples prior to testing, also applied for Water Vapour Permeability Testing when equipped with related kits.
Critical parts are imported, thus provides precise conditions from 20% to 98% RH ± 2 and -40° C to 150° C ± 0.5° C. Custom-designed and built chambers of any required capacity up to room size, with conditions down to - 40° C are available, all of the main components are made in France or Japan. Quotations on request of different requirements.

Specifications

- Capacity: 80L/150L/225L/408L/800L/1000L
- Display: Touch-screen Display
- System: PLC system, programmable
- Temperature Range: -20℃ ~ 150℃ (-40℃ or -70℃, available)
- Humidity Range: 20%-98%+/-2%
- Time Display: 0-99999h
- Testing Area: ≥3000 mm^2
- Out chamber: Paint steel chamber
- Inner chamber: SUS304 Stainless Steel

Power 380V 50 / 60 Hz 4 A
Weight 650 kg - 1000 L
Dimensions 1390 x 1300 x 1930 mm (LxWxH) – 1000 L

TU380 Salt Spray Tester

Salt Spray Tester, is used to test the anti-erosion quality of the surface of all materials after the rust-proof of painting, coating, electroplating, anoding and rust-proof of greasing.

Specifications

- Test chamber: 108 L or 270 L
- Temp. test: NSS.ACSS 35℃ ±1℃
- Temp. air: NSS.ACSS 47℃±1℃/CASS 63℃±1℃
- Interior dim: 600 x 450 x 400 mm or 900 x 600 x 500 mm
- External Dim.: 1100 x 630 x 1185 mm or 1420 x 980 x 1285 mm
- Test solution volume: 15 L

Standards ASTM B117, GB/T2423.17
Power 220V 50 / 60 Hz 2 KW
Weight 164 kg
Packing Dimensions 1590 x 1100 x 1410 mm

TF410 Manual Crockmeter

Manual Crockmeter, is to determine the colour fastness of textiles to dry or wet rubbing.
The new Crockmeter is equipped with an electronic counter, and handle is on the top to take it easily. A sandpaper is set under the test sample so that the sample is fixed during test, making the rubbing color fastness test repeatable.

Specification

- Rubbing head Dia.16 mm
- Vertical pressure 9N+/-10%
- Rubbing stroke 104 mm

Included Accessories

- AATCC rubbing clothing 1 box
- Sand paper 2 (pcs)
- Rings 2 (pcs)

Standards ISO 105x12/D02, AATCC 8/165

Weight 8 kg
Dimensions 670 x 220 x 330 mm (L x W x H)

TF410B Side Crocking Tester

Side Crocking Tester, is to determine and evaluate the amount of color transferred from the side and edge surface of a belt by rubbing.

Side Crocking Tester can be applied to the surface of a belt that are made from plastics, leather, and textiles made from all fibers in the form of yarn or fabric whether dyed, printed or otherwise colored. With a timing device which is a minimum resolution of 0.1 second.

Specification

- Clamp 104 mm
- Top load weight 3.0 lb.

Included Accessories

- Clamp
- Top load weight

Standards CPSD-SL-81006-MTHD-BELT

Weight 10 kg
Dimensions 115 x 100 x 150 mm (L x W x H)

TF411 Electronic Crockmeter

Electronic Crockmeter, is to determine the colour fastness of textiles to dry or wet rubbing. A pinned acrylic sample holder ensures rapid sample mounting and repeatability of results. Crockmeter Fitted with a pre-determined electronic counter for strokes up to 999,999 times.

Specification
- Rubbing head Dia.16 mm
- Vertical pressure 9N +/- 10%
- Rubbing stroke 104 mm
- Counter 1 ~ 999,999 times, automatically stop

Included Accessories
- AATCC rubbing clothing 1 box
- Sand paper 2 (pcs)
- Rings 2 (Pcs)

Standards ISO 105x12/D02, AATCC 8/165

Power 220 / 110 V 50 / 60 Hz 2 A
Weight 24 kg
Dimensions 800 x 310 x 460 mm (L x W x H)

TF412A Manual Rotary Crockmeter

Rotary Vertical Crockmeter, is to determine the colour fastness of textiles to dry or wet rubbing particularly for printer fabrics. Rotary crockmeter applies 1134 grams of pressure on a 16 mm finger and rotate 1.125 turns clockwise then anti-clockwise.
The operating handle is however turned in one direction only.

Specification
- Rubbing head: Dia.16 mm
- Vertical pressure: 1133 g
- Rotation: 405°

Included Accessories
- AATCC rubbing clothing 1 box
- Sand paper 2 (pcs)
- Rings 2 (Pcs)

Standards AATCC 116, ISO 105 X16
Weight 11 kg
Dimensions 250 x 150 x 250 mm (LxWxH)

TF412B Motorized Rotary Crockmeter

Motorized Rotary Crockmeter, is to determine the colour fastness of textiles to dry or wet rubbing particularly for printer fabrics. This Rotary crockmeter vertically applies 1134 grams of pressure on a 16 mm finger and rotate 1.125 turns clockwise then anti-clockwise.
It is motorized with adjustable speed, automatically stops after set cycles completed, and LCD display.

Specification
- Rubbing head Dia.16 mm
- Vertical pressure 1134 g
- Rotation 1.125 turns

Included Accessories
- AATCC rubbing clothing 1 box
- Sand paper 2 (pcs)
- Rings 2 (Pcs)

Standards AATCC 116, ISO 105 X16
Power 220 / 110 V 50 / 60 Hz
Weight 25 kg
Dimensions 350 x 250 x 450 mm (L x W x H)

TF413 Rubbing Fastness (Gakushin) Tester

Rubbing Fastness (Gakushin) Tester for JIS standards, is for evaluating a material's resistance to rubbing motion. Unit is a six station; bench top machine includes clamps for sample attachment to moving platen and clams for weighted rubbing arm for attachment of rubbing material.

Specification

- Work station 6
- pressure applied on rubbing finger 2 N
- Travel length 100 mm
- Travel speed 30 cpm
- Specimen 220 x 30 mm
- Counter 1-999,999 times, automatically stops

Standards JIS L 0849

Power 220 / 110 V 50 / 60 Hz 70 W
Weight 40 kg
Dimensions 510 x 430 x 490 mm (L x W x H)

TF414 IULTCS Rubbing Fastness Tester

IULTCS Rubbing Fastness Tester, is designed to carry out a rub fastness test on the surface of leather to determine the amount of 'marring' of the leather surface or the finish and to assess the amount of colour transferring from the sample to the rubbing pad under dry or wet conditions.

Specifications

- Rubbing finger 500 +/- 25 g
- Loading weight 500 +/- 10 g
- Dimension of base of finger 15 x 15 mm
- Specimen 120 x 20 mm
- Rubbing stroke 35 ~ 40 mm
- Speed of rubbing 40 +/- 2cpm
- Counter 1-999,999 times, automatically stops

Optional order
White Rubbing wool felts 1000pcs / pack
Black Rubbing wool felts 100pcs / pack

Standards ISO11640, ISO 17700AMethod, QB/T 2537

Power 220 / 110 V 50 / 60 Hz 4 A
Weight 35 kg
Dimensions 530 x 330 x 640 mm (L x W x H)

TF415D Scorch Tester / Sublimation Tester

Scorch Tester (Sublimation Fastness tester), is to determine fabrics ironing color fastness and sublimation color fastness, and dimensional stability under hot dry conditions.

Heating plate temperature and test time are adjustable, fitted with microprocessor temperature controller and the top plate with precisely controlled weight. The independent heating plate ensures controlling test temperature and thickness of sample individually.

Specification

- Large LCD display, convenient setting and operation
- 3 pairs of heating plates, heating temperature of each upper and lower plate can be set individually
- Each heating plate can be set heating ON or heating OFF
- Timer 1 ~ 249s, automatically stops heating and alarms
- Temp. Range R.T. ~ 210
- Temp. Accuracy +/- 2 Deg. C
- Pressure 4kPa+/-1kPa
- Heating control Individual control for each top and bottom plate
- 3 stations with heating plate dimensions 120 mm x 50 mm

Standards
ISO 105, AATCC 92/114/117/133, GB/T 5718/6152

Power 220 / 110 V 50 / 60 Hz 4 A
Weight 38 kg
Dimensions 540 x 460 x 440 mm (L x W x H)

TF416A Perspiration Tester

Perspiration Tester, is to determine colour fastness test to water, sea water and perspiration fastness in textiles and sublimation during storage. Perspiration Tester consists of 1 stainless steel frame with 21 acrylic separator plates to hold 20 samples.

Included Accessories

- Base plate 1 set
- Support frame 1 set
- Conunter weight 1 set
- Acrylic Plates 21 pcs
- Plastic basins 20 pcs

Standards

Perspiration AATCC 15, EN ISO 105 E04, JIS L0848, BS 1006 E04
Water AATCC 107, EN ISO 105 E01, JIS L0846, BS 1006 E01
Sea water AATCC 106, EN ISO 105 E02, JIS L0847, BS 1006 E02

Weight 8.5 kg
Dimensions 470 x 270 x 200 mm (L x W x H)

TF416B Perspiration Tester Kit for AATCC standard

Perspiration Tester Kit, is to determine colour fastness test to water, sea water, perspiration fastness in textiles and sublimation during storage.

Included Accessories

- 1set TF416A
- 1 set TU320 Precise Lab Incubator (40 liters volume and temp. range up to 250 °C, Large LCD)

Standards AATCC 15

Power 220 / 110 V 50 / 60 Hz 70 W
Weight 85 kg
Dimensions 490 x 580 x 660 mm (L x W x H)

TF416C Perspiration Tester Kit for ISO standard

Perspiration Tester Kit, is to determine colour fastness test to water, sea water, perspiration fastness in textiles and sublimation during storage.

Included Accessories

- Base plate 2 sets
- Support frame 2 sets
- Conunterweight 1 set
- Acrylic Plates 22 pcs
- Plastic basins 20 pcs
- 2 sets TU320 Precise Lab Incubator (40 liters volume and temp. range up to 250 °C, Large LCD)

Standards ISO 105

Power 220 / 110 V 50 / 60 Hz 70 W
Weight 180 kg
Dimensions 490 x 580 x 660 mm (L x W x H)

TF417 Gas Fume Chamber

Gas Fume Chamber, is to determine the burnt gas fume color fastness of textiles when exposed to atmospheric oxides of nitrogen derived from the combustion of gases.
A specimen of the textile and the test control fabric are exposed simultaneously to oxides of nitrogen from burnt gas fumes until the control shows a change in color corresponding to that of the standard of fading. The change in color of the specimen is assessed with the standard gray scale for assessing change in color.

Includes testing chamber, burning and control chamber, rotating sample rack, standardised gas burner, test duration timer and exhaust port (to be connected to extractor system). Temperature can be set digitally on the touch panel, and controlled automatically by the closed-loop PLC system.

The unique design of gas fume chamber ensures safety of operate and the chamber, automatic ignition at the start or, if the burner distinguished during the test, maybe in the midnight; gas leakage detection device ensures the igniter will not be activated if gas detected, the fan on the top will start to ensure the safe of operation.

Specification

- Control system PLC
- Display touch panel
- Temperature system closed-loop controlled, programmable
- Ignition automatic (start to test or distinguished)
- Gas leakage protection automatic
- 18 samples can be test simultaneously

Standards AATCC 23, ISO105-G02, BS EN ISO 105-G02
Power 220 / 110 V 50 / 60 Hz
Weight 100 kg
Dimensions 780 x 600 x 800 mm (L x W x H)

TF418D Washing Fastness Tester

Application
Washing Fastness Tester, to 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.

Specifications

- Water Bath 1
- Rotation speed 40+/-2rpm
- AATCC canister 1200ml, 6 pcs
- ISO canister 550ml, 6 pcs
- Temp. Max 98 oC, adjustable
- Running time adjustable
- Steel Balls 200 pcs

Standards AATCC 61, ISO105 C06

Power 380V 50Hz 10A
Weight 120kg
Dimensions 800x500x1100mm

TF418E Washing Fastness Tester

Washing Fastness Tester, is to 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.

TF418 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

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

Standards AATCC 61, ISO105 C06

Power 380 V 50 Hz 10 A

Weight 185 kg

Dimensions 1100 x 820 x 1180 mm (L x W x H)

TF420 Light Fastness Tester

Light & Weather Fastness Tester, is to determine color fastness to light, weather and light aging of various colored textiles and other materials by simulating both light and dark cycles and nature weather conditions by specimen holders and rack sprays and long-arc-xenon lamp equipped.

Feature

- Light intensity set digitally, real-time monitoring, closed-loop controlled and automatically adjust to meet the different standards (standard 420nm; 340nm, 300~400nm, 300~800nm is offered on request).
- 10.4-inch large color touch panel, a variety of test monitoring modes (animation, digital, graphic) operate easily and clearly.
- All key components such as temp, and humidity sensors, ultrasonic himidifier are imported from USA, Japan, Germany, etc.
- Blackboard Thermometer (BPT), the Standard Blackboard Thermometer (BST), Irradiance detector and samples placed in the same position, a true reflection of the sample under test conditions, the data displayed as figures, charts, curves on the large color screen, no need to stop for observation.
- Detection and wireless transmission using light energy conversion technologies for energy, not the other home power supply.
- Sample holders can be timed independently to achieve different tests simultaneity in the same machine.
- Rated 2500 W long arc xenon lamp simulate daylight spectrum.
- Industrial temperature control (cooling) system offers quickly and smoothly contro.l
- Set of Sample Holders, set of Blue Wool Fabric (L1~L8), Gray Scale (Changing), Arc xenon Lamp and others.

Specifications

- Working modes to simulate and reinforce the impact of the nature of the measured object, providing light and dark, temperature and humidity, raining and other quantitative indicators.
- Light source 2500 W air-cooled long-arc xenon lamp
- Temperature range 25 ~ 50 ℃, Resolution 0.1 ℃
- Humidity range Bright cycle 10 ~ 70% RH
  Dark cycle 30 ~ 95% RH
  resolution 0.1%
- Test time control ≤ 1000 h
- Irradiance 0.80 ~ 2.01 W/m^2 @ 420nm (340nm, 300~400nm, 300~800nm is offered on request),
  Digital set, automatic closed-loop compensation
- Irradiance accuracy ± 0.02 W/m^2 @ 420nm
- Sample holder
  ISO / GB 135 x 45 mm, 16pcs
  AATCC 130 x 75 mm, 8pcs, samples can be held on both sides
- Rotation speed of sample holder 5 rpm
- BPT Range (40 ~ 80) +/- 2℃
- BST Range (40 ~ 85) +/- 1℃

Standards

ISO105-B02, GB/T8427, ISO105-B04, GB/T8430, GB/T14576, GB/T15102-2006

Power 220 V 50 Hz 6 kW

Weight 350 kg

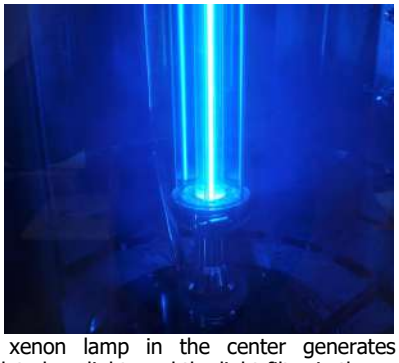
Dimensions 1000 x 550 x 1570 mm (L x W x H)

TF422 Water-cooled Light & Weather Fastness Tester

Water-cooled Light & Weather Fastness Tester (Weatherometer), is to determine the color fastness, aging resistance of textiles, plastics, rubber products or materials by objecting to the simulated conditions of nature weather (daylight, rain, temperature and humidity, etc.). The tester simulates both light and dark cycles and nature weather conditions by rack sprays and water-cooled long-arc-xenon lamp equipped.

Features

- Light intensity set digitally, real-time monitoring, automatically adjust to meet the different standards required for testing the stability of light source (optional 420nm or 300 ~ 400nm band monitoring)
- Blackboard Thermometer (BPT), the Standard Blackboard Thermometer (BST), Irradiance detector and samples placed in the same position, a true reflection of the sample under test conditions, the data displayed as figures, charts, curves on the large color screen, no need to stop for observation.
- Large colorful display, a variety of test monitoring modes (animation, digital, graphics) operate easily and clearly.
- Sample holders can be timed independently to achieve different tests simultaneity in the same machine
- Equipped with Water-cooled rated 4500W long-arc-xenon- lamp, truly simulates the daylight spectrum.
- Professional water circulation system, reduces operating costs.
- Industrial temperature control (cooling) system offers quickly and smoothly control
- Ultrasonic humidifier, professional dehumidification system to ensure accurate and stable humidity conditions.
- Equipped with self-circulation system and air filtration system, significantly reducing the environmental requirements.
- Cooled by circulating water chillers / water cooling two options to choose from.
- Quality assurance of 1000 hours continuous running.
- Front and back sides spray pattern on samples.



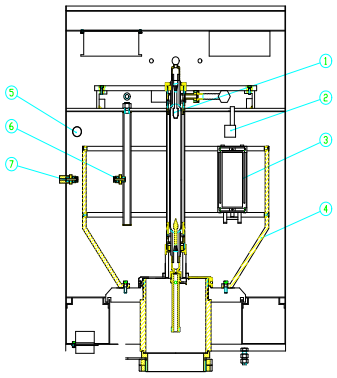
The xenon lamp in the center generates the simulated sunlight, and the light filter in the outside filters the other lights to ensure the required light will affect the test samples only; The heating generated by the light tube is cooled by the ultra pure water, which is flowing through the space between the light tube and the light filter.

Specifications

- Working modes — to simulate and reinforce the impact of the nature of the measured object, providing light, temperature, humidity, rain and other quantitative indicators.
- Light source — 4500W Water-cooled long-arc xenon lamp
- Average lifetime — 1200 h
- Temperature range — Room temp. 20 ~ 93 ℃, accuracy 0.1 ℃
- Humidity range — Light cycle 10 ~ 85% RH; Dark cycle 30 ~ 100% RH
- Test time control — 1000 h
- Irradiance range — (0.6 ~ 1.200) +/- 0.02 W/m2 @ 420nm; Other range can be digitally set and automatic compensation
- Rotation speed of sample holder — 5 rpm adjustable
- Test time range — ≤ 10000 h
- BPT Range — 35 ~ 120℃, 0.5℃
- BST Range — 35 ~ 125℃, 0.5℃

Standards AATCC 16.3, ISO105-B02/B04, GB/T 8427, GB/T 8430, GB/T 14576, GB/T 15102

Power 220 V 50 Hz 10 KW
Weight 400 kg
Dimensions 1200 x 900 x 1800 mm (L x W x H)



① Long arc xenon lamp
② Optical irradiance monitoring sensor
③ BST, BPT, test sample holder, etc.
④ Drum type sample holder
⑤ Temperature and humidity probe
⑥ Spray (rain) front and back
⑦ The sample (back) spray (DEW)

TF421 Light Fastness Tester Tabletop

Tabletop Light Fastness Tester, is a powerful xenon instrument with affordable price for conducting accelerated tests of light fastness and photo stability test.
The TF421 is designed as a tabletop unit with a microprocessor controller for simple operation.

Specification

- Microprocessor control with large LCD displays data and irrandiance wave-length curve.
- Air cooled xenon lamp with 1.5KW measure, irradiance(420nm):1.1w/m2/nm
- Measure and control temperature relative humidity of test chamber, and displayed on large LCD.
- Setting and display the cumulate light energy and exposure time.
- Record the using time of xenon lamp.
- Specimen table with 200 x 280 mm exposure area.

Standards AATCC16

Power 220 V 50 Hz 4 KW
Weight 87 kg
Dimensions 970 x 650 x 740 mm (L x W x H)

TF424 UV Accelerated Weathering Tester

Application
UV Accelerated Weathering Tester, reproduces sunlight, rain and dew to simulates the effect of sunlight with fluorescent ultra violet lamps, simulating rain and dew with condensing humidity. To Accelerating age specimens by exposing them to alternating cycles of light and moisture and controlled elevated temperatures.

Specification

- 8 Imported UV Lamps of UVA-340
- PLC control and Touch screen display
- Temp. Range R. T. + 10 ~ 80 oC
- Related Humidity 75 ~ 95 %R.H.
- Condensation Temp. 40 oC ~ 60 oC
- 40W UV fluorescent lamps
- Lifetime of lamps more than 1200 hours
- Wavelength
  UVA340 295 ~ 365 nm
- Interior is made of SUS304 stainless steel
- Overheat and power overload protection

Standards SAE 2020, ISO4892-3, ASTM G154, ISO 11507, GB/T14522
Power 220V / 50Hz 4A
Weight 150Kg
Dimensions 1480 x 560 x 1450 mm (L x W x H)

Sample Cutting

TF510 Electric Fabric Scissors

Electric Fabric Scissors. Various cutter blades are available and easily replaceable. Electronic Scissors can be used for cutting cloth, card boards, leather, paper boxes, etc.

Power 220 / 110 V 50 / 60 Hz
Weight 2 kg
Dimensions 280 x 220 x 75 mm (L x W x H)

TF511 Rotary Cutters

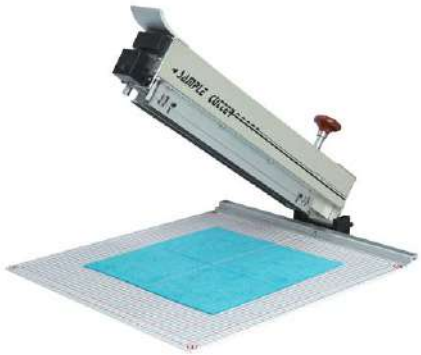
Fabric Rotary Cutter cuts materials with smooth edge by an electric round knife, widely applied to many industries, including clothing, leather, rubber, blankets, carpets, furniture, sofas, umbrella making industry, etc.
It is silent, safe and reliable. The cutter only weights 0.5 kg, has a removable grindstone, and is easy to operate and grind the knife without tools.

Model
- Fabric Rotary Cutter
  High speed motor for cutting soft and thick fabric, paper, etc.

Specifications
- Dimension of blade Dia. 42 mm
- Cutting thickness 10 mm

Power 220 / 110 V 50 / 60 Hz 30 W
Weight 1 kg
Dimensions 280 x 220 x 50 mm (L x W x H)

TF512 Swatch Cutter



Swatch Cutter cuts fabric sample (pattern, swatch) of 450 mm cutting length and 100 cutting depth with safe, quick and accurate operating.

Features

- The lightest swatch cutter in the world (6 kg only).
- Bearing drive circular blade.
- Installation in 3 minutes on any table top.
- Laser alignment cutting.
- Right angle rail for parallel swatch cutting.
- Scale cutting mat for speedy measurement.

Specifications
- Cutting blade 1year life / Dia. 80 mm circular blade (pitch 5 mm)
- Cutting length 450 mm
- Scale cutting mat 500*500 mm (double side usable)

Included Accessories
- Cutting blade 1pcs / 1 year life
- Scale cutting mat 1pcs / 6 months life

Weight Cutter 26 kg / Mat 3kg
Dimensions Cutter 970 x 640 x 210 mm
Mat 600 x 600 x 40 mm (L x W x H)

TF513A/C/D Circular Sample Cutter

TF513A

TF513C

TF513D

Application

Fabric Circular Sample Cutter / GSM Cutter. The circular sample cutter cuts fabric sample in various dimension, such as 100 cm^2 for GSM, Dia. 140 mm for Martindale test, etc. Cut accurate fabric circular samples with smooth edges by drawing action even difficult materials such as fabric, thin films, tissue paper, and corrugated cardboard and synthetic leather can be cut by the sample cutter conveniently.
The cutting pad is made of porous rubber, which allows the sample cutter to cut into the base with complete safety.

Models

- TF513A Circular Sample Cutter -- Dia. 113 mm / 100 cm^2 /--For European Fabric Yield System
- TF513C Circular Sample Cutter -- Dia. 38 mm / 12 cm^2 -- For Martindale Abrasion and Pilling Tester
- TF513D Circular Sample Cutter Dia. 140 mm / 154 cm^2 --For Martindale Abrasion and Pilling tester

Weight A: 3 kg, C: 1 kg
Dimensions A: 175 x 170 x 130 mm (L x W x H)
C: 115 x 110 x 150 mm (L x W x H)

TF515 Pneumatic Sample Press

Pneumatic Sample Press, a new type of desktop sample press, is to cut samples for testing or other uses. Equipped with 125 mm cylinder, cutting depth of 10 mm and 125 x 125 mm tables. Under the pressure of 100 psi can produce 800kg/f pressure, equipped with a double bond security operation. Can be requested to provide special shape die. Laboratory standards compression air is required.

The cutting dies in most sizes and shapes can be offered on request with drawings.

Standards ISO3801, ASTM D3776/2646, BS EN 12127
Air Source 0.5-0.6 Mpa
Weight 82 kg
Dimensions 590 x 490 x 830 mm (L x W x H)

TF516 Hand Pressing Sample Cutter

Application

Hand Pressing Sample Cutter is used to cut the sample such as textiles, carpets, leather, aluminum foil membrane, plastic, styrofoam, paper and advanced carbon fiber composite materials.

The instrument is simpler and smaller, it can quickly and accurately cut the standard area about 100 square centimeters.

Specifications

- Cutting area: 100 cm^2
- Sample Thickness: 1-10 mm

Weight 10 kg
Dimensions 360 x 260 x 600 mm

Dyeing & Finishing & Coating & Printing

TD110 Lab Wringer (Padder)

Lab Wringer (Padder), is to evenly squeeze or extract excess liquid from fabric specimens for next procedure of test. This Lab padder / wriner is used for many kinds of textile test to precisely ensure the rest liquid of specimens.

Specifications

- Working width 300 mm
- Rollers Dia. 54 mm, made of neoprene
- Working speed 25 mm/s（9rpm)
- Dead weight loading up to 4.76 kg
- Equipped with liquor tank

Included Accessories

Loading Weights 0.5Lb x1Pc, 1Lb x2Pcs, 2Lb x4Pcs

Power 220 V 50 / 60 Hz 4 A
Weight 56 kg
Dimensions 800 x 340 x 500 mm (L x W x H)

TD122 Lab Padder

Lab Padder, padding mangle is used for dyeing, finishing and impregnating.

The roller of Lab padder is made of quality NBR; good flexibility ensures long-life; whole machine is made of high- quality stainless steel.

Specifications

- Working Width: 420 mm
- The Dia. of Roller: Φ130 mm
- Shore hardness: 70° ±5°
- Working Speed: 0-18rpm (Adjustable)
- Pressure of air: 0.1~0.6MPa

Power / Air 220 V 50 Hz
Weight 224 kg
Dimensions 1150 x 790 x 1500 mm (L x W x H)

TD130 Infrared Lab Dyeing Machine

Infrared Lab Dyeing Machine is suitable for all fibers and substrates' dyeing. The infrared dyeing system produces accurate laboratory sample dyeings with level and reproducible results and accommodates up to 24 positions with a low liquor ratio for synthetic and natural fibers. This infrared dyeing system moves the beakers in a circular rotation with advanced infrared heating technology eliminating glycol contamination and cumbersome beaker cleaning.

For the accurate dyeing, after the temp. reaches 80 degree, it is required to add assistant into the beaker in a long period, and most IR dyers is adding liquid by using injector, but it is too fast. While TD130 is different, by adding liquid into the auxiliary beaker on top of the cap, and the liquid is kept adding to the main beaker very slowly through the tiny hole of cap. This device is to simulate the actual dying process that the pump adding assistant slowly, and this Chemical Adding kits is offered on request.

(Pictures for reference only, will update)

Features

- Three ~ dimensional turning, clockwise and anti-clockwise running makes even dyeing results.
- Beakers are made of quality SUS304 stainless steel, heating fast and level, specially pressure-tested beakers offer maximum safety for atmospheric and high-temperature dyeing.
- Infrared heating continuously (non-off-type) by quality infrared heaters which 360-degree ring-shape, direct heating on steel beakers, to let dyeing equably and saving 50% electricity.

Power 220 / 110 V 50 / 60 Hz 4 kW
Weight 155 kg
Dimensions 920 x 840 x 1070 mm (L x W x H)

Specifications

- Temperature range RT ~ 140°C
- Beakers 24 pots / 300 ml (or other No. of quantity and volume)
- Heating or cooling speed 0.5 ~ 2.5°C /min
- Temp. Control accuracy 1°C
- Rotation speed 0 ~ 50rpm (adjustable)
- Liquor Ratio 1: 5 ~ 1: 10

Options

Chemical adding kits, specially designed chemadd lid (dyepot cap) and chemadd pot (for chemical powder or solution additions) to add chemical without opening dyepot ensures temperature stability during the dyeing.

TD300 Lab Magnetic Printer

Lab Magnetic Printer is a magnetic printing machine with printing area of 450 x 300 mm, which is for technology experiment in various natural and synthetic fabrics in lab.
A thin roller is driven by a magnetic block rolling on the silk-screen, printing pressure is displayed digitally and adjustable.
Switzerland Habasit printing belt, Japan Panasonic Frequency conversion, Germany linear slide bearing, China Taiwan Chen-bang Gear-motor, PLC controlled.

Specifications

- Printing area 450 x 300 mm
- Screen frame size 720 x 480 mm
- Magnetic stick Dia. 8, 12, 16, 20, 25mm, 350mm in length (Each machine is equipped with 1 Dia. 20 mm magnetic stick)
- Drive mode Motor - gear box – toothed belt - magnetic block
- Operation mode Running towards the left / right then automatic stop; to and fro.
- Speed control Frequency conversion adjusts speed, digital display, 0 ~ 8 MPM
- Magnetic Control Adjustable magnetic force, 10 steps, digital display

Power 220 / 110 V 50 / 60 Hz
Weight 100 kg

Dimensions 900 x 640 x 380 mm (L x W x H)

TD600A Lab Mini-Dryer – Table type

(Pictures for reference only, will update)

Lab Mini-dryer, table model, is an excellent laboratory dryer for all drying, setting, baking and thermosoling processes.
This dryer is used for the next procedure of TD400. Floor type dryer (looking is the same as TD610) is offered.

Specifications

- Good heat insulation obtained by high grade material, construction with well dimensioned insulation thickness
- Specially designed pin frame to hold all types of sample fabric in length and/or width
- Sample size up to max.
  36 x 42 cm
- Automatic pin frame transport with pre-selectable dwell times
- Heating temperature up to 250°C
- Audible alarm for end of test
- Even temperature distribution by the air circulation fan
- Suitable for the discontinuous operation in conjunction with TD122 Lab Padder

Power
380 V 50 / 60 Hz 6 kW
Weight
210 kg
Dimensions
1470 x 790 x 1010 mm (L x W x H)

TD610 Lab High Temp. Steamer

Lab High Temperature Steamer, is the same looking as the table type dryer, but equipped with steam generator, thus this steamer can be widely used for drying, curing and steaming, for the use of a wide range of the dyestuff and chemical industry, finishing plants, research institutes and general textile industry.

Specifications

- Temperature range for:
  Electric heating for drying, curing 20 ℃ ~ 220℃
  Steaming with saturated steam 103 ℃
- High Temperature Steaming at 130 ~ 180 ℃
- working time is presetable for 1 ~ 999 s, automatically moving in & out, and alarms
- Special design of retractable pin frame, the tension of test fabric samples can be adjusted in both warp and weft direction, the maximum stretch rate are up to 30%
- Max sample size 360 x 420
- Suitable for the discontinuous operation in conjunction with TD122 Lab Padder

Power 380 V 50 Hz 7 kW
Weight 220 kg
Dimensions 1650 x 780 x 1340 mm (L x W x H)

TD620 Laboratory Tenter

Laboratory Tenter, a flexible continuous pin chain type hot air dryer, is widely used for all where a certain sample length is required in a continuous process. This mini-tenter is designed to simulate the Features of production scale tenter.

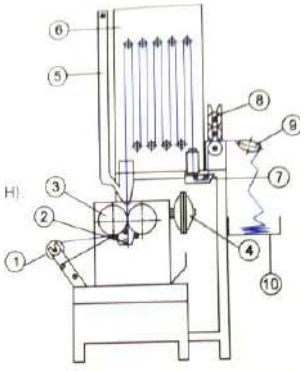
- Batch working with pin frame (length and width are adjustable) 170 ~ 400 mm
- Continuous working with endless pin chain
- The electric heating power is 19kw, temperature 20 ~ 220 ℃
- Moving speed 0.5 m/min～1.7 m/min
- 3 sets of air circulating fan ensure high drying and thermosoling performance
- Equipped with cloth pressing wheel in the feeding side, and pin-up device to lead fabric to reserve box at the end

Power 380 V 50 Hz 19 kW
Weight 600 kg
Dimensions 2620 x 990 x 1580 mm (L x W x H)

TD630 Lab Pad Steam Range

Lab Pad Steam Range, a combination of padding mangle and steamer, is used to carry out all pad steam processes with saturated steam, offering the shortest time 4 seconds between padder and steaming chamber, to avoid the disturbances and perform very good stability & repeatability on sulphur & vat dyestuff.

Pad steam range consists of padding mangle with two padding rollers, and a steaming chamber with fabric holding capacity of 6m, temperature range 98 ~ 100 ℃ for a dwell time 20 ~ 120 seconds.
The steam generator is offered on request.



1. Test sample
2. Chemical trough
3. Padding mangle
4. Cylinder
5. Steam outlet
6. Steam chamber
7. Water-sealing bath
8. Winding device
9. Plaiter
10. Fabric receiver

Specifications
Horizontal padder

- Roller size Dia. 125 mm x 300 mm
- Made of NBR rubber with 70° +/- 3 shore hardness
- Pressure 0.1 ~ 0.5mPa, 2 pressure gauges
- Chemical trough capacity 500 ml

Steamer

- Steam Max 0.5mPa
- Steaming Max 6 m, speed control 20 ~ 120 s adjustable inside the steaming chamber
- All guide rollers inside the chamber is Teflon-coated
- Water sealing bath at the outlet for automatic cooling control
- Both steam inlet pipe and water inlet pipe size 1/2 inch are supplied by users

Power 380 V
Weight 350 kg
Dimensions 1700 x 1000 x 1980 mm (L x W x H)

TT811 Sharp Edge Tester

Sharp Edge Tester, a device to conduct the products sharp edges test, can determine whether accessible edges on toys or other products are likely to cause injury. A pressure-sensitive self-adhesive PTFE tape(to simulate human skin) is attached to a mandrel, which is then rotated for a single 360-degree revolution along the accessible edge being tested. If the tape is cut in half or longer in length (approx. 13 mm), the edge is identified as a hazardous sharp edge, on the other hand, the edge passes the test.

Included Accessories

- Power adapter
- Foot-switch

Optional Accessories:

- Teflon Tape

Standards ASTM F963 4.7, EN 71-1 8.11, 16 CFR 1500.49, ISO 8124-1 5.8, GB 6675 5.8
Power/Air Source 220 V 50 Hz
Weight 10 Kg 22 lb
Dimensions 300 x 200 x 200 mm (L x W x H)

TT812 Sharp Point Tester

Sharp Point Tester. Points are considered as potentially hazardous sharp points if they are sharp, If the points fail the test, they shall be assessed to determine whether they present an unreasonable risk of injury taking into account the foreseeable use of the toy.

Standards	16 CFR 1500.48, ASTM F 963 4.9, EN-71-1 8.12, ISO 8124-1 5.9, GB 6675 A.5.9
Air Source	1.5 A
Weight	1.5 Kg 3 lb
Dimensions	150 x 100 x 600 mm (L x W x H)

TT824 Toy Kinetic Energy Tester

Application

Toy Kinetic Energy Tester, To determine the kinetic energy of toy that potentially hazardous projections in toy to the skin that might be caused a child fall on a rigid projection, such as unprotected ends of axles, actuating levers, and decorative features.

Used for testing the kinetic energy of projectile toys, such as testing the speed of bullet discharged from toy guns or catapults. Kinetic energy value is calculated and displayed after discharging of toy through the internal or external testing channel.

Specifications

- Display: 7 digits (0.000001 sec)
- Display range: 0.000001 to 9.999999 sec
- Projectile size:
- Larger then 1 mm diameter
- Smaller then 40 mm diameter (for internal sensor)
- Sensors distance:
- Fixed 100mm (internal sensor)
- Adjustable 40mm – 400mm (external sensor)

Weight	12 Kg 27 lb
Power/Air Source	220 V 50/60 Hz 3A
Dimensions	490 x 450 x 300 mm
Standards	ASTM F963 8.15, ISO 8124-1 5.15, GB 6675 A. 5.15

TF117A De Mattia Flexing Tester

De Mattia Flex-cracking Tester, to determine the resistance of rubbers, leather and coated
fabrics to the formation and growth of cracks, damages by repeated flexing. Clamp the specimen in grip and flex it constantly, then observe the cracking degree to realize or compare
its flex-endurance after flexibility fatigued.

Specification
- Specimens 6 groups
- Grips Distance in open position 70 mm
- Grips Distance in close position 13 mm
- Stroke length 57 mm
- Test frequency 300 cpm
- Counter 1 ~ 9999

Standards ISO 7854, BS 3424-9, GB/T 12586, ISO 132, JIS-K6260, ASTM D813, ASTM D430, BS-903, GB/T 12586, GB/T 13934, GB/T 13935, DIN EN ISO 20471

Power 220 /110 V 50/60 Hz

Weight 88 Kg
Dimensions 550 x 450 x 700mm (L x W x H)

TT200 Toy Flammability Tester

Application
Toy Flammability Tester, to determine flammability resistance of finery or toy and children clothing, the toy flammability tester mainly for evaluating the burning speed and time of the following kinds of toys or children stuff.

Specifications
- Time display and accuracy 0-999.9s,0.1s
- Burner size according to ISO 6941
- Burner can be positioned to vertical or 45 degree.
- Equipped with U-shape holder and hanging holder
- PLC controlled

Weight 90 Kg
Dimensions 800 x 600 x 650 mm

TF117B Schildknecht Flexing Tester

Schildknecht Flexing Tester is designed to determine the resistance of coated fabrics to damage by flexing due to oscillation at 500 times per minute. Accommodates 10 specimens, provided with a resettable electronic counter to record number of cycles.

Specification
- Counter 1-999999 times

Standards Medical Masks and Protective Clothing: EN14325, EN ISO 7854 B Method, ISO 7854 Method B, BS 3424-9 Method B
Power 220 V 50 Hz
Weight 25 Kg
Dimensions 360 x 490 x 280 mm (L x W x H)

TT820 Toy Small Part Tester

Toy Small Part Tester, to define whether an object of toy is small part, intended to minimize the hazards from choking, ingestion, or inhalation to children under 36 months of age created by small objects.

Standards	16 CFR 1501, ASTM F 963 4.6, EN-71-1 8.2, ISO 8124-1 5.2, GB 6675 A.5.2
Power/Air Source	1.5 A
Weight	1.5 Kg 3 lb
Dimensions	120 x 80 x 50 mm (L x W x H)

TN141 Medical Mask Differential Pressure Tester

Medical mask differential pressure tester, or medical face mask breathability tester is used for the breathability of medical face masks (material).

Medical mask differential pressure tester can test the differential pressure required to draw air through a measured surface area at a constant air flow rate is used to measure the air exchange pressure of the medical face mask material.

Specifications

- Flow meter: 0-10 L/min
- Sensor measuring range: 0-0.5 kPa
- A metallic ring of internal diameter of 25 mm
- Pressure pump: 25 L/min, 85 kPa
- Display screen: 4.3 inch
- External air support: 0.4-0.6 kPa

Standards

EN 14683-2019+AC-2019, ASTM F2100-2019, YY/T0469-2011, YY/T0969-2013

Net weight	15.2 Kg
Voltage	100-240 V 50 HZ-60 Hz
Power	100 W
Net size	315mm x 415mm x 305mm (L x W x H)

TN138 Respiratory Resistance Tester

Respiratory resistance tester, to measure both the inspiratory and expiratory resistance of respirator and mask type protective equipment under the specified conditions, respiratory resistance tester or breathing resistance tester a professional testing instrument used by the national labor protective equipment inspection agency or mask manufacturers to check the fitness of mask, which will be one of the many mask testing items of mask, specified by national standards.

Specifications

- Item Tester Technical Parameters
- Flowmeter range 0 L/min～100L/min
- Flowmeter range accuracy ±2%
- Micro-pressure measuring range -1000Pa～1000Pa
- Micromanomet er accuracy 1Pa
- Pumping capacity of suction Not less than 100L / min
- Ventilation Constant (85 ± 1) L / min

Standards GB2626-2006、GB/T32610-2016