FAV Group of Companies

Yarn Testing











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FY111L



FY111

FY111 Series Yarn Crimp Tester

Application

To determine the straightened length and percentage crimp of a yarn removed from woven fabrics under specified tension conditions.

Standards

ISO 7211-3 | ASTM D3883 | GB/T 29256.3

Key Specification

Model No.	FY111L	FY111
Drive Mode	Manual	Electric
Scale Length	1,000mm	1,000mm
Length Accuracy	1mm	1mm
Tension Range	0~35cN, 0~175cN	0~200cN
Test Speed	/	2~100mm/min, settable

FY112L Course Length Tester



Application

To accurately determine the entire length of a complete course of knitted fabrics by mounting the yarn over the pulleys of the apparatus and adding weights to remove the crimp.

Standards

BS 5441

Key Specification

Course Length Range	500~9,000mm
Perimeter of Pulley	100mm
Spring Clamp Weight	10g
Weights	20g, 10g, 5g, 2g, 1g

ZK200C Electronic Yarn Count System



Application

It consists of the professional software and a precise electronic balance. It is used to determine the yarn's linear density in Tex, Denier, Nm and Ne and to determine the fabric yield in GSM and Oz/yd^2.

Standards

ISO 2060	ISO 3801	ASTM D1907
GB/T 4669	GB/T 4743	ASTM D3776

Key Specification

Test Items &Units	Mass: g, Oz, lb Linear density: Tex, D, Nm, Ne Fabric yield: GSM, Oz/yd2
Weighing Range	200g
Readability	0.001g

YG086D/E Electric Wrap Reel



Application

To produce up to 6 skeins of yarn of a pre-determined length, which is used to determine the linear density or breaking strength by the skein method.

Standards

ISO 2060	ISO 6939	ASTM D1907

Key Specification

Model No.	YG086D	YG086E
Reel Circumference	1,000 mm	54 inches
Working Station No.	6	



YG086RS Raw Silk Size Reel Tester

Application

Winding a certain length of raw silk, spun silk, synthetic fibers and long filaments for the purpose of measuring fineness.

Key Specification

Speed	290±10 r/min
Spindle speed	100~800m/min, adjustable
Skein number	14
Motor	0.18kW, 1400r/min



Y321



Y331A-II

Y321 Hand Reeling Twist Tester

Y331A-II Digital Reeling Twist Tester

Application

To determine the yarn twist of single or plied yarn by direct count or untwist-retwist methods.

Standards

ISO 2061 | ASTM D1422 | ASTM D1423 | GB/T 2543.1/2 | GB/T 14345

Key Specification

Model No.	Y321	Y331A-II
Drive Mode	Manual	Electric
Test Method	Direct count	Direct count, untwist-retwist
Test Length	0~300mm, adjustable	0~500mm, settable
Rotating Speed	/	200~1500rpm, settable
Measuring Range	1~500 twist	1~9999.9 twist

YG021J Electronic Single Yarn Strength Tester



Application

To determine the breaking strength and elongation at break of single yarn.

Standards

ISO 2062 | ASTM D2256 | GB/T 3916

Key Specification

Load Cell	3,000cN
Load Accuracy	≤±1%
Gauge Length	500mm
Test Speed	20~1,500mm/min
Number of Tests per Group	2~200, settable

YG021D Electronic Single Yarn Strength Tester



Application

To determine the breaking force and elongation at break of single yarn.

Standards

ISO 2062 | ASTM D2256

Key Specification

Load Cell	5,000cN, 12,000cN, 50,000cN
Accuracy	±0.5%
Max. Stroke	750mm
Test Speed	100~1,000mm/min, settable



YG021PT Electronic Single Yarn Strength Tester

Application

To determine the breaking strength and elongation at break of single yarn.

Standards

ISO 2062	ASTM D2256	GB/T 3916

Key Specification

Model No.	YG021PT-L	YG021PT-H
Load Cell	0~10,000cN	0~3000cN
Max. Stroke	650mm	650mm
Speed	20~1,000mm/min	15~5000mm/min



YG026T Electronic Lea Strength Tester

Application

To determine the tensile strength and elongation of lea yarn.

Standards

ISO 2062	ISO 6939	ISO 9037
ISO 13934/5-1/2	ASTM D5034	ASTM D2261

Key Specification

Load Cell	Max. 5,000N
Max. Stroke	1,100mm
Speed	2~1,200mm/min, settable

YG029B Automatic Single Yarn

Strength Tester



Application

To determine the breaking strength and elongation at break of single yarn. It is automatically operated with pneumatic clamp.

Standards

ISO 2062 | ASTM D2256 | GB/T 3916

Key Specification

Load Cell	4,000cN
Load Accuracy	≤±1% of the indicated value
Gauge Length	100~500mm
Max. Stroke	750mm
Test Speed	20~1,000mm/min
Test Capacity	≤300times (3plate/60bobbin)
Clamp Method	Pneumatic

YG023B-III Full-Automatic Filament

Strength Tester



Application

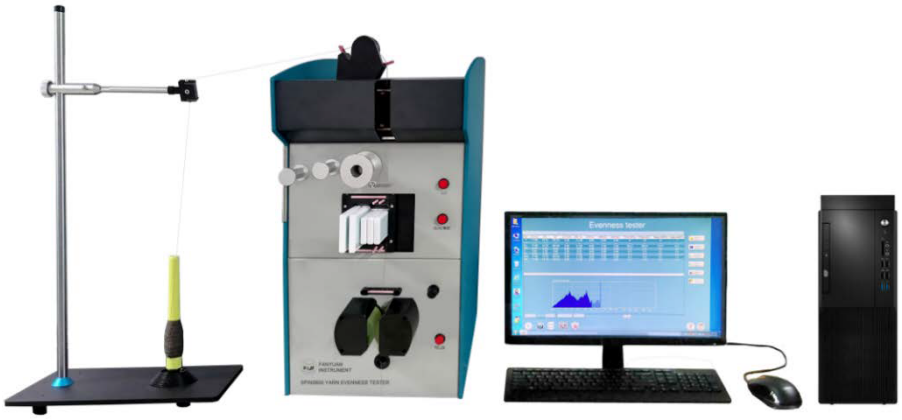
Using computer control, it is used to determine the breaking force, breaking elongation, breaking tenacity, breaking time and force-elongation curve of filament yarn.

Standards

GB/T 14344

Key Specification

Load Cell	5,000cN
Load Accuracy	≤±1%
Gauge Length	100~500mm, adjustable
Max. Stroke	800mm
Test Speed	100~10,000mm/min, adjustable
Bobbin Number	Max. 20
Clamp Method	Pneumatic



SPIN5600 Yarn Evenness Tester

Application

It adopts capacitance detection to test the evenness of sliver, roving or spun yarn.

Key Specification

Capacitance Testing Slot No.	4
Linear Density Range	4tex~12ktex
Test Speed	4, 8, 25, 50, 100, 200, 400, 800m/min
Test Time	10sec~20min, settable
Imperfects	Thin: -30%, -40%, -50%, - 60% Thick: +35%, +50%, +70%, +100% Neps: +140%, +200%, +280%, +400%
Deviation Rate (DR%) Value	DR (1m, +5%), DR (1m, -5%), DR (20cm, +35%), DR (20cm, -30%)



SPIN5900(Semi-Automatic)



SPIN5900A (Automatic)

SPIN5900 Series Filament Evenness Tester

Application

It adopts capacitive detection to test the evenness of various filaments, can quickly measure and analyze linear density (mass) variations, realize high efficiency and accuracy as well as excellent stability and consistency.

Key Specification

Model No.	SPIN5900	SPIN5900A
Test Mode	Semi-automatic	Automatic
Capacitance Testing Slot No.	4	
Linear Density Range	10dtex ~ 1670dtex	
Test Speed	25, 50, 100, 200, 400, 800m/min	
Twisting Speed	4,000rpm~30,000rpm, adjustable	
Test Time	10sec~20min, settable	
CV%, U% Range	0.2% ~ 100%	
CV-L Curve	Cutting length 1.7cm ~ 1000m	
Deviation Rate (DR%) Value	DR (1m, +5%), DR (1m, -5%), DR (20cm, +35%), DR (20cm, -30%)	
Spectrogram Wavelength	1.7cm ~ 2000m	



YG074 Yarn Classification System

Application

You can check cleared and un-cleared yarn, providing classification of thick and thin places, as well as checking infrequently occurring yarn defects and foreign fibers in the yarn. You can determine the optimal limits for yarn clearing, analyze new material and competitors products – and improve the quality and value of your yarns.

Key Specification

Principle	Capacitance detecting
Yarn count	4~112tex (MD15), 8~200tex (MD20)
Winding Speed	300~1800m/min
Measuring Heads	6~12



SPIN2000 Yarn Hairiness Tester

Application

To determine the properties of hairiness distribution of yarn.

Key Specification

Linear Density Range	4tex~80tex
Test Speed	30m/min±1%
Segment Length	1 ~ 100m, settable
Hairiness Length	1~8mm
Successive Test Times	1 ~ 100bobbins, 1 ~ 100times, settable



YG381A Yarn Examining Machine

Application

To wind yarn specimens on a trapezoidal black board with pre-determined wound density and pre-tension. Then compare the yarn specimens with photographs of specimens representing the appearance grades.

Standards

ASTM D2255 | GB/T 9996

Key Specification

Trapezoidal Board Size	575*250*160mm (L*W*W)
Rotating Speed	30~320rpm, stepless adjustable
Density of Wound Yarn	ASTM: 8, 9, 10, 13, 15, 19 wraps per cm
	GB: 7, 9, 11, 13, 15, 19 wraps per cm



YG381RS Raw Silk Seriplane Tester

Application

One of the main auxiliary machines for raw silk inspection. It is a specialized equipment that winds and arranges a certain length of raw silk on a blackboard according to regulations for evenness, cleanness, neatness sampling and inspection.

Key Specification

Spindle speed	100±10 r/min
Blackboard perimeter	1000mm
Spindle numbers	10
Spindle gauge	135mm
Travel of silk transfer hook	127±1mm
Blackboard size	1359±5mm*463±1mm*37±1mm
Drive screw lead	2.54mm

YG367 Full-Automatic Filament Draw Force Tester



Application

To determine the stress of POY filament after heating and drawing.

Key Specification

Load Range	0~500cN
Load Accuracy	≤±0.5%
Elongation Accuracy	0.01mm
Draw Speed	10~400m/min, adjustable
Pretension Range	0.5~50.0cN
Draft Ratio	1.6, 1.65, 1.75, optional

YG368 Full-Automatic Filament Crimp Contraction Tester



Application

To determine the crimp contraction property of textured filament yarns, the yarn shrinkage of textured filament yarns and other yarns. Should be used in conjunction with Thermostat Oven and Boiler.

Standards

EN 14621	ISO 18066/7	GB/T 6505
GB/T 6506	BISFA 2007	

Key Specification

Working Position	30 pcs
Sample Length	1,000mm
Length Resolution	0.01mm
Load Range	2.5~5,000cN, settable
Load Accuracy	0.5cN
Linear Density	CC test: ≤400dtex (360D)
	BWS test: ≤3,000dtex (2,700D)
	HAS test: ≤3,000dtex (2,700D)



DW0332 Dry Heat Shrinkage Tester

Application

To determine the thermal shrinkage performance of tire cord, polyester, cotton thread and other materials under a certain temperature.

Standards

ASTM D4974 | ASTM D5591

Key Specification

Measuring Length	250±1mm
Shrinkage Accuracy	0.1%
Shrinkage Force Range	0~25N
Shrinkage Force Accuracy	0.1N
Heating Range	RT~250℃
Temperature Accuracy	±0.1℃



DW7060RSQD Raw Silk Winding Tester

Application

To check the number of silk thread breakage occurs under certain conditions.

Key Specification

Type	Bilateral double-deck, horizontal coreless spindle, parallel winding
Spindle number	104
Spindle gauge	170mm
Silk guide traverse	60-70mm, settable
Differential traverse	±1.5mm
Winding speed	110-165 m/min

DW0170 Raw Silk Cohesion Tester



Application

To test he cohesion of raw silk mainly, and can be used for rubbing fastness testing of chemical fibers, yarns, and other materials.

Key Specification

Speed	1500r/min
Reciprocating stroke	90mm
Reciprocating frequency	80-125 times per minute
Weight	35kg

DW7060DS Raw Silk Rewinding Machine



Application

To wind the silk on the seriplane onto two big swifts of the machine, and make them into a certain specification and weight of silk pieces with a circumference of 1500mm and a width of 65-80mm.

Key Specification

Type	Single side
Silk end gauge	105mm, 10 ends
Seriplane speed	123r/min
Big swift speed	85r/min
Transmission mode	Chain wheel
Winding ratio	16:35
Silk slice width	65-80mm
Big swift circumference	1500mm



Y108D-1



Y108D-20

Y108D Series Electronic Yarn Sample Winder

Application

To produce yarn sample cards.

Key Specification

Model No.	Y108D-1	Y108D-20
Working Station No.	1	20
Winding Speed	100~900r/min, settable	
Winding Width	5~50mm, settable	
Winding Layer	1~99layer, settable	
Winding Density	0.01~0.99mm per step	



DTM Series Yarn Tension Meter

Application

To determine the tension of yarn, fine wire and plastic thread.

Key Specification

Model No.	DTM100	DTM200	DTM300	DTM500	DTM1000	DTM2000
Tension Range	0~100cN	0~200cN	0~300cN	0~500cN	0~1000cN	0~2000cN
Accuracy	±1% full scale and ±1 digit					

DW0270 Yarn Abrasion Tester

Application

To determine the abrasion performance of textile materials such as single yarn, plied yarn, etc.



Standards

FZ/T01058-1999

Key Specification

Number of Specimens	20
Test Speed	60 times/min
Weight	5g, 10g, 20g
Test Data	AV, Max., Min., CV%



DW0276 Yarn Friction Coefficient Tester

Application

To determine the kinetic friction coefficient of a moving yarn in contact with a solid material.

Standards

ASTM D3108

Key Specification

Force Measuring Range	0~500cN
Force Accuracy	±1%
Coefficient of Friction (μ) Range	0<μ<1
Friction Angle Range	0~360°, adjustable
Pretension Range	0~24cN
Test Speed	100m/min



HP Series Yarn Package Hardness Tester (Durometer)

Application

To determine the winding density of the winding density (hardness) of textile bobbins.

Key Specification

Model No.	HP-2.5	HP-5	HP-10	HP-2.5-F	HP-5-F	HP-10-F
Indentor	φ2.5mm	φ5mm	φ10mm	φ2.5mm	φ5mm	φ10mm
Area application	For closely wound bobbins of synthetic, finished fibers and filaments	For loosely wound bobbins of synthetic fibers and closely wound natural fiber and threads	For very loosely wound bobbins of thick yarns, such as carpet yarns	With flat working face for measuring warp beams		
				Same asHP-2.5, but for bobbin diameters over 400mm	Same asHP-5, but for bobbin diameters over 400mm	Same asHP-10, but for bobbin diameters over 400mm