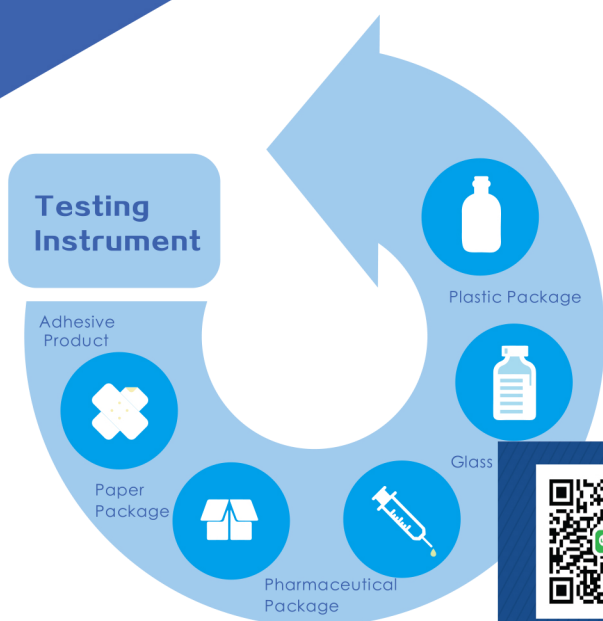




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CL TECH AND SUPPLY CO.,LTD

SUMSPRING®
三泉中石

**Packaging Material
Quality Control Overall
Solution Leading Brand**



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27/92 ซอยอารุณอุปถัมภ์ ถนนประชาสารภย์ 1 แขวงบางซื่อ เขตบางซื่อ กทม. 10800
27/92 Soi Arthornuppathum, Pracharad1 Rd., Bangsue, Bangkok 10800

Plastic Package Test Instrument

■ Auto Tensile Tester

Used for test of tensile strength, peel strength, deformation rate, tear strength, heat seal strength, puncture force, opening force, unwind force for Plastic film, composite material, soft packing material, plastic hose, adhesive, adhesive tape, sticker, medical patch, release paper, protective film, combination cover, metal foil, diaphragm, backplane material, cloth, rubber, paper fiber and so on.

	DLS-07	XLW (PC) -500N
Accuracy	1FS	0.5FS
Test speed	1-500mm/min Stepless speed	1-500mm/min Stepless speed
Displacement accuracy	±2%	±0.5%
Test width	50 mm (Other can be customized)	30 mm (Other can be customized)
Stroke	650mm	1000mm



■ Heat Seal Tester

Used for determine sealing temperature, time, pressure for film, aluminum foil, could test heat seal strength with tensile tester.

	RFY-03
Temperature	Room temperature -300℃
Accuracy	±0.2 ℃
Time	0.01s-999.99s
Delay time	0.01s-999.99s
Pressure	0.05Mpa-0.7Mpa



■ Thermal Shrinkage Tester

Suitable for detecting the thermal shrinkage properties of the material with heat-shrinkable property, such as film coated paper.

	RSY-03
Sample size	≤140mmX140mm
Temperature range	room temperature-200℃
Accuracy	±0.3℃
Heating medium	oil bath
Size	360*440*320mm



■ Coefficient of Friction Tester

Suitable for the static and dynamic friction coefficient of plastic film and sheet, also can be used for the determination of smoothness of cosmetic products such as cosmetics and eye drops.

	MXS-05A
Load range	0-30N (other Can be customized)
Accuracy	0.5FS
Stroke	70mm (150mm can be customized)
Speed	1-500mm/min (Speed adjustable)
Slider quality	200g/500g (other Can be customized)



■ Coefficient of Friction/Peel Tester

Suitable for measuring the static and dynamic friction coefficient of various materials, also can be used for the determination of peel strength of the adhesive composite products, medical patch, release paper, protective film etc.

	FPT-03
Load range	0-5N (Standard) / 0-10N, 0-30N (Optional)
Accuracy	0.5FS
Stroke	0-260mm (other can be customized)
Speed	1-500mm/min (other can be customized)
Slider quality	200g/500g (other can be customized)



■ Drop Dart Impact Tester

Use for determination of the impact quality and energy when the plastic film and sheet are damaged by the free fall dart.

	BWC-AB
Test method	A Method / B Method
Test range	A 50 - 2000g / B 300 - 2000g
Test accuracy	0.1g (0.1J)
Sample clamping	pneumatic
Sample size	> 150mm x 150mm



■ Mircometer

Applicable to accurate measure the thickness of a variety of hard and soft material in 2mm.

	QY-U
Test range	0-2mm (other can be customized)
Resolution	0.01μm
Test speed	10t/min
Contact area	50mm² (film) / 200mm² (paper) choose one from them



■ Intelligent Pendulum Impact Tester

Used for determining the impact toughness of plastic film, composite film and other materials such as metal foil.

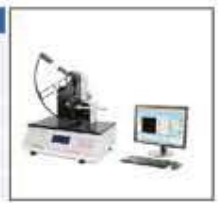
	ZJM-06
Impact energy	1J, 2J, 3J (common)
Resolution	0.001J
Sample gripping diameter	Φ89mm, Φ60mm
Sample size	100 mm x 100 mm or Φ100mm
Impact head size	Φ25.4mm Φ19mm Φ12.7mm



■ Elmendorf Tear Tester

Suitable for the detection of tear resistance such as film, sheet, PVDC, waterproofing membrane, polyolefin, polyester, paper, textile etc.

	SLD-1000Z
Impact energy	200gf, 400gf, 800gf, 1600gf, 3200gf, 6400gf (choose one of them)
Resolution	1mN
Sample gripping	pneumatic
Pendulum release	pneumatic



■ Leak Tester

Use for seal test of flexible packaging, bottles and other materials in food, medicine, cosmetics and other industry.

	MFY-05	MFY-05S
Result output	/	LCD display and micro-printer
Vacuum degree	0~90KPa	
Accuracy	1FS	
Air pressure	0.5MPa~0.7MPa	
compress time	0-60min	
Vacuum chamber size	Φ270mm*210mm (Common), Φ360mm*585mm (optional), Φ460mm*330mm (optional)	



Plastic Package Test Instrument

■ Bag Fatigue Tester

Used for test up and down vibration fatigue for plastic bag, vest garbage bags, kraft paper bags etc.

	SPL-30S
Amplitude	30±2mm
Frequency	2-3Hz(130/min)
Space height	≤1000mm(≤500mm optional)
Load	20kg
Count range	9999times/cycle



■ Metal Coating Thickness Tester

Used for pressure testing of a variety of flexible packaging

	DMT-E
Thickness range	50-570Å
Accuracy	±1%
Sample size	100*100mm
Sample clamp accuracy	±0.1mm
Resistance test range	0.5-5Ω



■ Flexible Package Compression Strength Tester

Used for pressure testing of a variety of flexible packaging

	NLY-05
Test range	1000N
Resolution	1mN
Sample size	< 400mmx300mm
Sample height	10mm-100mm



■ Twist Angle Tester

Applied to test the corkscrew performance of the film

	XN-720
Rotation angle	720 ± 2°
Spacing between plywood	20mm
Angle position	4
Dimension	360*130*240mm



■ Disk Stripping Tester

Used for printing ink layer combine fastness test for the production of gravure printing plastic film and cellophane packaging printing

	BLJ-01
Pressure between the plate	100N
Stripping speed	0.8m/s



■ Adhesive Tape Tester

Used for the determination of ink fastness of plastic films, glass paper etc printed materials. also be used to adhesive test of viscous materials

	YGJ-S
Rolling speed	10-600mm/min Adjustable
Pressure roller load	20N±0.5N



Plastic Container Test Instrument

■ Plastic Bottle Internal Pressure Tester

Used for test glass bottle internal pressure, maintain and blast test for carbonated beverage bottle, plastic coke bottle, beverage bottle etc..

	NLY-01
Test range	0 ~ 1.2 MPa
Test accuracy	±1%
Air connection	Φ8mm
Dimension	480mmx330mmx150mm
Weight	8Kg
Air pressure	More than 1.2Mpa



■ Leak Tester

Test seal leakage, explosion rupture strength, fatigue strength etc., for plastic security caps, composite hoses, packaging bags, composite cylinder etc..

	MFY-06
Test range	0 ~ 1MPa, 0 ~ 145.2psi
Test accuracy	±1%
Air connection	Φ8mm Polyurethane Tube
Test item	seal leakage, explosion rupture strength, fatigue strength etc



■ Cap Torque Tester

It is used to measure the open force, lock force and tighten force of the caps of resistant bottles, beverage bottles, mineral water bottles and feeding bottles etc..

	NLY-20
Scale range	5Nm
Test accuracy	1 Class
Clamping range	Φ5mm ~ Φ170mm
Data storage	1-80
Dimension	400*280*190mm



■ Auto Cap Force Tester

Test a variety of bottle opening force and locking force automatically

	XGY-02
Load cell capacity	5NM(10NM optional)
Accuracy	0.5 FS
Clamping range	Φ5mm-170mm
Tighten speed	10r/min(Adjustable)
Date storage	1-255



Plastic Container Test Instrument

■CO₂ Loss Rate Tester

It is used for automatically calculate carbon loss rate for carbonated beverage bottle

	SSY-03
Pressure range	0~1MPa;0~145.2psi(Routine)
Resolution	0.01Mpa
Temperature range	0-50℃
Specimen size	50mm-400mm



■Haze Tester

Test light transmittance and haze for all transparent, translucent parallel plane samples (plastic film, plastic sheets, etc.)

WGT-S	Light transmittance	Haze
Test range	(0~100%)	(0~30%)
Accuracy	1%	H≤0.5% ±0.1%;H>0.5% ±0.3%
Repeatability	0.5%	H≤0.5% ±0.05%;H>0.5% ±0.1%
Light source	C and A Light Source	



■Falling Ball Impact Tester

Designed for testing the impact resistance of bottle cap

	GQ-50
Test height	762mm
Ball weight	286g
Ball diameter	41mm



■Plastic Bottle Load Pressure Tester

Test vertical load compressive strength,bottle pressure for carbonated beverage bottles,mineral water bottles,plastic bottles, cans etc..

	ZY-500
Capacity	500N/1000N/1500N
Vacuum accuracy	1FS
Test speed	1-300 mm/min Stepless



Adhesive Products Test Instrument

■Loop Tack Tester

Suitable for the initial adhesion of various kinds products.meet FINAT ,ASTM etc. standard

	LT-3000
Test range	20N 300N (Optional)
Test accuracy	1FS
Test Speed	300mm/min(1-500mm/min adjustable)
Speed accuracy	Less than ± 2 % error
Sample size	125mm(L)×25mm(B)



■ Primary Adhesive Tester

Applicable to the initial adhesion test of all kinds of adhesive products

	CNY-1
Angel Range	0~60°
Panel Width	120mm
Testable Area Width	80mm
Standard Ball	1/32Inch-1 Inch
Station	3



■Lasting Adhesive Tester

Used for test lasting adhesive performance for sticky adhesive

	CNY-2
Standard roller	2000g±50 g
Weight	1000±10g
Test broads	125(L) X50(B) X1.1(D)mm
Timing range	0 ~ 9999.99h
Station	6(10,30 optional)
Dimension	620*260*420mm



■High Temperature Lasting Adhesive Lasting Tester

Used for test lasting adhesive performance for sticky adhesive at different temperature..

	CNY-HS
Standard roller	2000g±50 g
Timing range	0 ~ 9999.9h
Number of stations	6
Temperature range	Room Temperature+5℃-200℃
Temperature accuracy	±1 ℃
Weight	1KG(500G/200G optional)



■Horizontal Peel Tester

Use for test the peel strength of all kinds of adhesive tapes, medical patch,protective film,release paper,composite membrane,other related products

	BLJ-C
Load range	30N
Test accuracy	1 class
Effective range	2%~100%FS
Rate range	1 ~ 500mm/min stepless speed
Speed accuracy	≤±2%



■90°/180° Peel Tester

Used to test the 90° and 180° Peel strength of all kinds of adhesive tapes, medical patch,protective film,release paper,composite membrane, thin film,paper ,PE laminating paperboard and other related products .

	DLS-07
Accuracy	1 Class
Test speed	1-500mm/min Stepless speed
Displacement accuracy	±2%
Test width	50 mm (Other can be customized)
Stroke	650mm



Pharmaceutical Package Test Instrument

■Tensile and Tear Tester

Test item: Bridge linking force, piercing force, sliding property, opening force, tensile strength, thermal bonding strength and peel strength etc.

	YYB-01
Test range	0-300N
Test accuracy	±0.5%
Test speed	1-500mm/min(Stepless)
Speed accuracy	±2%
Dimension	310*400*800mm



■Ampoule Breaking Force Tester

Test breaking force of ampoule bottlenecks separate from bottle

	ZDY-01
Test range	300N (others customizable)
Test accuracy	±0.5%
Test speed	10 mm/min
Speed accuracy	± 2 %
Bracket distance	36,60mm



■Medical Needle Stiffness Tester

It is used for test Stiffness for medical Tube, Syringe needle tube etc..

	CXY-02
Deflection range	0-5mm
Set load	5.5-60N
Needle distance	0-55mm
Needle specification	0.3mm-3.4mm



■Puncture Force Tester

Test puncture force for thin film, composite film, battery separator, artificial skin, medicine packaging rubber plug, combination cover, etc.

	CCY-02
Test range	0-300N (Other stroke customized)
Test accuracy	±1%
Test speed	1-500m/min(Stepless)
Speed accuracy	±2%



■Falling Ball Impact Tester

It is used for test drop ball impact resistance strength for PVC, PVDC, PVC hard.

	LQ-50
Test height	300mm-600mm (300mm-900mm)
Thickness	0-2mm
Ball diameter	23mm, 25mm, 28.6mm, 38.1mm, 50.8mm
Clamping sample	pneumatic
Sample size	> 150mm×50mm



■Water Resistance Tester

It is used for test water resistance of wound dressing

	ZS-03
Hydrostatic pressure	500mm
Switch control	Solenoid valve
Withstand time	0-99.99min
Dimension	500×200×750mm
Weight	5Kg



■Full-automatic Bursting Strength tester

It is used for rupture / burst strength test for pharmaceutical aluminum foil

	NPD-1000
Test range	≤1700 kPa
Pressure speed	95±5ml/min
Accuracy	1FS (Resolution: 1 Kpa)
Adhesive wax resistance	Bump height 10 mm, 170-220 Kpa Bump height 18mm, 250-350 Kpa
Specimen clamping force	>690kPa
Motor	1/4HP



■Aluminum Foil Pinhole Tester

It is used for test hole degree of aluminium foil

	ZK-02
Observed size	400*250mm
Ambient illumination	20Lux-50Lux
Source power	30W
Zoom scale	0.1mm
Zoom time	100X



■Leak Tester

Test leak property for all kinds of bottling hose cosmetics, vials, soda bottles, no steam beverage bottles, plastic bottles dairy products, electronic products, waterproofing products etc.

	MFY-06C
Test range	0 - 0.6MPa
Test accuracy	±1%
Air connection	Φ8mm Polyurethane Tube
Holding time	1-9999s
Air pressure	0.4Mpa~0.9Mpa



Glass Container Test Instrument

■ Ramp Pressure Tester

Test bottle internal pressure for all kinds of beer,wine,beverage bottles,infusion bottle,antibiotic resistance bottle etc..

	NLY-03
Test range	0 ~ 6 MPa
Test accuracy	±1%
Resolution	0.01MPa
Ramp pressure	0.4-0.58±0.1Mpa/s
Dimension	580*430*1500mm



■ Thermal Shock Tester

Used for heating shock resistance test for glass bottle like beer b,wine bottles,beverage bottles,infusion bottle,bottle of antibiotics etc..

	RCY-03
Measuring range	0 ~ 60℃
Temperature precision	1℃
Capacity	High temperature tank 31L Low temperature tank 56L
Control	Automatic



■ Electronic Vertical Deviation Tester

Electronic vertical deviation tester designed for determination vertical deviation for a variety of glass bottles, PET bottles in foods, cosmetics, pharmaceuticals and other industries.

	ZPY-60U	ZPY-30
Sample diameter	3-160 mm	15-150mm
Stroke	0-12.5 mm	0-12.5mm
Dividing value	0.001mm	0.001mm
Height range	5-400mm	15-300mm



■ Glass Bottle Impact Tester

It is used for test impact resistance for beer bottles,wine bottles,beverage bottles,infusion bottle,glass containers etc..

	CJY-03
Diameter range	φ20 ~ 165mm
Bottle height	20 ~ 180mm
Impact energy	0 ~ 2.9N.m
Clamping way	Pneumatic
Resolution	0.01N.m



■ Polariscopes

It is used for determine internal stress value for all kinds of glassware, glass containers, optical glass,PET preform etc.

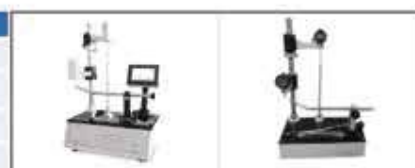
	YLY-03
Indication	0.1N
Test accuracy	4Nm
Polarization field diameter	150mm
Rotation angle	360°
Light field edge brightness	>120cd/m²



■ Wall Thickness Tester

It is used for test wall and bottom thickness of ampoules, vials, infusion bottles, beer bottles, plastic bottles in food, medicine, cosmetics and other industries

	CHY-B2	CHY-B1
Thickness range	0-12.5mm	0-12.5mm
Dividing value	0.001mm	0.001mm
Specimen diameter	10-120mm(Other size Customizable)	5-85mm(Other size Customizable)
Height	10-290mm(Other size Customizable)	10-320mm(Other size Customizable)



Sanitary Products Tester

■ Diaper Permeability Tester

Applicable to diapers and sanitary napkins permeability test.

	ZNK-1
Briquetting	φ100mm, Weight 1.2±0.002 kg (Pressure 1.5kPa)
Standard funnel	150mL(with 60ml,80ml Scale line)
Experiments angle	30° ± 2° (Diapers) 10° ± 1° (Sanitary napkins,Optional)



■ Water Absorbency Tester

Use for automatic absorption rate detection of the sanitary napkin diapers and other absorbent material.


	LLJ-02
Teste range	20N
Station	5
Displacement	0-580mm
Arm length	1000mm
Dimension	1600*500*1700mm



Paper Package Test Instrument


■ Paper Cup Stiffness Tester

Designed for stiffness performance test of the paper cup

	BTY-10A	
Test range	0~20N	
Cup caliber	50~150mm	
Resolution	0.01N	
Indication accuracy	±1%	
Deformation	9.5±0.5mm	


■ Paper Tensile Tester

Applies to test tensile strength, elongation at break, tensile energy absorption for paper.

	DLS-03	
Test range	300N	
Test speed	1-500mm/min	
Test accuracy	1FS	
Sample wide	50mm	
Displacement accuracy	±2%	


■ Folding Endurance Tester

Use for measuring the folding fatigue strength of the paper, cardboard, the thickness is less than 1mm and other sheet materials (electronics industry, copper foil, etc.)

	N-135	
Test range	1~9999Times	
Folding angle	135°±2°	
Folding speed	175±10T/min	
Folding head width	19±1mm	
Folding diameter	0.38±0.02mm	


■ Cobb Absorption Tester

Suitable for surface water absorption of various paper or paperboard

	KBXS-01	
Test area	100±0.2cm²	
Inner diameter	112.8±0.2mm	
Metal cylinder height	50mm	
Resolution	200±0.5mm	
Roller weight	10±0.5kg	

■ Bending Stiffness Tester

Designed to test stiffness of all kinds of paper, cardboard.

	TD-10A	
Test range	(15~10000)mN.m	
Resolution	0.1mN	
Indication variability	≤1%	
Bending length	(50/25/20/15/10/5±0.1)mm	
Bending peed	3s~35s adjustable	

■ Bursting Strength Tester


Applicable to all kinds of cardboard burst strength test

	NPB-1000	NPB-3000
Test range	40-1600kPa	≤6000kPa
Pressure rate	95±5 ml/min	170±10 ml/min
Specimen holding force	>430KPa	>690KPa
Motor	1/4HP	1/4 HP
Accuracy	1FS	1FS
Dimension	400*350*500mm	500*430*500mm




■ Electronic Compression Tester

Suitable for determine the ring crush strength, compression strength, peel adhesion strength, flat crush strength and other physical properties of paper and corrugated board.

	YSD-03	
Test range	0-3000N	
Accuracy	±1%	
Platen	φ120	
Resolution	1/10000	
Test speed	12.5±2.5mm/min	


■ Horizontal Tensile tester

Applies to test wet tensile strength, tensile strength, elongation at break, tensile energy absorption for paper, toilet paper and tissue paper

	BLJ-05	
Test load	30N	
Effective range	2%~100%FS	
Test accuracy	1 class	
Stroke	0-260mm	
Teste speed	1~500mm/min Stepless	


■ Whiteness Tester

Use for the determination of the whiteness of the object such as printing, plastics, ceramics, enamel, food, building materials, paints, chemicals, salt and other special material

	BD-07	
Zero drift	≤0.1	
Indication drift	≤0.1	
Indication error	≤0.5	
Repeatability error	≤0.1	
Specular reflection error	≤0.1	

■ Paper Water Absorption Tester

Applicable to the determination of the capillary absorbcency of paper and paperboard without sizing

	XSL-200A	
Test range	5-200mm	
Specimen size	250×15mm	
Engraved scale division value	1mm	
Station	10	
Scale number	5	

■ Smoothness Tester

Used for detection of paper and board smoothness performance according to the international common Buick (Bekk) type smoothing work principle

	ZWHD-10A	
Test range	0-99999.9s	
Accuracy	0.1s	
Test area	10±0.05cm²	
Pressure	100kPa±2kPa	
Display	English dot-up menu	

Jinan Sumspring Experiment Instrument Co., Ltd is a high tech innovation enterprise focus on laboratory analysis instrument research ,development and sales. Founded in 2007, our company focused on quality control unit, food industry, pharmaceutical industry, packaging and printing industry, adhesive industry, household appliances and other packaging materials and provide first-class test equipment and comprehensive quality control solution.

Sumspring technical team has been independent research,development, innovation and production equipment to meet requirements both domestic and abroad. it is also takeg ISO, ASTM, TAPPI and other international standard specifications into consideration . A number of new technologies, new invention patent certificate, have complete independent intellectual property rights.

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