



### THE DIGITAL FUTURE OF TEXTILE TESTING





## Why ChiuVention

### SmarTexLab

Designed in Germany, ChiuVention has developed a series of smart test instruments by combining cutting-edge RFID, visual inspection, and IoT technologies with AI algorithms;

Meanwhile, SmarTexLab, a smart textile lab management system built by ChiuVention under the "lean manufacturing concept" is connected with our smart instruments, thus forms a real smart laboratory with IoT technology.

SmarTexLab and instruments are also connected with factory ERP or laboratory LIMS to achieve a fully digitalized testing and production.

ChiuVention makes textile testing transparent, faster and more accurate!



### What is Important

### **Our Mission**

The digital future of textile testing

### **Our Vision**

To be the global leader in smart textile instruments

### **Our Values**

Customer-centered

Fighter-oriented

Honest and trustworthy

Open and Innovative

### Faster 30%

Sample information is typed into the system and test requirements are selected, the related QR codes are generated;

The smart cutter sweeps the codes and cuts the sample at once;

The experimenter then takes the sample after receiving the notification, and scans the code and installs the sample in the instrument. Next, the series of instruments automatically start the tests;

When the tests are completed, the sample information, test results and other original records will be all uploaded to the SmarTexLab system and all test items will be summarized to form a report;

SmarTexLab are connected with ERP or LIMS, etc., so that the relevant parties can view the test reports in real time on their smartphones or computers.

No more manual cutting, recording or calculation, and no waste of waiting and repetitive actions, this system reduces lab testing time by about 30%.

### More Reliable 20%

The reliable and easy-to-use smart instruments and SmarTexLab system improve test reliability by about 20%.

It is achieved by the following functions: identifying samples by scanning code, cutting and making samples intelligently, as well as selecting the test program automatically, and getting the test results immediately by advanced technologies such as machine vision inspection, AI intelligent algorithm. Less manual operation, less human errors and more reliable test results.











### **Quality is Our Culture**

#### **Strictly meet standards**

All data for each instrument meet the standard parameters.

#### Consistency with international third party laboratories

All test data are comparable to the test results obtained by well-known international third party laboratories.

#### **High repeatability**

The same set of samples, the same machine, after multiple tests, the results are consistent.

#### **High reproducibility**

The same set of samples, different machines of the same model, after multiple tests, the results are consistent.

#### Longer service life

For all the machines manufactured by ChiuVention, before mass production, prototypes are made and required to pass the strict Reliability Test, i.e. tested under challenging environments such as high and low temperature, high speed and high load, and etc., to ensure a sufficiently long expected service life.



### **About ChiuVention**

ChiuVention is registered in Europe and the United States , and is designed in Germany. ChiuVention is developed from TESTEX founded in 2010, headquartered in Dongguan, China. We specialize in textile footwear and apparel testing instruments.

In 2020, our brand was upgraded comprehensively to ChiuVention, and realized the global launch of the new brand at the ITMA 2023, Milan, Italy, the world's most influential textile and garment technology exhibition. At ITMA 2023, a series of ChiuVention revolutionary and innovative instruments such as the SmartShrink Shrinkage Rate Tester, the SmartFill Liquid Filling Machine, and our SmarTexLab system gained a great deal of attention from the industry's benchmark brands, such as Adidas and Decathlon, as well as the major academic and standards organizations. ChiuVention has been recognized widely since its launch.

ChiuVention provides smart textile testing instruments and solutions for 42 countries and regions worldwide. We have been serving third party testing organizations such as BV, SGS, Intertek and sports and fashion brands such as NIKE, Adidas, Anta, Decathlon, etc. With customer-centered belief, and the mission of leading the digital future of textile testing, ChiuVention is committed to become a global leader in smart textile instruments. TEST SMART NOW!

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### SmarTexLab









SmartShrink



SmarTexLab (Android Apps)

### SmarTexLab Textile Testing

The test requirements are all collected online and received by the smart cutting machine.

The cutting machine automatically cuts the fabric into samples of different sizes and put them into the RFID basket that can identify and track the samples.

By scanning the sample bar code or placing an RFID basket in the induction area, all information are automatically identified and recorded, then the instruments will be automatically set according to the test requirements.

Start test and just leave, the operator can monitor the test from app, until mobile phone alarms to re-test or stop the tests.

The system automatically calculates the test results, just confirm them.

Only need to confirm the report results and share them to all parties concerned in 1 minute.

All the test results and pictures even videos are saved in the computer that eases the big data analysis.

### Conventional Textile Testing

Vs

The collection of

test requirements

**Cutting and** 

identification of

samples

**Recording of** 

test elements

Monitoring of

the testing process

**Calculation of** 

test results

Summary of test

results and sharing

Analysis of big data

Fill out the test requirements manually, input them into the computer, and then print out some forms and corresponding labels.

Several samples were manually cut and labeled separately for differentiation.

You need to manually record the test elements, such as environment, temperature and humidity, test material information, test method, etc., and set the instruments according to the test requirements, start the test.

The operators have to stay with the instruments to monitor the test status and wait for the ending of tests.

Manually record and calculate the test results.

1 person is in charge of grouping a series of test reports and the other needs to input all the info into computer and print out them, then send to all parties concerned. Time:20 minutes

The test results are recorded on the papers. It is very hard to do big data analysis.

What's more, you can get the instrument calibration guide and maintenance service, consumable supply, as well as massive testing knowledge only by one-click on SmarTexLab. Test Smart Now!





### **SmartShrink** Shrinkage Rate Tester

SmartShrink Shrinkage Rate Tester determines multiple shrinkage rate test results in 5 seconds for fabrics after washing, steaming, and dry-cleaning.

SmartShrink takes a picture of a fabric sample by using a camera equipped on the top, automatically measuring the distances between the marked dots, and calculates the test results by the patented vision inspection algorithm of ChiuVention. The test results will be real-time shared with the IoT-connected SmarTexLab app installed on the computer and smartphone.

SmartShrink automatically measures fabric shrinkage and calculates the test results, avoiding manual errors and making the test more accurate and reliable; It automatically saves the test data and sample photos, and can share and send the test results in real-time, making the test more transparent and trustworthy; The whole process of the test has been reduced from 6 minutes to only 5 seconds, making the test more rapid and reducing the cost by more than 90%.

### **SmartShrink** Shrinkage Rate Tester



- The test results are more accurate and reliable. By using SmartShrink, the test sample is photographed with a high-definition camera, and the distances between the marked dots are automatically measured, then shrinkage rate is calculated with a unique algorithm, yielding all test results in real-time accurately.
- Save \$30,000/year for textile testing labs.
   In the conventional process, for each sample to be tested for shrinkage, it totally takes 6 minutes to finish the work: measuring and recording before/after washing, calculating, typing the data into the computer, printing the report, etc., while SmartShrink can do all the work above in just 5 seconds.
- Output multiple data at one time, reflecting the quality of fabric more comprehensively and objectively.

Warp and weft shrinkage, seam twist rate, vertical twist rate, and diagonal twist rate can be output at one time, including credibility rating for the test results. It can evaluate the quality of the fabric more comprehensively.

- Famous brands are using SmartShrink.

International brands and authoritative testing institutions such as Anta, Adidas,Texwinca and ITS have widely used SmartShrink.

- Can be connected to ERP or LIMS system.

The test results can be directly uploaded to the factory's ERP or laboratory LIMS system. SmartShrink can help you manage shrinkage test data conveniently and efficiently.

	<b>Power</b> 220/110V 50/60Hz
ݣ	<b>Weight</b> 40kg
णण	<b>Dimension</b> 810*690*1170 mm(L*W*H)

#### The Specification of SmartShrink

The specification of SmartShrink		
Test mode:	automatic test	
Sample test size:	200*200mm, 250*250mm, 350*350mm, 450*450mm,460*460mm, 500*500mm, 10*10in. 15*15in. 18*18in. The sample test size also can be customized.	
A computer is required. Operating system:	Windows 10/11	









### SmartCut Fabric Sample Cutting System

The SmartCut can complete the sampling of fabrics within 3 minutes. It can be connected with the customer's ERP or LIMS system docking through the network port, then automatically gets the test item information from the scanning of the bar code. And then the SmartCut will layout the sample graphics of the items to be tested in accordance with the standard requirements through a unique algorithm.

Next step, the sample graphics will be projected on the fabric and the SmartCut starts cutting fabric samples, automatically marking the samples as the the customer's settings. It is suitable for sampling requirements of dozens of tests such as pilling, tearing strength, water repellency, anti-static, tensile strength, color fastness, flammability, etc. It supports various standards such as GB/T, FZ/T, ISO, EN, JIS L, AATCC, ASTM, CAN, AS and so on.

# SmartCutFabric fixing method<br/>Table top wear resistFabric Sample Cutting SystemStandard order



### Strictly cuts the samples according to the standards, making sure the test is more reliable.

It supports decentralized sampling, trapezoidal sampling, full-width sampling, and 45° sampling, and can cut samples according to the rules such as alignment to grid and to edge. So, the reliability of the test is guaranteed from the sampling.

### More precise cutting and higher sample pass rate.

The tungsten steel blade of SmartCut is sharp and can be rotated 360°, with a cutting accuracy of 0.1mm, and a round-trip cutting error rate of less than 0.01mm, i.e. cut grams of specimens accurately.

### Saves 5 laborers per year (about \$420,000) for largescale labs.

If you need to cut 100 whole samples per day, the conventional manual cutting requires 3000 minutes, i.e. 6 laborers; while using SmartCut sample cutting system, 100 whole samples need only 0.6 laborers, saving 5 laborers per year for the laboratory.

And SmartCut can also achieve multi-station cutting (cutting different fabrics at the same time); multi-layer cutting (maximum cutting thickness of 7mm, can cut 1-20 layers); shaped cutting (irregular graphics). It can mark samples.

### **The Specification**

±0.1 mm
±0.01 mm
7mm
220V/380V
50Hz-60Hz 20A-40A



	Table top wear resistance	it is recommended to replace the table top once a year.
ו	Standard order	smart sample cutting software, smart cutting machine, computer, projector, brush function.
	Optional	Inkjet marking function of the software, vibrating cutter head can be added.

vacuum adsorption to ensure flatness

Model	Working Area(cm)	Weight(kg)	Power(kw)	Warranty Period
CV517-6060	60*60	400	4.5	1 year
CV517-1410 CV517-1610	140*100/ 160*100	600	4.5	1 year
CV517-1516	150*160	650	4.5	1 year
CV517-1810 CV517-1812	180*100/ 180*120	700	4.5	1 year
CV517-2516	250*160	1000	9.5	1 year
CV517-3020	300*200	1200	9.5	1 year

### Applicable test items and standards

Abrasion & Pilling	GB/T4802、ISO12945、
	JIS L1076、ASTM D4970
Tearing Strength	GB/T3917 、ISO 13937 、
	JIS L1096 、ASTM D751
Water Proof	GB/T4745、ISO 4920、AATCC 22、
	ISO 9865、JIS L1092
Antistatic Test	GB/T12703 、GB/T 22042、
	EN 1149、ISO 6330
Core Suction Height	GB/T21655、JISL1907、ISO6330
Dimentional Stability	GB/T 8629、ISO 6330、JIS L0217、
	AATCC 135、AS2001.5.4
Elastic Elongation	FZ/T01062、ASTMD3107、
	JIS L1096、EN 14704
Tensile Strength	GB/T3923、ISO 13934 、
	ASTM D5034、EN 29073-3
Fabric Weight	GB/T4669、ASTM D3776、ISO 3801、
	JIS K6772、EN 12127
Abrasion Resistance	GB/T21196.2、ISO 12947、
	ASTM D3884、AS 2001.2.28
Peel Strength	FZ/T80007.1、ISO 8096、JIS L1089、
	ASTM D2724
Burst Strength	GB/T7742.1、ISO13938-1、
	ASTM D3786
Seam slippage	GB/T13772.1、FZ/T20019、
	IS013936 、JIS L1096
Anti-hooking	GB/T11047、BS8479、ASTMD3939
Downproof	GB/T12705 、GB/T 14272、
	EN 12132、ISO 6330
Color fastness to rubbing	GB/T3920、AATCC 8、ISO 105 X12、
	ASTM D2054、JIS L0849
Color fastness to sunlight	GB/T8427、AATCC-16(3)、
	ISO 105-B02、ASTM D6544
Other color fastness items	GB/T、FZ/T、ISO、EN、JISL、AATCC
	ASTM、CAN、AS
Flammability	GB/T5455、FZ/T01028、ISO 3795、
	GB 8410、ASTM D5132





### **ProPress** Sample Press

The ProPress cuts the samples into small pieces (e.g. 5x5 mm) within several seconds and it can control the pressure precisely and apply it to a precision die to cut the sample. By cutting precise samples, ProPress is conducive to more reliable test results for formaldehyde, pH and other tests.

By using ProPress, the work efficiency of cutting samples increases more than 80%, that is 6 times of manual shearing. ProPress can cut fabrics, leather, plastics and other flexible sheet material to prepare test samples for formaldehyde, pH, azo, heavy metals tests.

Lay the sample flat on the plate, and press the button with both hands, then the plate will entry and the machine automatically press and cut the samples. When the cutting is finished, the machine automatically activates a strong air cleaning system to blow away any fibers and debris left behind, ensuring that the samples are not mixed with each other.

The operator can observe whether there is any sample residue through the high-definition camera equipped with ProPress from the operation screen, and can manually start the cleaning program again.

In addition, ProPress ensures your safety: start up by two hands, work area equipped with light barrier to prevent accidental injury. Applicable for various cutting sizes such as 5x5mm,10x10mm or the dimensions can be customized.

### **ProPress** Sample Press



### More accurate sample preparation, for more reliable test results.

Traditional manual cutting of samples can easily lead to large differences in sample shape and size, which can cause insufficient dissolution, thus affecting the reliability of the test; ProPress cuts samples by pressing, which is precise and fast, and the highly consistent samples make the test results of formaldehyde, pH value, etc. more reliable.

### Faster sample preparation, saving more than 80% of time.

The ProPress presses samples in several seconds per operation, compared to at least 60 seconds for manual cutting, making it valuable for large-scale testing labs that prepare large number of test samples every day.

### Ensures the quality of samples throughout the whole process.

The ProPress is equipped with a self-cleaning system that blows air to clean all kinds of fiber debris generated during the cutting process, and a built-in highdefinition camera used for observing the cleaning and ensures that there is no mixing between samples.



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

**Dimension** 600\*450\*530 mm(D\*W\*H)



### **The Specification**

Cutting Method	Press
Sample Size	5*5/10*10mm or customized size.

### **Applicable Tests and Standards:**

pH Test	ISO 3071 GB/T 7573
Formaldehyde Test	IS014184.1 GB/T2912.1
Heavy Metal Test	GB/T 17593.1/2/3
Azo Test	FZ/T 01133 GB/T 17592







### **Smartindale** Martindale Abrasion & Pilling Tester

Smartindale Martindale Abrasion and Pilling Tester is used for fabric abrasion and pilling tests. It generates a Lissajous curve with a digital algorithm, and then drives the friction, achieving accurate running without calibration. You can switch test modes such as the abrasion test to the pilling test with one click without changing the pins.

You can also control and monitor the Smartindale from your smartphone by SmarTexLab app connection, and the test data can be uploaded to ERP or LIMS system, to realize smart testing.

It can test the abrasion and pilling resistance of cotton, linen, silk woven fabrics and other textiles, film materials, knitted fabrics, woolen fabrics, artificial leather, synthetic leather, gloves, labor protection materials, and so on. It is widely applicable to more than 20 international standards such as ISO 12945-2-2020, ISO 12947-2-2016, BS EN 530-2010; ASTM D4970/4970M-22, etc.

### **Smartindale** Martindale Abrasion **& Pilling Tester**



### The Lissajous curve is calibration-free, making it a more reliable test.

Smartindale runs by an exclusive and patented digital algorithm that drives dual servo motors and precision slide rails, replacing the traditional mechanical analog drive to generate a perfect Lissajous curve. After more than 10 million times (equal to three years non-stop) of ultra-high intensity friction life test with rubber simulation specimen and double weight, the Lissajous curve is still accurate and perfect, so the test is more reliable.

Can be connected to ERP or LIMS through an APP, more smart

Smartindale can be connected to the APP SmarTexLab installed on your smartphone, then you can set the parameters, monitor the test status, etc. After the completion of the test, the sample information, the test process, and the results can be uploaded to ERP or LIMS, to achieve smart testing, more in line with the requirements of the laboratory management system (IS017025), such as CNAS or ILAC, so that the entire testing process is more convenient, transparent, and efficient.

### One-touch switching between abrasion and pilling testing, for greater efficiency.

You can switch the test modes (e.g. abrasion to pilling) on the control panel, no need to remove the cover plate and change the pin position.

### **User-friendly design**

The flip-up guide plate can be lifted with one hand, which is convenient for loading samples and taking samples; there is a cushioning function when the cover plate falls, which avoids damaging the machine and is safer for the operators.

### The Specification of Smartindale

Abrasion test	
Max stroke of movement	60.5+/-0.5mm
Weight of holder and spindle	198+/-2g
Pilling test	
Max stroke of movement	24+/-0.5mm
Weight of holder and spindle	155+/-1g



Weight 90kg **Dimension** 

510\*850\*300 mm(W\*L\*H)

### Accessories

mm
0 mm,Φ140 mm
mm
mm,Ф90 mm,Ф140 mm
ng test
asion test
nm,2.5kg
illing test
brasion test
a
ling test
rasion test

### **Optional Accessories**

EMPA990 rating chart card	1 set knitted + Woven
SM50 rating chart card	1 set IWS + ASTM
SM25 abrasion resistant wool cloth	1 pack 1.6 X 5m/pack
Sm26 woven wool felt	1 box 24 pcs/box Φ140mm
Sm26 woven wool felt	1 box 24 pcs/box Φ90 mm
SM28 polyurethane ether	
foam	1box 250 X 200mm/pc, 25pcs/box

### Standards

ISO 12945-2-2020 ISO12947-1-1998 ISO12947-2-2016 IS012947-3-1998 IS012947-4-1998 GB/T 21196.1-2007 GB/T 21196.2-2007 GB/T 21196.3-2007 GB/T 21196.4-2007 GB/T 4802.2-2008 BS EN 530-2010 ASTM D4970/4970M-22 ASTM D4966-22

### **Optional Standards**

BS EN 388-2016+A1-2018 Protective gloves for mechanical hazards; SATRATM31 A/B Abrasion Resistance Test for Leather; PUMA; BS EN 16094-2012 Laminated wood flooring, Test method for the determination of micro-scratches; ISO 20344-2021 Item 6.12 Personal protective equipment, Test methods for footwear and boots; BS EN 13520-2002 Test methods for footwear, uppers, linings and insoles, abrasion resistance; ISO 5470-2-2021 Rubber or plastic coated fabrics, determination of abrasion resistance





### AirFicient Air Permeability Tester

The AirFicient Air Permeability Tester allows you to quickly get reliable air permeability test results, and it is a smart instrument so you can set parameters, monitor the test status, etc., from your smartphone, which greatly improves work efficiency.

It is suitable for a variety of textiles including technical fabrics, non-woven fabrics, and other breathable products such as sponges paper, and other materials for air permeability testing. Applicable to GB/T5453, ISO 9237, ISO 9073:15, JIS L1096 Item 8.26 Method C, BS 3424-16, BS 6F 100 3.1, NWSP 070.1.R0(15), GB/T 24218.15, etc.

The principle is that the air passes vertically through the fabric, forming a certain pressure difference between the front and back sides of the fabric, measuring the amount of air flowing through the fabric under a certain pressure difference, thus obtaining the air permeability value.

### AirFicient Air Permeability Tester



### - Tests are easy and fast.

The AirFicient is easy to operate, you can select the test standards and measurement units from the operation screen. And the instrument can automatically recognize the different ranges of the test fixture head. You can start the test and get the result directly.

### - More reliable test results

Innovative test model, the range conversion components are maintenance-free, no loss, bringing high repeatability and reliability to test results.

High-quality core components, such as pressure sensors from famous brands, further ensure the accuracy of the test results.

#### Smart instrument

Can be connected through Wi-Fi with the SmarTexLab App installed in the smartphones, you can set parameters, monitor the test status, receive equipment warning reminders, etc., and share test results with the quality control department or brand buyers.

	<b>Power</b> 220/110V 50/60Hz
ݣ	<b>Weight</b> 125kg
णण	<b>Dimension</b> 970*400*970 mm(L*W*H)

#### The Specification of AirFicient

Measurement units:	mm/s, m/s, l/m²/s, ft³/min/ft², cfm cm³/s/cm², l/s/cm², l/m²/min 1/dm²/min ,l/min, m³/min, dm³/s m³/s/m², m³/min/m², m³/h/m², ft³/s/ft²
Test Mode	Automatic
Test head	20 cm <sup>2</sup> (standard)
Test pressure	10 ~ 2,500 Pa
Air velocity	0.6 ~ 10,000 mm/s (20 cm²)
Measurable sample	
thickness range	0 ~ 10 mm (other thicknesses and fixtures can be customized)
Testing Accuracy	< +/-2%
Optional test heads	5 cm², 25 cm², 38 cm², 50 cm², 100 cm²

#### Standard

GB/T5453 ISO 9237 ISO 9073:15 JIS L1096 Item8.26 Method C BS 3424-16 BS 6F 100 3.13 NWSP 070.1.R0(15) GB/T 24218.15

### **Optional standard**

ASTM D737







### **HydroBurst** Bursting Strength Tester

The HydroBurst Bursting Strength Tester utilizes hydraulic bursting (diaphragm method) to determine the bursting strength and expansion of knitted fabric, woven fabric, non-woven fabric, laminated fabric, elastic woven fabric, paper and other materials when subjected to stress in both warp and weft directions, as well as in all other directions, to get the material⊠s resistance to bursting.

### **HydroBurst** Bursting Strength Tester



#### Smart instrument

Can be connected through Wi-Fi with SmarTexLab App installed in the smart phones, set parameters, monitor the test status, receive equipment warning reminders, replenishment reminders, etc., and share test results with one click.

#### Smooth operation, precise and durable

The hydraulic system adopts full servo control and precise screw drive, providing smooth operation, precise and durable transmission, and low noise.

#### High-precision testing

The pressure measurement part is equipped with a highprecision pressure sensor, with accuracy up to 0.2, which means the deviation is 0.2% of the maximum range.

### Longer service life of sensors

HydroBurst is equipped with the Panasonic laser displacement sensors which have no rod and are easy to replace testing cups, thus providing sensors with better protection and reducing the risk of damage compared to traditional rod-type sensors.

#### Automatic testing improves efficiency.

During the testing process, the protective cover automatically descends, and then the testing cup is pressed for testing. When the test is completed, the testing cup automatically lifts, and the protective cover automatically ascends. The testing process is automated, without manual operation, which improves work efficiency and reduces operation risks.

### Smart identification system for testing cups

When changing the testing cup, the system can automatically identify the current testing cup model and switch the testing parameters automatically, which also greatly improves work efficiency.

In addition, the mechanical shell of HydroBurst is made of steel plate with electrostatic spraying process, which makes the appearance generous. The mechanical interior is mainly composed of high-quality lightweight all-aluminum structure, which greatly reduces the weight of the whole machine.



### Specifications

Testing mode fixed-speed bursting, fixed-pressure bursting, fixed-expansion bursting, and fixed-time bursting.

likeu-expansion buis	sung, and fixed-time bursting.
Measurement range	0-10 MPa ± 1%
Testing rate	50-500 ml/min
Hydraulic medium	glycerin
Testing cup size	7.310 cm <sup>2</sup>
	(diameter: 30.5 mm ± 0.2 mm)
	10 cm² (diameter: 35.7 mm ± 0.2 mm)
	50 cm² (diameter: 79.8 mm ± 0.2 mm)
	100 cm² (diameter: 112.8 mm ± 0.2 mm)
Maximum expansion	
height	65 mm ± 1 mm
Operating	
environment	temperature: 20°C ± 5°C,
	humidity: 50-70%RH
Installation	
conditions	air supply pressure of 6~8 bar
	(ensure that the air is clean and dry)

#### Standard

GB/T7742.1-2005 IS013938-1-2019 ASTM D3786/D3786M-18







### **ElmenGuide** Elmendorf Tear Tester

The ElmenGuide, also known as the Pendulum Tearing Tester, does the test by using a pendulum tearing method. The pendulum falls from a certain starting height, converts all potential energy into kinetic energy, cuts a slit on the fabric, and then measures the force required for the fabric to tear to a specified length, which can be used to calculate the fabric's tear resistance.

### **ElmenGuide** Elmendorf Tear Tester



### • The innovative balance pendulum plate design, achieves a higher level of testing accuracy

The pendulum arm of ElmenGuide is specially designed, and the center of gravity of the entire pendulum arm coincides with the rotation center when no weights are attached. This results in higher accuracy and reliability of the equipment.

#### Smart instrument

Can be connected through Wi-Fi with SmarTexLab App installed in the smart phones, set parameters, monitor the test status, receive equipment warning reminders, replenishment reminders, etc., and share test results with one click.

#### Automatic recognition of weights

The machine can automatically recognize the weight attached and adjust to the corresponding range.

Humanized design, for more safety
 The double-button switch design prevents accidents and
 is more user-friendly for testers.

### Precise manufacturing and stable operation

The fixture rotates flexibly and the loss of empty pendulum is minimal. Multiple measurement units (N, cN, gf, cP) to choose from. In addition, ElmenGuide has a precise appearance design, with an aluminum alloy hard oxidation surface that is sleek, durable, and easy to clean. The trapezoidal chassis is more stable, and the seven-inch color touch screen is simple and easy to use.

	<b>Power</b> 220/110V 50/60Hz
ݣ	<b>Weight</b> 70kg
णण	<b>Dimension</b> 580*420*600 mm(D*W*H)



### Specifications

Load range	8N, 16N, 32N, 64N, 128N
Testing accuracy	≤±0.2%F·S
Tear length	43mm
Automatic incision length	20±0.2mm
Sample size	100×75mm

#### Accessories

Fuse	2 pcs
Sample cutter	1 pc, 100mm*75mm
Test weight A	1 pc, 8N
Test weight B	1 pc, 16N
Test weight C	1 pc, 32N
Test weight D	1 pc, 64N
Test weight E	2 pcs, 128N
Calibration weight a	1 pc, 8C
Calibration weight b	1 pc, 16C
Calibration weight c	1 pc, 32C
Calibration weight d	1 pc, 64C
Calibration weight e	1 pc, 128C

#### Standard

ASTM D1424 BS ISO 13937-1 GB/T 3917.1 ISO 4674-2







### **SmartDry** Drying Rate Tester

SmartDry Dry Rate Tester is equipped with high-precision temperature sensors, wind speed sensors and precision water dripping devices, etc., which can quickly simulate the process of human sweating and quickly determine the drying rate of textiles. The specially designed parallel cross-flow fan makes the wind speed more uniform and smooth, which can restore the actual evaporation process and make the test results more reliable. SmartDry is a smart instrument, which can be connected to the SmarTexLab app installed in the smartphone through WIFI, so that the parameters can be set remotely and the test process can be monitored, which greatly improves the working efficiency. SmartDry is applicable to the AATCC 201 standard.

A test sample is placed on top of a heating plate at a constant temperature of 37°C (99°F), and a certain amount of water rises from the bottom of the instrument to the center of the plate and saturates the sample. An anemometer inside the instrument dries the sample. An infrared temperature sensor measures the change in temperature of the sample to determine if the drying is finished, then the drying speed is determined by the test drying time.

### **SmartDry** Drying Rate Tester



### Smart instrument

This drying rate tester can be networked with smartphone, so you can set parameters and monitor test status remotely, also directly get test results and equipment warning alerts, etc.; Besides, you can share the test results with others.

### - Efficient and convenient, and more reliable test

With high precision temperature sensor, wind speed sensor and precision drip device, you can complete the test of drying rate quickly in 10 minutes.

The specially designed parallel cross-flow fan makes the wind speed more uniform and smooth, which can restore the actual evaporation process and make the test results more reliable.

### Simple and easy to use

The whole test process will be displayed on the screen and present it as a clear data curve.

Precise appearance design, aluminum alloy hard oxidation surface, durable and easy to clean; seven-inch color touch screen is easy to use.

•	<b>Power</b> 220/110V 50/60Hz
ݣ	<b>Weight</b> 20kg
लगग	<b>Dimension</b> 400*590*180 mm(D*W*H)

### **Specifications**

Fan	can produce airflow of
	0.5-3.5m/s ±0.1m/s
Heater plate	305mm x 305mm±0.5m
Soft heating plate	305mm x 305mm±0.5 <b>m</b>
Heat-insulating cork	
board	305mm x 305mm±0.5m
Metal pressure bar	150mm x 40mmx2mm±1mm
The Heating	
temperature	25-40°C±0.5°C
	(with overheat protection)
Infrared temperature	
sensor	15-50°C±0.1°C
Drip accuracy	0.05-1.0ml±0.003ml
	1.0-4.5ml±0.01ml
Accessories	
Fuse	2pcs
Sampling plate	1 pc 150mm*150mm
Water bottle	1 pc 60mL

### Standard

AATCC201







### **SmartFill** Liquid Filling Machine

The SmartFill is a matching device of washing color fastness tester, which can greatly improve the accuracy and efficiency of the test.

It is equipped with a weighing balance. After weighing the sample, it automatically prepares and heats the soap solution according to the set bath ratio, and outputs the soap solution at a constant temperature, also outputs the set number of steel balls into the test cup.

The SmartFill makes sample preparation more accurate and efficient, and it enhances economic efficiency by allowing wash color fastness testing to be done immediately without waiting. The SmartFill can also be connected to the SmarTexLab App installed in the smartphone via WIFI, allowing the operator to perform a series of operations on the phone, such as setting the bath ratio, and temperature, and making appointments for replenishment of the soap and heating, etc.

### **SmartFill** Liquid Filling Machine



### The Specification of SmartFill

Balance weighing limit	600g, accuracy ± 0.01g
Soap tank	working volume 6500ml (Soap can be refilled automatically)
Single pumping	
volume of soap	2.5~1000ml,
Liquid output accuracy	1ml ±5%
Soap pumping speed	$\leq$ 28ml / s (With steel balls)
Temperature control	
range	0~65°C, precision ±1°C



#### More accurate testing

The high precision balance weighs the sample, and the soap dosage is automatically dispensed strictly according to the bath ratio, accurate to 1ml, together with the precise temperature control and steel ball counting, it makes the whole sample preparation more accurate, thus making the test of washing color fastness more reliable.

#### Testing is more efficient, saving nearly 30% of individual labor costs each year.

By choosing SmartFill, for 1 wash color fastness tester with 12 test cups, each test preparation can save 10 minutes, according to 200 samples per day, or save 30% of individual labor costs for enterprises in a year.

#### Smart instrument

Can be connected through Wi-Fi with the SmarTexLab App installed in smartphones, then you can set parameters, monitor the test status, receive equipment warning reminders, replenishment reminders, etc.

#### Well-known brands are using.

Anta supply chain chose SmartFill, which more quickly and efficiently got the garment color fastness data so that corporate brand and quality management became more scientific.



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### **WashTrue** Washing Color Fastness Tester

The WashTrue Washing Color Fastness Tester adopts smart temperature control algorithm to ensure that the washing color fastness test meets the test standards and the results are reliable. It is applicable to standards such as ISO 105 C06:2010, AATCC61-2013e3, GB/T 12490-2014, M&S C4A, AATCC190-2010e2 (2016) e2, NEXT TM 02, etc.

A series of testing operations can be completed on the touch screen, such as selecting standards, parameters, time, and temperature settings, adding water, draining water, etc., it is smart and efficient, and the buzzer alarms automatically when the test is completed. The WashTrue also has multiple safety designs, and can run long time with low noise.

### **WashTrue** Washing Color **Fastness Tester**



#### Smart, Easy to use and Efficient

The smart screen interface allows direct access to a variety of operations: selection of test standards, customization of test parameters, temperature calibration, selection of temperature increase rate, setting of time, heating temperature, etc.

#### Precise temperature control, more reliable testing . Smart temperature control algorithm achieves accurate and effective test water temperature control.

÷. Humanized design, durable

Multiple safety protection design, the test rotating frame is equipped with an anti-jamming function to protect the instrument.

The heating is achieved by solid state relay controlled electric, bringing more stable temperature and longer service life.

The water tank is made of SUS304 material, also durable.

### **Power** AC/220V/3N/50/60Hz 40A AC/380V/3N/50/60Hz 23A

### Weight

150kg

### **Dimension**

860\*720\*1060 mm(W\*D\*H)

### The Specification

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Temperature setting	
range:	Normal temperature (>0°C)~ 95°C
Heating rate:	1.5±0.5°C/min
Temperature accuracy:	± 2°C
Speed:	40 ± 2 r/min
Distance from the bottom of the cup	
to the rotary axis:	45±10 mm

### **Standard Accessories**

Test steel cup	
550±50mL or 1200±50mL	12 pcs
Stainless steel ball	
Φ6±0.5mm	200 pcs
Fuse ,380V 32A	4pcs
Inlet pipe	1pc
Drain pipe	1pc
Таре	1pc
Screwdriver	1pc
Throat hoop	1pc
Sampling plate	
40 x 100 mm	
50 x 100 mm	
50 x 150 mm	3pcs
Rubber gloves	1pc
ISO sealing or AATCC sealing	12 pcs
measuring cup 100ml	1pc

#### **Optional Accessories**

Test steel cup,550±50mL,	1pc	
Test steel cup,1200±50mL,	1pc	
Stainless steel ball $\Phi6\pm0.5$ mm	1pc	
Stainless steel sheet @30±2mm		
thickness 3±0.5mm	1pc	
ISO color change gray card	1pc	
ISO color change gray card	1pc	
AATCC color change gray card	1pc	
DW Multi-Fiber Cloth 50m/box	1pc	
AATCC No.10 Multi-Fiber Cloth		
25m/roll:	1pc	

### Standard

ISO 105 C06: 2010 AATCC61-2013e3 GB/T 12490-2014 IS0105-C08-2010 GB/T 29255-2012 IS0105-C09-2010/amd.1:2003 GB /T 23343-2009 ISO 105 C10: 2006 GB /T 3921-2008 ISO105-E03:2010 ISO105-E12:2010 M&S C4A AATCC190-2010e2(2016)e2 NEXT TM 02

### **Optional Standard**

ISO105-D01: 2010 GB/T 5711-2015 AATCC132-2004e3







SmartPull Tensile Tester is AC servo-driven and equipped with ball screws to provide stable pulling force and achieve higher testing accuracy. The software of the tester is compatible and powerful by outputting comprehensive test indexes, such as displacement, maximum force, elongation, stress, etc.; and there are various safety designs to protect the instrument and the operator's safety. It is a tensile machine specially built for textiles, leather, footwear, etc. It can do tension, compression, bending, tearing, shearing, peeling and top breaking tests. It is applicable to many international standards, such as ISO 9073-3, ISO13934-1/2 , ASTM D5034, ASTM D5035, ISO 3377-2, ISO 13937-3 ,FZ/T 01030 , GB/T 19976 and so on.



#### Higher testing accuracy

AC servo drive and ball screw achieve stable and constant pulling force, with force accuracy within 1%, ensuring the reliability and repeatability of test results.

#### Safety guarantee for the whole testing process

Equipped with an intelligent and active displacement and torque alarm system, overload and emergency stop device, and up and down travel limiting device, SmartPull always keeps the testing process safe and stable.

#### Powerful software

The test software can be applied to different languages and can present the displacement, maximum force, elongation, stress, maximum stress, bending stress, speed, and other test results. That is, getting more comprehensive test indexes.

#### Applicable up to a series of standards

Such as ISO 3377-2, ISO 13934-1/2, ISO 13937-2/3, ISO 20932-1, ASTM D5034, ASTM D5035, ASTM D5587, GB/T3917.2, FZ/T 01030, ISO 9073-4, ISO13934-1/2, ISO 9073-3, ISO 13937-2/3, ISO 4674-1, GB/T 3917.4, GB/T 3923.1, ISO 2062, ASTM D6797, GB/T 19976.

### Easy operation

Multi-functional pneumatic gripper, just replace the clips to complete different tests, easy and quick to replace. Tensile tests and top breaking tests do not need to replace the sensor.

### Unique design

SmartPull Tensile Tester has a unique appearance design combined with a sense of technology, scratch-resistant surface, and it is durable.

### User-friendly

Side cutting design, more user-friendly.



220/110V 50/60Hz Weight

90kg

**Power** 

Dimension

630\*460\*1470 mm(D\*W\*H)

### The Specification of SmartPull

resting capacity	optional and the appearance will change)
Test level	class1
Max Travel	800mm (without fixture)
Travel accuracy	≤1%
Travel speed	1mm/min ~500mm/min
Speed accuracy	≤1%
Test force range	0.2% ~ 100%FS
Force accuracy	≤1%

250kg ( 500kg ig

### Software configuration (standard)

A version of the test system, with a single-step test

### Software configuration (optional)

The C version of the test system can achieve a multi-step test

#### **Fixture and standards**

Version A : ISO 9073-3,ISO 13934-1,ISO 13934-2,ASTM D5034, ASTM D5035,GB/T 3923.1, GB/T 3923.2 GB/T13773.1,GB/T13773.2,GB/T 24218.3, ISO 13937-2(sample with 50mm wide), ISO13937-3, GB/T 3917.2(sample with 50mm wide), GB/T 3917.5 (The standards above are matched with: clamps by 25x25 mm, 25x50 mm, 25x75 mm)

### Optional fixture and standards

Version A : ISO 9073-4,GB/T 3917.3 (clamps by 25x100 mm) ASTM D5587 (clamps by 50x75 mm) ISO 13937-4,ISO 4674-1, GB/T 3917.4 (clamps by 25x200 mm) Leather tearing fixture: ISO 3377-2 Top breaking fixture: ASTM D6797 FZ/T 01030 GB/T 19976 Yarn fixture: ISO 2062 Version C: ISO 13936-2, ASTM D4964 (U type fixture) VersionC+: ASTM D434 ASTM D1683 ISO 13936-1 (The standards above need to be programmed according to the test requirements provided by customers.) ISO 20932-1( with linear clamps, or choose other fixtures and replace the clamps)

### **Computer Configuration of SmartPull**

CPU for the Intel Celeron (Celeron) 2GHz or more CPU Memory at least 512MB, more than 1GB is better Hard disk space of more than 2GB

Display resolution of  $1024 \times 768$  or more.

Printer compatible with the operating system (if output reports are required)

The applicable operating system for Microsoft's Windows XP, Windows 7, Windows 8, Windows 10

If you need to output the report in Word and Excel format, you should install Microsoft's Microsoft Office 2003, 2007, and 2010 versions of the software.







SmartPull Tensile Tester is AC servodriven and equipped with ball screws to provide stable pulling force and achieve higher testing accuracy. The software of the tester is compatible and powerful by outputting comprehensive test indexes, such as displacement, maximum force, elongation, stress, etc.; and there are various safety designs to protect the instrument and guarantee the operator's safety. It is a tensile machine specially designed for textiles, leather, footwear, etc. It can do tension, compression, bending, tearing, shearing, peeling, and top-breaking tests. It is applicable to many international standards, such as ISO 9073-3, ISO13934-1/2, ASTM D5034, ASTM D5035, ISO 3377-2, ISO 13937-3, FZ/T 01030 , GB/T 19976 and so on.



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AC servo drive and ball screw achieve stable and constant pulling force, with force accuracy within 1%, ensuring the reliability and repeatability of test results.

### Powerful software

The test software can be applied to different languages and can present the displacement, maximum force, elongation, stress, maximum stress, bending stress, speed, and other test results. That is, getting more comprehensive test indexes.

Safety guarantee for the whole testing process

Equipped with an intelligent and active displacement and torque alarm system, overload and emergency stop device, and up and down travel limiting device, SmartPull always keeps the testing process safe and stable.

### It can be customized to meet diversified needs.

S-type load cell for pulling force of 5KN-10KN can be customized to realize more testing functions, and the testing software also can be customized to realize automatic repeated testing.

### Lightweight design

**U**ash

The SmartPull is 100 kg lighter than the initial generation, making it easier to handle and operate.



### The Specification of SmartPull

Testing capacity	1000 kg
Test level	class1
Max Travel	900mm (without fixture)
Travel accuracy	≤1%
Travel speed	1mm/min ~500mm/min
Speed accuracy	≤1%
Test force range	0.5% ~ 100%FS
Test force value accuracy	±1%
Range of constant rate control	0.5%~100FS

### Software configuration (standard)

A version of the test system, with a single-step test

### Software configuration (optional)

The C version of the test system can achieve a multi-step test

### **Fixture and standards**

Version A : ISO 9073-3,ISO 13934-1,ISO 13934-2,ASTM D5034, ASTM D5035,GB/T 3923.1, GB/T 3923.2 GB/T13773.1,GB/T13773.2,GB/T 24218.3, ISO 13937-2(sample with 50mm wide), ISO13937-3, GB/T 3917.2(sample with 50mm wide), GB/T 3917.5 (The standards above are matched with: clamps by 25x25 mm, 25x50 mm, 25x75 mm)

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### **Computer Configuration of SmartPull**

CPU for the Intel Celeron (Celeron) 2GHz or more CPU Memory at least 512MB, more than 1GB is better Hard disk space of more than 2GB Display resolution of 1024 × 768 or more.

Printer compatible with the operating system (if output reports are required)

The applicable operating system for Microsoft's Windows XP, Windows 7, Windows 8, Windows 10

If you need to output the report in Word and Excel format, you should install Microsoft's Microsoft Office 2003, 2007, and 2010 versions of the software.

# ChiuVention



### **AtmoExplorer** Temperature & Humidity Chamber

The AtmoExplorer is used for testing the performance of various materials under different environmental conditions. It is suitable for testing the heat resistance, cold resistance, dry resistance, wet resistance, and other properties of materials. The testing chamber is applicable for quality testing of products ,such as electronics, electrical appliances, mobile phones, communication devices, instruments, vehicles, plastic products, metals, food, chemicals, construction materials, medical equipments, and aerospace products.

### **AtmoExplorer** Temperature & Humidity Chamber



#### Wide range of applications

It can simulate the environment of high temperature, low temperature, high humidity, and low humidity, and is suitable for testing requirements in various fields and industries such as electronics, materials research, medicine, automobiles, food, etc.

 Excellent performance on control precision and uniformity of temperature and humidity
 Temperature and humidity control precision: ±0.5°C; ±3%RH

Temperature and humidity uniformity: ±2°C; ±5.0%RH

### Achieve heating and cooling quickly When unloaded, the AtmoExplorer can achieve heating

from room temperature to 100°C within 30 minutes, It can also achieve cooling from room temperature to -20°C within 60 minutes.

Intuitive and practical screen, easy to operate
 AtmoExplorer has a 7-inch large touch screen that displays information in both Chinese and English. The set
 values (SV) and perform values (PV) of temperature
 and humidity are displayed directly, as well as the currently
 executing program number, segment information, remaining time, and number of cycles.

#### Stable operation, originated from high-quality insulation materials and humidifiers

The heating element is made of spring-type nickel-chromium wire, and the humidifier is a UL-shaped humidifier in the form of stainless steel electric steam generation.  High quality refrigeration system and refrigeration auxiliary parts

Tecumseh fully hermetic high efficiency compressor from France, solenoid valve from Japan, and pressure controller & oil separator are international famous brand.

### A variety of safety protection

The burn prevention switch, the high-pressure protection for the compressor, the overheating protection for the compressor, the over current protection for the compressor, the no-fuse switch protection, the short-term water shortage alarm and the long-term water shortage shutdown protection.

#### Various sizes can be customized Such as 80L, 150L, 225L, 408L, 800L, 1000L



### Specifications

Temperature range	-20°C~+150°C (-60°C/-40°C~+150°C Optional)
Humidity range	20%-98%RH
Temperature and humidity	
control accuracy	±0.5°C; ±3%RH
Temperature and humidity	
distribution uniformity	±2°C; ±5%RH
Heating time	
temperature to	100°C, within 30 minutes
Cooling time	
temperature down to	-20°C, within 60 minutes
Testable area	500*750*600mm (D*W*H)

### **Controller specifications**

Accuracy	
temperature	±0.1°C + 1digit
humidity	±1%RH + 1digit
Degree of Reolution	temperature ±0.1°C
	humidity ±0.1%RH
Temperature slope	0.1~9.9 can be set

- Display the current program number, number of segments, remaining time and number of laps.
- Temperature and humidity program setting value is displayed in a circular curve, with instant display of program curve execution function.
- Separate program editing screen, at least 4 temperature and time steps can be input on each page.







### InnoFlex Bally Flexing Tester

InnoFlex Bally Flexing Tester is equipped with advanced servo motors for precise positioning, and a stable testing process, achieving more accurate and reliable test results. It is a smart instrument that can be connected to the SmarTexLab app installed in your smartphone via WIFI, which allows you to remotely set the parameters and monitor the testing process, greatly improving work efficiency. With a noise level of only 60 dB, it is user-friendly and durable. Suitable for a wide range of testing standards, such as ISO 5402-1:2017, ISO 32100:2018, and ISO 20344-2011,SATRA TM 55.

InnoFlex Bally Flexing Tester also known as InnoFlex Leather Folding Endurance Tester, is used to test the flexing resistance of leather, cloth, and other materials. Take one side of the sample as the inner side, and the other side as the outer side, then InnoFlex will bend the sample back and forth until the damage occurs, or bend a certain number of times to see the degree of damage, to determine the sample flexing strength.

### InnoFlex Bally Flexing Tester



#### More accurate and reliable tests

Microcomputer program control and advanced servo motor bring accurate positioning. The InnoFlex can automatically return to its original position and keep stable during the testing process to achieve more accurate and reliable tests.

#### Smart instrument

It can be connected with the SmarTexLab app installed in smartphones through WIFI, allowing test men to set parameters, monitor the testing process, and get alerts from the device on the smartphone, as well as share the test results in real-time.

### Efficient and durable

12 workstations can be selected, and you can choose single station/multi-station mode. The running times of each mode can be counted separately, so you can test a variety of samples at the same time. The NSK bearings are from Japan, and the machine is made of precision moldcasting stainless steel, with a scratch-resistant appearance, and longer service life.

#### More user-friendly

The actual noise is only 60dB, much lower than other similar products in the market. The operation interface is ergonomic, and the running data can be saved, even if a power failure occurs.

$\bullet$	Power 220/110V 50/60Hz
٢	<b>Weight</b> 55kg
ניייי	<b>Dimension</b> 850*490*287 mm(D*W*H)

#### Specifications

opeenioudeno	
Testing station	12 stations
Testing speed	100r/min
Working stroke	swing angle 22.5°±0.5°
Test times	0~9999999 (adjustable)
Maximum clamping	
distance	maximum folding thickness of test product 7mm
Upper and lower	
spacing	The spacing between upper and lower clamps 25mm

### **Standard accessories**

Cutter die: 70X45mm

#### Standards

ISO 5402-1:2017 ISO 32100:2018 ISO 20344-2011



**Optional standards** SATRA TM 55







### InfraDye Infrared Lab Dyeing Machine

The InfraDye is designed to dye samples quickly and at a low cost. In order to reduce dyeing errors, textile manufacturers need lab dyeing machine for testing samples before dyeing large batches. In addition, fabric dyeing laboratories also need these machines for dyeing studies.

### **InfraDye** Infrared Lab Dyeing Machine



#### Smart temperature control algorithm Achieving different test temperatures, suitable for all livide of duals with some temperature and high temp

kinds of dyeing with room temperature and high temperature.

### Multiple dyeing solutions

Can be realized at one time: different specimens can be dyed in different cups.

#### Smart instrument

Can be connected through Wi-Fi with SmarTexLab App installed in the smart phones, set parameters, monitor the test status, receive equipment warning reminders, replenishment reminders, etc., and share test results with one click.

### User-friendly, convenient and efficient

Microcomputer control, simple operation, automatically retain the current data in case of power failure, the running process can be edited, and the buzzer automatically alerts after the test is completed.

#### Stable, durable and noiseless

The transmission mechanism is upgraded to rotary opera tion, which is more stable, more durable and noiseless.

### Multiple safety protection

Such as over-temperature alarm function and automatic stop of rotating cup holder when the door is mistakenly opened.

### Temperature calibration function

Can avoid the temperature differences caused by the aging of the probe.

### Longer service life

Solid state relay control electric heating, no mechanical contact, long service life. The mechanical shell is made of stainless steel powder coating process, the mechanical interior is made of high quality SUS304 stainless steel, and the dyeing cup is made of SUS316, which is durable.

# Power 230V/50Hz 32A Weight 145kg Dimension 710\*840\*750mm(D\*W\*H)

### Specifications

Test temperature range	
room temperature	0°C ~ 140 °C
Temperature control range	
room temperature	25 °C ~ 140 °C
Heating temperature	
control speed	0.1 °C / min ~3 °C / min
Temperature control accuracy	
Isothermal state	± 0.5°C/min
Temperature control mode	optimized automatic control
Rotational speed	0 ~ 50 rpm (adjustable)

### Accessories

test cup volume	300±20ml 24pcs
T-socket wrench	1 pc
stainless steel copy wrench	1 pc
Fuse	4 pcs
Gloves	1 pc

### **Optional Accessories**

Heating tube



**Jaeb** 

# **TEST SMART NOW**

# ChiuVention

### Contact us

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