TOP BRAND OF CHINA PAPER TESTING INSTRUMENT

ZHIBANG

EXPERT OF TESTING TECHNOLOGY FOR PAPER PACKAGE AND PRINTING PRODUCTS

PROFESSIONAL, DEDICATED, DEDICATION

COMPANY INTRODUCTION

Hangzhou Zhibang Automation Technology Co., Ltd specialized in paper and packaging testing equipments for many years,located in Binjiang National High-Tech Industrial Development Zone, Hangzhou, Zhejiang province. an ISO9001 Certificated company,a high-tech enterprise. And we are a member of National Standardization Technical Committee, SAC/TC141, Zhejiang Paper Governing Institute and Zhejiang Packaging Technology Association.

With our registered trademark of "ZHI BANG", we have a complete management system for paper,packaging, printing and inspection.

Company philosophy: professionalism, dedication, devotion

Company tenet: quality first, consumers first

Company slogan: everything only for users

Expert of testing technology for paper, package and printing products

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42 ZB-BT10 Paper cup stiffness tester
42 ZB-CA20 Paper dust tester
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43 ZB-TQ1000 Paper air permeability tester
44 ZB-GL Air permeability tester(gurely method)
45 Halogen Moisture Meter
46 FD-G1 Portable moisture meter
46 NDJ-1 Rotational Viscometer
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48 PHS-3C PH meter
48 Oven
49 Box-type resistance furnace
50 Electronic balance
50 Portable gloss meter
51 ZF-1 Three use ultraviolet analyzer
52 WFH-203B Black-box type UV analyzer

ZB-A Automatic Colorimeter

Introduction

ZB-A Automatic colorimeter is to determine the whiteness, yellowness, color and color difference of the object, but also can determine the paper's opacity, transparency, light scattering coefficient, light absorption coefficient and ink absorption value. Widely used in papermaking, printing, ceramics, chemical industry, textile printing and dyeing, building materials, grain, salt and other industries.

The specific functions of the instrument are as follows:

1. Measure the reflected color and chromatic aberration of the object, which can be displayed or printed: diffuse reflection factor Rx, Ry, Rz, stimulus value Y10, X10, Z10, color coordinate X10, Y10; Lightness L *, a * chromaticity, b *, chroma C * ab, hue Angle h * ab, dominant wavelength lambda d, excited purity, Pe Δ E * ab color, brightness difference Δ L *, chroma difference Δ ab, poor tonal Δ h C * * ab, hunter system L, a and b.
2. Measurement of ISO brightness (blue light whiteness R457) and Z whiteness (Rz) can be used to measure fluorescence whiteness generated by emission of fluorescent substances in fluorescent whiteness samples.
3. Measurement of CIE whiteness (gantz whiteness W10 and deviation TW10).
4. Measure the whiteness of ceramics.
5. Measure whiteness of building materials and non-metallic mineral products.
6. Measure hunter whiteness WH.
7. Measure the yellow degree YI.
8. Measure the opacity OP of the sample
9. Measure the transparency T of the sample
10. Light scattering coefficient S of the measured sample
11. Optical absorption coefficient A of the sample was measured.
12. Measure ink absorption.

Standards

ISO 2469, ISO 2470, ISO 2471, ISO 9416, ISO 11475, GB/T 7974, GB/T 7975, GB/T 24288, GB/T 8424.2, GB/T 8424.1, GB/T 22880, GB/T 1543, GB/T 6688, GB/T 13025.2, GB/T 2913, GB/T 5950, GB/T 3979, GB/T 8424.3, GB/T 2679, GB/T 9338, GB/T 11186, GB/T 9984.5, GB/T 22427.6, GB/T 13835.7, GB/T 12911, GB/T 4739, GB/T 11942, QB/T 1503, HG/T 3862, Fz-t50013.

Main features

1. The instrument adopts 7. 0-inch, 65k color, hd color LCD touch screen, simple and friendly human-machine interface, simple and convenient operation.
2. The instrument has compact structure and novel appearance. One-key operation eliminates the old manual rotating handwheel, automatic switching of light path and automatic positioning, and truly realizes automatic detection, which not only improves the test efficiency, but also greatly reduces the human error.
3. The adoption of 32-bit MCU microcomputer processor, high-speed operational amplifier chip and high-precision ADC converter, advanced circuit design effectively ensure the accuracy and stability of measurement data.
4. The instrument simulates D65 lighting body lighting. CIE 1964 supplementary chromaticity system and CIE 1976 (L*a*b*) chromaticity formula were used.
5. The instrument adopts d/o illumination to observe geometric conditions. The diameter of the diffused ball is 150mm, and the diameter of the test hole is 30mm. The light absorber is equipped to eliminate the influence of the mirror reflected light of the sample.
6. Serial port thermal printer embedded in the instrument, no need to use ink and ribbon, no noise when working, fast printing speed and other features.
7. The instrument is equipped with corresponding communication interface, which can communicate with microcomputer software.
7. The instrument has power off protection, and the calibration data will not be lost after power off.
8. 9 reference samples can be stored.

Main technical parameters

Power supply	220V±10% 50HZ
Accuracy	chromaticity coordinate is 0.0001 others are 0.01
Stability	≤0.1 within 30min
Repeatability	Rx Ry and Rz s≤0.01 chromaticity coordinate s≤0.0010, .R457 s≤0.10
Sample size	diameter ≥30mm thickness≤ 40mm
Dimension	390*280*410mm
Net Weight	23kg

ZB-A Brightness Color Tester

Introduction

ZB-A brightness color tester is the professional instrument to test the object of the whiteness, yellowness, chromatic aberration, opacity, transparency, light scattering coefficient, optical absorption coefficient, and ink absorption value. It is widely applied in paper, cardboard, textile, painting, chemical building materials, plastic, cement, food, salt, ceramics cosmetic etc.

The specific is the following:

1. Measure the color of object, report diffuse reflectance factor Rx, Ry, Rz; stimulus value X10, Y10, Z10; chromaticity coordinate x10, y10, z10; lightness L*; chrominance a*, b*; chromaticity C*ab; hue angle h*ab; dominant wavelength λd, excited purity Pe, color difference ΔE*ab, lightness difference ΔL*, chromaticity difference ΔC*ab, hue difference ΔH*ab, Hunter system L, a, b.
2. Measure ISO(R457)and Rz
3. Measure CIE (W10 and Tw10)
4. Measure ceramic's whiteness
5. Measure the whiteness of building materials and non-metallic mineral products
6. Measure Yellowness YI
7. Measure Hunter whiteness
8. Measure opacity op
9. Measure transparency T
10. Measure light scattering coefficient S
11. Measure optical absorption coefficient A
12. Measure ink absorption value

Standards

ISO 2469 ISO 2470 ISO 2471 ISO 9416 ISO 11475 GB/T 7973 GB/T 7974 GB/T 7975 GB/T 2679 GB/T 1543 GB/T 10339 GB/T 12911 GB/T 22880 GB/T 24288 GB/T 3979 GB/T 2913 GB/T 13025.2 GB/T 5950 GB/T 8424.1 GB/T 8424.2 GB/T 8424.3 GB/T 9338 GB/T 9984.5 GB/T 13173.14 GB/T 13835.7 GB/T 4739 GB/T 6688 GB/T 11186 GB/T 11942 GB/T 22427.6 QB/T 1503 QB/T 2789 HG/T 3862

Main features

1. Has excellent appearance and compact structure, and advanced circuit design can ensure accurate and stable measurement data.
2. Simulate D65 illuminator to illuminate. Adopted CIE 1964 supplementary Standards colorimetric system and CIE 1976 (L*a*b) color space and color difference formula.
3. Adopted d/o illuminating--geometrical viewing conditions. Diameter of the globe of diffusion is 150mm and diameter of the testing hole is 30mm. Light absorber is provide to eliminate the effect of mirror reflection.
4. Adopted large-screen high resolution LCD modules. English display and prompt steps can show the results of measurement and statistics. Good human-machine interface makes the instrument easy to operate.
5. Added the printer and used the imported Thermal Printer, no need to use ink and colored tape, no noise and fast speed.
6. Equipped with RS232 interface, can communicate with the computer software
7. Has power-off protection, Correct data would not lose
8. can store 9 reference samples (sample or data)

Main technical parameters

Power supply	220V±10% 50HZ
Accuracy	chromaticity coordinate is 0.0001 others are 0.01
Stability	≤0.1 within 30min
Repeatability	Rx Ry and Rz s≤0.01 chromaticity coordinate s≤0.0010, .R457 s≤0.10
Sample size	diameter ≥30mm thickness≤ 40mm
Dimension	360*264*400mm
Net Weight	23kg

ZB-B Whiteness tester

Introduction

The instrument mainly used to measure the brightness and whiteness, applied in paper, cardboard, textile, painting, chemical building materials, plastic, cement, food, salt, ceramics cosmetic etc, Like the following:

1. Measure ISO(R457) and fluorescent material's fluorescent whiteness
2. Measure Light stimulus value Y10
3. Measure opacity op
4. Measure transparency T
5. Measure light scattering coefficient S and optical absorption coefficient A
6. Measure ink absorption value

Standards

ISO 2469 ISO 2470 ISO 2471 ISO 9416 GB/T 7974 GB/T 1543 GB/T 10339 GB/T 10339 GB/T 2913 GB/T 13025.2 GB/T 5950 GB/T 8424.2 GB/T 9338 GB/T 13173.14 GB/T 13835.7 GB/T 22427.6 FZ-T50013

Main Features

1. Has excellent appearance and compact structure, and advanced circuit design can ensure accurate and stable measurement data.
2. Simulate D65 illuminator to illuminate.
3. Adopted d/o illuminating--geometrical viewing conditions. Diameter of the globe of diffusion is 150mm and diameter of the testing hole is 30mm. Light absorber is provide to eliminate the effect of mirror reflection.
4. Adopted large color touch screen. English display and prompt steps can show the results of measurement and statistics. Good human-machine interface makes the instrument easy to operate.
5. Added the printer and used the imported Thermal Printer, no need to use ink and colored tape, no noise and fast speed.
6. Equipped with RS232 interface can communicate with the computer software
7. Has power-off protection, Correct data would not lose

Main Technical Parameters

Power supply	220V±10%, 50Hz
Zero drift	≤0.1%
Indicating drift	≤0.1%
Indicating error	≤0.5%
Repetitive error	≤0.1%
Specular reflectance error	≤0.1%
Sample size	diameter ≥30mm thickness≤ 40mm
Dimension	360*264*400mm
Net weight	20kg

ZB-B Whiteness tester

Introduction

The instrument mainly used to measure the brightness and whiteness, applied in paper, cardboard, textile, painting, chemical building materials, plastic, cement, food, salt, ceramics cosmetic etc, Like the following:

1. Measure ISO(R457) and fluorescent material's fluorescent whiteness
2. Measure Light stimulus value Y10
3. Measure opacity op
4. Measure transparency T
5. Measure light scattering coefficient S and optical absorption coefficient A
6. Measure ink absorption value

Standards

ISO 2469 ISO 2470 ISO 2471 ISO 9416 GB/T 7974 GB/T 1543 GB/T 10339 GB/T 10339 GB/T 2913 GB/T 13025.2 GB/T 5950 GB/T 8424.2 GB/T 9338 GB/T 13173.14 GB/T 13835.7 GB/T 22427.6 FZ-T50013

Main Features

1. Has excellent appearance and compact structure, and advanced circuit design can ensure accurate and stable measurement data.
2. Simulate D65 illuminator to illuminate.
3. Adopted d/o illuminating--geometrical viewing conditions. Diameter of the globe of diffusion is 150mm and diameter of the testing hole is 30mm. Light absorber is provide to eliminate the effect of mirror reflection.
4. Adopted large-screen high resolution LCD modules. English display and prompt steps can show the results of measurement and statistics. Good human-machine interface makes the instrument easy to operate.
5. Added the printer and used the imported Thermal Printer, no need to use ink and colored tape, no noise and fast speed.
6. Equipped with RS232 interface can communicate with the computer software
7. Has power-off protection, Correct data would not lose

Main Technical Parameters

Power supply	220V±10%, 50Hz
Zero drift	≤0.1%
Indicating drift	≤0.1%
Indicating error	≤0.5%
Repetitive error	≤0.1%
Specular reflectance error	≤0.1%
Sample size	diameter ≥30mm thickness≤ 40mm
Dimension	360*264*400mm
Net weight	20kg

ZB-WLQ Automatic horizontal tensile tester

◆ Introduction

The instrument adopted the horizontal design, which has the advantages of compact structure, complete functions, and easy to operate. Adopts pneumatic clamp which can reduce the error, use the advanced ARM chip technology which has strong processing data function. Touch-screen interface make it easy to operate. It can test tensile force, tensile strength, fracture length, tensile energy absorption, tensile index, 180 °peel strength, tensile energy absorption index of paper, paperboard, plastic film, and other nonmetal material. besides. it can used to test wet tensile strength of toilet paper.

◆ Standards

ISO 1924 GB/T 12914 GB/T 24328.3 GB/T 24328.4

◆ Main Characters

(1) Adopted the imported motor, low noise, control precisely
(2) Large screen, english menu. It can show the tensile time and strength and tensile curve.
(3) Get the result directly including average, Standards deviation, coefficient of variation. Easily to get and print the statistical result like: average value, Standards deviation, variable coefficient etc
(4) As to the normal size, can test with the regular speed directly. Besides can also adjusted by the needs, set the fit tensile speed and change the sample's length and width.
(5) High automation with the advanced parts, has the function of testing message processing data and motion control, besides it can reset automatically, remember data, and diagnose error
(6) Equipped with RS232 interface and can communicate with the computer software

◆ Technical Parameters

Power supply	AC220V±10% 50HZ
Measuring range	0~30N（Toilet paper）/0~100N/0~300N/0~500N(optional)
Accuracy	±1%
Tensile velocity	1~399 mm/min(Can be adjusted)
Return velocity	1~399 mm/min(Can be adjusted)
Clamp pressure	0.4-1.0MPa
Sample Length	(90-200mm)
Sample Width	15mm, 25mm or 50mm
Dimension	920*420*300mm
Net weight	65kg

ZB-WL Horizontal tensile tester

ZB-WL horizontal tensile tester is a special instrument for testing tensile strength, breaking length, elongation, tensile energy absorption, tensile index and tensile energy absorption index of paper, cardboard, plastic film and other non-metallic materials.

◆ Main features

1. Servo control, low noise, accurate control.
2. Large screen color touch LCD display, Chinese menu, real-time display of data and stretching curve.
3. Within the measurement range of 0-30n, the precision can reach 0. 01n, the resolution is 0. 01n, and the professional measurement is for the corresponding parameters of toilet paper.
4. Direct measurement results: after the completion of a set of tests, it is convenient to directly display the measurement results and print statistical reports, including mean value, Standards deviation and coefficient of variation.
5. Variable sample size and tensile speed: for commonly used Standards size samples, the tensile test can be conducted directly at the specified speed, or the tensile speed, test length and width can be set directly in the display screen as required.
6. High degree of automation: the instrument is designed with advanced devices at home and abroad. The single-chip microcomputer is used for information sensing, data processing and action control, with automatic reset, data memory and overload protection.
7. Data communication: the instrument is equipped with the Standards serial RS232 interface, which can provide data communication for the integrated report system of PC.
8. Wide measuring range: the measuring range of the instrument can be changed according to the needs of users by configuring different force gauges, which can be widely used in the tensile test of various papers and materials.
9. Multi-function, flexible configuration: the instrument is mainly used for paper measurement. Changing the configuration of the instrument can be widely applied to the measurement of other materials.

◆ Main technical parameters

Power supply	AC220V±10% 50HZ
Measuring range	30N；100N；300N；500N；(optional)
Accuracy	±1%
Tensile velocity	1～399 mm/min(Can be adjusted)
Return velocity	1～399 mm/min(Can be adjusted)
Sample Length	The default is 180mm, which can be set anywhere from 25mm to 200mm
Sample Width	15mm
Dimension	700*290*230mm
Net weight	40kg

◆ Standards

ISO 1924
GB/T 12914
GB/T 24328.3
GB/T 24328.4

ZB-L Vertical tensile tester

ZB-L Vertical tensile tester is to test paper, cardboard, plastic and other non-metallic materials tensile strength, breaking length, elongation, tensile energy absorption, tensile, tensile energy absorption index, 180 degrees of peel strength, heat sealing strength of special equipment.

◆ Introduction

ZB-L Vertical computer control tensile tester adopted the vertical, many pillars structure. Clamp distance can be adjusted within the specified scope. , the machine has the power-off protection and can diagnose automatically. it's used to test the tensile force, tensile strength, fracture length, tensile energy absorption, tensile index, 180 °peel strength, tensile energy absorption index of paper, paperboard, plastic film, and other nonmetal material.

◆ Standards

ISO1924 GB/T 12914 GB/T 24328.3 GB/T 24328.4

◆ Main features

(1) Adopt imported motor, low noise, control precisely.
(2) Large LED english menu display. It can show the tensile time and strength and print tensile curve.
(3) When the range is 0~30N, the accuracy is 0. 01N, the distinguishability is 0.01N. It is special instrument for toilet paper.
(4) Get the result directly including average, Standards deviation, coefficient of variation
(5) Test directly for the normal size. Besides can also adjusted by the needs. , set the suitable tensile speed, change the sample's length and width.
(6) High automation with the advanced parts, has the function of testing message processing data and motion control, besides it can reset automatically, remember data, and protect and diagnose error.
(7) Equipped with RS232 interface and can connect with computer.
(8)According to the customer's need, equipped with different ergographs to measure, not only used in paper's measurement, but also in other materials' measurement.
(9) Multifunction, flexible setting: mainly used to test the paper, can also to be used to test other materials by changing the settings.

◆ Main technical parameters

Power Supply	AC220V±10% 50HZ
Measuring range	0~30N(Tissue paper) /0~100N/0~300N/0~500N/0~1000N(optional)
Accuracy	±1%
Tensile velocity	1~399mm/min (Can be adjusted)
Return velocity	1~399 mm/min(Can be adjusted)
Sample length	Can be adjusted within 20~200 mm
Sample width	15mm
Dimension	450*550*1200mm
Weight	70kg

ZB-QL Pneumatic vertical computer tensile tester

ZB-QL Pneumatic vertical computer tensile tester is to test paper, cardboard, plastic and other non-metallic materials tensile strength, breaking length, elongation, tensile energy absorption, tensile, tensile energy absorption index, 180 degrees of peel strength, heat sealing strength of special equipment.

◆ Introduction

ZB-QL Pneumatic vertical computer control tensile tester adopted the vertical, many pillars structure. Clamp distance can be adjusted within the specified scope. , the machine has the power-off protection and can diagnose automatically. it's used to test the tensile force, tensile strength, fracture length, tensile energy absorption, tensile index, 180 °peel strength, tensile energy absorption index of paper, paperboard, plastic film, and other nonmetal material.

◆ Standards

ISO1924 GB/T12914 GB/T 24328.3 GB/T 24328.4

◆ Main features

(1) Adopt imported motor, low noise, control precisely.
(2) Large LED english menu display. It can show the tensile time and strength and print tensile curve.
(3) When the range is 0~30N, the accuracy is 0. 01N, the distinguishability is 0. 01N. It is special instrument for toilet paper.
(4) Get the result directly including average, Standards deviation, coefficient of variation.
(5) Test directly for the normal size. Besides can also adjusted by the needs. , set the suitable tensile speed, change the sample's length and width.
(6) High automation with the advanced parts, has the function of testing message processing data and motion control, besides it can reset automatically, remember data, and protect and diagnose error.
(7) Equipped with RS232 interface and can connect with computer.
(8)According to the customer's need, equipped with different ergographs to measure, not only used in paper's measurement, but also in other materials' measurement.
(9) Multifunction, flexible setting: mainly used to test the paper, can also to be used to test other materials by changing the settings

◆ Main technical parameters

Power Supply	AC220V±10% 50HZ
Measuring range	0~30N(Tissue paper) /0~100N/0~300N/0~500N/0~1000N
Accuracy	±1%
Tensile velocity	1~399mm/min (Can be adjusted)
Return velocity	1~399 mm/min(Can be adjusted)
Sample length	Can be adjusted within 20~200 mm
Sample width	15mm
Dimension	450*550*1200mm
Weight	70kg

ZB-L tensile testing machine (including finch cup)

ZB-L tensile testing machine is a basic instrument for testing the tensile strength of paper and paperboard. It is mainly used for testing the tensile strength, elongation and energy absorption value of paper and paperboard. It can also be used for testing the tensile strength of other low-tensile strength and low-elongation flakiness materials. With finch cup can determine the wet tensile strength of toilet paper and its products.

◆ Main features

1. the use of servo motor and high precision ball screw drive, low noise, accurate control
2. Touch LCD display with large color screen to display various data in real time
3. In the measurement range of 0-50N, the accuracy can reach 0. 01n and the resolution is 0. 001n
4. Directly obtain the measurement results, including mean value, break-resistance index, Standards deviation and coefficient of variation
5. high degree of automation: data processing and action control, automatic reset, overload protection
6. Data communication: the instrument is equipped with Standards serial RS232 interface, which can provide data communication for the upper computer integrated report system

◆ Main parameters

Parameter items	Technical index	
	Ordinary tensile	Wet tensile
Measurement range	0 ~ 30N	
Resolution	0.001N	
Indication accuracy	±1 %	
Sample holder size	width 50mm	
	Clamping spacing 20-200mm (adjustable)	The wet-tensile spacing is 43.5±1 mm
Test stroke	300mm	150mm
Testing speed	20 ±5 mm/min 1 ~ 400mm/min(adjustable)	50 ±2 mm/min
Instrument size	450*550*950mm	
Power	AC220V±10% 50Hz 2A	

◆ Standards

ISO 1924-2 - determination of tensile strength of paper and board - part 2: constant speed drawing method
GB/T 12914 paper and paperboard -- determination of tensile strength (constant speed drawing method)
GB/T 24328. 3 toilet paper and its products - part 3: determination of tensile strength, elongation at break and absorption of tensile energy
GB/T 24328. 4 toilet paper and its products - part 4: determination of wet tensile strength

ZB-L Tensile testing machine

ZB-L tensile testing machine is a basic instrument for the tensile strength test of paper and paperboard. It is mainly suitable for the determination of tensile strength, elongation and tensile energy absorption value of paper and paperboard. It can also be used for the tensile performance test of other sheet materials with low tensile strength and low elongation. Mechanical penetration (spherical resistance to breakage) and resistance index of toilet paper can be measured with the fixture.

◆ Main features

1. Servo motor and high precision ball screw drive, low noise, accurate control
2. Use color large screen touch LCD to display all data in real time
3. Within the measurement range of 0-50N, the accuracy can reach 0. 01n and the resolution is 0. 001n
4. Directly obtain measurement results, including mean value, rupture resistance index, Standards deviation and coefficient of variation
5. High degree of automation: data processing and action control, automatic reset, overload protection
6. Data communication: The instrument is equipped with Standards serial RS232 or USB interface, which can provide data communication for the PC integrated reporting system

◆ Main technical parameters

Parameters of the project	Technical indicators	
	Ordinary tensile	Spherical burst
Measuring range	0 ~ 30N	
Resolution	0.001N	
Indicator accuracy	±1 %	
Clamping system	Width 15mm (25mm, 50mm can be customized)	Inner ring diameter 50 mm (or 89mm) Clamping width ⩾ 12.5mm
	Clamping interval 20-200mm (adjustable)	Penetrate the sphere diameter 16 mm
	maximum clip spacing: 300mm	Penetration depth: 25mm
Test speed	20 ±5 mm/min 1 ~ 400mm/min(adjustable)	125 ±5 mm/min
Instrument size	450*550*950 mm	
Power supply	AC220V±10%, 50Hz 2A	

◆ Standards

ISO 1924—2 Paper and board - Determination of tensile strength - Part 2: Constant speed drawing method
GB/T 12914 Paper and board - Determination of tensile strength (Constant speed drawing method)
ISO/FDIS 12625-9：2015 Tissue paper and tissue products —Part 9: Determination of ball burst strength
GB/T 24328.7 Toilet paper and its products - Part 7: Determination of spherical resistance to breakage
GB/T 20810-2018 Toilet paper (including toilet paper) spherical resistance to breakage

ZB-L Tensile testing machine

ZB-L100 tensile testing machine is a special instrument for testing the tensile strength, fracture length, elongation, tensile energy absorption, tensile index, tensile energy absorption index, 180 degree peel strength, gum peel strength of paper, cardboard, plastic film, non-woven cloth and other non-metallic materials.

Stretch test mode can achieve the following functions:

The paper tensile strength, tensile strength, elongation, fracture length, tensile energy absorption, tensile index, and tensile energy absorption index were measured.

The tensile strength, peeling strength and elongation of aluminum foil and aluminum plastic strip were measured.

The tensile strength, elongation and modulus of elasticity of plastic film were measured.

The bonding strength, edge sealing strength, tensile strength and elongation rate of sanitary napkin were measured.

The test mode of back glue is mainly used to measure the adhesion strength between the back glue of sanitary napkin and pad and cotton fabric.

◆ Main features

1. Servo motor is adopted, with low noise and accurate control
2. Use color large screen touch LCD to display all data in real time
3. Simple parameter setting, convenient and reliable test
4. Directly obtain measurement results, including mean value and Standards deviation
5. High degree of automation: data processing and action control, automatic reset, overload protection
6. Data communication: The instrument is equipped with Standards serial RS232 interface, which can provide data communication for the PC comprehensive reporting system.

◆ Main technical parameters

Parameters of the project		Technical indicators	
		Ordinary tensile	Peel strength
Measuring range		0 ~ 100N	0 ~ 30N
Resolution		0.001N	0.001N
Indicator accuracy		±1%	±1%
Test speed		1 ~ 400 mm/min (adjustable)	(400±10) mm/min
Elongation		0.001%	
Sample clamping size	Width	15mm (25mm, 50mm can be customized)	80mm
	Clamping spacing	20-200mm (adjustable)	80mm
Attachment			Farmar 62mm × 80mm , 500g
			Single jersey 65mm × 120mm, Quantitative 120g/㎡ ~ 140g/㎡
Power supply		AC220V±10% 50HZ 2A	

◆ Standards

GB/T 8939-2018 Sanitary napkin (pad)

ISO 1924 Determination of tensile strength of paper and board

GB/T 12914 Determination of tensile strength of paper and board

GB 8808 Test Method for stripping of soft composite plastics

GB 13022 Test Methods for tensile properties of plastic films

ZB-QZ15 Standards strip cutter

◆ Introduction

ZB-QZ15 Standards strip cutter is the special sampler to get the paper and cardboard sample. it is a common Standards cutter which can cut the sample width 15mm. Besides, it is the ideal instrument for papering, packaging and the department of inspection.

◆ Main Technical Parameters

Sample width	15mm
Sample maximum length	300mm
Parallelism	≤0.1mm
Dimension	240*520*70mm
Net weight	20kg

ZB-TJD Adjustable paper cutter

◆ Instruction

ZB-TJD Adjustable paper cutter comply with the QB/T1671 Standards, which meet the paper and paperboard physical property special sampler technical requirements. It's the ideal cutter to get the Standards sample.

◆ Main parameters

Maximum length	380
Maximum width	130
Sample size	15mm
	38mm
	63mm
Sample parallelism	≤0.1mm
Sample width error	±0.15mm
Dimension	600*290*100mm
Net weight	About 20kg

ZB-DLD100 GSM circular cutter

◆ Introduction

ZB-DLD100 GSM circular cutter can cut sample quickly and precisely, mainly used in the cardboard and paper.

It is the ideal auxiliary instrument for the packing, papermaking and the department of inspection.

◆ Main technical parameters

Sample area	100cm^2
Sample area error	±0.35cm^2
Sample thickness	0.1~1.0mm
Dimension	240*288*435mm
Net weight	25kg

ZB-BK10A Bekk Smoothness tester

◆ Introduction

ZB-BK10A Bekk Smoothness tester is designed according to the Bekk type smoothness testing principle. Equipped with high-precision sensor and imported oil-free vacuum pump. It is the essential testing instrument for the industry and department of papermaking, inspection&research to test the smoothness of paper and cardboard.

◆ Standards

ISO 5627 GB/T456

◆ Main Features

1.Imported Oil-free vacuum pump, can work without oil

2. Fast measurement: can choose a small volume chamber measurement, measurement time is only one-tenth of a large volume chamber, saving time in measurement. and the function of"automatic test" has been added in, can greatly save time when testing high smoothness. sample

3. Good seal: adopted foreign vacuum sealed plastic and advanced sealing technology to achieve the national Standards requirements;

4. Adopted 7. 0 inches color touch-screen which makes it easy to operate.

5. Instrument has strong data processing ability, can be directly the statistical results of the data.

6. Adopted CAM and spring structure design, when measuring the single chip microcomputer automatically control synchronous motor rotating, load pressure and clip paper

7. Data communication: by buying the PC software, the instrument can be connected via USB cable to communicate with the computer.

◆ Main Technical Parameters

Power supply	AC220V±10% 50HZ	
Measuring scope	(1~9999)s, can be divided to (1~15)s, (15~300)s, (300~9999)s, And the automatic (no more than 200 s)	
Time accuracy	±0.1s within 300s	
Vacuum system volume(ml)	the bigger volume	380±1
	the smaller volume	38±1
Contact pressure(kPa)	100±2	
Vacuum scope (kPa)	I	50.66 ~ 48.00
	II	50.66 ~ 48.00
	III	50.66 ~ 29.33
	automatic	No limit
Air volume(50.66kpa down to 48.00kpa)	Big vacuum volume	10.00±0.20ml
	Small vacuum volume	1.00±0.05ml
Dimension	325*390*430mm	
Net weight	30kg	

ZB-NZ135A MIT Folding strength tester

◆ Introduction

ZB-NZ135A MIT Folding strength tester is used to test the folding endurance of paper, cardboard and other sheet materials. The folding clamp can position automatically . Mechatronics technique, servo motor control, . advanced technology, completed functions, stable performance, easy to use are the advantages of the instrument. It is the ideal testing machine for papermaking, packing, research and inspection.

◆ Standards

ISO 5626 GB/T 457

◆ Main features

1. Micro-computer control technology, open architecture, easy operation, safe and reliable.

2.Automatic measurements, statistics, print the test results, and has data storage function;

3.Automatically return to zero after the test is completed

4.Electromechanical integration of modern design, compact structure, elegant appearance and easy maintenance.

◆ Main technical parameters

Power supply	AC220V±10% 50HZ
Measuring scope	0~99999
Folding angle	135°±2°
Tensile scope:	4.9~14.7N
Folding head suture size	0.25mm 、 0.50mm 、 0.75mm、 1.00mm
Folding radius	0.38±0.02mm
Dimension	320*320*450mm
Net weight	20kg

ZB-HY3000A Crush tester

Introduction

ZB-HY3000A Crush tester adopts the advanced parts, MCU to have a reasonable frame and multifunctional design. It can test, translate, adjust, display, remember, and print. Besides, it is the basic equipment to test the compression.

(1)With the compression plate and compression special sampler, can have the Ring Crush Test (RCT)

(2)With the edge crush cutter and auxiliary guide block can have Edge Crush Test(ECT)

(3)With the peel test rack to test the peel strength (PAT)

(4)Equipped with flat compression sampler to test the strength of flat compression (FCT)

(5)With other auxiliary appliance can test CCT and CMT

Standards

ISO 12192 ISO 3037 ISO 7263 ISO 3035 GB/T 2679.8 GB/T 6546 GB/T 6548 GB/T 2679.6 GB/T22874

Main features

1. The user can order corresponding accessories according to actual conditions, to achieve a variety of paper and cardboard strength test
2. Test data can be printed out
3. Mechatronics design, compact structure, nice appearance, easy maintenance

Main technical parameters

Power supply	AC220V±10% 50HZ
Measuring range	(50-3000)N
Resolution	0.1N
Accuracy	±1%
Variability	≤1%
Speed	12.5±2.5mm/min
Maximum distance	78mm
Dimension	450*400*500 mm
Weight	50kg

ZB-HYD152 RCT sample cutter

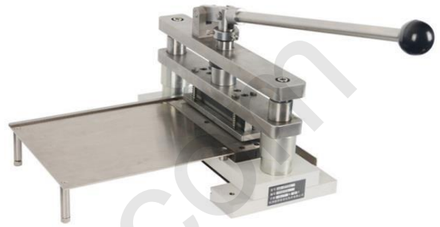
Introduction

ZB-HYD152 RCT sample cutter is the essential instrument which can meet the corrugated cardboard Flat Crush Test required special sampling.

The equipment can be quickly and accurately cut the sample. It is the ideal auxiliary instrument for the packing, apering and the department of inspection.

Technical parameters

Sampling length	152±0.2mm
Sampling width	12.7±0.05mm
Length parallelism	<0.015mm
Sampling thickness	(0.1~1.0)mm
Dimension	570*190*368mm
Weight	25kg



ZB-BYD ECT(PAT) sample cutter

Application

The sampler cuts the samples needed in ECT(PAT) Sample Cutter for corrugated cardboard. It is able to cut samples in required size quickly and precisely. And it is also an ideal auxiliary testing apparatus for production of corrugated cardboard and carton, research or quality and monitor and control department.

Executive Standards

QB/T 1671: General technical conditions: Paper and cardboard physical performance test special die cutting sample instrument.

Main technical specification

(1) Sampling size: 25mm*100mm
(2) Sampling size error: ±0. 5mm
(3) Maximum sampling length: 220mm
(4) Maximum sampling thickness: 12mm
(5) Size: 430*380*200mm

ZB-PYD FCT sample cutter

Introduction

It is an indispensable Standards sample cutter for doing flat strength crush test of corrugated cardboard. It can cut sample with specific dimension fast and accurately. It is an ideal accessory for manufacturer of corrugated cardboard and carton, scientific research and quality inspection bureau.

Technical data

1. Sample area: 32. 2cm2 or 64. 5cm2
2. Result error: ±0. 5cm2
3. Sample thickness: ≤7mm
4. Cutter: marketing single-edged cutter
5. Size: 150*150*150mm
6. Net weight: 2kg

PAT sample holder

The main purpose

PAT sample holder is used to measure the adhesion strength of corrugated board layers, such as three layer of corrugated board, the adhesion strength of the surface paper and core paper or in paper and core paper, belongs to the special and Standards test equipment.

Technical parameters

Upper part pressure needle:
1. Diameter:
Φ (3. 5 + 0. 1) mm (A)
Φ (3. 0 + 0. 1) mm (C)
Φ (2. 0 + 0. 1) mm (B)
Φ (1. 0 + 0. 1) mm (E)
2. Needle number:
4pcs (A)
4pcs (C)
6pcs (B)
6pcs (E)
3. Length: (30 + 1) mm

Lower part of the support needle:
1. Diameter:
Φ (3. 5 + 0. 1) mm (A)
Φ (3. 0 + 0. 1) mm (C)
Φ (2. 0 + 0. 1) mm (B)
Φ (1. 0 + 0. 1) mm (E)
2. Needle number:
5pcs (A)
5pcs (C)
7pcs (B)
7pcs (E)
3. Length: (40 + 1) mm

Net weight: 0. 8kg
Standards configuration: A C B E
Transportation packaging: plastic box
Standards: GB/t6548-2011

ZB-CW Vertical Fluter

To determinate of flat crush strength of corrugated paper when pressed Standa rds waveform, ISO7263-1985
To determinate of flat crush strength of corrugated paper when pressed Standa rds waveform (i.e., from the flute corrugated base paper),
comply with Standards: ISO7263-1985: corrugating medium –
Determination of flat crush resistance after laboratory fluting.

Main technical parameters

Working speed: 4. 5r/min
Temperature display resolution: 1 °C
Temperature measurement accuracy: 0.5 grade ± 1 word Adjustable temperature range:
room temperature ~ 200 °C W orking pressure adjustable range: (49 ~ 108) N
Standards working temperature: 175 °C
Spring tension: 100N
Dimensions (length * width * height): About 564mm*377mm*330mm
Power Supply: AC220V, 50Hz

Features

Instrument using single-chip microprocessor control technology,
Precision temperature controller accurate temperature adjustment,
Automatic temperature compensation mode with PID control, fast response, high steady precision,
Digital display actual temperature and set temperature,
With over-temperature protection device,
Set parameters memory automatically after power failure
With parameter self-tuning function, Precision gear transmission, Standards Buttons sensitive durable,
Flute corrugated paper from the automatic mode

ZB-HY5000A Crush tester

Introduction

ZB-HY5000A Crush tester adopts the advanced parts, MCU to have a reasonable frame and multifunctional design. It can test, translate, adjust, display, remember, and print. Besides, it is the basic equipment to test the compression.
(1) With the compression plate and compression special sampler, can have the Ring Crush Test (RCT)
(2) With the edge crush cutter and auxiliary guide block can have Edge Crush Test(ECT)
(3) With the peel test rack to test the peel strength (PAT)
(4) Equipped with flat compression sampler to test the strength of flat compression (FCT)
(5) With other auxiliary appliance can test CCT and CMT

Standards

ISO 12192 ISO 3037 ISO 7263 ISO 3035 GB/T 2679.8 GB/T 6546 GB/T 6548 GB/T 2679.6 GB/T22874

Main features

1. The user can order corresponding accessories according to actual conditions, to achieve a variety of paper and cardboard strength test
2. Test data can be printed out
3. Mechatronics design, compact structure, nice appearance, easy maintenance

Main technical parameters

Power supply	AC220V±10% 50HZ
Measuring range	(50-5000)N
Resolution	1N
Accuracy	±1%
Variability	⩽1%
Speed	12. 5±2. 5mm/min
Maximum distance	200mm
Dimension	450*400*500mm
Weight	50kg

ZB-NPY Pneumatic Mullen burst tester

Introduction

Pneumatic Mullen burst tester is the basic instrument for testing the anti-bursting degree of paper and cardboard. It conforms to the Standards of ISO2758 Paper- Determination of bursting strength, ISO2759 Board-Determination of bursting strength and GB1539 (method for testing cardboard bursting strength). It uses high precision sensors. With data processing, the data can be directly obtained, and can automatically reset. It has the advantage of easy operation, easy adjustment, stable performance, which make it become the essential instrument for papermaking, packing, inspection and research.

Standards

ISO2759 GB/T1539 ISO2758 GB/T454

Main Features

1. Pneumatic clamp system
2. Micro-computer control, use hydraulic oil as the driving force to break the specimen.
3. When the specimen is broken, it stores the maximum automatically
4. Automatic measurements, statistics, print the test results, and has data storage function
5. Micro-printer, high print speed, low failure;
6. Large color touch screen display
7. Mechanical and electrical integration of modern design, compact structure, excellent appearance, easy maintenance
8. Air compressor is provided by customer.

Main technical parameters

Item		ZB-NPY5600A	ZB-NPY1600A
Power supply		AC220V±10% 50HZ	
Measuring range(kPa)		0-5600	0-1600
Accuracy		±0. 5%F. S	
Compression speed （ml/min）		170±15	95±5
Clamp pressure(kPa)		⩾690	⩾430
Diameter of clamp	Upper clamp	31. 5±0. 05	30. 5±0. 05
	Lower clamp	31. 5±0. 05	33. 1±0. 05
Pneumatic pressure		0. 45~0. 6MPa	0. 3~0. 5Mpa
Film resistance(kPa)		when the bulge height is 10mm, the pressure is 170~220kpa	when the bulge height is 9mm, the pressure is 25~35kpa
		when the bulge height is 18mm, the pressure is 250~350kpa	
Dimension		480*420*600mm	
Net Weight		55kg	

Noted: ZB-NPY1600A is used to test paper, ZB-NPY5600A is used to test paperboard.

ZB-NPY Mullen burst tester

Introduction

Mullen burst tester is the basic instrument for testing the anti-bursting degree of paper and cardboard. It conforms to the Standards of ISO2758 Paper- Determination of bursting strength, ISO2759 Board-Determination of bursting strength and GB1539 (method for testing cardboard bursting strength). It uses high precision sensors. With data processing, the data can be directly obtained, and can automatically reset. It has the advantage of easy operation, easy adjustment, stable performance, which make it become the essential instrument for papermaking, packing, inspection and research.

Standards

ISO2759 GB/T1539 ISO2758 GB/T454

Main Features

1. Manual clamp system
2. Micro-computer control, use hydraulic oil as the driving force to break the specimen.
3. When the specimen is broken, it stores the maximum automatically
4. Automatic measurements, statistics, print the test results, and has data storage function
5. Micro-printer, high print speed, low failure;
6. Large color touch screen display
7. Mechanical and electrical integration of modern design, compact structure, excellent appearance, easy maintenance

Main technical parameters

Item		ZB-NPY5600	ZB-NPY1600
Power supply		AC220V±10% 50HZ	
Measuring range(kPa)		0-5600	0-1600
Accuracy		±0. 5%F. S	
Compression speed （ml/min）		170±15	95±5
Clamp pressure(kPa)		⩾690	⩾430
Diameter of clamp	Upper clamp	31. 5±0. 05	30. 5±0. 05
	Lower clamp	31. 5±0. 05	33. 1±0. 05
Pneumatic pressure		0. 45~0. 6MPa	0. 3~0. 5Mpa
Film resistance(kPa)		when the bulge height is 10mm, the pressure is 170~220kpa	when the bulge height is 9mm, the pressure is 25~35kpa
		when the bulge height is 18mm, the pressure is 250~350kpa	
Dimension		480*420*600mm	
Net Weight		55kg	

Noted: ZB-NPY1600 is used to test paper, ZB-NPY5600 is used to test paperboard.

ZB-BJ30 Sanitary napkin peel strength tester

The peel strength tester is mainly used to determine the adhesion strength between the back glue and cotton fabric of sanitary napkin and pad.

◆ Main feature

1. Servo motor, small noise and accurate control
2. Use a color screen to display the data in real time
3. The parameter setting is simple and the test is convenient and reliable
4. Direct measurement results, including mean and Standards deviation
5. High degree of automation: data processing and motion control can be performed, automatic reset, overload protection
6. Data communication: the instrument has Standards serial RS232 interface, which can provide data communication for the comprehensive report system of the computer

◆ Technical parameter

Power supply: AC220V ±10% 50HZ 2A
Measure range: 0 ~ 30N
Resolution 0. 01 N
Accuracy of the display value: ±1%
Test speed: (400±10)mm/min
The sample width: 80mm
Weight of weight: 62mm x 80mm, 500g
Stripping distance: 60 mm

◆ Standards

GB/T 8939-2018 sanitary napkin (pad)
ISO 1924 Determination of tensile strength of paper and board
GB/T12914 Paper and board tensile strength measurement

ZB-BJ30 Pneumatic sanitary napkin peel strength tester

The peel strength tester is mainly used to determine the adhesion strength between the back glue and cotton fabric of sanitary napkin and pad.

◆ Main feature

1. Servo motor, small noise and accurate control
2. Equipped with pneumatic clamping mechanism, equipped with foot switch, convenient operation
3. Use a color screen to display the data in real time
4. The parameter setting is simple and the test is convenient and reliable
5. Direct measurement results, including mean and Standards deviation
6. High degree of automation: data processing and motion control can be performed, automatic reset, overload protection
7. Data communication: the instrument has Standards serial RS232 interface, which can provide data communication for the comprehensive report system of the computer
8. The air compressor is configured by the user.

◆ Technical parameter

Power supply: AC220V ±10% 50HZ 2A
Measure range: 0 ~ 30N
Resolution 0. 01 N
Accuracy of the display value: ±1%
Test speed: (400±10)mm/min
The sample width: 80mm
Weight of weight: 62mm x 80mm, 500g
Stripping distance: 60 mm
Work pressure: 0. 3 ~ 0. 5mpa

◆ Standards

GB/T 8939-2018 sanitary napkin (pad)
ISO 1924 Determination of tensile strength of paper and board
GB/T12914 Paper and board tensile strength measurement

ZB-QNPY30 Toilet paper ball burst tester

Toilet paper ball burst tester is a special instrument for determining the mechanical penetration of toilet paper (spherical burst) and breaking index.

◆ Main feature

1. Servo motor, small noise and accurate control
2. Use a color screen to display the data in real time
3. Within the range of 0-30n, the accuracy can reach 0. 01 N and resolution 0. 01 N
4. Direct measurement results, including average, anti-burst index, Standards deviation and coefficient of variation
5. High degree of automation: data processing and motion control can be performed, automatic reset, overload protection
6. Data communication: the instrument has Standards serial RS232 interface, which can provide data communication for the comprehensive report system of the computer
7. Standards manual fixture

◆ Main technical parameter

Power supply: AC220V±10% 50HZ 5A
Measure range: 0 ~ 30N
Test accuracy: 0. 01 N
Resolution: 0. 01 N
Test speed: 125 mm/min (Standards), 1 ~ 400mm/min (adjustable)
Depth: 25 mm
Instrument size (length * width * height) mm: 450 x 550 x 1200

◆ Standards

ISO/FDIS 12625-9: 2014 Tissue paper and Tissue products - Part 9: Determination of ball burst strength (test hole diameter: 50mm)
GB/T 24328. 7-2009 toilet paper and part 7 of its products: determination of ball resistance

ZB-HD Digital paper thickness tester

◆ Introduction

ZB-HD Digital paper thickness tester is a special instrument for measuring the thickness of paper and paperboard. It adopts high-precision displacement sensor and has the unique tightness calculation function. It has the advantages of advanced technology, complete functions, reliable performance, simple operation and so on.

◆ Main features

1. High precision
Use high - precision sensor to make the resolution up to 0. 001mm.
2. Good stability
3. Easy to use and operate
Large-screen color touch screen display, user-friendly man-machine interface operation, fully automatic test, with test data statistics processing function, micro printer output.
4. Convenient measurement
The calculation function of compactness can be realized by placing quantification in parameter setting.

◆ Main technical parameters

Measuring range	（0~4） mm
Division value	0. 001mm
Indication error	±0. 0025mm or ±0. 5%
Indication variability	≤0. 0025mm or ≤0. 5%
Measuring parallelism	≤0. 002mm
Touching area	（200±5） mm2 Touching diameter(φ16±0. 5) mm
Touching pressure	（100±10） kPa
Down speed	≤3mm/s
Dimension （length * width * height）	400*360*520 mm
Weight	About 25kg

◆ Standards

ISO 534 paper and board - a method for the determination of thickness and lamination tightness or single layer tightness
GB/T 451. 3 Measurement of paper and board thickness

ZBH-5 Electric thickness gauge

ZBH-5 electric thickness gauge is a special instrument for measuring the thickness of paper and board. It is widely used to measure the thickness of paper, paperboard and other sheet materials. This instrument is the cardboard, is the cardboard, the carton production, the scientific research and the commodity inspection and so on enterprise and the department essential common use instrument.

◆ Main features

1. Motor drive, low noise and accurate control
2. Power indication, eye-catching color, convenient operation

◆ Main technical parameters

Measuring range (mm)	0～5
Accuracy of measurement (mm)	0. 001
Touching pressure（kPa）	100±10
Touching diameter（mm）	16. 0±0. 5
Measuring plane parallelism error	0. 005mm or 1%
Error value	±0. 0025mm or ±0. 5%
Repeatability error of indication	0. 0025mm or 0. 5%
Dimension	230*230*390mm
Weight	17. 5kg

◆ Standards

ISO 534 paper and board - methods for determination of thickness and compactness of layers or single layers
GB/T 451. 3 determination of paper and board thickness

ZB-BC48 puncture strength tester

◆ Introduction

It is the essential instrument to test the puncture strength of paper and cardboard. automatic reset handle, safe protection, high accuracy, stable performance, counting, and printing are the main features . It's an indispensable instrument. for cardboard box manufacturing plant, research & quality supervision inspection and other enterprises

◆ Standards

ISO3036　GB/T 2679.7

◆ Main Features

1.Computer control technology, open architecture, automatic processes, simple operation, safe and reliable.
2.Automatic measurement, intelligent estimate, operating systems can show results on time
3.Count, print the test results, and has data storage function;
4.English interface, easy to operate
5.Thermal micro-printer, high print speed, low noise, no ink and ribbons, easy to use, low failure rate;
6.Mechanical and electrical integration of modern design, compact structure, elegant appearance and easy maintenance.

◆ Main technical parameters

Power supply	AC220V±10% 50HZ	
Measurement range	A	(1~6)J　indicating error ±0. 05J
	B	(1~12)J indicating error ±0. 10J
	C	(1~24)J　indicating error ±0. 20J
	D	(1~48)J　indicating error ±0. 50J
	These indicating errors are ensured just in　the measurement range of 20%~80%	
Frictional resistance	<0. 25J	
Pyramid dimension	three sides 60*60*60mm　height 25±0. 7mm Arris edge fillet radius 1. 5±0. 1mm	
Dimension	800*470*840mm	
Net weight	185kg	

ZB-YSJ5000 Universal crush tester

Introduction

This instrument can be used to test RCT, ECT, FCT, PAT, CMT. It's the basic equipment to test the compression strength. It adopts modern mechanical design and Micro computer processing technology, Touch-screen interface make it easy to operate. ARM chip have a big processing data function, and test data can be got directly

Standards

ISO 12192 ISO 3037 ISO 7263 ISO 3035 ISO11093-9 ISO12048
GB/T 2679.8 GB/T 6546 GB/T 6548 GB/T 2679.6 GB/T22874
GB/T22906.9 GB/T4857.3 GB/T4857.4

Main features

1. The user can order corresponding accessories according to actual conditions, to achieve a variety of paper and cardboard strength test
2. Servo motor control, low noise. high precise
3. Advanced parts, use ARM chip, has the function of automatica reset, date memory, overload protection etc
4. Test data can be printed out
5. Mechatronics design, compact structure, nice appearance, easy maintenance

Main technical parameters

Power supply	AC220V±10% 50HZ
Press measuring range	50~5000N
Resolution	1N
Accuracy	±1%
variability	≤1%
Speed	0~80mm/min
Platen size	300*300
Platen distance	300mm
Dimension	570*480*800mm
Net weight	85kg

ZB-KY Carton compression tester

Introduction

ZB-KY Carton compression tester is the essential testing equipment to test the compressive strength of carton box. Adopted high precise sensor, ARM chip, with powerful data processing function, test process automatic tracking, the testing result is automatic recording, real-time display test data and curve, and can communicate with computer. Touch-screen display make the instrument easy to operate, good appearance, and quick response.

Standards

ISO12048 ISO2871 ISO2874 GB/T 4857.3 GB/T 4857.4 QB/T1048-2004

Main characters

1. Strength test: The instrument can test the maximum pressure resistance of cartons and other boxes
2. Quantitative test: The instrument can be set according to the required data to test whether the box body meets the preset compressive resistance or deformation requirements
3. Stacking test: Stacking test under different conditions of 12 hours, 24 hours, etc. can be conducted according to the requirements of national Standards
4. Precision mechanical design: The instrument adopts precision lead screw, which ensures the parallelism of upper and lower pressure plates and the stability of high-speed transmission of the instrument during the test
5. Servo motor control: The instrument is controlled by servo motor, which enables accurate positioning, fast response, compression speed of 10mm/min and return speed of up to 250mm/min, which saves testing time and improves testing efficiency. Meanwhile, it provides reliable hardware guarantee for the accuracy of stacking test and cyclic pressure test
6. Sensor: The instrument adopts high precision pressure sensor and unique sampling algorithm software, which greatly improves the measurement accuracy of the instrument
7. Specification testing: non-Standards design and processing can be carried out according to the size required by users
8. Man-machine integrated design: The instrument adopts modern mechatronics design with large LIQUID crystal display
9. Data communication: The instrument is equipped with Standards serial RS232 interface, which can provide data communication for the PC comprehensive reporting system

Main technical parameters

Item no.	ZB-KY10	ZB-KY20	ZB-KY50
Power supply	AC220V±10% 50HZ		
Measuring range	(0. 1-10)KN	(0. 1-20)KN	(1-50)KN
Indication error	<±1%		
Platen size	500*500mm/ 600*600mm (customized)	800*800mm/ 1000*1000mm (customized)	800*800mm/ 1000*1000mm/ 1200*1200mm/ 1500*1500mm (customized)
Operating stroke	500mm/ 600mm (customized)	800mm/ 1000mm (customized)	800mm/1000mm/1200mm/ 1500mm (customized)
Compression speed	10mm/min		
Speed adjustment range	1-60mm/min		
Track and force speed in stacking test	2mm/min		

ZBH-4 Paper thickness meter

Introduction

Paper thickness meter is a special instrument to measure the thickness of paper, widely used in paper, cardboard and other sheet materials. It's the essential equipment for the papermaking, packing industry, research and inspection department.

Standards

ISO 534 ISO3034 GB/T 451.3 GB/T6547

Main technical parameters

Measuring range	0-4mm
Accuracy	0. 01mm
Contact pressure	100±10 kPa
Contact diameter	16. 0±0. 5 mm
Error of depth of parallelism	0. 005mm or 1%
Indication error	±0. 0025mm or±0. 5%
Indication variability	≤0. 0025mm or≤0. 5%
Dimension	233*160*120 mm
Net Weight	About 5. 5kg

ZBH-4 Paper thickness meter

Introduction

Paper thickness meter is a special instrument to measure the thickness of paper and cardboard, widely used in paper, cardboard and other sheet materials. It's the essential equipment for the papermaking, packing industry, research and inspection department.

Standards

ISO 534 GB/T 451.3 GB/T6547

Main technical parameters

Measuring range	0-4mm
Accuracy	0. 001mm
Contact pressure	100±10 kPa
Contact diameter	16. 0±0. 5 mm
Error of depth of parallelism	0. 005mm or 1%
Indication error	±0. 0025mm or±0. 5%
Indication variability	≤0. 0025mm or≤0. 5%
Dimension	233*160*120mm
Net Weight	About 5. 5kg

ZBH-20 Paperboard thickness meter

Introduction

Paperboard thickness meter is a special instrument to measure the thickness of paperboard, widely used in paper, cardboard and other sheet materials. It's the essential equipment for the papermaking, packing industry, research and inspection department.

Standards

ISO 534 ISO3034 GB/T 451.3 GB/T6547

Main technical parameters

Mode	ZBH-20
Measuring range	0~20mm
Accuracy	0. 01
Contact pressure	20±0. 5 kPa
Contact diameter	35. 7±0. 5
Error of depth of parallelism	0. 03
Indication error	±0. 0025mm or±0. 5%
Indication variability	≤0. 0025mm or≤0. 5%
Dimension	233*160*120mm
Net Weight	About 5. 5kg

ZB-COBB125 Cobb tester (water absorption tester)

Introduction

Cobb tester (water absorption tester) is a general instrument to test the water absorption of paper and cardboard. It adopts the overturn structure which make it easy to operate

Standards

ISO535 GB/T 1540

Main technical parameters

Metal cylinder	Inner area	(100±0. 2) cm^2
	height	50mm
Metal Roller	width	(200±0. 5) mm
	weight	(10±0. 5) kg
Absorbency paper	200-250g/m^2	
Absorbency Speed	75mm/10min	
Sample diameter	125mm	
Dimension	270*400*300mm	
Net weight	25kg	

ZB-COBB125 Cobb water absorption tester with stopwatch

Using Cobb method to determine the surface of the water absorption capacity of paper and board (Cobb value), suitable for the determination of sized paper and cardboard on the surface of the water, not suitable for quantitative below 50 g/m squared, sizing degree is low or there are more of the pinhole of base paper and embossed paper, do not apply to the sizing of paper and cardboard, paper and board does not apply to the accurate evaluation of performance.

◆ Main feature

1. Use the inverted structure
2. Bring back the stopwatch, remove the remaining water and complete the water absorption time reminder
3. Select test time, provide Standards test time 30s, 60s, 120s, 360s
4. Turn over the suction and start timing

◆ Main parameter

Power supply	AA battery 1. 5V×2
measuring area	（100±0. 2）c m²
Sample size	Ø（125±5）mm
Metal Roller width	（200±0. 5 ）mm
Metal Roller weight	（10±0. 5 ）kg
Dimension	(320×400×300)mm
Net weight	About 25kg

◆ Standards

GB/T 1540-2002 paper and board water absorption determination of the method
ISO 535: determination of water absorption of paper and board

ZB-CBD125 COBB cutter

◆ Introduction

ZB-CBD125 COBB cutter is the essential instrument for paper and paperboard, it can cut sample quickly and precisely. It is the ideal auxiliary instrument for the packing, papermaking and the department of inspection.

◆ Main technical parameters

Sample diameter	φ125mm
Sample error	±0. 2mm
Sample thickness	0. 1~3. 0mm
Dimension	240*288*435mm
Net weight	25kg

ZB-DJ100 beating freeness tester (Schopper-Riegler type)

◆ Introduction

Beating freeness tester (Schopper-Riegler type) is a specific instrument used to measure the rate of suspension pulp liquid. Instrument adopts manual pressure seal cones, through heavy hammer, regulating the rising velocity. The equipment is easy to operate. Besides instrument adopts spring preload structure which makes the rubber sealing combining with the bottom of the filter well.

◆ Standards

ISO 5267-1 GB/T 3332

◆ Main technical parameters

Measurement range	(0~100)°SR
Sealed testing speed	100±10 mm/s
Volume of distilled water	1000±5ml
Draining time	(149±1)s
Residual water volume	(7. 5~~8)ml
Hydraulic pressure	>0. 3MPa
Dimension	450*250*1100mm
Net weight	40kg

ZB-YDJ100 hydraulic pulp beating freeness tester

◆ Introduction

ZB-YDJ100 hydraulic pulp beating freeness tester is a specific instrument used to measure the rate of water diluting pulp suspension . According to international general Schopper-Riegler working principle design. Apparatus adopts cylinder structure, through hydraulic pressure to control, regulating the rising velocity which makes equipment operation simple. Besides apparatus adopts spring preload institutions makes the rubber sealing ring seal hammer body combining with the bottom of the ShuiTong filter, increasing seal hammer body's sealing.

◆ Standards

ISO 5267-1 GB/T 3332

◆ Main technical parameters

1. Measurement range : (1~100)°SR
2. Sealed testing speed: 100±10 mm/s
3. Draining time for the outgate: (149±1)s
4. Residual volume: (7. 5~~8)ml

◆ Size and Weight

Dimension: 250*450*1180mm
Net weight: 40kg

ZB-YDJ100 Pneumatic pulp beating freeness tester

Introduction

ZB-YDJ100 Pneumatic pulp beating freeness tester is a specific instrument used to measure the rate of water diluting pulp suspension . According to international general Schopper-Riegler working principle design. Apparatus adopts cylinder structure, through pneumatic pressure to control, regulating the rising velocity which makes equipment operation simple. Besides apparatus adopts spring preload institutions makes the rubber sealing ring seal hammer body combining with the bottom of the ShuiTong filter, increasing seal hammer body's sealing.

Standards

ISO 5267-1 GB/T 3332

Main technical parameters

1. Measurement range : (1~100)°SR
2. Sealed testing speed: 100±10 mm/s
3. Draining time for the outgate: (149±1)s
4. Residual volume: (7. 5~~8)ml

Size and Weight

Dimension: 250*450*1180mm

Net weight: 40kg

ZB-LX Electronic centrifuge

Introduction

ZB-LX Electronic centrifuge use MCU control, advanced design, good appearance, accurate time, easy to use. Compared with the similar products, it has the advantages of little vibration, low noise, high dewatering efficiency, widely used in papermaking, textile, printing and dyeing industries . It is the essential auxiliary test equipment for paper mills and laboratories.

Main technical parameters

Power supply	AC220V±10% 50HZ
Dehydration weight	0~500g
Dehydration time	0-12min
Dehydration speed	1400 r/min or 2800r/min
Dimension	300*360*340mm
Net weight	15kg

ZB-IBT Internal plybond tester

Introduction

It is applicable for testing the Internal Bonding Strength of various paperboards. Test principle: the paperboard sample is impact in a certain angle and weight, the energy it has absorbed indicates the internal bonding strength. It could test five samples at a time.

Standards

TAPPI-UM403

GB/T 26203-2010

Technical parameters

Sample size	25. 4mm*25. 4mm
Sample chucking power	0~40kg/cm2(adjustable)
Impact angle	90°
resolution	0. 001lbf/in²
Capacity	A: 20-500J/M2 B: 500-1000J/M2
Error	A: ±1J/M2 B: ±2J/M2
Unit	J/M2 、ft*lb/in²
Sample amount	5 pcs
Dimension	520*420*700mm
Net weight	62kg

ZB-IBTD Internal Bond Cutter

ZB-IBTD Internal Bond Cutter is used to cut sample for internal bond strength testing.

sample size	140*25. 4mm
parallelism	less than 0. 05mm
sample thickness	(0. 1-1. 0)mm
dimension	342*200*270mm
net weight	15. 5kg

ZB-TD500 Taber Stiffness Tester

◆ Introduction

ZB-TD500 Taber Stiffness Tester is a basic equipment to test the bending stiffness of paper and cardboard, . It is designed according to the principle of static bending.

◆ Standards

ISO 2493　GB/T 22364　GB/T2679

◆ Main technical parameters

Power supply	AC220V±10% 50HZ
Measurement range	(1~500)mN. m . divided into 7 small ranges
Indication error	±2%
Testing speed	（200°±20°）/min
Rated bend angle	15°±0. 3°and 7. 5°±0. 3°
Sample size	38*70 mm
Dimension	220*230*350mm
Net weight	15kg

ZB-RR1000 Tissue paper softness tester

◆ Introduction

This is a hand-touching softness tester. adopts micro-electron-controlled technology and liquid crystal display. It can calculate and print. obeys the related prescription mentioned in Standards T498Su, GBT8942, QBT1060. applies to the softness measurement for material such as toilet paper of all grades, tobacco sheet, fiber fabric and so on.

◆ Main Technical Parameters

Power supply	AC 220V±22V, 50Hz
Measurement range	(10~1000)mN
Division value	1mN
Accuracy	±1%
Indicating error	≤0. 5
Pressing depth of the measuring head	8 +0. 5 mm
Parallelism error between two brims of the specimen stages	≤0. 05mm
Slit width of the specimen stage	5mm, 6. 35mm, 10mm, 20mm
Dimension	570*410*200
Net weight	33kg

ZB-XK200 Water absorption tester (Klemn method)

◆ Introduction

This instrument is used for measuring the degree of water absorption of paper. the capillary rise in millimeters by suspending a specimen in a vat filled with water. The capillary rise of water in paper is the water distance rise in a strip of a paper suspended vertically with its lower end immersed in water.

◆ Main technical parameters

Measurement range	0 - 200 mm.
Division value	1 mm.
Number of specimen holders	5
Specimen size	15 * 250 mm.
Dimension	420*250*380mm
Net weight	15kg

ZB-XK200 Electric water absorption tester (Klemn method)

◆ Introduction

Determination of the height of capillary suction fluid for paper and board by Klemn method, applicable to ungummed paper and board, the suction height is no more than 200mm.

◆ Main features

1. Use hand control cam rise and fall
2. Bring the stopwatch with the timer to remind you
3. The water absorption time can be set, default 10min + 10s (600 + 10 s).
4. Start time automatically when entering water

◆ Main technical parameters

Power: AA battery 1. 5 V * 2
measuring range: 5 ~ 200 mm
Division value: 1 mm
Time division value: 0. 1 s
sample size: wide (15 + / 1)mm　length≥250mm

◆ Standards

GB/T 461-2002 Determination of the height of capillary suction fluid for paper and paperboard (Klemn method)

ZB-HD Digital tissue paper thickness tester

◆ Introduction

ZB-HD Digital tissue paper thickness tester is the determination of the thickness of toilet paper dedicated instruments, displacement sensor with high precision, with functions of laminated thickness and apparent density, with advanced technology, complete functions, reliable performance, the advantages of simple operation, is the toilet paper production, scientific research and product quality supervision, inspection and other industries and departments ideal test equipment.

◆ Main features

1. The precision is high

High precision sensor, resolution force up to 0. 001mm.

2. Good stability

3. Easy to use and operate

Large screen color touch screen display, friendly man-machine interface operation, automatic completion of testing, test data statistics processing function, micro printer output.

4. Easy to measure

The calculation function of lamination thickness can be realized by inputting the number of samples in parameter setting. Quantitative placement, can achieve the apparent density calculation function.

Main parameter

Measuring range	（0~12）mm
Division value	0. 001mm
Indication error	±0. 003mm or ±0. 5%
Indication variability	≤0. 003mm or ≤0. 5%
Measuring parallelism	≤0. 004mm
Touching area	10. 0 cm2 Touching diameter（35. 7±0. 1）mm
Touching pressure	（2. 0±0. 1）kPa
Down speed	（2. 0±0. 2）mm/s
Dimension（length * width * height）mm	400*360*520
Weight	About 25kg

◆ Standards

ISO 12625-3: 2005 Toilet paper and its products Part 3: determination of thickness, lamination thickness and apparent density

GB/T 24328. 2-2009 Toilet paper and its products Part 2: determination of thickness, lamination thickness and apparent density

ZB-MCY05 Coefficient of Friction Tester

It is applicable in testing the static and kinetic friction coefficient of plastic film, paper and sheet or other similar material.

◆ Main features

1. Adopted the imported motor, low noise, control precisely.
2. Large screen, real-time display various data.
3. Setting parameters simply, testing conveniently and reliably.
4. The measured results can be obtained directly, including average value, Standards deviation.
5. High automation with the advanced parts, has the function of testing message processing data and motion control, besides it can reset automatically, remember data, and protect and diagnose error.
6. Equipped with RS232 interface and can communicate with the computer software.

◆ Main technical parameters

Power supply	AC220V±10% 50HZ 2A
Measurement range	(0. 01 ~ 10)N
Resolution ratio	0. 01 N
Accuracy	Indication error±2%
Sample thickness	≤0. 2mm
Slider size	63mm × 63mm
Slider weight	200g ± 2g
Dimension of working plate	170mm × 225mm
Slider speed	0-360mm/min (adjustable); Recommended test speed: (100±10) mm/min

◆ Standards

GB10006-88

ISO8295

TAPPI T816

ASTM D 1894-01

ZB-SL Electronic tearing tester

Introduction

ZB-SL Electronic tearing tester is a special instrument to measure the tearing degree of paper. it is mainly used to measure the tearing degree of various kinds of paper. it can also be used to measure the tearing degree of lower strength paperboard. it is an ideal testing equipment for paper making, packaging, quality testing institutions and other departments.

Features

1. High accuracy

High precision sensor is adopted to make the resolution force up to 0. 1mn and ensure the accuracy error within ±1%. This instrument has the highest precision in China, and can be used by the user to check the tearing degree.

2. Good stability

With the weight, it can be easily calibrated at any time. The built-in pendulum shaft friction compensation device reduces the impact of friction on the test, making the results more accurate and stable.

3, easy to use, easy to operate

Large screen color touch screen display, friendly man-machine interface operation, automatic completion of testing, test data statistics processing function, micro printer output. Automatic pendulum release control and results of automatic memory and display, reduce human error, not only easy to operate, but also make the results stable and correct.

4. Easy to measure and calibrate

The instrument is equipped with a special calibration weight and built-in calibration procedure, which is convenient for measurement and calibration departments (third parties) to calibrate the instrument. During the calibration, enter the calibration test program, screw the calibration weight into the calibration screw hole, and the calibration error calibration can be easily carried out.

Technical parameters

Measuring range	(0~16000)mN, in which the measuring range of rependulum (800~8000)mN, and the measuring range of weighted pendulum (1600~16000)mN
Resolution	0. 1mN
Accuracy of indication	Indicating error ±1%, indicating variability ≤1%
Tearing arm	(104±1)mm
Tearing angle	27. 5°±0. 5°
Distance between paper clips	(2. 8±0. 3)mm
Sample notch length	(20±0. 5)mm
Thickness of the clamping	≤3mm
The two grippers are 15mm deep and 25mm wide respectively	
Dimensions	450*330*440mm
Weight	About 20kg

Standards

ISO1974 Paper - determination of tear strength (Elmendorf method)
GB455. 1 Paper tear determination method

ZB-TD10K Computer horizontal stiffness tester

Introduction

Stiffness is the anti-bending ability of paper and board. Horizontal stiffness tester is a special instrument for measuring the stiffness of paper and board.

Main features

1. Synchronous motor, small noise and stable test
2. Use a color screen to display the data in real time
3. The parameter setting is simple and the test is convenient and reliable
4. Direct measurement results, including mean, Standards deviation and coefficient of variation
5. High degree of automation: data processing and motion control can be performed, automatic reset, overload protection
6. Data communication: the instrument has Standards serial RS232 interface, which can provide data communication for the comprehensive report system of the computer
7. The ability to measure the power of opening and reverse folding of the carton with the effect of the conversion and use
8. Measure the anti-elasticity of the crease (crease stiffness)

Main technical parameters

Power supply	AC220V±10% 50HZ 2A
Measuring range	Bending force (50 ~ 10000) mN
Resolution ratio	1 mN
Accuracy	Indication error less 100 mN is ±1mN, the rest is ±1% Varation of indication ≤1%
Bending rate	300°±20°/ min
Bending length	(10-50) mm
Bending angle	5°-90°
Sample size	Sample width 38±0. 2mm Sample length 70mm Sample thickness less than 2. 5 mm

Standards

GBT 23144-2008
GBT 22364-2008
BS 3748
BS 6965
ISO 2493
TAPPI T556
DIN 53121
SCAN P29

Stiffness sample cutter

Stiffness sample cutter is a special and Standards specimen preparation a pparatus,
used for cutting sample of paperboard's stiffness and crease stiffness.
Required sample size: paperboard stiffness(70*38)mm
Crease stiffness: 36*38mm
Sample precision: ±0. 1mm
Product size: 320*90*110mm
NW: 9kg

ZB-MC20 Ink rub tester

ZB-MC20 Ink rub tester is suitable for testing the abrasion resistance of printing ink layer, photosensitive layer and surface coating of related products. Friction test can be used for dry wear test, wet wear test, decolorization test, paper blur test and special friction test. This printing ink decolorization tester can effectively analyze the problems such as poor rubbing resistance, poor adhesion, peeling of ink layer, decolorization of ink, low printing resistance of PS version and poor coating hardness of other products.

◆ Main features

1. Large color touch screen is adopted
2. Various friction speeds are optional
3. The ascending and descending sequence of counting times of friction is optional
4. The friction number can be set between 1 and 999999
5. The machine will stop automatically after the test
6. Power failure memory function can be set
7. compact mechanism, beautiful appearance, easy maintenance

◆ Main technical parameters

Power	AC220V±10% 50HZ 2A
Frequency set	1 ~ 999999
Rubing speed	Standards 43±2 times /min, optional (21, 85 and 106) times /min
Rubing load	GB：20 N ； ASTM：0. 9kg（2LB）
Rubing stroke	60mm

◆ Standards

GB/T 7706 letterpress decoration prints
Flexible upholstery printed matter - part 3: corrugated board

ZB-BT10 Paper cup stiffness tester

◆ Introduction

Paper cup stiffness tester (hereinafter referred to as the instrument) is a new type of instrument developed by our company according to the new national Standards. The instrument adopts domestic and foreign advanced components, supporting parts and single chip microcomputer for reasonable construction and multi-functional design. With a variety of parameters included in the Standards testing, conversion, adjustment, display, memory, printing and other functions. This instrument conforms to GB/ t27590-2011 Standards. It is designed according to the basic requirements of QB/T 2294- "paper cup" Standards and the general technical requirements of JJG157- "non-metal tension, pressure and universal testing machine". It is a necessary physical performance testing equipment for paper cup manufacturers, relevant scientific research and quality inspection departments.

◆ Main technical parameters

Measuring range	（1-30）N, Resolution of 0. 01 N
Indication accuracy	Indicating value error ±1%, indicating value variability ≤1%
Test speed	(50±2. 5) mm/min （30~80）adjustable
Relative distance of probe	（9. 5±0. 5）mm （1~20）mm adjustable
The probe is neutral to the probe	≤0. 2mm
Spacing of two probe heads	（40 ~ 120）mm
Overall dimension	500*270*330mm
Control display mode	Microcomputer control, touch color LCD display
Net weight	18kg
Environmental conditions	Indoor temperature (20±10) ℃, relative humidity<85%
Power supply	220V 50Hz

ZB-CA20 Paper dust tester

◆ Introduction

ZB-CA20 Paper dust tester is applied to test the dust of paper and cardboard.
The parameters and performance conform to the Standards of GB/T1541-1989.

◆ Technical parameters

Light source	20W fluorescent lamp
Irradiation degree	60°
Rotational working platform size	270*270mm; rotating 360°
Standards dust image	0. 05 – 5. 0 (mm2)
Dimension	428×350×250mm
Net weight	12. 5kg
Gross weight	15kg

ZB-JLQ Standard pulp disintegration tester

Laboratory Pulp Disintegrator (also known as Standards fiber Disintegrator, Standards fiber stirrer), It is a special disintegration equipment for the pulp papermaking industry.

It is suitable for laboratory wet disintegration of pulp: the disintegration is to separate the interwoven fibers in water after mechanical processing, and meanwhile to maximum remain fiber original structure properties unchanged, in order to ensure the experiment to obtain reliable data, using the original scientific research and production of effective, economy.

◆ Standards

ISO5263, JIS-P8220, TAPPI-T205

◆ Main technical parameters

1. Vessel inner diameter × height: φ152*191mm
2. Spiral baffle inside: four inner spiral width × pitch × Number: 6. 5*51*4
3. Agitator blades: φ90 three blades
4. Agitator shift: from the top is rotated clockwise
5. Distance from the bottom of the container agitator blade: 25mm
6. Impeller rotation frequency: 48. 3 ± 1. 65S-1
7. Total power: 220V/AC single-phase 400W, motor: 370W
8. Dimensions: 450*265*395 (mm)
9. Weight: 44 kg

ZB-TQ1000 Paper air permeability tester

◆ Standards

The instrument comply with QB/T1667 --Paper porosity method, used to test paper permeability .

Application

Many kinds of paper like cement sack paper, sack kraft paper, cable paper, copy paper and industrial filter paper will need to be test air permeability. This instrument is designed and manufactured to test the above kinds of paper, it's suitable for paper porosity in 1 $x10^{-2}$ --1 $x10^{2}$ μ m/(Pa · S). not suitable for large roughness paper.

◆ Main technical parameters

Measuring range: 0-1000ml/min
Test area: 10±0. 02cm2
Area differential pressure: 1±0. 01kPa
Inner diameter of grip ring: 35. 68±0. 05mm
Dimension: 410*300*1160mm
Weight: about15kg

ZB-GL Air permeability tester(gurely method)

ZB-GL Air permeability tester is a Gretel breathability tester which evaluates the breathability of paper and paperboard and wool fabrics according to the method of Gretel tester. The air in the inner cylinder is compressed under the action of weight, and a certain amount of air passes through the test piece fixed on the splint for the necessary time. There are two kinds of measuring methods: manual stopwatch and automatic timer.

◆ Test principle

The air permeability of paper, board, plastic film, and fabric is evaluated by measuring the time it takes a certain amount of compressed air to pass through the sample. The user can choose the manual model and the automatic model, which are measured by stopwatch and digital timer respectively. The user can also select a 10mm diameter air vent to test the high permeability samples.

◆ Technical parameters

Sample size	50*50 mm
Fixture	Bore diameter Φ28. 6±0. 1 mm（Through the area：642 mm2)
Outside the cylinder	Inner diameter Φ82. 6 mm, H 254 mm, Measure from bottom of cylinder H 120 mm
In the cylinder	Outer Diameter Φ76. 2 mm, inner diameter Φ74 mm, H 254 mm, weight 567±0. 5 g
Air volume	0 ~ 100 ml（scale 25 ml）, 100 ~ 350 ml（scale 50 ml）
Accessory	Test oil
Optional	Air holes (circular aperture Φ 10 mm)
Determination of time	Manual (stopwatch method)
Weight	About 15kg
Size of instrument	Length: 300*width: 200*height: 580 mm

◆ Standards

GB/T 458-2008 Determination of air permeability of paper and board
ISO 5636-5 paper and board-Determination of air permeance (medium range) part 5: Gurley method

◆ Test application

Air permeability tester is used for testing the breathability of shoes leather, shirts and coats fabric and paper. Test trends also include: plastic film, plastic film separator for lithium-ion batteries. The air permeability of plastic film separator is the amount of lithium ions passing through the plastic film separator, which determines the electric power of lithium ion battery. Similar applications include the determination of fuel cell correlation.

Halogen Moisture Meter

◆ Introduction

The Moisture Analyzer is a new rapid moisture testing instruments. designed according to the Halogen lamp thermo-gravimetric principle. When measuring the sample 's weight, at the same time, halogen lamp heating units and fast drying moisture evaporating channel samples in the drying process, moisture meter shows the continuous measurement and real-time loss of sample moisture content. when the drying process is complete, the final determination of moisture content value locked display. Compared with the international heating oven, halogen lamp heating can be the shortest time to reach maximum heating power, high temperature sample is dried quickly, their test results has good agreement and irreplaceable compared with the national Standards oven method. Besides, the detection efficiency is much higher . General determination of the sample just a few minutes to complete. The instrument is simple, accurate test, with red LED display, visible indication, respectively, therefore, the moisture meter can be widely used in all industries need rapid determination of moisture, such as medicine, food, feed, seeds, vegetable seeds, dehydrated vegetables, tobacco, chemicals, tea, agriculture, forestry, paper, rubber, plastics, textile and other industries in the laboratory and the production process.

◆ Main features

1. Small size, light weight
2. High speed, accurate
3. Easy to use
4. Display with the red digital pipe
5. Widely used

◆ Main technical parameters

Item	XY105MW	XY102MW	XY100MW
Power	AC220V±10% 50HZ		
Measuring range	0-110g		
Weighing precision	5mg	2mg	1mg
Heating temperature range	40-199°C		
temperature sensor	PT-100		
Heating source	Halogen lamp		
Moisture test accuracy	0. 05%	0. 02%	0. 01%
Stored data	15		
Recommend test samples	3-5g		

FD-G1 Portable moisture meter

◆ Introduction

FD-G1 Portable moisture meter with high-performance can measure moisture of paper, cardboard, corrugated paper, cartons, pulp and other materials . It is an ideal instrument for Papermaking, printing, packaging and testing industry.

◆ Main characters

1. The application of Japan's advanced sensors, adopted high-frequency principle, accurate measurement of cardboard, paper, corrugated boxes and other moisture. Can be measured on the reel can also be measured on a stack of paper in the paper moisture.
2. A wide range of measurement: applies to all types of paper products.
3. Portable : small size, easy to carry, suitable for spot use.
4. Non-destructive testing: the abolition of acupuncture treatment, just lightly touch the paper surface of the probe, which can show the paper moisture content, and will not damage the paper.
5. Intuitive and convenient: to determine quickly and directly to the digital display.
6. Quick and easy: Set the type of correction to ensure the equipment for all types of paper, an accurate determination of moisture content.

◆ Main technical parameters

Power supply	9V battery(6F22)
Testing range	0 ~ 60%
Resolution	0. 1%
Temperature compensation	－10℃ ~ ＋100℃
Displaying	3½LCD LCD display
Display parameters	7 kind
Dimension	160*60*27mm
Net weight	200g

NDJ-1 Rotational Viscometer

◆ Introduction

NDJ-1 Rotational Viscometer is an instrument used to test the viscosity resistance of liquid and absolute viscosity of liquid. It has 4 rotors.

◆ Main Technical Parameters

Rotation speed	6 RPM; 12 RPM; 30 RPM; 60 RPM;
Adjust mode	manual
Spindles: four spindles No.	1~4;
Measurement range	10~100000mPa·s
Measurement error	±5% (Newton liquids)
Dimension	290*290*435
Net weight	2kg

NDJ-5S/8S Digital Viscometer

NDJ-5S/8S Digital Viscometer is a new upgrading product of our rotational viscometers. The adoption of advanced mechanical design technology, manufacturing process, microcomputer control technology guarantees accurate data collection; ultra-bright LCD display with blue back-light guarantees clear data display. With the microcomputer technology, it is easier to set measuring span (rotor number and rotating speed), take digital process of the data measured by sensor, and clearly display rotor number, rotating speed, viscosity value of the tested liquid and its full-scale percentage on the screen. Besides, its automatic switch is set for free selection of proper rotating speed or rotor number.

This instrument is an instrument to measure absolute viscosity of Newton liquid as well as apparent viscosity of non-Newton liquid featured by high flexibility, reliable test result, easy operation and beautiful appearance, which is widely applied to grease, paint, plastics, drugs, decorations, coatings and detergent. In addition, NDJ-5S/8S is also added English/Chinese interface for user's selection.

◆ Technical

Model	NDJ-5S	NDJ-8S
Measurement range	1~1×105mpa. s	1~2×106mpa. s
Rotor specification	1, 2, 3, 4#	
Rotating speed of rotor	6, 12, 30, 60rpm	0. 3, 0. 6, 0. 5, 3, 6, 12, 30, 60rpm
automatic switch	free selection of proper rotating speed or rotor number.	
Stable cursor	ShuTiao square cursor fully charged displayed when reading basically stable	
Measurement tolerance	±2%(newtonian liquid)	
power	AC 220V±10% 50Hz±10%	
Working condition:	temperature 5-35℃ Relative humidity no more than 80%	
Outline Dimension	370×325×280 mm	
Net Weight	6. 8kg	

PHS-3C PH meter

◆ Introduction

PHS-3C PH meter is a digit decimal pH meter with MTC (manual temperature compensation). It can measure the temperature of the medium to be measured and display the values of temperature. pH and mili-voltage. It is suitable to measure the pH value of aqueous solution and the potentials of electrodes in laboratories of research institutes, factories .

◆ Technical parameters

Power supply	AC220V 50Hz
Measuring range	(0. 00 ~ 14. 00) pH (0 ~ ±1999)mV; mV （ Automatic polarity display）
Resolution ratio	pH：0. 01pH mV：1mV
Accuracy	pH：±0. 01pH mV：±0. 1%（FS）
Input impedance	≥1×1012Ω
Stability	±0．01 pH/3h
Temperature compensation	（0 ~ 60）℃
temperature of the test solution	(5 ~ 60)℃
Dimension	290*210*95mm
Net weight	1. 5kg

Oven

◆ Introduction

The maximum temperature of electric oven are 300 ℃. There are five sizes of the chamber, for a variety of test sample to use. It is suitable for baking, drying, heat treatment and other heating, which can be used in industrial and lab.

◆ Main technical parameters

Item	Mode	Dimension mm	Voltage v	Power KW	Temperature oC
Digital drum wind drying oven	9030	350×350×350	220	1. 6	300
	9070	450×450×350	220	3	300
	9140	550×550×450	220	3	300
	9240	600×750×500	220	5	300
	9420	800×1000×800	380	7	300
Digital display stainless steel drum wind drying oven	9030B	350×350×350	220	1. 6	300
	9070B	450×450×350	220	3	300
	9140B	550×550×450	220	3	300
	9240B	600×750×500	220	5	300
	9420B	800×1000×800	380	7	300

Box-type resistance furnace

This series of box-type resistance furnace can be used in laboratory, factory and scientific research unit for elemental analysis and determination. Quenching, annealing and tempering of small steel parts. The series of products are equipped with temperature controller, and the temperature of the resistance furnace is automatically controlled by the thermocouple.

◆ Main technical parameters

Name	Model	Inner dimension height*width*depth(mm)	Dimension height*width*depth(mm)	Work voltage V	Power KW	Temperature ℃	Number of phase	Power supply frequency (HZ)
Box-type resistance furnace - distribution console	SRJX-2-9	250*100*75	560*470*450	220	2	900	Single	50
	SRJX-3-9	275*150*100	580*550*530	220	3	900	Single	50
	SRJX-4-9	325*200*125	625*600*550	220	4	900	Single	50
	SX2-2.5-10	200*120*80	575*440*500	220	2.5	1000	Single	50
	SX2-4-10	300*200*120	630*460*550	220	4	1000	Single	50
	SX2-8-10	400*250*160	720*580*610	380	8	1000	Three	50
	SX2-12-10	500*300*200	870*610*690	380	12	1000	Three	50
	SX2-2.5-12	200*120*80	600*440*550	220	2.5	1200	Single	50
	SX2-5-12	300*200*120	630*570*550	220	5	1200	Single	50
	SRJX-4-13	250*150*100	580*530*540	220	4	1300		50
	SX2-6-13	250*150*100	627*640*600	380	6	1300		50
	SRJX-8-13	400*250*160	800*555*660	380	8	1300	Three	50
	SSX2-8-16	300*150*120	870*660*880	220	8	1600		50
Single tube fixed carbon furnace - distribution console	SRJX-2-13	Φ20*200	290*290*390	220	2	1300	Single	50
Double tube fixed carbon furnace - distribution console	S2-2.5-13TS	(Φ20*200)*2	520*390*620	220	2.5	1300	Single	50

Electronic balance

◆ Introduction

Humanity design, novelty structure, handsome appearance and good function are the main features. It is widely used in medicine, chemical, jewelry, food, lab etc

◆ Main technical parameters

Model	Capacity	Readability	Pan diameter
JA502	0~500g	0.01g	80mm
JA2003	0-200g	1mg	90mm
JA5003	0-500g	1mg	90mm
FA1004	0-100g	0.1mg	90mm
FA2004	0-200g	0.1mg	90mm

Portable gloss meter

◆ Introduction

Portable gloss meter is single angel gloss meter. it's portable and easy to use. it's widely used in paper, paperboard, paint, plastic, building material ceramic, marble, granite etc

◆ Main features

high precise
Can save calibration values
Portable
Good stability, easy to use

◆ Main technical parameters

Model	ZB-GM20	ZB-GM45	ZB-GM60	ZB-GM75
Measurement range	0.0－300.0	0.0－199.9.0	0.0－199	0.0－300.0
Error	<1.2	<1.2	<2	<1.2
Stability	0.4（Gs）/30min	0.4（Gs）/30min	2（Gs）/30min	0.4（Gs）/30min
Measuring window size	14*15	14*20	14*28	14*18
Dimension	128*35*64	114*35*64	114*35*64	128*35*64
Power supply	4.8V	1.5V	1.5V	4.8V

ZF-1 Three use ultraviolet analyzer

Use

1, in a scientific experiment work it is detected in many of the major substances such as proteins, nucleotides and other necessary equipment.
2, in drug production and research, can be used to check hormone alkaloids, vitamins and other drugs can produce the quality of fluorescence, it is especially suitable for thin layer chromatography, paper dot layer analysis and testing.
3, in the dye coating rubber, oil and other chemical industries, determination of a variety of fluorescent material, fluorescent indicator and additives, to identify different types of crude oil and rubber products.
4, in the textile and chemical fiber can be used for the determination of different kinds of raw materials such as wool, silk, rayon, cotton fiber, and can check product quality.
5, grain, vegetables, food department can be used for the examination of toxin, (such as aflatoxins etc.) food additives, spoilage of vegetable, fruit, chocolate, cocoa fat, fat, honey, sugar, eggs and other quality.
6, geological, archaeological and other departments can be found to play a variety of minerals, fossils determine the authenticity of relics.
7, the public security department can check fingerprints, handwriting and determination of steganography.

Instrument structure

The instrument adopts the ultraviolet lamp tube and a filter. A function respectively emit strong 254nm and 365nm ultraviolet light, can also disposable mixing using two wavelengths.
The machine has small power consumption, low heat, and can be used continuously for a long time, the biggest advantage is that can follow along with close, open to use. Ultraviolet lamp emits light through the filter filter to visible light, and fluorescent analysis provides strong 254nm and 365nm uv.

Main technical index

Wavelength: 254nm, 365nm;
ultraviolet filter: 50mm×200mm;
Dimensions: 300 x 300 x 270mm
power: AC220V ± 10% 50HZ
weight: 3. 6Kg

Use and matters needing attention

1, the power supply is connected, open the " on / off " the light tube, can be detected in the samples are placed in the chamber in the observation analysis.
2, UV filter and metal objects cannot be hit, not force, the surface should be kept clean and dry, often should use alcohol or ether wipe, preventing filter mildew.
In 3, the operator should be aligned samples, ultraviolet irradiation, avoid exposure to human body, had better put on my glasses, so as not to cause harm to human body.

WFH-203B Black-box type UV analyzer

Purpose

1. 1 work in scientific experiments it is detected various substances such as proteins, nucleotides and other necessary equipment.
1. 2 in drug production and research, can be used to check hormone alkaloids, vitamins and other drugs can produce the quality of fluorescence, which is particularly suitable for thin layer chromatography, paper layer analysis and testing spots.
1. 3 In the dye coating, rubber, petroleum and other chemical industries, determination of a variety of fluorescent material, fluorescent indicator and additives, to identify different types of crude oil and rubber products.
1. 4 in the textile and chemical fiber raw materials can be used to determine the different types, such as wool, silk, rayon, cotton, synthetic fibers, and check product quality.
1. 5 in grain, vegetables, food sector can be used to check toxins (such as aflatoxin, etc.) of food additives, quality deterioration of vegetables, fruits, cocoa fat, chocolate, fat, honey, sugar, eggs and the like.
1. 6 in geology, archeology and other departments can play a variety of minerals found, determine the authenticity of the fossil heritage.
1. 7 Determination of the public security department to check the fingerprints, written in secret.

Structure

This instrument uses an ultraviolet lamp and filter components. A function respectively 254nm and 365nm send a strong ultraviolet radiation, can also mix the two wavelengths simultaneously disposable.
The machine has a small power consumption, low in calories, and can be used continuously for a long time, the biggest advantage is that you can open with the customs, a start can be used. UV light through the filter filtered visible light emitted by the lamp, so as to provide a strong fluorescence analysis 254nm and 365nm.

The main technical indicators

Wavelength: 254nm, 365nm;
UV filter: 150 × 50mm;
Dimensions: 300 × 300 × 270mm
Maximum irradiated area: 250 × 250mm (can use area)
Power: AC220V ± 10% 50HZ
Weight: 6Kg

Use and considerations

4. 1 Connect the power, open the "On / Off" light bulb, can be detected in the sample on the lamp observation and analysis, if the instrument is placed in a dark room with a black cloth or obscure light, the better.
4. 2 UV filter and metal objects not grazing, not by force, the surface should be kept clean and dry, and so should be regularly wiped with alcohol or ether, anti-mildew filter.
4. 3 Operating personnel should be aligned samples ultraviolet radiation, avoid exposure to the human body, it is best to wear glasses, to avoid bodily harm.