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BEVS

Intelligent Robotic Testing And Inspection System
Testing Equipment Developer And Manufacturer
For Paint, Coating & Ink

CE

TUV
9001

Website

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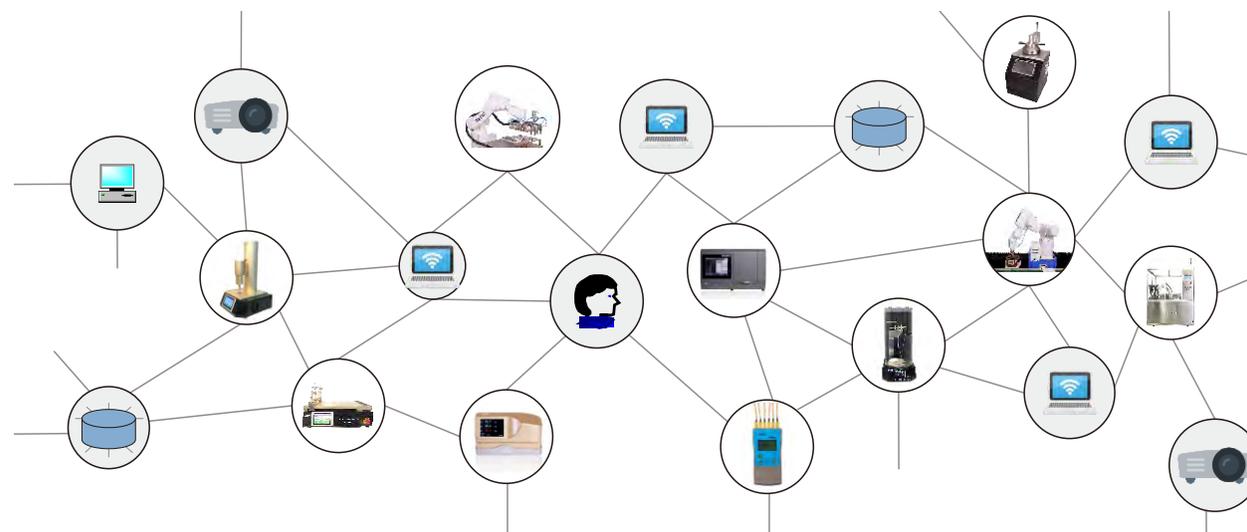
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Applied Scientific

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Applied Scientific Instruments Co., Ltd.
สำนักงานใหญ่ : 1526, 1526/3 ซ.สุขุมวิท 48/3 ถ.สุขุมวิท แขวงพระโขนง
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BEVS

Company Profile

Time of Establishment:
January 2003

Professional R&D and Manufacturing:
Intelligent testing equipment and intelligent robotic testing and inspection system for paint and ink industry chain, new energy, new materials, biodegradation and other fields

Industry Innovation and Leader:
★ Patents: 100+ by the end of 2022
★ The first to use advanced touch screen technology for products
★ The first to do research and development of intelligent robotic testing and inspection system

Enterprise Strength:
National high-tech enterprise
Specialization, refinement, characteristic and novelty enterprise of Guangdong Province
Innovative enterprise of Guangdong Province

Service Area:
Universities, research institutes, manufacturing industry and testing industry cluster

Global Distributors:
80+ by the end of 2022

Global Customers:
30,000+ by the end of 2022

VISION
Vision
Make R&D more efficient, test more intelligent, and data more connected

MISSION
Mission
Let customers love products made in BEVS

VALUES
Values
Passion and innovation, continuous exploration

Contents

Dispersion

- Intelligent Mixer
- Laboratory Mixer

Intelligent Mixer

Touch panel control

Long shaft
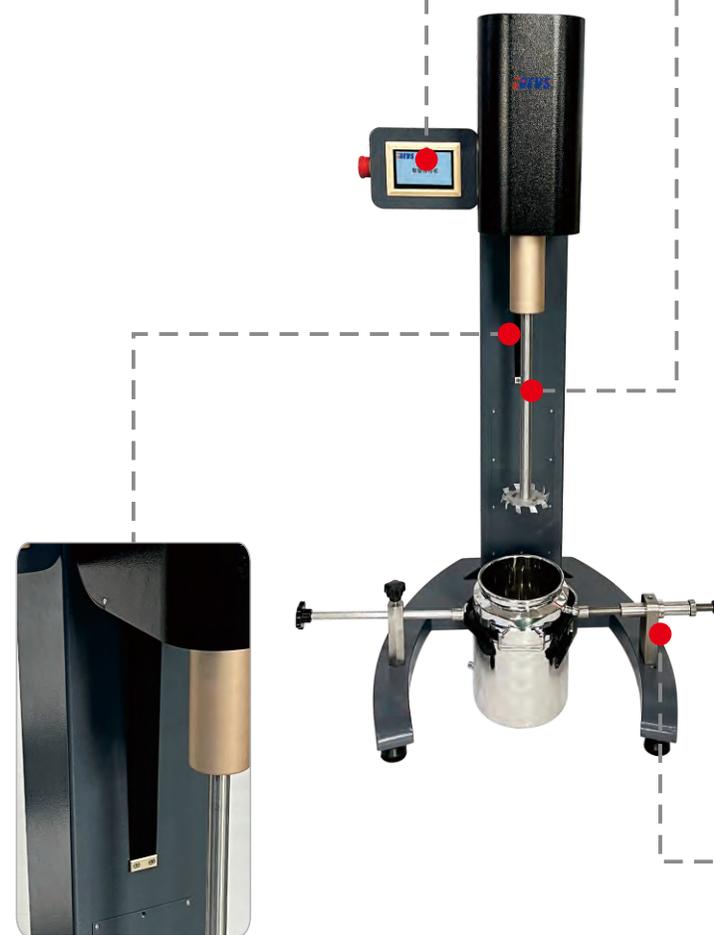
Auto up/down

Quick clamping

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Intelligent Mixer

■ Introduction:

The BEVS 2506 Intelligent Mixer adopts advanced touch screen control design, and the frequency converter regulates the motor speed. Different discs can be used for dispersion, mixing and grinding. The speed (RPM), dispersion, mixing and grinding time can be set through the touch screen interface, which is an ideal choice for research and development, laboratory and field test.

■ Application:

It is widely used in industries including coatings, dyes, inks, pigments, papermaking, cosmetics, food, resins, adhesives, emulsions, medicine, petroleum, pesticides, daily chemicals and others.

■ Technical info:

◆ Touch screen control
◆ Speed: 500 - 12000 rpm
◆ Power: 750W
◆ Maximum mixing volume: 10 L, supported vessel: 1.5/3/5/10 L
◆ Running time adjustable
◆ Motor: FM high-speed motor
◆ Lifting system: automatic lifting, stroke length 300mm
◆ Safety clamping sensing function (only run while vessel is fixed tightly)
◆ Explosion-proof type (optional)

■ Order info:

BEVS 2506 Intelligent Mixer, disc and vessel pls refer to BEVS 2501 series

Laboratory Mixer（Manual lifting）

Quick lifting

Height scale

Quick clamping

Height locking ring

Laboratory Mixer（Auto lifting）

Auto lifting

Clamping sensor

Protective shield
(Optional)

Quick clamping

Laboratory Mixer

■ Introduction:

BEVS 2501 series Laboratory Mixer adopts frequency-adapter to adjust speed with the advanced touch-screen control design. It can disperse, mix and grind various liquids. User can set speed and running time. It's a good choice for R&D and QC purposes.

BEVS 2501/S(lite version)

BEVS 2501/1

BEVS 2501/1L, 2L

BEVS 2501/2A,3A

BEVS 2501/5A, 6A

■ Application:

It is widely used in industries including coatings, dyes, inks, pigments, papermaking, cosmetics, food, resins, adhesives, emulsions, medicine, petroleum, pesticides, daily chemicals and others.

Vessel

Dispersing disc

Milling disc

Max. capacity: 20L, model 5A, 6A
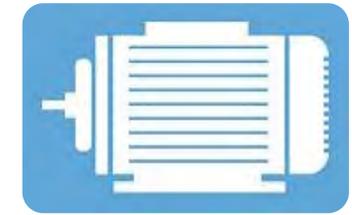
Frequency modulation motor

100-230V, 50/60HZ
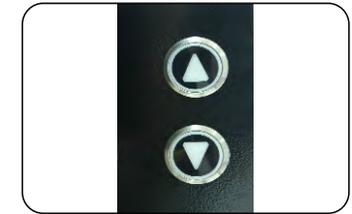
Auto/Manual lifting

Clamping sensor

Extra long shaft(modle L, A series)

■ Technical info:

MIXER 搅拌机

English
中文

Touch control

MaxSpeed: 139
RunTime: 187
Speed: 032

Adjustable speed

RunTime: 186:59   Speed: 0322

Adjustable dispersing time

Up height: 250 000

Height adjustment

■ Order info:

Model	Power(w)	RPM	Lifting stroke (mm)	Lifting	Vessel supported(L)
BEVS 2501/S	550	30-9000	210	Manual	1.5/3.0
BEVS 2501/1	550	30-9000	250	Manual	0.5/1.5
BEVS 2501/1L	550	30-9000	250	Manual	0.5/1.5
BEVS 2501/2L	750	60-6000	280	Manual	0.5/1.5
BEVS 2501/2A	750	60-6000	330	Auto	1.5/3/5
BEVS 2501/3A	1100	60-5500	330	Auto	3/5/10
BEVS 2501/5A	1500	300-6000	400	Auto	5/10/20
BEVS 2501/6A	2000	300-6000	400	Auto	5/10/20

■ Standard comes with 3 discs. L-extra long shaft, A-auto lift.

■ Accessory info：

Dispersing disc:

Model	Diameter(mm)	Material
BEVS 2510/1	35	
BEVS 2510/2	50	
BEVS 2510/3	60	
BEVS 2510/4	80	Stainless steel
BEVS 2510/5	100	
BEVS 2510/6	120	
BEVS 2510/7	150	
BEVS 2510/8	200	

Disc dia. 30 and 40 mm are also available.

Milling disc:

Model	Diameter(mm)	Material
BEVS 2501/P/025	45	Nylon
BEVS 2501/P/026	60	
BEVS 2501/P/027	45	Teflon
BEVS 2501/P/028	60	

Vessel:

Model	Capacity(l)	Material
BEVS 2511/1	0.5	
BEVS 2511/2	1.5	
BEVS 2511/3	3	Double wall stainless steel
BEVS 2511/4	5	
BEVS 2511/5	10	
BEVS 2511/6	20	
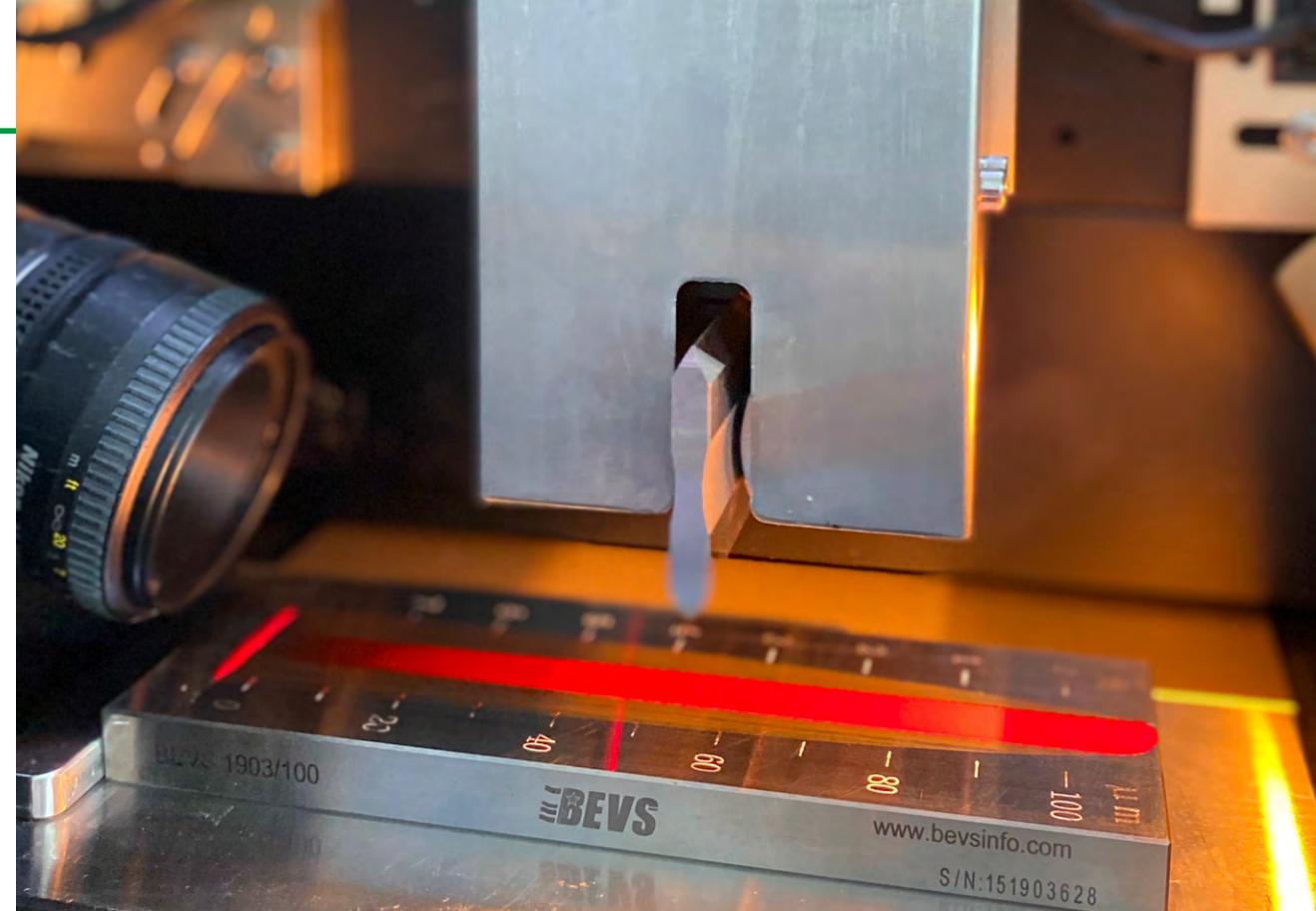
Density / Grinding

- Specific Gravity Cup
- Pressure Density Cup
- Fineness of Grind Gauge
- Automated Particle Analyzer
- Automatic Drawdown Master

Specific Gravity Cup

■ Introduction：

BEVS supplies the Specific Gravity Cups which are made of robust aluminum or stainless steel with 3 different specifications, 50ml/100ml/83.3ml.

■ Standard：

BS 3900 A19, ISO 2811, DIN 53217, ASTM 1475

■ Order info：

Model	Capacity（ml）	Material
BEVS 2101／50	50	Alumimum
BEVS 2101／100	100	
BEVS 2101／A	83.3	
BEVS 2102／50	50	Stainless steel
BEVS 2102／100	100	
BEVS 2102／A	83.3	

Pressure Density Cup

■ Introduction:

BEVS 2103 Pressure Density Cup is used to calculate the specific gravity of paints and similar material. It is of higher precision than normal one due to test sample is compressed in a stainless steel cylinder to 10 bar which eliminates the bubbles inside the liquid. Density is calculated from the mass of liquid and cylinder volume.

■ Technical info:

- ◆ Made of stainless steel
- ◆ Capacity：100ml
- ◆ Max. pressure：31bar（450 psi）
- ◆ Testing pressure：10bar
- ◆ Capacity accuracy：±1ml
- ◆ Pressure accuracy：±1bar

■ Standard:

ISO 2811-4, BS 3900 A22

■ Order info：

BEVS 2103 Pressure Density Cup
BEVS 2105 Pressure Density Cup(with clean tool)

Fineness of Grind Gauge

■ Introduction:

The Fineness of Grind Gauges are used to determine the particle size and grinding fineness of various materials like paints, pigments, inks, coatings and others.

■ Application:

Various materials like paints, pigments, inks, coatings and others.

Single Channel

Wide Single Channel

Triple Channel

■ Order info:

/	Order info	Groove size (LxW, mm)	Range(μm)	Dimension(mm)	Division Value	Unit	Groove No.
Single Channel Grind Gauge	BEVS 1903/10	140×12.5	0-10	175×65×13	1	μm	1
	BEVS 1903/15	140×12.5	0-15	175×65×13	1.5	μm	1
	BEVS 1903/25	140×12.5	0-25	175×65×13	2.5	μm	1
	BEVS 1903/50	140×12.5	0-50	175×65×13	5	μm	1
	BEVS 1903/100	140×12.5	0-100	175×65×13	10	μm	1
Double Channel Grind Gauge	BEVS 1908/25	140×12.5	0-25	175×65×13	2.5	μm & H	2
	BEVS 1908/50	140×12.5	0-50	175×65×13	5	μm & H	2
	BEVS 1908/100	140×12.5	0-100	175×65×13	10	μm & H	2
Wide Single Channel Grind Gauge	BEVS 1906/25	140×37	0-25	175×65×13	2.5	μm & H	1
	BEVS 1906/50	140×37	0-50	175×65×13	5	μm & H	1
	BEVS 1906/100	140×37	0-100	175×65×13	10	μm & H	1
Triple Channel Grind Gauge	BEVS 1905	140×12.5	0-25/50/100	175×85×13	2.5/5/10	μm	3

■ This product can be customized.

■ Accessory info:

BEVS 1907 Scraper

Automated Particle Analyzer

HD Camera
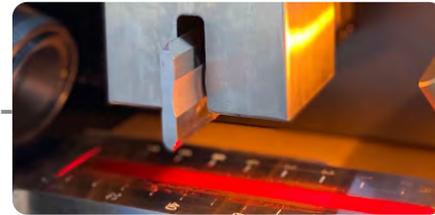
Quick fixture for scraper
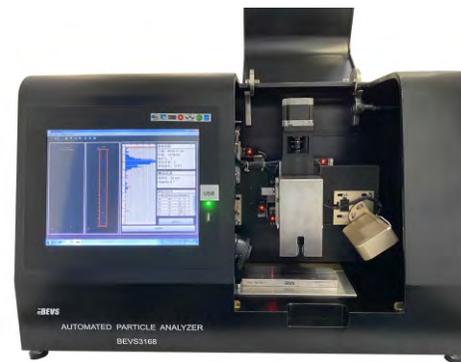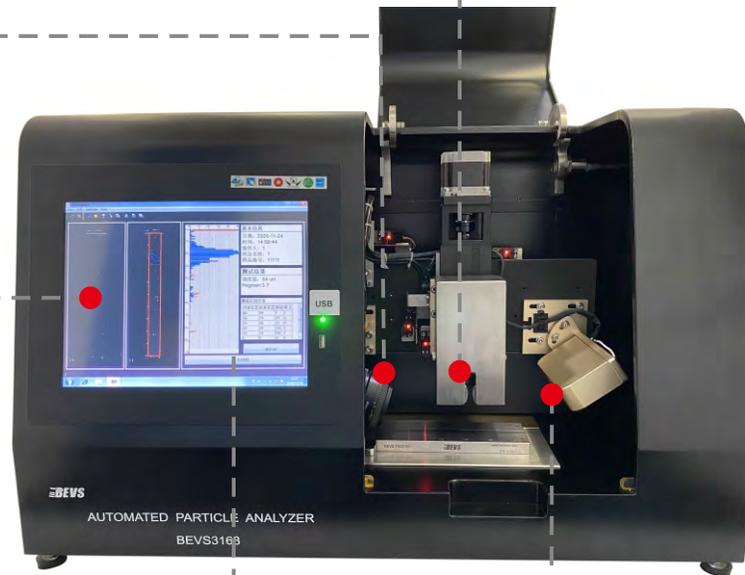
Data storage and analysis
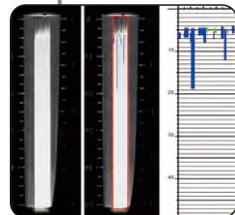
Analyze scratch distribution

Light source

Automated Particle Analyzer

■ Introduction:

The Automated Particle Analyzer can automatically draw down the sample on the grind gauge and capture the image by a high resolution camera under the light source. Then the image is processed by a software to generate the rating which is the fineness value of the sample. The instrument ensures the repeatability and accuracy of the testing result which avoids human errors and greatly improve the test efficiency.

■ Technical info:

◆ Memory:10GB, expandable
◆ Supports: Single / Wide channel grind gauge
◆ Operation temperature: 10-40℃
◆ Connection port: USB, VGA
◆ Measurement range: 0-200μm
◆ Accuracy: ±5%
◆ Control: touch panel / mouse and keyboard
◆ Cycle measurement time: 2 minutes
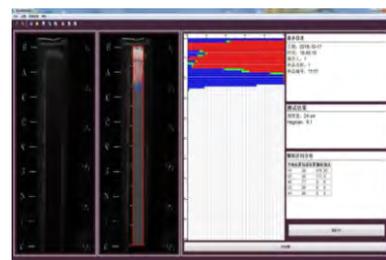
BEVS

Features:
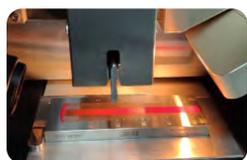
Auto drawdown
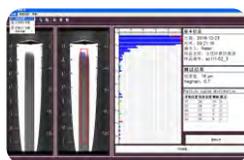
Auto analyze

Built-in Windows system

Touch screen control
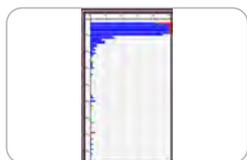
Particle distribution graph
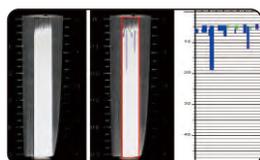
Analyze scratch distribution
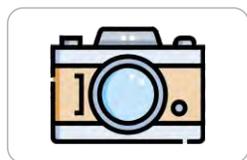
5- sec quickly capture

Connect to external monitor

Standard :

ISO 1524

Order info :

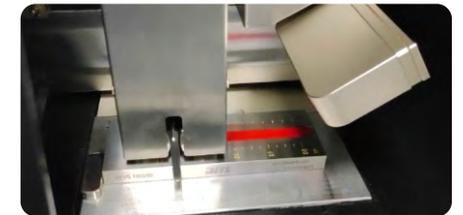BEVS 3168 Automated Particle Analyzer

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Automatic Drawdown Master

Introduction:

The BEVS 1821 Automatic Drawdown Master is a dual-purpose machine that integrates grind gauge scraper drawdown and film applicators drwadown. Benefit form its constant pressure and speed, the drawdown is of high repeatability which eliminates human error. When doing a grind gauge scraper drawdown, place the grind gauge and scraper, click the button to start the drawdown. Film applicators drwadown is the same way to use. The machine is easy to use and clean which brings users great convenience.
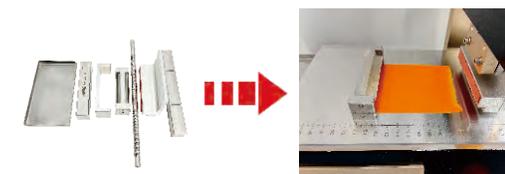
Film application

Grind gauge drawdown

Technical info:

◆ Drawdown speed: 10-150mm/s
◆ Pressure: 2000-5000g
◆ Pressure accuracy: 100g
◆ Scraper angle: 85°
◆ Coating size: A5
◆ Dimension: L265 x W270 x H420mm
◆ Power supply: 110V/220V, 50/60HZ
◆ Power: 100W

Features:

◆ Touch panel control
◆ Stable speed and automatic drawdown
◆ Adjustable speed
◆ With light source
◆ Real time display adjustable pressure
◆ Support various grind gauges and film applicators

Standard :

ASTM D333, D1210, GB/T6753, ISO1524

Order info :

BEVS 1821 Automatic Drawdown Master

Viscosity

- Intelligent Krebs Viscometer
- Intelligent Cone and Plate Viscometer
- Intelligent Rotothinner
- DIN Cup
- Frikmar Cup
- Ford Cup
- Cup Stand
- Zahn Cup
- Afnor Cup
- ISO Cup
- Iwata Cup

Intelligent Krebs Viscometer (Manual)
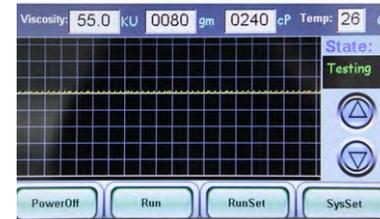
Real-time graph display

Quickly change spindle
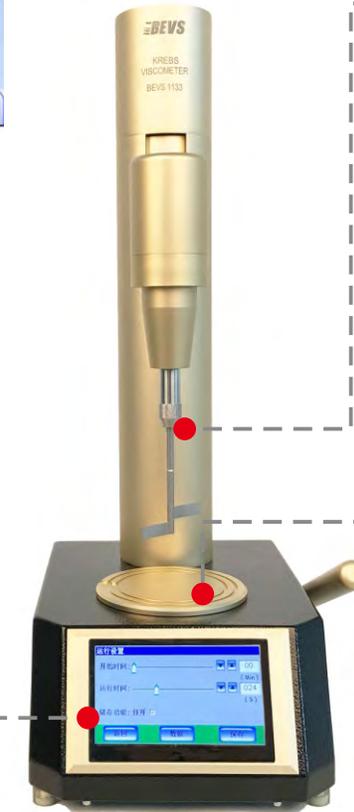
Smart design to easy clean waste liquid

Intelligent Krebs Viscometer

■ Introduction:

BEVS Intelligent Krebs Viscometer adopts new touch screen technology. It is applied for measuring Newton fluid or near non Newton liquids such as paint, coatings, adhesives, pulp, ink etc. High precision DC motor ensures accuracy value.

Manual   Auto

■ Features:

◆ Easy operation
◆ Humanization design
◆ Touch screen control
◆ Units: KU, G, cP simultaneously display
◆ Preset start test time and duration
◆ Real-time display graph with viscosity and time
◆ Real-time display environment temperature
◆ Measure sample temperature
◆ Output measurement data(optional)

Measurement

Interface

■ Standard:

ASTM D562, D856

■ Application:

Coating industry, food industry, pharmaceutical industry, automotive industry, laboratory .etc

■ Technical info:

Range	40-141KU / 27-5274cP / 32-1099g
Resolution	0.1KU / 5cP / 1g
Accuracy	± 1% (Full Scale)
Rpeatability	± 0.5% (Full Scale)
Speed	200 ± 1rpm
Power	Max. 18W
Power supply	100-250V/50-60Hz

Online Krebs Viscometer

In order to realize online measurement of fluid viscosity, ensure the best process operation environment and product quality, and improve production efficiency, BEVS has manufactured an online Krebs viscometer. It can measure the viscosity of coatings, paints, adhesives, pastes, inks, etc. online. The modular split structure is suitable for access to various online automatic measurement systems. The software communication interface is compatible with a variety of communication protocols to achieve full automatic detection and measurement.

Handheld type   Bracket fixed type

■ Order info:

BEVS 1122U Intelligent Krebs Viscometer (Auto)
BEVS 1133 Intelligent Krebs Viscometer (Manual)
BEVS 1135 Online Krebs Viscometer (handheld)
BEVS 1136 Online Krebs Viscometer (bracket fixed type)

Intelligent Cone and Plate Viscometer

Automatic lifting

High-precision wear-resistant temperature control plate

Quickly change cone

High precision wear-resistant cone
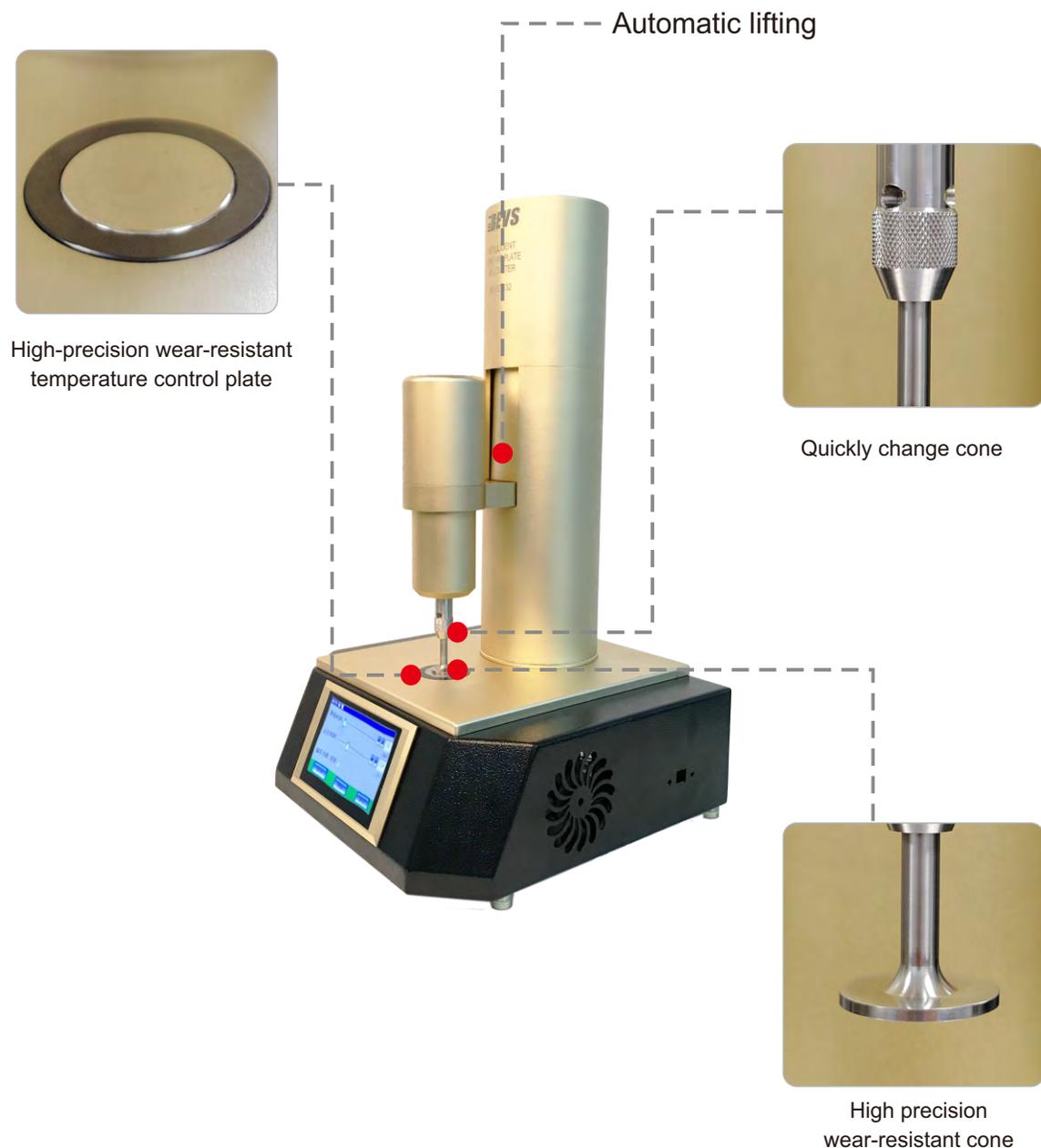
Intelligent Cone and Plate Viscometer

■ Introduction:

BEVS 1132 Intelligent Cone and Plate Viscometer is a highly accurate instrument that research the rheological properties of fluid products. It is a automatic viscometer with adjustable shear rate and controllable temperature. High precision DC motor and automatic lifting platform to keep the viscosity measurement becomes simpler and more accurate.

Since Newtonian or non-Newtonian fluids show different viscosities relative to the shear rate, the BEVS1132 Intelligent Cone and Plate Viscometer strictly control the shear rate of 10,000 S^{-1}(BS standard) and 12,000 S^{-1}(ASTM standard). In addition, the shear rate of 333-20000 S^{-1} can also be freely controlled by the operator.

Since most viscosity measurements are very sensitive to temperature, the BEVS 1132 can accurately control the temperature control plate from +5 - 75 °C by placing the sample on the temperature control plate. The temperature curve and the shear rate viscosity curve can be obtained. The portable instrument makes it more practical and versatile in the study of rheological properties of Newtonian or non-Newtonian products.
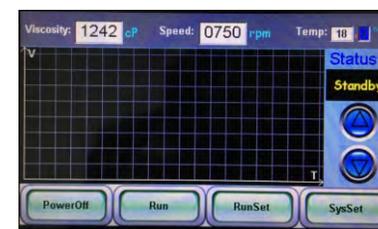
Measurement
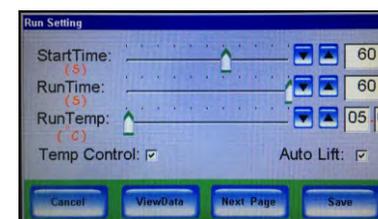
Setting

■ Features:

◆ Automatic lifting
◆ Automatic measurement
◆ Compatible with various speeds
◆ High definition touch screen display
◆ Display temperature and viscosity curve
◆ Display shear rate
◆ Precise temperature control
◆ Output data(optional)

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Technical info:

◆ Rotational speed: 100-1500 rpm
◆ Shear rate: 333-20000 s^{-1}
◆ Controllable temperature range: +5 - 75℃
◆ Cone: 5 types
◆ Resolution: 1 cP
◆ Measurement accuracy: ±1% (full scale)
◆ Measurement repeatability: ±0.5%(full scale)
◆ Temperature resolution: 0.1℃
◆ Temperature accuracy: ±0.3℃
◆ Input voltage: 100-240VAC / 50-60Hz
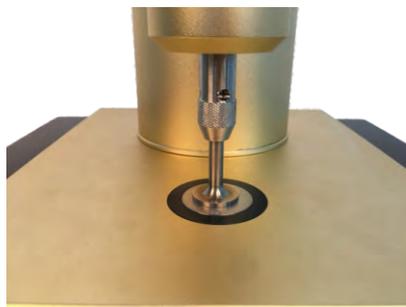
Application:

Food, cosmetics, pharmaceuticals, coatings, inks, mining, construction, petrochemicals, polymers

Standard：

BS 3900 A7-1, ASTM D 4287, ISO 2884-1

Order info：

BEVS 1132	Intelligent Cone and Plate Viscometer (without cone)
BEVS 1132/5	Cone 1 with 5 oils (0-5P)
BEVS 1132/10	Cone 2 with 5 oils (0-10P)
BEVS 1132/20	Cone 3 with 5 oils (0.1-20P)
BEVS 1132/50	Cone 4 with 5 oils (0.1-50P)
BEVS 1132/100	Cone 5 with 5 oils (0.1-100P)

Cone 1:	0-5P	0-500cP
Cone 2:	0-10P	0-1000cP
Cone 3:	0.1-20P	10-2000cP
Cone 4:	0.1-50P	10-5000cP
Cone 5:	0.1-100P	10-10000cP

Intelligent Rotothinner

Introduction:

BEVS 1131 Intelligent Rotothinner is used to measure the viscosity of most non-Newtonian and Newtonian fluids. The speed is 562 rpm. It is a two-in-one instrument for researching the viscosity of materials and on-line inspection of products. It is easy to continuously monitor the viscosity of the test sample when adding thinner or additives. The instrument can also start to test the viscosity according to the preset time. The testing time can be freely chosen by operators, and the temperature of samples can be measured in real time. It provides accurate data related to shear properties. It is ideal for R&D, laboratory and QC application.
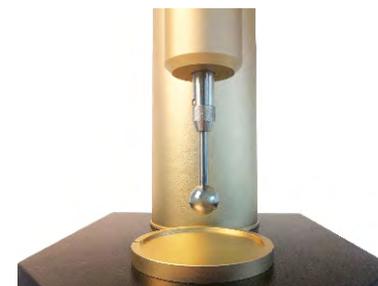
Features:

◆ Automatic lifting
◆ Automatic measurement
◆ High definition touch screen display
◆ High precision measuring motor
◆ Easy to operate
◆ Data saving and output(optional)

Standard：

ISO 2884, BS3900 A7

Spindle measurement range:

No. 1	0-25P	0-2500cP
No. 2	0.1-80P	10-8000cP
No. 3	1-360P	100-36000cP

Technical info:

◆ Spindle speed: 562 rpm ± 1%
◆ Spindle: 3 types
◆ Resolution: 1cP
◆ Accuracy: ±1%(full scale)
◆ Repeatability: ±0.5%(full scale)
◆ Sample can: 250ml tin can
◆ Input voltage: 100-240VAC / 50-60Hz
◆ Weight: 10kg

Spindle No. 1   Spindle No. 2   Spindle No. 3

Order info：

BEVS 1131/25 Intelligent Rotothinner (0-25P)
BEVS 1131/80 Intelligent Rotothinner (0.1-80P)
BEVS 1131/360 Intelligent Rotothinner (1-360P)

DIN Cup

■ Introduction:

BEVS DIN Cup is designed according to DIN 53211 standard and adapted to test the thin liquid at low viscosity.

■ Technical info:

◆ Orifice Precision: ± 0.02mm
◆ Volume: 100 ml
◆ Material: Cup body-aluminum alloy; Nozzle-stainless steel

■ Order info：

Order No.	Orifice(mm)	Viscosity Range(cSt)	Flow Time(sec)
BEVS 1108/2	2	15-30	25-150
BEVS 1108/4	4	112-685	25-150
BEVS 1108/6	6	550-1500	25-150

Frikmar Cup

■ Introduction:

BEVS Frikmar Cup is based on standard DIN 53211 with a handle to allow dipping test easily.

■ Technical info:

◆ Nozzle precision: ± 0.02 mm
◆ Volume: 100 ml
◆ Material: Cup body-aluminum alloy, Nozzle-stainless steel

■ Order info：

Order No.	Orifice(mm)	Viscosity Range(cSt)	Flow Time(sec)
BEVS 1109/2	2	15-30	25-150
BEVS 1109/4	4	112-685	25-150
BEVS 1109/6	6	550-1500	25-150

Ford Cup

■ Introduction:

It is designed according to ASTM D1200, D333 and D365 standards and widely used to measure the viscosity of paints,inks, lacquers and other liquids.

■ Technical info:

◆ Volume: 100 ml
◆ Material: Cup body-aluminum alloy; Nozzle-stainless steel

■ Order info：

Order No.	Orifice(mm)	Viscosity Range(cSt)	Flow Time(sec)
BEVS 1101/1	2.1	10-35	55-100
BEVS 1101/2	2.8	25-120	40-100
BEVS 1101/3	3.4	49-220	30-100
BEVS 1101/4	4.1	70-370	30-100
BEVS 1101/5	5.8	200-1200	30-100

Cup Stand

■ Introduction:

BEVS Cup Stand is used in concert with Ford Cup, DIN Cup, Afnor Cup, ISO Cup and other similar cups, which provides level platform for the cups. It consist of three adjustable stainless steel poles and an aluminum ring.

■ Order info：

BEVS 1112 Cup Stand

Zahn Cup

■ Introduction:

BEVS 1107 Zahn Cup is designed according to the standard of ASTM D4212-93 which is used to measure the viscosity of Newtonian or near-Newtonian liquids.

■ Technical info:

◆ Material: Stainless steel
◆ Capacity: 44 ml

■ Order info：

Order No.	Orifice(mm)	Viscosity Range(cSt)	Flow Time(sec)
BEVS 1107/1	1.92	5-60	35-80
BEVS 1107/2	2.70	20-250	20-80
BEVS 1107/3	3.85	100-800	20-80
BEVS 1107/4	4.40	200-1200	20-80
BEVS 1107/5	5.40	400-1800	20-80

Afnor Cup

■ Introduction:

BEVS NF Cup is designed according to French NFT30-014 standard and it is widely used by European company and French company especially.

■ Technical info:

◆ Volume: 100±1 ml
◆ Material: Cup body-aluminum alloy; Nozzel-stainless steel

■ Order info：

Order No.	Orifice(mm)	Viscosity Range(cSt)	Flow Time(sec)
BEVS 1118/2.5	2.5	5-140	30-300
BEVS 1118/4	4	50-1100	30-300
BEVS 1118/6	6	510-5100	30-300

sales@bevsinfo.com

ISO Cup

■ Introduction:

BEVS ISO Cup is designed according to ISO 2431 and ASTM D5125 standard and widely used to measure the viscosity of paints, inks etc.

■ Technical info:

◆ Volume: 108±1 ml
◆ Material: Cup body-aluminum alloy, Nozzle-stainless steel

■ Order info:

Order No.	Orifice(mm)	Viscosity Range(cSt)	Flow Time(sec)
BEVS 1106/3	3	7-42	30 - 100
BEVS 1106/4	4	35-135	30 - 100
BEVS 1106/5	5	91-325	30 - 100
BEVS 1106/6	6	188-684	30 - 100
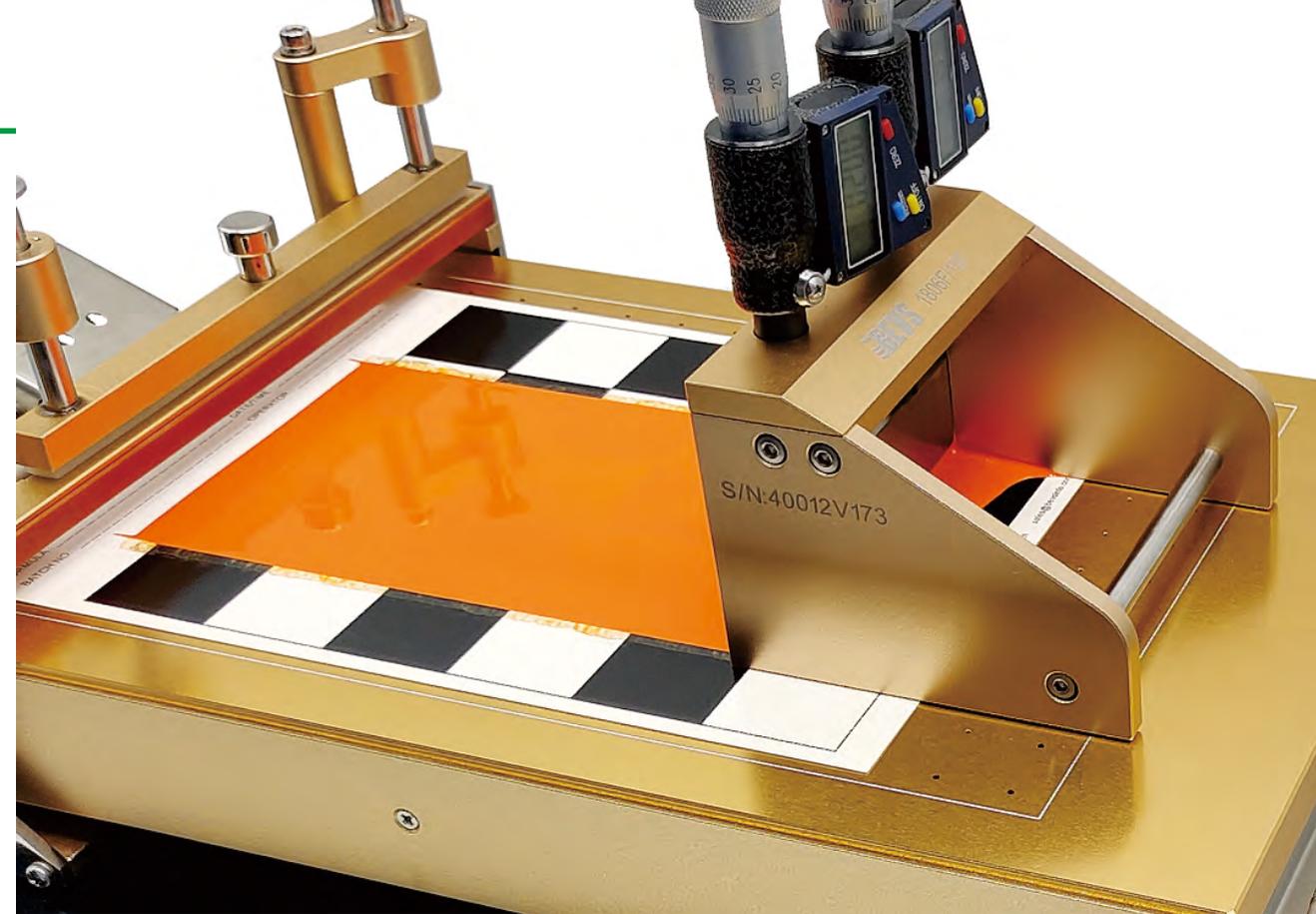
Iwata Cup

■ Introduction:

The cup can quickly measure the flow time of paint and other similar liquid in the laboratory or on testing spot. It is widely applied to the coatings R&D department.

■ Technical info:

◆ Orifice: 3.5mm
◆ Material: Stainless steel with Nickel-plated
◆ Viscosity Range: 10-60 secs
◆ Standard: JIS

■ Order info:

BEVS NK- 2 Iwata Cup

Application of Film

- Mini Automatic Film Applicator
- Automatic Film Applicator
- Automatic Panel Sprayer
- EXP Automatic Panel Sprayer
- Single Sided Applicator
- Two Sided Applicator
- Four Sided Applicator
- Rhombus Four Sided Applicator
- Eight Sided Applicator
- Cube Applicator
- Four Sided Applicator With Reservoir
- Bar Coater and Handle
- Adjustable Applicator
- Digital Adjustable Applicator
- Sagging Applicator
- Levelling Applicator
- Payne Permeability Cup
- Hiding Power Chart
- Film Application Kit

Mini Automatic Film Applicator

■ Introduction:

The BEVS 1818 Mini Automatic Film Applicator is an ideal machine for preparing a wide variety of product samples including paint, varnish, cosmetics and glue on substrates. Its special structure ensures the application smooth without the ridges which happens during the film application.
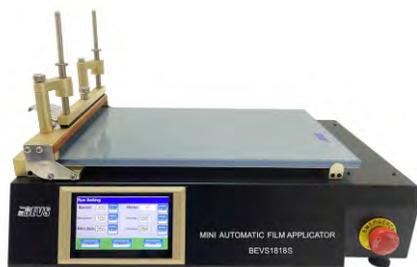
BEVS 1818S

BEVS 1818V

■ Features:

◆ Big touch screen, easy control
◆ With weights which added to ensure pressure
◆ Compatible with big range of film application tools
◆ With anti-drip pan
◆ With clamp to ensure substrate fixed firmly
◆ Vacuum adjustable
◆ Special design to minimize vibration
◆ Two beds available, easy to change

BEVS 1818G

Pump

■ Technical info:

Model	BEVS 1818G/V/GV	BEVS 1818S
Speed	1-200mm/s	
Stroke length	250mm	240mm
Accuracy	1mm/s	
Test panel	320 x 220mm(Max)	
Bed types	Vacuum / glass	Glass
Bar coater Diameter	8 - 18mm	
Bar coater Length	200mm(Effective)	
Dimension	435 x 290 x 185mm	
Standard	ASTM D823	
Power supply	100-230V 50/60Hz	
Power	<100W	
Net Weight	17kg	15kg

BEVS 1818H

BEVS 1818H Mini Automatic Film Applicator is with heated function which is newly developed for special material which requests heat.

Its technical is same with BEVS 1818G/V/GV except the below:
Temp.: Ambient + 5 to 150℃
Power: max. 1000W
Dimension: 480 x 340 x 300mm
N.W.: 23kg

BEVS 1818H

■ Order info：

BEVS 1818G Mini Automatic Film Applicator with glass bed

BEVS 1818V Mini Automatic Film Applicator with vacuum bed, including an external pump

BEVS 1818GV Mini Automatic Film Applicator with glass and vacuum bed, including an external pump

BEVS 1818H Mini Automatic Film Applicator with heated vacuum bed, including an external pump

BEVS 1818/P/001 Vacuum bed

BEVS 1818/P/002 Glass bed

BEVS 1818/P/003 External pump

BEVS 1818S Mini Automatic Film Applicator with glass bed(not changeable)

Automatic Film Applicator

■ Introduction:

The BEVS 1811 Mini Automatic Film Applicator is an ideal machine for preparing a wide variety of product samples including paint, varnish, cosmetics and glue on substrates. Its special structure ensures the application smooth without the ridges which happens during the film application.

BEVS 1811/1

BEVS 1811/2
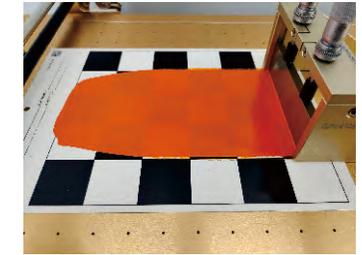
■ Features:

◆ Big LCD touch screen, easy control
◆ Compatible with big range of film application tools
◆ With clamp to ensure substrate fixed firmly
◆ Vacuum strength adjustable

■ Features of heating vacuum bed:

◆ Temperature range :
   BEVS 1811/3: Ambient +5 to 150ºC
   BEVS 1811/5: Ambient +5 to 200ºC
◆ Temperature accuracy: 1ºC

BEVS 1811/3, 5

■ Technical info:

Model	BEVS 1811/1	BEVS 1811/2	BEVS 1811/3, 5
Speed	10-140mm/sec or 50-300mm/sec	10-140mm/sec or 50-300mm/sec	10-140mm/sec or 50-300mm/sec
Stroke length	380mm	380mm	380mm
Film size	420×300mm	420×300mm	420×300mm
Bed	Glass with clamp	Vacuum	Vacuum with heating function
Standard	ASTM D823/C	ASTM D823/C	ASTM D823/C
Power supply	230±10%V,50/60HZ	230±10%V 50/60HZ	230±10%V, 50/60HZ
Power	<100W	<140W	<2000W
Dimension	H630 x W550 x H270mm		

Note: Built-in silent pump

Applicative manual film applicator

■ Order info：

BEVS 1811/1   Automatic Film Applicator (with glass bed)

BEVS 1811/2   Automatic Film Applicator (with vacuum bed)

BEVS 1811/3   Automatic Film Applicator (+5 to 150ºC, with electrically heated vacuum bed)

BEVS 1811/5   Automatic Film Applicator (+5 to 200ºC, with electrically heated vacuum bed)

Automatic Film Applicator
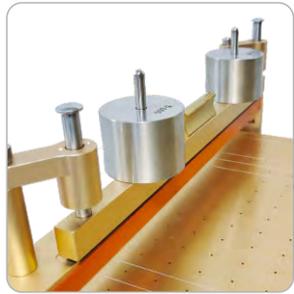
Weight to add pressure

Anti-dripping pan
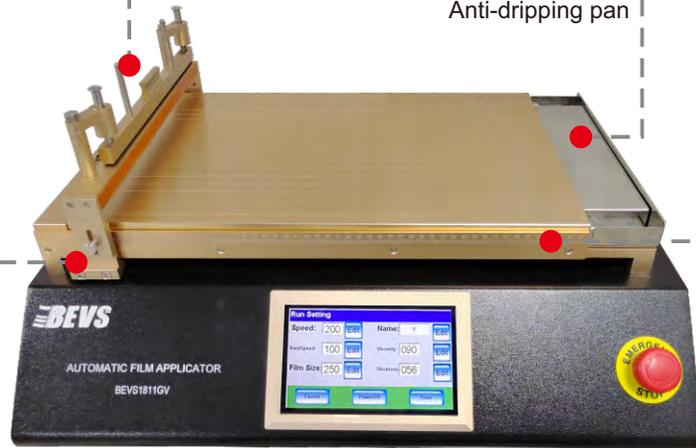
Adjustable height of pushing bar

Stroke scale

Automatic Film Applicator

■ Introduction:

The machine is used to prepare uniform, traceable, stable and reliable coatings. It is fast and automatic which greatly improve the reproducibility and efficiency, and obtains a uniform coating with the same physical properties, appearance, and chemical properties. It eliminates various instabilities caused by human factors such as speed, pressure and direction and provides high-precision sample for testing the rheological properties, wear resistance and hiding power of raw materials.

■ Features:

◆ 4 vacuum zones for different-size substrate
◆ 7 inch capacitive touch panel
◆ Vacuum strength adjustable
◆ With anti-dripping pan
◆ Changeable bed, glass/vacuum
◆ With 1 kg weight set
◆ Freely set the start location of drawdown
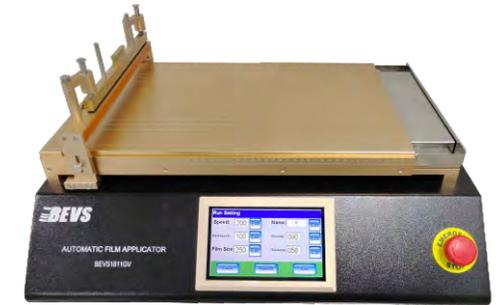
■ Standard：

ASTM D823/C

■ Technical info:

◆ Speed: 1-350mm/s
◆ Total stroke length: 455mm
◆ Drawdown length: up to 420mm, technically up to 455mm
◆ Substrate thickness: up to 30mm
◆ Glass/vacuum bed size: 500 x 330 x 12/22mm
◆ Power supply: 110 - 220V
◆ Machine size: L640 x W470 x H290mm
◆ Power: 250W

■ Order info：

BEVS 1811GV Automatic Film Applicator

Family of Automatic Film Applicator

Compact Size

BEVS 1818G

BEVS 1818V

BEVS 1818GV
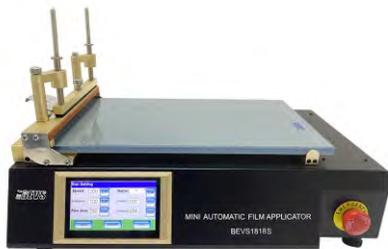
BEVS 1818S

BEVS 1818H

Big Size

BEVS 1811/3

BEVS 1811/5
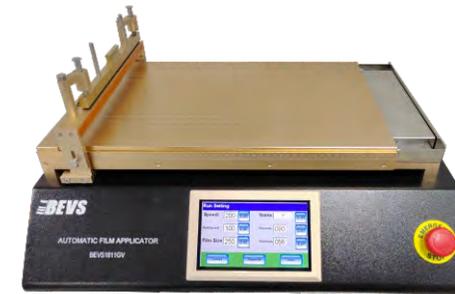
BEVS 1811GV

BEVS 1811/1

BEVS 1811/2

Automatic Panel Sprayer

■ Introduction:

The BEVS 1828 Automatic Panel Sprayer is a fast, intelligent and automatic device for spraying panel, with advantage of reliable uniform coating for testing and evaluation. It is equipped with a 10-inch high-definition touch screen display for easy operation and has features like a one-button start, fully automatic spray, automatic cleaning spray gun, quickly change paint and spray gun. It is an advanced spraying equipment with intelligent programming spraying process and a good choice for spraying test panel in laboratory.

■ Technical info：

◆ Applicable paint type: water-based or solvent-based
◆ Applicable paint viscosity range: 1-20000cps
◆ Moving speed: X-axis 50-300 mm/s; Y-axis 1-30 mm/s;
 Z-axis 50-300 mm/s
◆ Stroke length: 500 x 150 x 350 mm (X x Y x Z axis)
◆ Gun distance: 150-250 mm
◆ Atomization air pressure: 0.3-0.7 Mpa
◆ System pressure: 0.4-0.7 Mpa
◆ Spray pressure: 0.1-0.5 Mpa
◆ Panel lift height: 350 mm
◆ Spraying area: max. L300 × W450 mm;
 or 9 pcs of L100 × W150 mm standard panels
◆ Spray gun type: gravity automatic spray gun
 / manual spray gun
◆ Dimension (Lx W x H): 960 x 550 x 1320 mm
 (1741 mm extension rod)
◆ Machine shell: SUS 304 stainless steel

■ Features:

10 inch HD touch panel

Intelligent programming spraying process
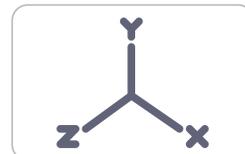
Three-axis automatic spraying

Automatic spraying pressure control

Single / dual spray gun

Quickly change spray gun fixture

■ Function：

◆ Three-axis (X, Y, Z,) automatic control; X and Z axes are linked according to the setting program, and the Y-axis is automatically adjusted according to the distance parameter manually input or the preset in the mode (only for standard equipped spray gun)
◆ With cross wet spray process
◆ Multi-viscosity mode preset, input the required film thickness value and spray area, the system automatically calculates the spray cycles, the path and the start/end of the spray position, and spray the required thickness
◆ Custom spray mode: input parameters such as spray movement speed, gun distance, atomization pressure, spray cycles, start and end spray position, etc. It automatically sprays according to the set parameters. The custom mode parameters can be saved and applied next time
◆ The interface displays the current parameters in real time, such as the current coating thickness, the run spray cycles, remaining spray cycles, the estimated final film thickness, and the estimated remaining time
◆ Real-time monitor the environment, automatically power off to prevent explosion when reaching the set VOC (Optional function)

■ Spray parameters:

◆ Panel moving speed: X-axis 50-300 mm/s; Y-axis 1-30 mm/s; Z-axis 50-300 mm/s
◆ Gun distance: 150-250 mm
◆ Atomization pressure: 0.3-0.7 Mpa
◆ Spray pressure: 0.1-0.5 Mpa
◆ Spray width (manual adjustment)
◆ Paint flow volume (manual adjustment)
◆ Spray gun nozzle diameter (optional according to actual conditions)

■ Application:

Automotive, aerospace, industrial and protective coatings, high-performance coatings

■ Standard：

ASTM D823/A

■ Order info：

BEVS 1828 Automatic Panel Sprayer (Including one automatic spray gun)
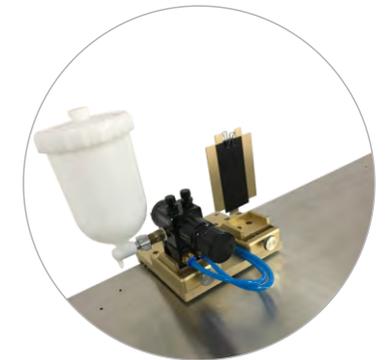
EXP Automatic Panel Sprayer
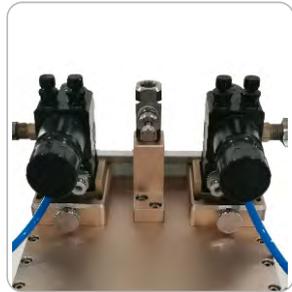
Smart fixture to change spray gun easily
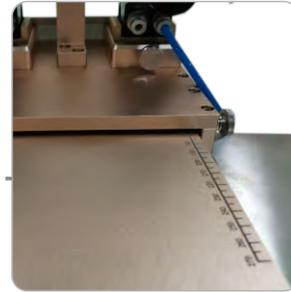
Easy to set the distance between nozzle and test panel

Explosion-proof touch screen

Test panel attached frame

EXP Automatic Panel Sprayer

■ Introduction:

BEVS 1829 explosion-proof automatic panel sprayer is a spraying equipment that can intelligently and quickly obtain a stable and uniform coating, which is excellent and reliable. The machine is equipped with a 10-inch high-definition explosion-proof touch screen, which is easy to operate. It is with one-button start making the spraying completed automatically. The intelligent programming spraying process makes it a good choice for coating and related material laboratory. The explosion-proof grade of the machine is ExdbebibmbIIBT4Gb (combustible gas).

■ Technical info:

◆ Moving speed: X axis 20-350mm/s, Z axis 100mm/s
◆ Gun distance: 150-250mm
◆ Spraying pressure: 0.1-0.5Mpa
◆ System air pressure: 0.6Mpa
◆ Spraying area: max. L300 x W300mm; or 6 standard samples, max. L150 x W100mm
◆ Spray gun type: gravity automatic spray gun, gravity manual spray gun
◆ Equipment size: L1150 x W1002 x H1536mm (plus 1732mm extension rod)
◆ Shell material: SUS304 stainless steel

Function:

◆ X, Z-axis automatically moves according to the set program, Y-axis manually adjust the spray gun distance according to actual needs.

◆ The equipment can store hundreds of spraying programs, which can be activated directly.

◆ The user can edit spraying moving speed, spraying atomization pressure, spraying times, start spraying position and end position and other parameters. After confirmation, spray automatically according to the set parameters. After saving, call it directly next time.

◆ The screen displays the spraying trajectory, current spraying times and the remaining spraying times in real time.

Standard:

GB 1727-92, ASTM D823/A

Application:

Automotive, aerospace, industrial or protective coatings, high-performance coatings

Order info :

BEVS 1829 EXP Automatic Panel Sprayer (Including one automatic spray gun)

EXP Automatic Panel Spray Station

Introduction:

The BEVS 3232 EXP Automatic Panel Spray Station uses a portable paint syringe, which can not only achieve small dose of paint spraying, rapid replacement of paint samples, but also clean-free. The design of sealed controllable "spray chamber" can make the station widely used in production workshops, laboratories and other places.

Working principle:

The station uses human-computer interaction mode for operation. The operator places the panel on the X-axis rotating platform, places the syringe containing paint to the designated position of the Z-axis, closes the operation door, and starts to automatically complete the spraying according to the preset procedure.

Features:

◆ No-clean nozzle
◆ 10-inch HD touch screen
◆ Intelligent programming spraying process
◆ Two-axis fully automatic spraying
◆ Spray in two directions at the same time
◆ The height of the nozzle from the substrate can be adjusted
◆ Spray amplitude and atomization parameters can be adjusted as required
◆ Can be quickly disassembled into two layers, which is convenient for transportation and access to the laboratory and other highly restricted spaces
◆ Equipped with explosion-proof electrical parts, external control box

■ Function:

◆ Two-axis (X, Y) automatic control, Z-axis spray gun distance adjustable; The X and Y axes operate automatically according to the established procedures, and the Z axis manually adjusts the spray gun distance according to the actual needs.

◆ The station can store hundreds of spraying programs, which can be called directly.

◆ The user can customize and program the spraying program: input the parameters such as spraying moving speed, spraying atomization pressure, spraying cycles, starting and ending positions of spraying, and then spray automatically according to the set parameters after confirmation. After saving, it can be directly called next time.

◆ The interface displays the current spraying cycles and the remaining spraying cycles in real

■ Technical info:

◆ Panel moving speed: X axis 10~600mm/s, Y axis 10~100mm/s
◆ Gun distance: 150~250mm
◆ Spraying pressure: 0.1~0.5Mpa
◆ System air pressure: 0.6Mpa
◆ Spraying area: MAX 250 x 500mm; Or 4 standard panels 150 x 100mm
◆ Station dimension: 1500 x 1300 x 2320mm
◆ Gross: Weight: 600KG
◆ Power: 1KW (excluding negative pressure fan)
◆ Exhaust air volume: 2600m³/ h
◆ Control box size: 523 x 380 x 1400mm

■ Standard:

GB 1727-92, ASTM D823/A

■ Application:

Automotive, aerospace, industrial or protective coatings, high-performance coatings

■ Order info：

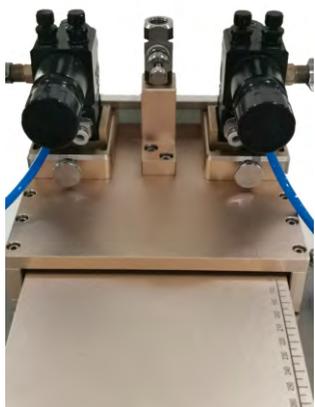| BEVS 3232 EXP Automatic Panel Spray Station |
|---|

Single Sided Applicator

■ Introduction:

The applicator is made of high grade stainless steel and is easy to clean, both models can be used with automatic film applicator. Model 1808 has two different inlet slopes which makes the test samples range wider and the test results are more ideal.

BEVS 1801   BEVS 1808

■ Order info：

Model	Film width(mm)	Gap(μm)
BEVS 1801/50	50	50/75/100/125/150/200
BEVS 1801/75	75	
BEVS 1808/50/1	50	50
BEVS 1808/70/1	75	100

Two Sided Applicator

■ Introduction:

The applicator is made of high grade stainless steel, the C shaped design makes the sample gather to avoid leaking on the test panel. It can also be used on automatic film applicator.

■ Order info：

Model	Film width(mm)	Gap(μm)
BEVS 1802/1	80	25/50
BEVS 1802/2	80	75/100
BEVS 1802/3	80	150/200
BEVS 1802/4	80	300/400

Four Sided Applicator

■ Introduction:

The applicator is made of high grade stainless steel and is easy to clean. Four gaps in one applicator makes it more suitable for the lab.

■ Order info:

Model	Film width(mm)	Gap(μm)
BEVS 1803/60/1	60	30/60/90/120
BEVS 1803/60/2	60	50/100/150/200
BEVS 1803/60/3	60	100/200/300/400
BEVS 1803/60/4	60	300/400/500/600
BEVS 1803/60/5	60	5/10/15/20
BEVS 1803/60/6	60	25/50/75/100
BEVS 1803/80/1	80	30/60/90/120
BEVS 1803/80/2	80	50/100/150/200
BEVS 1803/80/3	80	100/200/300/400
BEVS 1803/80/4	80	300/400/500/600
BEVS 1803/80/5	80	5/10/15/20
BEVS 1803/80/6	80	25/50/75/100

■ Different widths and gaps can be customized according to requirements.

Rhombus Four Sided Applicator

■ Introduction:

The applicator is made of high grade stainless steel. The prismatic design can adapt to samples with high and low viscosity. The choice of test samples is more diversified, and the cleaning will also be much easier.

■ Order info:

Model	Film width(mm)	Gap(μm)
BEVS 1807/80/1	80	30/60/90/120

Eight Sided Applicator

■ Introduction:

The applicator is made of high grade stainless steel and is easy to clean. Eight gaps in one applicator makes it meet various demands.

■ Order info:

Model	Film width(mm)	Gap(μm)
BEVS 1817/1	60	25/50/75/100/125/150/175/200

Cube Applicator

■ Introduction:

The item is made of high grade stainless steel with special design which makes the film with high repeatability and easily compare with different samples. It is especially suitable for drying time recorder and min. film forming temperature instrument sample preparation.

■ Order info:

Model	Film width(mm)	Gap(μm)
BEVS 1805/1	16	37/75
BEVS 1805/2	41	50/100
BEVS 1805/3	16	50/100

Other width and gap size are available upon request.

Four Sided Applicator With Reservoir

■ Introduction:

The item is made of high grade stainless steel with reservoir, four gaps in one makes it meet various film application demands.

■ Order info:

Model	Film width(mm)	Gap(μm)
BEVS 1819/60/1	60	30/60/90/120
BEVS 1819/60/2	60	50/100/150/200
BEVS 1819/80/1	80	30/60/90/120
BEVS 1819/80/2	80	50/100/150/200

Bar Coater

■ Introduction:

BEVS bar coater adopts cold extrusion processing technology to process concave and convex wavy curves on the surface of the steel rod, so as to achieve better coating. It can reach the min. thickness of 4μm.

■ Technical info:

◆ Excellent stainless steel bar : Ø10mm
◆ Two film width available: 200/320 mm
◆ Total length: 240/400mm

■ Features:

◆ Not peel off
◆ Easy to clean
◆ Apply to 4μm

■ Order info:

Model	Film width(mm)	Gap(μm)
BEVS 200/4…200	200	4-6-8-10-12-15-20-25-30-40-50-60-70-80-100-120-150−200
BEVS 320/4…200	320	4-6-8-10-12-15-20-25-30-40-50-60-70-80-100-120-150−200

Bar Coater Handle

■ Order info:

BEVS 200/S Bar Coater Handle(For BEVS 200 Bar Coater series only)

Adjustable Applicator

■ Introduction:

The adjustable applicator can make different thickness film by adjusting the two micrometers on top to lift up and down the scraper. The high-precision micrometer is in increments of 10μm.

■ Technical info:

◆ Made of stainless steel with high wear resistance
◆ 6 film widths are available: 50/100/150/200/250/300 mm
◆ Precision: ±2μm
◆ Film thickness range: 0-3500μm
◆ In 10μm increment

■ BEVS 1806A

Diversion baffle make the operation more convenient.
Smart magnetical design for quick cleaning after use.

■ Order info：

Name	Model	Film Width(mm)	Note
Adjustable Applicator	BEVS 1806A/50	50	With diversion baffle
	BEVS 1806A/100	100	
	BEVS 1806A/150	150	
	BEVS 1806A/200	200	
	BEVS 1806A/250	250	
	BEVS 1806A/300	300	

■ BEVS 1806B

Smart magnetical design for quick cleaning after use.

■ Order info：

Name	Model	Film Width(mm)	Note
Adjustable Applicator	BEVS 1806B/50	50	Without diversion baffle
	BEVS 1806B/100	100	
	BEVS 1806B/150	150	
	BEVS 1806B/200	200	
	BEVS 1806B/250	250	
	BEVS 1806B/300	300	

Digital Adjustable Applicator

■ Introduction:

The Adjustable Digital Applicator is designed according to ASTM D823E. It consists of two precise digital micrometers, a high precise scraper and a special alumina frame.

■ Technical info:

◆ Made of stainless steel with high wear resistance
◆ 5 film widths are available: 100/150/200/250/300 mm
◆ Precision: ±2μm
◆ Film thickness range: 0-3500μm
◆ In 1μm increment

■ Order info：

Name	Model	Film Width(mm)	Note
Digital Adjustable Applicator	BEVS 1806F/100	100	Without diversion baffle
	BEVS 1806F/150	150	
	BEVS 1806F/200	200	
	BEVS 1806F/250	250	
	BEVS 1806F/300	300	
	BEVS 1806E/100	100	With diversion baffle
	BEVS 1806E/150	150	
	BEVS 1806E/200	200	
	BEVS 1806E/250	250	
	BEVS 1806E/300	300	

Sagging Applicator

■ Introduction:

The item is used for sagging resistance evaluation. Viscosity, fineness, thickness are major factors of sagging.

■ Technical info:

◆ High-grade stainless steel
◆ 10 different films incremented by 25μm
◆ Wet film width 6mm, spacing 1.5mm

■ Order info：

Model	Gap(μm)
BEVS 1809/1	50-75-100-125-150-175-200-225-250-275
BEVS 1809/2	250-275-300-325-350-375-400-425-450-475
BEVS 1809/3	450-475-500-525-550-575-600-625-650-675
BEVS 1809/4	650-675-700-725-750-775-800-825-850-875
BEVS 1809/5	850-875-900-925-950-975-1000-1025-1050-1075
BEVS 1809/6	100-200-300-400-500(Quadruplex)
BEVS 1809/7	600-700-800-900-1000(Quadruplex)

Levelling Applicator

■ Introduction:

The item is used to determine the flow of the paint in the 2D state when the wet film is placed in the horizontal state, so as to select an appropriate painting state by controlling the physical properties of the paint.

■ Technical info:

◆ Made of high-grade stainless steel
◆ 5 pairs of coating stripes with increased thickness
　100-200-300-500-1000μm
　250-500-1000-2000-4000μm

■ Order info：

BEVS 1810/1 Levelling Applicator 100-200-300-500-1000μm

BEVS 1810/2 Levelling Applicator 250-500-1000-2000-4000μm

Payne Permeability Cup

■ Introduction:

The item is used to determine the permeability of films of paints ,varnishes, coatings, coating systems and related products, it consists of aluminum cup, seal ring and threaded ring cover.

■ Technical info:

◆ Precision machining ensures exposure area
◆ Exposed area :10cm² or 25cm²
◆ High grade anodized aluminum
◆ Easy to use and clean

■ Order info：

BEVS 1122/1 Permeability Cup 25cm²

BEVS 1122/2 Permeability Cup 10cm²

Hiding Power Chart

■ Introduction:

BEVS Hiding Power Chart tests a variety of coating and ink properties, such as hiding power, coating rate, sagging, leveling, color and so on. It is widely used in building materials coatings, industrial coatings, automotive coatings, food, cosmetics and other related industries.
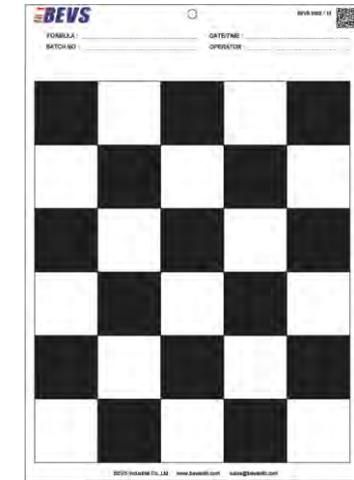
BEVS 2902/05 　　　　　BEVS 2902/13

■ Technical info:

◆ Size: 250 x 180mm
◆ Surface UV coated
◆ 500 sheet/carton

■ Standard：

ASTM D344, D2805

■ Order info：

BEVS 2902/05 Hiding Power Chart (half black and white)

BEVS 2902/13 Hiding Power Chart (black and white chequer)

BEVS

Film Application Kit

■ Introduction:

In order to obtain good coatings and instantly detect the performance of coatings in real time, BEVS has developed a practical set of film-application instruments, the kit includes 22 items for viscosity, adhesion, fineness and film application.

■ Technical info:

Carry case: 520 x 370 x 155mm

Classification	No.	Model	Description	Qty
Viscosity	1	BEVS1101 / 3	Ford Cup	1
	2	BEVS1108 / 4	Din Cup	1
	3	BEVS1106 / 4	ISO Cup	1
	4	BEVS1118 / 4	Afnor Cup	1
	5	BEVS1102	Cup Stand	1
Specific Gravity	6	BEVS2101 / 50	Specific Gravity Cup (Al)	1
	7	BEVS2102 / 50	Specific Gravity Cup (SS)	1
Fineness	8	BEVS1908 / 100	Double Channel Grind Gauge	1
Flowability	9	BEVS1809 / 2	Sagging Applicator	1
	10	BEVS1810 / 2	Levelling Applicator	1
Permeability	11	BEVS1122 / 2	Payne Permeability Cup	1
Film Application	12	BEVS200 / 4	Bar Coater (4μm)	1
	13	BEVS200 / 100	Bar Coater (100μm)	1
	14	BEVS1805 / 1	Cube Applicator	1
	15	BEVS1803 / 60 / 2	Four Sided Applicator	1
	16	BEVS1806A / 100	Adjustable Applicator	1
	17	BEVS1819 / 80 / 1	Four Sided Applicator with Reservoir	1
Thickness	18	BEVS1701 / 1	Wet Film Gauge (SS)	1
	19	BEVS1701 / 3	Wet Film Gauge (Al)	1
	20	BEVS1702 / 100	Wet Film Thickness Wheel	1
Adhesion	21	BEVS2202 / 1	Cross Hatch Cutter	1
	22	BEVS2203	Multi-hatch Gauge	1

■ Order info:

BEVS 1830 Film Application Kit

Curing / Drying

● Oven Loggermaster
● Drying Time Recorder

Oven Loggermaster (6 channels)

Quick settings

Result display directly

Preset start/stop time etc.

USB port for data download

Display max. value

View data and curve
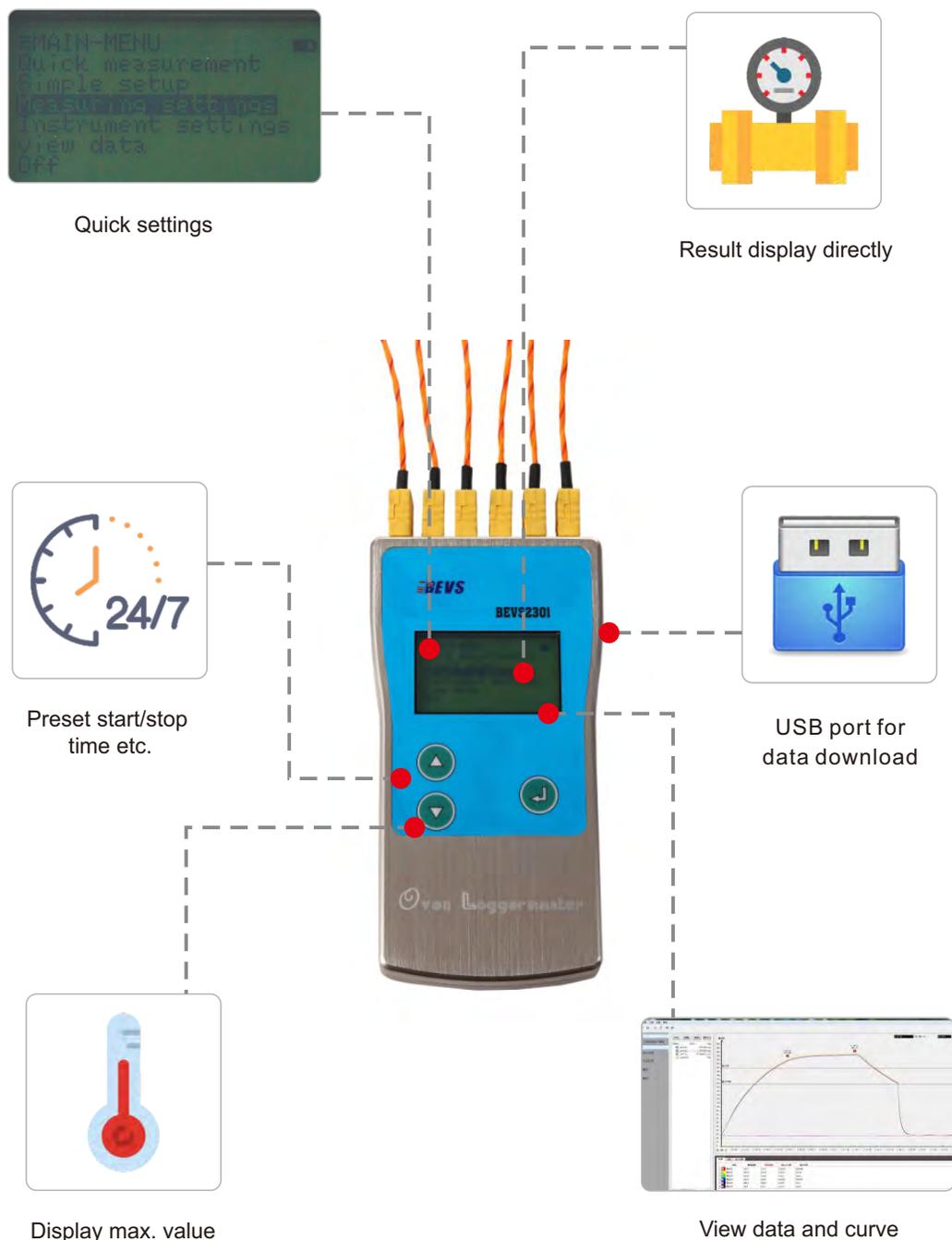
Oven Loggermaster (6 channels)

■ Introduction:

BEVS Oven Loggermaster is robustly comprehensive, intelligent and easy-to-use, which used to measure and store the temperature profiles of both the sample and the oven during the cure process. The record data can be downloaded to PC for a comprehensive evaluation of the conditions in oven.

■ Technical info:

◆ Range: 0-1300℃
◆ Accuracy:±0.3℃
◆ Resolution: 0.1℃
◆ Probe type: K
◆ Channel quantity: 6
◆ Operation temperature：0-60℃
◆ Interval: from 1 second to 1 hour
◆ Connect port: USB
◆ Batteries: 3×3.7V(16340) rechargeable battery
◆ Battery life: 120 hours continuous use
◆ Size :87×165×23 mm

■ Features:

Advanced and high-precision

◆ An intelligent datalogger specially designed for the coating industry, with an accuracy of ±0.3°C, the recording interval can be set arbitrarily from 1 second to 1 hour, and the recording temperature range is from 0°C to 1300°C.

◆ All parameters can be set directly without connecting to a computer.

◆ Directly browse information such as recorded data and temperature curve.

◆ Start and stop recording time and date can be preset

◆ Optional recording interval

◆ The highest measurement temperature range required can be selected to ensure high accuracy result

Intuitive analysis of measurement result

◆ Obtain results directly

◆ With a USB interface for date downloaded to the PC for a comprehensive analysis and evaluation

Flexible and easy-to-operate analysis software

◆ Multifunctional analysis such as measurement data and 2D curve graphics can be performed to judge the quality of the whole oven to optimize the baking cost and improve the product quality

◆ Important information such as temperature distribution and user data are gathered in a complete report
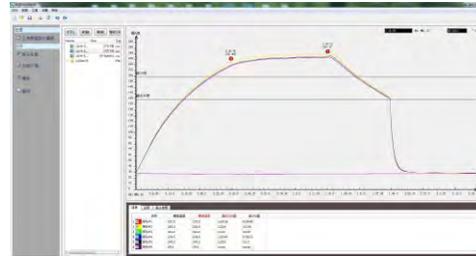
Outstanding thermal insulation System

◆ Each logger is equipped with a high quality thermal insulation system

◆ The insulation box is equipped with advanced stainless steel shell,which can be customized

◆ Advanced heat absorber

Heat absorber

Insulation box

■ Insulation box:

Model	BEVS2308	BEVS2305	BEVS2302	BEVS2303	BEVS2304
Pic.					
Size	230x140x55mm	280x200x70mm	274x226x138mm	297x250x183mm	180x300x400mm
Weight	1.7KG	3.8KG	7.5KG	10KG	19KG
Temp.	100℃	250℃	300℃	500℃	800℃
Duration	100℃@25min	200℃@80min 250℃@60min	300℃@65min	500℃@60min	800℃@50min

■ Probe:

Model	Cable length(mm)	Cable type	Application	Probe type	Max. Temp.(℃)
PL8001/02/03	1.5/3.0/6.0	Teflon	Air	Clamp	300
PL8004/05/06	1.5/3.0/6.0	Teflon	Air	Magnetic	300
PL8007/08/09	1.5/3.0/6.0	Teflon	Surface	Clamp	300
PL8010/11/12	1.5/3.0/6.0	Teflon	Surface	Magnetic	300
PL8013/14/15	1.5/3.0/6.0	Teflon	Universal	Ring dia. 6mm	300
PL8016/17/18	1.5/3.0/6.0	Teflon	Universal	Stick	300
PL8019/20	1.5/3.0	ss braided lead	Surface	Magnetic	500
PL8021/22	1.5/3.0	ss braided lead	Surface	Clamp	500
PL8023/24	1.5/3.0	ss braided lead	Universal	Ring dia. 6mm	500
PL8025/26/27	1.5/3.0/6.0	ss braided lead	Air	Clamp	500
PL8028/29/30	1.5/3.0/6.0	Inconel bendable HT	Universal	Ring dia. 6mm	1000

■ Order info：

BEVS 2301/1 300℃ Oven Loggermaster Kit (Probe not included)

BEVS 2301/2 500℃ Oven Loggermaster Kit (Probe not included)

BEVS 2301/4 100℃ Oven Loggermaster Kit (Probe not included)

BEVS 2301/5 800℃ Oven Loggermaster Kit (Probe not included)

Oven Loggermaster (12 channels)

12 channels

Handheld controller

Wireless communication

USB port

One button operation
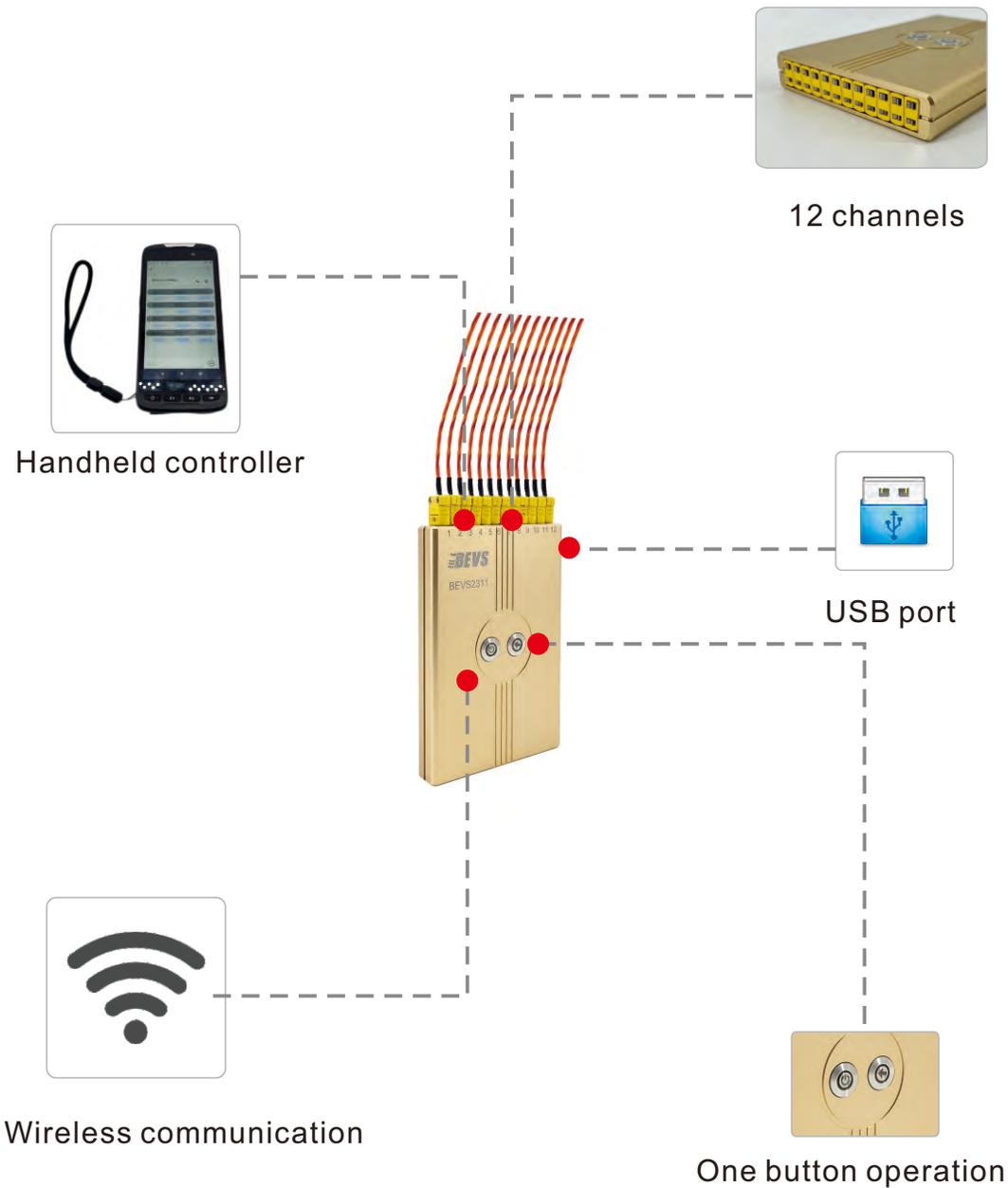
Oven Loggermaster (12 channels)

■ Introduction:

BEVS 2311 Oven Loggermaster is the perfect diagnostician and analyzer for the entire baking process, which can better and faster optimize the oven structure, hot air distribution, tuyere layout and coating curing process.

Under the protection of its special heat insulation box, the recorder automatically records the relevant curing process temperature and the surface temperature of the measured product in the oven.
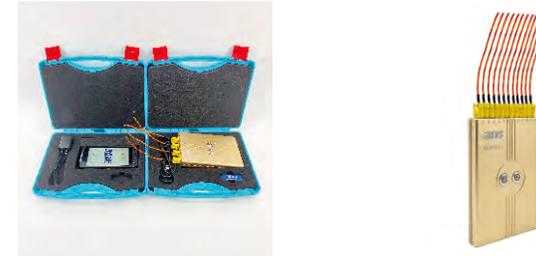
■ Features:

1. More advanced and high-precision Over Loggermaster

■ It is specially designed for the coating industry. Its accuracy is ± 0.3 ℃, the acquisition interval is arbitrarily set from 0.5 seconds to 999 seconds, and the recording temperature range is from 0 ℃ to 1300 ℃.

■ All parameters can be set directly on the handheld tablet or on the computer.

■ It can be used to browse the recorded data, temperature curve and other information through the handheld tablet

■ Start and stop recording time and date can be preset

■ Arbitrary acquisition interval

■ The highest measurement temperature range required can be selected to ensure the highest accuracy of the measurement result

■ One-key operation, easy and quick to use

2. The operation is simple and quick;

■ The recorder and controller are designed separately, which is more convenient to use.

■ All parameters can be set directly on the handheld tablet or on the computer.

■ Parameters set before measurement can be browsed through the handheld tablet

■ The measured data, temperature curve and other information can be browsed through the handheld tablet.

3. Flexible and easy-to-operate analysis software

- Multi-function analysis such as measurement data and 2D curve graphics can be carried out to judge the quality of the whole oven, so as to optimize the baking cost and improve the product quality.

- Important information such as temperature distribution, chain speed, and user data are gathered in one complete report.
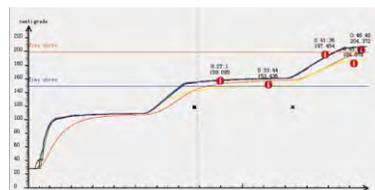
4. Intuitive analysis of measurement results:

- The measurement results can be obtained directly on the handheld flat panel display via Bluetooth, wireless or wired connection.

- With USB interface, it can be downloaded to the PC to run the loggermaster analysis software for comprehensive analysis and evaluation of the process.

■ Application:

1. Automotive coating

2. Food

3. Measurement area

4. Aluminum powder coating

5. Cookware coating

6. Aerospace coating

■ Probe:

Ordering number	Length (m)	Wire type	Application	Probe type	Max. temp.(℃)
PL8001/2/3	1.5/3.0/5.0	Teflon	Air	Clamp type	300
PL8004/5/6	1.5/3.0/5.0	Teflon	Air	Magnetism	300
PL8007/8/9	1.5/3.0/5.0	Teflon	Workpiece surface	Clamp type	300
PL8010/11/12	1.5/3.0/5.0	Teflon	Workpiece surface	Magnetism	300
PL8013/14/15	1.5/3.0/5.0	Teflon	Universal	Ring Ø 6 mm	300
PL8016/17/18	1.5/3.0/5.0	Teflon	Universal	Line type	300
PL8019/20	1.5/3.0	SS braided wire	Workpiece surface	Magnetism	500
PL8021/22	1.5/3.0	SS braided wire	Workpiece surface	Clamp type	500
PL8023/24	1.5/3.0	SS braided wire	Universal	Ring Ø 6 mm	500
PL8025/26	1.5/3.0	SS braided wire	Air	Clamp type	500
PL8028/29/30	1.5/3.0/5.0	Flexible tube	Universal	Ring Ø 6 mm	1000
PL4087	3	Silicone wire	Customized	The probe is 10 cm in length, 0.2 mm in thickness, 0.28 mm in thickness and 5 mm in width after coating	500

The above wire lengths can be provided as required, and special probes can also be designed and manufactured according to user requirements.

■ Insulation box:

BEVS 2312 Heating insulation box:

1) Overall dimension: L284 x W226 x H138mm

2) Maximum temperature of working environment: 300 ℃

3) When the temperature is 300 ℃, the temperature resistance time is 65 min

4) When the temperature is 200 ℃, the temperature resistance time is 200 min.

■ Technical info:

Measuring temperature range	0℃～1300℃
Precision	±0.3℃
Resolution	0.1℃
Thermocouple type	Type K
Number of connected probes	12
Operating temperature	0～60℃
Setting interval	0.5 ~ 999 seconds
Interface	USB
Power source	Two 3.7V (16340) rechargeable batteries
Battery life	1200 hours continuous use or 10,000 hours intermittent use
Size	165×110×23mm
Weight	285g
Amount of memory	4 hours (12 channels store one set in 0.5 seconds per channel)

■ Standard kit:

1 x Oven Logger Master BEVS 2311
1 x Handheld Controller BEVS 2319
1 x Analysis Software PL 1001
1 x Heating Insulation Box (including heat absorber) BEVS 2312
1 x USB cable PL 2001
2 x Battery
1 x Operating Manual
1 x Suitcase
1 x USB stick

■ Order info:

BEVS 2311/1 Oven Loggermaster Kit (300℃)
BEVS 2311 Oven Loggermaster (Main Device)
BEVS 2312 Heating Insulation box

Drying Time Recorder

Two sizes of
glass strip supported

Drawdown & drying time

Level device

DRYING TIME RECORDER

BEVS1813

Draw down with cube applicator

Anti-dripping pan
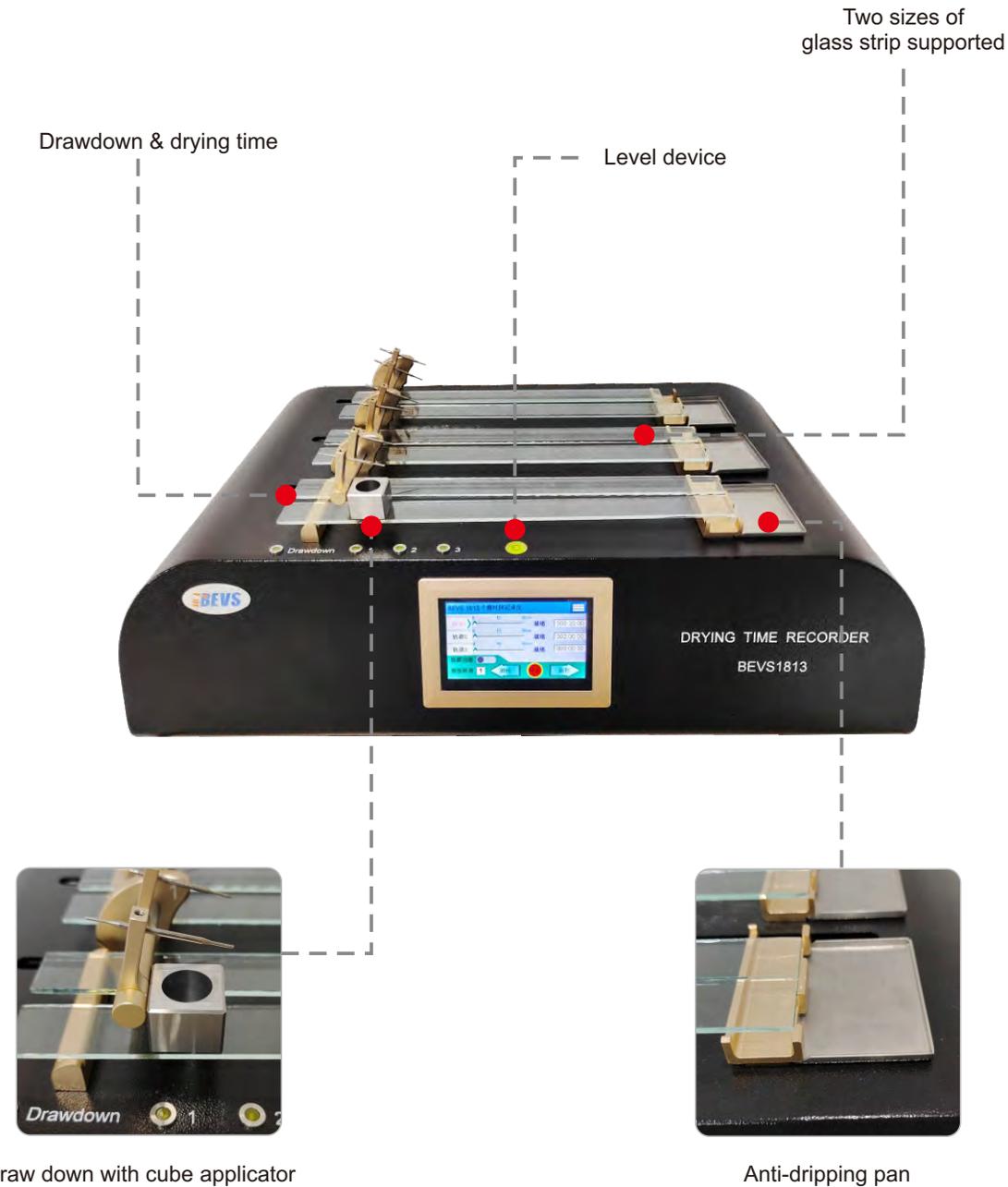
Drying Time Recorder

■ Introduction:

BEVS drying time recorder is a leading measuring machine for each stage of the coating drying process. It is a linear drying time recorder that can directly identify the drying time of each track which has the characteristics of intuition and good reproducibility, and can accurately evaluate each stage accurately. It uses touch screen control and custom start and test time to make the operation more intuitive and simple.

BEVS 1815

BEVS 1813

■ Features:

Model	BEVS 1815	BEVS 1813
Track	10, 5 pairs	6, 3 pairs
Driver	5 motors, each controls 1 pairs	3 motors, each controls 1 pairs
Drying time	1) 6, 12, 24, 48 hours, can choose arbitrarily. 2) Custom track (track set 1): besides standard preset duration, users can customize the start and test time	Duration 30s - 48h, all 3 control modules can be set start time and test time freely
Indicator	LED lamp	LED lamp
Drawdown function	No	1) Can be matched with glass strip and BEVS1805/1 cube applicator for drawdown 2) After drawdown, reset the machine and start drying time test
Reset function	Manually reset	Auto reset
Result judging	Via time scale	When test completed, move the stylus on the touch panel to any position to attain duration
Vision system	No	To be updated

■ Technical info:

Model	BEVS 1815	BEVS 1813
Track quantity	10	6
Motor	5, each controls 2 tracks	3, each controls 2 tracks
Stroke length	300mm	300mm
Stylus dia.	2mm	2mm
Drying time	6, 12, 24, 48 hours, you can choose arbitrarily (the first track set can be set 1 - 48h arbitrarily)	60s - 240h arbitrarily set, 3 pairs of track can be set independently
Glass strip size	320x25x3mm	320x25x3mm / 320x60x3mm
Machine size	550x530x200mm	558x368x185mm
Power supply	220V, 50Hz	220V, 50Hz

■ 1815 Test Duration

BEVS1815						
Track set	6	12	24	48	Customize	Stop and reset during test
1	√	√	√	√	√	√
2	√	√	√	√		√
3	√	√	√	√		√
4	√	√	√	√		√
5	√	√	√	√		√
√ means the machine achieved.						

① ② ③ ④ ⑤

0   1.5   2   4   5   time

Levelling Evaporation Sol-gel transition Surface dry Final dry
of Solvent
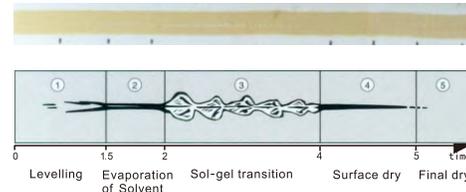
■ Standard :

ASTM D5895

■ Order info :

BEVS 1815 Drying Time Recorder(10 tracks, comes with 10 x stylus dia. 2mm, 1 x BEVS 1805/1 Cube Applicator, 10 x narrow glass strip)

BEVS 1813 Drying Time Recorder(6 tracks, comes with 6 x stylus dia. 2 mm, 1 x BEVS 1805/1 Cube Applicator, 3 x wide glass strip and 6 x narrow glass strip)

Optional accessory:

BEVS 1805/1 Cube Applicator, width 16mm, gap 37/75 μm

BEVS 1815/P/005 Narrow Glass Strip 320 x 25 x 3mm, 100pcs

BEVS 1815/P/001 Stylus Φ2mm

BEVS 1815/P/002 Stylus Φ4.7mm, ball head

BEVS 1815/P/003 Narrow glass strip holder for drawdown

BEVS 1815/P/004 Weight 5g, 10 pcs

BEVS 1815/P/004/1, Weight 10g, 10 pcs

Thickness

● Wet Film Thickness Wheel

● Wet Film Gauge(Aluminum)

● Wet Film Gauge

● Paint Inspection Gauge

Wet Film Thickness Wheel

■ Introduction:

The gauge is precise to check the wet film thickness which is made of high grade stainless steel.

■ Standard:

ASTM D1212, D4414, ISO 2808

■ Order info:

Model	Range(μm)	Division value(μm)
BEVS 1702/25A	0-25	1.25
BEVS 1702/50A	0-50	2.5
BEVS 1702/100A	0-100	5
BEVS 1702/200A	0-200	10
BEVS 1702/300A	0-300	15
BEVS 1702/500A	0-500	50
BEVS 1702/1000A	0-1000	100

Other scales are available upon request

Wet Film Gauge(Aluminum)

■ Introduction:

The gauge is used to measure the wet film thickness of wet film coatings on smooth and flat surfaces, especailly in protective coatings, putty, automobile anti-gravel paint, etc.

■ Technical info:

Measuring Range: 25-2000μm
Size: 89×66×0.8mm

■ Standard:

ASTM D4414, ISO 2808, GB/T 13452

■ Order info:

BEVS 1701/3 Wet Film Gauge 25-2000μm

Wet Film Gauge

■ Introduction:

This Wet Film Gauge is used to measure the wet film thickness on smooth & flat coated surfaces such as lacquer, varnish, adhesive and other materials. It is made of high grade stainless steel and easy to clean.
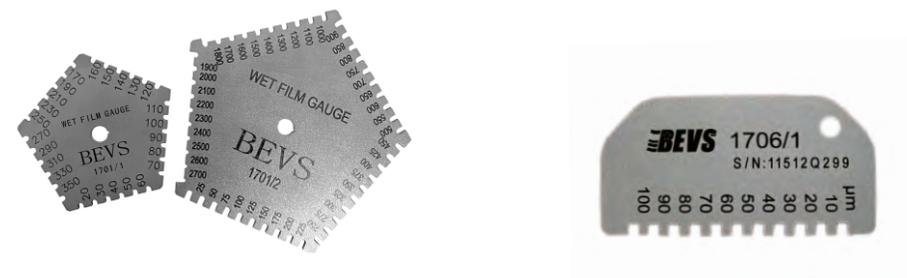
■ Technical info:

◆ Shape of pentagon
◆ Two scales available
◆ Measuring Range (μm): 20-350 / 25-2700 / 0-100
◆ Material: Stainless steel

■ Standard:

ASTM D4414, ISO 2808, GB/T13452

■ Order info:

BEVS 1701/1 Wet Film Gauge 20-350μm

BEVS 1701/2 Wet Film Gauge 25-2700μm

BEVS 1706/1 Wet Film Gauge 0-100μm

Paint Inspection Gauge

■ Introduction:

BEVS1707 PIG is using destructive method to measure coating thickness, containing single and multiple coats, applied on all of substrates, e.g.:aluminum, iron, plastic, wood, concrete, glass etc.

■ Principal:

A cut is made on the test surface with a V-shaped tool.The coating thickness can be measured with the built-in microscope under the LED light.

■ Standard:

ASTM D4138, DIN 50986, ISO 2808

Operating Steps:

Step	Illustration	Description
1		Prepare the inspecting area
2		Draw a line with the marker pen on the surface
3		Cut the coating vertically and make sure it is lacerated
4		Read the graduation-scale with the microscope to attain thickness

■ Order info:

BEVS 1707 Paint Inspection Gauge, including 3 x cutters (No. 1, 2 and 3 each), 1 x battery, 1 x marker pen and 1 x carrying case

■ Accessory info:

BEVS 1707 PIG/1	Cutter No.1
BEVS 1707 PIG/2	Cutter No.2
BEVS 1707 PIG/3	Cutter No.3

■ Technical info:

Cutter	Cut Angle(^{o})	Range(μm)	D Factor(μm)
No. 1	45	20 -1800	20
No. 2	63.4	10-900	10
No. 3	84.3	2-180	2
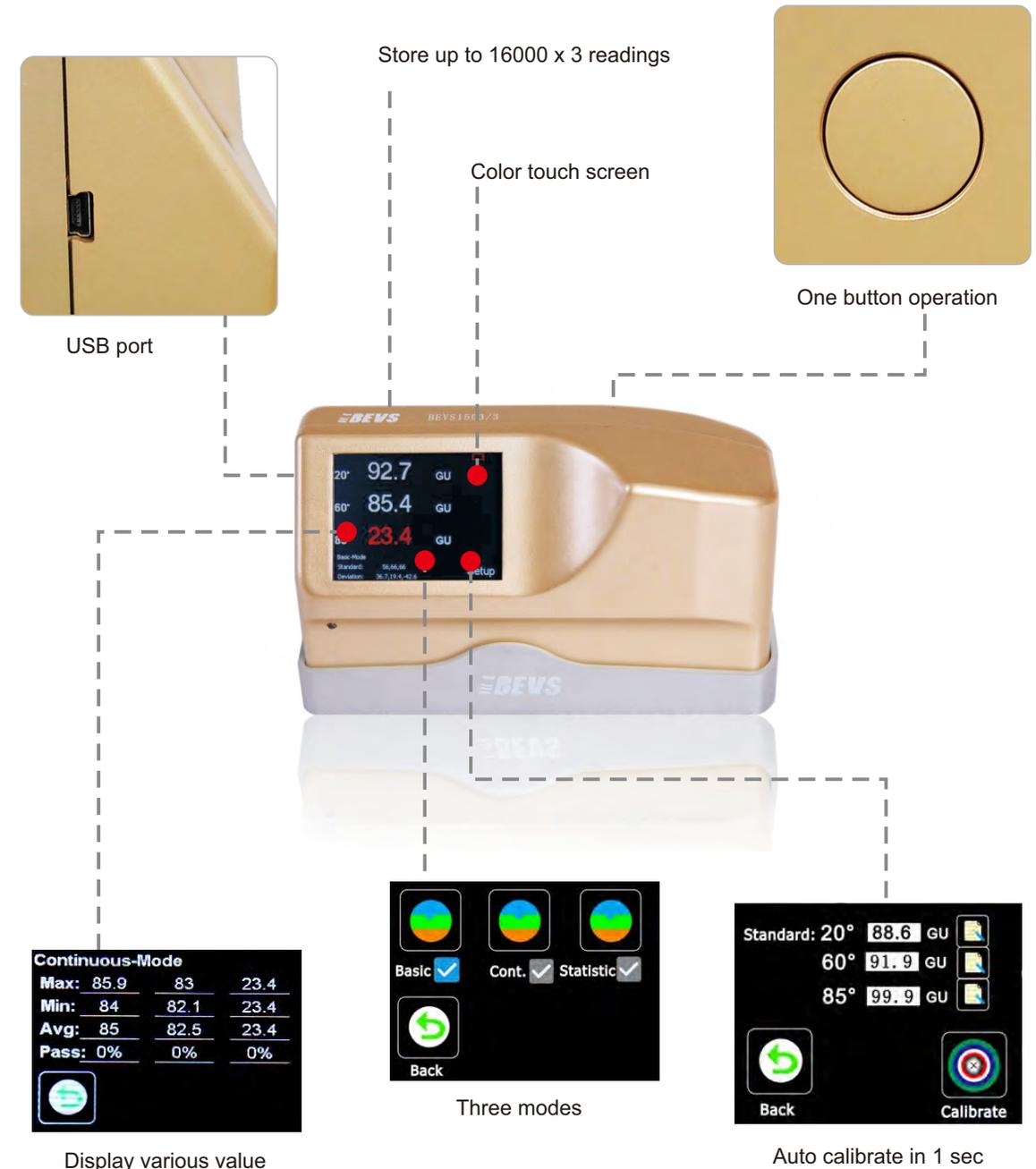
Gloss / Color

- Intelligent Glossmeter
- 60° Glossmeter
- Bench Glossmeter
- Color Assessment Cabinet
- Non Contact Automatic Color Measurement Machine

Intelligent Glossmeter

USB port

Store up to 16000 x 3 readings

Color touch screen

One button operation

Display various value

Three modes

Auto calibrate in 1 sec

Intelligent Glossmeter

■ Introduction:

This BEVS portable intelligent glossmeter has a wide range of applications from matt to high gloss measurements, with advanced touch screen technology and ideal for production and laboratory.

Samples can be measured separately at each angle or at 2 or 3 angles simultaneously and effectively processed by using the powerful built-in software.

■ Features:

Auto calibrate	One button operation	Auto calibrate in 1 sec	Display various value
Multi language	Compact and easy to carry	USB port for charging and output data	Store up to 16000 x 3 readings
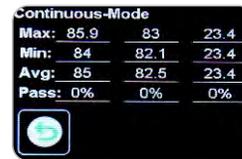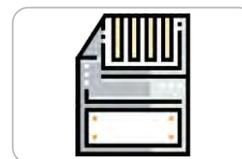
■ Standard:

ISO 2813, ASTM D523, DIN 67530
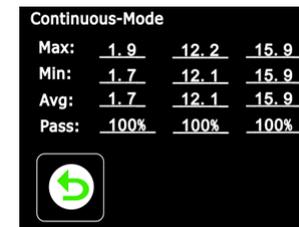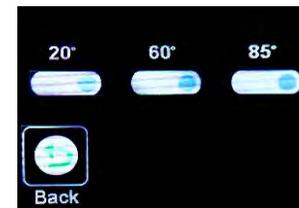
■ Technical info:

◆ Angle: 20°, 60°, 85°
◆ Measurement range: 0-2000GU
◆ Repeatability: ±0.2(0-199.9GU), ±0.2%(200-2000GU)
◆ Reproducibility: ±0.5(0-199.9GU), ±0.5%(200-2000GU)
◆ Precision: 1GU
◆ Measuring area(mm): 10x10 (20°), 9x15(60°), 5x38(85°)
◆ Display resolution: 320 x 240
◆ Control: Touch screen with one key measurement
◆ Memory: Basic mode: 3000 batches
         Statistics mode: 3000 batches
         Continuous mode: 1000 batches
◆ Data port: USB & blue tooth

■ Order info:

BEVS 1503   Intelligent Tri-Glossmeter (20°/60°/85°)

BEVS 1503/1 Intelligent Glossmeter (20°)

BEVS 1503/2 Intelligent Glossmeter (60°)

BEVS 1503/3 Intelligent Glossmeter (85°)

60° Glossmeter

■ Introduction:

BEVS1501U is a newly upgraded 60° glossmeter from the original BEVS1501, manufactured according to ISO 2813, ASTM D2457, GB/T 9754, GB/T 9966 and GB/T 13891 standards.

■ Technical info:

◆ Reading range : 0 - 199.9 GU
◆ Indication error: <±1.2 GU
◆ Stability: ±0.4 GU / 30 Mins
◆ Measuring area: 14×30 mm
◆ Dimension: 122×40×105 mm (L×W×H)
◆ Power supply: 1.5 V

■ Features:

◆ Handy and portable
◆ Single battery can be used for a long time
◆ Long-life light source and good stability

■ Application:

◆ Furniture, electrical appliances, automobiles and other industries: ink, paint, baking varnish, coating, wood products, leather products and other surface gloss

◆ Building decoration industry: surface gloss measurement of marble, granite, vitrified polished tiles, ceramic tiles, floors, etc.

◆ Printing and packaging industry: surface gloss measurement of plastics, paper, etc.

◆ Measurement of surface gloss of other objects

■ Order info:

BEVS 1501U 60°Glossmeter

Bench Glossmeter

■ Introduction:

This small, portable instrument is made for measuring the gloss of curved surface, small pieces, specially shaped surface of small products, application in the area of coatings, automobiles, toys, furniture, plastics, banknotes, teeth, ceramics etc.

■ Technical info:

◆ Angle:60°
◆ Range:0-2000GU
◆ Repeatability: ±0.5GU(0-199.9GU)
◆ Precision: 1GU
◆ Measurement area: 2x2mm
◆ Display resolution: 320×240
◆ Control: Touch screen with one button measurement
◆ Memory: 3000 readings
◆ Operation temperature: -10 - 40℃
◆ Port: USB
◆ Dimension: 220×190×85mm (L×W×H)
◆ Weight: 3kg

■ Features:

◆ Automatic calibration
◆ One button operation
◆ Colorful touch screen displaying readings, statistics and calibration procedure status.
◆ Calibration can be done automatically within one second
◆ Up to 3000 readings stored.
◆ Convenient measurement with infrared sensor switch
◆ Foot switch available for simple measurement

■ Standard :

ASTM D523, DIN 67530
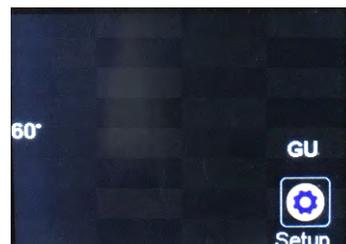
■ Accessory info :

BEVS1506/P/001 Standard Calibration
BEVS1506/P/002 USB Data Cable
BEVS1506/P/003 Foot switch
BEVS1506/P/004 Optical Sensor Switch

■ Order info :

BEVS 1506 Bench Glossmeter
Delivery with 1 x calibration tile, 1 x USB cable, 1 x foot swtich and 1 x sensor switch

Color Assessment Cabinet

■ Introduction:

To avoid assessment error when performing color contrast, it is easy to simulate different light sources to compare color difference via touch screen panel. Ideal application for the Graphic Arts, Photographic, Textile, Dyeing, Packaging, Printing, Leather, Inks, Knitwear, Plastic, Automotive and Ceramics industries.

■ Features:

◆ Up to 6 light sources
◆ Easy to operate via touch screen
◆ Automatically alternating among light sources

■ Technical info:

Light	Description	Color Temperature	Power
D65	International Standard Artificial Daylignt	6500K	18W
TL84	Applied to stores in Europe,Japan and China	4000K	18W
CWF	（Cool White Fluorescent)American Standard	4150K	18W
F	"Sun-setting Light Yellow"incandescent light source（imitation of sunset）	2700K	40W
UV	Viewing under ultraviolet light to detect and evaluate optical brighteners or fluorescent pigments	365nm	18W
U30	Warm White Fluorescent,American Standard	3000K	18W
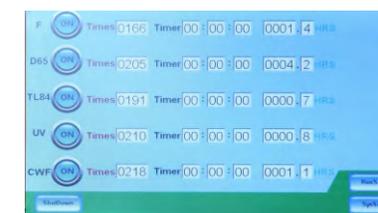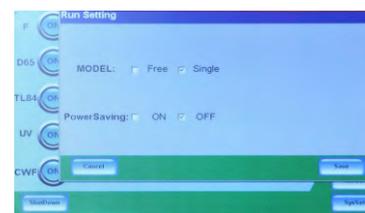
■ Order info :

Model	D65	TL84	CWF	F	UV	U30	Exterior size	Interior size
BEVS1201/5	2	2	2	4	1	0	710x405x570 mm	670x350x380 mm
BEVS1201/6	2	2	2	4	1	2	710x530x570 mm	670x350x500 mm

Optional accessory: 45° Sample observing table

Non Contact Automatic Color Measurement Machine

■ Introduction:

BEVS Non Contact Automatic Color Measurement Machine (NCACM) is an intelligent and automatic non-contact color measurement system based on BEVS intelligent control system and spectrophotometer. It has high integration and scalability. BEVS NCACM is able to realize continuous and fast non-contact measurement and the efficiency increased by more than 60%. It can also reduce the damage and scratch when contacting the sample during measuring. BEVS NCACM has a more prominent advantage in measuring small sample, it can measure many samples at a time with fixture.

■ Technical info:

No.	Description	Specification
1	Single measurement time	0.2s
2	Min measurement interval	0.2s
3	Min measurement area	0.75x 1mm
4	Max sample size	180x 180mm
5	X axis speed	10-500mm/s
6	Y axis speed	10-500mm/s
7	Z axis speed	10-100mm/s
8	Accuracy of colormeter	△E*ab<0.2
9	Repeated positioning accuracy of XY axis	0.1mm
10	The distance between sample surface and measurement point of color meter	1±0.2mm
11	Grossweight	180 KG
12	Input electricity	Voltage 220V/50Hz Power 450W
13	Working Temperature	15-30℃
14	Humidity	20-80% RH (No condensation)
15	Dimension	LxWxH (980x730x1550mm)

■ Software:

Operator can control the spectrophotometer, BEVS automatic measurement control system and USB Camera by PC.

The functions of the software:

1) Calibration of Spectrophotometer, real-time control of color measurement and data.

2) Programming control of BEVS automatic measurement and control system XY axis module positioning to coordinate (X, Y) points.

3) Connecting USB Camera to assist verification and positioning.

4) Programming measurement program.

5) Real-time display of measurement results and save.

6) Output testing report.

■ Order info:

BEVS 3212 Non Contact Automatic Color Measurement Machine
(Enable to customize upon requirements)

Adhesion

- Multi-hatch Gauge
- Hatch Gauge
- Cross Hatch Cutter
- Cross Hatch Basic Cutter
- Automatic Cross Cutting Tester
- Multifunction Coating Performance Tester
- Automatic Pull Off Adhesion Tester
- Adhesion Tester Verifier
- Automatic Bond Strength Tester
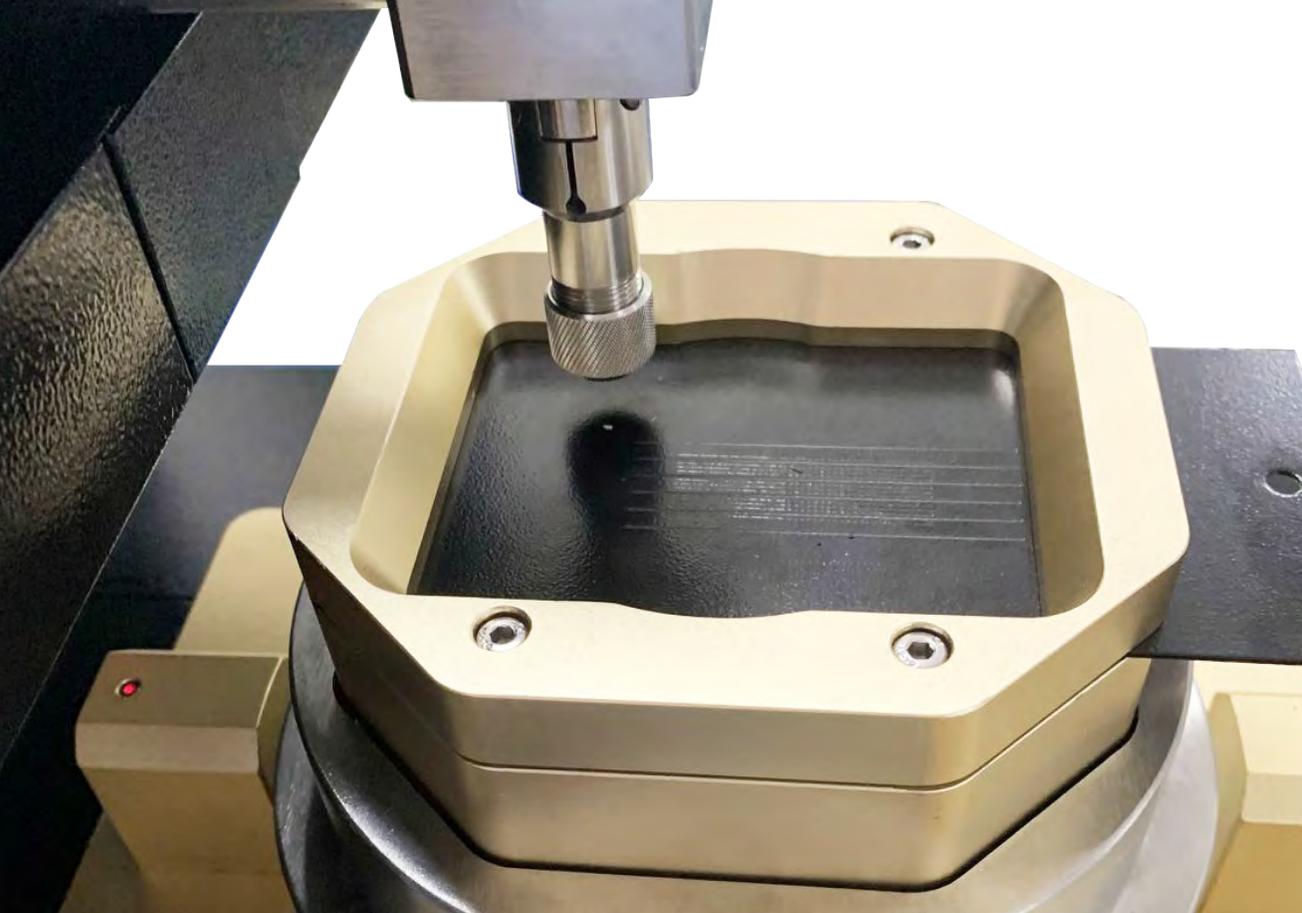
Multi-hatch Gauge

■ Introduction:

BEVS 2203 Multi-hatch Gauge is designed and manufactured according to BS3962-6 standard with the convenient and simple feature. It's widely used to measure the coating film adhesion of plastic and wood.
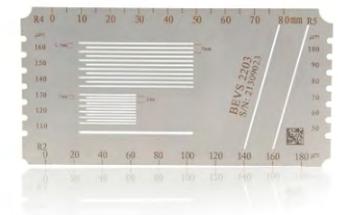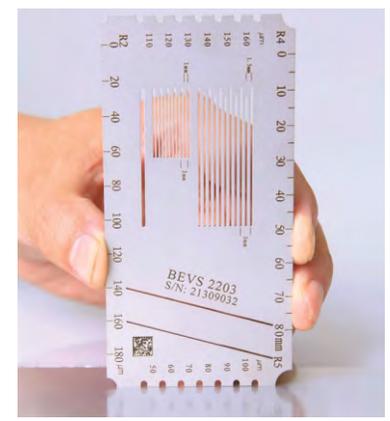
■ Features:

- ◆ Adhesion
- ◆ Wet film thickness
- ◆ Cross cut

■ Order info:

BEVS 2203 Multi-hatch Gauge
BEVS PJ/35 3M Scoth Tape

Hatch Gauge

■ Introduction:

BEVS 2203 series—Simple reticle is designed and manufactured in accordance with relevant standards. It has the characteristics of convenient use and fast scribe. It is widely used to determine the adhesion of plastic, wood ware and metal surface coatings. It is especially suitable for evaluating the adhesion of surface coatings such as mobile phones, tablet computers, and automobile rearview mirrors.
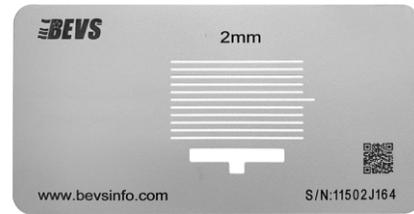
■ Features:

◆ Made of high-grade stainless steel
◆ "T" window makes it easier to observe the shape and position of the cut line, allowing it to be quickly positioned and tested for cross-cutting
◆ More appropriate grid length and number

■ Standard：

ISO 2409-2013, ASTM D3359

■ Order info：

Model	Cutting length(mm)	Cutting line	Spacing(mm)
BEVS 2203/1C	25	11	1
BEVS 2203/2C	35	11	2
BEVS 2203/3C	40	6	3

Standard kit: gauge + 3M Tape + Brush + Knife + Carry case

Model	Cutting length(mm)	Cutting line	Spacing(mm)
BEVS 2203/1S	25	11	1
BEVS 2203/2S	35	11	2
BEVS 2203/3S	40	6	3

Simple kit: gauge + carton only

Cross Hatch Cutter

8 cutting edges

Rotatable head: ± 8°

2206/2

S/N:30002BA134
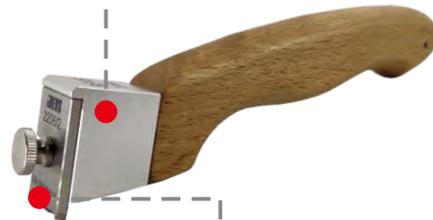
Easy to change cutting head

Cross Hatch Cutter

■ Introduction:

BEVS 2202 series is designed and manufactured according to IS02409-2013 standard, which is applicable to GB/T9286-98, BS 3900 E6, ASTM D3359. This item is safer, more convenient and faster than using a single blade to draw the grid. The distances between the cutting lines are 1 mm, 1.5 mm, 2 mm and 3 mm.

■ Technical info:

Cutting Head No.	Gap（mm）	Blades	Cutters Edges	Coating Thickness（μm）
BEVS 2202/1	1	6	8	0~60
BEVS 2202/2	1	11	8	0~60
BEVS 2202/3	1.5	6	8	0~60
BEVS 2202/4	2	6	8	61~120
BEVS 2202/6	3	6	8	121~250

■ Order info:

Standard Kit	Contain
BEVS 2202/1C	Cross Hatch Cutter + Carry Case + Hexagonal Screwdriver + Brush + Magnifier + Tape
BEVS 2202/2C	
BEVS 2202/3C	
BEVS 2202/4C	
BEVS 2202/6C	
Simple Kit	Contain
BEVS 2202/1S	Cross Hatch Cutter + Paper Box + Hexagonal Screwdriver
BEVS 2202/2S	
BEVS 2202/3S	
BEVS 2202/4S	
BEVS 2202/6S	

■ Rotatable head version available: BEVS 2210 series, pls order if you need.

Cross Hatch Basic Cutter

■ Introduction:

The BEVS 2206 is designed and manufactured according to ISO2409-2013 and ASTM D3359-2017 standards. It is a tool used to measure and evaluate the dry coating adhesion level by drawing a series of cuts on the coating. The instrument adopts a new structural design and manufacturing process. The ergonomic handle and sharp blade make testing easier and faster.

■ Features:

◆ The cutter holder can rotate by ± 8 ° to ensure consistent pressure on the coating
◆ Quick and easy cutter replacement without additional tools
◆ Complete cutter specifications to meet various coating thicknesses and substrates

■ Application:

Applicable to coatings, inks, packaging, printing, daily chemicals, universities, automotive industry, research institutes, testing institutions, etc.
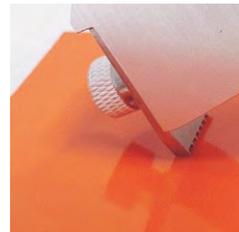
■ Standard :

ASTM D3359, ISO 2409

■ Technical and Order info :

BEVS 2206/1	Cutting Head	1mm spacing × 6 blades	BEVS 2206/*C Standard Kit: cutter+ magnifier + brush + tape + carry case	BEVS 2206/*S Simple Kit: cutter only
BEVS 2206/2	Cutting Head	1mm spacing × 11 blades		
BEVS 2206/4	Cutting Head	2mm spacing × 6 blades		
BEVS 2206/5	Cutting Head	1.5mm spacing × 11 blades		
BEVS 2206/6	Cutting Head	3mm spacing × 6 blades		

"*" means the cutter No., pls select when ordering.

Automatic Cross Cutting Tester

■ Introduction:

BEVS 2211 Automatic Cross Cutting Tester is a new high-efficiency coating adhesion performance test equipment. The adhesion level of the coating on the substrate can be easily and quickly determined. It is time-saving, labor-saving and of good repeatability. The equipment complies with a variety of standards, the grid angle is accurately adjustable, and it is compatible with the preparation of the scratches required before the salt spray corrosion test. It is simple and quick to operate, which can effectively avoid problems such as insufficient or uneven manual cross-cutting.

■ Features:

◆ Color capacitive touch screen
◆ High precision, good repeatability
◆ The platform automatically rotates and moves
◆ Compatible with single-blade, multi-blade cross cutting head to cut panels for adhesion and salt spray corrosion tests
◆ Digital display load pressure which is adjustable to meet the needs of different coating thicknesses
◆ Speed and stroke length are adjustable to meet the test panel of different sizes
◆ Compatible with a wide range of sample thickness
◆ Manual clamping of samples, reliable and stable
◆ Adjustable cutting space
◆ Adjustable cutting lines
◆ Cutting angle adjustable
◆ Cross-cut program can be set and saved

Technical info:

- ◆ Test panel size: L(110-175) x W(50-85) x H(0.5-20)mm
- ◆ Load pressure: 2-38N
- ◆ Cross-cut angle: 30-90°
- ◆ Cross-cut spacing: 1-4mm
- ◆ Number of grids: 1-15
- ◆ Cross-cutting speed: 2-50mm/s
- ◆ Cross-cut stroke length: 40-65mm
- ◆ Power supply: 110V or 220V, 50/60Hz
- ◆ Power: 450W
- ◆ Machine size: L610 x W340 x H470mm

● Customized fixture for small magnet
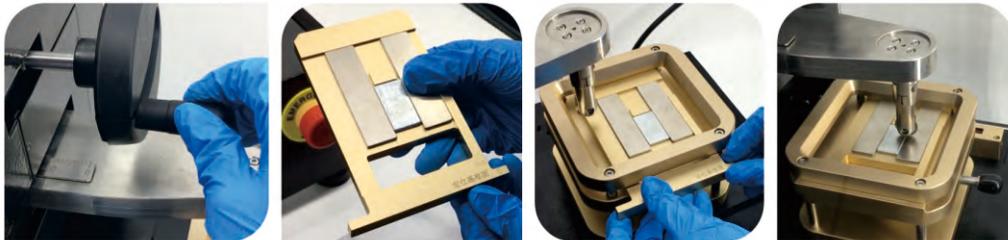
Standard:

ISO 2409-2013, ASTM-D3359-2017, GB/T 9286-1998, ISO 17872-2007

Order info:

BEVS 2211 Automatic Cross Cutting Tester

Multifunction Coating Performance Tester

Scratch   Linear abrasion

Cross cut   Pencil hardness

Four testing tools

Auto clamping

Safe cover
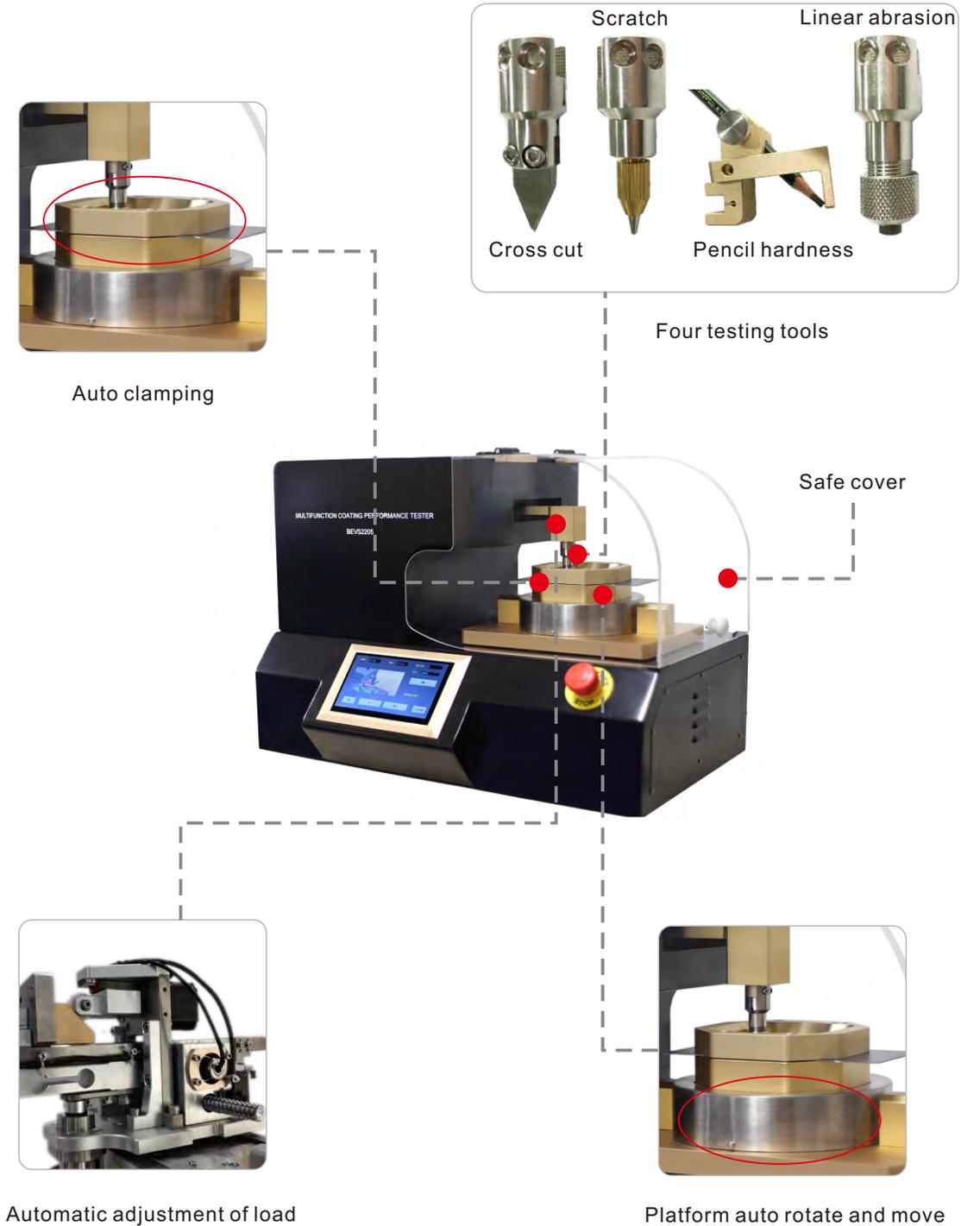
Automatic adjustment of load

Platform auto rotate and move

Multifunction Coating Performance Tester

■ Introduction:

This instrument enables to test the scratch resistance performance, adhesion performance, hardness and linear abrasion on the coating. It has an automatic sample locking test platform, rotation and movement, test pressure adjustment and speed adjustment can be achieved. With the improvement of product quality and QC frequency increasing, the traditional manual test method will be replaced by intelligent, automated method, to avoid human error caused by the operator. BEVS 2205 provides fast and accurate test results for companies which have batch testing requirement, R&D department and testing organizations.

■ Features:

Color touch screen

5 testing modes
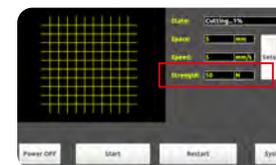
Loading pressure adjustable

Stroke length adjustable

Cross cut spacing adjustable

Cutting lines adjustable

■ Technical info:

◆ Panel Size: Max. L150 x W75mm
◆ Sample Thickness: 0.5 - 20mm
◆ Standard Load Range: 2 - 50N
◆ Special Load Range: 1 - 10N (Optional)
◆ Cutting Stroke Length: Max. 45mm
◆ Cutting Speed: 2 - 40mm/s
◆ Angle: 45/90°

◆ Cutting Space: 1 - 5mm
◆ Scratch Stylus: Ø 0.5/1.0/ 2.0mm
◆ Pencil: 9B - 9H
◆ Dimension: 550L x 410W x 520H mm
◆ Power Supply: 110/230V AC, 50/60Hz (Optional)
◆ Max Power: 500W

■ Standard:

ISO 2409-2013, S0 15184, ASTM D3359, D3363, BS 3900 E6, GB/T9286-98

■ Order info:

BEVS 2205 Multifunction Coating Performance Tester

Automatic Pull Off Adhesion Tester

Real time measure the temperature and humility

👍 Real time display curve and parameter
👍 Set force hold and hold time
👍 Load up to 100MPa

Auto reset

USB port

7mm
14mm
50mm
10mm
20mm

5 kinds of dolly

Automatic Pull Off Adhesion Tester

■ Introduction:

At present, cross cut method is used for qualitative evaluation of coating adhesion, but not quantitative testing. With quality control to improve and the development of new material, more and more users want to have the quantification on the adhesion and cohesion between coating and substrate, meanwhile, also need to monitor the influence change of adhesion of anti-corrosion coating on some outdoor concrete based coating, marine coating and bridge coating by the environmental temperature and humidity.

BEVS 2201 Automatic Pull Off Adhesion Tester adopts the full touch screen technology, It enables to test the adhesion of metal and other substrate and temperature and humility on the surface to further evaluate the coating quality and lifetime.

■ Features:

Various dolly	load up to 100Mpa	Real time display pull rate
Color touch screen	Rechargeable battery	USB port
Real time monitor temp. and humidity	Set date and time	Set holding force and time

www. bevsinfo. com

sales@bevsinfo.com

■ Application:

Coating adhesion measurement on metal, wood, concrete and other substrates.

■ Technical info:

Dolly dia.	7mm	10mm	14mm	20mm	50mm
Range	20-200MPa (2900-29000psi)	10-100MPa (1450-14500psi)	5-50MPa (725-7250psi)	2.5-25MPa (362-3625psi)	0.4-4MPa (58-580psi)
Rate	1.6-6MPa/s (232-870psi/s) 61-230N/S	0.8-3MPa/s (116-435psi/s) 62-235N/S	0.4-1.5MPa/s (58-217psi/s) 61-230N/S	0.2-0.75MPa/s (29-108psi/s) 62-235N/S	0.03-0.12MPa/s (4-17psi/s) 59-235N/S

◆ Pull rate accuracy: 2.5%+0.3 seconds
◆ Pressure accuracy: 1% full scale
◆ Pressure resolution: 0.01mpa
◆ Unit: MPa, psi
◆ Display: Capacitive display touch screen

● Standard kit

10mm dolly	10
14mm dolly	10
20mm dolly	10
Temp.and humidity sensor	1
Charger	1
Glue	1 set
20mm cutter	1

● Power supply

◆ Built-in rechargeable battery
◆ Rechargeable battery: 12.6V, 2A
◆ Battery capacity: 20000mA/H
◆ Charging time: 2-3 hours

● Packing info

◆ Net weight: 3KG
◆ Dimension: L230 x W100mm x H160mm

■ Standard:

ASTM D4541,D7234, ISO 4624,ISO 16276-1, JIS K 5600 5-7

■ Order info：

BEVS 2201 Automatic Pull Off Adhesion Tester(Standard kit, other dollies are available)

Adhesion Tester Verifier

■ Introduction:

BEVS 2201 ATV Adhesion Tester Verifier can be used to verify the pull force of various pull off adhesion meters. It has the characteristics of intuition and good reproducibility, and can accurately observe and verify the pulling force of each stage. With intuitive and simple touch screen control, users can set the dolly size and unit.
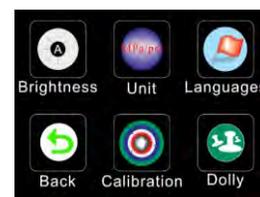
■ Features:

◆ Display real-time readings
◆ MPa/psi unit, switchable
◆ Automatic shut-down

■ Technical info:

◆ Charging adapter output: DC 5V
◆ Unit: MPa, psi
◆ Range: 0-100MPa (dolly Φ10mm)
◆ Accuracy: ±0.5% of full scale
◆ Resolution: 0.01MPa (1psi)
◆ Size: 130 x 85 x 135mm
◆ Weight: 3.5kg

■ Order info：

BEVS 2201 ATV Adhesion Tester Verifier

Automatic Bond Strength Tester

■ Introduction:

BEVS 2209 Automatic Bond Strength Tester is used to test the bond strength of materials, such as exterior wall facing tiles, mosaics, exterior wall insulation materials, various boards, paints and other materials bonded to the wall or the ground, concrete etc.

The instrument is a small automatic hydraulic force measuring device. When testing the bonding strength, the pull-off test is automatically performed on the surface through the three-point stand.

■ Features:

- ◆ Large touch screen operation
- ◆ Built-in rechargeable battery
- ◆ Automatic test
- ◆ Maximum pulling force can be set
- ◆ Test force value and holding time can be set
- ◆ Automatically stop when the set force is reached
- ◆ Strength up to 10Mpa for dolly/test block 50 x 50mm
- ◆ Can set a fixed pulling rate
- ◆ Adjust the pulling angle through the foot screw
- ◆ Real-time display of measurement data and curve
- ◆ Real-time display of environment temperature and humidity
- ◆ Real-time display of pulling rate
- ◆ Data save and quick view
- ◆ USB transfer data
- ◆ Auto reset when test done
- ◆ 4 different sizes of test block/dolly for selection

■ Standard:

JGJ110-2017 Inspection Standard for Bonding Strength of Facing Bricks in Construction Engineering
JGJ126-2015 External Wall Facing Brick Engineering Construction and Acceptance Regulations
JGJ144-2019 Technical Specification for External Thermal Insulation Engineering of External Walls
JG158-2013 Adhesive Polystyrene Particle External Wall External Insulation System
JG149-2006 Expanded polystyrene board thin plaster external wall external insulation system

■ Technical info:

- ◆ Unit: Mpa, psi
- ◆ Pulling rate: 0.2-0.4Mpa/s, depending on dolly
- ◆ Accuracy: ±1% of full scale
- ◆ Resolution: 0.01Mpa (1psi)
- ◆ Display panel: capacitive touch screen
- ◆ Power supply: Built-in replaceable rechargeable battery
- ◆ Charging adapter: DC12.6V, power: 65W
- ◆ Built-in multiple dollies for selection: 40 x 40mm, 50 x 50mm, 45 x 95mm, 100 x 100mm
- ◆ Host dimension: L280 x W90 x H165mm
- ◆ Three-point dimension: L148 x W148 x H238mm
- ◆ Net wight: 10kg

■ Order info：

BEVS 2209 Automatic Bond Strength Tester

Hardness

- Pencil Hardness Tester
- Electric Pencil Hardness Tester
- Pencil Hardness Test Platform
- Intelligent Pendulum Hardness Tester
- Buchholz Indentation Tester

Pencil Hardness Tester

■ Introduction:

BEVS1301 Pencil Tester complies with the requirements of ASTM D3363 and ISO 15184 standard, through leaving a superficial trace on the dry coating film with a certain pencil hardness, the surface will be variably damaged by the hardest pencil to evaluate pass/fail or hardness. Recommend to apply on the smooth film surface. Use variety of different hardness pencils, the angle between pencil and the coated surface is 45°, scratch on the coated surface under a certain of force, the scratch resistance hardness of the coating is the pencil hardness which just scratched the coating.

■ Hardness:

Harder →

6B-5B-4B-3B-2B-B-Hb-F-H-2H-3H-4H-5H-6H

← Softer
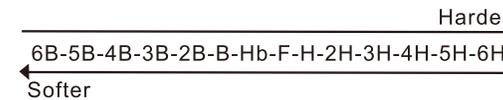
Standard comes with 14 x Mitsubishi pencils(1 pc / hardness)

■ Technical info:

◆ Pressure of pencil tip: 1000/750/500g
◆ The angle between pencil and film surface is 45°
◆ Three points are touched on the tested surface (roller, pencil tip)
◆ Scratch Speed: 1 mm/sec

■ Order info:

BEVS 1301/500	Pencil Hardness Tester (500g)
BEVS 1301/750	Pencil Hardness Tester (750g)
BEVS 1301/1000	Pencil Hardness Tester (1000g)

Electric Pencil Hardness Tester

Leveling indicator

Positioning button

Load scale

Touch panel controller

Stroke length scale

Electric Pencil Hardness Tester

■ Introduction:

BEVS 1309 Electric Pencil Hardness Tester is designed to overcome the traditional pencil hardness tester's limits, which are reproducibility and repeatability. The uniformity of the carriage speed and the variation of the applied force by the user are the key factors for the pencil hardness test.

The tester is with a built-in motor to drive the unit which can keep a constant and uniform speed across the coated panels. Free set weight scale ranging 500-1000g, positioning button and internal levelling bubble ensure the unit use easily and is of high accuracy.

■ Features:

Speed adjustable   Load adjustable   Power by USB   Auto testing
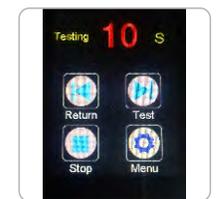
■ Technical info:

◆ Speed: 0.5-5.5mm/s
◆ Running time: 1-999S
◆ Pencil point force: 500-1000g
◆ Output voltage: DC 5V

◆ Power supply: 100-220V, power bank, computer USB port
◆ Overall dimensions: L205 × W65 × H75mm
◆ Net weight: 2200g

■ Standard:

GB/T6742, ISO1519-93, EN 13523-7, ASTM D522

■ Order info:

BEVS 1309 Electric Pencil Hardness Tester

Pencil Hardness Test Platform

■ Introduction:

The BEVS 1321 Pencil Hardness Test Platform is to assist the pencil hardness tester for testing. It solves the problem that the pencil hardness tester cannot draw a satisfactory scratch length on the small test panel.

■ Features:

◆ Simple and easy to operate
◆ Small and light, easy to carry for lab and onsite test
◆ Suitable for various pencil hardness testers and test panels of various specifications

■ Technical info:

◆ Minimum test panel: 50 x 50mm, thickness 0-5mm
◆ Maximum test panel: 150 x 150mm, thickness 0-5mm
◆ Suitable for BEVS pencil hardness tester models: BEVS 1301 series and BEVS 1309
◆ Dimension: L310 x W135 x H90mm

■ Order info:

BEVS 1321 Pencil Hardness Test Platform

Intelligent Pendulum Hardness Tester

Auto identify pendulum

Auto identify level

Auto lift cover

Monitor temp. and humidity

Auto move the pointer

Intelligent Pendulum Hardness Tester

■ Introduction:

BEVS 1306 Intelligent Pendulum Hardness Tester consists of measuring the damping time of a pendulum (K/P) oscillating on a test surface to indicate the hardness. It decreases faster on softer medium. The two pendulums are of the same principle but detailed parameter is different.

The instrument has a series of intelligent functions that automatically identify the level condition before testing, automatically warn, automatically monitor vibration level, and check whether the temperature and humidity of the environment meet the test requirements. It ensures a high precision result and eliminating the error caused by human or environment.

BEVS 1306 Intelligent Pendulum Hardness Tester is the best instrument to measuring the hardness for universities, scientific research and QC, especially in the development and application of automotive coatings.

■ Features:
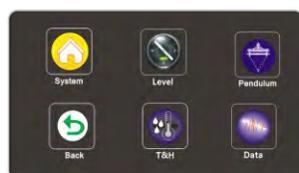
Touch screen

Auto operation
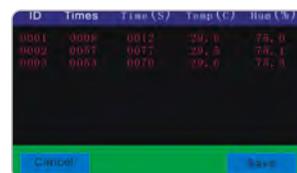
Monitor temp. and humidity
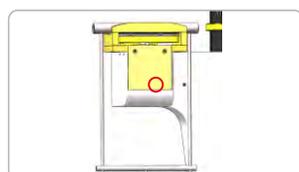
Auto identify pendulum
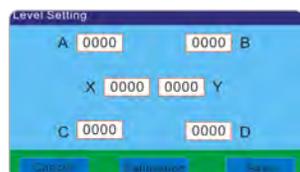
Auto identify level
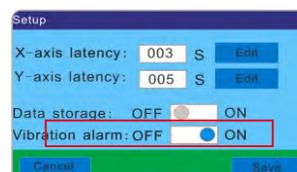
Vibration alarm

■ Technical info:

Pendulum type	Persoz	König
Weight/g	500±0.1	200±0.2
Ball diameter/mm	8	5
Deflection start/°	12	6
Deflection end/°	4	3
Oscillation period/s	1±0.01	1.4±0.02
Damping time on glass plate/s	430±10	250±10
Number of oscillation on glass plate/T	430±10	172-185
Voltage	100-240V (50/60HZ)	
Power	Max.100w	
Environmental temperature and humidity	10°C-35°C,80%RH	

■ Standard:

ISO 1522, ASTM D4366, NF T30-016, BS 3900 E5, DIN 53157

■ Order info：

BEVS 1306 Intelligent Pendulum Hardness Tester (K and P)

BEVS 1306/1 Intelligent Pendulum Hardness Tester (K)

BEVS 1306/2 Intelligent Pendulum Hardness Tester (P)

BEVS 1306/P/001 K Pendulum

BEVS 1306/P/002 P Pendulum

Buchholz Indentation Tester

■ Introduction:

BEVS Buchholz Indentation Tester can be used to evaluate of indentation resistance of plastic deformable coatings. It is placed onto the specimen surface under a constant test load (500g) provided by a block tester, move the tester after 30 seconds, there is a trace left and then measure via a 20 x magnification illuminated microscope. The coating hardness is indicated by the length of the indentation mark.

■ Technical info:

◆ Two support pins made of hardened stainless steel
◆ Circular tool made of hard metal
◆ Built-in bubble level to keep accuracy
◆ High precision microscope to obtain correct result

■ Standard:

ISO 2815, BS 39100 E9, DIN 53153, ECCA-T12

■ Order info:

BEVS 1303 Buchholz Indentation Tester
Standard Delivery: Buchholz tester, precise illuminated microscope, indentation template, AA batteries.

BEVS 1303/p/001 20 x microscope
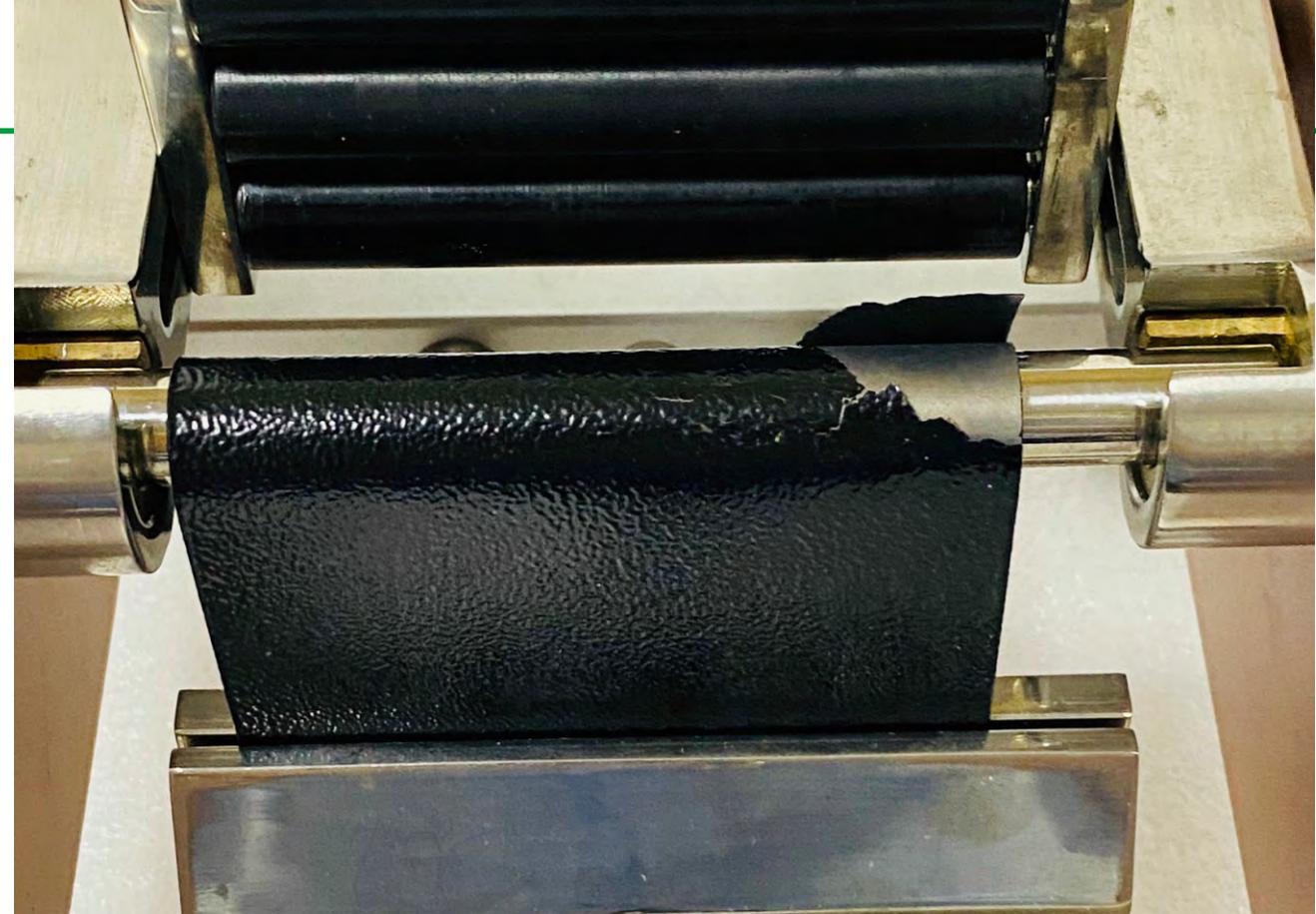
Deformation

● Cylindrical Mandrel Bend Tester
● Automatic Cylindrical Bend Tester
● Conical Mandrel Bending Tester
● Automatic Cupping Tester
● Impact Tester

Cylindrical Mandrel Bend Tester

■ Introduction:

The item is a very robust mechanical unit for determining the elasticity, adhesion and elongation of dry paint on metal sheet. The coated specimens up to 70/100mm width, which are bent perfectly and regularly on decreasing mandrels until cracks can be observed. It comes with a kit of 14 stainless steel mandrels with diameters of: 2, 3, 4, 5, 6, 8, 10, 12, 13, 16, 19, 20, 25 and 32 mm.

■ Features:

◆ Made of stainless steel and high-quality alloy aluminum
◆ Compact and sturdy structure, suitable for desktop use, simple and quick operation
◆ The pressure roller shaft is made of rigid PVC, and the 3 pressure roller shafts are parallel to the axis of the test cylinder

■ Technical info:

◆ Maximum sample width: 70mm or 100mm
◆ Sample thickness: 0.3 - 1 mm
◆ Mandrels with diameters: 2, 3, 4, 5, 6, 8, 10, 12, 13, 16, 19, 20, 25 and 32mm

■ Standard:

GB/T 6742, ISO 1519, ASTM D522

■ Order info :

BEVS1603   Cylindrical Mandrel Bend Tester, width 70mm

BEVS1603A   Cylindrical Mandrel Bend Tester, width 100mm

Other mandrels are available upon request

Automatic Cylindrical Bend Tester

■ Introduction:

BEVS 1608 Automatic Cylindrical Bend Tester is for measuring the flexibility and adhesion properties of coatings or other material. During the test, the substrate is wound on a cylindrical shaft, and it can be simply measured whether the paint film on the shaft of known diameter is qualified or damaged. It is also possible to determine the failure point, that is, to start with the largest radius cylindrical axis in turn, and replace it with a smaller diameter cylindrical axis to test the diameter of the cylinder when the paint film cracks. It is also possible to test the number of bending resistance by fixing the cylindrical shaft and setting the number of bending. The instrument automatically bends to avoid various uncertain errors.

■ Technical info:

◆ Bending cycles: 1-99999 times
◆ Speed: 10-60 rpm
◆ Sample thickness: 0.3-1mm (1mm samples can only use shafts with a diameter greater than 5mm)
◆ Test cylinder dia.: 2/3/4/5/6/8/10/12/13/16/19/20/25/32mm
◆ Maximum sample width: 70mm
◆ Dimension: L450 x W320 x H350mm
◆ Power: 120W
◆ Power supply:100-230V, 50/60HZ

■ Features:

◆ Automatic bending
◆ Adjustable bending speed
◆ Adjustable bending cycles

■ Standard:

GB/T6742, ISO1519-93, EN 13523-7, ASTM D522

■ Order info :

BEVS 1608 Automatic Cylindrical Bend Tester
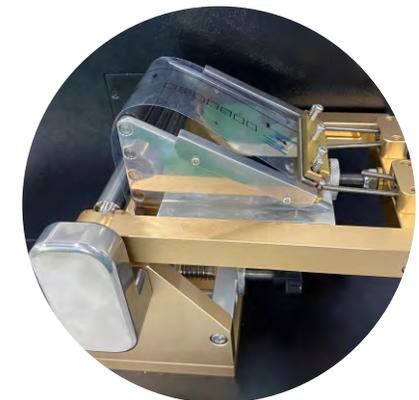
Conical Mandrel Bending Tester

■ Introduction:

The item is for testing the crack resistance, elasticity, adhesion and ductility properties of coating on the metal sheet. It is made of stainless steel which is compact and firm, suitable for desktop use, simple and quick to operate.

■ Technical info:

- ◆ Size: L280×W280×H95mm
- ◆ Gross weight: 8kg
- ◆ Size of the cone axis: small end: ø3.1, big end: ø38, length: 203 mm
- ◆ Maximum of sample size: 200×100mm

■ Standard:

GB/T 11185-09, IS0 6860, ASTM D522, D1737

■ Order info :

BEVS 1605 Conical Mandrel Bend Tester

Automatic Cupping Tester

CCD Camera

Adjust focus

Real time monitor

Quickly clamp test panel

Automatic Cupping Tester

■ Introduction:

BEVS Automatic Cupping Tester is an advance technology to efficiently assess the elasticity and cupping resistance of various coatings, with a new generation micro-electro and CCD technology, also has strong functions such as can be video or photo the deformation process or result that can be copied the image to U disk and then connect with PC to analyze the various factors between coating performance and substrate etc.

Customized design software operation system and provide the USB port for mouse and U disk and camera, best choice for R&D and QC people.

The test is either used as a "pass/fail" test by preset to a specified depth or defining the minimum depth at which a coating fails by gradually increasing the indentation, or carry out the deformation by indentation under standard conditions.
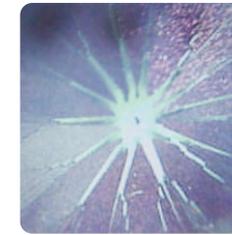
Real time display cupping process

Real time display depth
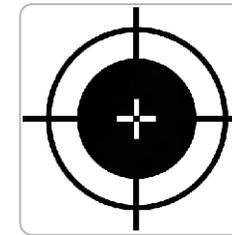
Auto zero
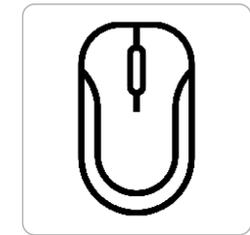
Connect to mouse

■ Features:

Built-in OS
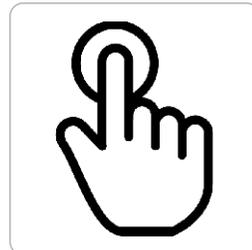
Touch panel control

Real time display cupping speed
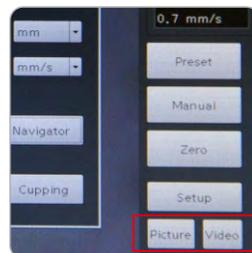
Comes with camera and video function

■ Standard:

ISO 1520, GB/T9753, DIN53166

■ Technical info:

◆ Stroke length: 0-15mm, accuracy: ±0.01mm
◆ Indenter speed : 0.02-0.4mm/s, accuracy: ±0.5%
◆ Control: Automatic
◆ Camera: Colorful CCD
◆ Light source: LED light source
◆ Cupping result: Digital (resolution 0.001mm)
◆ Interface: USB port for mouse & U disk & CCD
◆ Max. panel width: 80 mm
◆ Max. panel thickness (steel): 1.25 mm (Standard Speed 0.2mm/s)
◆ Max. panel thickness (aluminum): 3mm (Standard Speed 0.2mm/s)
◆ Max. cupping force: 15KN
◆ Power supply: 230 VAC-50 Hz (110V-60Hz option)

■ External HD Camera

BEVS 1606 Automatic Cupping Tester is upgraded with a new function that enable to connect computer for better improvement in the image resolution and clarity, taking pictures and video are available as well. There are two ways to observe the process of cupping, the one is in the cupping tester, another is in the computer.

■ Order info:

BEVS 1606 Automatic Cupping Tester

BEVS 1606/P/003 External HD Camera

Impact Tester

■ Introduction:

The impact tester simulates the actual impact conditions to objectively and qualitatively evaluate the impact resistance of the coating: the degree of damage caused by cracking and peeling caused by a free-falling weight impacting the coating and its substrate. Most protective coatings must undergo impact testing, such as: coatings, electroplating, plastics, varnishes, plastic paints, resins, compounds, coil coatings, composites, sheets, and metal materials.

The instrument includes: a solid base for connecting the tube support, a tube with slits on the tube body which can guide the weight to fall down in the middle, a ring for adjusting the rising and resetting of falling weights. The height scale is marked along the slit for adjustign the falling height needed.

BEVS 1601/2   BEVS 1601/5   BEVS 1601/4   BEVS 1601/2

■ Order info:

Model	BEVS1601/1	BEVS1601/2	BEVS1601/3	BEVS1601/4	BEVS1601/5
Standard	ASTM D2794	ASTM D2794 BS 6496	ISO 6272-1 BS 3900 DIN 55669	GB/T 1732	GB/T 1732
Falling weight	2Lbs	4Lbs	1kg	1kg	1kg
Indenter dia.	15.9mm	15.9mm	20mm	8mm	8mm
Die dia.	16.3mm	16.3mm	27mm	15mm	15mm
Height	63.6cm	101.7cm	100cm	50cm	100cm
Impact depth	/	/	/	2mm	2mm

■ Other specifications can be customized according to test needs

Scratch Tester

■ Introduction:

Scratch Tester is applied to the scratch resistance performance evaluation of single coating or complex coating system in insulated color coated sheet. A tungsten carbide hemispherical stylus with a certain weight moves on the surface of test panel to evaluate coating's performance.

The item complies with the standards of ISO1518, BS3900 and can display the graph of scratch on the screen in real time and show the test result "OK" / "NG".

■ Features:
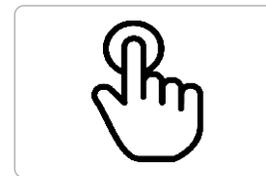
Touch screen operation	High hardness stylus	Real-time curve display test process
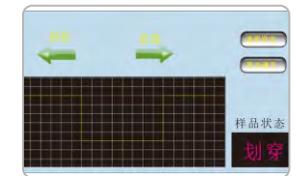
■ Technical info:

- ◆ Speed: 35 mm/s
- ◆ Stroke length: 65mm
- ◆ Test panel thickness: max. 1.6mm
- ◆ Power: 220V/50 Hz or 110V/60Hz
- ◆ Stylus: made of tungsten carbide hemispherical stylus, dia. 1mm
- ◆ Loading up to 5kg
- ◆ Comes with 2kg weight set: 2 x 50g, 2 x 100g, 1 x 200g, 1 x 500g, 1 x 1000g

■ Standard:

ISO 1518, BS 3900, ASTM D5178, ASTM D2197

■ Order info:

BEVS 2801 Scratch Tester
BEVS 2801/P/001 Tungsten carbide hemispherical stylus, diameter: 1mm

Abrasion, Scrub / Washability

- ● Scratch Tester
- ● Wet Abrasion Scrub Tester
- ● Washing Resistance Tester
- ● Coin Scratch Tester
- ● Handle Abraser
- ● Vertical Wet Abrasion Scrub Tester
- ● Linear Abraser
- ● Automatic Heating Abrasion Tester

Wet Abrasion Scrub Tester(Four channels)

Wet Abrasion Scrub Tester(Two channels)

Various brush supported

Dual motor

Liquid tank

Liquid tank

Quick clamping device

Quick change brush

Brush slot

Quick clamping device

Adjustable speed

Up to 99999 cycles

Wet Abrasion Scrub Tester

■ Introduction:

This machine is used to test the abrasion, scrub and washability performance for many kinds of materials, especially water-based coating field. It can do the abrasion scrub test in wet and dry condition. Model BEVS 2810 is a new upgraded version of the original BEVS 2805.

BEVS 2810

BEVS 2806

■ Features:

Model	BEVS 2810	BEVS 2806
Control	Touch	Touch
Driver	1 motor	2 motors
Flow control	1 peristaltic pump	2 peristaltic pump
Brush	2	4
Others	/	Can simultaneously perform different standard test

■ Technical info:

Model	BEVS 2810	BEVS 2806
Stroke/cycles per min	10-40	1-65
Max. cycles	99999	
Test panel thickness	0-25mm	
Brush	1-2	1-4
Power	110V/220V, 50/60HZ	

■ Application:

Widely used to test the washing resistance of paint, coating, leather, wood, plastic, printing material, fiber, etc.

■ Standard:

ASTM D3450	DIN 53778	ASTM D2486	ISO 11998

■ Order info:

BEVS 2806 Wet Abrasion Scrub Tester with 2 x standard accessory(pls select when ordering)
BEVS 2810 Wet Abrasion Scrub Tester with 1 x standard accessory(pls select when ordering)

Optional accessories:

BEVS 2805/1/P
Standard: DIN 53778
Applied weight 250g, 2 brushes with natural bristle

BEVS 2805/2/P
Standard: ASTM D2486
Applied weight 454g, 2 Nylon brushes, 2 rubber pads with 325×12.7×0.25mm brass shim

BEVS 2805/3/P
Standard: ASTM D3450
Applied weight 750g, 2 sponges

BEVS 2805/6/P
Standard: ISO 11998/BS 3900
Applied weight 135g, 2 non-woven abrasive pads

Detergent Washability Tester

■ Introduction:

The instrument is mainly designed for washing and chemical industries, to measure material's cleanliness and washing resistance effects, such as detergent, shampoo, hair dye, etc. The washing medium can be directly injected into the sponge or other brushes. Four brushes (Washing head) can do a single test or four comparison experiments at the same time. It is also used to determine the wear resistance, brush resistance and washing resistance of other materials under dry and wet conditions.

■ Features:

◆ 7 inch large screen touch screen operation
◆ The brush holder can be lifted as a whole and can be turned 180 degrees
◆ The test liquid can be added directly on the brush
◆ Can add weights

■ Technical info:

◆ Stroke per minute: 37±1
◆ Max. cycles: 9999 times
◆ Sample thickness: 0-25mm
◆ Single brush weight: 350g
◆ Added weight: max. 750g, in 25g increments
◆ Dimension: L600 x W510 x H460mm
◆ Net Weight: 38Kg
◆ Voltage: 110V/220V
◆ Power: 150w

■ Order info:

BEVS 2809 Detergent Washability Tester

Coin Scratch Tester

■ Introduction:

BEVS 1305 is used for testing the anti-abrasion and anti-scratch ability of coatings by coin. Place the tester on the coatings horizontally, move the tester forwards and backwards to judge the coating hardness, abrasion and scratch.

■ Technical info:

◆ Dimension: L112 x W81 x H95mm
◆ Net weight: 2400g
◆ Coin tip pressure: 1000g
◆ Coin tip pressure with extra weight: 1500g

■ Order info:

BEVS 1305 Coin Scratch Tester

Handle Abraser

■ Introduction:

This instrument is designed according to the DuPont company standard, America CMA2004-04 and Britain BS7069 standard. It is widely used in the handle and ear abrasion resistance test of kitchen ware products. Support table can lift flexibly, the jig can be adjusted freely with the humanization design, which is helpful to fix the product tightly.

■ Technical info:

◆ RPM: 2-40
◆ Max Load: 60 KG
◆ Max Diameter of Product: Φ550 mm
◆ Range of Height: 0-400 mm
◆ Voltage: 220V(50/60Hz)
◆ Power: 750W

■ Order info:

BEVS 2802/1 Handle Abraser (Basic model)

BEVS 2802/2 Handle Abraser (Intelligent type with touch-screen)

Vertical Wet Abrasion Scrub Tester

■ Introduction:

The BEVS 2808 Vertical Wet Abrasion Scrub Tester is widely used in the scrubbing resistance and abrasion resistance testing of paints, coatings, inks, leather, printing, fabrics, plastics and other products. The test plate is fixed in an inclined position, and the test sample is washed and abrasion resistance test is carried out by a roller brush. The distance between the roller and the test sample is kept constant during the washing of the test sample to ensure that the roller brush is on the surface of the coating. The test effect is more real and reliable.

■ Features:

◆ Touch screen control, easy to operate
◆ Diaphragm pump controls the spray volume of test liquid
◆ Test time or number of rotations can be set
◆ With a transparent cover, convenient to observe the experiment process
◆ Display the remaining time and number of rotations
◆ Changing the brush material can do other tests
◆ Data storage and output (optional)

■ Technical info:

◆ Rotation speed: 0-200 rpm, can be forward and reverse
◆ Test times: 0-99999 times
◆ Test sample thickness: 0-20mm
◆ Applicable model size: 200 x 150mm
◆ Number of roller brushes: up to 4

■ Application:

Architectural art coatings, interior and exterior wall coatings, automotive interior parts, daily chemical products, ceramic tiles, floors

■ Standard:

T/SDTL 01-2020, T/SDTL 02-2020, ASTM D 2486-2017

■ Order info :

BEVS 2808 Vertical Wet Abrasion Scrub Tester

Linear Abraser

■ Introduction:

The item is suitable for the abrasion resistance test of various coatings, especially widely used in the non-stick coating abrasion test of the cookware industry. According to different standards, the abrasion head can use an eraser, artificial sweat, steel wool or alcohol to rub the surface of the sample to determine the degree of abrasion resistance.

■ Features:

◆ Big LCD touch screen operation
◆ Adjustable speed and stroke length
◆ Universal fixture to fix the sample of different shape and size
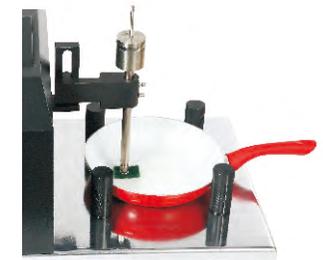
■ Technical info:

◆ Adjustable cycles: 0-9999
◆ Stroke per min: 20-99
◆ Adjustable stroke length: 10-50 mm(manually adjust inside the machine, pls specify the length needed, the default setting is 50mm)
◆ Test platform: L350 x W400 mm
◆ Test panel max. thickness: 14.5 cm

■ Order info :

BEVS 2803 Liner Abraser

Automatic Heating Abrasion Tester

■ Introduction:

BEVS 1307 is suitable for testing the wear resistance and scratch resistance of various coatings, like plastics, leather, ceramics and others. According to the test requirements, different grinding heads are used to test the tested materials. For example, the non-stick pan is heated and the non-stick coating is tested at a certain temperature.

■ Technical info:

- ◆ Control: touch screen, user-friendly design
- ◆ Heating temperature: ambient - 300 °C
- ◆ Stroke length: 30mm, 60mm, 90mm
- ◆ Cycle: 20 - 190 times/minute
- ◆ Weight: 250 - 1500g (250g increments)
- ◆ Abrasion tool: purchase according to test requirements
- ◆ Number of tests: 1 - 99999
- ◆ Sample specifications:
  Square test specimen: L (180 - 500) x W (180 - 360) x H (0.5 - 150)mm
  Round test specimen: Ø180 - Ø360mm, H 0.5 - 150mm
- ◆ Power: no heating: 35W, heating: 1500W
- ◆ Voltage: 200 - 250V / 100 - 120V

■ Order info:

BEVS 1307 Automatic Heating Abrasion Tester

Weather Resistant

- ● Intelligent Multifunctional Salt Spray Tester
- ● Multifunction Aging Chamber
- ● Multifunction UV Weather Tester

www. bevsinfo. com

sales@bevsinfo.com

BEVS Intelligent Salt Spray Test Remote Control

**BEVS
smart instrument**

**BEVS
Intelligent Robot**

Cloud platform

User remote control

The main function

Remote control   Real-time view   Data analysis   Remote maintenance

Intelligent Multifunctional Salt Spray Tester

High precision nozzle

High-quality saturator

Humidity generating device
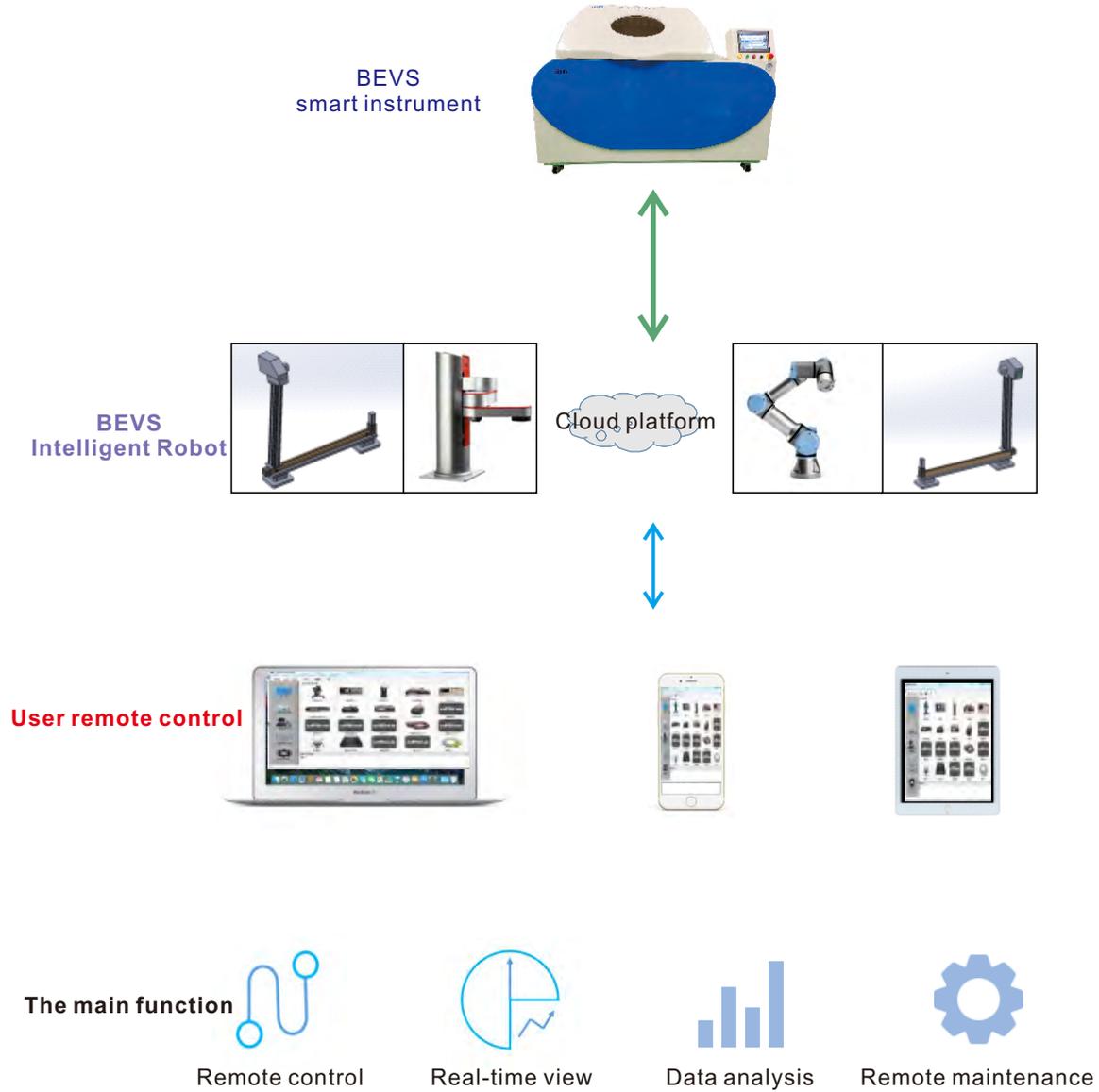
Hot air generator

Intelligent Multifunctional Salt Spray Tester

■ Introduction:

BEVS 3310 intelligent multifunctional salt spray tester is used to artificially simulate the salt spray corrosion environment. The sample is exposed to a series of different environments with repeated cycles. The test environment includes salt spray, humidity, dry air, and high temperature, one or more arbitrary combinations of humidity and constant temperature and humidity cycle. Compared with the natural environment, the salt spray environment in the chamber is several times or even dozens of times that under natural conditions. Therefore, the result can be obtained much more quickly, which can be within a few days or within a few weeks. The chamber is suitable for the test of parts, electronic components, coatings of metal materials and industrial products.

■ Working principle:

The tester use PLC programmable controller to control the cyclic test of salt spray, humidity, drying, high temperature and high humidity, constant temperature and humidity in a test box. It is convenient to set complex cyclic test procedures for testing or to run preset procedures for testing. Cyclic test is to expose the sample to different test environment and repeat the test. The simple test generally includes two different test conditions: salt spray and drying. Complex test, such as vehicle testing, require multiple cycles.

■ Function:

(1) Humidity control function
(2) Temperature control function
(3) Salt spray function
(4) Temperature and humidity control at the same time
(5) Dynamic display
(6) Customized programming
(7) Diagnosis function for easy maintenance
(8) Remind of incomplete items
(9) Cover automatic open with anti-pinch function
(10) Salt solution level monitoring
(11) Automatic water change remind
(12) Data output

■ Standards:

(1) Continuous salt spray
a. Neutral Salt Spray Test (NSS)
b. Acetic acid salt spray test (AASS)
c. Copper accelerated acetic acid salt spray test (CASS)

(2) CCT cyclic corrosion test

ASTM G85-2011	ISO 6270	GB/T 31588.1-2015	GB/T 10593.2-2012
ASTM B117-2019	ISO 11997-1:2005	GB/T 1771-2007	GB/T 2423.18-2000
IEC6008-2-78-2012	ISO 9227-2017	GB/T 2423.17-2008	GB/T 5170.8-2008
QBT3826-1999	ISO 14993:2018	GB/T 10125-2021	GB/T 2423.18-2000
QBT3827-1999	ISO 16701:2003	GB/T 10587-2006	GB/T 12000-2003
QBT3828-1999	ISO 16151:2005	GB/T 10586-2006	/

(3) Other tests
a. PSA D17 1058 (Renault Auto) Salt Spray Test and Rating
b. CVTC54042-2014 (SAIC) neutral salt spray test of metal parts

■ Tester structure:

1. Box and cover: made of high-grade glass fiber reinforced plastic, corrosion resistant, durable, and has strong adaptability to the temperature and humidity of the use environment.
2. Chamber: made of high-grade fiberglass
3. Chamber temperature control system: titanium tube heater
4. Spray system: precision and durable Teflon material
5. Fresh air heating system: heating blower
6. Humidity generating device: ultrasonic generator
7. Saturation tower device: made of transparent high-grade PVC material, with water level sensing and heating device
8. Control system: programmable controller, touch screen

■ Control:

1. Controlled by a touch screen, with human-computer interaction interface, which is easy to use. The parameters can be set flexibly, storing multiple groups of test standards and parameters, and recording the operation mode and test conditions in groups.

2. Edit the test procedure: salt spray, drying, humidity, damp heat and other separate or cyclic tests.

■ Technical info:

Multifunction Aging Chamber

● Tester info

Chamber capacity	800L
Heating via	Titanium tube heater
Humidity range	20%~95%, accuracy ± 5%
Temperature range	Ambient to 65 ± 2 ° C
Test panel bracket	Two layers, 12 positions in total
Bay slot	16/bracket
Total number of test panel	192 pieces (size: 150 × 70mm)
Maximum panel size	690 x 50 x 500mm
Hanging rod	Two layers, 12 positions in total
Bracket bearing	Maximum 60kg
Hanging rod bearing	Maximum 50kg
Dry hot air generated by	Heater blower
Humidity generated by	Ultrasonic
Salt water temperature control by	Saturation tower
Filling of deionized water	Automatic filling
Salt water spray pressure	0.1~0.2Mpa, automatic adjustment
Salt spray dispersion rate (salt water spray volume)	0.5~4.0ml/h/80cm2, automatic adjustment
Salt collector	4
Chamber size	1100 x 800 x 730mm (excluding top cover)
External dimension of the tester	2050 x 950 x 1500mm
External salt water tank capacity	120L
Size of external salt water tank	300 x 400 1200mm
Tester gross weight	400KG (without salt water tank)

● Technical parameters of water, electricity and gas

Power: 7.5KW (full power)
Power supply: three-phase AC 380V+N+PE, 50HZ, single-phase maximum current 18A
Pressure of gas supply: 0.7Mpa, flow not less than 45L/min
Water supply: deionized water

● Requirements for use environment

Ambient temperature: +5 to +35°C (no icing)
Ambient humidity: max. 85% RH (non condensing)

■ Order info :

BEVS 3310 Intelligent Multifunctional Salt Spray Tester

Xenon lamp unit

Touch panel

Salt spray unit

Testing chamber

Multifunction Aging Chamber

■ Introduction:

BEVS 3370 Multifunction Aging Chamber is a multi-functional test chamber integrating xenon lamp aging resistance and salt spray test. The imported 6500 W long-arc water-cooled xenon lamp is used as the light source, which can simulate the full sunlight spectrum. Salt spray adopts corrosion-resistant automatic nozzle. By changing and controlling the light irradiance, temperature (sample holder temperature, working room temperature), relative humidity, spray mode, salt spray pressure and other ways, the comprehensive conditions of outdoor climate such as light, heat, rainfall and marine environment were simulated, and the artificial aging and salt spray resistance tests were carried out on the samples. The equipment conforms to GB, ISO, ASTM and other test methods, and is suitable for laboratory light source exposure test of various materials and products such as coatings, plastics, rubber, chemical building materials, automotive parts, etc. It can provide corresponding environmental simulation and accelerated test for scientific research, product development and quality control.

It can be used for the selection of new materials, the improvement of existing materials, or the evaluation of durability after the change of material composition. It can well simulate the changes of materials exposed to sunlight under different environmental conditions.

By controlling the temperature and humidity of the sample surface and spraying rain and salt fog, the marine natural environment is simulated to the greatest extent to meet all test requirements.

■ Features:

Xenon arc lamp is a kind of high-efficiency light source made of ultra-high pressure xenon discharge, which can be divided into long arc lamp and short arc lamp, and can be divided into water-cooled type and air-cooled type according to the cooling mode. The water-cooled xenon lamp can simulate the outdoor sunlight spectrum to the greatest extent and has a wider irradiation range. The xenon lamp spectrum covers 250 nm-3000 nm. The nozzle and box are made of anti-aging and corrosion-resistant materials, and the box can meet the long-term anti-aging and salt spray test. The BEVS3370 xenon lamp salt spray combination test chamber can provide twice the maximum irradiation intensity of the solar constant and meet the stringent test standard requirements.

■ Technical info:

Category	Name	Parameter	
Light source	Xenon lamp	6.5KW	
	Lamp shape	Long arc	
	Lamp cooling	Water cooling	
	Lamp life	3000-4000h (depending on the irradiance intensity setting used	
		Regular lamp wash maintenance)	
	Spectral wavelength	Optional 340nm or 300-400nm or 420nm	
	Inner and outer filter hoods	Support different internal and external filter combinations such as daylight type, window glass, UV extension, etc.	
Irradiance	340nm as standard	$0.3 \sim 1.3$ W/m^2	Control accuracy: ± 0.01 W/m^2
	Optional 300-400nm	25-150 W/m^2	
	Optional 420nm	0.55-2.75 W/m^2	
Temperature	Working chamber temperature	$35 \sim 85℃$	Fluctuation: ±3℃
	Black Panel Temperature (BPT)	$40℃ \sim 110℃$	
	Black standard temperature (BST)	$40℃ \sim 120℃$	
Humidity	Relative humidity under illumination	$10\% \sim 75\%$	Fluctuation: ± 5%
	Relative humidity in the dark	$10\% \sim 100\%$	
Specimen rack	Standard sample rack	30 test panels 145 × 70 mm	
Spray	Spray	It can automatically rain the surface and back of the sample.	
Test standard	Test method	Editable program	
Salt spray	Salt spray pressure	$0.1 \sim 0.4$Mpa automatic adjustment	
	Salt spray dispersion rate (salt spray volume)	$0.5 \sim 4.0$ml/H/80cm2 automatic adjustment	

■ Operation interface

Main interface

Program interface

Standard：

National standard GB	ISO International Standard	ASTM American Standard for Materials		
GB/T 10485	ISO 105-B02	ASTM C1257	ASTM D4434	ASTM D6695
GB/T 12527	ISO 105-B04	ASTM C1442	ASTM D4459	ASTM D6878
GB/T 14522	ISO 105-B06	ASTM C1501	ASTM D4637	ASTM D750
GB/T 16259	ISO 105-B07	ASTM C1519	ASTM D4798	ASTM D7869
GB/T 16422	ISO 105-B10	ASTM C732	ASTM D4811	ASTM D904
GB/T 16991	ISO 11341	ASTM C734	ASTM D5010	ASTM F1164
GB/T 1865	ISO 12040	ASTM C793	ASTM D5019	ASTM F1515
GB/T 18833	ISO 16474-1	ASTM D1148	ASTM D5071	ASTM F2366
GB/T 29061	ISO 16474-2	ASTM D1670	ASTM D5383	ASTM G151
GB/T 32088	ISO 18909	ASTM D2565	ASTM D5398	ASTM G155
GB/T 5137	ISO 18930	ASTM D3424	ASTM D5819	SAE
GB/T 6151	ISO 18937	ASTM D3451	ASTM D6083	AATCC
GB/T 8427	ISO 29664	ASTM D4101	ASTM D6551	Other criteria
GB/T 8430	ISO 3917	ASTM D4303	ASTM D6577	
GB/T 3511	ISO 4892-2	ASTM D4355	ASTM D6662	
GB/T 1771-2007	ISO 11997-1:2005	ASTM G85-2011 (A1, A2, A3, A5) Test		
GB/T 10125-2021	ISO 9227-2017?	ASTM B117-2019		
/	ISO 14993:2018	/		

Core technology:

◆ Special xenon lamp trigger system to enhance the service life of xenon lamp
◆ Accurate irradiance measurement technology, accurate and reliable irradiance control
◆ Unique test room design, test room temperature and humidity more uniform
◆ Ultrasonic humidification system, more accurate humidity control
◆ Fully automatic salt spray system, salt spray automatic control
◆ Special test room material, reliable anti-aging performance
◆ Powerful software function and remote control system

Order info：

BEVS 3370 Multifunction Aging Chamber

Multifunction UV Weather Tester

Introduction:

BEVS 3380 Multifunction UV Weather Tester is suitable for the water exposure aging test of non-metallic materials such as coatings. Ultraviolet rays in sunlight are the main factors causing oxidative degradation of polymers, and moisture is an important destructive factor accelerating aging.

Features:

◆ Fully automatic control of the test program
◆ HMI touch screen display
◆ Alarm protection function: door safety protection, low water level, over temperature, electric leakage, heating overload
◆ Automatic control of light amplitude illumination and blackboard temperature, and the amplitude illumination can be calibrated and traced.
◆ Direct display and automatic control of sample holder temperature (BST, BPT)
◆ Direct display and automatic control of illumination, condensation and spraying
◆ Direct display and automatic control of relative humidity

Technical info:

◆ Light source: UV-A (wavelength 340nm) or UV-B (wavelength 313nm); 40W × 8 (normal service life 2000h)
◆ Irradiance: UV-A 0.3 W/m^2 to 1.1 W/m^2, UV-B 0.3 W/m^2 to 1.35 W/m^2
◆ Total power: 2 KW
◆ Inner/outer shell material: inner box stainless steel plate 304/outer box Q235
◆ Air and water heating mode: nichrome heating, non-contact SSR (solid state relay).
◆ Exposure area: 5175 cm^2 / 828in^2
◆ Standard panel rack No.: 24, (48 pcs of 150 × 70mm panels can be placed at one time)
◆ Dimension: 1400 × 500 × 1375 mm (L × W × H)
◆ Weight: 170 Kg

BEVS

■ Standard :

- ISO 11507 "Paints and varnishes - Exposure to artificial weathering - Exposure to fluorescent UV light and water"

- ISO EN 4892-3 Plastics. Methods of exposure to laboratory light sources. Part 3: UV fluorescent lamps

- GB/T 14522 Accelerated Weathering Test Method for Plastics, Coatings and Rubber Materials Used for Machinery Industrial Products

- GB/T 23983 "Wood Coatings-Determination of Resistance to Yellowing"

- GB/T 23987 Exposures to Artificial Weathering of Paints and Varnishes Exposures to Fluorescent Ultraviolet Light and Water

- GB/T 16422 3 Plastics-Methods of exposure to laboratory light source - Part 3: Fluorescent UV lamps

- ASTM D 4587 Standard Test Method for Fluorescent UV-Condensation Exposure of Paints and Related Coating

- ASTM D 5894 Standard Practice for Cyclic Salt Spray/UV Exposure of Painted Metals (Alternating Exposure to Spray/Dry and UV/Condensation)

- ASTM G154 Standard Test Method for Exposure of Nonmetallic Materials Using Fluorescent Ultraviolet Equipment

- ASTM D 4329 Standard for Fluorescent Ultraviolet Exposure of Plastics

- SAE J 2020, Accelerated Exposure of Automotive Exterior Materials Using Fluorescent Ultraviolet and Condensing Devices

■ Order info :

BEVS 3380 Multifunction UV Weather Tester
BEVS 3380/P/010 UV Lamp UVA340
BEVS 3380/P/020 UV Lamp UVB313
BEVS 3380/P/030 Irradiance calibrator

Intelligent Testing And Inspection System

- ● BEVS Intelligent Instrument Networking System
- ● BEVS IoT System Architecture
- ● Intelligent System
- ● Intelligent Coating Formulation Station
- ● Intelligent Panel Coating Station
- ● Intelligent Robotic Coating Station
- ● Intelligent Multi-Combined Station

BEVS Intelligent Instrument Networking System
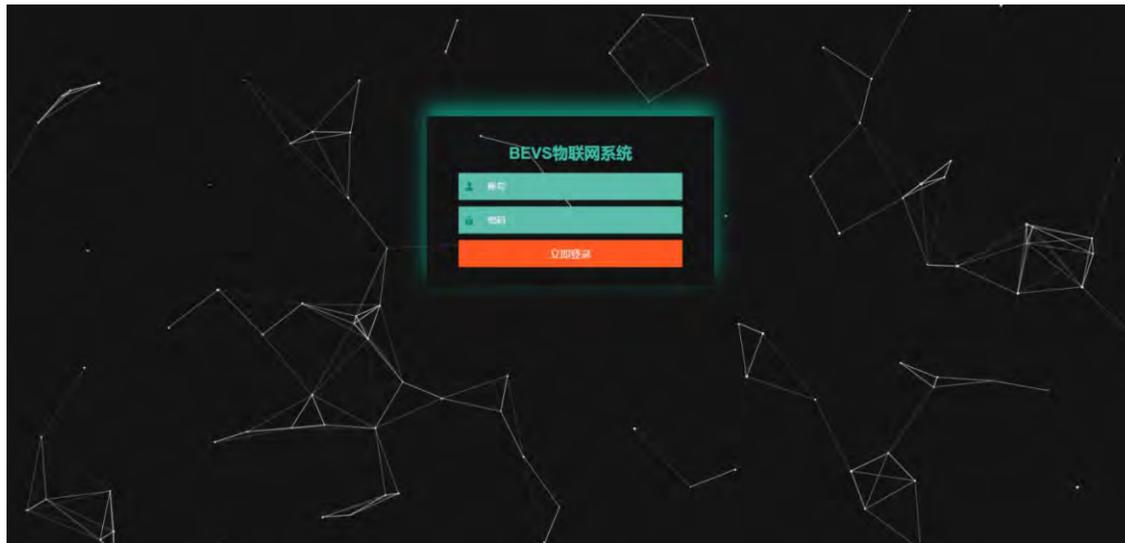
The BEVS intelligent instrument networking system is the key to play an advantage in the global market competition in the future industrial big data era. Whether it is German Industry 4.0, the U.S. Industrial Internet, or Made in China 2025, the basis for the implementation of manufacturing innovation strategies in various countries is the collection and feature analysis of industrial data, and an unmanned environment for future manufacturing systems. Regardless of the extent of the development of intelligent manufacturing, data collection is the most practical and high-frequency demand in production, and it is also a prerequisite for Industry 4.0. The BEVS intelligent instrument networking system can collect data reported by device switches, analogs, and other sensors by combining various IoT hardware devices. By configuring various sensors, it can also realize various data such as device temperature, vibration, environmental humidity, irradiance and pressure, etc. are collected; through the supporting cloud platform service processing system, users can not only realize data monitoring and equipment control on industrial computers, but also remotely monitor and operate through computer, mobile phone, tablet and other networked terminals.

BEVS IoT System Architecture

The BEVS intelligent instrument networking system is composed of smart hardware devices, BEVS cloud platform and BEVS big data services. The smart hardware devices can be BEVS autonomous smart devices or compatible with third-party devices. Mass devices can be accessed at will, and open protocols can be fr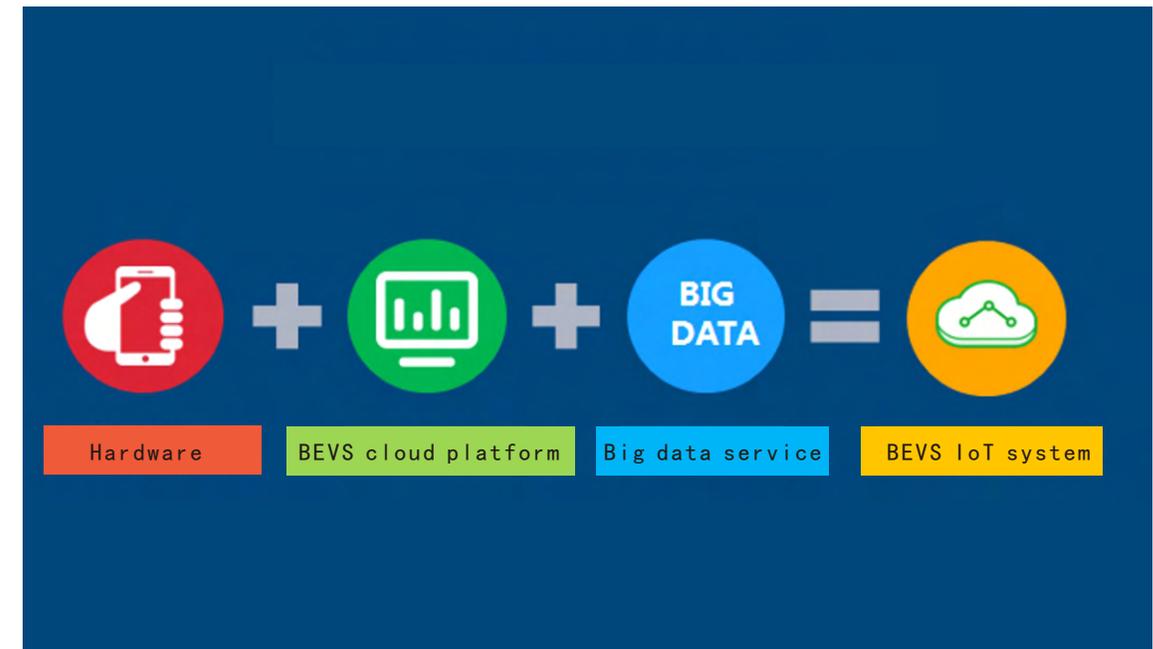eely customized. Currently it supports a variety of standard communication methods, in addition to commonly used socket communication, MQTT, HTTP, etc., it also supports customization of other industry-specific standard protocols. The BEVS cloud platform is based on the cloud computing framework and has an excellent distributed architecture. A single server can solve four to five thousand concurrency devices. The distributed cloud architecture can achieve millions of concurrency. At the same time, the system uses a variety of security verification and authority systems, and The bank's SSL encryption system at the same level surpasses most ECS servers. Big data services can provide data analysis, data reporting, equipment life cycle diagnosis and other functions.

Features

1. Real-time

The hardware device side of the BEVS intelligent instrument networking system obtains information through various sensors. The information collected by the sensors is generated in real-time. This information is instantly transmitted to the BEVS cloud platform through the network layer, and the user controls the real-time acquisition of information from the cloud server to complete corresponding real-time monitoring and feedback control operation. However, traditional IT applications often obtain result information, and can only do post-processing, and cannot implement control and change the results. This also reflects the obvious advantages of BEVS intelligent instrument networking system applied to real-time demand monitoring and feedback control scenarios.

2. Refinement

The BEVS intelligent instrument networking system application pays more attention to the process information that produces the results. This process information includes not only slow changes such as temperature and humidity, but also physical quantities that may undergo sudden changes such as structural stress. Therefore, it can ensure hardware equipment information. In addition, this information can also provide a good foundation for further detailed data analysis and processing. The performance monitoring of the equipment itself, equipment maintenance, upgrades, etc., will help to effectively improve the results produced. .

3. Intelligent

The application of BEVS intelligent instrument networking system can realize the functions of automatic collection, processing of information, and automatic control. Some architectures can share a small part of the information processing work by transferring part of the original information processing functions in the terminal to the hardware device. In addition, through the storage and long-term accumulation of the collected information, the analysis can be obtained. An intelligent expert system that adapts to the rules in a specific scenario can be developed, so that the information processing rules can be adapted to the continuous changes of the business.

4. Inclusiveness

The BEVS intelligent instrument networking system can realize the connection of all things and the interconnection of all things. It can be connected to BEVS autonomous smart devices and compatible with third-party devices. Mass devices can be accessed at will. Open protocols are freely customized. Currently, it supports a variety of standard communication methods. In addition to commonly used socket communication, MQTT, HTTP, etc., it also supports customization Other industry-specific standard protocols, etc.

5. Innovation

The BEVS intelligent instrument networking system is a disruptive and innovative information technology revolution in the industry. It extends the scope of human digital management from the virtual information world to the physical world, strengthens real-time processing and remote control capabilities, and greatly expands and enriches the existing information system. At the same time, the Internet of Things extends the original independent physical management automation systems to remote control terminals. With the help of existing communication sensors, Internet and other IT technologies, it has revolutionized the processing performance and intelligence level of laboratory automation management.

Core Function

Remote control
The connected equipment can be remotely controlled without space restrictions

Real-time view
You can view the equipment status in real time without time limit, and monitor the real-time data of each equipment

Remote maintenance
Can remotely view equipment status, operation records, and maintain equipment without being restricted by space and time

Data analysis
The data collected by the equipment can be analyzed and processed

BEVS Intelligent System

PURPOSE

Aiming to grasp the opportunities of Industry 4.0 and China 2025

Artificial intelligence

Accelerate the high-quality development

Improve the intelligent instruments to empower customers better and better

Big data

Bock chain

COMPOSITION

Intelligent face ID access, automatic control of laboratory environment.

Combine different functions with multiple units in a single workstation.

Five-layer architecture

Device implementation ···· WIFI network ···· Control center ···· Software system ··· Application management

Closed-loop management

QC

Order ···· Testing ···· Equipment operation ·· Quality monitoring ·· Visual production ···· System monitoring

FEATURES

Reduce human factors

Improve R&D or QC efficiency

Data analysis application empowerment

Intelligently one-stop to complete industrial chain

Intelligent Coating Formulation Station

■ Introduction:

BEVS 3230 Intelligent Automatic Formula Preparation Station is an intelligent small mobile station developed that integrates intelligent instruments, manipulators, mechanical actions and automatic control systems.

The station can automatically distribute materials according to requirements, automatically control the accuracy of material distribution online, online mixing, online PH adjustment, and online viscosity automatic control. The formula preparation is completed automatically without manual intervention. The formula can also be prepared multiple times by setting the formula change amount. The back-end can be linked to the BEVS 3226 or the BEVS 3228 to realize the automatic film application.

■ Function:

◆ Automatic and accurate distribution of materials
◆ Automatic cleaning
◆ Automatic online mixing
◆ Automatic online pH allocation
◆ Automatic online viscosity control
◆ Automatically record and output experiment report
◆ Modular design, easy maintenance, simpler upgrade
◆ Equipped with 15-inch touch screen, easy to operate

■ Technical info:

◆ Max. capacity: 200ml
◆ Storage stations for solid powder materials: 2, precision: 0.05g
◆ Liquid raw material storage stations: 3, precision: 0.05ml
◆ Additive storage stations: 4, precision: 1μl
◆ Storage quantity of empty recipe sample tank: 6
◆ Compatible liquid viscosity up to 5000mPa.s
◆ Compatible pH range: 4.0-10.0, accuracy: ±0.5
◆ Viscosity measuring instrument: rotothinner, accuracy: ±50mPa.s
◆ Formula mixing method: stirring and mixing, 200-3000rpm, dispersion disc dia. 30mm
◆ Number of recipe storage: 6

■ Features:

◆ Intelligent automated recipe preparation
◆ Mobile station system
◆ Remote control laboratory system
◆ Shorten the cycle of coating research and development
◆ High efficiency, effectively reducing labor costs

■ Application:

Coatings, film, new energy batteries, inks, packaging, printing, daily chemicals, universities, automotive industry, research institutes, testing institutions, etc.

■ Order info:

BEVS 3230 Intelligent Automatic Formula Preparation Station

Intelligent Panel Coating Station

■ Introduction:

With Industry 4.0, Made in China 2025 and improving the competitiveness of products and accelerating the speed of research and development, BEVS has developed the BEVS 3226N Intelligent Panel Coating Station to cope with the trend.

It is a small and intelligent mobile station developed that integrates intelligent instruments, mechanical actions, automatic control systems, and test materials. It can automatically complete loading and unloading, realize rapid automatic spraying, greatly improve the reproducibility and efficiency of film making, and obtain a uniform film with physical, appearance, and chemical properties of the film. It eliminates various instabilities caused by human factors such as speed, pressure and direction in the film making process, and provides a high-precision test template for testing the rheological properties, abrasion resistance, and hiding power of raw materials.

■ Features:

◆ Real-time data encrypted transmission
◆ Fully automatic
◆ Free combination of instruments and equipment
◆ Remote command anytime, anywhere
◆ Get data, analysis and results reporting anytime, anywhere
◆ Sharing with intelligent, automated workshop production
◆ Shorten research and development, testing cycle
◆ High efficiency and greatly reduced R&D cost
◆ Data saving and output
◆ Compatible with many different paints and realizing rapid automatic film application

■ Application:

Suitable for paints, inks, packaging, printing, daily chemicals, universities, research institutes, testing institutions, etc.

■ Function:

◆ Fully-automatic control of spray gun axis-movement

◆ Preset multiple common viscosity spray modes, input the required coating thickness value, the system automatically spray

◆ Customize spray mode: input spray moving speed, gun distance, atomization pressure, paint pressure, spray cycles and other parameters, the system automatically sprays according to the set parameter, custom spray mode can be saved for next time

◆ The interface displays the current parameters in real time, such as the current coating thickness, the run spray cycles, remaining spray cycles, the estimated final film thickness, and the estimated remaining time

◆ Quick replacement of 6 kinds different paints

◆ Fully enclosed to avoid contamination of the external environment during spraying

◆ Real-time monitoring of humidity, temperature and VOC in the internal environment

◆ The exhaust gas is discharged by a pipe, the waste water is stored in a special tray

■ System technical info:

◆ Standard test panel size: Length 150mm, width 70mm wide (replaceable fixtures compatible with different panel size)
◆ Paint storage: 6 types
◆ Unsprayed test panel storage: 20 pieces
◆ Sprayed test panel storage: 6 pieces
◆ Single maximum paint capacity: 30ml

■ Motion info:

No.	Procedure Name	Stroke(mm)	Pre-allocated Time(s)	Max.Speed(mm/s)
1	Horizontal moving	1000	15	100
2	Fixture vertical down moving	300	4	100
3	Fixture vertical up moving	300	4	100
4	Clamping	/	2	50
5	Max. acceleration	100 m/s^2		
6	Panel dimension	Length: 120-180 mm, Width: 50 -100 mm		
7	Max.panel weight	500 g		

■ Technical info:

◆ Applicable paint types: water/solvent based paint
◆ Applicable coating viscosity range: 1-20000cps
◆ Moving speed: X axis 25-250mm/s; Y axis 25-250mm/s
◆ Stroke length: X axis 220mm; Y axis 220mm
◆ Gun distance: 210mm
◆ Atomization air pressure: 0.3-0.7Mpa
◆ System working pressure: 0.5-0.7Mpa
◆ Spraying area: maximum 100X180mm
◆ Spray gun form: no-clean automatic spray gun

■ Main module:

◆ Motion mechanism: X, Y two-axis motion mechanism of the spray gun
◆ Test board spray code, paint syringe code reading device
◆ Spray gun: a non-standard R&D spray system that can quickly change paint types
◆ Air supply and pneumatic control system
◆ Spraying model fixing, loading and unloading, storage mechanism
◆ Coating syringe fixing, loading and unloading, storage mechanism
◆ Positioning connection device between workstations
◆ Automatic replacement mechanism of paint syringe
◆ Spraying environment detection system
◆ Waste discharge module: waste gas and sewage discharge device
◆ Electrical control system

■ Order info：

BEVS 3226N Intelligent Panel Coating Station

Intelligent Robotic Coating Station

■ Introduction:

With the development of Industry 4.0 and improve the competitiveness of products, accelerating the speed of research and development, BEVS has developed the first small intelligent robot coating station in the paints and coatings industry.

BEVS 3228N Intelligent Robotic Coating Station is an intelligent small workstation which integrates intelligent instrument, robot, automatic control system and testing material.

The robot automatically completes the loading and unloading, realizes the rapid automatic drawdown film, greatly improves the reproducibility and efficiency of the coating, and obtains the uniform coating film in physical properties, appearance and chemical properties. All kinds of instability caused by the factors such as velocity, pressure and direction in the coating process were eliminated, and a high precision testing result was provided for testing rheological properties, wear resistance and hiding power of the material and so on.

■ Features:

◆ Real time Data encrypted transmission
◆ Testing automatically
◆ Free combination of instruments and equipment
◆ System work by remote command
◆ Data, analysis, and result report can be obtained at anytime and anywhere
◆ Sharing with intelligent and automated production workshop
◆ Shorten the R & D and testing cycle time.
◆ High efficiency and greatly reduced R & D cost
◆ Data saving and output
◆ Fast automatic drawdown with different coatings
◆ Environmental protection, energy-saving and confined space

■ Function:

◆ Store many substrate panels at same time and load it automatically and quickly
◆ Place several bar coaters at same time and load & unload the bar coaters by robot automatically and quickly
◆ Put a variety of paints at same time, automatically load and upload the paint by robot
◆ Drawdown by robot, higher consistency and stability
◆ Fully automatic operations in the testing process, automatically load panel into shelves
◆ Modular designs, convenient maintenance and enable rapidly upgrade
◆ A variety of drawdown modes can be selected. Drawdown can be repeat for one paint or turn into different paints

■ Application:

Suitable for coatings, inks, packaging, printing, chemicals, universities, research institutes, testing institutions etc.

■ System technical info:

Robot:			
Description	Stroke (mm)	Pre-allocation time (s)	Max Speed (mm/s)
Horizontal moving	1000	4	500
Vertical drop of fixture	300	2	300
Vertical rise of fixture	300	2	300
clamp	/	2	0.6
Maximum acceleration	/	$5m/s^2$	/
Clamping fixture range	/	Single side 80-150 mm	/
Maximum weight of sample	/	2 kg	/

Drawdown info:
Continuous coating drawdown speed: 40 s/pcs
Duration of working: 7 x 24h
Compatible paints: 10 kinds of paints
Maximum storage standard panels: 100 pcs
Maximum storage panel bracket: 5 pcs
Maximum storage coated panels: 5 pcs
Standard Substrate size (maximum): 150 x70mm
Test platform: Standard cement slab
Coating tool: Bar Coater

Station info:
Weight：350KG
Voltage：220V/50Hz
Power：2.5 KW
Air pressure: 0.5 Mpa (no oil and no water)
Workstation size: 1400 X 1240 X 2030 mm (L X W X H)

Environment request:
Temperature: +15-35℃
Humidity: 20-80% RH (non - condensation)

■ Order info：

BEVS 3228N Intelligent Robotic Coating Station

Intelligent Multi-Combined Station

■ Introduction:

The BEVS Intelligent Multi-Combined Station is a combined system based on the BEVS intelligent station, which has a high degree of integration and scalability. The system realizes intelligent automatic sample preparation and testing of various properties of paint, ink, resin and other related products, from raw material input to product output. The detection efficiency is improved by more than 100%. Reduce human operations and differences, improve repeatability and reliability. A single workstation can work independently and can complete one or more experimental projects. Multiple workstations can be quickly assembled and spliced to complete more intelligent and automated laboratory testing.

It is composed of Intelligent Automatic Formula Preparation Station, Intelligent Panel Coating Station, Intelligent Robotic Coating Station, Automatic Baking Station and Appearance Inspection Station.

■ System technical info:

No.	Item	Specifications
1	Sample	Water-based or solvent-based paint, other liquid materials
2	Sample type and capacity	10 kinds of x50ml beaker
3	Test panel size	L150×W70×H5mm
4	Viscosity	1-20000mpa.s
5	Film application speed	40-60 seconds/panel
6	Storage quantity of supporting membrane	40 pcs
7	Test board substrate storage capacity	20-100 pcs (depending on the thickness)
8	Four-axis robot speed	10-500mm/s
9	Oven baking time	0-60min
10	Oven temperature	Room temperature -300℃
11	Number of samples baked at one time	6 pieces
12	CCD visual appearance measurement speed	0-50mm/s
13	Gloss range and accuracy	0-2000GU, 0.3GU
14	Color repeatability	△E*ab<0.1
15	Thickness gauge range and accuracy	0-500μm, 0.5μm
16	Adhesion test	1,1.5, 2, 3mm gap
17	Output sample storage quantity	20 pcs
18	Input electrical and air parameters	Voltage: 220V/50Hz; Power: 2.5 KW, 0.7 Mpa (7 bar) (no oil and no water)

■ Order info:

BEVS 3288N Intelligent Multi-Combined Station