

Intelligent Robotic Coating Station

Introduction:

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

The robot automatically completes the loading and unloading, realizes the rapid automatic coating 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.

Technical Specification:

Robot specification

No.	Procedure Name	Stroke(mm)	Time(s)	Max. Speed(mm/s)
1	Horizontal moving	1000	1	1500
2	Fixture vertical down	300	1	500
3	Fixture vertical up	300	1	500
4	Clamp	/	1	0.6
5	Max. acceleration of robot	5m/s ²		
6	Clamp range	Unilateral 80-150mm		
7	Max. sample weight	2kg		

- ◆ Automatic Film Applicator specification
 - Speed: 10-300m/s
 - Stroke length: 10-360mm
 - Panel size: max. A3(420x300mm)
 - Platform: vacuum
 - Applicator: single/two/four sided applicator, cube/adjustable applicator, bar coater
- ◆ Paint supply: automatic
- ◆ Electricity, compressed air requirements
 - Voltage: 220V/50Hz
 - Power: 2.5KW
 - Air pressure: 0.5Mpa
- ◆ Operation environment
 - Temperature: 0-45°C
 - Humidity: 20-80% RH
 - Vibration: <4.9mm/s
- ◆ Dimension: L1100 x W1100 x H1200mm
- ◆ Net wight: 250kg

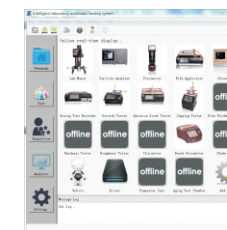


◆ System configuration

No.	Name	Model	Quantity	Remark
1	Main frame	BEVS 3228/1	1	With wheel
2	Robot	BEVS R750	1	/
3	Automatic film applicator	BEVS 1811/2	1	Vacuum bed
4	Control system	BEVS 3228/3	1	/
5	Software system	BEVS 3228/5	1	Including PC software and mobile APP
6	Laptop	BEVS 3228/6	1	Optional, configuration is not less than: CPU: Inter(R)Core(TM)i5, 2.67GHz/RAM: 4G/Hard Drive: 500G, SATA, PERC H31, hot plug
7	Air compressor	BEVS 3228/7	1	Optional, configuration is not less than: Volume: 50L/Output speed: 405L/Min/Pressure: 0.7MPa
8	Multi-functional fixture	BEVS 3228/8	1	Include substrate, applicator, paint clamp
9	Paint rack	BEVS 3228/9	2	Include 5x50ml beaker, 5x100ml beaker
10	Single sided applicator	BEVS 1801/50/50	4	Other applicator available
11	Applicator cleaning tank	BEVS 3228/11	2	/
12	Disposable syringe	BEVS 3228/12	10	/
13	Hiding power chart	BEVS 3228/13	10	Standard size: A4(180x255mm), other size available

Features:

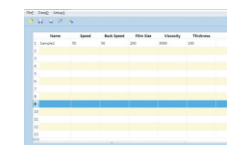
- ◆ Data wireless real time encryption transmission
- ◆ Automatic measurement
- ◆ Intelligence: Enable to realize automatic batch coating test, remote control, data sharing, various control methods, mobile APP in direct view control
- ◆ Wide application: paint, ink, packaging, printing, cosmetics and other industries



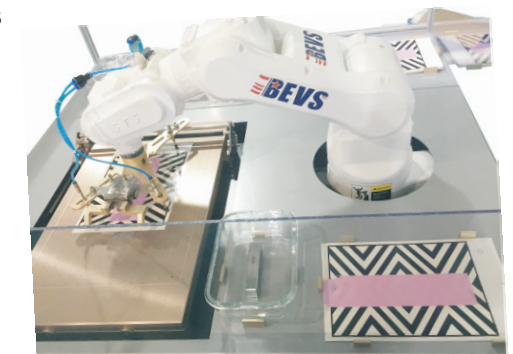
- ◆ Intelligent Terminal Control System Interface: Robot and Automatic Film Applicator automatically link BEVS intelligent system terminal, realize data sharing, big data access and automatic processing analysis.



- ◆ System Network Interface: Enable to view the monitoring system status, communication parameters setting etc.



- ◆ Data transfer to PC in real time.



Order Information:

BEVS 3228 Intelligent Robotic Coating Station (Customization available)

Multifunction Coating Performance Tester

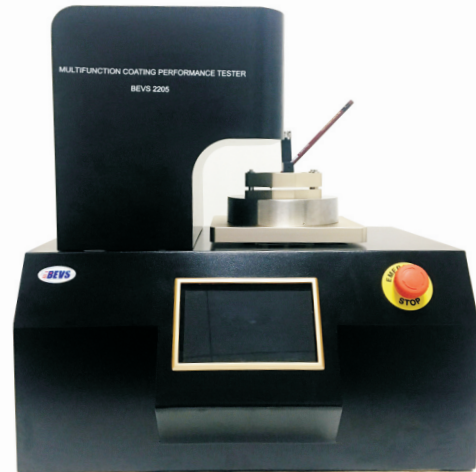
Introduction:

BEVS 2205 Multifunction Coating Performance Tester has the multi-function of cross cut adhesion testing, pencil hardness testing and scratch resistance testing. It is easy to operate by taking the full touch screen technology. Multi-functions in one can meet more requirements for customers.

This instrument enables to test the scratch resistance performance, adhesion performance, hardness and linear and rotation 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.

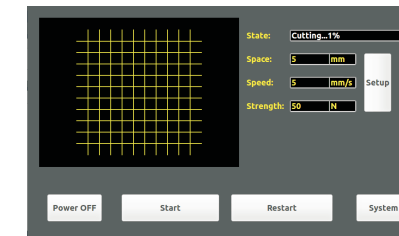
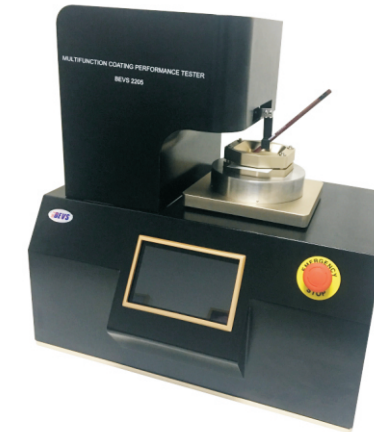


Technical Specification:

- ◆ Panel Size: Max. Width 75mm
- ◆ Sample Thickness: 0.5 - 20mm
- ◆ Standard Load Range: 5 - 50N
- ◆ Special Load Range: 1 - 10N (Optional)
- ◆ Cutting Stroke Length: Max. 45mm
- ◆ Cutting Speed: 2 - 20mm/s
- ◆ 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

Features:

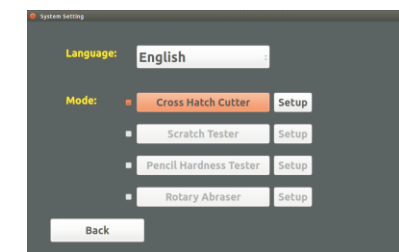
- ◆ LCD color touch screen
- ◆ Full automatic operation
- ◆ Sample clamped automatically
- ◆ Rotated and moveable platform
- ◆ Automatic adjustment of load range
- ◆ Automatic adjustment of speed and stroke
- ◆ Cutting space adjustment
- ◆ Cutting number adjustment
- ◆ Data enables to save and output



- ◆ Main Interface: Real time display cutting, scratch and related operating parameters.



- ◆ Setting Interface: Running speed, cutting space and load etc.



- ◆ Setting Test Mode: Select and set cross cut, scratch and pencil hardness etc.

Standard:

ISO 2409-1992, ISO 15184, ASTM D3359, ASTN D3363, BS 3900 E6, GB/T9286-98

Order Information:

BEVS 2205 Multifunction Coating Performance Tester

Intelligent Pendulum Hardness Tester

Introduction:

BEVS 1306 Intelligent Pendulum Hardness Tester, a user-friendly and intelligent-designed instrument, has a lot of unique features that ease defining hardness by full touch screen control automatically and it is widely used in the hardness evaluation of hard and soft coating and similar material.

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 results and eliminate 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.

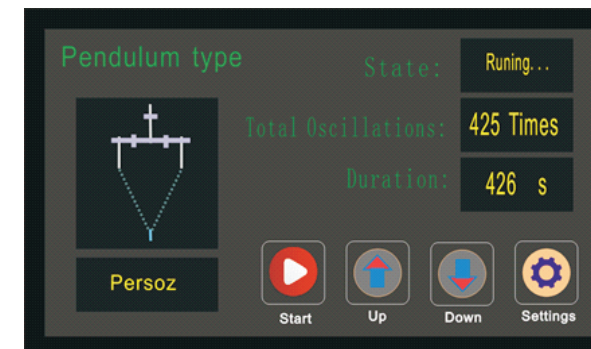


Technical Specification:

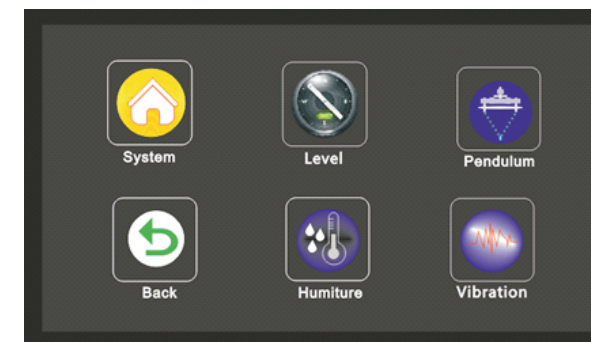
Pendulum type	Persoz	König
Weight/g	500±0.1	200±0.2
Ball diameter/mm	8	5
Deflection start /°	12	6
Deflection end /°	4	3
Oscillation period/s	1±0.01	1.4±0.02
Damping time on glass plate/s	430±10	250±10
Number of oscillation on glass plate/T	430±10	172-185
Voltage	100-240V (50/60HZ)	
Power	Max. 45W	
Environmental temperature and humidity	10°C -35°C, 80% RH	
Adjustment leveling range	0°C-3°C	
Vibration frequency range	4.9mm/s	

Features:

- ◆ LCD color touch screen
- ◆ Monitoring temperature and humidity
- ◆ Full automatic operation
- ◆ Automatically identify pendulum
- ◆ Automatically identify the level condition
- ◆ Vibration warning
- ◆ Data save and output
(Measurement times, Max. value, Min. value)



- ◆ Main Interface:
Real time display of pendulum type, total number of oscillations and duration.



- ◆ Setting Interface:
Enable to set the related data and calibrate.

Standard:

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

Order Information:

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)

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 humidity on the surface to further evaluate the coating quality and lifetime.

BEVS 2201ATV Adhesion Tester Verifier is used to verify the accuracy of the pull-off tester. It is of exquisite design and digitally displays force value.

Technical Specification:

Basic specification

Dolly Diameter	10mm	14mm	20mm	50mm
Working range	8-100MPa (1200-14400psi)	4-50MPa (600-7200psi)	2-25MPa (300-3600psi)	2-32MPa (50-580psi)
Range of pull off rate	0.4-5.6MPa/s (58-812psi/s)	0.2-2.8MPa/s (29-403psi/s)	0.1-1.4MPa/s (15-203psi/s)	0.02-0.22MPa/s (2-32psi/s)

Accuracy of put off rate: 2.5%+0.3s

Pressure accuracy: 1% full range

Pressure resolution: 0.01Mpa

Units: MPa, psi

Display Screen: Touch screen

Power specification

Power: Build in rechargeable battery, 12.6V2A, 20000mA/H

Charging time: 2-3h

Packing information

Net weight: 3kg

Dimension (L×W×H): 210×90×140mm

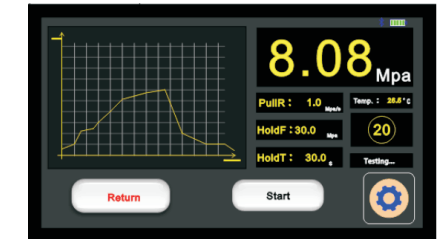
Packing list

Standard: 20×20mm dolly, 3×Glue mixing tube, 1×2:1Glue gun, 1×Glue, 5×swab, 5×spile, 5×sandpaper, 1×20mm cutter

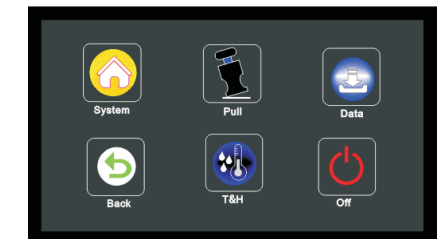
Optional: 10×50mm dolly, 3×Glue mixing tube, 1×2:1Glue gun, 1×Glue, 5×swab, 5×spile, 5×sandpaper, 1×50mm cutter

Features:

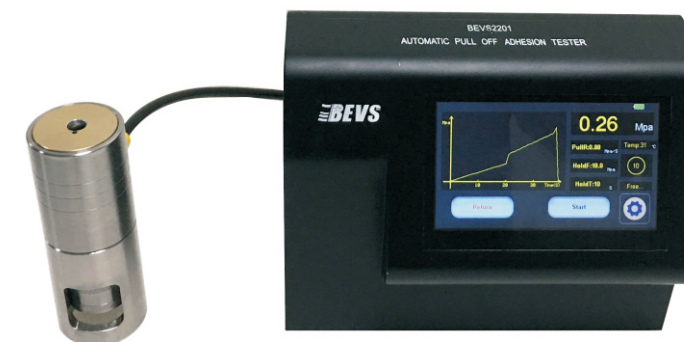
- ◆ Wide range of applications: Metals, wood, concrete and other substrates
- ◆ Real time measure the temperature and humidity of product surface
- ◆ Loading up to 100Mpa
- ◆ Data reproducible measurement
- ◆ Enable to set the max. pull off force
- ◆ Enable to set the holding time of tension
- ◆ Data storage and quick view result
- ◆ Real time display the diagram of drawing rate
- ◆ USB data transmission
- ◆ Multiple dollies are available
- ◆ Big capacitive touch screen
- ◆ Set up time and date
- ◆ Build in rechargeable battery
- ◆ Onsite calibration available
- ◆ Bluetooth function



- ◆ Main Interface: Real time display curve and parameter.



- ◆ Setting interface: Set the related parameter and view the data.



Standard:

ASTM D4541, ASTM D7234, ISO4624, ISO 16276-1, JIS K 5600 5-7

Order Information:

BEVS 2201 Automatic Pull Off Adhesion Tester(Standard model, other dollies are available)
BEVS 2201ATV Adhesion Tester Verifier

Powder Coating Thickness Gauge

Introduction:

BEVS 1703 Powder Coating Thickness Gauge is a non-contact, non-destructive and rapid measuring portable instrument for the thickness of powder coatings in pre-cured and cured status. It adopts the new technology in the field of photothermic measurement.

The measurement data can be sent to the mobile phone, pad, computer, spraying control system and other terminals in real time. It is easy to achieve rapid measurement in assembly line and it can be widely used in laboratory and workshop for the real-time detection and control.

Flexible operation: the sample or gauge can be moveable during measurement.

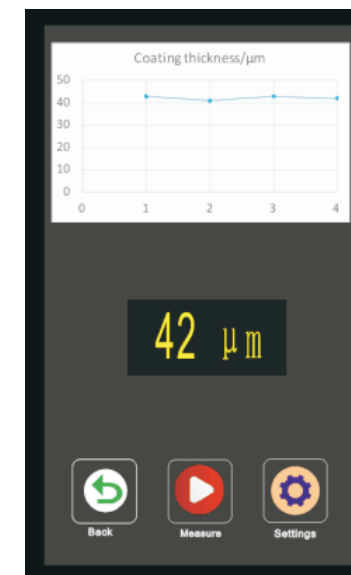


Technical Specification:

Measuring Range	0 - 350 μ m
Accuracy	\pm 3%
Resolution	\pm 1%
Measuring Distance	Approx. 30mm
Measuring Spot	1.5 x 1.5mm
Measuring Speed	512 - 2048m/s
Port	Mini USB, WIFI
Battery Type	3.7V(2500mAh) Rechargeable lithium battery
Substrates	Metal

Features:

- ◆ Data wireless encryption transmission in real time
- ◆ Automatic measurement
- ◆ Measurable for irregular sample
- ◆ Measurable for wet and dry film thickness
- ◆ Data enables to save and output
- ◆ Statistics: measure times, graph, max. and min. value



- ◆ APP software interface: Real time display the testing curve and result.

Standard:

DIN EN 15042-2

Order Information:

BEVS 1703 Powder Coating Thickness Gauge