

Address: Floor 3, Building A, No. 257 Junye Road, Huangpu District, Guangzhou, 510530, China Tel: +86 20 29038636

Fax: +86 20 89851362 Email: sales@bevsinfo.com

Hongkong

Address: Room 2009, 20/F, Hang Bong Commercial Centre, No.28 Shanghai Street, Tsimshatsui, Kowloon, Hongkong Tel: +852 94348583 Fax: +852 81486056

Email: jackie@bevsinfo.com

Shanghai

Address: Room 1125, 1st Floor, Xinzhuang Business Building, No.4999 Zhong Chun Road, Minhang District, Shanghai, China Tel: +86 21 34537083 Fax: +86 21 64399843

Email: sales@bevsinfo.com

Chengdu

Address: Room 2-1737, Building 5, Dongli Plaza, No.68, Yang Zi Shan Road, Chenghua District, Chengdu,

Tel: +86 28 83516328 Fax: +86 28 83516327 Email: sales@bevsinfo.com













EBEVS

Company Profile

BEVS Industrial Co., Ltd is a leading manufacturer that specializes in coatings, ink, painting, resin testing instruments and laboratory whole solution.

Moreover, we are also the only one in the world to research and study on the technology of intelligent robots testing and inspection system to cater to the needs of the competitive and technological industry.

We offer the complete and unique products in this field to meet customer's challenging demands of today and tomorrow, our products are of compliance with the ASTM, ISO, DIN, BS etc. international standards.

With strong supports and hard work by lots of end-users and worldwide agents, BEVS become more and more famous in the world and provides more competitive values for our customers.

Mission

Efficiency, Precision & Stability

Ideal

Continuous effort in becoming the industry leader

Spirit

Team, enterprising, change & make strong

Value

Win by quality, credit by sincerity



Patent No. : ZL201610370252.2



Patent No. : ZL201721861055.7



Patent No. : ZL201710258685.3



Patent No. : ZL201721860505.0



Patent No.: ZL201510192397.3



Patent No.: ZL201820044967.3



Contents

Viscosity

y	
Frikmar Cup	1
Intelligent Krebs Viscometer	1-2
Intelligent Cone and Plate Viscometer	3-4
Intelligent Rotothinner	5-6
Film Application	
Hiding Power Chart	7
B: :: A : : : A : : :	-

Digital Adjustable Applicator 7 Film Application Kit 8 Mini Automatic Film Applicator 9-10 Automatic Panel Sprayer 11-12 Intelligent Panel Coating Station 13-15 Intelligent Robotic Coating Station 16-18

Density

Pressure Density Cup 19





The pictures in catalogue are for reference only, our company reserves the final right of interpretation.





Frikmar Cup

■ Introduction:

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

■ Technical Specification:

- ♦ Nozzle precision: +/- 0.02 mm
- ♦ Volume: 100 ml
- Material: Cup body-aluminum alloy, Nozzle-stainless steel



■ Order Information:

BEVS 1109/2 Frikmar Cup (nozzle diameter: 2 mm)
BEVS 1109/4 Frikmar Cup (nozzle diameter: 4 mm)
BEVS 1109/6 Frikmar Cup (nozzle diameter: 6 mm)

Intelligent Krebs Viscometer

■ Introduction:

BEVS 1133 is a new manual type Intelligent Krebs Viscometer that adopting the new touchscreen 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.

Features:

- Easy operation
- Humanization design
- ◆ Touch screen control
- ◆ Units: KU, G, cP simultaneously display
- Available to preset start test time and duration
- ◆ Real-time graph display between viscosity and time
- ◆ Real-time display environment temperature
- ◆ Available to measure sample temperature
- Output measurement report

Setting interface



Main Interface



Running Setting



System Setting



Data Interface

■ Technical Specification:

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

■ Standard:

ASTM D562

Intelligent Krebs Viscometer

Application:

Coatings, food, pharmaceutical, automobile paint

■ Order Information:

BEVS 1133 Intelligent Krebs Viscometer (Manual Type)





Intelligent Cone and Plate Viscometer

■ Introduction:

Intelligent Cone and

Plate Viscometer

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⁻¹can 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.



■ Technical Specification:

- ♦ Rotational speed: 100-1500 rpm
- ♦ Shear rate: 333-20000 s⁻¹
- ◆ Controllable temperature range: +5 75°C
- ◆ Cone: 5 models (Cone 1, Cone 2, Cone 3, Cone 4, Cone 5)
- Measuring ranges:

- ♦ Resolution: 0.1P1Cp
- Measurement accuracy: ±1% (full scale)
 Measurement repeatability: ±0.5% (full scale)
- ◆ Temperature resolution: 0.1°C
- ♦ Temperature accuracy : ±0.3°C
- ◆ Input voltage : 100-240VAC / 50-60Hz

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 and report

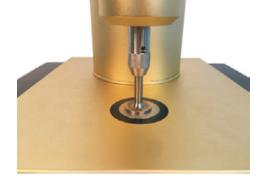


Application:

Food, cosmetic, pharmaceutical, coating, ink, mining, construction, petrochemical, polymer

■ Standard:

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



■ Order Information:

BEVS 1132/5	Intelligent Cone and Plate Viscometer (0-5P)
BEVS 1132/10	Intelligent Cone and Plate Viscometer (0-10P)
BEVS 1132/20	Intelligent Cone and Plate Viscometer (0.1-20P)
BEVS 1132/50	Intelligent Cone and Plate Viscometer (0.1-50P)
BEVS 1132/100	Intelligent Cone and Plate Viscometer (0.1-100P)





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.



■ Technical Specification:

♦ Spindle speed: 562 rpm ± 1%

◆ Spindle: 3 models of spindles (spindle 1, spindle 2, spindle 3)

Measuring ranges :

Intelligent Rotothinner

0 - 2500cP Spindle 1: 0 - 25P Spindle 2: 0.1 - 80P 10 - 8000cP Spindle 3: 1 - 360P 100 - 36000cP

♦ Resolution: 0.1P1Cp

◆ Accuracy : ±1% (full scale)

♦ Repeatability: ±0.5% (full scale)

♦ Sample can: 250ml tin can

♦ Input voltage: 100-240VAC / 50-60Hz

♦ Weight : 10kg

Features:

- Automatic lifting
- ◆ Automatic measurement
- ♦ High definition touch screen display
- ♦ High precision measuring motor
- Easy to operate and use
- Data saving and output



■ Standard:

ISO 2884, BS 3900 A7

■ Order Information:

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

BEVS 1131/360 Intelligent Rotothinner (1-360P)

BEVS

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 Hiding Power Charts consists of black and white areas, which are selected from the high quality specialty papers and covered with a high quality UV coating on the surface.



BEVS 2902/5

88

BEVS 2902/13

■ Technical Specification and Order Information:

Model	Name	Surface Treatment	Dimension (mm)	Qty/carton	Pattern
BEVS 2902/5	Hiding Power Charts	UV coated	250x180	500	Half white and half black
BEVS 2902/13	Hiding Power Charts	UV coated	250x180	500	Black and white chequer

Digital Adjustable Applicator

■ Introduction:

The BEVS 1806F Adjustable Applicator is designed according to ASTM D823E. It consists of two precise digital micrometers, a high precise scraper and a special alumina frame without baffle.

■ Technical Information:

♦ 5 film width available: 100/150/200/250/300 mm

◆ Precision: ±1 μm

◆ Thickness range: 0-3500 µ m

♦ In 1 µ m increment

Order Information:





Film Application Kit

■ Introduction:

In order to on-site make film to obtain good coatings and instantly detect the performance of coatings in real time, BEVS has developed a practical set of film-application instruments, which has exquisite appearance and durability.

This kit includes 22 items for viscosity, adhesion, fineness detection and film making. It enables you to more intuitively and systematically understand the film application and testing products. It is the best portable instrument kit for sales engineers or after-sales engineers.

■ Technical Information:

Classification	No.	Model	Description	Qty
	1	BEVS1101 / 3	Ford Cup	1
Viscosity	2	BEVS1108 / 4	Din Cup	1
	3	BEVS1106 / 4	ISO Cup	1
	4	BEVS1118 / 4	Afnor Cup	1
	5	BEVS1102	Cup Stand	1
Specific	6	BEVS2101 / 50	Specific Gravity Cup (AI)	1
Gravity	7	BEVS2102 / 50	Specific Gravity Cup (SS)	1
Fineness	8	BEVS1908 / 100	Double Channel Grind Gauge	1
Flavobility	9	BEVS1809 / 2	Sagging Applicator	1
Flowability	10	BEVS1810 / 2	Levelling Applicator	1
Permeability	11	BEVS1122 / 2	Payne Permeability Cup	1
	12	BEVS200 / 4	Bar Coater (4µm)	1
	13	BEVS200 / 100	Bar Coater (100µm)	1
	14	BEVS180 / 1	Cube Applicator	1
FilmApplication	15	BEVS1803 / 60 / 2	Four Sided Applicator	1
	16	BEVS1806A / 100	Adjustable Applicator	1
	17	BEVS1819 / 80 / 1	Four Sided Applicator with Reservoir	1
	18	BEVS1701 / 1	Wet Film Gauge (SS)	1
Thickness	19	BEVS1701 / 3	Wet Film Gauge (AI)	1
	20	BEVS1702 / 100	Wet Film Thickness Wheel	1
Adhesion	21	BEVS2202 / 1	Cross Hatch Cutter	1
Aunesion	22	BEVS2203	Multi-hatch Gauge	1



Film Application Kit



Total weight: 10kg

Order Information:

BEVS 1830 Film Application Kit

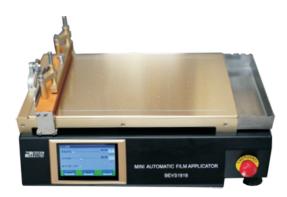




Mini Automatic Film Applicator

■ Introduction:

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



■ Technical Specification:

- ♦ Max size for the sample(L x W x H): 250 x 160x 8 mm (included the substrate)
- ♦ Speed: 1-200mm/s (Adjustable)
- ◆ Speed Precision: 1mm/s
- ♦ Plate (glass or vacuum): 355 x 229 x 10 mm
- ♦ N.W.: 14Kg

Mini Automatic Film Applicator

- ♦ Power Supply: 100-230 V, 50/60 Hz
- ◆ Dimensions (L x W x H): 450 × 300 × 210 mm



■ Features:

- ♦ Big LCD touch screen, easy control
- ♦ With removable weights to ensure steadiness while working
- ♦ Compatible with wide range of film application tools
- ♦ With drip pan holding bar coater
- ♦ With clamp to ensure substrate fixed firmly
- Vacuum adjustment
- ◆ Special design to minimize vibration to ensure high quality film
- ♦ Two beds available, easy to replace





■ Standard:

ASTM D823



■ Order Information:

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 bed and vacuum

bed, including an external pump

BEVS 1818/P/001 Vacuum bed BEVS 1818/P/002 Glass bed

BEVS 1818/P/003 External pump for vacuum bed





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, quick change of paint and spray gun. It is an advanced spraying equipment with intelligent programming spraying process, a good choice for spraying test panel in laboratory.

■ Features:

Automatic Panel Sprayer

- ♦ With 10-inch high-definition touch screen
- ◆ Intelligent programming spray process
- ◆ Three-axis automatic spraying
- Optional single or dual spray gun
- ♦ Automatic control of spray pressure
- Quick replacement of the spray gun

■ 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: 0-0.7 Mpa
- ◆ Spray width (manual adjustment)
- Sample flow volume (manual adjustment)
- ◆ Spray gun nozzle diameter (optional according to actual conditions)

■ System Parameters:

- ◆ 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: 0-0.7 Mpa
- ♦ System pressure: 0-0.7 Mpa
- ◆ Panel lift height: 350 mm
- ◆ Spraying area: max 300 × 450 mm; or 9 pcs of 100 × 150 mm standard panels
- Spray gun type: gravity automatic spray gun
- ◆ Dimension (Lx W x H): 955 x 550 x 1200 mm (1700 mm extension rod)

Functions:

- ◆ 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)



■ Standard:

ASTM D823/A



Application:

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

■ Order Information:

BEVS 1828 Automatic Panel Sprayer (Including one automatic spray gun)





Intelligent Panel Coating Station

Introduction:

BEVS 3226 Intelligent Panel Coating Station is a smart small mobile workstation that integrates intelligent instruments, mechanical actions, automatic control systems and test materials.

The station automatically completes the loading and unloading, realizes the rapid panel coated, greatly improves the reproducibility and efficiency of the coating, and obtains the uniform film which has the same physical properties, appearance and chemical properties. All kinds of instability caused by the factors such as velocity, pressure and direction in the application process are eliminated.



■ Features:

Intelligent Panel Coating

Station

- ◆ Real-time data encrypted transmission
- ♦ 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 costs
- ◆ Data saving and output
- ◆ Compatible with many different coatings and realize rapid automatic panel coated

■ Technical Parameters for Each Process:

No.	Procedure Name	Stroke(mm)	Pre-allocatedTime(s)	Max.Speed(mm/s)
1	Horizontal moving	1000	15	100
2	Fixture vertical down moving	300 4 100		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		

■ Spray Parameters:

- ◆ Applicable paint type: water-based and solvent-based
- ◆ Applicable paint viscosity range: 1-20000 cps
- ♦ Moving speed: X-axis 25-250 mm/s; Y-axis 25-250 mm/s
- ◆ Stroke length: X-axis 220 mm; Y-axis 220 mm
- ♦ Gun distance: 210 mm
- ◆ Atomization air pressure: 0.3-0.7 Mpa
- ♦ System pressure: 0.4-0.7 Mpa
- ◆ Spraying area: max. 100 × 180 mm



■ System Parameters:

- ◆ Continuous spray speed: 60 s/pcs
- ◆ Continuous working time: 7 x 12 h
- ◆ Maximum storage paints: 10 pcs
- ◆ Maximum storage of standard substrate: 20 pcs
- ◆ Maximum storage coated panel: 20 pcs

■ Main Structural Module:

- ◆ Moving mechanism: spray gun X, Y two-axis motion mechanism
- ◆ Test panel coding, paint syringe code-reading device
- ◆ Spray gun: A non-standard R&D spray system that can guickly change the type of paint
- Compressed air supply and pneumatic control system
- Panel fixing, loading, unloading and storage mechanism; paint syringe fixing, loading, unloading and storage mechanism
- ◆ Positioning connection device in workstations
- ♦ Automatic change mechanism of the paint syringe
- ◆ Spraying environment detection system: Real-time detection of humidity, temperature and VOC concentration in the internal working environment
- ◆ Waste discharge module: exhaust gas and sewage discharge device
- ◆ Electrical control system





■ Functions:

Intelligent Panel Coating Station

- ◆ Full-automatic control of double-axis (X, Y) movement
- Preset multiple common viscosity spray mode, input the required coating thickness value, the system automatically spray
- Custom 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 parameters, 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 10 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 waste is discharged by means of gas and sewage



■ Order Information:

BEVS 3226 Intelligent Panel Coating Station (custom available upon request)

Intelligent Robotic Coating Station

■ Introduction:

BEVS3228 Intelligent Robotic Coating Station is integrated by intelligent instrument, robot, automatic control system and testing material.

The robot automatically completes the loading and unloading to achieve rapidly automatic drawdown, greatly improves the reproducibility and efficiency of the drawdown coating, and obtains the coating film which has the uniform physical, appearance and chemical properties. All kinds of instability caused by the factors such as velocity, pressure and direction in the application process are eliminated.



Features:

- ♦ With AI sensor
- ◆ 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
- ◆ High efficiency and greatly reduced R & D cost
- Data saving and output
- ◆ Fast automatic drawdown with different coatings
- Fast automatic loading and unloading material
- Quick replacement of paints





■ Robot Parameters:

No.	Process name	Stroke (mm)	Pre-allocation time (s)	Maximum speed
1	Horizontal moving	1000	4	500 mm/s
2	Vertical drop of fixture	300	2	300 mm/s
3	Vertical rise of fixture	300	2	300 mm/s
4	clamp		2	0.6 s
5	Maximum acceleration		5m/s ²	
6	Clamping fixture range		Single side 80mm -150mm	
7	Maximum weight of sample		2Kg.	

■ Drawdown Parameters:

♦ Moving speed: 10-100mm/S

◆ Length of stroke: 20-180mm

◆ Substrate size (maximum): 150x70mm

◆ Test platform: fine grinding aluminum alloy plate

◆ Coating device: Bar Coater

Intelligent Robotic Coating Station



System parameters:

◆ Continuous coating drawdown speed: 40 s/pcs

♦ Duration of working: 7x 24h

Compatible coatings: 10 kinds of paints

♦ Maximum storage standard samples: 200 pcs

♦ Maximum storage panel bracket: 20 pcs

Maximum storage coated panel: 20 pcs

♦ Voltage: 220V/50Hz

Power: 2.5 KW

◆ Air pressure: 0.5 Mpa (no oil and no water)

◆ Temperature: 0-45 °C

Humidity: 20-80% RH (non - condensation)

♦ Vibration: <4.9 m/s

♦ Workstation size: 1400X1200X1900 mm (L X W X H)

THE REAL PROPERTY OF THE PROPE

For Coating Equipment:

Automatic pick-up and discharge, automatic unloading of paint sample and pipette recovery

17
www. bevsinfo. com Email:sales@bevsinfo.com

17

■ Functions:

- ◆ Store many panels at a time and collect it automatically and quickly
- ◆ Store several Bar Coaters at a time and get the Bar Coaters and operate automatically and quickly
- ♦ Paints storing device, load and upload the paint by robot
- Drawdown by robot
- Ultrasound cleaning for bar coaters, save time and water, more environmentally friendly
- ◆ Fully automatic operations in the testing process, automatically collect panel into shelves
- ◆ Modular designs, convenient maintenance and enable rapidly upgrade
- A variety of drawdown modes can be selected. Drawdown for many times in one kind of coating and drawdown in turn in different coatings

Application:

Coatings, inks, packaging, printing, chemicals, universities, research institutes, testing institutions etc.



■ Order Information:

BEVS3228 Intelligent Robotic Coating Station
Other Intelligent Robotic Coating Station can be customized upon request

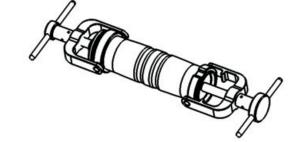




Pressure Density Cup

Introduction:

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



■ Technical Specification:

- ◆ Made of stainless steel
- ♦ Volume: 100 ml, accuracy: ± 1 ml
- ◆ Test pressure: 10 bar, accuracy: ± 1 bar
- ♦ Max. pressure: 31 bar (450 psi)

■ Standard:

ISO 2811-4

■ Order Information:

BEVS 2103 Pressure Density Cup