



BEVS INDUSTRIAL CO.,LTD

ISO 9001 Quality System Certificate Enterprise

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# **AUTOMATIC FILM APPLICATOR**

## **BEVS 1818**

### **User Manual**

#### **(Version V201805)**

This manual shall be read carefully before starting. Directions included in this operation manual shall be strictly followed.





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## 1. Company Profile

BEVS Industrial Co., Ltd. is a leading manufacturer that specializes in coatings, ink, painting, resin testing instruments and laboratory whole solution. Our company has passed ISO9001:2008 quality system certification.

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

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.

## 2. Product Introduction

BEVS automatic film applicator is used to make uniform and traceable film with good reproducibility. (Manual operation is often uncoordinated, especially between different operators, which makes it difficult or even unreliable to compare sample). Because the factors affecting the coating are the shear rate and the weight. The instrument use precisely controlled wire bar or applicator to move back and forth at a selected speed. Due to the test paper is adsorbed on the suction cup and the shear rate and the weight applied to the tool remain the same when the film is applied, the reproducibility of the coating is greatly improved.

Unique low-speed running performance can ensure smooth operation at 1mm/s speed, achieving the best performance at low speed film production.

- 1). large screen LCD design, touch screen operation
- 2). Chinese and English are available.

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## 2.1 Technical Specifications

2.11 Model: BEVS1818GV、BEVS1818G、BEVS1818V

2.12 Maximum Film Length: 250mm

2.13 Speed: 1mm/s-200mm/s (Adjustable)

2.14 Speed Precision: 1mm/s

2.15 Dimensions (length × width × height): 450 mm×300 mm×210 mm

2.16 Test platform: glass test platform or vacuum test platform

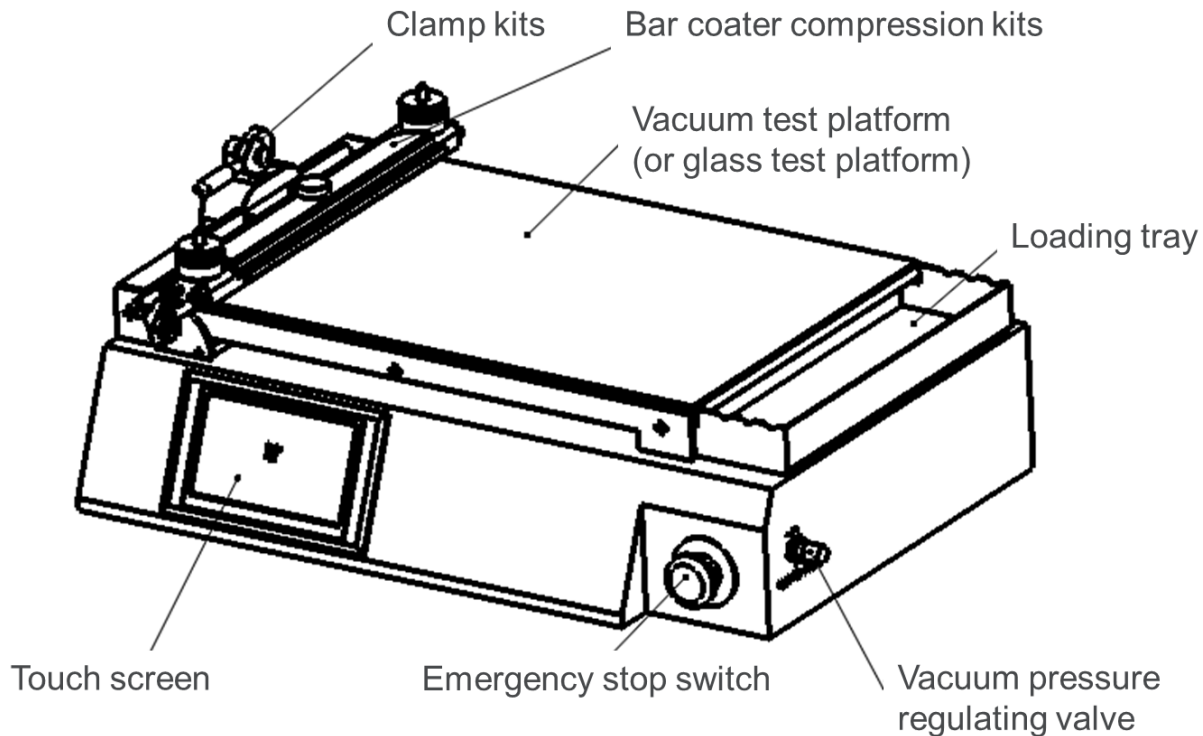
2.17 N.W: 14Kg

2.18 Film distance can be adjusted freely

2.19 Power: 120W

### 3. Product Operation Introduction

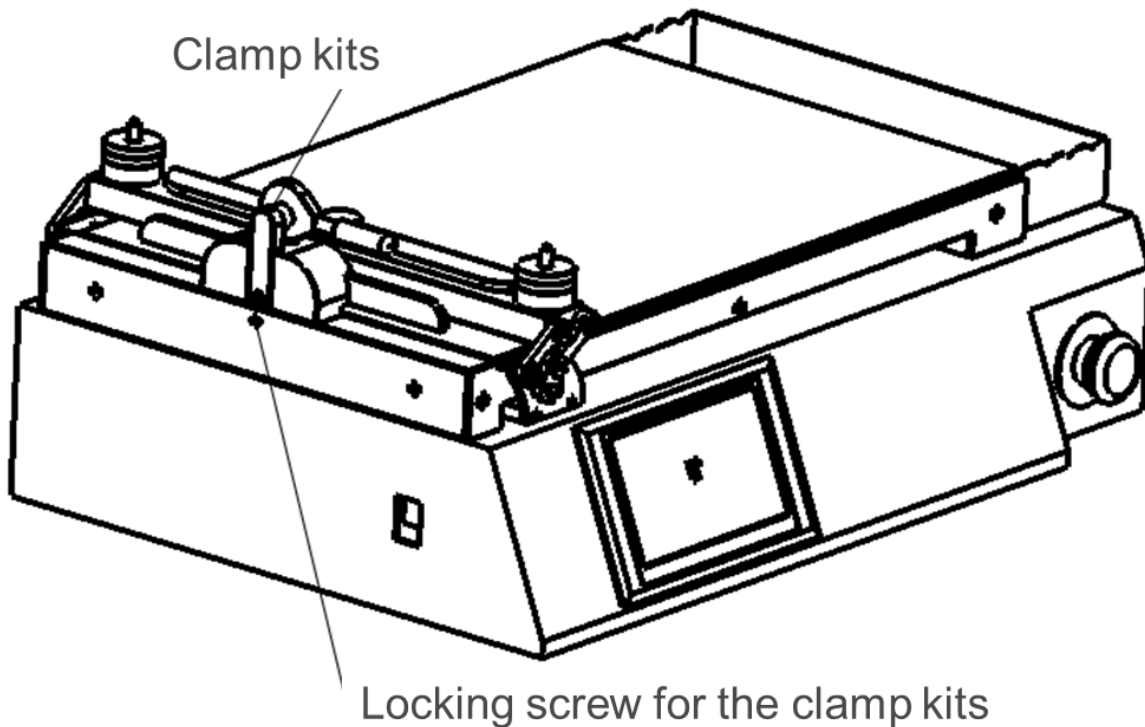
#### 3.1 Name and description of each part



#### 3.2 Operation Steps

1. Place the instrument on horizontal surface.
2. Clean the vacuum test platform (or glass test platform) to avoid dust affecting the film.
3. Connect the power and turn on the power switch.
4. Connect the vacuum pipe and open the vacuum pump (outside); Do not need to connect the vacuum pipe when use the glass test platform.
5. Place the coating test plate on the vacuum test platform (or glass test platform) and then fix it.
6. When using glass test platform to make film, clamp kits can be used to clamp the base material. The base material is placed on the glass test platform, which can be clamped by turning the handle on the clamp backwards. The clamp kits is divided into two parts, the lower station is suitable for 0-2.5MM base material, and the upper station is suitable for 2.5-5MM base material. When the upper and lower positions of the clamp kits are changed, the locking screw of the clamp kits position should be loosened first, press the clamp to the lowest position by hand, and tighten the

screw. At this time, it is measured as the lower station. If you loosen the locking screw of the clamp kits, let it automatically bounce to the highest position, and then tighten the screw, this is the upper station.



7. Refer to the 3.3, Touch Screen Operation

8. Press the “Run” button to start testing

### **3.3 Touch Screen Operation.**

3.3.1 Connect the power (24V)

3.3.2 Turn on the power switch and check the emergency button whether loose. If you press it, pls rotate the emergency button clockwise.

3.3.3 Enter the welcome interface. It will automatically enter the main interface after 3 seconds.





3.3.4 After selecting the language, enter the system screen (as shown). Click the "Open Vacuum" button and vacuum will turn on. and then it will fix the coating test panel.

Note:

1. Firstly, put the base material on the vacuum table and then turn on the vacuum, otherwise it will be difficult to adjust the position after vacuum adsorption.
2. The base material must completely cover the pores on the vacuum table, otherwise the adsorption strength will be greatly reduced, or even unable to adsorb

3.3.5 Preset the speed

- 1) Setting by button: Press  button to increase the speed, press  button to decrease the speed,
- 2) Set up by running settings (3.3.0).

Note:

Coating speed will directly affect the quality of the film. To ensure the quality of the film, different film should be in different speed.

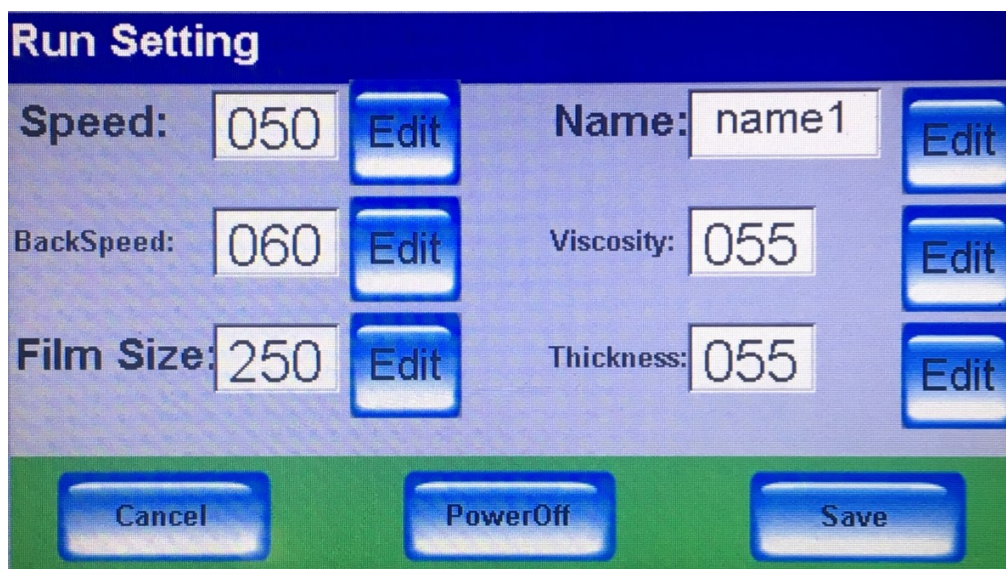


- 3.3.6 Make sure that the specimens, vacuum test platform (or glass test platform) is clean, place the applicator or wire bar coater smoothly, and then put the paint in front of the applicator.
- 3.3.7 Make sure that all the testing condition is ready, click the “Start” button to start testing.
- 3.3.8 Press “Stop” button to end the testing, the machine will stop when the stroke length is reaching the setting stroke length.
- 3.3.9 Press “Return” button and take out the base material to have the next testing.

### 3.4 Parameter Setting

Run settings can set the running parameters:

- 1) Open this setup interface, which can quickly set coating speed, return speed, film length and size, etc.
  - 1.1 The coating speed is the same as the coating speed set by the main interface, which can change the pushing speed of the applicator. The unit is mm/s;
  - 1.2 The return speed can change the return speed of the push rod after returning to the position when the coating is finished, the unit is mm/s;
  - 1.3 Coating size, you can set the film length of the film applicator, the range is 5 - 250mm, users can click the "Edit" button to modify the film length according to their needs.
- 2) Coating thickness, it can record the film thickness of the current applicator, click the edit and amend the record;
- 3) Coatings name, click Edit to change and select different paints. Different paints will save the current set information of speed size and thickness and viscosity, so that it can be used for the next time. and the paint name can be modified (Maximum 6 coating can be recorded).
- 4) Viscosity, it can record the viscosity of the current coating, click Edit to modify the record
- 5) Shut down, click the "Shut down" button to put the instrument into the shutdown state, long press can make the screen restarted

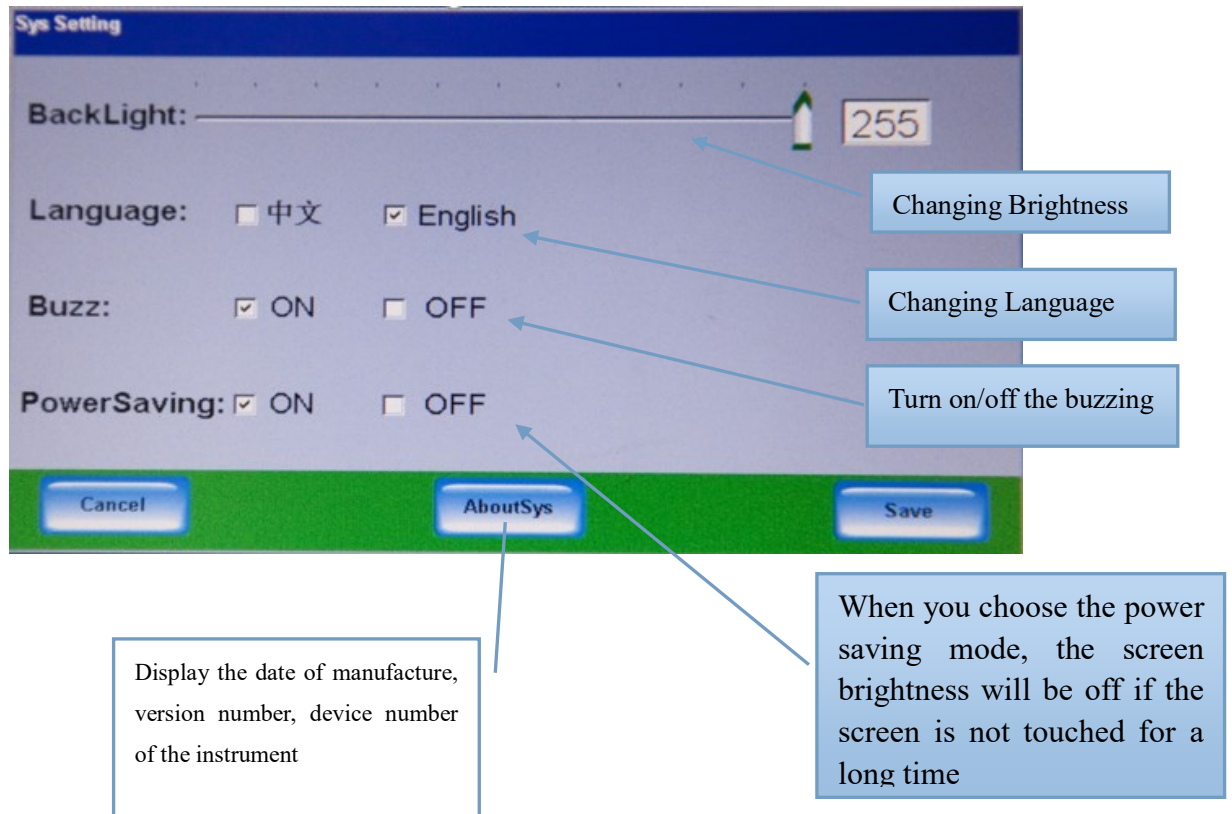


### 3.5 System Setting

- 1) Changing the screen brightness



- 2) Changing the language (switch between Chinese and English)
- 3) Turn on or off the buzzing
- 4) When you choose the power saving mode, the screen brightness will be off if the screen is not touched for a long time.



3.5.1 Every setting will be valid only after saving. You will return to the previous menu if without saving, all settings will be invalid.

## 4.Maintenance

- 4.1. Turn off the power before maintenance
- 4.2. Clean the testing platform after the testing
- 4.3. Checking the tightness degree of belt per month and do some adjustment properly.
- 4.4. Take apart the main machine once a year. Incline the bottom, remove the chassis, and loose the screws in each corner. Wash the rod and oil with the Lithium Grease. Put the bottom back to the original position and place it on the horizontal plan.

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## 5.Attention

- 5.1. Make sure the machine is being used in the environment of dry and no-corrosiveness
- 5.2. Place the machine in the solid working platform
- 5.3. Reliable ground lead is necessary in power outlet
- 5.4. Working Environment: Using the machine in the inside room and the temperature is between 15°C~35°C
- 5.5. Please turn off the device power and unplug the power adapter if you do not use the instrument for a long time