

# Automatic Film Applicator

## BEVS 1811/3

### User Manual



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.

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, BS, EN 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

In order to obtain reproducible results from physical, appearance and chemical performance testing of surface coatings, it is essential to prepare uniform films of controlled thicknesses.

This can be difficult to achieve with hand application methods which often result in variations between operators, and for this reason automatic application methods are recommended.

BEVS automatic instruments have been designed to produce consistent results when used with a wide range of different applicators e.g. Block Spreaders, Wire Wound Bars, Bird Type Applicators, Sag Index Applicators, Sagging and Leveling Testers and many others in order to provide the benefits of reproducibility and control of application.

These instruments have a unique drive system that has been designed to run smoothly with all types of coating material at all film thicknesses to eliminate the “banding“ that can occur with thin film coatings such as inks and transparent coatings such as wood stains or automotive clear coats.

For meeting the increasing demand of high-temperature curing coatings’ film application, BEVS develops this instrument.

2.1 Big LED design, touch screen operation

2.2 Technical Specification

2.2.1 Item Number: BEVS 1811/3

2.2.2 Maximum Film Length: 360mm

2.2.3 Speed: 50mm/s-300mm/s (Adjustable)

2.2.4 Speed Precision: 1mm/s

2.2.5 Stroke Length is Adjustable

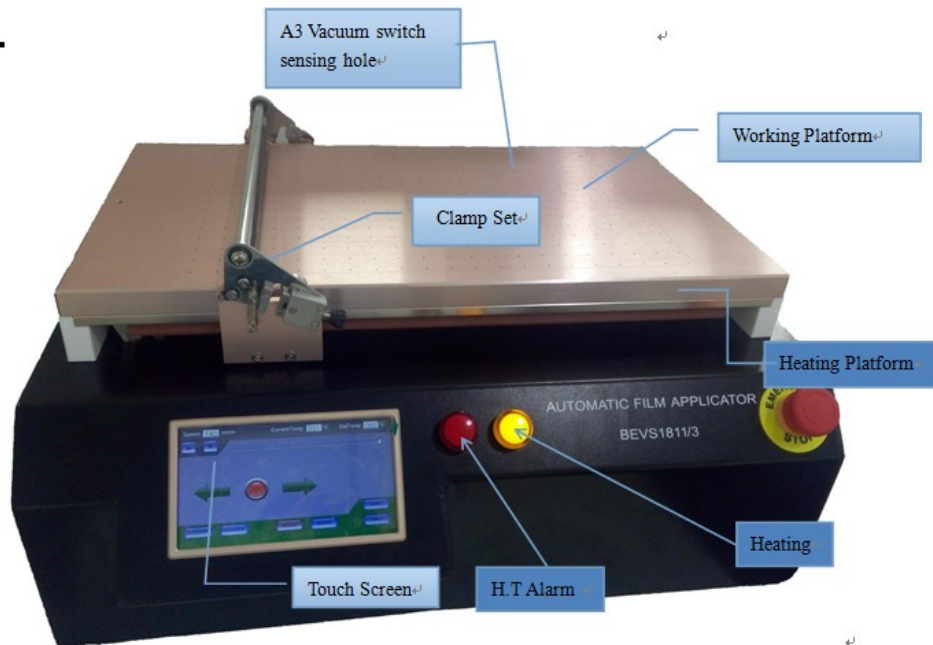
2.2.6 Temperature Range: Ambient +5°C to 150°C

2.2.7 Intended use

Paint, coating, printing materials etc.

## 3 Product Operation Introduction

### 3.1 Construction



### 3.2 Operation Steps

1. Place the instruments in the horizontal plane
2. Clean the vacuum plate to avoid the influence by dust
3. Switch on the power
4. Set the temp required and start heating, normally it takes an hour to reach 150°C
5. Fix the panel on the working platform
6. Turn on vacuum pump
7. Refer to the 3.3, Touch Screen Operation
8. Press the “Run” button to start

### 3.3 Touch Screen Operation

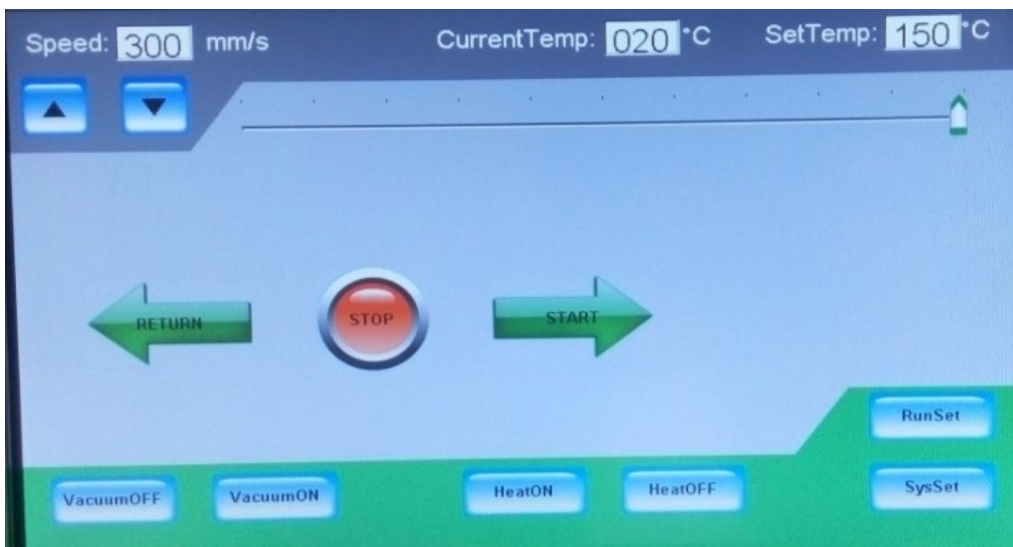
#### 3.3.1 Connect the power (220V 50Hz)

#### 3.3.2 Turn on the power switch

### 3.3.3 Enter the welcome screen and select the language



### 3.3.4 Enter the UI after selecting the language as below pic:





Click “HeatON” to start heating (Temp is the same as set in last use time)



Click “VacuumON” to start the vacuum pump, fix the panel.

Attention:

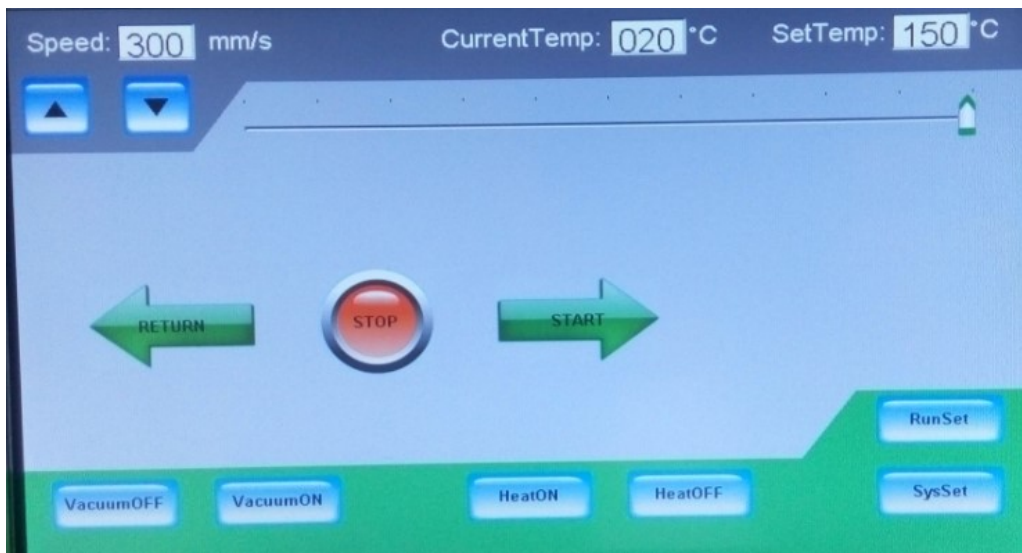
- 1 It is set A4 size as default after vacuum on. Ensure the panel fixing the working platform flatly and all pumping hole is covered by the panel, otherwise it will affect the application.
- 2 While select the A3 size, fix the A3 panel on the working platform, and the vacuum will be working automatically by the A3 sensing hole. (You can hear the sound of switch)
- 3 Only turn the vacuum on while the temp reaches the one you need, or it will shorten the life of vacuum and extend the heating time. Please turn the vacuum off while the film application done in case of overheating.

### 3.3.5 Preset the speed

1) Setting by button: Press  button to increase the speed, press  button to decrease the speed, Long pressing can increase and decrease the speed quickly.

2) Setting by slide button: Slide  to the right to increase the speed, slide  to the left to decrease the speed.

**Attention: Different samples need different speed for better film application, please try several times to attain a suitable speed.**



3.3.6 Make sure that the vacuum platform is clean, place the applicator or wire bar coater smoothly; Put the coatings in front of the applicator.

3.3.7 Make sure that all the testing condition is ready, then press “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 Take out the test paper and press “Return” button to have the next testing.

## 3.4 Specification Setting

### 3.4.1 “Run Setting”

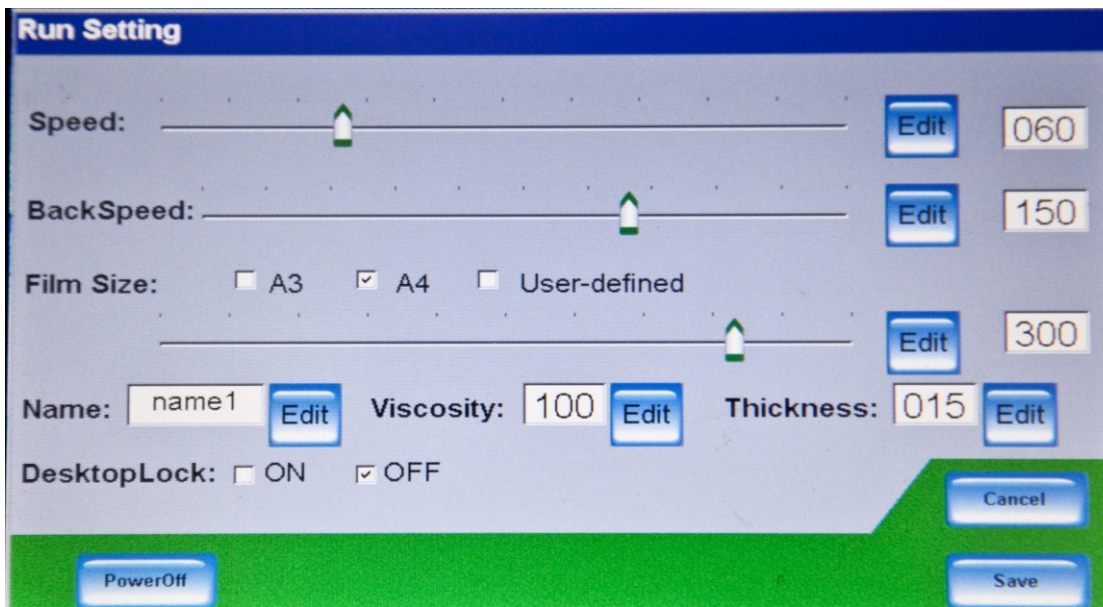
1) Open this setting screen to set the speed, length and size quickly.

1).1 Speed is adjustable

1).2 Coating Size, A3:350mm,A4:250mm, User-defined is available. Slide  button to adjust the coating length.

**Note: When doing a film application, the film length can't be longer than the substrate's. Otherwise the samples will spill onto the glass bed or vacuum bed.**

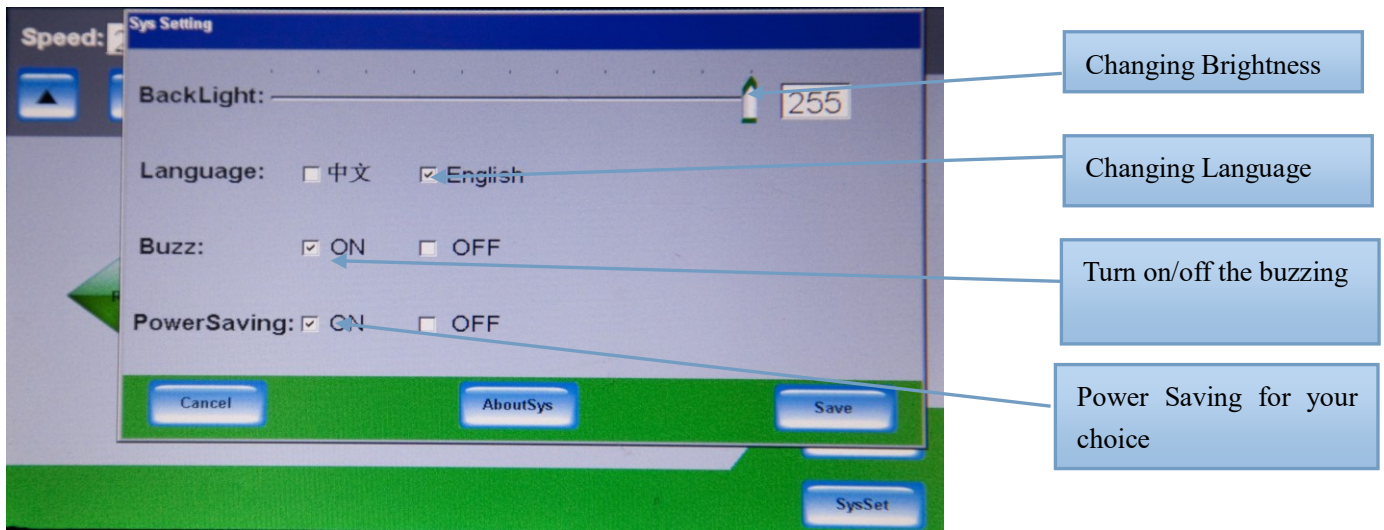
- 2) The coating and thickness can be recorded, click the edit and amend the record.
- 3) Coating Name, click edit to change and choose the different coating, amend the coating name (Maximum 6 coating can be recorded).
- 4) The speed cannot be adjusted on the screen when open the desktop lock.
- 5) "Temp Setting", set the temp you need. (See 3.6)



### 3.5 System Setting

- 1) Changing the screen brightness
- 2) Changing the language
- 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.

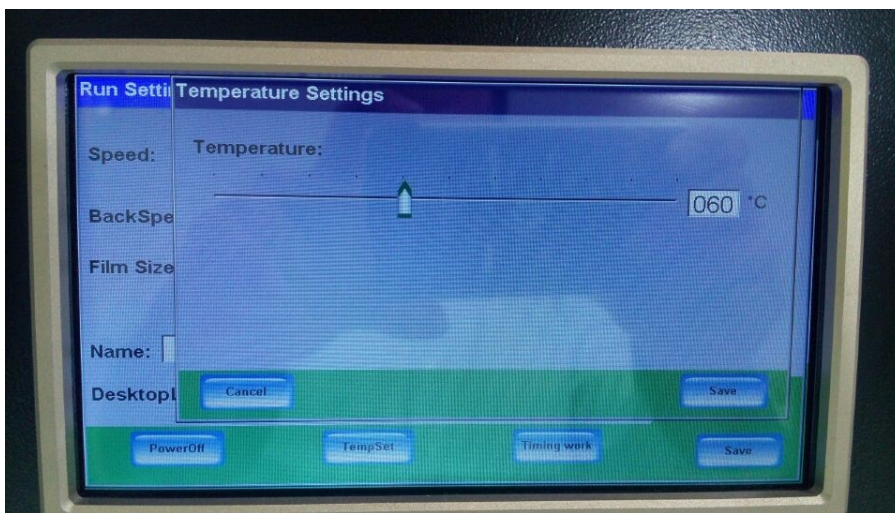
### 3.6 Temp Setting

Click “Temp Setting” in the UI into the temp set menu.

3.6.1 Adjust to set the temp you need.

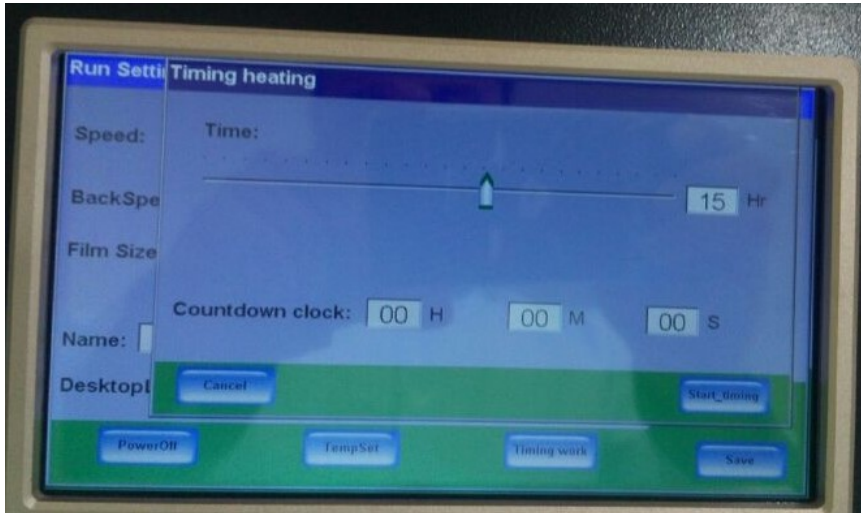
3.6.2 Click “Save” to get the temp you need, or “Cancel”, it won't save the set temp.


Attention: While the set temp is lower than the ambient, it won't start the heating progress.



### 3.7 Pre-heating function

This function aims to shorten the heating time. Click “Timing heating” into the pic as below.



3.7.1 Adjust  to set the time (1-24h) you need.

3.7.2 Click “Start Timing”, the countdown clock will work. “Cancel” to back to former menu.

Attention:

1 Only single time set valid, please set again if you need.

2 Only cut off the power will this function be off. It will pre-heat even though the machine is turned off without cutting off the power.

### 3.8 Power-saving function

While heating over 12h and no operation about the machine, it will stop heating to protect the machine and save power.

While heating over 5h and no operation about the machine in the case of power-saving mode, it will turn off automatically.

## 4 Maintain

1. Turn off the power before maintenance
2. Clean the testing platform after the testing
3. Checking the tightness degree of belt per month and do some adjustment properly.
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 that 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.

## 6 Packing List

- 1.Main Machine 1 Unit
- 2.Power Lead 1 Unit
- 3.User Manual
- 4.Conformity of Certificate