

LABORATORY MIXER

BEVS 2501/2A

User Manual



Version 201412

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 Introduction

2.1 Destination

This BEVS2501/2A laboratory mixer has been designed for blending multi – component formulations. It is really helpful device for dispersing small to medium size quantities of varying viscosities.

The built in frequencer allows to regulate the RPM of working shaft. The RPM is indicated on touch screen panel.

There is many impeller configuration available as requirement, and also provide customized versions upon request.

The necessary for dispersion is optimal circumference velocity. When we use the mixer disc of different diameter, then circumference velocities may be calculate by the following formula:

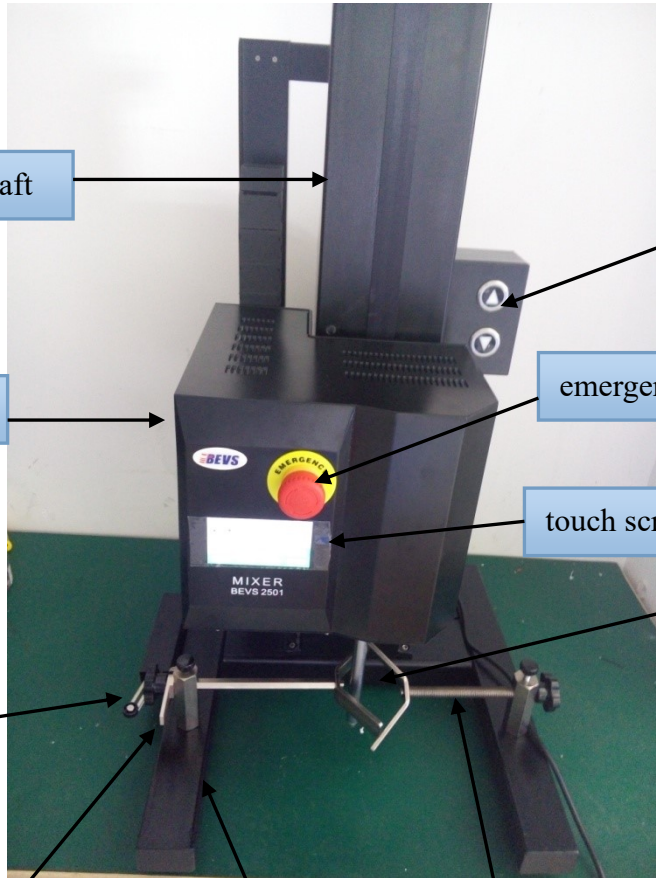
$$v = (3,14 \cdot d \cdot n) : 60 \quad [\text{m/s}]$$

where:

d = disc diameter [m]

n = RPM of the shaft [RPM]

2.2 Construction&Dimensions



working shaft

lifting switch

Power switch

emergency switch

touch screen control panel

dispersion disc

Safety switch

Dispersion disc and fixed way

Touch rod

legs

vessel holders

Pen for touching



2.3 Technical parameters

<i>Nr</i>	<i>Parameter</i>	<i>Unit</i>
1	Power of engine	P=750W ,
2	Supply voltage	U=220V(one phase).50Hz
3	RPM regulated by frequencer	n=60 – 6000
4	Three dispersion discs	d=35, 50, 60,80mm.
5	Steel column with powder coating and wheel	Automatic lifting.
6	Lifting distance	280mm
7	Volume of working vessel (vessel with cooling jacket).	V=1.5 liters.
8	Liquid for cooling vessel and basket.	water
9	Weight with 1.5 L vessel	86 kg

2.4 Applications

Paints and varnishes, enamels, pigments, cosmetics, grease additives, waxes, etc.

3 Installation

Before start make sure that:

The BEVS2501/2A mixer is ready to use after connecting to the main power, and other installations (cooling or heating water) – when necessary.

---The dispersion disc is lowered in working vessel – if not then you can not start the engine (safety requirement).

-- The two clamping devices are respectively arranged on the fixed frame, the gripper plane upward.

-- The touch rod is adjusted to the proper position, to ensure the safety switch only can be triggered in the case that the mixing drum fixed tightly.

-- The dispersion tank (barrel) holder for fixation, locking nut handle.

---On screen should be zero RPM (otherwise the product inside cup can be splashed).

4 Working

4.1 Operation

Place the vessel between holders, block holders by the screws.

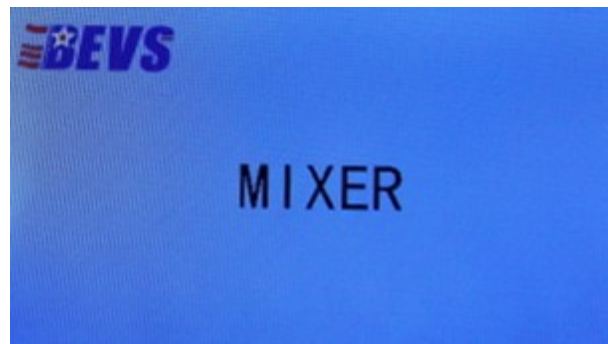
1. Fill the vessel before or after the vessel is placed between holders.
2. Click the lifting switch to move down the working head till blocking ring.
3. Clockwise lock the working shaft.
4. Turn on the main switch.
5. Enter touch-screen interface to select operation language (Chinese and English).
6. To set up the RMP and mixing time.
7. Click run button to start dispersion.
8. After complete, click the power off button to turn off the mixer.
10. After each process, clean and dry the shaft, disc and vessel.
11. When press emergency switch or click the stop button, the mixer will be stop automatically.

4.2 Operating Touch Screen



4.2.1 Connect to power supply (220V 50Hz)


4.2.2 Turn on the main switch (right side)

4.2.3 Enter interface to select the language

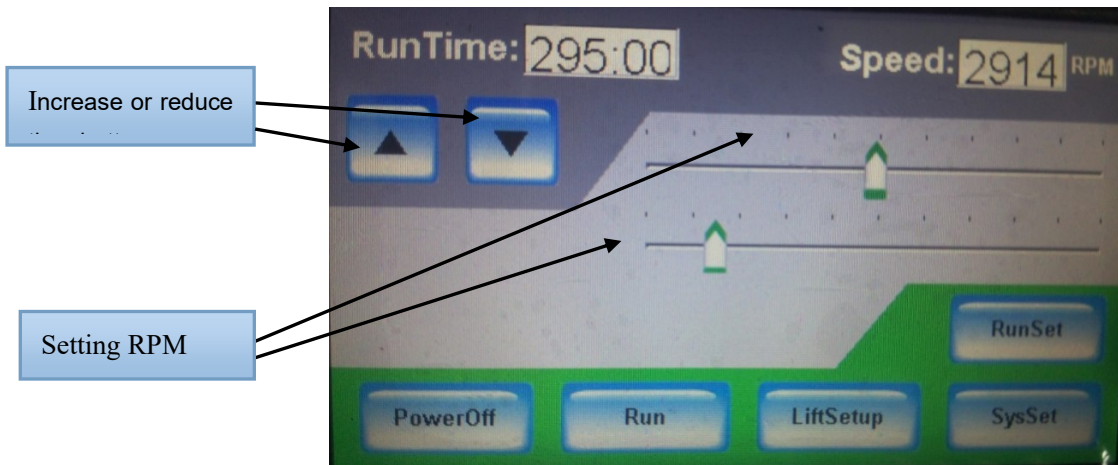


4.2.4 Setting dispersing time and RPM

1) RPM setting: click  button to increase dispersing time, click  button to reduce dispersing time.

2) Dispersing time setting: Slip  button to right forward to increase time, slip  button to left

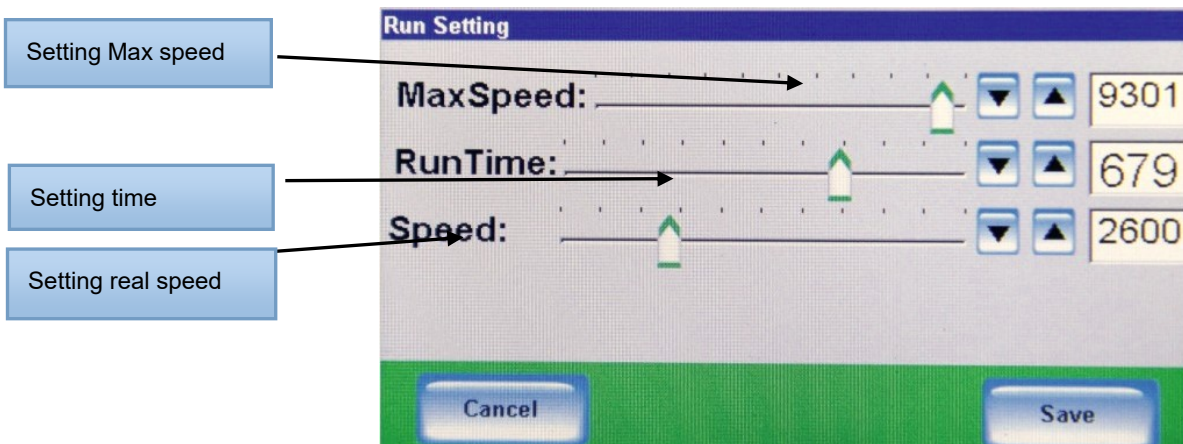
forward to reduce the running time.



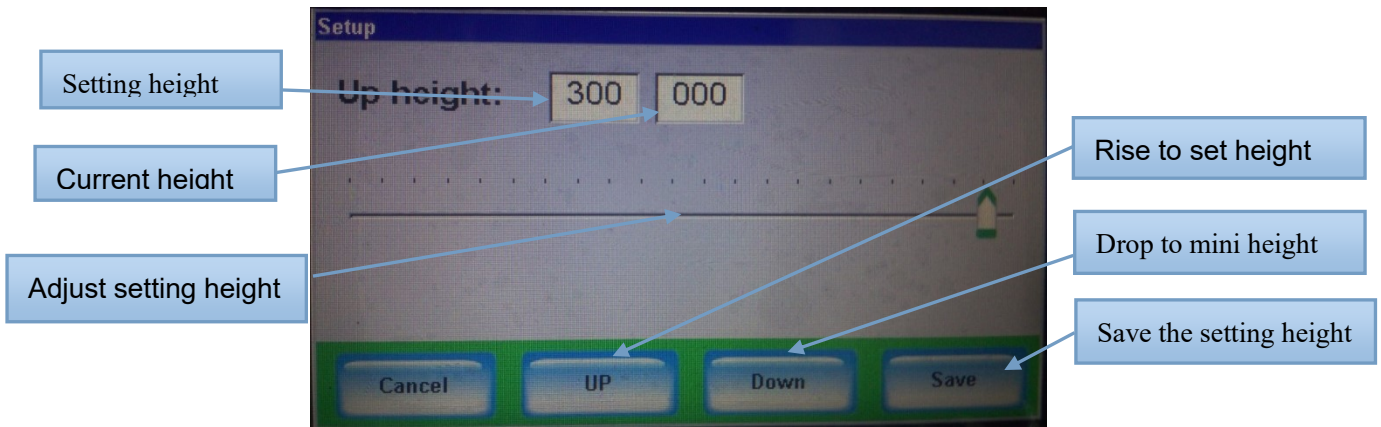
4.2.5 Enter Runset menu to quickly set up the time and RPM

Please note: Max speed and speed relationship

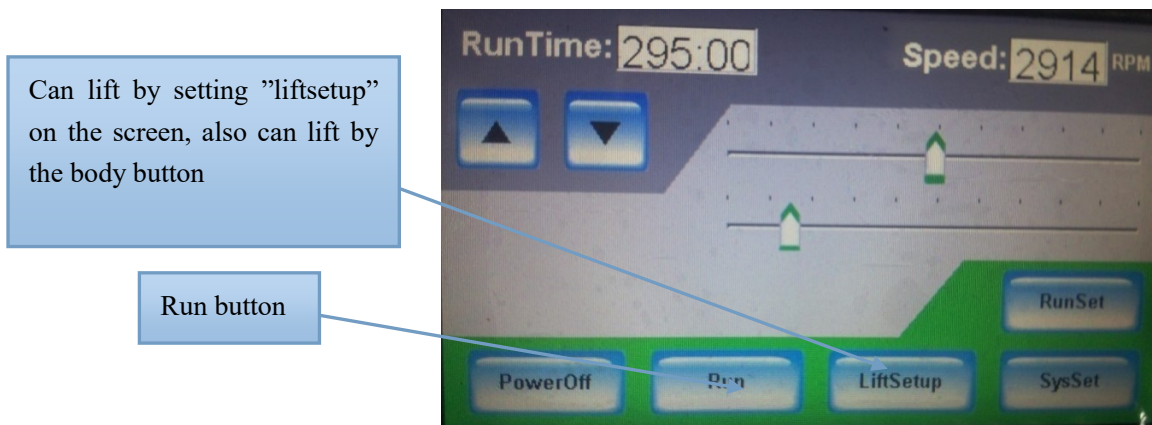
In order to protect the machine, the real speed can't exceed the max speed, example: when you set the max speed to 6000 rpm that the real speed is less than 6000 rpm



4.2.6 When run the machine first time, We need to drop the mixing blade to the lowest point (otherwise it will appear the fault of height not in the range); to ensure safety, mixing height must be less than 100mm. The rising button will set the height of the target to rise. Fall button directly to the lowest point.



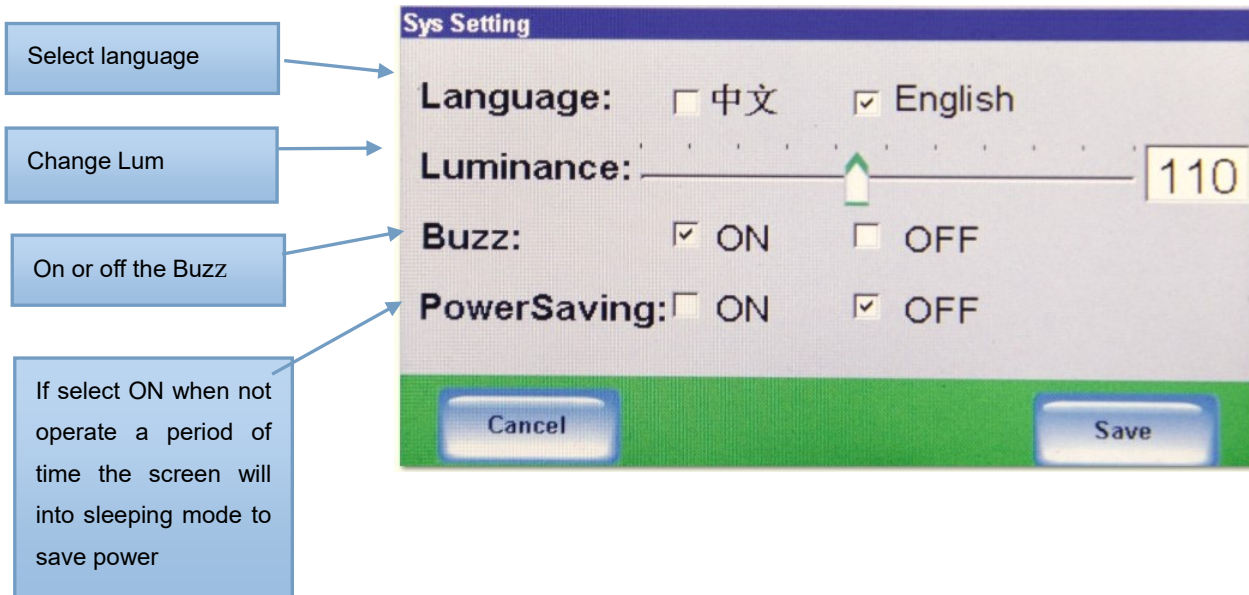
4.2.7 After carefully check everything are ready that can press Run button to start.



4.3 System Setting

- 1) To adjust screen lightness
- 2) To select the operation language.

- 3) Turn on or off the Buzz.
- 4) When turn on the PowerSaving mode, the screen can enter the sleeping mode.
- 5) When the screen is in sleeping mode, re-switch on the screen under touch the screen several minutes.



- 6) All settings must be saved otherwise invalid function.

5. Short manual instruction

5.1 Dispersion discs changing



5.2 Connector for cooling water



6 Safety Instructions

6.1 Before start always check if the disc is currently fitted to the shaft.

6.2 Always start from 0 RPM.

6.3 Before start always check if the dispersion disc is inside the cup/vessel.

6.4 Always check if cup is currently handled by the holders.

7 Guarantee

Guarantee card is enclosed to original manual and is excluded due to one or several of the following reasons:

- Undue application of the machine.
- Inappropriate mounting, starting, operating and maintaining of the machine.
- Using machine in case of defective safety devices.
- Unauthorised constructional modifications.

8 Packing List

- Main machine	1 set
- Power lead	1 pc
- Dispersion discs 35mm 50mm 60mm	1 each
- Touch Pen	1 pc
- Certificate of conformity	1 pc
- User Manual	1 pc

9 Order Information

BEVS 2510/1 Disc (35mm)

BEVS 2510/2 Disc (50mm)

BEVS 2510/3 Disc (60mm)

BEVS 2510/4 Disc (80mm)

BEVS 2510/5 Disc (100mm)

BEVS 2510/6 Disc (120mm)

BEVS 2511/1 Dispersing Vessel (0.5L)

BEVS 2511/2 Dispersing Vessel (1.5L)

BEVS 2511/3 Dispersing Vessel (3.0L)

BEVS 2511/4 Dispersing Vessel (5.0L)