

Product	Automatic vacuum impregnation machine	Model	HY-Z02/HY-Z03
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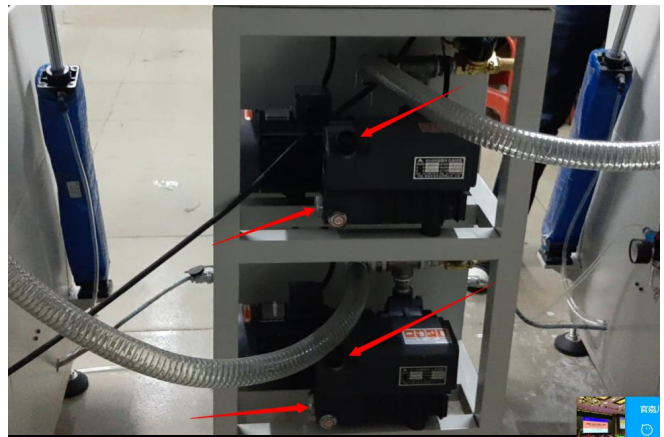
Installation Environment:

- | | |
|------------------------------------|---|
| 1 Reserve installation space。 | 2 Power Supply, 380V, Three-phase four-wire |
| 3 Maintain good indoor ventilation | 4 Equipped with air pressure input |

Important notice: Because of long-distance transport restrictions, After receiving this machine, Please first inject lubricant into the two vacuum pumps, Then go on to install and debug, Please refer to the oil filling method on the first point of page 11 of the X machine maintenance.



Injection amount tips



Vacuum pump position

I Assembly instructions

一、Overall display



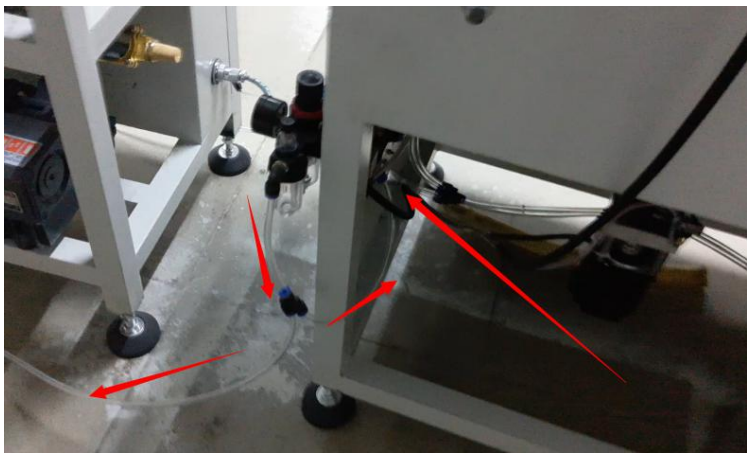
二、Assembly

When using the machine for the first time, The machine is divided into three main parts. Please refer to the figure below for the overall placement. Vacuum cylinder with air inlet should be placed on the left side of the control box, Otherwise the machine will not be installed correctly.

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三、Air pressure installation



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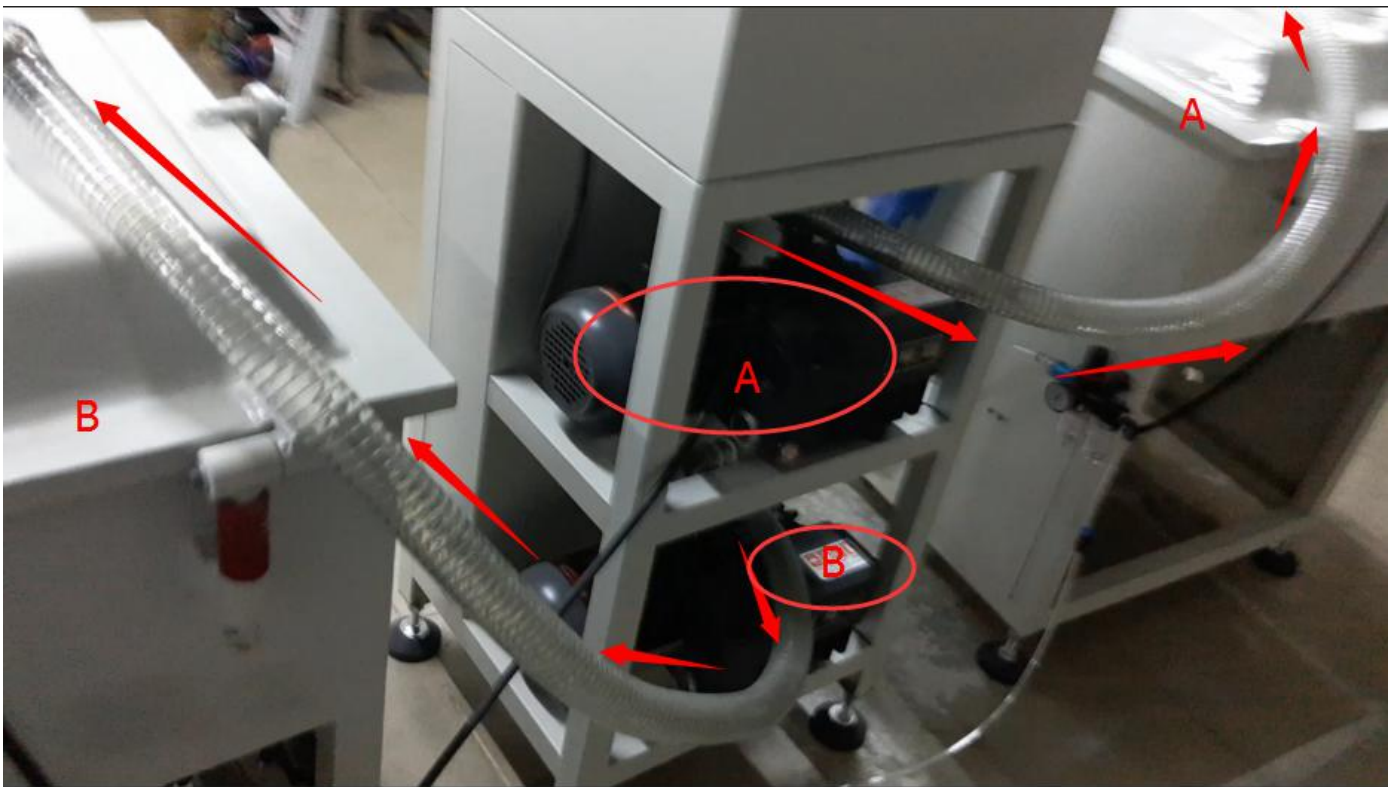
As shown in the picture above, Connect the air compressor to the air inlet, The A position in the figure can be pushed back and forth, Push forward is to lock the air pressure, Pulling back is releasing air pressure。 B position in the figure is the air pressure adjustment knob, The air pressure is set to 6KG。

四、Connecting circuit part



Because it is limited by the length of the connecting line, So, When the vacuum cylinder is properly placed, the cable can be connected to the control box. Please note the connector terminal Have a groove, This groove can help you connect properly.

五、Vacuum pump connection

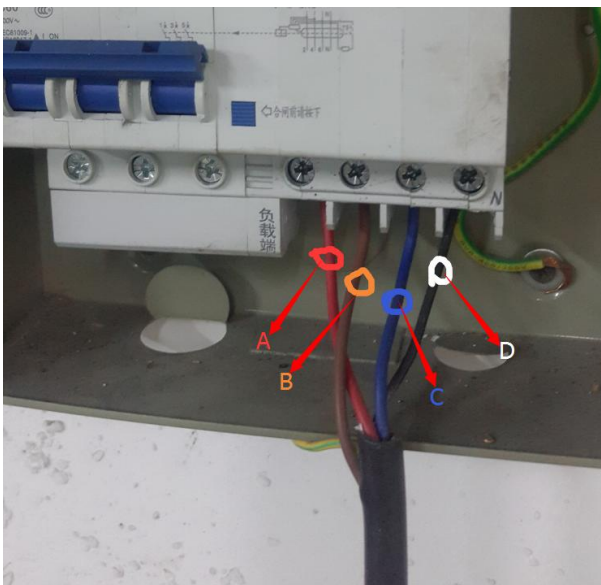


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The machine has two vacuum pumps, one on top of each other. Please match the appropriate vacuum cylinder according to the mark of the picture. The interface is fastened with fasteners. Prevent air leaks to maintain vacuum.

六、Power connection



(Vacuum gauge)

Extending from the control box is the main power cable of the machine, The power line interface is a three-phase four-wire connection, As shown above, Marked ABC line All are Live Wire, Only Marked line D is Null Wire.

Marked ABC three lines, there is uncertainty with their arrangement, After connecting the line, In the future run, please remember check the direction of the vacuum pump motor, If the direction of operation is inconsistent with the arrow mark on the motor, or, The Vacuum gauge no movement, Explain that there are problems with the order of the three lines of ABC, Please change the position of the two lines in them arbitrarily.

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Control box button description, Corresponds to the letter identifier in the picture above

Button A = Light switch of vacuum cylinder 1

Button B = Emergency stop of vacuum cylinder 1

Button C = Start fully automatic operation of vacuum cylinder 1

Button D = Power switch

Button E = Start fully automatic operation of vacuum cylinder 2

Button F = Emergency stop of vacuum cylinder 2

Button G = Light switch of vacuum cylinder 2

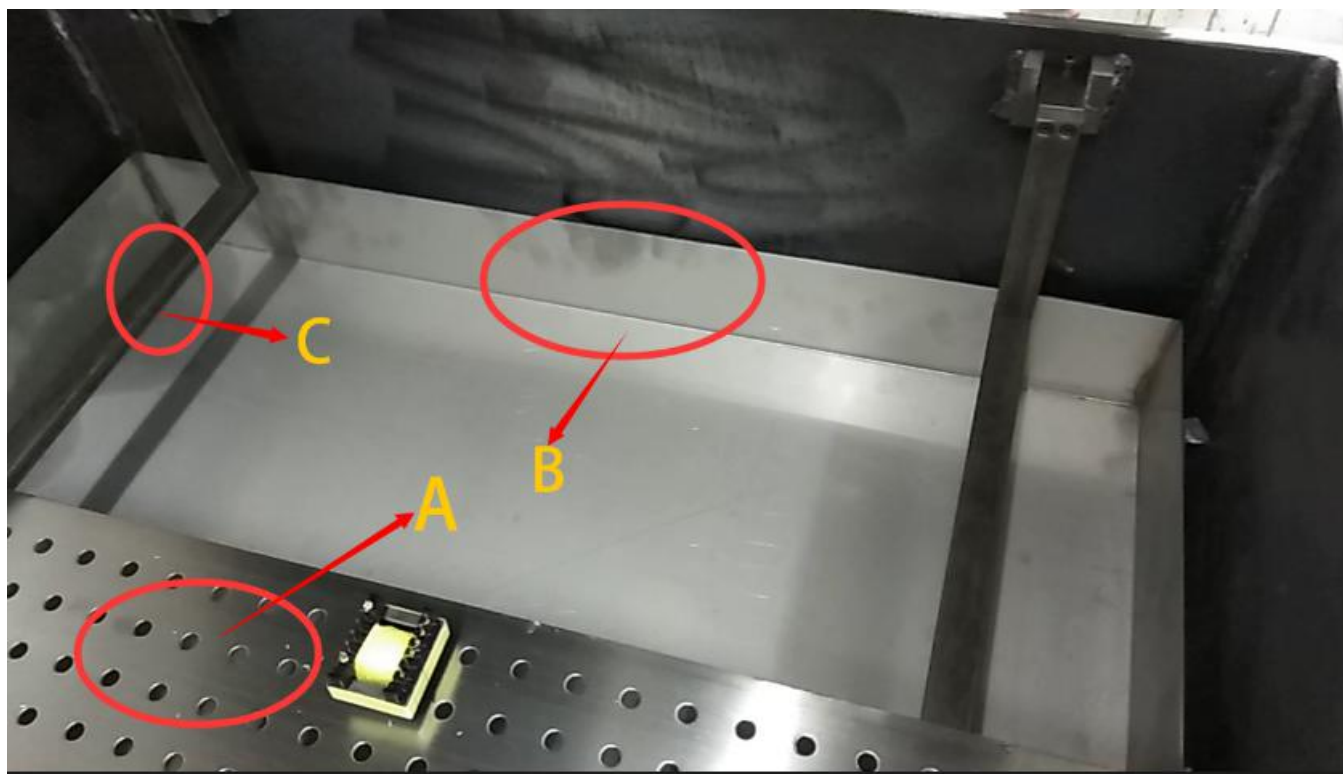
Mark H = Control cabinet power switch

II Insulating paint is injected into the cylinder

Before injecting the insulating varnish, First recognize the three points in the next picture.

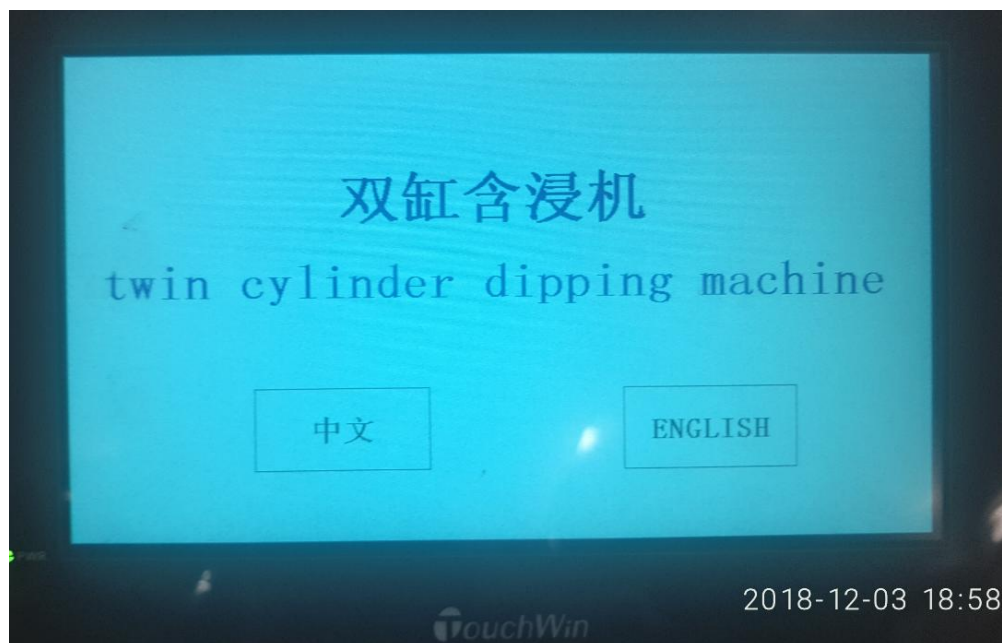
- 1、Mark C is a carrier bracket , The amount of insulating varnish injected is referenced to the plane of this bracket , Do not submerge the plane of the bracket, It is recommended to be 1mm below the plane of the bracket.
- 2、Mark A is the product tray, Two trays can be placed in each vacuum cylinder. The bottom of the tray is perforated.
- 3、Mark B is an impregnation tray, The impregnation tray is driven by the motor , It can manually adjust the height of the upper and lower through the touch screen, and, When the machine starts the automatic mode, The impregnation tray will raise the insulating varnish to the specified height , Let the product in the product tray (mark A) sink in the insulating varnish.
- 4、Inject the insulating paint into the vacuum cylinder as instructed.

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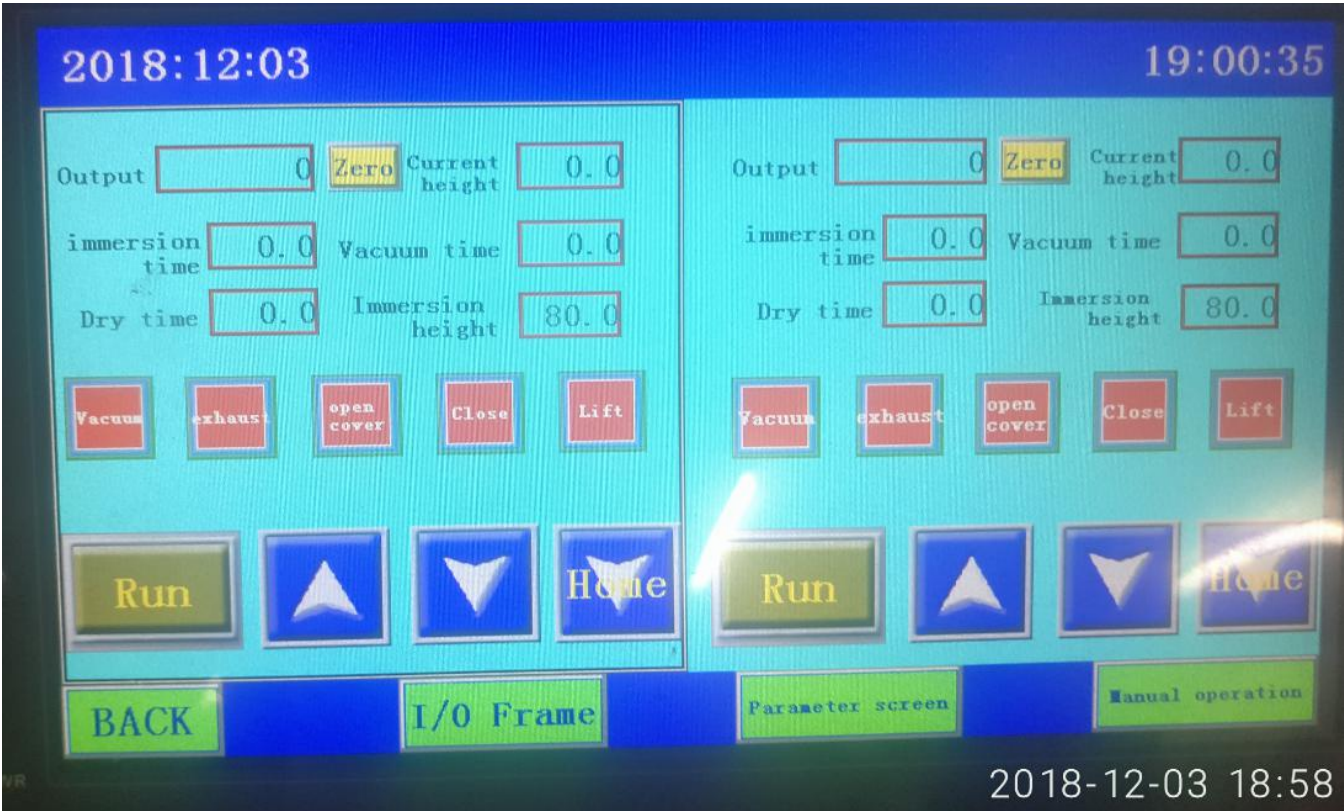
III Touch screen introduction

The touch screen has only four Interface screens, as follows:

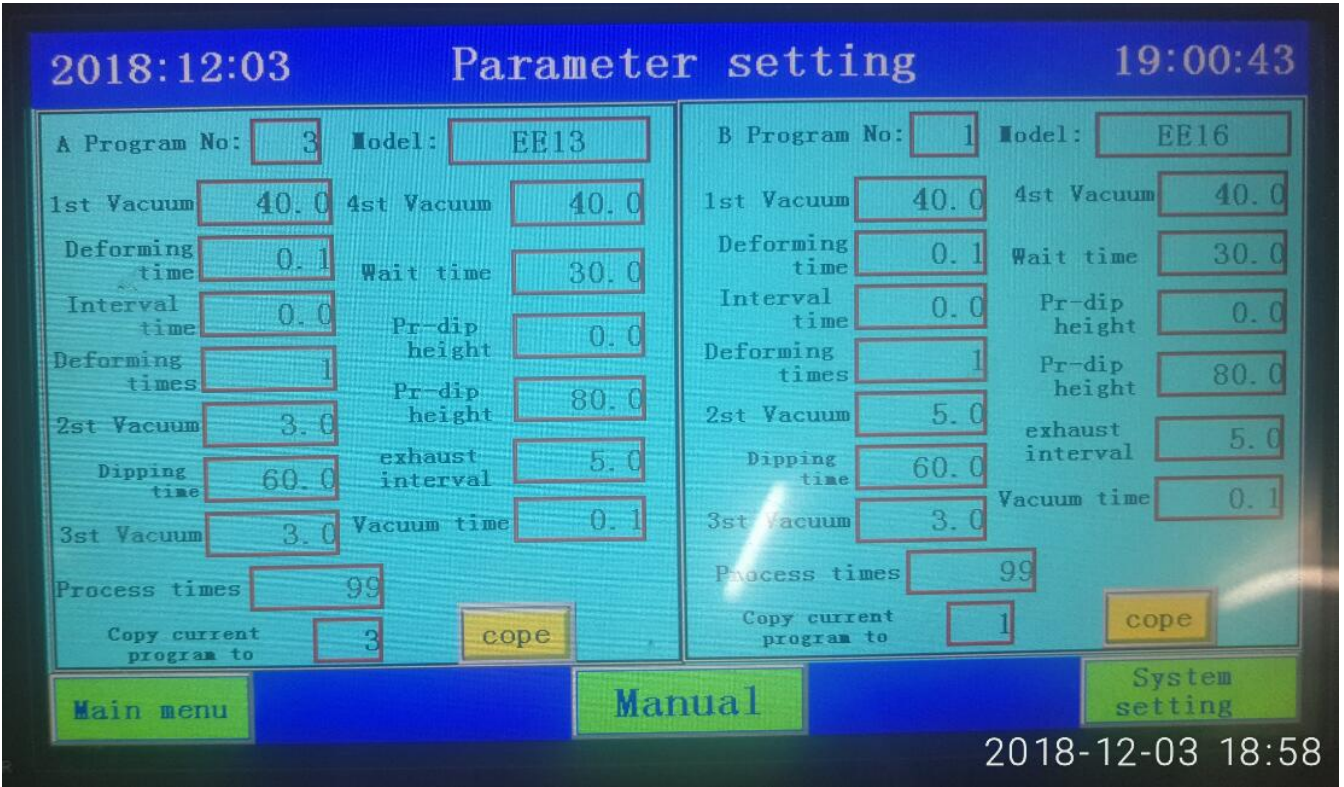


1 Welcome interface, language selection

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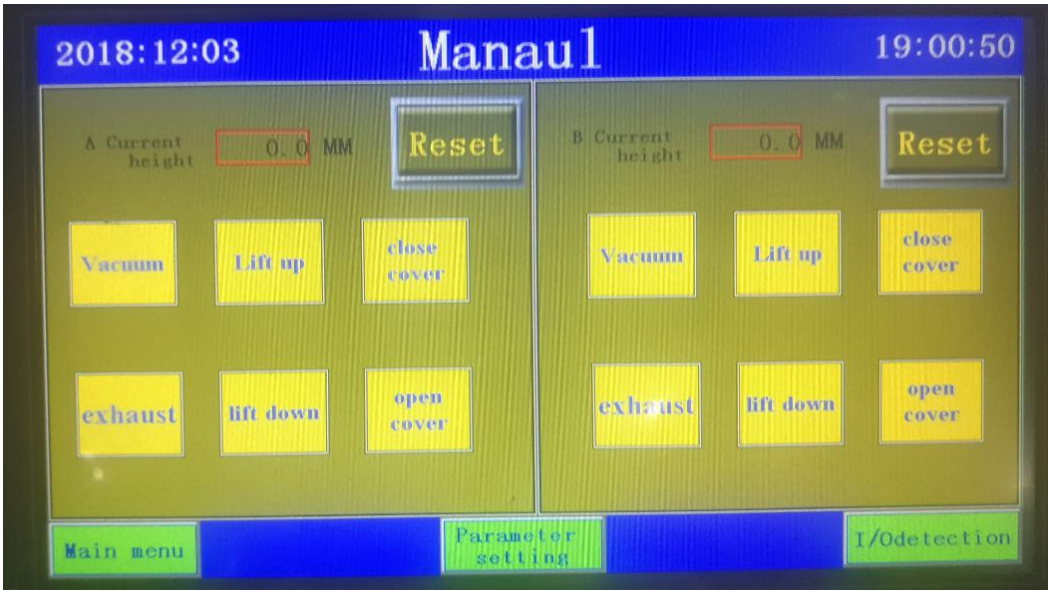


2 automatic operation interface



3 parameter setting interface

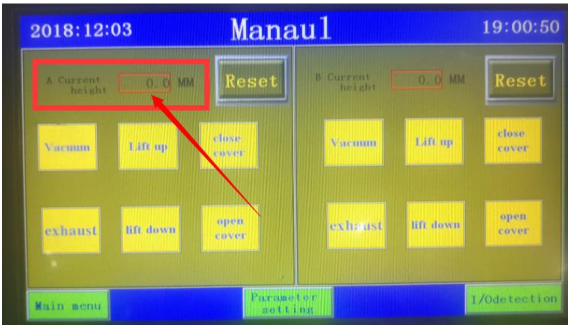
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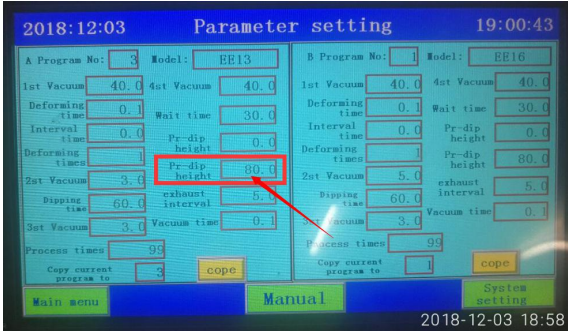
4 manual debugging interface

IV Manual debugging （Get the impregnation height）

- 1、Connect air pressure to the machine， Open the intake valve and set the air pressure to 6KG。
- 2、Turn on the machine and wait for the lid of the vacuum cylinder to open automatically.
- 3、Place the transformer product in the product tray in the vacuum cylinder. （PIN upward）
- 4、Turn on the power to enter the touch screen operation interface and select ENGLISH， Go to the "Parameter setting" interface. Then enter the Manual debugging interface.
- 5、Use the “Lift up” button to raise the height of the impregnation tray. The lifting speed is slower, please pay attention to observation,
- 6、When the raise insulating paint reaches the specified height of the impregnation process， Please record the "A Current height" value of the current interface. （Impregnation accuracy up to 0.1 mm）



"A Current height"



the second "Pr-dip height"

- 7、Then enter the "Parameter setting" interface ， Fill in the just recorded value in the second "Pr-dip height".
- 8、Complete debugging and return to the manual interface, Use the "Lift down" button to lower the impregnation tray to the lowest point.

(Prompt 1: Only the data of the vacuum cylinder 1 is indicated in the description. The data principle of the vacuum cylinder 2 is the same. They are the same.)

(Prompt 2: When the machine is powered on for the first time, The touch screen will prompt two small windows,

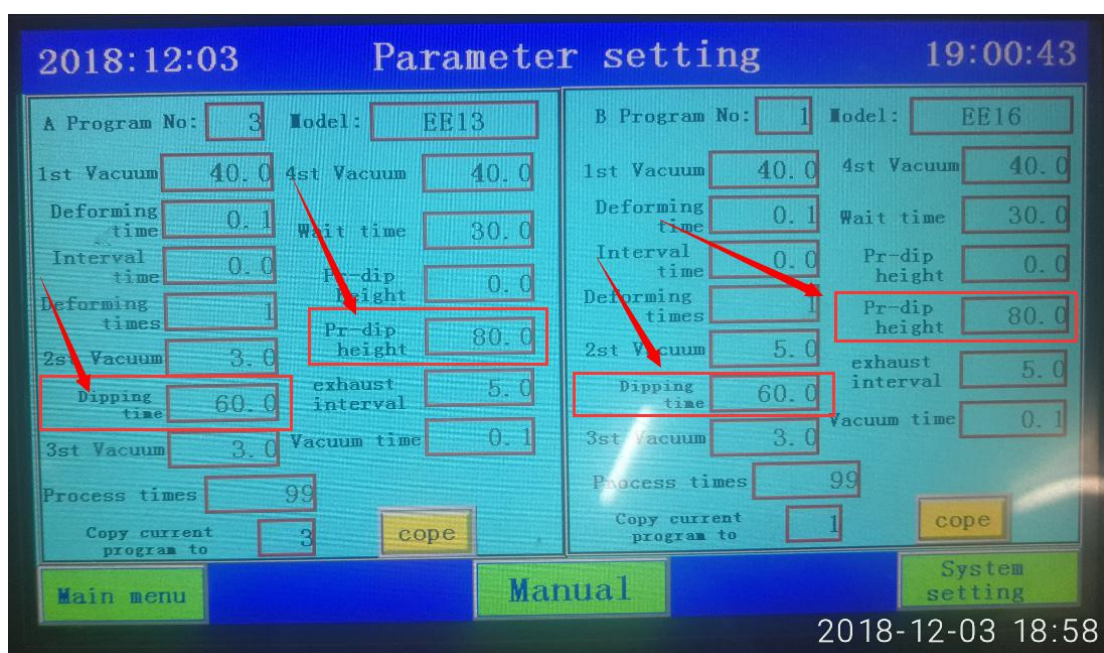
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Please press the “复位” , as shown below)

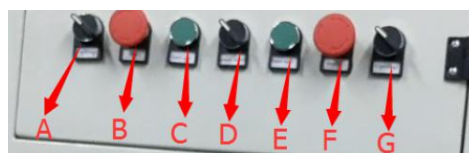


V Fully automatic operation

In order to allow customers to quickly use the machine, We have set all the parameters in advance, The user just needs to get the "A Current height" value by manual debugging , Then , Put the “A Current height” value into the second “Pr-dip height” and you can start working automatically. If the product process requirements are high, You can increase the value of "Dipping time" (usually 60~100). Two vacuum cylinders, corresponding settings, The system can control any one of the vacuum cylinders individually. The two locations marked as shown below.

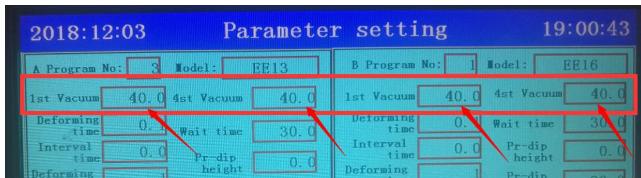


- 1、Connect air pressure to the machine, Open the intake valve and set the air pressure to 6KG。
- 2、Turn on the machine and wait for the lid of the vacuum cylinder to open automatically.
- 3、Place the transformer product in the product tray in the vacuum cylinder. (PIN upward)
- 4、Turn on the power to enter the touch screen operation interface and select ENGLISH, Enter the automatic running interface, Go to the "Parameter setting" interface and confirm that the parameters are correct, back to the automatic running interface, Press "Run" (Can also press the physical button C and E)。



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- At the moment, The machine has started to run automatically , Please be patient and the buzzer will sound when finished. In the process we can watch the product through the window of the vacuum cylinder.
- Wait for the lid of the vacuum cylinder to open automatically, Take the product tray out and put another prepared product into it.
- Then , Repeat from step 4.



(warning: In the "Parameter setting" interface, The values of "1st vacuun" and "4st vacuun" cannot be increased. We have set it to a maximum of 40, If the vacuuming time is too long, Will cause the insulating paint to be sucked into the vacuum pump, Cause serious damage, At present, we set 40, the vacuum pressure corresponds to 0.08, The safe vacuum pressure is 0~0.08. Therefore, the values of the "1st vacuun" and "4st vacuun" can only be adjusted downwards. Do not exceed 40.)



(Safe vacuum pressure range)

VI Quick replacement product

This machine can store 500 sets of product parameters. When we need to replace different types of transformers, we can switch quickly. Proceed as follows:

- Into the touch screen operation interface and select ENGLISH, Enter the Manual debugging interface.
- Record the "A Current height" values for different products in advance,
- Buck to touch screen , Enter the "Parameter setting" interface.
- Click the (Copy current program to) and enter the serial number of the product you want to save (For example, fill in the number 1-500) .
- Click the (Cope) , That copy of the current parameter to the corresponding serial number
- Click the (A Pprogram No) and enter the serial number of the product you just saved. Then, Modify the "Model" value (For example, fill in the product model EE12 or EE13).
- Then, Modify the second "Pr-dip height", Fill in the values recorded in "Step 3".
- No need to save, the system has been saved automatically
- Create your product serial number table, as follows :

1=EE12
2=EE13
3=EE14
4=EE15
5=EE16
6=EE17
.....~
500=EQ20

This machine can save a total of 500 sets of product parameters

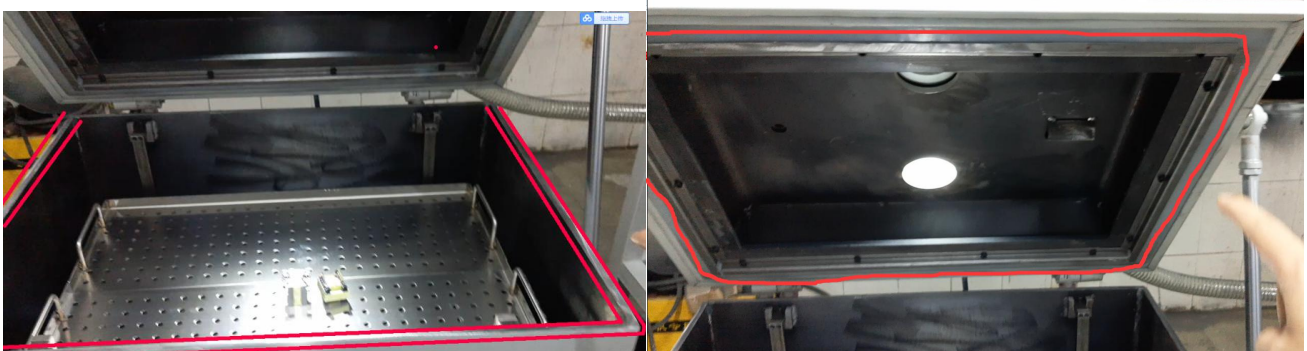
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X Machine maintenance and precautions

- 1、 Regularly add lubricant to the vacuum pump. The lens mark of the lubricant should not be lower than 1/2 , If it is lower than, Please add to about 2/3. Lubricating oil should meet the requirements of DIN51506VC. This machine uses CG68-100 special vacuum pump lubricant. (Vacuum pump position as shown below) **(Do not add lubricant excessively. Excessive addition can damage the vacuum pump.)**



- 2、 The inner side of the vacuum cylinder cover is fitted with a silicone seal, Clean regularly, please do not let the insulating paint contaminate it. (As shown below) 。



- 3、 The machine should be operated within the ambient temperature range of 5—40C°.
- 4、 Before the vacuum cylinder cover is merged, Please ensure that the vacuum cylinder cover is safe in the within the scope of consolidation .
- 5、 This machine is not suitable for impregnating liquids: Corrosive to metals 、 Gas containing particulate dust、 Excessive oxygenated explosive gas 、 will react chemically to the vacuum pump lubricant.
- 6、 Pay attention to the running direction of the vacuum pump motor after turning on the power (In the direction of the arrow, If the direction is not correct, Please change the order of any two wires in the wire connector) 。
- 7、 Keep the machine clean, Non-professional maintenance personnel should not open the main circuit cover of the controller.It is strictly forbidden to place any objects in the controller. Strict defend leakage of electricity and short circuit.
- 8、 Pay attention to the grounding of the machine and the earth to ensure safe use of electricity!