

# 9TU-M040 Vacuum Laminating Machine

## USER'S MANUAL

THANK YOU FOR USING



Dear Customer:

Thank you for purchasing our vacuum laminating machine. Please read the manual carefully before use. Otherwise, you may suffer unnecessary losses due to improper use or insufficient understanding of the equipment.

During use, please observe safety precautions and operate the equipment in strict accordance with the technical parameters set in accordance with the specifications. If there are any quality problems, please contact our company in time and we will help you solve the problem as soon as possible.

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This equipment is mainly used for SCA/OCA products, suitable for TP/LCM laminating and various types of related product laminating, and can be placed in the corresponding position between the work pieces to be bonded with a fixture. The product is moved to the work platform manually for vacuuming, heating, and laminating.

## 1. Introduction to the equipment structure



### Components and functions of the equipment panel:

1. **"Temperature switch up" "Temperature switch down"**: Control the upper and lower temperature heating respectively (the temperature can be set directly on the thermostat).
2. **"Back pressure regulating valve"**: Adjust the reverse force when the pressing cylinder is pressed down. Due to the back pressure control, the pressure and speed of the pressing can be accurately and smoothly controlled. **Note: The back pressure cannot be adjusted to exceed the positive pressure.**
3. **"Pressure regulating valve"**: Adjust the pressure when the pressing cylinder is pressed down. The use of a precision pressure regulating valve can accurately adjust to the pressure required for production.
4. **"Back pressure display"** : Displays the current back pressure value adjusted by adjusting the "back pressure regulating" valve.

5. **"Positive pressure display"** : Displays the current pressing cylinder down pressure value adjusted by adjusting the "pressure regulating" valve.
6. **"Negative pressure display"** : Displays the current vacuum value in the working chamber.
7. **"Emergency stop button"**: Press this button when an emergency occurs or an emergency stop is required, and the equipment will return to the stop state.  
You can also press this button when there is an alarm, and the alarm will be reset;
8. **"Start button"**: Press the two start buttons on the automatic page at the same time to start the device;
9. **"Power switch"**: turn on and off the total power of the device;
10. **"Touch screen control"**: system control human-machine interface.

## 2. Specifications

|                            |                                                                                                                                                   |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Brand model                | 9TU-M040                                                                                                                                          |
| Equipment name             | Vacuum Laminating Machine                                                                                                                         |
| Equipment purpose          | Used for SCA/OCA adhesive process product laminating. Suitable for LCD, TP/LCM and various types of related products high temperature laminating. |
| Power supply specification | AC380V 50HZ                                                                                                                                       |
| Equipment power            | 11.8KW                                                                                                                                            |
| Working gas source         | 0.5MPa—0.7MPa                                                                                                                                     |
| Air supply pressure        | 4-6Kgf/cm <sup>2</sup>                                                                                                                            |
| Control system             | PLC integrated screen control system                                                                                                              |
| Operation interface        | 7-inch touch screen Chinese/English pages                                                                                                         |
| Drive mode                 | Airtac cylinder                                                                                                                                   |
| Pressure regulation        | Precision pressure regulating valve adjustment/with back pressure control                                                                         |
| Heating method             | Japan Omron dual temperature controller control constant temperature heating                                                                      |
| Fitting size               | 850mm*1350mm                                                                                                                                      |
| Equipment safety           | Emergency stop button, buzzer alarm                                                                                                               |
| Production efficiency      | Depending on the product                                                                                                                          |
| Working                    | 10—60°C                                                                                                                                           |

|                      |                                  |
|----------------------|----------------------------------|
| environment          |                                  |
| Working humidity     | 40%—95%RH                        |
| Equipment dimensions | Machine: L1750mm*W2210mm*H1370cm |
| Product weight       | Around 1500KG                    |

### 3. Operation instructions

#### 3.1 Startup page



The machine automatically enters the startup page when it is turned on. Press the "Enter" key to enter the function selection menu.

#### 3.2 Function selection page



Click "Auto", "Manual", "Setting", "About Us" to enter each function page.

website: [oledmachine.com](http://oledmachine.com) TEL: 0755-27218279

Address: R Room R103-R107, Shangxiawei Second Industrial Zone, Shasan Community, Shajing Subdistrict Shenzhen  
Bao'an District Guangdong Province China

Click "中文"and "EN" to switch between Chinese and English display

### 3.3 Manual mode page



"Input": Displays the status of each I/O external signal of the device. Manual operation is not allowed!

"Output": Press each button to start the corresponding output function, and press again to stop.

"Press": Press the cylinder down and up

"Vacuum pump": Vacuum pump power switch.

"Vacuum valve": Vacuum tube on-off switch.

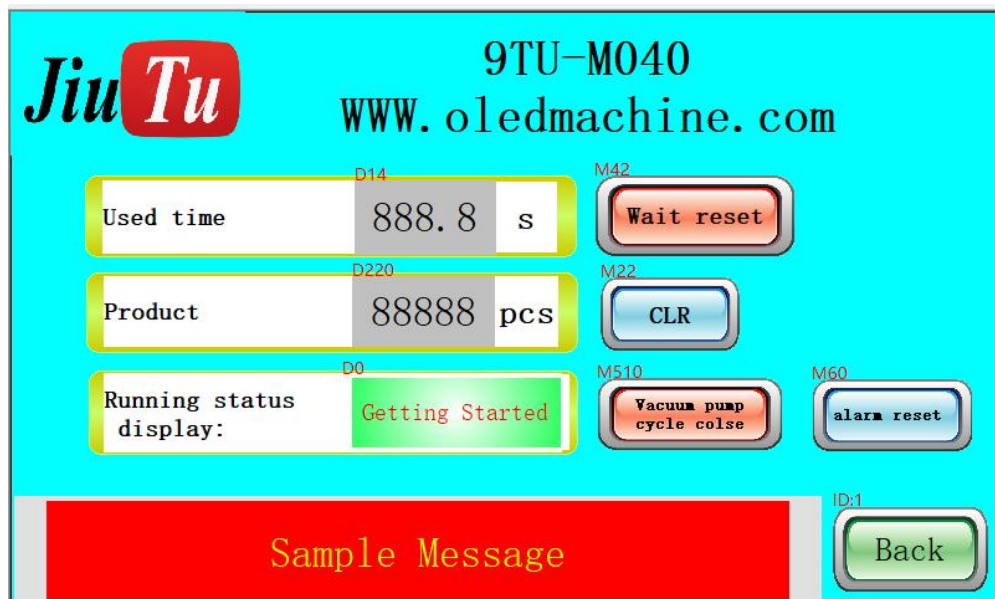
"Unzip": Break the vacuum state in the working chamber.

"Flat": Platform cylinder in and out.

"Seal": Sealing cylinder up and down.

"Return": Return to the function selection menu.

### 3.4 Automatic Mode Page



Normal operation process: After the parameter setting is completed, 1 enter the automatic

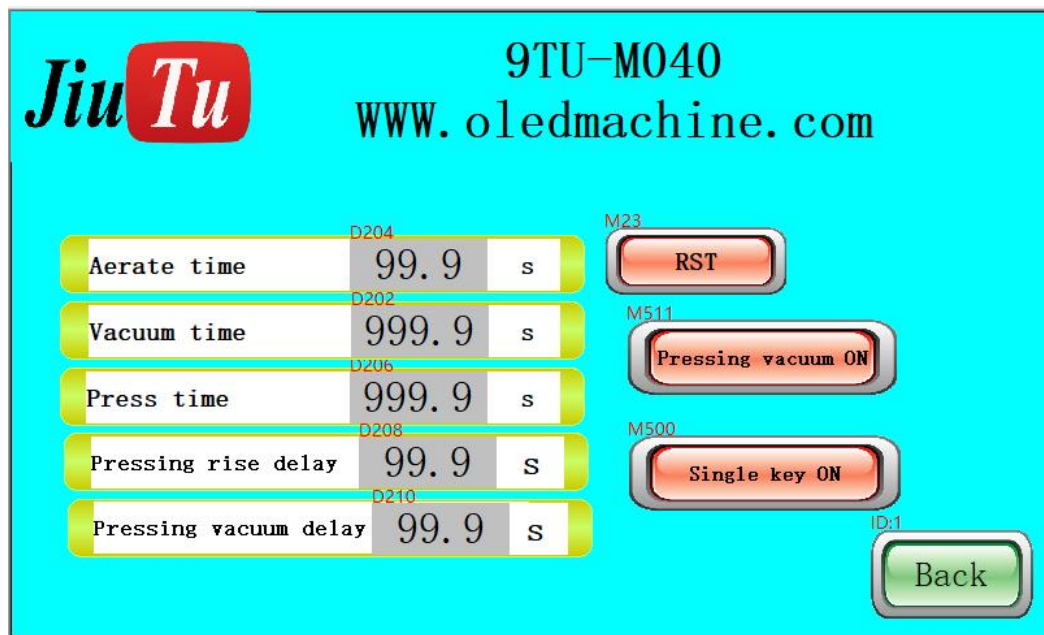
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mode - 2 click Wait for start - 3 press the two green start buttons at the same time - 4 start running

- 3.4.1 Vacuum pump single cycle switch: you can choose to continue to open or close the vacuum after each process is completed
- 3.4.2 "Single timer": the time of a single cycle from the start to the stop of automatic start.
- 3.4.3 "Production": the number of times the equipment starts pressing, and the production count returns to zero after pressing clear
- 3.4.4 "Sample Message": when the equipment alarms, the current alarm information will be displayed, which is hidden in normal conditions. After the alarm fault is handled, press "Reset".
- 3.4.5 "Return": return to the function selection menu.

### 3.5 Parameter setting page (password 9595)



- 5.1 Aerate time: Set the time for pressing the product
- 5.2 "Vacuum time": Set the vacuuming time when the machine is running automatically
- 5.3 "Press time": The time to release the vacuum in the chamber before the end of the operation;
- 5.4 "Pressure rise delay": Set the delay rise time of the pressure plate after pressing is completed
- 5.5 "Return": Return to the function selection menu.

## 4. Faults and Solutions

| Fault phenomenon                          | Troubleshooting and solutions                                                                                                              |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| The pressing cylinder does not press down | 1. Check whether the air inlet pressure is normal, check whether the air pressure displayed on the air source filter gauge is normal       |
|                                           | 2. Check whether the emergency stop button is reset normally, and whether the start button is normal                                       |
|                                           | 3. Check whether the positive pressure and back pressure are adjusted reasonably (the positive pressure display should be greater than the |

|                                                     |                                                                                                                                                                                                                                                           |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                     | pressure value displayed by the back pressure)                                                                                                                                                                                                            |
|                                                     | 4. Check whether the vacuum has reached the set value (check whether the out1 light on the negative pressure gauge is on, and whether the actual vacuum value on the negative pressure gauge is greater than or equal to the set negative pressure value) |
| The temperature does not heat up                    | 1. Is the temperature sensing wire not connected properly or broken (check whether the sensing wire on the thermostat is connected properly)                                                                                                              |
|                                                     | 2. Are the thermostat parameters set correctly and whether the switch on the panel is turned on                                                                                                                                                           |
|                                                     | 3. Check whether the heating tube or solid-state heating controller is damaged                                                                                                                                                                            |
| The vacuum pump does not work<br>There is no vacuum | 1. Check whether the relay or AC contactor is damaged, and replace it if necessary.                                                                                                                                                                       |
|                                                     | 2. Check whether the vacuum pump power supply is connected normally                                                                                                                                                                                       |

## 5. Equipment Alarm Description

| Alarm abnormality           | Alarm description                                                                                                                                                                                                                         |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Emergency stop              | The emergency stop button is pressed or the emergency stop button is disconnected (the emergency stop button can be reset)                                                                                                                |
| Vacuum abnormality          | The vacuum pump fails to reach the set vacuum value for a long time, which reflects that there is a vacuum leak in the sealed chamber or the vacuum pump is abnormal. (Check whether the vacuum pump is regularly changed and maintained) |
| Up/down heating abnormality | When the detected real-time temperature deviates from the set temperature by $\pm 10$ degrees, an alarm will be triggered. (The temperature alarm deviation value can be set)                                                             |
| Seal up not reached         | The sensor position on the sealed frame is incorrect or faulty (the sensor position can be adjusted, and the light is on if it is normal)                                                                                                 |
| Seal down not reached       | The sensor position under the sealed frame is incorrect or faulty (the sensor position can be adjusted, and the light is on if it is normal)                                                                                              |
| Platform in not reached     | The platform inlet sensor position is incorrect or faulty (the sensor position can be adjusted, and the light is on if it is normal)                                                                                                      |
| Platform out not reached    | The platform outlet sensor position is incorrect or faulty (the sensor position can be adjusted, and the light is on if it is normal)                                                                                                     |