

Film Laminator

1000*1600mm with FFU

User Manual

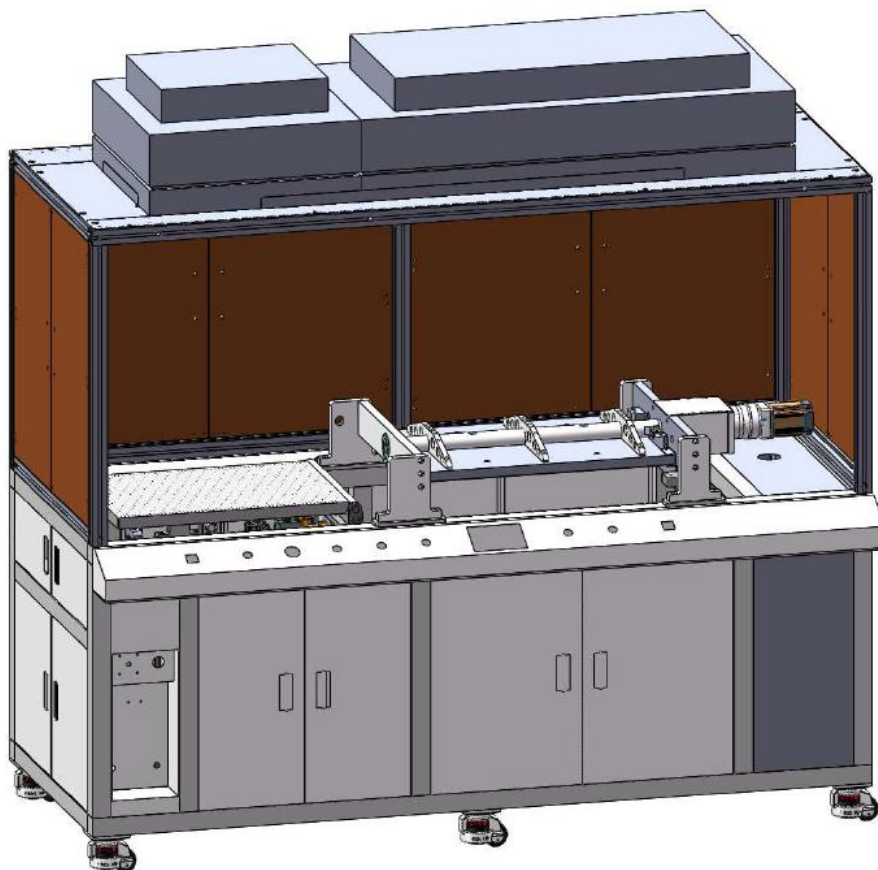


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1. Machine Introduction

1.1 The G+F flip laminating machine is used for laminating mobile phone screens with OCA adhesive, functional films, and AB adhesive. Once the AB adhesive is positioned and adjusted with the glass,

1.2 This machine is suitable for laminating glass sheets 1000mm wide and 1600mm long to adhesive films.

1.3 Each sheet is laminated, with a cycle time of 25 seconds, resulting in approximately 600 sheets in 10 hours.

1.4 Machine Dimensions:

Length: 2100mm Width: 960mm Height: 2745mm

Weight: Approximately 800KG

Applicable Air Source: 5-7Kg/cm²

Power Supply: Two-wire 220V/3000W

1.5 Main Machine Components:

Frame: Sheet metal, aluminum alloy

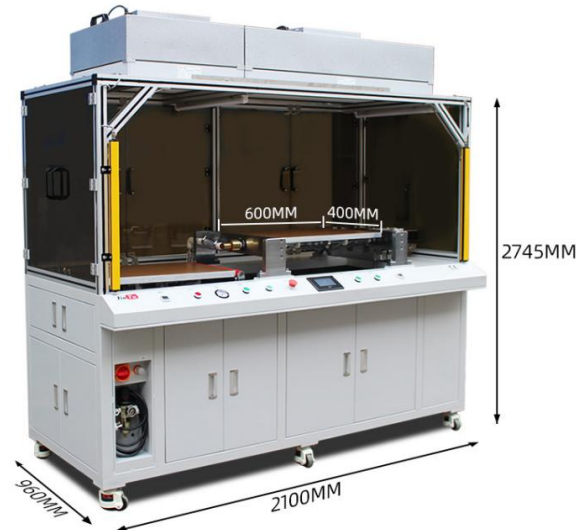
Operation: Human-machine interface (touch screen)

Control: Human-machine interface PLC

Pneumatic: Cylinder, solenoid valve, blower

Laminating: Rollers, flap.

The above are the main parts of the machine. For more parts, please see the machine and below.



2. Operation and Safety Precautions

For your personal safety, please read this manual carefully and be familiar with the machine's applications and limitations, as well as the potential hazards associated with the machine.

2.1 General Notes

2.1.1 This system operates on a 220V AC power supply. When using this system, please ensure safe use of electricity! (Note: The control system operates on a 24V DC power supply.)

2.1.2 The electrical power within the electrical box may pose a risk of electric shock. Before inspecting or replacing mechanical or electrical components, please turn off the power and ensure the equipment is in a safe state.

2.1.3 Any component of the machine may pose a personal injury. When working in this area, ensure the machine is in a safe state and do not touch any operating parts or mechanisms.

2.1.4 Ensure good ventilation and stay away from sources of metal dust and shavings to prevent dust and metal dust from entering the switching power supply, PLC, and relays, causing short circuits and malfunctioning the machine.

2.1.5 Keep away from sources of strong electromagnetic radiation to prevent electromagnetic interference and possible malfunctions.

2.1.6 This machine operates at an air pressure of 0.4-0.6MPa. Any pressure too high or too low may cause the machine to malfunction or even damage it.

2.1.7 This machine uses the third type of grounding method, and the grounding must be maintained properly. Poor grounding may damage the equipment or endanger personal safety.

2.1.8 Only one person is allowed to operate this machine during commissioning and operation.

2.1.9 Inspection and maintenance must be performed by qualified personnel, and operators must complete relevant training.

2.1.10 Exercise extreme caution when entering the equipment area.

2.1.11 Whenever possible, turn off the power supply before performing any adjustments or maintenance on the machine. Failure to do so could result in injury to the operator.

2.2 Precautions before operation

2.2.1 Confirm no nuts, screws, or control components are loose or falling off.

2.2.2 Confirm there are no obstructions within the safe area.

2.2.3 Confirm no personnel are performing inspection or maintenance work within the safe area.

2.2.4 Confirm the air pressure and power supply are within the specified range.

2.3 Precautions during operation

2.3.1 Operators must monitor the system for any abnormal sounds, vibrations, or temperature rise. If any abnormality occurs, immediately stop the machine and inspect it.

2.3.2 Operators must not touch any magnetic switches or proximity switches during operation to avoid system malfunctions.

2.3.3 After starting the machine, operators must avoid touching the product or laminating the template to avoid personal injury. If any problems arise, turn off the upper or lower suction before continuing.

2.3.4 Operators must turn off the power when leaving the machine to prevent

unauthorized operation, which could cause personal injury or malfunction.

2.3.5 Strictly follow operating procedures during operation. Our company assumes no responsibility for any personal injury caused by failure to comply with these regulations.

Boot sequence

1: Check that the flap is open. Turn on the air supply and check and adjust the air pressure to ensure it is within the specified range.

2: Turn on the power switch (when the machine is stopped, always turn off the power before turning off the air supply).



Start the power supply: Press the power switch on the panel to start or stop the power supply.

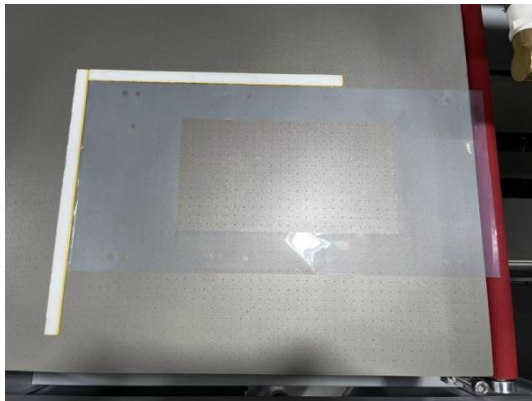


Emergency stop: If any abnormal function occurs during the operation of the machine, turn off the power button to stop or reset immediately.



Equipment operation process

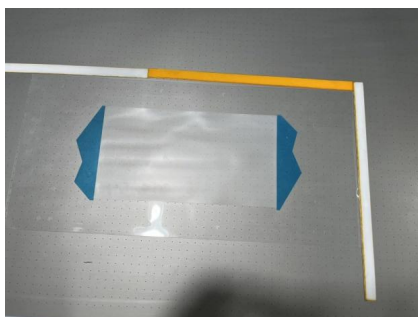
1.The sheet material needs to be placed on the lower suction platform.



Click the button suction to tighten the product.



2.The sheet material needs to be placed on the upper suction platform.



Click the top suction to tighten the product.



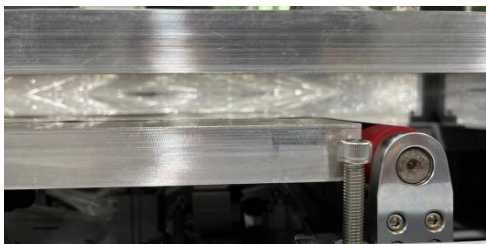
3.Remove the protective film from the product

4.Press the start button on the lower platform and the upper platform simultaneously with both hands.



5.The upper flip plate automatically rotates into position.

6.The lower platform moves to the right to the starting point position.



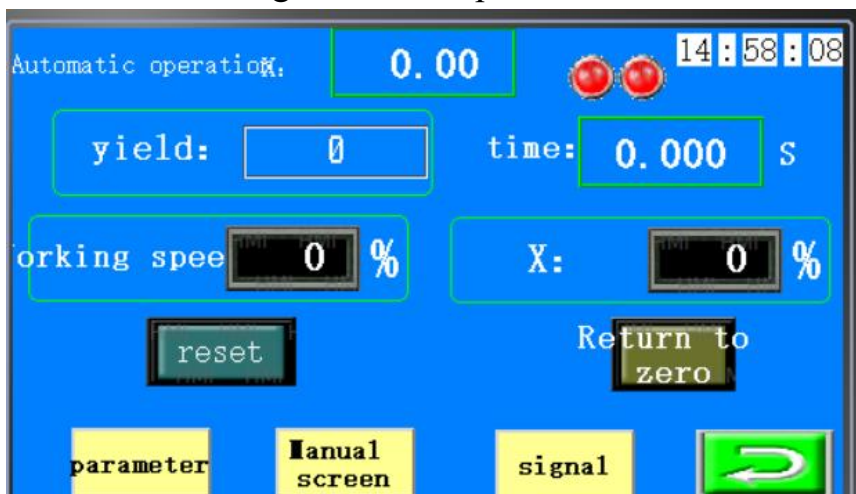
7.The lower suction plate begins to tilt and rise to the fitting position.

8. Roller rises
9. Lower platform and roller slowly move to the left to press together until the bonding is complete
10. Roller descends, platform descends
11. Lower suction platform returns to its original position
12. Upper flip plate rotates back to its original position
13. Upper suction plate stops suction
14. Bonding process for a single product is complete

3. Touch screen operation instructions

3.1 Turn on the power and touch the screen to enter the following interface. Press Enter Home on the touch screen to enter the main screen.

3.2 Press the initial screen on the touch screen to enter the main interface and enter the following automatic operation screen.



The above screen is the main screen of the device.

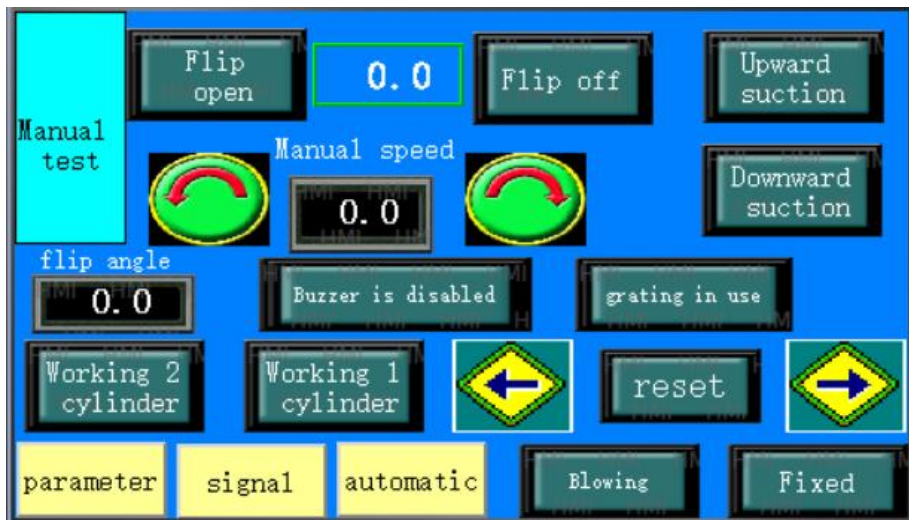
3.2.1 "Production" During automatic operation, the count display increases by one with each bonding operation. This count accumulates and is not lost when the machine is turned off.

3.2.2 "Bonding Speed" and "Operating Speed" describe the bonding speed, which is adjusted by percentage. The operating speed describes the pre-bonding preparation speed and the post-bonding reset speed, which is adjusted by percentage.

3.2.3 "Resetting" restores the machine to the pre-bonding preparation state.

3.2.4 "Reset": The display returns to zero without losing any information when the machine is turned off. Press and hold the reset button to reset the processing output to zero.

3.3 "Manual page": Click "Manual page" to jump directly from the automatic interface to the manual operation interface.



Manual page: As shown on the screen, it is an integrated screen of all the individual actions of the device. Each action can be clicked separately.

3.3.1 Upper suction Off: Button on, upper suction on, suction through the upper plate. Corresponds to the green upward suction button on the panel.

3.3.2 Lower suction Off: Button on, lower suction on, suction through the lower plate. Corresponds to the green lower suction button on the panel.

3.3.3 "reverse off": when the button is turned on, the flip plate flips, and when the button is turned off, the flip plate opens.

3.3.4 "Vacuum Pump": When the button is turned on, the machine's built-in vacuum pump activates. The suction plate can only be suctioned when the "up suction" and "down suction" buttons are turned on.

3.3.5 《》: Left movement button, long press this button to move to the left,

3.3.6 《》: Right movement button, long press this button to move to the right

3.3.7 Resetting: Return to the pre-bonding state

3.3.8 "Lifting": Press the button to activate the lifting cylinder, and the lifting platform will rise.

3.4 "Parameter setting": Click "Parameter setting" to jump directly from the automatic interface to the parameter setting interface



3.4.1 Starting Point: Sets the starting position of the product to be laminated.

3.4.2 End : Sets the ending position of the product to be laminated.

3.4.3 Vacuum time: When the equipment is stationary, the vacuum pump is set to automatically shut off during standby time.

3.4.4 Lamination upper time: Lamination begins after the roller rises and presses down to the product's position.

3.4.5 Lamination descending time: The equipment returns to its original position after the roller descends.

4. Machine Maintenance and Care

4.1. Circuit Inspection: Check for loose circuits and abnormalities every 15 working days. If any, tighten them appropriately.

4.2. Air Line Inspection: Check for leaks in air pipe joints every 15 working days. If any, repair, reinforce, or replace them promptly.

4.3. If the filter/pressure regulator is excessively waterlogged, drain the water immediately. Air compressors should also be drained regularly. Electrical

components such as solenoid valves are sensitive to water. If water enters a solenoid valve, the machine will not operate.

4.4. During operation, check all screws for looseness. If any, tighten and tighten them immediately.

4.5. Lubricate the guide rails (note: engine oil, not grease) every month. This will help the machine operate smoothly, reduce wear on components, and extend its service life.