



LA-E4S Air Cushion Machine

Operation Manual



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Preface

Thank you for using the **Locked Air** cushion system. To ensure that you use the equipment correctly, be sure to read the instructions before you operate it!

Note: Operation of different models are slightly different, please pay attention to the tips mentioned below.

Disclaimer

The manufacturer and its authorized distributor are not liable for any accidents or damages resulting from the failure to comply with warnings or instructions depicted on this machine or contained in this operator manual, including:

- Improper use or maintenance
- Use for applications or under conditions other than those outlined in this operator manual
- Use of unauthorized parts
- Repairs or modifications made without the permission of the manufacturer
- Unauthorized alterations to the machine such as:
 - a) Alterations to the control system;
 - b) Welding, mechanical treatments etc;
 - c) Extensions to the machine or the control system;

The manufacturer and its authorized distributor are not liable for:

- Indirect damages caused by errors or malfunctions of the machine (e.g. damages to products, company interruptions, delays, etc.)

Safety

This machine has been well designed for safe use in conformance with the application, conditions and rules describe in this operator manual.

Anyone that works with or on this machine must read the operator manual and follow the instructions carefully.

Operator

Only those who read and understand the Sections "Safety" and "Installation and Use of the Machine" should operate the machine.

Special training is not required.

Operator tasks include:

- Operating the machine
- Regular maintenance (see Section 6)

Service Technicians

Only service technicians employed by Locked air or Locked air distributor who are permitted to conduct the service on the machine. For these individuals, a separate service manual is available.

Warning

- a. Power supply to the machine must be consistent with the parameters on the machine nameplate, to prevent damage to the machine, please use only the power cable provided with the product.
- b. Make sure that the power cable is reliably grounded.
- c. Only trained technicians can open the back cover of the machine.

Security Matters

- a. It is strictly prohibited to touch the high temperature warning area

during the operation or within 5 minutes after the machine has stopped.

- b. When the machine is working, do not touch any rotating parts.
- c. In the event of the following emergency, press the power switch quickly to cut off the total power supply of the machine.
 - The air cushion film or other material rolls into the machine and the machine does not work properly.
 - Abnormal sound inside the machine.
 - Abnormal heating, temperature on the plastic surface is too high;
 - Other exceptions

Machine Warnings

- a. When the machine is working, it is strictly forbidden to touch any rotating parts.
- b. To ensure the safety of equipment during maintenance, the machine will not work when the front or rear covers are opened.
- c. Non-professionals are prohibited from opening the machine maintenance cover.
- d. When the machine is functioning smoothly, if there are motor abnormalities, or other faults, the system will detect the sensor or motor signal, then stop and alarm.

Improper Use

The following applications or acts are not suitable for the machine and constitute improper use of the machine:

- Use of materials other than those produced by Locked Air and intended for use in the machine
- Use outside or in a humid area
- Use in areas subject to an explosion hazard
- Washing or cleaning the machine with excessive quantities of water
- Standing on the machine
- Placing objects against or on top of the machine
- Moving the machine while it is functioning or connected to the AC power supply

Storage

- The storage room must be dry.
- The machine must not be set up or stored in a place where it is subject to moisture or water.
- Before using the machine after a long-term storage period, it must be inspected by a trained service technician.



If the machine is taken from a cold to a warm area, temporary condensation (both internally and externally) can form on the machine. In this case, turning the machine on right away may damage the machine and create damage for the operator. Let the machine reach from room temperature and wait for the condensation to evaporate before turning it on.

Transport

- The machine should not have severe vibration and shock during transportation;
- The machine should not be exposed to the sun or rain, and should be stored under the required temperature and humidity range .

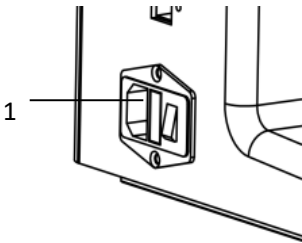
1. Main Parameters of the Device

Item #	Name	Parameters
1	Power	See details on nameplate
2	Rate	380W
3	Maximum production speed	18m/min
4	Dimensions	300mmx360mmx345mm
5	Net weight	8.8kg(19.4lb)
6	Working environment temperature	0 to 40°C(32 to 104°F)
7	Working environment humidity	20 to 90% RH

2. Operation Manual

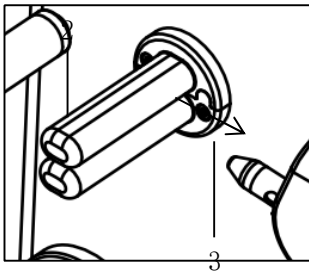
2.1 Operating Procedures

2.1.1 Power on

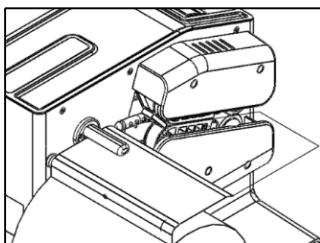



- a. Plug the power supply to a ground-protected single-phase three-wire outlet.
- b. Turn on the power switch 1.

2.1.2 Load the air cushion film




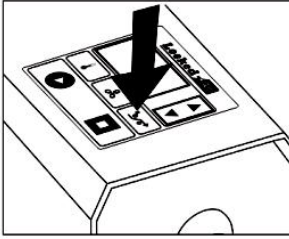
- a. Place the air cushion film on the mandrel, with the inflatable end close to the machine, lead the film through the middle of the 2 guide film rods(2), and then sleeve the air cushion film opening to the nozzle(3), drag the film toward the arrow direction to reach the gap between upper and lower heating belts





- b. When the machine is in a stop state, press the “Trans-film” button  to enter the film-loading mode, at this time the upper and lower belts will pull the air cushion film slowly forward to a certain distance and then stop automatically.

Tips:

- a) Press the “Trans-film” button  again under the loading mode ,belt will stop rotating and exit loading mode.





- b) Long press the “Trans-film” button  to enter the film-loading mode, the heating belt will keep running until the button is released.
- c) When you press the “Start” button  to start the machine, you will exit loading mode.

2.1.3 Parameter setting


Parameter Settings include temperature, air volume, speed and operating mode settings. In general, the parameters have been set before leaving factory. However, if you need to change the parameters, please refer to section 2.2 contents.

2.1.4 Start and Stop

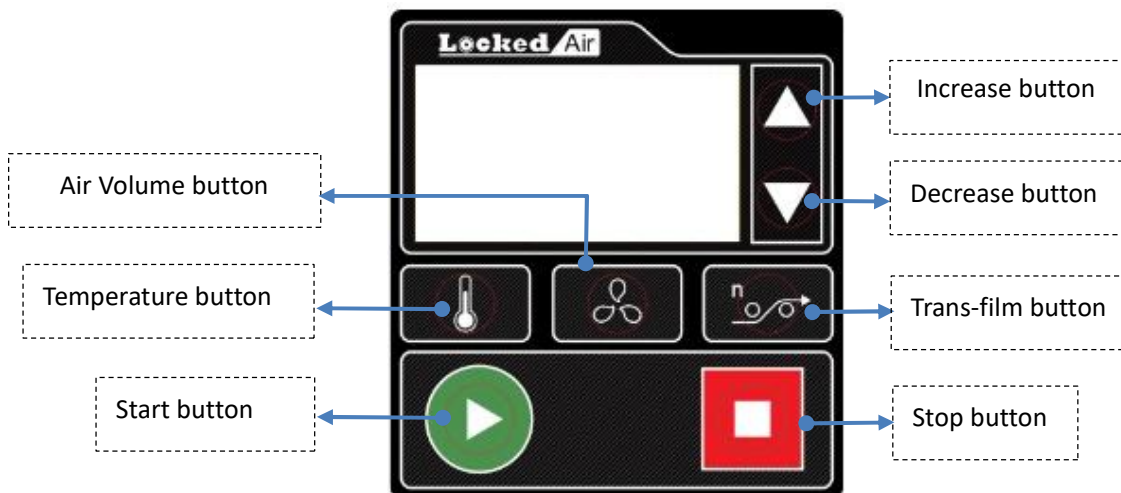
- a. **Start** Press the “Start” button  and the heating wire heats up. This process lasts 5~10s, depending on the environment temperature. The device starts after the temperature reaches the set value.
- b. **Stop** Press the “Stop” button , Machine Stops, Heating Wire cools down.

Note: Do not touch any high temperature area and rotating parts of the machine during operation or within 5 minutes after the machine stops.

2.1.5 Power off

- a. When the machine is stopped, tear off the film close to the machine.
- b. Long press the “Trans-film” button  to drain the air cushion film that remains in the machine.
- c. Turn off power switch .

2.2 Control Panel Instructions;

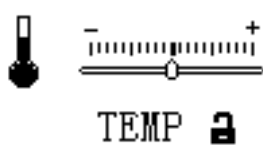


2.2.1 Main interface



- The control panel displays as left picture when power on. The middle of screen shows current working mode, means the heating status, means working status, means film loading status.
- The upper left interface indicates that the machine is stopped, press the “Start” button , the machine displays the bottom left interface, start heating, the machine starts to work when is full, and arrow starts to move.

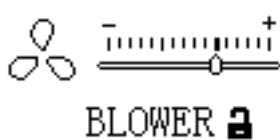
2.2.2 Set the temperature



- Press the “Temperature” button , and enter temperature setting interface, press the “Increase” button or the “Decrease” button can increase or decrease the temperature under this interface.

Note: the thicker font is system default, same as below.

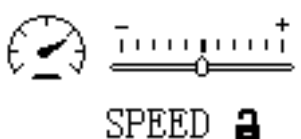
2.2.3 Set the air volume



- Press the “Air Volume” button , and enter air volume setting interface, press the “Increase” button or the “Decrease” button can increase or decrease the air volume under this interface.

Note: the machine with external pump does not support this operation.

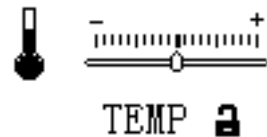
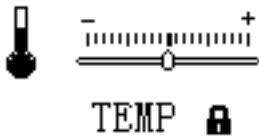
2.2.4 Set the speed










- Press the “Temperature” button and the “Decrease” button , and enter speed setting interface, press the “Increase” button or the “Decrease” button can increase or decrease speed under this interface.

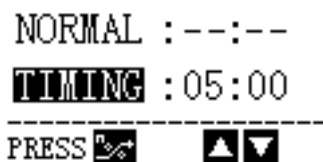
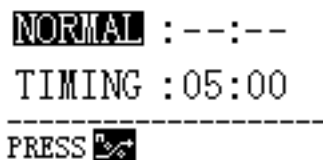
2.2.5 Parameter locking function







Locking function is available on the parameter of temperature, air volume and speed, which can be used to avoid wrong parameter due to incorrect operation.



- As shown in upper left figure, the “Lock” icon () displayed in parameter interface indicates that, this parameter has been locked already, and it is invalid to press the “Increase” button  or the “Decrease” button  at this time.
- Unlock: After the parameter was locked, press the “Stop” button , you will hear continuous humming, continue to press this button until the icon become , the parameter will be unlocked. Loose the “Stop” button  to change this parameter.
- Lock: Press the “Stop” button  in the parameter interface for a long time can lock the parameter manually. Or the machine will lock up automatically after a period of no button operation, parameters can not be set after being locked.






2.2.6 Set up operation mode



- Press the “Air Volume” button  and the “Decrease” button  in the main interface simultaneously to enter into selection interface of operation model.
- Press the “Trans-film” button  to shift from “Continuous mode” to “Timing mode”.
- If selected “Timing mode”, click or press the “Increase” button  or the “Decrease” button  for a long time enables to set the duration of timing.
- After selected the operation model, press the “Stop” button  to exit.

2.2.7 Select sizes

1. MEX – H – 40 – 20 – 10.0
2. MEX – H – 12 – 22 – 11.0
3. MEC – DH – 13 – 23 – 12.0
4. MFC – L – 14 – 24 – 13.0




- Press the “Air Volume” button  and the “Increase” button  simultaneously to enter into the interface of specification selection. Different specifications can be shifted by pressing the “Increase” button  or the “Decrease” button  for about 3 seconds, then the corresponding selected parameter will be displayed on the right side of interface and become valid immediately.
- After selected the specification, press the “Stop” button  to exit such interface, then the machine will run according to the selected parameters.

Note: Specification is only required to be changed when changing the size of air cushion film. Do not change the parameters at random in any other cases.

2.2.8 Auxiliary Function



In main interface, when the machine is stopped:

- Click “Trans-film” button , the temperature of the machine will not be increased, but the heating belt will run for trans-film assistance. After a certain length of film has been transported, the heating belt will be stopped automatically. Or you can click the “Trans-film” button  again to stop the machine manually.
- Press the “Trans-film” button  for a long time, the temperature of machine will not be increased, but the heating belt will run continuously. Loosen this button, the machine will stop, and the residue air cushion film can be removed from machine.

3. Fault Analysis and Diagnosis.




3.1 Common Faults and Troubleshooting







Item #	Issue	Cause analysis	Suggested solution
1	Seal leakage.	Heating temperature is too low.	Increase the temperature setting.
2	Seal area is thin and easy to tear.	Heating temperature is too high.	Decrease the temperature setting.
3	The air volume is low.	The amount of air is too small.	Increase the air volume setting.
4	Film break or cutter blurs.	The blade is worn out.	Replace the blade.

4.Engineering Interface Operation Instruction

4.1 First-level Engineering Interface Operation

**MFB-B-11-21-10.0—APPLICABLE SPECIFICATION;
 TMP—TEMPERATURE; BLW—BLOWING VOLUME; SPD—SPEED;
 F-BROKEN—FILM-BROKEN ALARM;
 PRA-LOCK—PARAMETER LOCKING FUNCTION;
 TMP-A.A—TEMPERATURE AUTOMATIC CORRECTION FUNCTION.**

In the main interface, press the “Temperature” button , the “Air Volume” button  and the “Increase” button  at the same time, enter the engineering interface;

- Use the “Air volume” button  and the “Trans-film” button , move the cursor to select the parameters to adjust;
- Click or long press the “Increase” button  and the “Decrease” button , resize the value or select ON/OFF;
- ON=TURN ON, OFF=TURN OFF;
- Use the cursor to select the applicable specifications, and long press the “Increase” button  and the “Decrease” button  about 3 seconds, you can go to the next set of specification parameter settings;
- In the engineering interface, select the temperature automatic correction item **TMP-A.A.** including three values:

OFF (default) : Completely closed without correction.

MT: Continuously open, no automatic switching correction mode for room temperature.

1. MFB-B-11-21-10.0
TMP:230 F-BROKEN:OFF
BLW: 20 PRA-LOCK:ON
SPD: 100 TMP-A.A. : AT

AT: Automatic state, when the room temperature is $\leq 5^{\circ}\text{C}$, it will enter the “cold state”, and it will be displayed on the home page; when the room temperature is $> 8^{\circ}\text{C}$, it will enter the “normal temperature state”

f. Press the “Stop” button  to exit the interface.

MFB—BUBBLE PILLOW CODE; B—BUBBLE PILLOW MATERIAL; 11—BUBBLE PILLOW THICKNESS(um);



21—BUBBLE PILLOW WIDTH(mm); 10.0—BUBBLE PILLOW LENGTH(mm)



T.Re: Temperature display correction value, Correction range 0~99(Actual temperature = display temperature + correction value)

S.Sp: Motor stop time, default is 7; (Note: No adjustment is recommended without professional guidance)

MFB - B-11-21-10.0

T.Re : 0 S.SP : 7

a. Use the “Air Volume” button  and the “Trans-film” button  to move the cursor to select the parameters to adjust;

b. Press or long press the “Increase” button  and the “Decrease” button  to adjust the parameters;

c. Temperature display correction function: display the same temperature parameter value when different devices operate;

d. Press the “Stop” button  to exit the interface;

5. Transportation and Storage

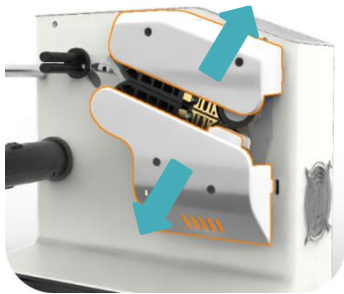
No severe vibration and shock is allowed during transportation.

Do not expose the machine directly under the sun or in rain. The machine shall be stored at the environment with the temperature range $-25\sim+55^{\circ}\text{C}$ ($-13\sim131^{\circ}\text{F}$) and with the relative humidity less than 90%RH.

6.Appendix.

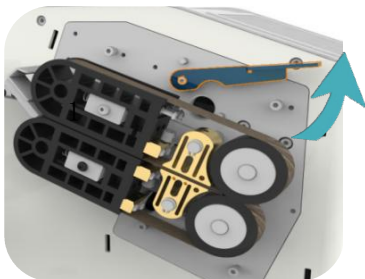
6.1 Replace Heating Belts

6.1.1. Remove the upper and lower cover.



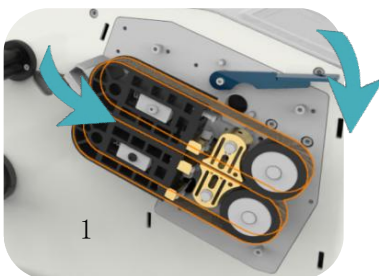
- a. Loosen the 4 screws located on the upper and lower covers with a 3mm wrench and remove the upper and lower covers (2 on the upper cover and 2 on the lower cover).

6.1.2. Lift the press wheel.



- a. Lift the handle in the direction of the arrow to separate the heating module and the rubber wheel;

6.1.3. Replace the belt



- a. Follow the arrow direction to push the upper heating wire mounting plate to the right, remove the heating belts from the right side, remove another heating belt in the same way.
- b. Load the new heating belt from the left and press to the heating belt block to install the heating belt. Install another one in the same way.
- c. Put the handle down.

6.1.4. Install the upper and lower cover



- a. Use a 3mm Allen wrench to install the upper and lower cover with the 4 screws.

6.2 Replace the Blade



- a. Loosen the air nozzle fixing screw (no need to fully unscrew), holds the end of the nozzle to pull it out in the direction of the arrow.
- b. Remove the blade screw, replace the new blade (the blade is facing outwards), and tight the blade with the screw (**Caution: Not to be cut by the blade**).

Push nozzle to the right in the direction of the arrow until the nozzle cannot move, fix the assembly with screw.

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