

Warnings

1. The parameters of the computer controller and servo driver of this machine have been set before leaving the factory, and have been locked. The factory will not be responsible for any changes made by the user privately, which may cause malfunctions or damage to the machine.

During the test machine, the operator should operate under the guidance of the company's staff, and master the use of the machine as soon as possible.

2. The casing of this machine is grounded.

Note: Due to the continuous improvement of our company's packaging machines, relevant information will not be notified, please understand! ! ! The company reserves the right of final interpretation.

Foreword

Thank you for choosing the high-speed horizontal automatic packaging machine series designed and manufactured by our company. The product has the advantages of reasonable structure, superior performance, beautiful appearance, sturdiness and durability, safety and reliability. Using it will provide the greatest convenience for your work.

Before installing and using the packaging machine, you must be familiar with the contents of this "Instruction Manual", it will help you understand the basic performance, structure, operation and maintenance methods of the packaging machine, so that you can use the packaging machine correctly and make It exerts the best performance, reduces failures, and prolongs service life.

Enhance the value of your products and let our company become your most sincere partner.

Note: Due to the continuous improvement of our company's packaging machines, relevant information will not be notified otherwise.

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Chapter 1 Safety

important hint

Before installing and using the machine, please read this manual carefully to avoid personal injury or damage to the machine.
Cheng damage.

1. Safety Precautions

- For your safety, close all safety protection devices (such as protective doors, door switches) when starting up and running the machine; only when the safety devices are outside the normal working (closed) state can the machine be started and running, and these devices must not Cancellation or failure.
- When starting up, the operator needs to check all the moving parts area. There should be no foreign objects that might damage the machine in these areas.
- When the machine is running, it is strictly prohibited to reach into the sealing opening and closing area, the opening and closing area of the trolley and other moving parts.
- When cleaning, repairing or maintaining the machine, the air source and power supply must be cut off.
- If the machine is equipped with a filling device, do not reach into the device during the filling operation.
- During the stop of production, the main power and air source of the machine must be cut off.

*** * This machine should pay special attention to safe areas * ***

The parts of this machine that may cause personal injury include: the heat-sealing device and its area when the machine is working, bag feeding and bag open area, and bag conveying area.

2.Safety device

2.1 Security door

This machine uses transparent plexiglass to make a safety protection door to avoid unintentional contact with moving parts and cause human injury and machine damage.

2.2 Emergency stop button

In case of emergency, you can press the red "emergency" button on the operation control box, and the machine will immediately stop running. After troubleshooting, you only need to rotate the button to the right to reset.

2.3 Safety device inspection

- Before starting the machine, check whether the safety device is working properly.
- The working status of the safety device must be checked annually by professional and technical personnel.

Warning

When the machine is working, the heating temperature of the heat sealing device is very high. When removing the protective device in the area:

“Please be careful of burns”

Chapter 2 Important dimensions and technical parameters

1. Equipment drawing

The drawing of this equipment is shown in picture 2-1 below:

2. technical parameter

2.1 The main technical parameters of this machine are shown in the following table:

Packing specification:(210type)	Max 210mm(width) × 320mm(height) Min 120mm(width) × 150mm(height)
Packing specification:(260type)	Max 260mm(width) × 380mm(height) Min 140mm(width) × 160mm(height)
Max filling amount:(210type)	500ml for standard bag, 1000ml for stand up bag
Max filling amount:(260type)	700ml for standard bag, 1200ml for stand up bag
Packing speed:	20-50bags/min
Power consumption:	2.5KW(main machine)
Air consumption:	0.7m ³ / min
Vacuum consumption:	0.6-0.8m ³ / min
Net weight:	Around 1200kg
Dimension:(210type)	2200mm(Length)x 1380mm(width)×1350mm+filling hopper 700mm(height)
Dimension:(260type)	2500mm(Length)x 1450mm(width)×1350mm+filling hopper 700mm(height)

2.2 Equipment working environment

Temperature:	5-35 degrees Celsius
Relative temperature:	≤85%
Voltage:	380V±20V Three-phase four-wire power supply

2.3 The machine enters the parameter setting and the initial password is 1111.

● Remark: 1. The actual working environment should be determined according to the characteristics of the packaging materials.

2. The output of single and double bags should be based on the net weight of the packaging materials, that is: the heavier the weight of each bag, the slower the speed.



图 2-1

Chapter 3 Machine transportation and move

1. transportation

Except for user-specified packaging or packaging in a specific way, this machine is generally packed in wooden boxes. When transporting, it should be handled with care to avoid collisions and inversions. Two machines are not allowed to be stacked.

2. move

After unpacking, use a forklift to fork in the bottom of the main box in front of the machine, but the length of the fork legs must be long enough to reach the cross

block behind the machine. The center of gravity of the machine is about 1600 mm (viewed from the front) from the left side (the side of the electrical box).

Chapter 4 Installation, electrical wiring and start-up

1. Installation

- 1.1 Sufficient space must be left around the machine to facilitate adjustment, maintenance, lubrication and repair operations when product specifications are changed.
- 1.2 The level of the machine can be adjusted with adjustable support feet to make the machine basically level and support the ground without shaking the machine.

2. Power wiring

- 2.1 This machine adopts phase loss and phase sequence protection. First confirm whether the voltage is consistent with the machine, after the power is turned on, it will be set in the electric box
The main switch at the lower part of the right side is turned to "ON", and the indicator light is on. Indicates that the input power voltage is correct and the machine can be started normally
Move to use. If the indicator light does not light up when the main switch is turned on, it indicates that the input voltage is incorrect or the phase sequence does not match. Check the input power voltage or the swap of any two phase wires of the three-phase power wire.

- 2.2 Is the motor rotation correct?

The steering of the motor has been debugged normally before leaving the factory. The user should not change the steering of the motor at will, otherwise it will cause damage to the machine.

3. Trial packing operation

When this machine leaves the factory, it is usually adjusted according to the packaging materials provided by the user, so the following steps can be done:

- 3.1 Set the power-on selection button in the touch screen to "Auto", and press the finished packaging bag flatly into the bag storage slot.

- 3.2 Turn on the switches required to operate in the touch screen.
- 3.3 Set the temperature on the temperature controller until it reaches the set temperature. (The temperature value is generally determined by the user's packaging materials)
- 3.4 Turn on the vacuum pump switch to "Vacuum Pump On" in the touch screen.
- 3.5 Note that when no one is operating in the working area where the machine is running, press the jog button, the machine will run slowly into the working state, confirm that the machine is running normally and then press the start button, the machine will operate normally.
- 3.6 After confirming that the machine is operating normally, set the weight of the filling head according to the operation instructions of the touch screen (check the operating status of the filling system manually if necessary), the machine will continue the bag running process, and open the filling bottom when it is normal, start filling.

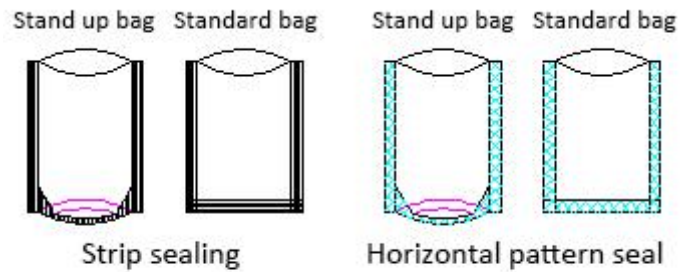
4. Adjustment of the internal operation of the machine

***Note: For emergency stop, please press the "Emergency Stop" button (red mushroom button).**

Chapter 5 Machine adjustment during trial packing

1.The shape of the bag

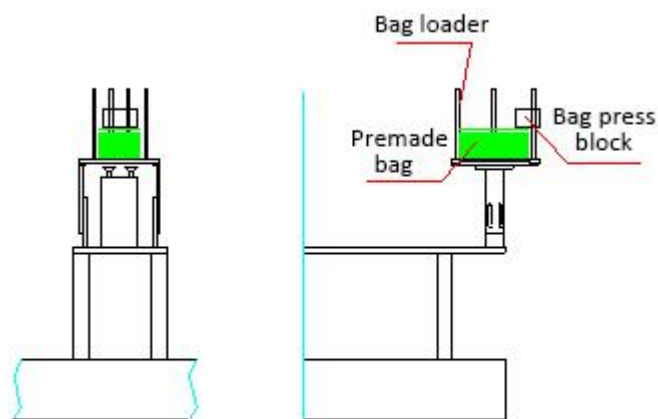
Within the specified size range, this machine can separate various prefabricated bags, fill and seal them. And the sealing form is various, and the sealing mold can be changed for the machine according to customer requirements. An example is show in



Picture 5-1

2.Place the bag

There is a bag loader on the left side of the machine. Please place the bag flat in the slot, and gently press it with the bag pressing block, as shown in Picture 5-2:

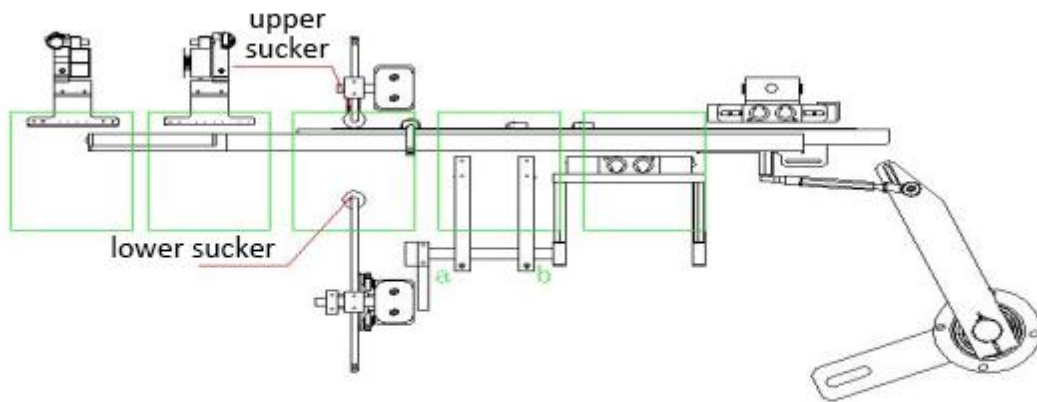


Picture 5-2

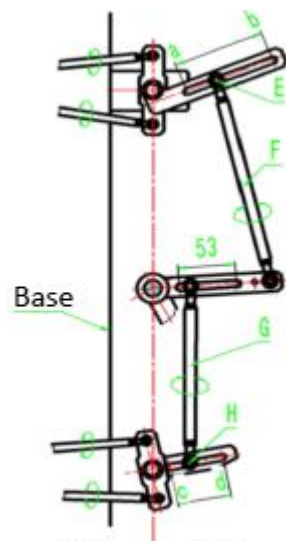
3.Vacuum bag opening adjustment

The suck bag device is divided into an upper sucker and a lower sucker (see Picture 6-10). The specific adjustment method is shown in Picture 6-11. will

Move E to a, the upper sucker opens and the bag becomes larger; when moves toward b, it becomes smaller. Move H to c, lower sucker opens the bag becomes larger; moving to d, the opening becomes smaller. When making the above adjustments, F and G need to be coordinated.



Picture 6-10

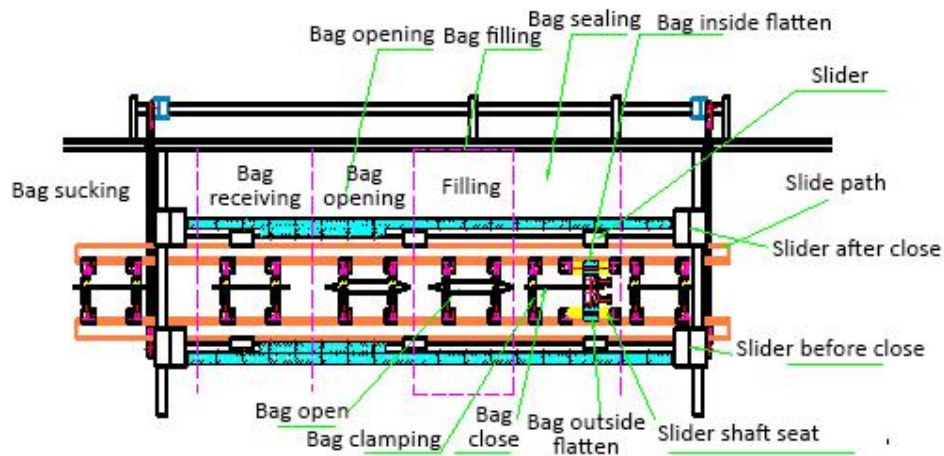


Picture 6-11

4. Up-conveying and bag-flattening device adjustment

4.1 This adjustment is required only when the size of the packaging bag is changed. As shown in Figure 6-12, only need to adjust the display bag

After adjusting the position of the sliding shaft seat of the block, tighten the fixing bolts.



Picture 6-12

4.2 Different hole positions can be selected to set the position of bag flatten device to achieve the best effect of upper sealing flatness. But it should be noted that the positions both bag flatten device after adjustment must correspond.

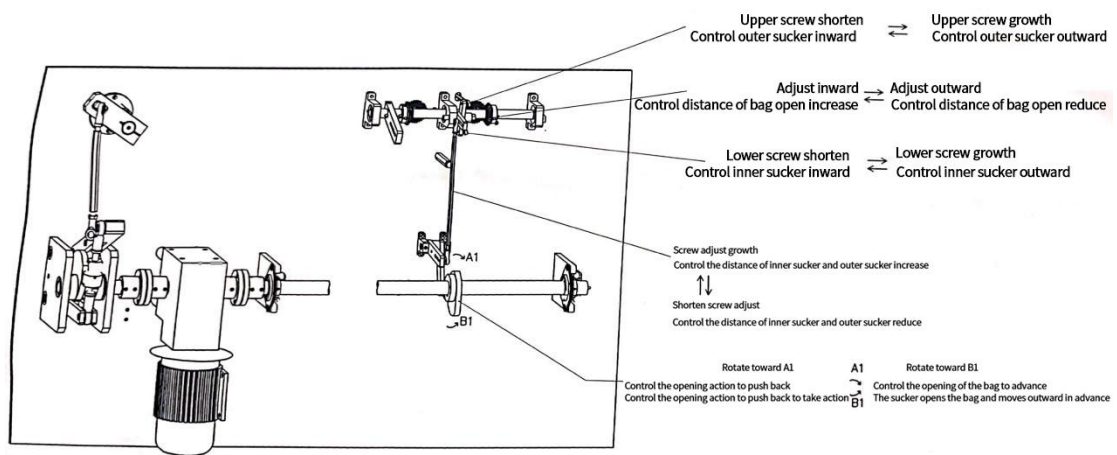
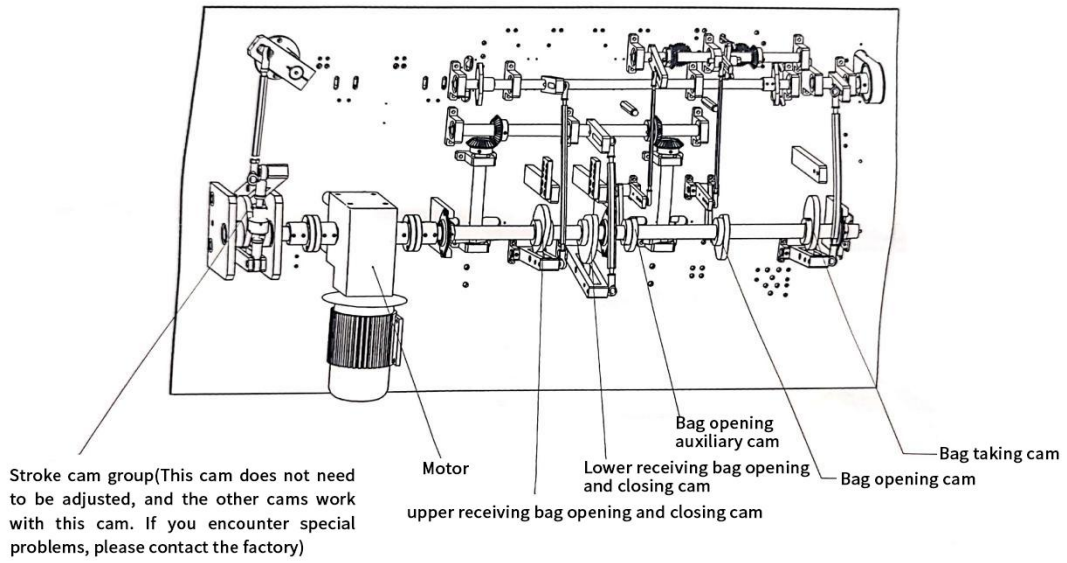
5.Lower transmission device adjustment

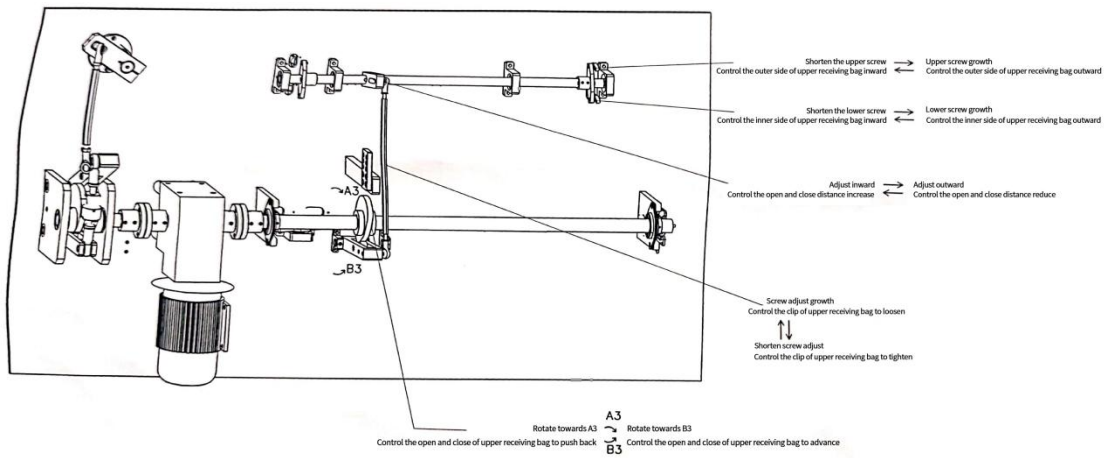
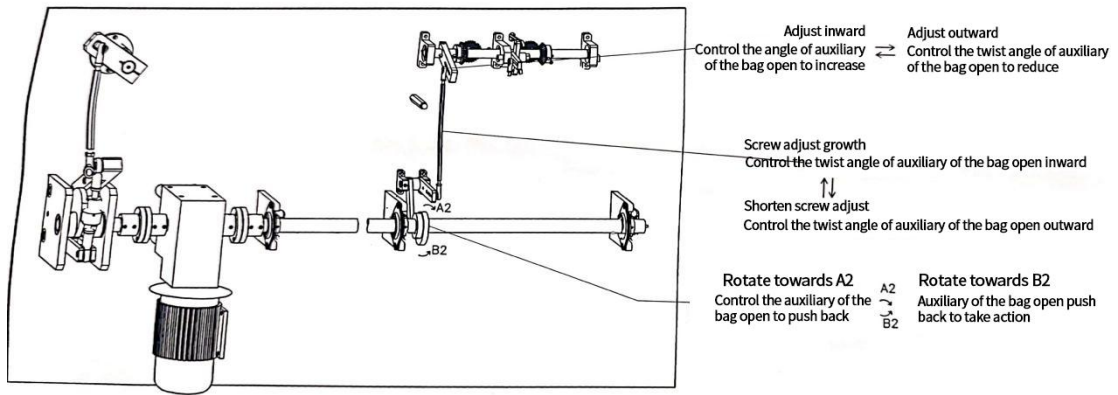
This adjustment is required only when the size of the packing bag is changed. As shown in Picture 6-10, first loosen the bolts on the pressure rods a and b during operation. Refer to the scale on the fixed rod, and then adjust the distance between a and b horizontally. When the packing bag becomes larger, adjust the distance between a and b outwards to match the packing bag with a and b as the center; when the packing bag becomes smaller, adjust the distance between a and b inward with a and b as the center , Adjust the moving distance must be consistent. The screws must be tightened after adjustment.

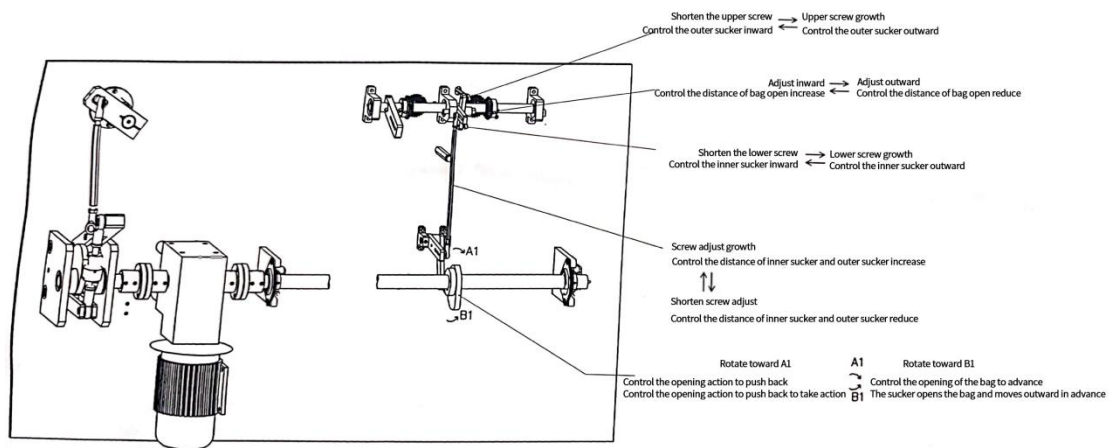
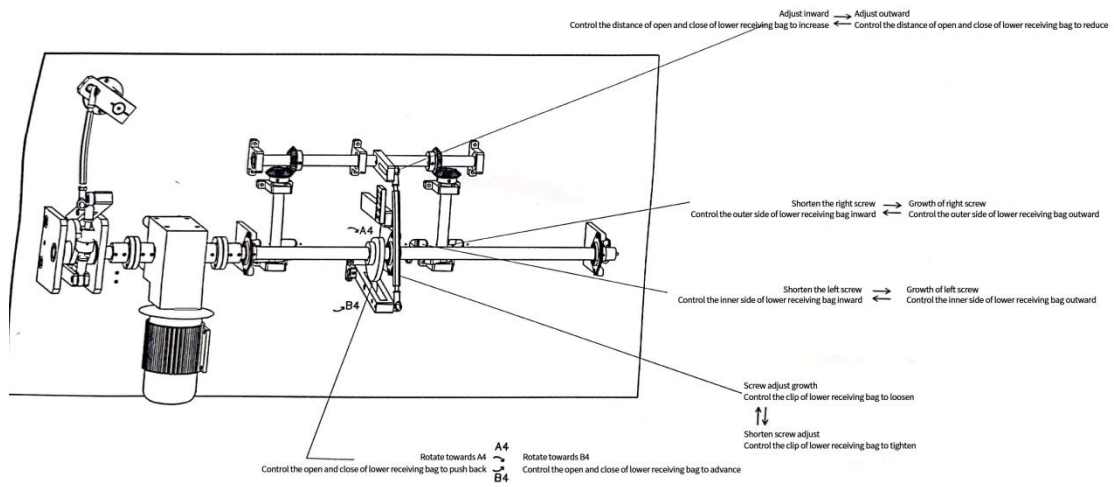
6.Liquid filling and metering device adjustment

For liquid paste filling and metering, the weight of the material can be adjusted through the button "adding" or "subtracting" on the control panel of the electrical system to reach the required dosage.

> Fine-tuning the measurement by setting the electrical parameters. The angle of filling can be adjusted to realize the speed of filling and the length of filling time.







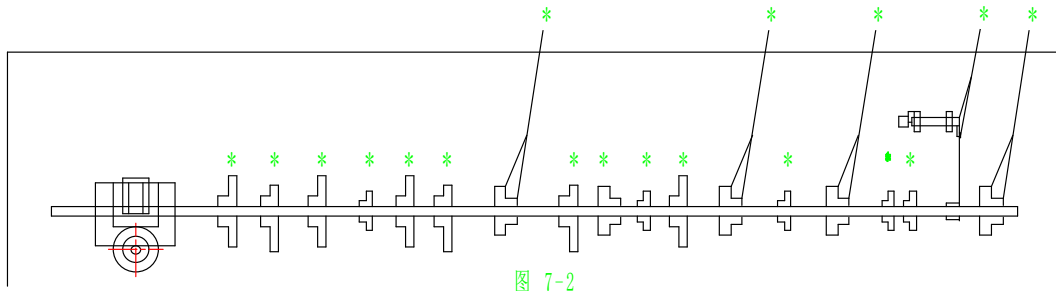
Chapter 6 Maintenance

1. Maintenance

- > The machine is cleaned regularly according to the nature of the products packaged by the user, and the machine is in an 8-hour work system.
- > Use a copper wire brush to clean the surface of the heat-seal block every day to keep the tooth surface clean, so that the edge of the bag can be sealed and smooth.
- > The horizontal and vertical sealing joint shafts and other rotating shafts should be kept clean, once per shift.
- > Clean the filters of the air system and vacuum system regularly.
- > Electronically controlled cleaning work is done once a week.

2. lubricating

- > Remove dust or dirt before lubricating.
- > Most of the rotating parts of the machine are equipped with self-lubricating shaft sleeves, which should be lubricated during daily maintenance.
- > The distribution diagram of the lubrication points attached to other points required for lubrication (picture 7-2).
- > To ensure the normal operation of the machine, the lubrication interval provided should be used as a reference, because it also depends on the ambient humidity, dust conditions and corrosion conditions.
- > Lubricate the cam contact surface daily.
- > Others equipped with rolling bearing points are lubricated weekly, and all types of joint bearings are lubricated weekly.
- > The oil of the gearbox is changed once a year.



3. Lubricant is recommended

3.1 lubricating oil

ESSO:BUTOH-32

SHELL:TELLUS OIL37

3.2 Lubricant for spraying

ESSO:MARCOL352

SHELL:ONDINA OIL68

3.3 Grease for food packaging

ESSO:CARUM330

SHELL:ALVANIAGREASE-2

Chapter 7 Common faults and troubleshooting methods

1. Elimination of common faults in electrical appliances

Common faults and troubleshooting methods of electrical appliances:

Failure phenomenon	Cause Analysis	Method of exclusion
Machine can not jog	1. The machine has no input power and the indicator light is off	Check whether the external power supply is normal and the circuit breaker in the electrical box.

	2. The emergency stop button is pressed	Reset emergency stop button
	3. Host inverter overload or parameter error	Turn off the main power switch and turn it on again after 2 minutes.
	4. The machine is in automatic operation mode	Start manual operation mode on the touch screen
Machine can jog but isn't able to run continuously	1. The machine is in automatic operation mode	Start the automatic operation mode on the touch screen
	2. The machine is in the state of outputting an alarm	The alarm signal input such as temperature out of tolerance should be checked
Machine self Line down	1. Motor overload protection has been activated	Check thermal relay, motor load and mechanical overload factor
	2. The temperature is abnormal or out of tolerance	Check heating rod voltage and temperature sensor
	3. No power supply	Check whether the input power supply and load switch are tripped
Automatic filling Not working	1. The filling switch is not turned on	Turn on the filling switch in the touch screen
	2.No bag	Because there is no bag, there is no signal output for vacuum negative pressure

2. Common mechanical failures and troubleshooting methods

Failure phenomenon	Cause Analysis	Method of exclusion
The empty bag is not sealed tightly	1.The surface of the sealing block tooth is stained or stained with packing inner film gel and materials	Use a copper brush to remove the dirt on the surface of the seal block teeth
	2.The sealing block temperature does not match the melting temperature of the packaging material	The appropriate sealing temperature should be adjusted according to different packaging materials
	3.Insufficient sealing pressure, or uneven force on sealing teeth	Adjusting screw and nut for adjusting cylinder pressure or sealing block seat

After the material is filled The top seal is not secure	1. Poor adjustment of bag conveying	The bag conveying structure should be re-adjusted
	2. The packaging bag is too small, and there is material clamping on the top seal	Check whether the capacity of the packaging bag meets the requirements. Remove the dirt on the surface of the sealing block
	3. Increase the packaging speed without increasing the temperature	If you need to increase the packaging speed, increase the sealing temperature accordingly
Packing bag seal Uneven mouth	1. According to the selected packaging materials	Choose more reasonable packaging materials
	2. The sealing temperature is too high	Set the temperature suitable for the packaging material
The equipment is noisy	It is caused by the lack of oil in the lubricating parts of the equipment, or the installation screws are loose	Regularly refuel and check the screws in the moving or vibrating parts
The equipment suddenly hears mechanical impact during operation	Generally, the return spring or tension spring of a certain cam is broken, which makes the mechanical action conflict.	Quickly press the emergency stop button, replace the intact spring or tension spring, slowly rotate the host, and then turn on the machine after troubleshooting.
The bag falls on the platform	The suction rotation angle of the suction bag cylinder is wrong	Correct the angle of each suction bag cylinder on the touch screen
Bevel the bag after sealing	The bag loader is not flat	There are 3 tube positioning plates in front of the loader for single and double feeding bags to adjust the direction of the bag (same as picture5-2)

Machine debugging and operation

1. Description of the operation interface of the machine

① Start operation, temperature setting

Turn on the main power switch and the temperature control switch, and set the sealing temperature controller between 100°C and 180°C; (The temperature setting depends on the thickness of the packaging film and the packaging speed).

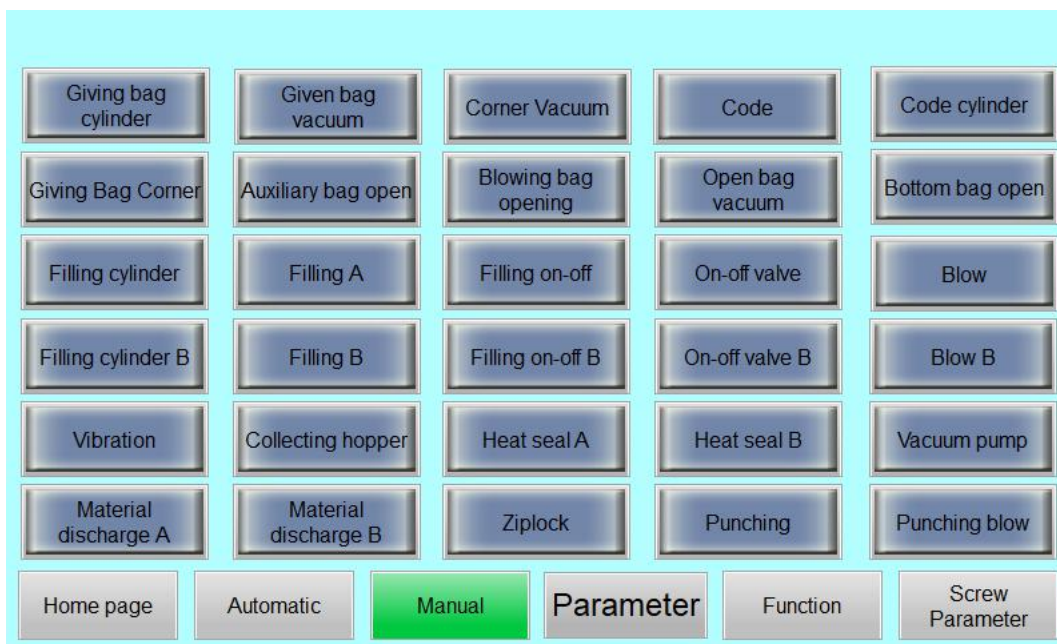
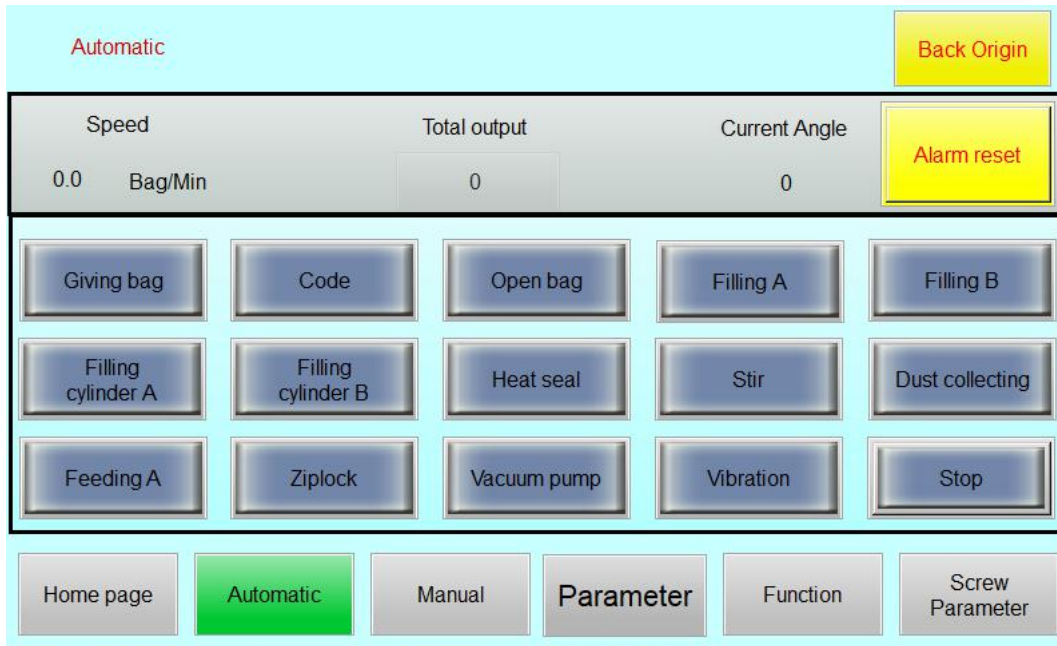
Turn on the power of the machine, and the screen of the man-machine interface will be displayed as shown below (picture 1)



(picture1)

② Operation instructions and instructions

this page, Enter the language selection state and enter the working screen, as shown in the figure below (picture 2)



(picture 2)

This screen is the main screen of working status. When the machine is turned on normally, the man-machine screen can be stopped in this screen.

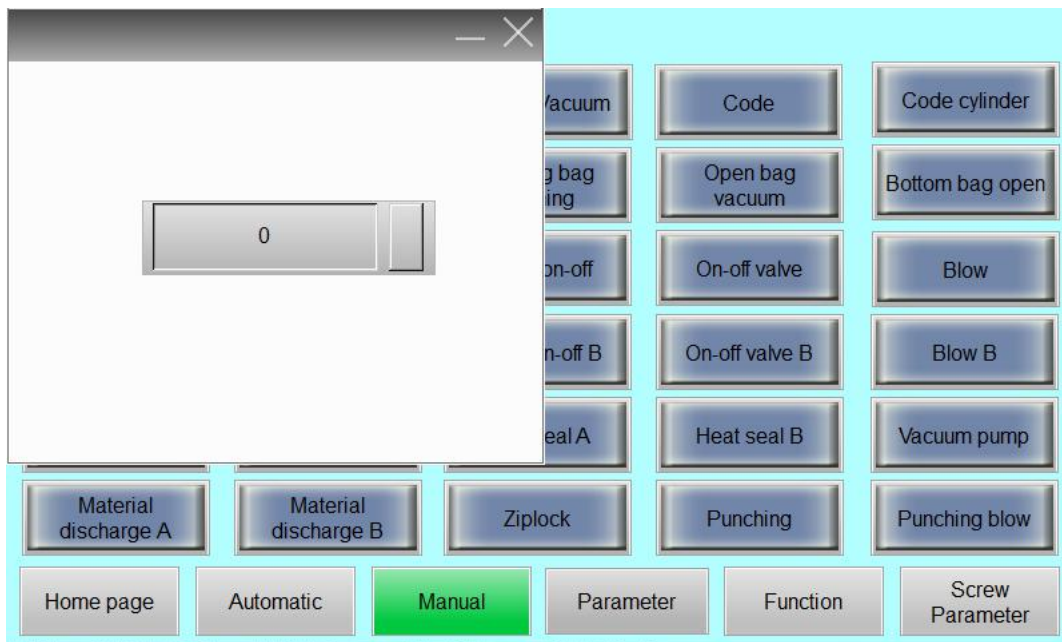
The function description of each button is as follows:

Speed	Display the current production speed per minute.
Total output	Display the total production count. Press the tight count to clear for 3 seconds to clear
Current angle	Display the current encoder angle
Giving bag cylinder	In manual mode, press this button to open/close the bag feeding cylinder in a single action. In automatic mode, press this button to turn on/off the function of bag feeding cylinder.
Corner vacuum	In manual mode, press this button to open/close the Given bag vacuum with a single action. In automatic mode, press this button to turn on/off the Given bag vacuum function.
Clip bag cylinder	In manual mode, press this button to open/close the Clip bag cylinder in a single action. In automatic mode, press this button to turn on/off the Clip bag cylinder function.
Blowing bag opening	In manual mode, press this button to open/close the Blowing bag opening in a single action. In automatic mode, press this button to turn on/off the Blowing bag opening function.
Open bag vacuum	In manual mode, press this button to open/close the Open bag vacuum in a single action. In automatic mode, press this button to turn on/off the Open bag vacuum function.
Code	In manual mode, press this button to open/close the Print date in a single action. In automatic mode, press this button to turn on/off the Print date function.
Filling cylinder	In manual mode, press this button to open/close the Filling cylinder in a single action. In automatic mode, press this button to turn on/off the Filling cylinder function.
Feeding	In manual mode, press this button to open/close the Feeding in a single action. In automatic mode, press this button to turn on/off the Feeding function.

Code cylinder	In manual mode, press this button to open/close the Print date cylinder in a single action. In automatic mode, press this button to turn on/off the Print date cylinder function.
Auxiliary bag open	In manual mode, press this button to open/close the Auxiliary in a single action. In automatic mode, press this button to turn on/off the Auxiliary function.
Filling on-off	In manual mode, press this button to open/close the Filling hopper in a single action. In automatic mode, press this button to turn on/off the Filling hopper function. It's controlled by given bag open
On-off valve	In manual mode, press this button to open/close the On-off valve in a single action. In automatic mode, press this button to turn on/off the On-off valve function.
Filling on-off	In manual mode, press this button to open/close the Filling valve in a single action. In automatic mode, press this button to turn on/off the Filling valve function. It's controlled by given bag open
Blow	In manual mode, press this button to open/close the Blow in a single action. In automatic mode, press this button to turn on/off the Blow function. It's controlled by filling hopper.
Heat seal	In manual mode, press this button to open/close the Heat seal in a single action. In automatic mode, press this button to turn on/off the Heat seal function.
Stir	Open/close stirring function
Material discharge	In manual mode, press this button to discharge material automatically
Vacuum pump	Open/close Vacuum pump function, 10S automatically close in shutdown state.
Automatic	Press this key to switch between automatic mode and manual mode. It

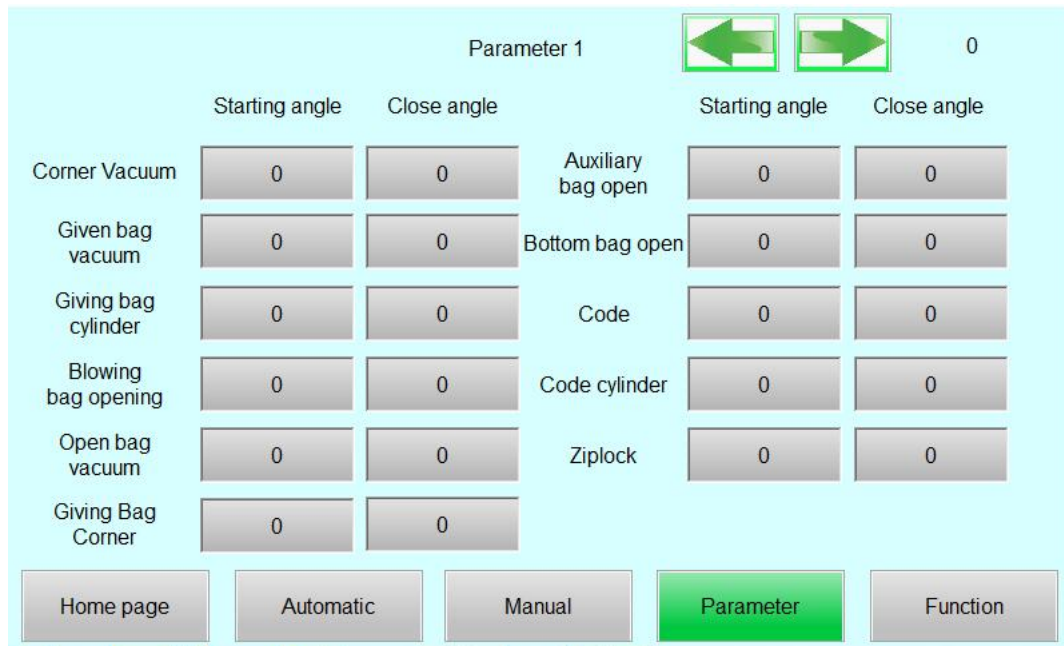
	can be switched only when the machine is stopped.
Parameters	Press this button, the man-machine interface display returns to the screen shown in picture 3.

After pressing the parameter setting in picture 2, the screen will display as follows(Picture3)



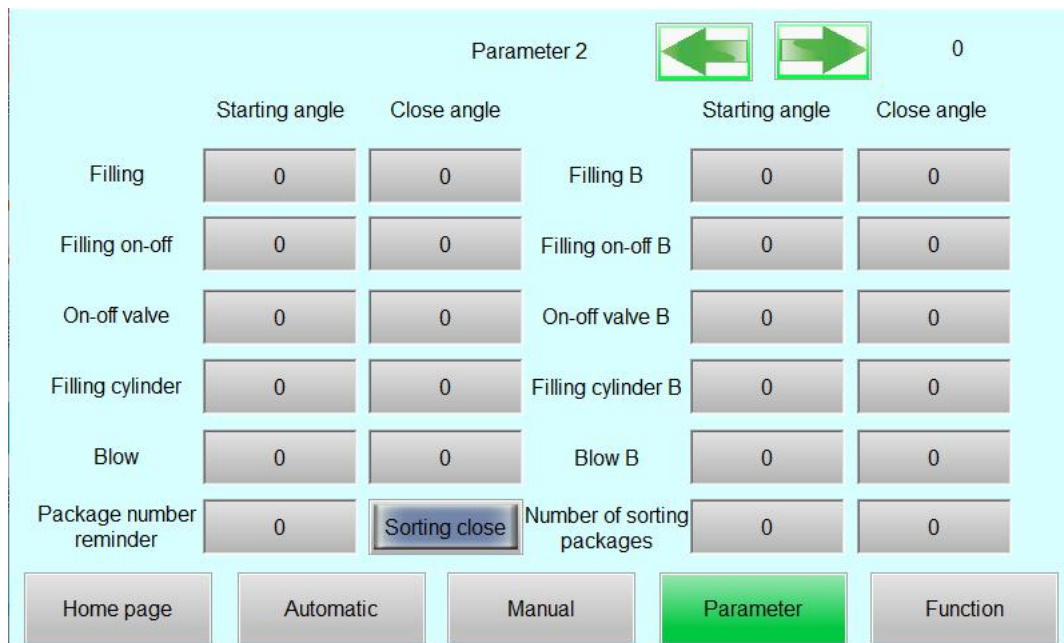
(Picture 3)

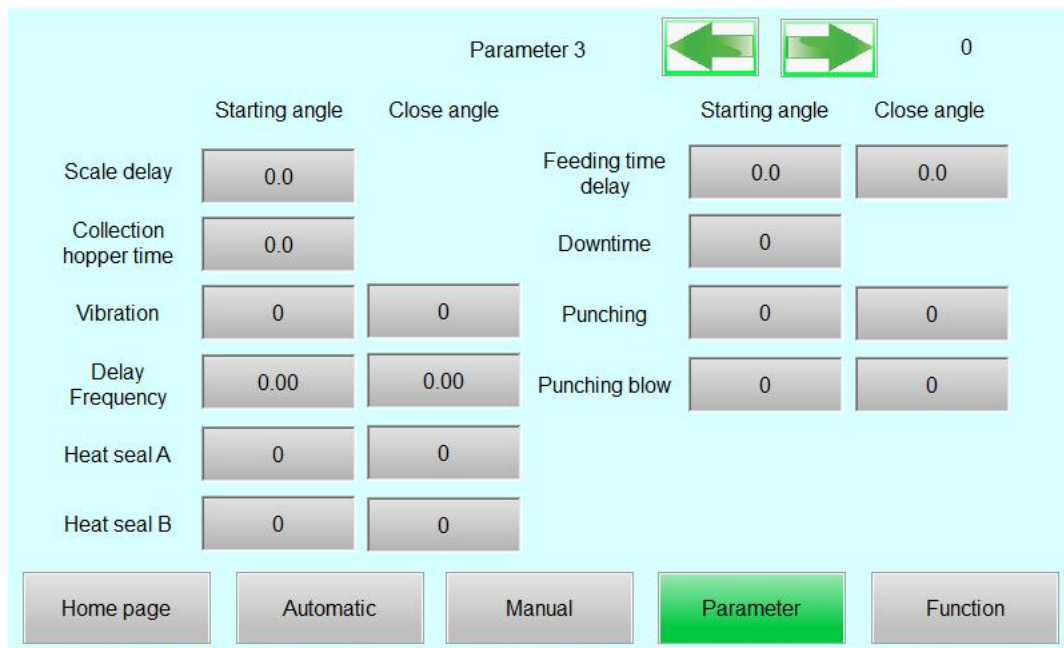
This screen is parameter password protection, password: 2222. After entering the password, press Angle Setting, the screen will display as follows (Picture 4)



This screen is the parameter setting screen. You can enter this screen to modify parameters during normal operation of the machine.

The parameter setting range of this screen: 5~355

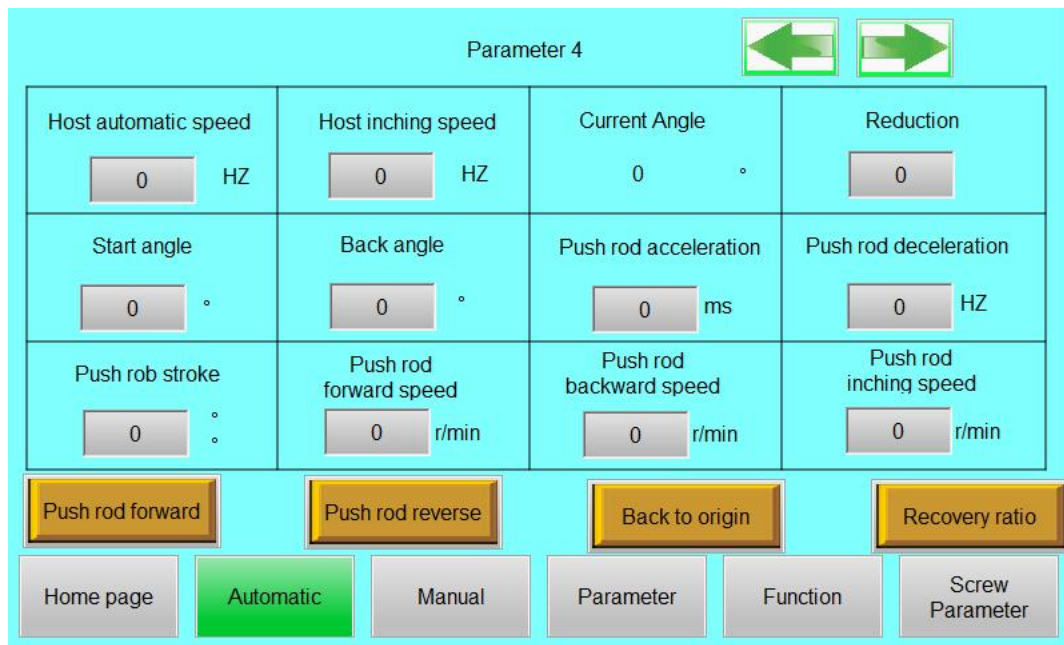




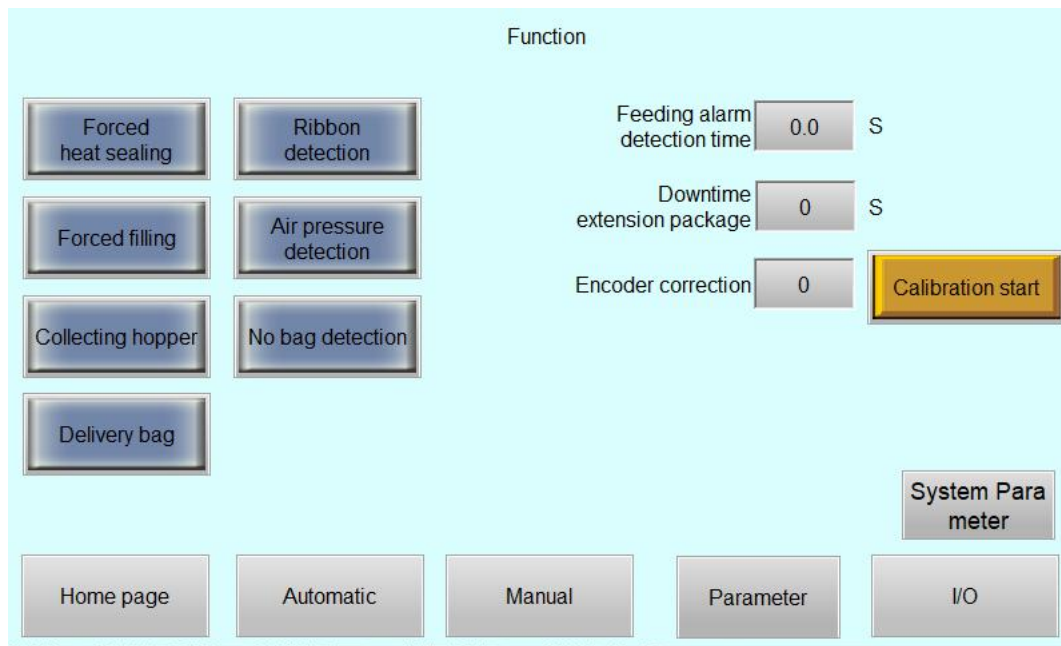
Feeding delay: Set the time delay to start feeding after the feeding sensor fails to detect the material.

Feeding off time: Set the feeding sensor to close itself if no material is detected within this time.

Stop: Set the stop position to 325.



This screen is used for debugging the new machine, and it is not necessary to enter the setting for normal production.



No bag detection: This function is to open the bag vacuum for 10 consecutive bags without detecting the vacuum. The system considers that there is no bag, and the machine alarms and shuts down. This function can be turned on/off.

Low air pressure detection: machine low air pressure detection switch. It needs to be opened for normal production.

Compulsory filling: The filling function is forcibly opened for vacuum detection without opening the bag.

Forced heat sealing: Forced no blanking detection to open the heat sealing function.

Ribbon detection: Turn on/off the ribbon detection function.

2. Safety check before debugging:

① Before debugging, be sure to check whether all screws are tightened, whether lubricating oil (oil) is added, and whether the power supply is correct.

② Whether the air source is connected to the entrance of the triplet of the packaging machine.

3. Safety precautions during debugging:

① In the process of debugging, the debugging personnel must pay attention not to approach the seal when sealing, so as to avoid personal injury.

②Wear heat-proof gloves when adjusting the sealing roller to avoid scalding the heated sealing roller.

③When the machine is running, the commissioning personnel cannot touch it with their hands.

④Judgment of debugging results, see whether there is abnormal noise in the operation of the whole machine

4. Steps and instructions for debugging

①Put the bag on both sides of the bag slot and adjust the tail baffle.

②Close the electric box door and the protective door, turn on the power switch, and set the sealing temperature controller between 100°C and 180°C (the temperature value is determined by the thickness of the packaging film and the material).

③After the temperature reaches the set value, manually operate the sealing action to determine whether the temperature is appropriate, and set the relevant time and timing relationship.

④Enter the relevant parameters, adjust each parameter, manually test the action of each function, and conduct a trial run of continuous operation.

5. Debug operation process

①Safe operation of the machine: all doors of the electrical box must be closed, and the machine can be turned on only after closing the protective doors.

②Turn on the machine: Turn on the power switch, the language selection is displayed on the man-machine screen, select the language you can understand to enter the running menu page, and press Start in the running menu page to turn on the machine.

③Machining and unloading:

If the blanking time is inaccurate, material clamping will occur; the solution is as follows:

* First adjust the photoelectric sensor switch of the main motor on the

turntable; a. If the feeding is too early, move the induction plate forward in the direction of rotation (turn a little counterclockwise); b. If the feeding time is too late, set the induction plate Move back (turn a little clockwise).

* Modify the time length of the delayed pull belt to adjust the time sequence relationship between the material falling time and the opening and closing of the horizontal seal to avoid the phenomenon of material clamping.

⑤ Press the emergency stop button during emergency shutdown to stop the whole machine, and all working states will stop. If you want to restart the machine, you must reset the emergency stop switch.

⑥ To shut down at the end of work, pack all the materials inside, then stop the machine, and then turn off the main power switch.

6. Preventive inspection

After working every day, check whether the machine seals are clean, whether the railing screws are loose, whether the horizontal sealing rod has sufficient lubricating oil, whether there are abnormal electrical components in the electrical box, whether there is oil in the triplet, whether the drain valve is draining, etc.