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Section 1 Attention



Warning: Please read the following safety precautions carefully before use. In order to avoid the personal safety of you and others and the safety of the equipment from being damaged, please use the equipment safely and correctly. The company will not be responsible for personal injury and material loss caused by the user's violation of the following items!



It is forbidden to operate the machine by personnel without equipment operation qualification

Untrained or unqualified personnel are not allowed to operate, commission and maintain the equipment.



It is strictly forbidden to place tools or other irrelevant sundries in the moving parts of the equipment

Before starting the machine every time, check whether there are any irrelevant objects in the moving parts such as the worktable, conveyor belt and sealing knife seat. It is forbidden to place tools or sundries.



It is strictly forbidden to put any part of the body close to or touch the running parts during the operation of the equipment

Please close the safety door of the equipment before starting the machine. During the operation of the machine, it is strictly forbidden to put any part of the body close to or contact with the running parts. It is forbidden to put hands or tools into the sealing tool holder. Otherwise, it may cause serious personal injury!



Live line inspection and maintenance of equipment are strictly prohibited

Please turn off the power during the inspection and maintenance of the equipment. When more than one person debug and repair the equipment at the same time, please pay attention to the coordination between each other to avoid personal injury.



It is strictly forbidden to change the parameter setting value at will and frequently

The parameters of the servo driver and frequency converter on the equipment have been strictly tested before leaving the factory. Do not change these values randomly and frequently, or unexpected accidents may occur.

If it is necessary to adjust the set parameters, please follow the steps in this manual.



It is strictly forbidden to change any part of the equipment without permission

Private modification of equipment may cause unpredictable accidents.

Please do not change the equipment without the company's consent, otherwise all personal injury and material loss caused by it shall be borne by the user.

※ It is forbidden to operate at super high speed for a long time

Long time operation above the specified speed of the equipment will cause damage to the equipment and reduce its service life.

※ It is forbidden to install and use the equipment outside the specified environment

If the equipment is installed in the environment that does not meet the requirements, it will not achieve the designed performance and life, and even unexpected accidents will occur, which will cause personal injury and material loss.

※ In case of emergency, please press the "emergency stop" button

Section 2 Application and characteristics

1、 Scope of application

This machine can be equipped with electronic scale, combination scale, measuring cup, screw scale and other measuring mechanisms. It is suitable for the packaging of milk tea, soybean milk powder, condiments, sugar, salt and other granular and powdery materials.

This machine has the characteristics of good sealing, clear and fast sealing, compact structure, stable operation and low noise.

2、 Main specifications and technical parameters

Packing speed : 15-80packs/min

Film width : 120-420mm (MAX 390mm)

Bag size : Length 80-300mm ; Wide 50-195mm (Recommended widest 185mm)

Total power : 3.0kW

Auxiliary motor power : 0.06kW

Heating power : Vertical sealing 0.7kW ; End sealing 1.4kW

Bag pass rate : $\geq 96\%$

Machine noise : $\leq 75\text{dB}$

Compressed air : $\geq 6\text{kg/cm}^2$ 230L/min

Net weight of machine : 650kg

Dimensions (Length*Width*height) : 1770x1105x1500(mm) (There will be some changes in the size of the control box)

Power supply type : 220V、50/60Hz

Packaging film material : OPP、PE、PVC、OPP/PP、PT/PE、KOP/PP、Aluminum coating, etc.

3、 Main electrical and pneumatic components manufacturers

In order to make the machine have good performance, the key electrical and pneumatic components on the machine are products of well-known manufacturers, as follows:

Product name	Product brand
Pneumatic components	SMC , Japan
PLC	Mitsubishi , Japan
Temperature control	Omron
HMI	weinview
Servo motor	Panasonic

Button	Schneider
Switching Mode Power Supply	Meanwell

Section 3 Overview of machine functions

Zyd220 series vertical automatic packaging machine is a vertical bag forming filling sealing multifunctional packaging machine. The utility model is mainly composed of a frame (00), a transverse sealing mechanism (01), a middle sealing mechanism (02), a paper pulling mechanism (03), a paper feeding mechanism (05), a bag former component (06), a protective cover component (12) and an electrical component (01), as shown in Fig. 1

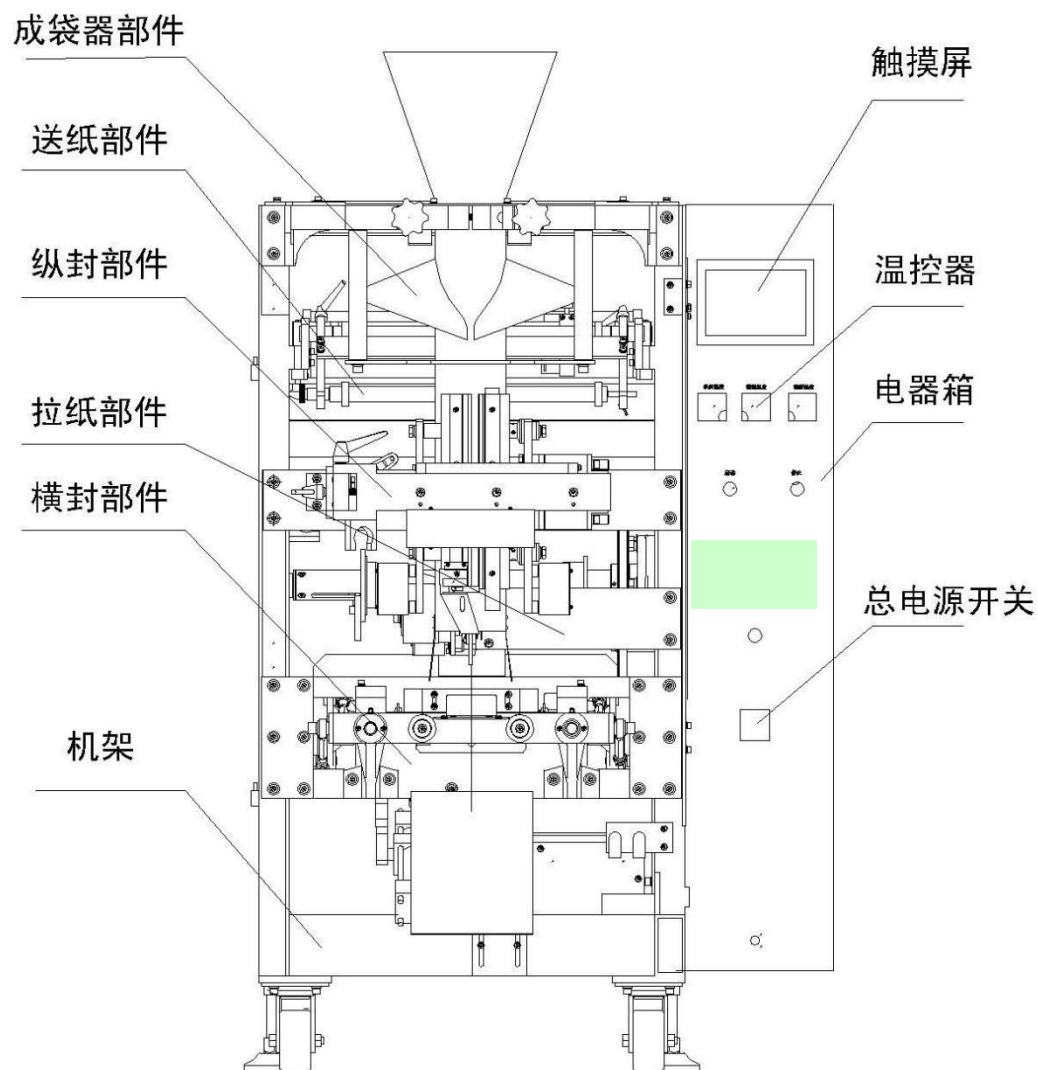


Figure 1 Schematic diagram of main components and related parts of zyd220

After the film of the drum is tensioned by several rollers in the paper feeding mechanism, it is formed by the bag forming part of the collar, and the middle sealing mechanism is sealed to form a barrel bag, and the paper pulling mechanism transmits the drum bag downward. At the same time, the material enters the barrel bag through the hopper and the material barrel, and then the cross sealing mechanism completes the cross sealing and the cutter is cut off. The packed products are sent out by the discharging mechanism.

※Forming mechanism (1)

The bag forming part of the film forms a cylinder shape of the packaging film through a forming device.

※ Transverse sealing mechanism (2)

The transverse seal mechanism is a crank slider mechanism, which is driven by the air cylinder, and the front and rear cutter seats move relatively to complete the transverse seal.

※ Vertical sealing mechanism (3)

The left cutterbed of the middle seal is the fixed cutterbed, and the right cutterbed is the flexible cutterbed. During packaging, the air cylinder drives the right cutter seat to move. Through the cooperation of the left cutter seat, the middle sealing action is completed, and the packaging film forms a cylindrical bag.

※ Film pulling mechanism (04)

Through the friction between the synchronous belt and the material cylinder wall, the paper pulling mechanism transports the formed cylindrical bag downward one bag length at a time.

※ Paper carrier (05)

Pull out the film from the reel film and tension the film to the paper feeding mechanism through the action of several rollers.

※ Paper feed mechanism (05)

Film coding or inkjet, color code, photoelectric sensor detection and tracking are all carried out here, to the bag forming device parts

※ Bagger components (06)

The bag forming part of the film forms a cylinder shape of the packaging film through a collar bagger.

※ Shield components (12)

This part is to provide safety protection parts, can prevent the machine running process, personnel and machine damage.

※ Electrical components (10)

Electrical parts are used to control and coordinate film feeding, bagging, longitudinal sealing, transverse sealing and blanking, so that the machine can complete the packaging work according to the technological process.

Section 4 Packaging and transportation

※ Packing

Before shipment, the equipment shall be packed with rain proof and anti-collision packaging, and the packaging layer shall be divided into two layers, the inner layer shall be made of rain proof and moisture-proof materials (such as degradable plastic film), and the outer layer shall be anti-collision material (such as wood board).

※Transportation

Cover with canvas when transporting by truck.

※Carry

When the equipment is transported to the destination, the load-bearing capacity of the crane and forklift used for unloading is greater than 1.2 times of the equipment weight, and the equipment weight is marked on the packing box. If the crane is used for unloading, it must be ensured that the lifting is stable and there is no danger of vibration and sliding.

※Storage

During the storage period, the equipment shall be properly placed in a rain proof, moisture-proof and sun proof place, and the ambient temperature shall be 0-45 °C. The packaging materials shall not be removed during storage.

Section 5 Install

1、 Installation requirements

Remove the packaging materials before the installation of the equipment, pay attention to the collection and storage of the packaging materials, do not pollute the environment. Pay attention to check whether the equipment and parts are damaged. If there is any defect, please contact our company according to the product code shown on the equipment label.

2、 Selection of installation site

Before installation, the installation site should be selected according to the overall dimensions of the machine. The overall dimensions of the machine are shown in Figure 2.

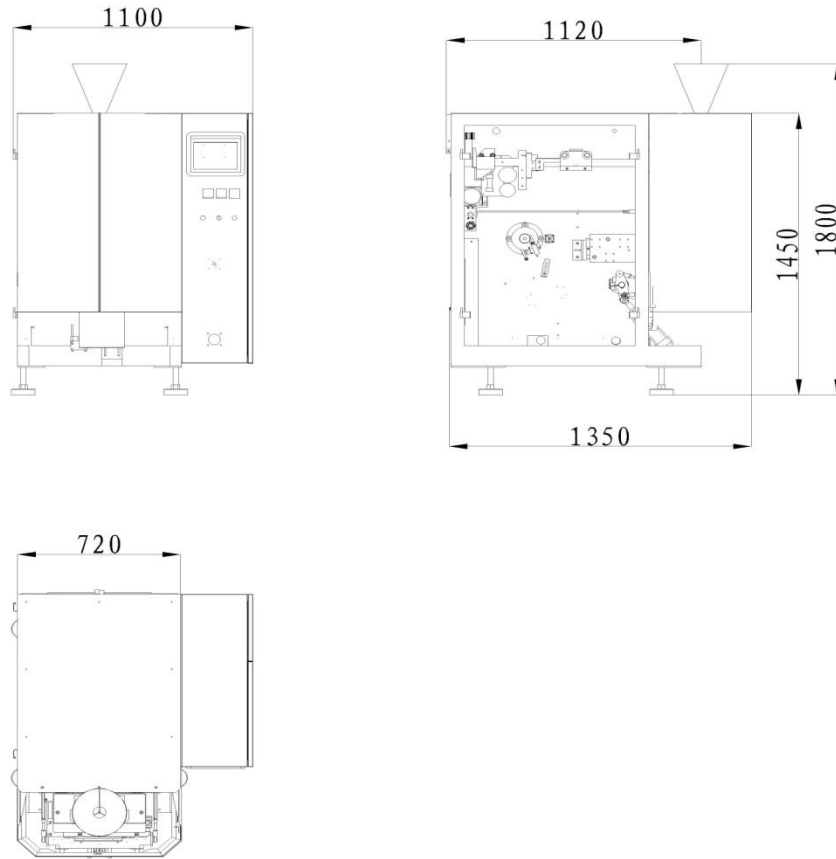


Fig. 2 overall dimensions of 220

In order to operate the machine conveniently and flexibly, we suggest the minimum installation space (in the horizontal plane) as shown in Figure 3

☀ Pay attention not to install the machine in the following places, otherwise the normal use of the machine and equipment will be affected.

☒ Direct sunlight

If the machine is installed in a place with direct sunlight or strong light, the sensor will fail.

☒ The temperature is too high or too low, and the space is too narrow

This machine is suitable for operating environment temperature: 0 ~ 45 °C; humidity: no condensate 10 ~ 90% RH value.

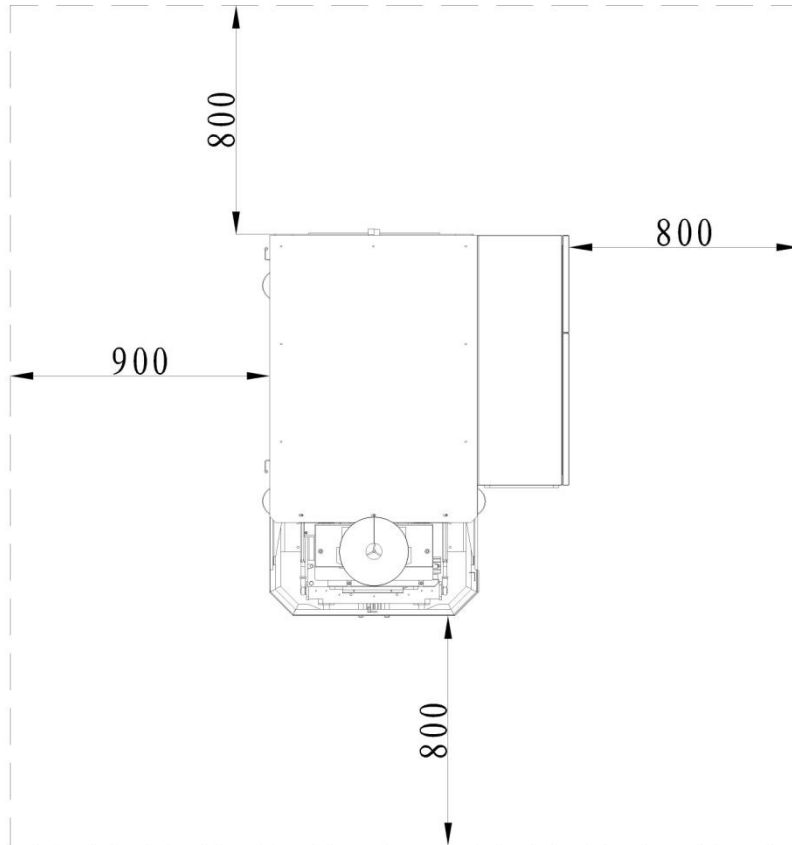


Figure 3 220 installation site requirements

※Location with source

※Near the vents of ventilators and air conditioners

※Harsh environment with corrosive gas or dust that is not suitable for the use and maintenance of the machine.

3、 Preparation

a、 Cleaning the installation site ;

b、 Lifting equipment requirements are: a forklift (2 tons). Check whether the performance of the forklift meets the lifting requirements

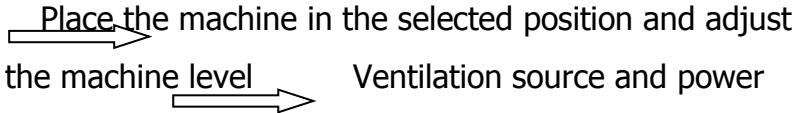
of the equipment: stable and meet the maximum lifting capacity and lifting size ;

c、 Open the packing box, check the equipment according to the packing list, and check whether the equipment is damaged, whether the equipment label and safety sign are in good condition.

If the above items are satisfied, the installation can be started.

Pay attention not to damage the equipment during installation and pay attention to personal safety

4、 Installation process

Start installation 
supply

※Adjust machine level

After the machine is hoisted to the installation position, the upper surface of the end seal rear cutter base connecting base (no pressing mechanism is installed at this time) shall be taken as the reference plane. A level meter shall be placed on the reference surface to adjust the four anchor adjusting screws (the lower end of the screw is supported on the foot pad) at the bottom of the machine to make the reference surface horizontal, and leave a gap between the four casters and the ground.

※Ventilation source and power supply

Before connecting the line, check the following contents first. If there is any problem, please put forward it in time.

a. Check whether the air source pressure meets the requirements of the machine: $\geq 6 \text{ kg / cm}^2$;

. Check whether the air source is clean and whether there are impurities such as rust in the pipe. The inspection method is as follows: connect the pipeline with air source and blow air to the white paper, and the debris particles on the white paper should be less than 20um;

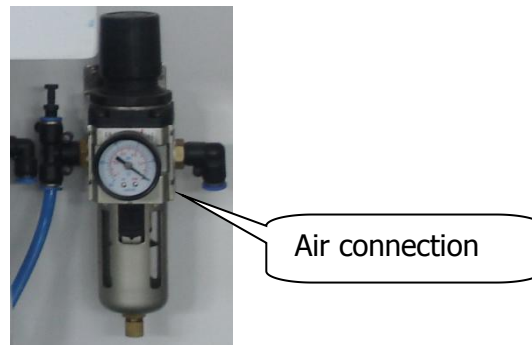


Fig. 4 Schematic diagram of air source interface

c. Check whether the power supply voltage (220 V) is stable and meets the requirements of the machine.

The air source interface of the machine is located on the back of the machine, as shown in Figure 4. The interface is a quick connector, which is connected to the air source with a $\phi 8$ gas pipe.

Insert the power plug of the machine into the power socket. The main power switch of the machine must be turned off before connection..

Note: when the machine is not used for a long time, please pull the power plug out of the power socket.

Section 6 Machine debugging

1、 Film loading steps

A. Put the packaging film on the paper holder, and pull out the film anticlockwise.

The operation method is as shown in Figure 18, loosen the lock nut, turn the handle anticlockwise to widen the distance between the front and rear locking wheels, remove the front locking wheel and install it on the paper carrier.

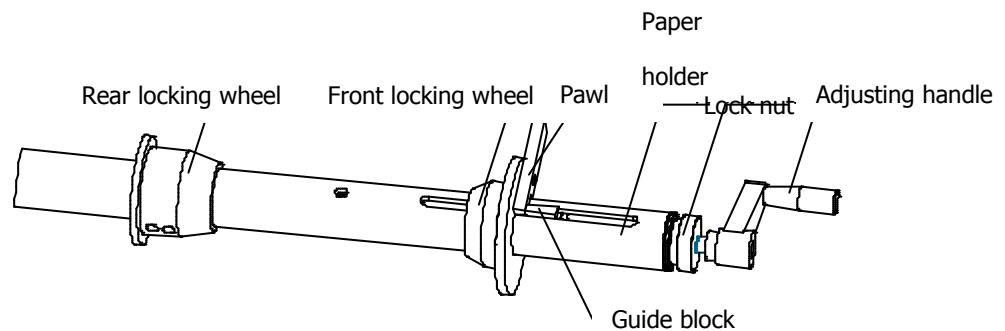


FIG 18 PAPER HOLDER Sketch Map

Pack the film roll, and then install the front locking wheel, let the front end of the pawl insert into the slot of the paper carrier, and clamp it between the guide block and the front locking wheel. Install the handle and turn the handle clockwise to automatically place the packaging film roll in the central position of the paper carrier, tighten the lock nut, and put the rear swing rod mechanism back to the original state.

B . Wear packaging film

The direction of the packaging film is shown in Figure 19. Pass the packaging film through the surface of the receiving board, through the rear fixed roller, through the coding machine, through the electric eye, through the front fixed roller,

through the tension roller in front of the bag former, through the bag former, and pull it to the end seal.

When using the same kind of packaging film, when loading the film for the second time, you only need to put the packaging film roll into the paper holder, pull the packaging film to the cardboard, and pull the end of the first roll of film back to the cardboard, so that the two are butted, so that the second roll of film is installed.

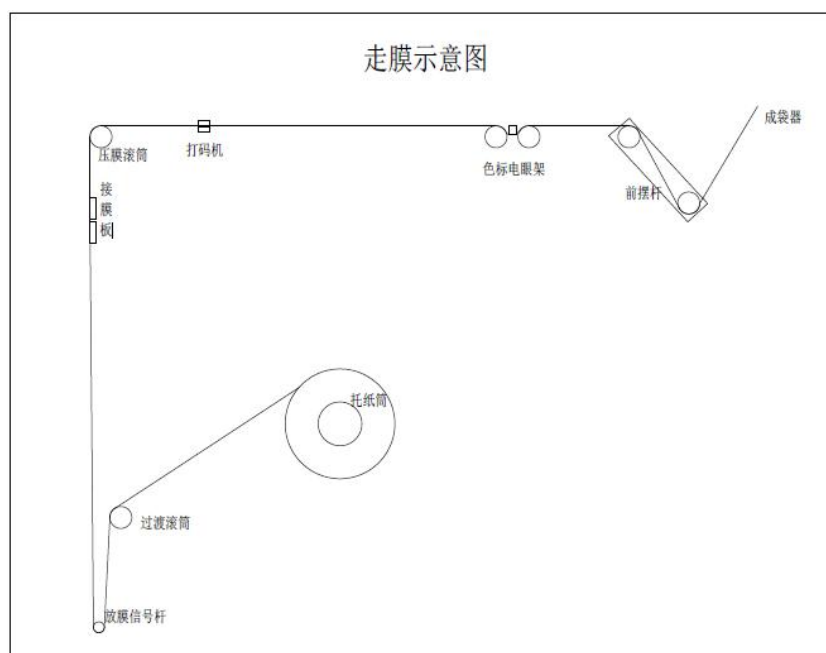


Fig. 19 inner paper and film bagging

2、Tension adjustment

When the packaging film passes through the bag former, if the tension is not uniform, it will cause the paper to run out of order. It must be adjusted before starting the machine. The adjustment method is as follows:

a、As shown in Figure 20, first loosen the adjustable handles on the left and right sides;

b、 Turn the left and right swing rods forward or backward slightly, that is, swing the tension roller to change the relative position between the tension roller and the bag former, so as to achieve the purpose of even tension when the paper film enters the bag former;

c、 After adjustment, tighten the left and right adjustable handles.

During normal operation, on the tension roller, the packaging film is located between the left and right paper retaining rings, and the center line of the paper film and the symmetrical center line of the bag former are in a vertical plane. If not, the tension roller needs to be adjusted. The adjustment method is as follows:

a、 First, loosen the butterfly twist on the left;

b、 Turn the right adjusting knob clockwise or anticlockwise to move the paper film center line on the tension roller to the left or right until it is in a plane with the symmetrical center line of the bag former;

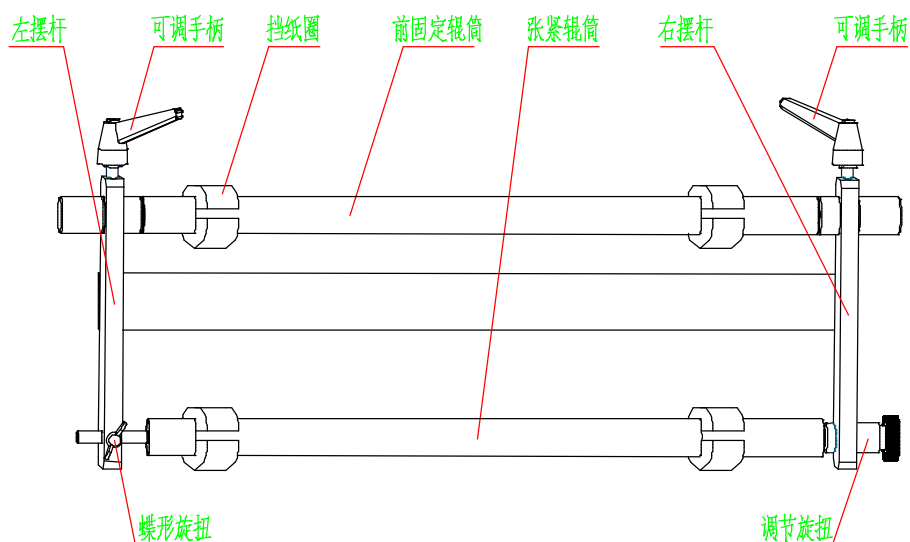


Figure 20 schematic diagram of front swing rod mechanism

c、 After adjustment, tighten the butterfly screw.

3、 Adjustment of vertical sealing part

The effect of the middle seal should be airtight and the lines should be clear. Note that before the machine leaves the factory, the middle seal parts have been carefully adjusted and strictly inspected, and generally do not need to be adjusted. In normal operation, it is only necessary to adjust the relative positions between the left and right cutter bases of the middle seal and the bag former according to the size of the packaging film. Generally, the distance between the two is 2 mm (see Fig. 21)

a、 Release the locking handle a;

b、 Turn the adjusting handle clockwise or anticlockwise until the left and right cutter bases of longitudinal seal are about 2mm away from the bag former;

c、 After adjustment, tighten the locking handle a.

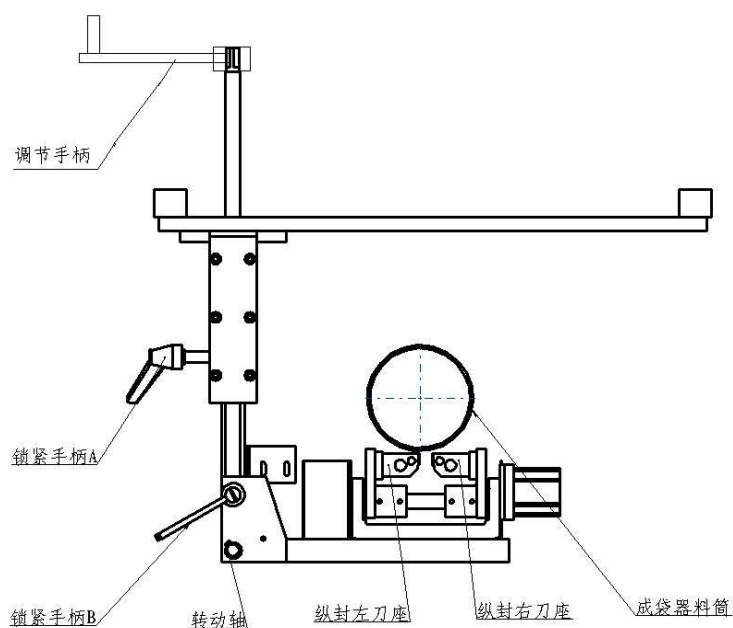


Figure 21 schematic diagram of middle seal mechanism

When the bagger is used to pack the packaging film, the middle sealing part needs to be opened

a. Release the locking handle B;

b. Turn the sealing part of the middle seal clockwise (around the rotation axis) to be perpendicular to the connecting plate of the middle seal.

c. After the packaging film is installed, turn the middle sealing part back to the original state and tighten the locking handle B.

4、 The use of color mark tracking system

After the film length is set and adjusted, install the packaging film, adjust the color mark electric eye, and align the cutter position (that is, when the end seal cutter seat is engaged, it is just cut at the paper film color mark position).

- a. Loosen the locking handles a and B (see Fig. 22);
- b. Move the electric eye tracking car left and right along the guide rail of the car, and move the electric eye bracket back and forth along the guide rail of the electric eye bracket, so that the electric eye is facing the color code on the paper film;
- c. After adjustment, tighten the locking handles a and B.

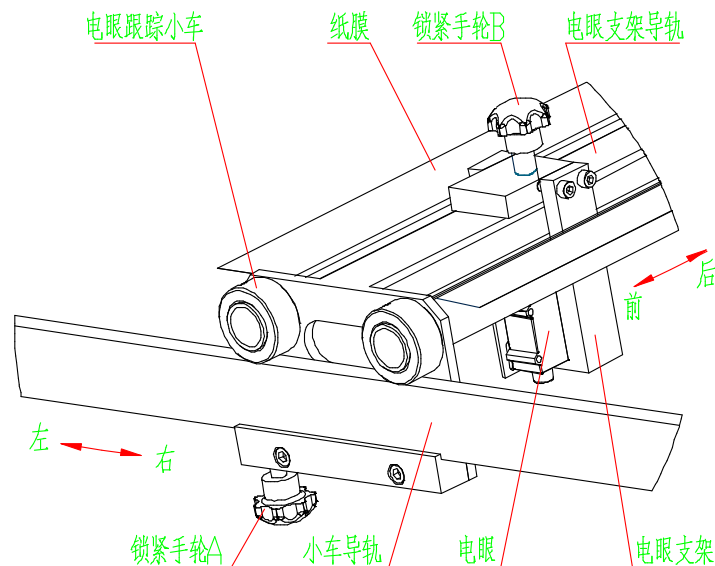


Figure 22 schematic diagram of electric eye tracking

5、Matters needing attention in adjustment and use of bag former

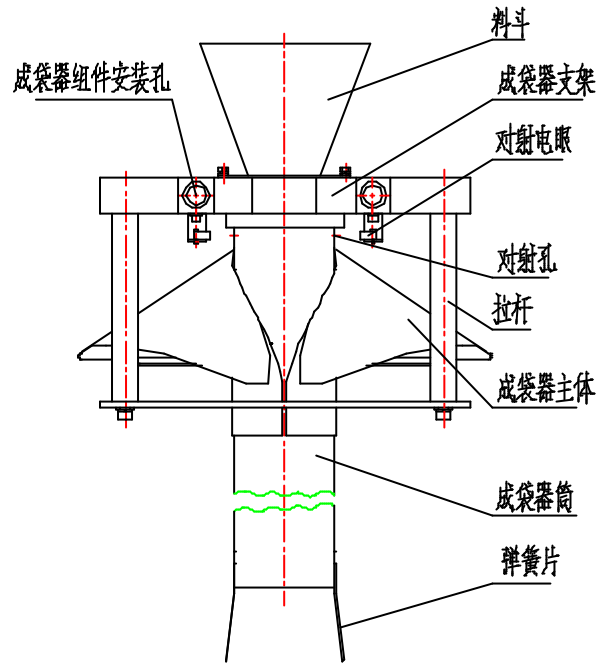


FIG 23 Schematic diagram of bag maker assembly

The bagger is located in the upper part of the front protective cover of the machine. It is composed of the bagger mounting bracket and the bagger components (as shown in Figure 23). It makes the packaging film form here. The adjustment effect of the bagger directly affects the quality of the bagging and also affects the paper drawing effect. It is difficult for non professionals to adjust the bagger well. Note: before the machine leaves the factory, the parts of the bag former (including the bag former accessories) have been carefully adjusted and strictly inspected. Generally, there is no need to adjust them.

When the bagger assembly needs to be replaced due to the change of packaging film width, just remove the two locking handwheel installed on the mounting hole of the bagger assembly, remove the original bagger assembly, replace the bagger assembly to be used, and then install and tighten the two locking handwheel.

If the counter electric hole is used, in the packaging process, the debris in the food will accumulate to the counter perforation of the bag forming cylinder. If it is not removed in time, the normal operation of the counter electric hole will be affected, resulting in misoperation and empty bag of the machine. In addition, the accumulated debris will fall between the paper film and the bag forming cylinder, resulting in paper sliding. Therefore, it is necessary to clean up the food debris of perforation frequently.

Note: in the standard configuration, when the main engine cooperates with the metering system, such as the combination scale, the radio eye is not needed.

6、Notes for use of horizontal seal

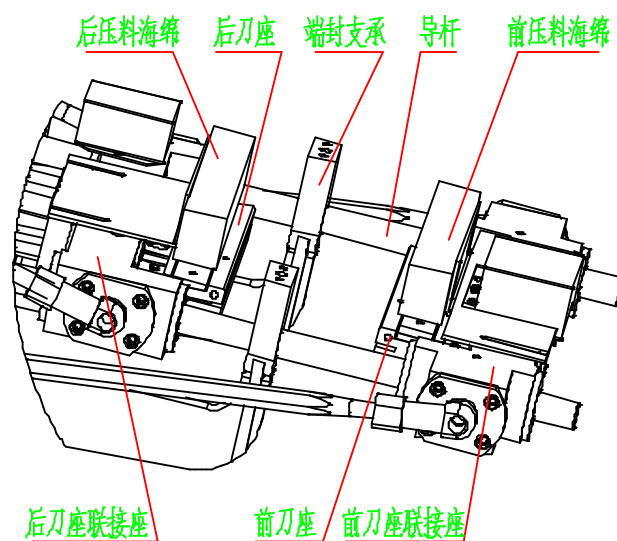


FIG 24 Schematic diagram of cross sealing mechanism

Due to the high temperature of the sealing parts of the front and rear knife seats of the cross sealing, the packaging film is very easy to adhere to it. If it is not removed in time, the next packaging bag will not be sealed firmly. Therefore, it is necessary to brush the sealing parts (cutter teeth) of the front and rear

cutterbed, especially the front cutterbed, with a steel wire brush with silicone oil.

The installation position of the front and back packing sponge is related to the air filling and exhaust of the packing bag. If you want to inflate the packaging bag, as shown in Fig. 24, the front and rear pressing sponges are respectively installed on the upper surface of the front and rear cutter base connecting seat; if you want to exhaust the packaging bag, the front and rear pressing sponges are respectively installed on the lower surface of the front and rear cutter base connecting seat.

Section 7 Operation panel

1. Introduction of operation panel

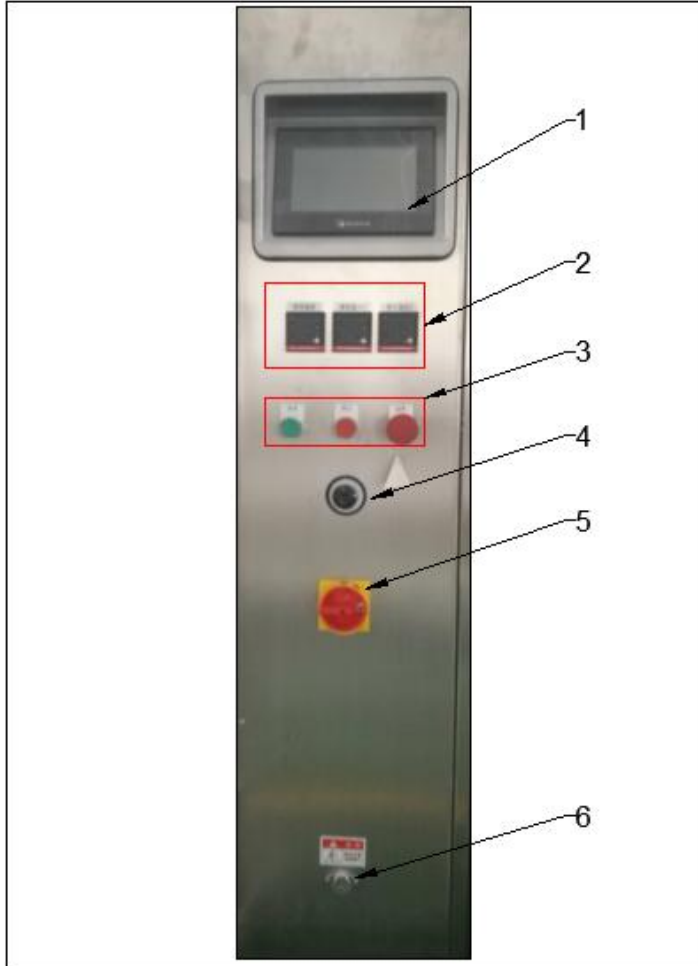


Figure 26 schematic diagram of control surface

As shown in the figure26:

1 is the operation touch screen;

2. Temperature controller for longitudinal and transverse seal of packaging machine;

From left to right are start, stop and emergency stop buttons;

4 is the temperature control knob of the coding machine, which is rotated clockwise to increase the coding temperature (optional item);

5 power switch;

6 is the power socket of discharge belt.

2.Touch screen settings

☞ In the initial screen of the touch screen, click "click to enter" and the screen will jump to the running screen. Click the language switch button to switch to the English interface.



Fig 27 Touch screen initial screen

☞ Login password

Click the protected button or parameter setting to pop up the pop-up box in password protection, as shown in Figure 28. You need to log in to the user level before you have permission to modify the relevant parameters. Input password: "8888" click the "enter" key on the input keyboard, login is successful, click "OK" to continue to modify or adjust parameters.

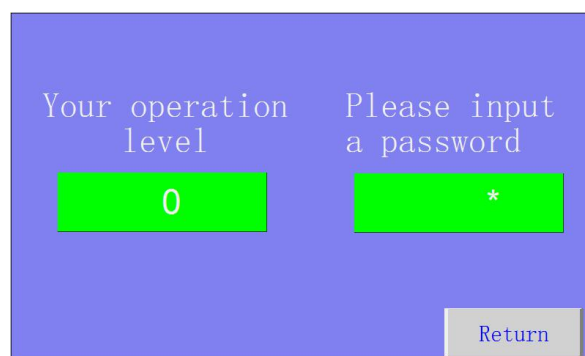


FIG 28 Password protection tips

☞ Operation parameter setting

To run the machine, you need to set the relevant parameters, as shown in Figure 29, operation screen setting

FIG 29 Operation

Operation page description:

Set the required bag length, appropriate production speed and film drawing speed. Set the continuous package according to the needs. The continuous package means that the products will not be cut off. For example, if the continuous package is set to "5", the packaging machine will cut off every 5 products.

When the **production / empty** bag switch is displayed as "empty bag", the packer will make empty bags at the set speed. If it is shown as "production", it will cooperate with the scale to produce products.

When the display is "**fixed length control**", the length of the bag should be set according to the length of the bag. When the display is "**color code control**", the length of the color code should prevail. The length of the bag should be set according to the length of the color code. Considering the slippage of the film or other errors, when the color code control is enabled, the length of the bag should be slightly larger than the length of the color code.

Continuous / Run once, indicating "continuous", the packaging machine starts and will continue to run until the button is pressed or the emergency stop or the alarm occurs. If it is displayed as "Run once", it will only operate for one cycle, that is, packaging a bag and stop operation.

To **make a long bag**, you need to click this button under the film pulling function and the opening state of the middle seal, non operation and non alarm state to make the machine into a long bag, that is, the film is pulled once and the middle seal is closed once.

Start / stop button, the function is on the control surface

As shown in Figure 30, parameter setting

	Delay	Action	
Vertical seal	0.00	0.00	S
End-seal	0.00	0.00	S
Cutting knife	0.00	0.00	S
Code	0.00	0.00	S
Inflation	0.00	0.00	S
Fold corner	0.00	0.00	S
Cooling blowing		0.00	S

Operation Parameter Function System Alarm Return

FIG 30 Parameter

Parameter setting Description:

According to the speed of film pulling, the action delay time is set, and according to the sealing effect, the action time is set;

The cutter delay time is timed from the beginning of the transverse seal action. The setting of the delay time should be greater than the time from the beginning of the transverse seal action to the complete seal. The action time is generally set as "0.2" seconds. If the delay time is too short, it will lead to the malfunction of the rejection function.

Set the printing delay and action time according to the printing effect, and the sum of the two times shall not be greater than the action time of the middle seal.

The setting of inflation delay and action time should be adjusted according to the inflation effect. Theoretically, the delay time is close to the transverse seal delay.

According to the actual situation, the adjustment range is about 0.01-0.02s. Action time can be 0.1s as the benchmark, according to the inflation effect, up and down adjustment!

Cooling action time: the trigger of cooling starts from the end of transverse sealing action, and the action time indicates the execution time of cooling function. Adjust according to the actual needs.

Namely:

Film pulling acceleration and deceleration setting: if film pulling slows down, increase the acceleration and deceleration appropriately.

Setting of film drawing pulse coefficient: the factory value shall not be modified at will, please consult the manufacturer and adjust according to the manufacturer's guidance.

As shown in Figure 31, function selection

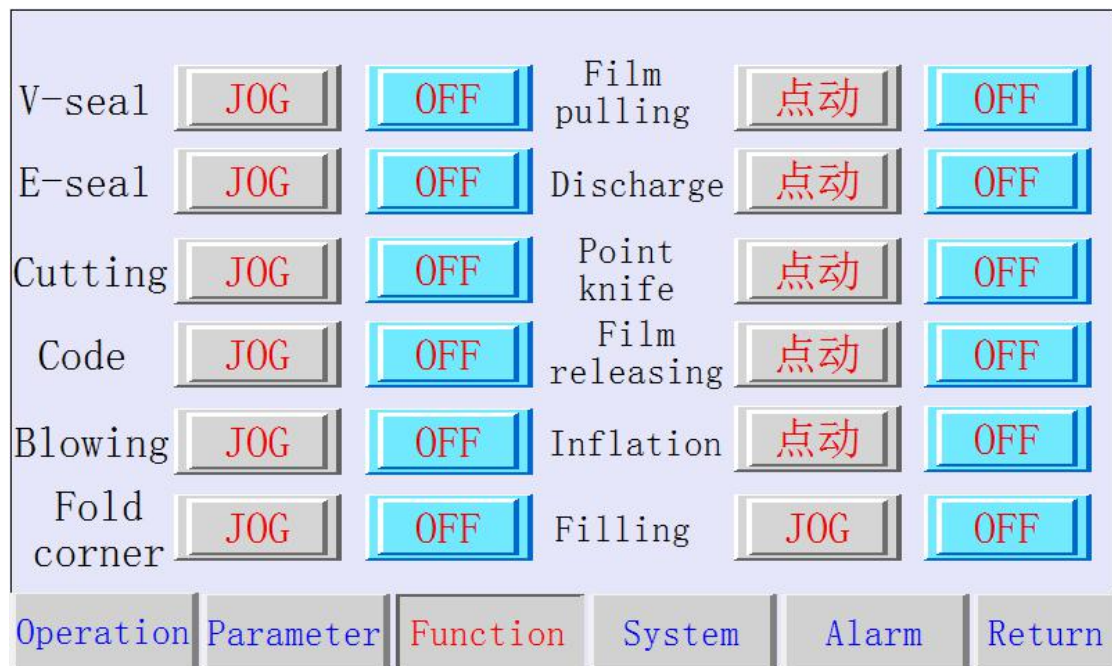


FIG 31 Testing

Test mode description:

The inching behind each function can only be inched in the state of non alarm, non operation and safety, so as to test the state of the single function.

Inching, click the corresponding function action, in which the inching of cutter and discharge is alternating, the inching of film pulling is once, and the length is the set bag length. The other inching buttons are reset buttons (the alternate buttons hold the action after clicking, and the cancel action needs to be clicked again; the reset buttons click and release the cancel action.)

To switch off / on, when the function needs to be enabled, it should be switched to the "on" state, and when it is not needed, it should be switched to the "off" state.

As shown in Figure 32, system settings

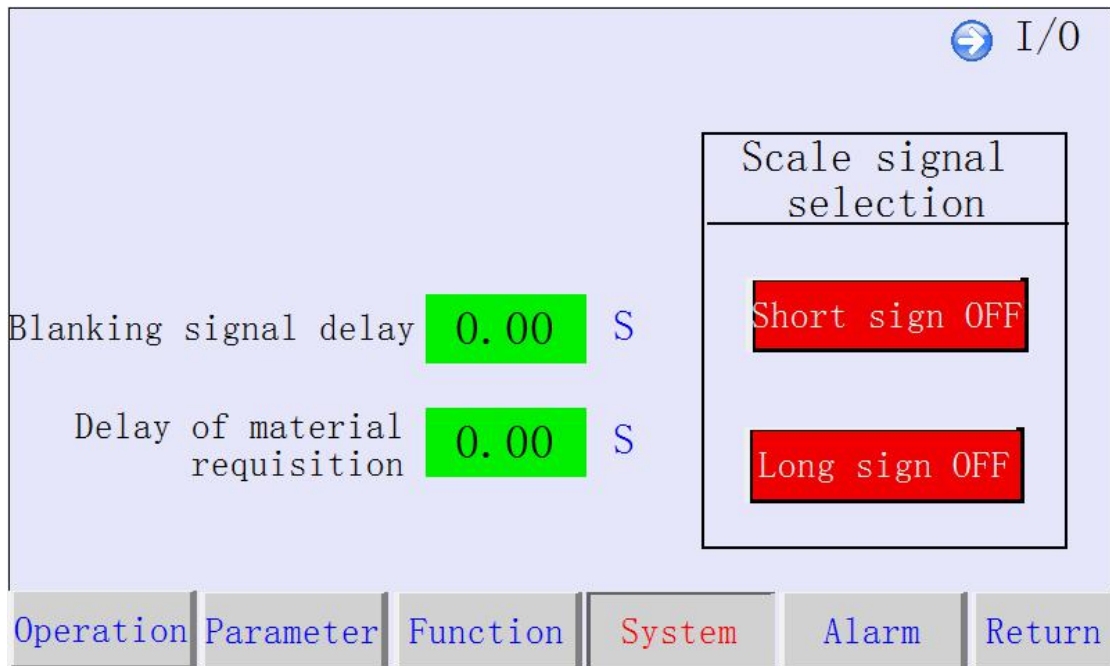


FIG 32 System

System setting instructions:

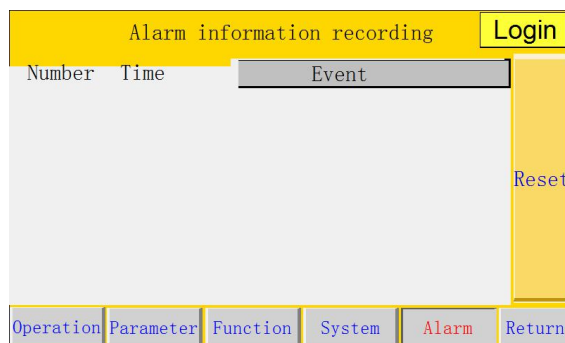
The action of the packaging machine is delayed. After receiving the feedback signal from the scale, the packaging machine acts after delaying the set time,

Re material request delay: when it is set to continuous operation, after the action delay time of the packaging machine expires, start the timing of RE material request delay and send the material request signal again.

The selection of long signal / short message number is generally long signal on. Consult the packaging machine manufacturer for details.

I / O button, click to the I / O monitoring screen to monitor the input and output points of the system.

AS shown in fig 33 alarm event.



When the machine alarms, it will jump to this screen to solve the fault of alarm display, and click Reset. If the alarm content is solved, the screen will jump to the operation screen.

FIG 33 Alarm

Alarm content description:

- a. **Emergency stop** When the emergency stop of the equipment is photographed, rotate the emergency stop button to release the emergency stop, and then click the reset button.
- b. **No film** The sensor for detecting the packaging film has detected it. Replace it with a new roll film and click Reset.
- c. **Servo alarm** Same as screw servo alarm.
- d. **Code alarm** The printer ribbon is not detected or there is no ribbon.
- e. **Material run out & alarm.** The material in the silo is insufficient. Add the material and click Reset.
- f. **The mark tracking abnormal.** In the marker Ctrl mode, the color code is not captured. Confirm that the color code sensor can detect the color code, and adjust the color code! Click Reset.
- g. **Code alarm** The color band of the printer is not detected or used up.
- h.
- i. **Poor position of vertical seal** If the vertical seal is not


closed, confirm the position and click Reset.

- j. **Vertical seal heating alarm!** The difference between the actual temperature and the setting of the longitudinal sealing cutterbed exceeds the error setting value. When the temperature is restored, click Reset.
- k. **End seal heating alarm!** The difference between the actual temperature and the setting value of the cross sealing cutterbed exceeds the error setting value. When the temperature is restored, click Reset.
- l. **Pre-count is full** Set the preset counting function on. When the count reaches the preset value, click Reset!

Section 7 Operation

Through the adjustment of the above steps, the machine can carry out normal production, but before the normal production, some inspection and trial operation should be carried out.

1. Inspection items before operation (pay attention to personal safety)
 - a. Whether the pressure of the instrument is normal;
 - b. Whether there is air leakage in the pneumatic device;
 - c. Lubrication condition of each part;
 - d. Whether there are people or sundries in the forbidden area of equipment operation;
 - e. Whether the control switch and indicator light are flexible and easy to use;

 **Special attention: before starting the machine, the sundries in the barrel, knife seat and packaging film should be removed, so as to avoid damaging the cutter due to the wrong cutting of the sundries by the cutter when starting the machine. The outer surface of the film tension adjusting roller, bag former and photoelectric probe should be kept clean.**

2、 Start up procedure of packaging machine

After the pre run check, enter the boot program

- a. Open the air source valve;
- b. Turn on the main power switch, heating switch and temperature control meter switch

c. Confirm whether the system is powered on and observe whether there is alarm information;

d. If there is alarm information, refer to the chapter of system maintenance and troubleshooting or the manual of the faulty equipment to remove the fault;

e. According to the production of products, through the touch screen, call the corresponding product data. Please refer to the touch screen settings in the debugging section for specific call methods.

f. Press the "start" button, and the machine will enter the running state.

3、 Carry out trial operation

Test run, check whether the packaging effect is good, if it is good, enter the normal production, otherwise, carry out relevant adjustment. For specific adjustment methods, see the debugging section.

4、 Monitoring items in operation

a. Whether there is air leakage in the pneumatic device;

b. Whether the action of each component is coordinated;

c. Whether the sealing effect is ideal;

d. Whether the motor operates normally, whether there is abnormal noise or overheating.

5、 Packing machine shutdown procedure

※Normal shutdown

Under normal conditions, press the stop button on the control panel

※Emergency stop

In case of emergency, press the "emergency stop" button on the control panel, the machine will stop immediately and lock itself. If you want to unlock, just turn right a little.

Section 8 Machine maintenance and inspection



Please turn off the main power supply when cleaning, checking and adjusting. Otherwise, electric shock and injury will be caused. Please entrust professional personnel for adjustment and inspection.

The maintenance and inspection of the machine can be divided into three categories: daily, monthly and semi annual.

1、 Daily or shift maintenance and cleaning of the machine:

- (1) Clean the machine after each shift;
- (2) Before cleaning the machine, turn off the power supply to ensure that the heater is cool to avoid high temperature scalding.
- (3) When cleaning, do not spray water or steam directly on the machine;
- (4) Parts to be cleaned:
 - ※If product debris accumulates on the product transportation line, use compressed air or other methods to remove it.
 - ※If the film debris adheres to the sealing surface of the longitudinal seal or end seal, brush it off with a wire brush coated with silicone oil.
 - ※ Wipe off the dirt on the control panel, protective cover and table panel with soft cloth.
- (5) The water in the air filter should be removed at each shift.

2、 Monthly maintenance and inspection of the machine:

(1) Add grease to the bearing of the end sealing parts, and the grade of the grease is 2# general lithium base grease (gb7234-87);

(2) Add grease to the chain (wheel) in the transmission parts. The grade of the grease is 2# general lithium grease (gb7234-87);

(3) Check whether the chain and belt of transmission parts are tensioned, and adjust them if they are loose;

(4) Check whether the set screw or nut of each component is loose. If it is loose, tighten it. (1) Add grease to the bearing of the end sealing parts, and the grade of the grease is 2# general lithium base grease (gb7234-87);

(2) Add grease to the chain (wheel) in the transmission parts. The grade of the grease is 2 号 general lithium grease (gb7234-87);

(3) Check whether the chain and belt of transmission parts are tensioned, and adjust them if they are loose;

(4) Check whether the set screw or nut of each component is loose. If it is loose, tighten it.

3、 Check the machine half a year


(1) Check whether the belt of transmission part (V-belt and synchronous belt) is worn. If it is seriously worn, it needs to be replaced with a new one.

(2) Check all kinds of wearing parts and replace them in time.

(3) Check whether the wiring on the electrical wiring board is firm. If it is loose, fasten it. Check whether there is dust or dirt on the frequency converter and circuit board. Blow it with clean and dry compressed air.

Please insist on cleaning and maintenance of the machine every day and regular inspection, so that the machine can give full play to its maximum efficiency, safe production, and maintain good performance for a long time.

Section 9 Common fault causes and troubleshooting

 **Please turn off the main power supply when cleaning, checking and adjusting. Otherwise, electric shock and injury will be caused. Please entrust professional personnel for adjustment and inspection.**

1. In the process of using the machine, common faults and troubleshooting methods are shown in the next page:

Fault	Reason	Exclude
Abnormal color code	(1) The bag length is not set accurately. (2) The tension roller is too dirty. (3) The sensor is not responding.	(1) Reset length (2) Clean the dirt and black spots on the tension roller. (3) Check if there is any problem with the color code, adjust the distance between the sensor and the packaging film or the sensitivity knob on the sensor. When the color code is positive to the sensor, the red light on the sensor should be off, the color code should be removed, and the red light should be on.
The Horizontal sealing is not firm or the film is rotten	(1) The temperature is not enough or too high. (2) The cutter bed is not clean. (3) The front and rear cutter head are dislocated. (4) Poor paper. (5) The pressure of cross sealing cylinder is not enough.	(1) Adjust the temperature properly. (2) Use a steel wire brush to stick the silicon sliding brush to remove the sundries on the tool holder. (3) Readjust the cutter bed. (4) Change the paper. (5) Adjust the throttle valve of cross sealing cylinder. (6) Reset the end seal delay

	(6) There is not enough pressure delay.	time through the touch screen.
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Fault	Reason	Exclude
Temperature control meter can not control the temperature or no display	<p>(1) The heater is damaged.</p> <p>(2) The solid state relay is damaged.</p> <p>(3) The thermocouple is damaged.</p> <p>(4) Damage to temperature control meter due to high or unstable voltage.</p> <p>(5) The plug-in terminal is loose.</p>	<p>(1) Replace the heater.</p> <p>(2) Replace the solid state relay.</p> <p>(3) Replace the thermocouple.</p> <p>(4) Replace the temperature control meter.</p> <p>(5) Re tighten the terminals.</p>
The Vertical sealing is not firm or the film is rotten	<p>(1) The temperature is not enough or too high.</p> <p>(2) The cutter bed is not clean.</p> <p>(3) Poor paper.</p> <p>(4) The pressure of middle seal cylinder is not enough.</p>	<p>(1) Adjust the temperature properly.</p> <p>(2) Use a steel wire brush to stick silicon oil brush to remove the impurities on the tool holder.</p> <p>(3) Change the film.</p> <p>(4) Adjust the throttle valve of the middle seal cylinder.</p>