

MR-200A Rotary packing machine

Instruction

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1. Overview

MR-200A automatic rotary packaging machine combines with domestic and foreign advanced packaging structural features and fully automated control system with the industry, it is a new generation of high-tech products. The machine is widely used in food, agriculture, medicine and other industries.

The machine has the following characteristics

The machine replace traditional manual packing, it makes the packing production automatically, it also improves production efficiency and reduces product cost, significantly.

The machine meet the hygiene standards of food processing. The parts of machine which contact with materials and bags accords with food hygiene requirements of the materials processing, it ensures food hygiene and safety.

The packing range of machine is wide. It can pack a variety of solid materials, liquids, body butter, powder, granular and other materials with different feeders.


Many kinds of bags can be used in the machine, such as multilayer films, single PE, PP and other pre-made bags, paper bags can be applied. The machine can pack bag with good appearance and sealing.

This machine adopts advanced PLC plus POD (touch frame) electrical control system. The system is with security and stability, reliability, it is easy operation.


The machine with automatic detection function, it can detect the air pressure, temperature controller failure and if the bag is open to control the filling and sealing device to avoid the waste of material and bags, it can cost savings greatly.

The design of machine is compact, transmission arrangement is reasonable, and easy maintenance.


2. Safety Precautions

 WARNING: Before use, carefully read the following safety precautions. Damage for the protection of your personal safety of others as well as equipment, safety and proper use of the equipment. Users, such as physical security and material losses caused violation


of the following matters, the Company does not assume any responsibility! ! !

 Non-equipment operation qualified personnel to operate the machine.

Shall not operate without training or do not have the operation qualification, commissioning and maintenance of this equipment.

 All moving parts in the device is prohibited to place tools or other extraneous debris.

The presence or absence of an object, moving parts, countertops, conveyor belts, as well as sealing knife block must be checked before each boot to prohibit placing tools or debris.

 Equipment running, do not adjust the various mechanical parts, so as not to hurt people.

Before starting to close the security door. Machine during operation, is strictly prohibited anywhere on the body near or close to moving parts and adjustment of mechanical parts.

 Non-electrified inspection and maintenance of equipment

Inspection, maintenance equipment process, turn off the power. More than one officer at the same time when the debugging and

maintenance of equipment, please pay attention to the coordination between, to avoid personal injury.

 Non-random, frequent change of parameter settings

Inverter parameters on the device through rigorous testing at the factory, Please do not frequently change these values , otherwise the damage might be interested in the device. If you have to adjust the parameters set in accordance with the manual steps to set and adjust.

 Unauthorized changes to any part of the equipment is prohibited

Unauthorized changes to the device, and may cause damage to the equipment. Without first obtaining the consent of the Company do not make unauthorized changes to the device, nor for all the losses otherwise caused by changes to who is responsible.

 Prohibit the ultra-high-speed long-running

Run above the operating speed of the equipment specified for a long time, can cause damage to the equipment and reduce the useful life of equipment.

❖ In case of emergency, press the emergency stop button.

3. operating principle

Transmission structure (Reference to the schematic drawings drive)

This unit 0.75kw motor as the driving force to speed through the inverter, the mechanical transmission can make all moving parts of the whole machine operate synchronously.

Working process

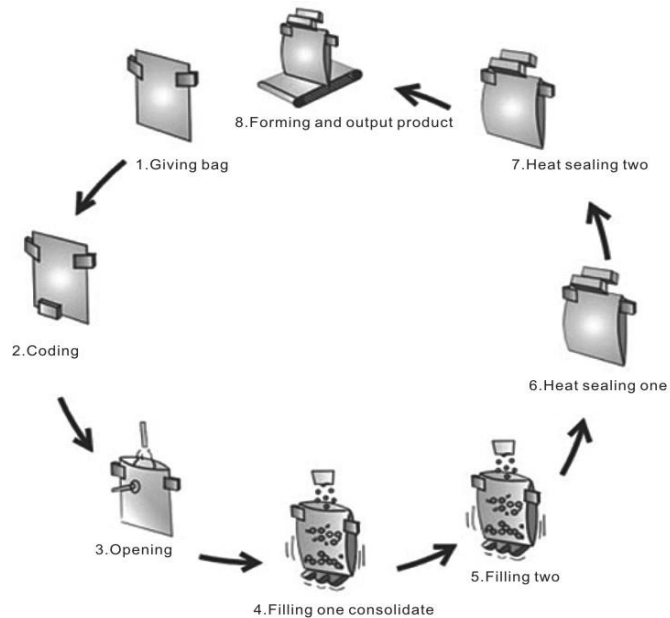


Figure 1

➤ Giving bag

Power on, suction tip adsorbs the bag, the arm folder clamps the dial folder on the first working position

➤ Coding

The machine run to the second working position, it codes the bag.

➤ Opening bag

The machine run to the third working position, it opens the bag.

➤ Filling

The machine run to the fourth working position, it fills the bag.

➤ Sealing

The machine run to the fifth working position, it checks if the bag is filled

with material, then it seals the bag.

➤ **Forming & output packages**

The machine run to the sixth working position, it cools the bag mouth and forms& output packages.

The above process carried out simultaneously by cycle

4. Carrying and installation of machinery

4.1 Carrying

- The machinery in the carrying process, using wooden packaging.
- In the carrying, please use forklift or crane, by the bottom of the smooth, Chart 3.1, in order to avoid damage to the mechanical parts.

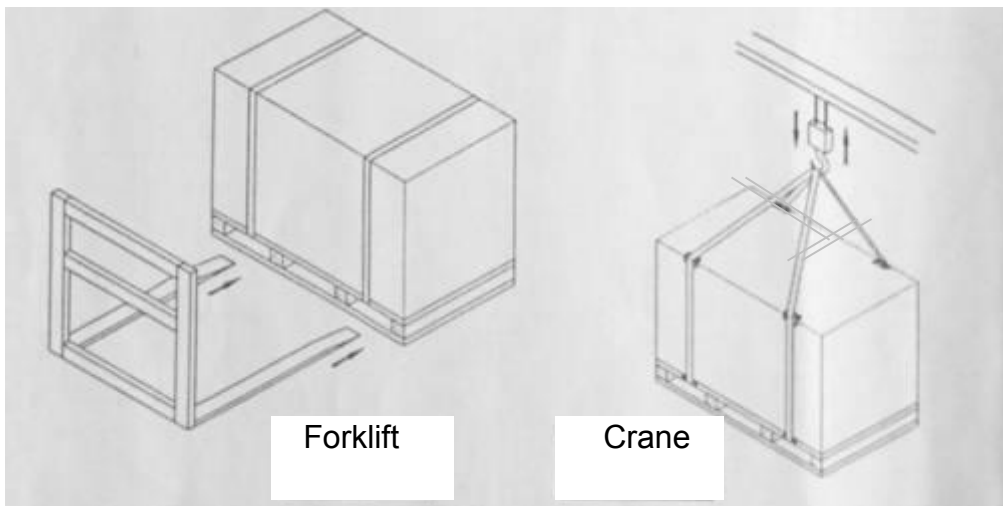


Figure 2

- Before unpacking, please check if the box is in good condition; If it is damaged, do not unpack and immediately contact with the transport units (or individuals). Box should be opened under the supervision of the transport workers, and make inspection records.
- After unpacking, please check the random spare parts and tools which is recorded in the random list in tool box and check the looks of machine meanwhile. Any damage or lost, please keep the status and contact our company immediately. If there is nothing anormal,

please move the machine to the installation location, and prepare for installation.

- For safe, in the process of carrying, the distance to the bottom of the machine is less than 1m by truck, if by lifting, the distance should be 2-2.5m.

The machine should be placed on the indoor concrete floor (Note: After installation, please make sure work surface is flat.), without loading any foot screw. Put 12mm rubber plate under foot leg to avoid damage of long-term using and displacement in the ground.

4.2 Installation instructions

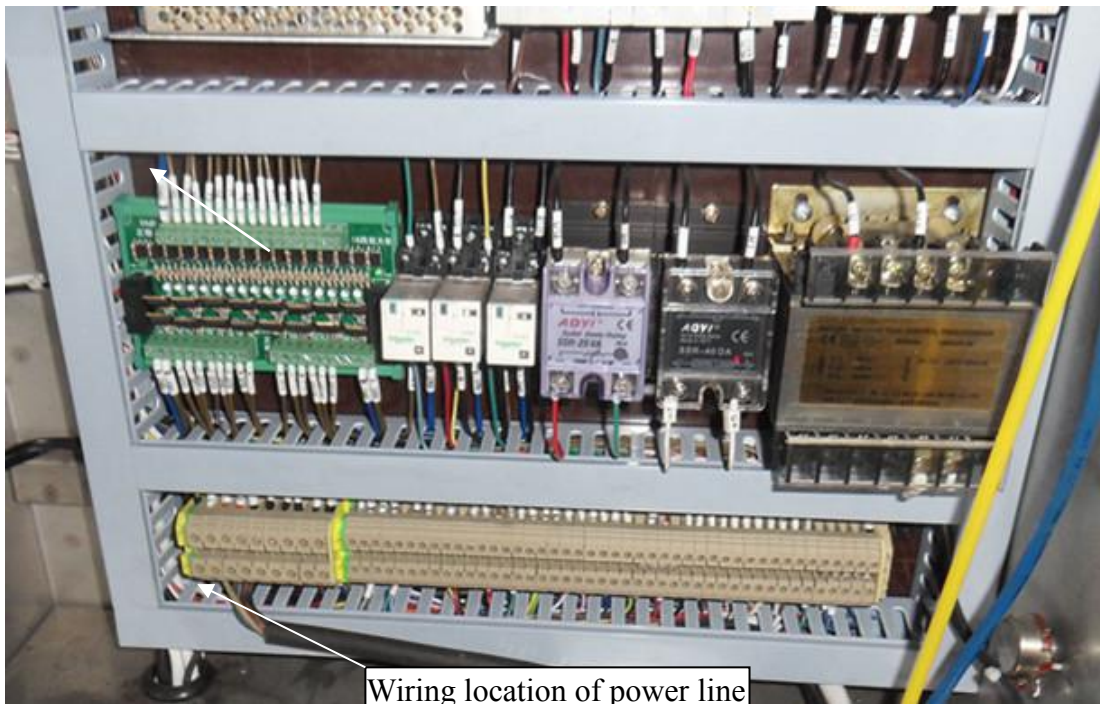


Figure 3

- When installing power line, the power must be 380V 3phase 50/60HZ. Please find the wiring location the above picture and Electrical diagram (appendix), pay attention, the ground line must be connected in specified location

- Instalng power line of vacuum pump。 Please find the wiring location the above picture and Electrical diagram (appendix)。

Connect into the gas source, Air source: pressure 0.6-0.8Mpa, flow rate ≥ 1 m³/min (supplied by user.) Please refer to the below picture and pneumatic diagram (appendix)

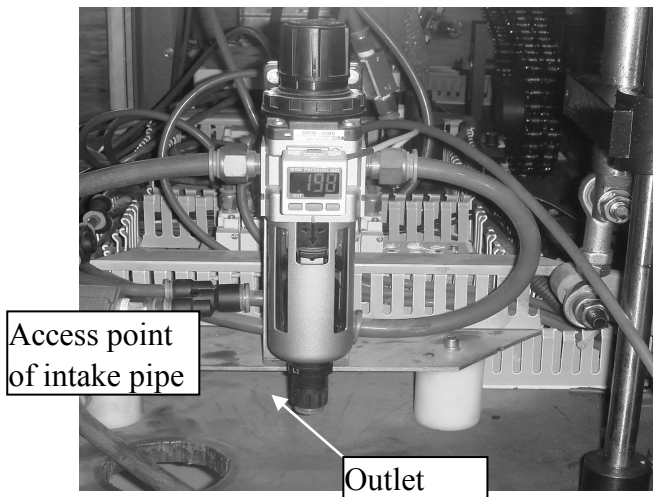


Figure 4

5. operating instructions:

5.1 level bag adjustment (see chart 5)

5.1.1 according to bag width, turn "adjusting the handwheel" adjustment "L" distance to bag can smooth delivery.

5.1.2 by adjusting the motor speed governor to fine "rub bag machine" and "conveying machine" speed, so that the bag delivery speed to achieve ideal effect.

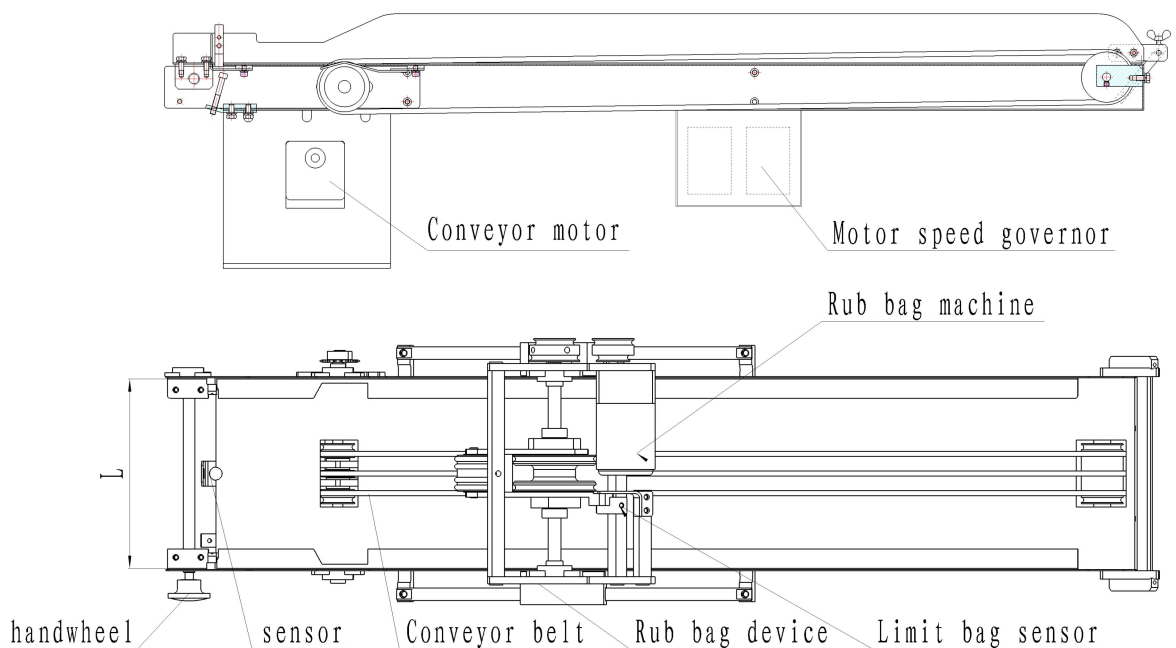


Figure 5

5.2 machine holder adjustment (see chart 6)

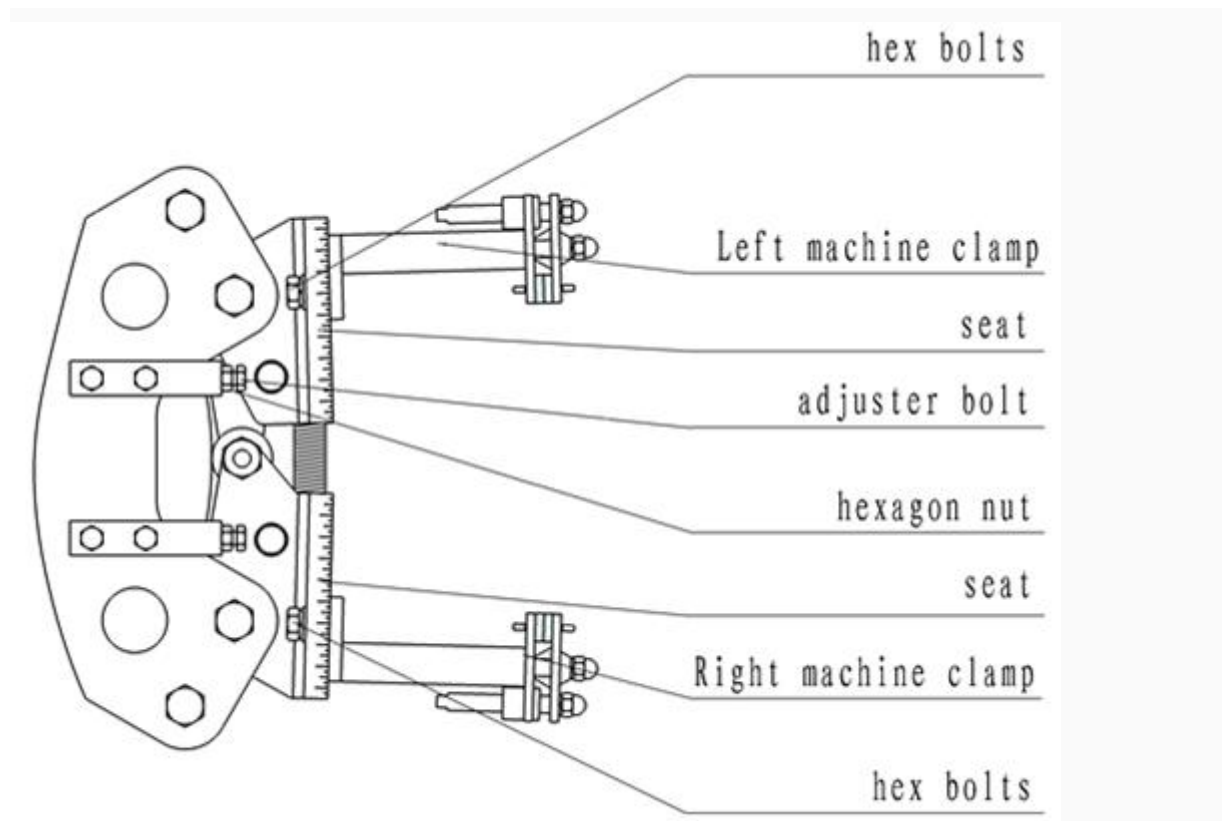


Figure 6

5.2.1 according to bag width adjustment left, right machine clamp body the distance between to loosen the hexagonal head bolt, left, right machine clamp body adjustment to the left, right machine holder on the same scale after locking (note left, right machine clamp body adjustment to left and right sides is symmetrical).

5.2.2 in open the bag and material filling station, two machine clamp assembly when pocket is too small, it is not convenient to open the bag and material filling, can adjust the adjusting bolt. To loosen the hexagonal nut, let adjusting bolt ejector, left, right machine holder to achieve the right pocket size after locking hexagonal nut.

5.3 the bag adjustment (see chart 7, 8)

5.3.1 to loosen the swing arm tension spring, then loosen the CAM lock bolt adjustment take bag CAM and the bag of CAM, make take the bag with the bag action coordination, twist lock bolt, taut oscillating arm tension spring. (as shown in figure 7 shows)

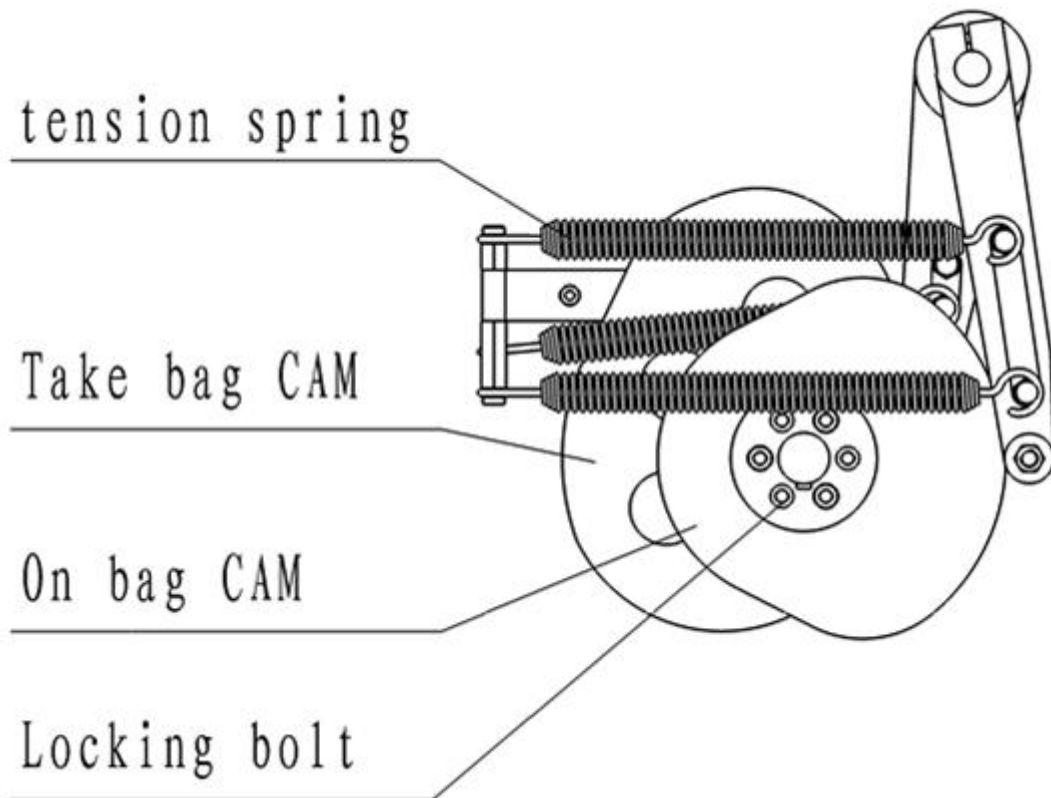


Figure 7

5.3.2 loose lock bolt, adjust the front plate and the plate to the appropriate clamping Angle after twist lock bolt (as shown in figure8 shows).

5.3.3 according to clamping Angle and elastic may adjust properly connecting screw rod (as shown in figure 8 shows).

Sections 7.3.4 loosen hex head bolt, adjust the bag of swing arm to the right position, then lock hexagonal head bolt, make to bag and other parts action coordination (as shown in figure 8 shows).

5.3.5 according to different bag of width, to achieve the ideal effect on bag, had better be to change different specifications of before and after plywood. Before and after the width of the plywood than bag wide short 30 ~ 40 mm.

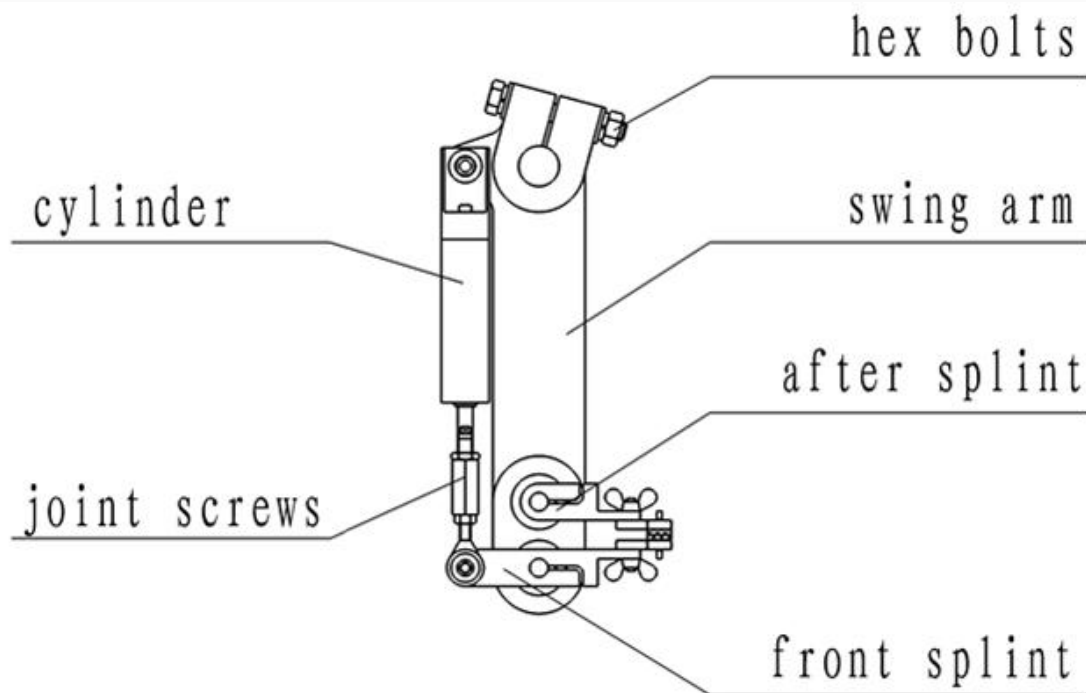


Figure 8

5.4 return adjustment (see chart 9)

5.4.1 loosen return pendulum plate of the locking bolt, according to return oscillating arm need stroke control after the twist lock bolt.

5.4.2 according to aluminum CAM position is different, adjustable return rod to the appropriate position after the lock return tie the ends of the hexagonal nut.

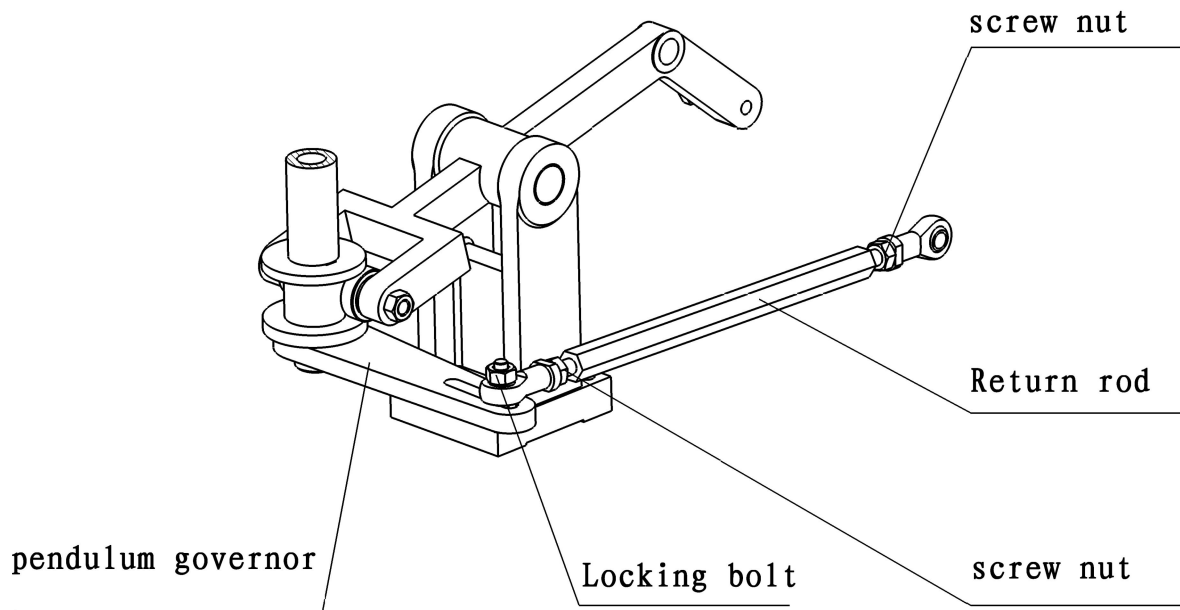


Figure 9

6. operation panel instructions and touch screen Settings:

6.1 operation panel shows: (see chart 10)

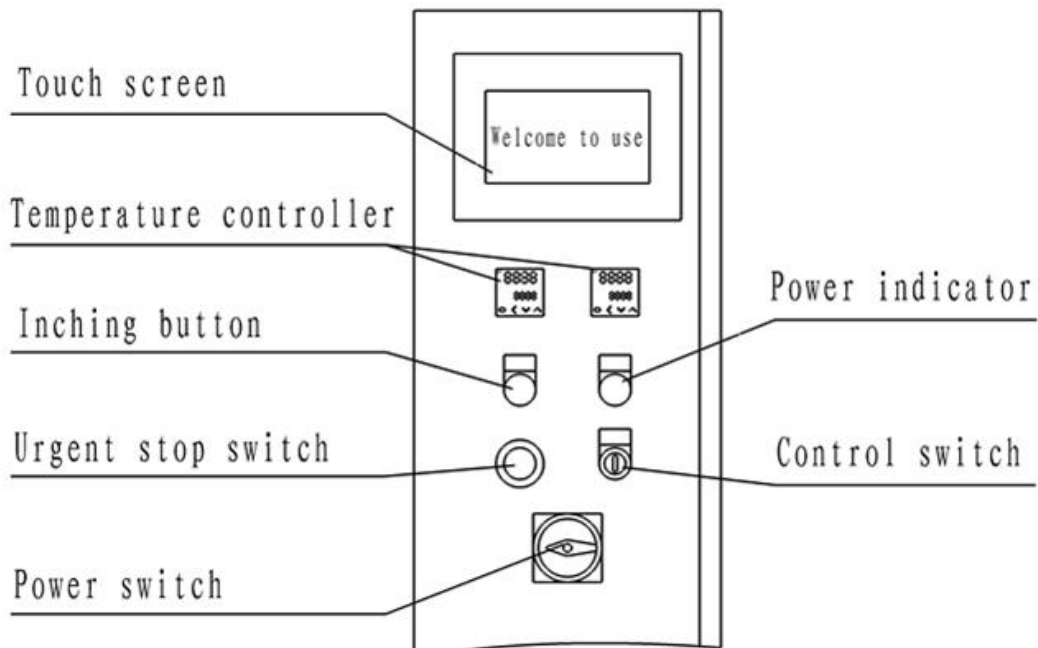




Figure 10

6.2 touch screen Settings:



Figure 11

6.2.1 on the power supply of main, close the "power switch", open the "control switch, touch screen display the language selection interface (see figure 11), choose the corresponding Chinese language into the" menu "interface (see figure 12). Click"  "the return to" menu "interface (the interface click"  "are to return to" menu "interface).

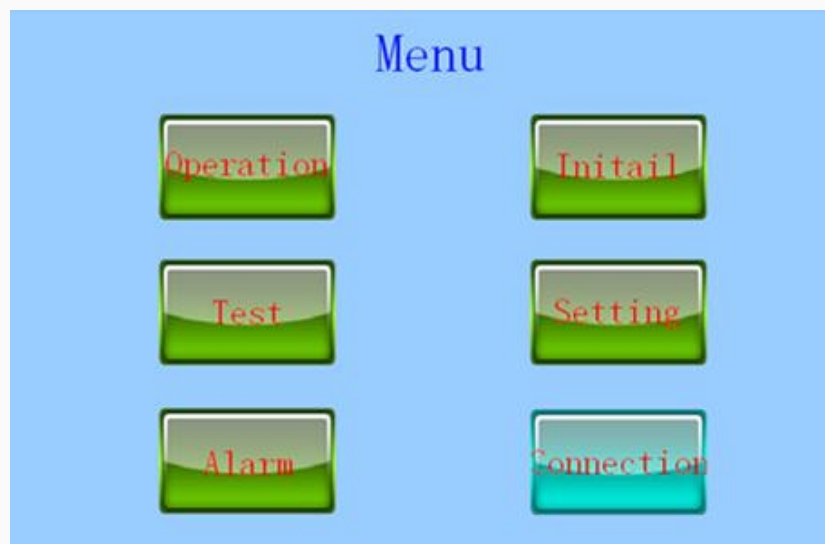


Figure 12

6.2.2 the first choose "menu" interface (see figure 12) dialog "Settings screen", it will pop up an requirements input password dialog box (see figure 13).

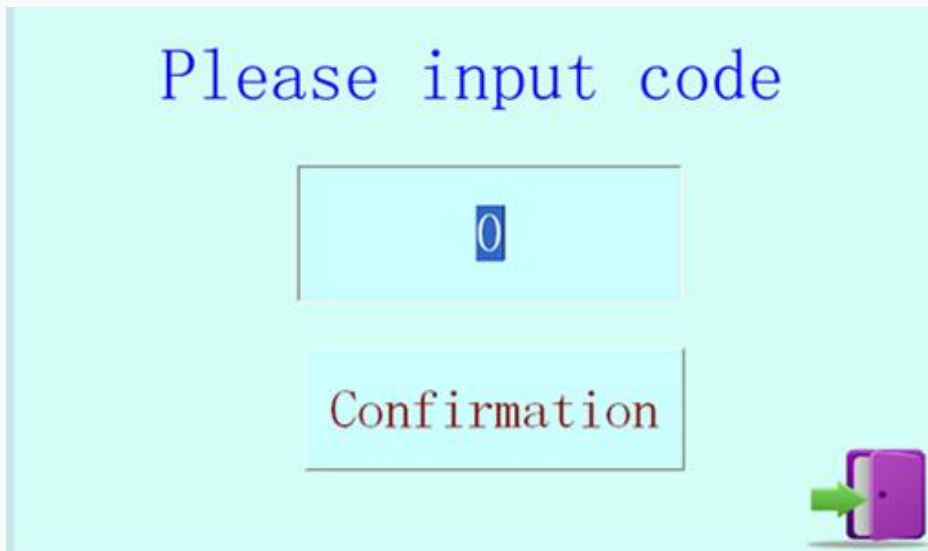


Figure 13

6.2.3 click scintillation box will appear digital keyboard (see figure 14), enter the required password password. Enter the password after password "Enter" to click on the lower right corner, returns to the figure 13, press "verify password" will Enter "Settings screen a" interface (see figure 15). (digital keyboard input method of use, please refer to 8.5 digital keyboard use method).

A	1	2	3	Esc
B	4	5	6	Bsp
C	7	8	9	+ / -
D	E	F	0	.
←	→	Enter		

Figure 14

6.2.4 according to the actual production requirement set each unit action, when set after the completion of such as click "next page" into "Settings screen two" interface (see figure 16), click on "the last page", then enter the "alarm time Settings" interface (see figure 20). First click on the "next page" into "Settings screen two" interface.

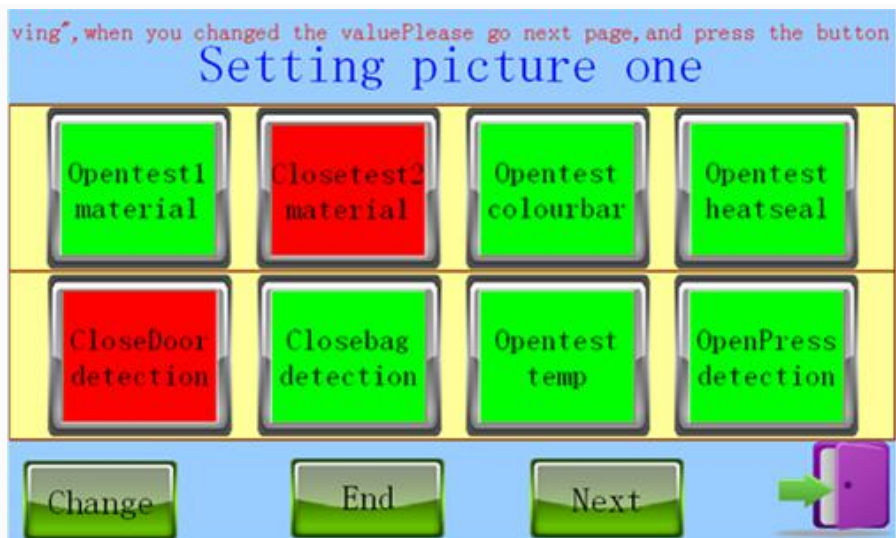


Figure 15

6.2.5 into the "Settings screen two" can take on the suction, take the bag of cylinder, into the bag cylinder, and code printing cylinder, open pocket suction, open zip pocket each execution unit open value and close value Settings, when set is completed, please click the "save". Such as click "next page" into "Settings screen three" interface (see figure 17), click the "on page", then return to "Settings screen a" interface. First click on the "next page" into "Settings screen three" interface.



Figure 16

6.2.6 into "Settings screen three" to the clamp can zip pocket, increase cylinder, open zipper bag, bag opening cylinder, open the bag suction, brace bag blown each execution unit open value and closing value Settings, when set

is completed, please click the "save". Such as click "next page" into "Settings screen four" interface (see figure 18), click the "on page", then return to "Settings screen two" interface. First click on the "next page" into "Settings screen four" interface.

6.2.7 into "Settings screen four" to open the bag under the lack of cylinder, open the bag suction, preliminary blanking 1, preliminary blanking 2, blanking 1, blanking 2 each execution unit open value and closing value Settings, when set is completed, please click the "save". Such as click "next page" into "Settings screen five" interface (see figure 19), click on "the page", then return to "Settings screen three" interface. First click on the "next page" into "Settings screen five" interface.

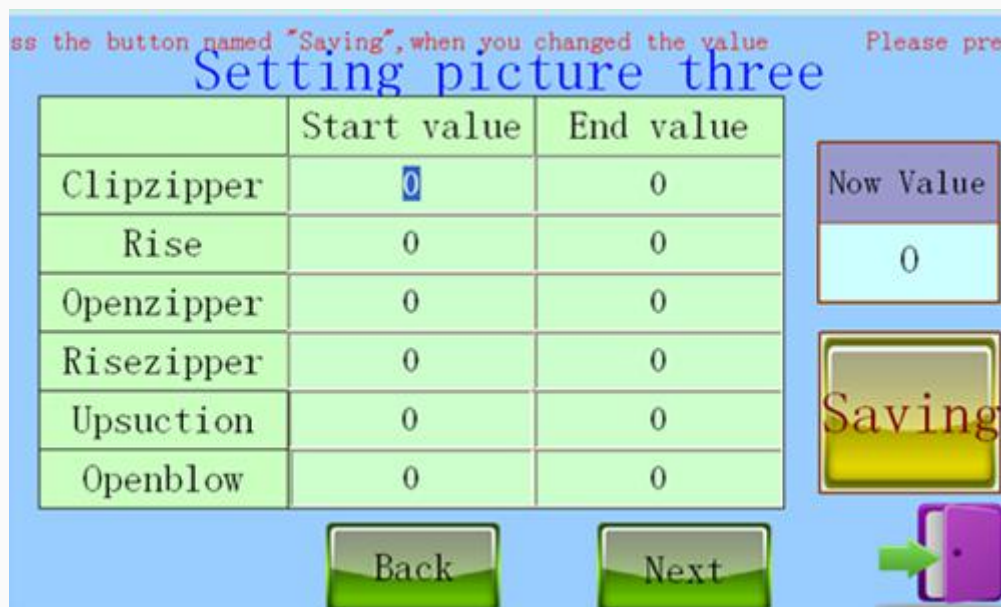


Diagram 17




Diagram 18

6.2.8 into "Settings screen five" to vibration, exhaust, heat sealing, cold sealing, vibration frequency each execution unit open value and closing value Settings, when set is completed, please click the "save". Such as click "next page" into "alarm time Settings" interface (figure 20), click on the "previous page", then return to "Settings screen four" interface.



Figure 19

6.2.9 into "alarm time set" can to material detection 1 time, material testing 2 time, ribbon detection time, temperature control testing time and set up the factory number. When set is completed, please click the "save". Such as click

"previous page" is to return to "Settings screen four" screen, click on the "first page" into "Settings screen a" interface. If all the parameters are set up after the finish, click "" the return to" menu "interface.

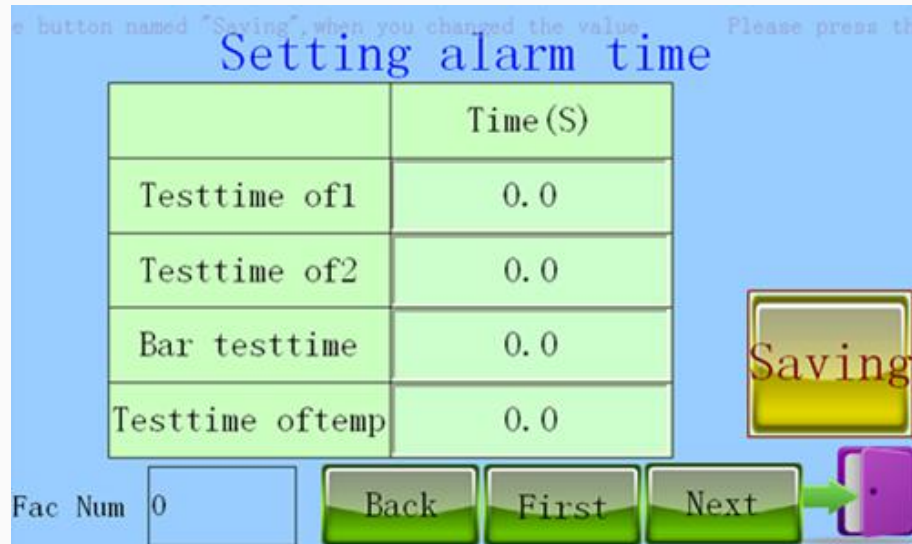


Figure 20

6.2.10 click on the menu options dialog "test picture" button, you can enter the "test scenes" interface (see figure 21).

6.2.11 into "test scenes" interface to the interface of 19 key operate, click on these key can check the Settings of the parameters is correct, check each action implementation is in place, found that set the wrong can enter "Settings screen" to be made accordingly.

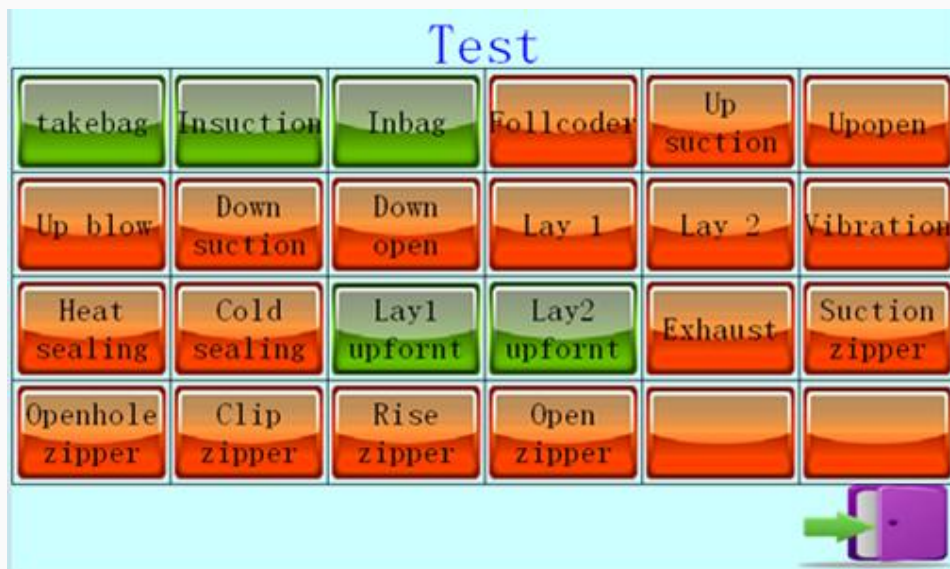



Figure 21

6.2.12 check all action and click "" is to return to" menu "interface first term dialog interface click" run scenes "key, enter the" running scenes "interface (see figure 22).

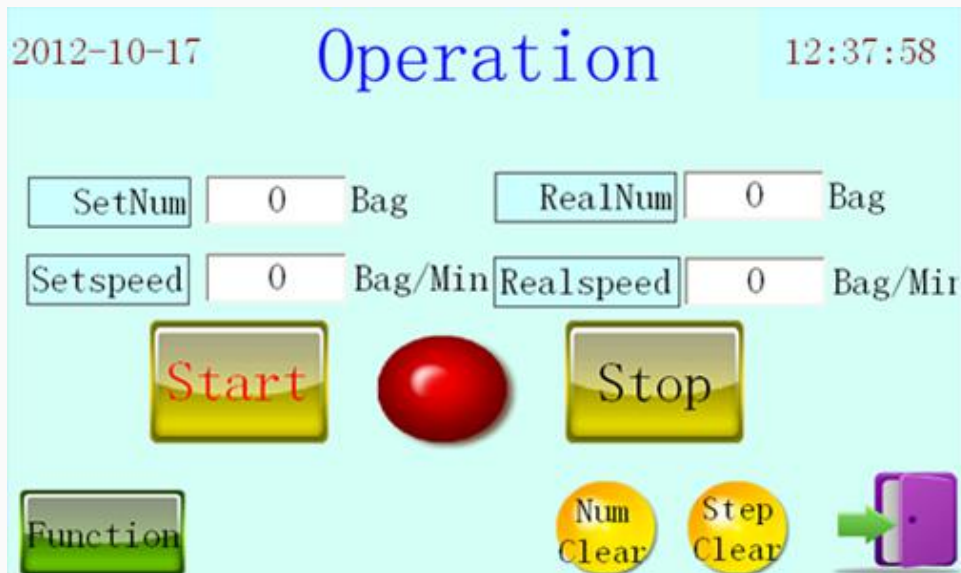


Figure 22

6.2.13 "into" running scenes "interface, each key role:

"setting the output" window display for artificial set the batch to production data, to achieve the data, host automatic stop.v

"setting speed" window display for artificial set equipment every minute production data.v

"actual production" window display for the machine accumulated practical production data.v

"actual speed" window display for artificial set equipment every minute production data.v

"start" button start the operation of the host.v

"stop" button to stop the operation of the host.v

"yield reset button is used to remove accumulated practical production data.v

"station reset button for station resetv

Click "function choose" key, enter "function choose" interface (figure 23), according to the actual condition, can set each parts for start running. If all the parameters are set up after the finish, click "" the return to" menu "interface.

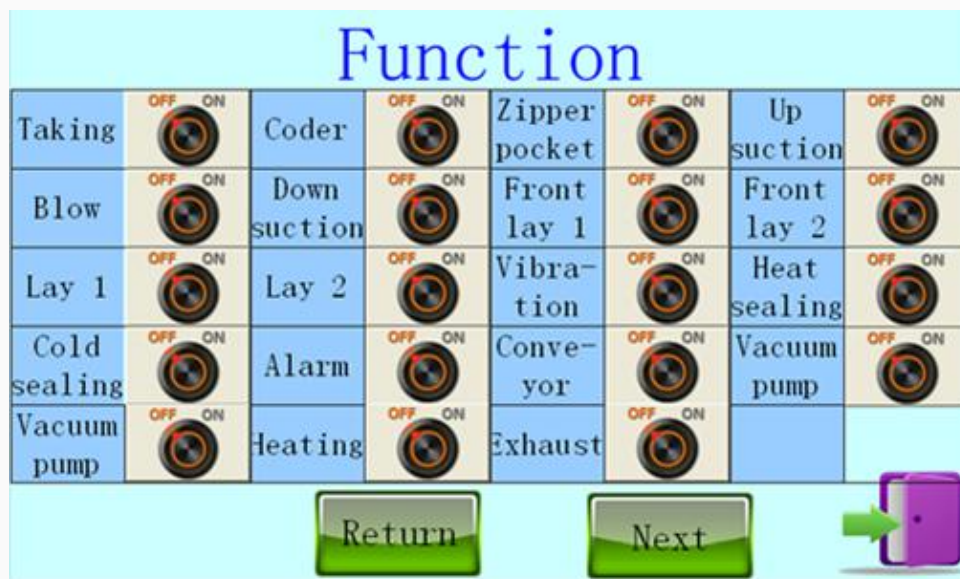


Figure 23

6.2.14 "menu" interface and: "initial screen", "alarm screen" "contact us" three interface. Click on the "initial screen" to return to the language selection interface (figure 11). In the operating process, such as the alarm stop, click "alarm screen" operate interface (FIG. 24). In use process, if meet you won't solve when, can click "contact us" (see chart 25).

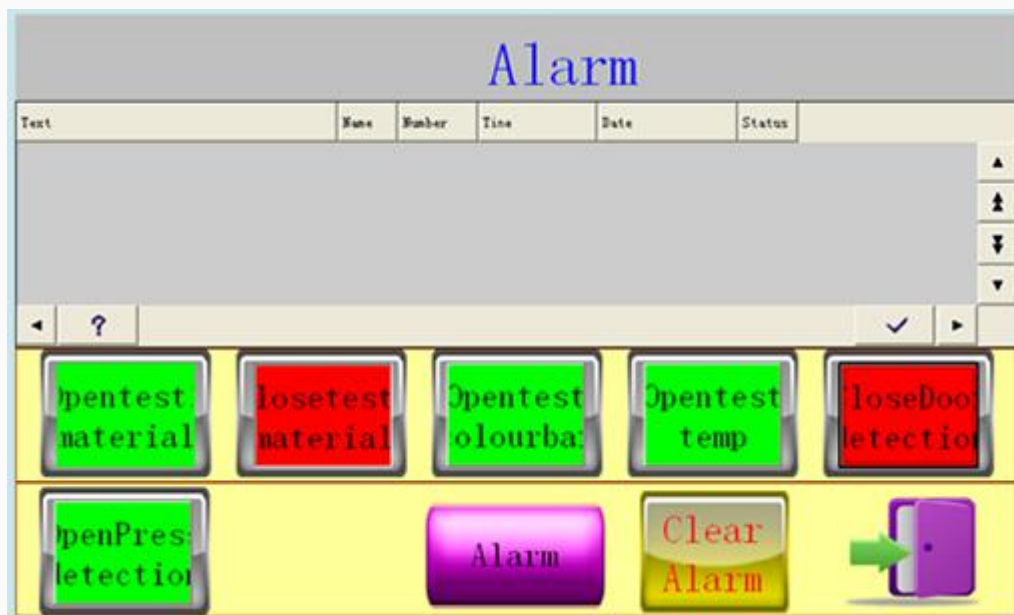


Figure 24

Figure 25

6.3 parameter Settings explanation:

this machine factory provides all kinds of data are to provide material and packing bag, in the company the test data, and the actual production must according to the packing of the actual situation of proper correction, and serious debugging, patience, and sometimes may be repeated several times, and can achieve the ideal packing effect.⊗

the production speed is 50 bag/minutes. Tip: in the can satisfy the packing conditions, as far as possible to reduce the production rate, so as to improve the machine service life, reduce the failure rate.⊗The highest

6.4 temperature control table Settings:

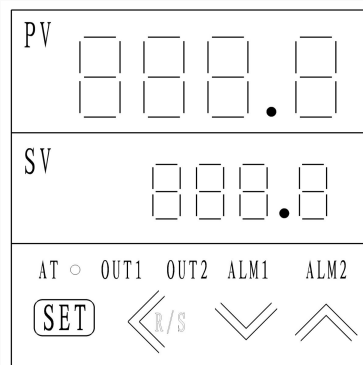


Figure 26

Diagram and

Open the heating switch, and according to the packaging film heat sealing performance and thickness, regulate the intelligent temperature controller, make it on the right temperature, intelligent table setting method is as follows:

the temperature controller of the digital display window is divided into upper and lower two parts, ascending display (red) value for the current temperature, descending display (green) value for setting temperature.⊗

the "SET" button, the descending numerical (green) into a flicker.⊗According to the lower left corner

and then press "√" key to reduce or press the "Sunday afternoon" key increase, can set the temperature of the need. The temperature should be based on such factors as the thickness of the film to set the value, in the ordinary circumstances, temperature initial setting for 150 °C or so. The actual temperature according to the actual conditions and bag machine speed to carry out fine-tuning.⌘

when temperature setting good later, must click again "SET" button, when pictures after returning to normal, can work.⌘

Note: the machine is used for intelligent temperature control instrument, its characteristic is the precision of temperature control is very high, so operation must be careful, do not force according to the chaos.

Usually, when the normal work of the touch screen should be in operation page display, because in this page may at any time to start or stop the operation and other function display.

6.5 digital keyboard method of use:

click need to input data area, the screen will pop up a corresponding digital soft keyboard as shown in figure 14 shows.⌘

through the soft keyboard input the data, letters or symbol.⌘

use "please" or "-" key, in the current value inside move the cursor, then can be in current value in the edit or add data.⌘

if set, can press "Bsp" button, delete the cursor to the left of the character.⌘An error occurred when

on setting of want to quit or cancel Settings, can press the Esc key.⌘

confirm set and, can press "Enter" to determine the key, the screen keyboard disappear automatically, data input finish.⌘

all involves the Numbers or letters setting method basic affinity.⌘

6.6 users need to modify the current time or date,

6.7 note:

LCD touch screen man-machine interface for high-tech products, the operator must be careful operation, can only use finger lightly click interface can, never hard extrusion or in other sharp objects in operation, otherwise you will cause irreparable damage.⊗

touch human-machine interface of the data communication is a short response time, especially those who just turned on, the screen to transport all kinds of data, period must not disorderly according to, should wait a little, and operation.⊗

- when the user operation is not standard or machine problems, alarm part will have interrupted the voice prompt, and at the same time, touch screen also can have alarm graphics flicker, and there will be a text indicate that the failure of the specific site. Users should according to some hints to make corresponding treatment methods. Troubleshooting, must press the "clear alarm" button will lift the alarm events.
- such as the discovery of the machine can't start operation, should check the "stop" button is in a press state, so in the press state, let button to return to in situ can return to normal.

6.8 touch screen maintenance:

- LCD screen surface sticks has the carry-over, will reduce the reflective effect, can also affect the service life of the touch screen, must be regularly to the screen to undertake cleanness. In clean before, must shut down power to ensure that it is not an accident. Please don't cleaner directly onto the screen, should dip in with cloth after use.
- must not use corrosive solvent or washing powder and so on, also don't use compressed air similar method such as cleaning, in order to avoid damage to the touch screen.
- absolutely avoid sharp objects scratch or collision touch screen surface, lest cause permanent damage to the touch screen.

7. startup and operation:

Normal boot steps:

- **Open the power switch, the power indicator "light, open the" control switch "touch screen switch on the power, open air switch.**
- **Set heat sealing temperature, and heating.**
- **Click "inching" button, check the machine power supply, air supply and mechanical parts for normal work.**
- **Machine all normal, into the touch screen parameter Settings page check the parameter or parameter Settings.**
- **If necessary, can be counter reset.**
- **All preparations ready, click on the touch screen operation of the page "start" button, make the machine into operation state, then main motor and feed conveyor motor work regulated.**
- **If urgent tight condition of operation, according to the stop button.**

8 equipment maintenance and check:

8.1 Every day per shift or on the machine maintenance and cleaning:

- **per shift ends, all want to clean the machine**
- **in clean the machine before, please shut off the power and ensure heater cooling, in order to avoid high temperature scald**
- **clean, cannot use water or steam spraying machine**
- **to clean site**

A. if product clastic accumulation in product supply line, with compressed air or other ways to clear it.

B. if film clastic adhesion in the sealing surface, with coated with silicon oil of the steel wire brush brush off.

C. Available soft twist dry wet cloth to wipe after machine control panel, cover, table panel dirt.

every day at least, to give movement and guide site charging a lubrication or grease, good lubrication conditions to ensure the normal operation of the machine.

8.2 per month for the machine maintenance and check:

- the chain (round) lubricating (brand for 1 # general open gear oil) To the transmission parts
- check drive unit of the chain and the belts is tension, if have, become loose, its adjustable tight.
- the set screw or nut if there is loose, if have, become loose, its tightening Check the parts .
- check the gas circuit element, whether to have blocked or wear, clear in time plugging components or change wear element.

8.3 Every half an year is machine related inspection.

- check drive unit of the chain and the belts is tension, if have, become loose, its adjustable tight.
- the set screw or nut if there is loose, if have, become loose, its tightening Check the parts.
- check all kinds of wearing parts, pay attention to change in time.
- check electrical wiring pattern on the connection is firm, if have, become loose, to tighten it well, check the inverter, circuit board, etc have dust or dirt, with a clean, dry compressed air clean.

Please insist on daily machine cleaning and maintenance. Regular inspection, make the machine can maximum effectiveness, safety production, keep long period of good performance.

9、 Common Faults and exclusion method

Failure		Causes	Exclude method
No power		Power cable break	The replacement of lead
		Air switch automatically trip	The air switch is damaged, replace the air switch
			There is leakage or short circuit, check and resolve
Poor effect of absorption bags		Real sucker is dusty or damaged	The replacement of sucker
		Vacuum filter clogging	Cleaning and replacement
Adverse effect of giving bag		The bag rugged	Adjustment bags positions
		Machine clip makes the edge of the bag be not flat	Adjust the robot position on the front bags machine folder 1 / 3 position
		Two sides of bag is not falt	Adjustment bags positions
		The wrong way to clamp bag	Re-adjustment of the bag parameters
Coding quality is Poor		Wrong temperature setting	adjuste to a suitable temperature
		Heating tube is damaged	Replace electric heating tube
		Solid state relay coding is damaged	Replace solid-state relay
		Regulator locator or temperature controller is damaged	Replace corresponding electrical appliances.
not giving material		Cutting control synchronization point is not correct	Re-adjustment of cutting synchronization point
		Proximity switch is damaged	Replace proximity switches
		Sinnal of giving bag is not connected	Connect to signal line
Sealing quality is bad	Vertical crease	Poor bag tension is hard to sealing	adjust the position of the cam to open the folder
			Adjust the bag to be flat
		Folder head with oil	Wash oil on the folder.
	Horizontal folds	Sealing temperature is too high.	Adjust heat sealing temperature.
	sealing uncompletely	pressure is too large or less for sealing	Adjust the pressure of the cylinder seal
		Poor contact of two heating plates	Check the exposure of two heated plates
		Sealed place with material	Adjust the filling position