

Model 100

Automatic Sachet Packaging Machine

Instruction Manual



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SECTION 1 GENERAL INFORMATION

100 Series Full Automatic Vertical Packaging Machine with photoelectric sensor positioning and tracking products, dosing by measuring jug and adjustable frequency changer. This machine make feeding, dosing, forming, filling, sealing, coding and conveying all-in-one automatically.

With reasonable structure and reliable quality make this packaging machine was convenient operate and stable working.

Application: Fine granule, Powder products.

Material: Plastics and paper-based films are widely used.

REMARK: (ABOUT THE FILM)

Using a reel of film, Inside core diameter was 75mm, Outside core diameter not over 400mm.

Thickness of packaging film should be 0.05-0.08mm.

Keep the surface smooth, without crumple on the edge and color was poor.

Color Mark must distinguish from background obvious.

SECTION 2 SPECIFICATION

Filling Range	Max. 100mL (3.38 oz)
Packaging Speed	Max. 40 bags/min
Bag Width	30 - 100 mm (1-1/4" - 4")
Bag Length	30 - 150 mm (1-1/4" - 6")
Film Roll Width	Max. 220 mm (8-5/8")
Film Roll Diameter	Max. 300mm (11-13/16")
AC Power Input	110V, 60Hz
Total Power	1.2 kVA
Weight	200kg
Dimension L x W x H	850 x 1000x 1950 mm

SECTION 3 OPERATION & MAINTENANCE

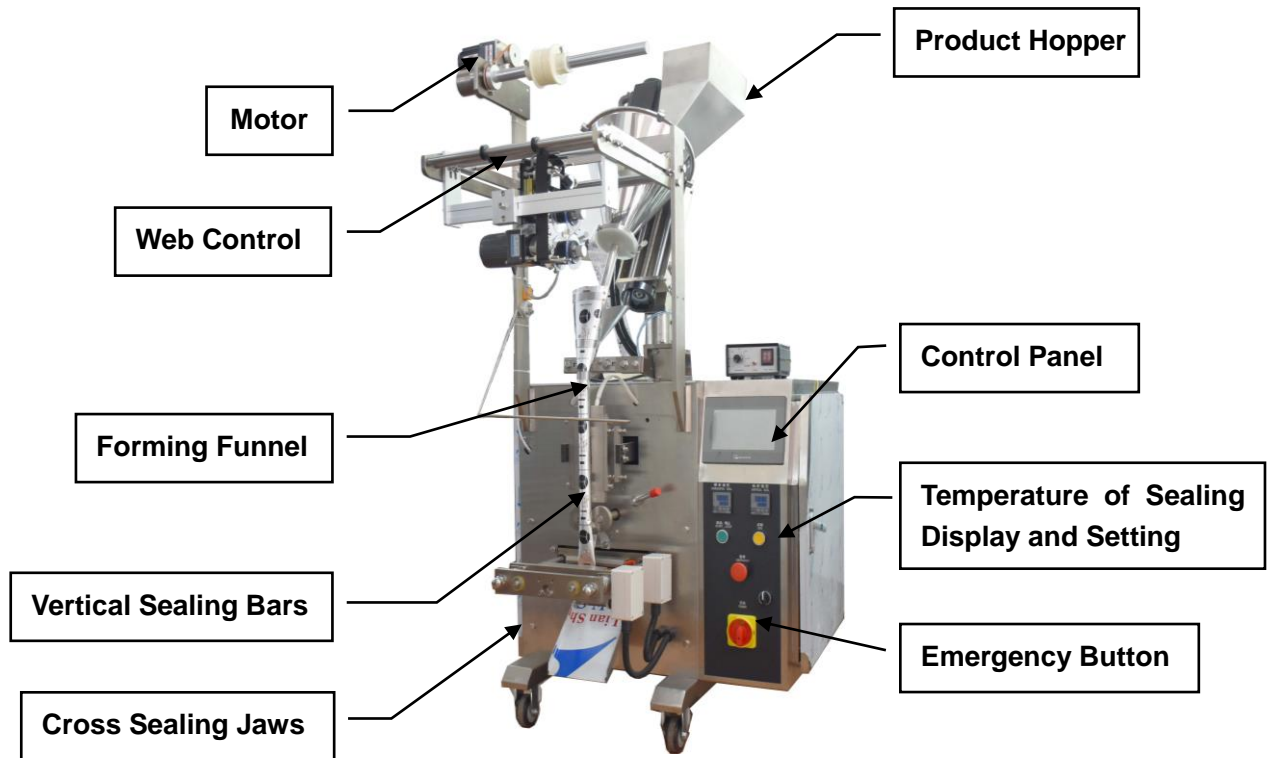
OPERATION

- 1: Turn on the machine, reheating the vertical sealing bars, cross sealing jaws and date coding device to the setting temperature then lubricate the sliding bearings of sealing.
- 2: Check and clean the zigzag sealed position of vertical bars and horizontal jaws regularly.
- 3: Check the printer's ribbon, packaging film with correct installation and photocell eye where aim at.
- 4: Switch on the date coding device and sending film to preset position then forming empty bag four or fives and it should be inspected for approval before turning on the feeding starting working.
- 5: First turn off the feeding then power to avoid damage to the bars and jaws.

MAINTENANCE

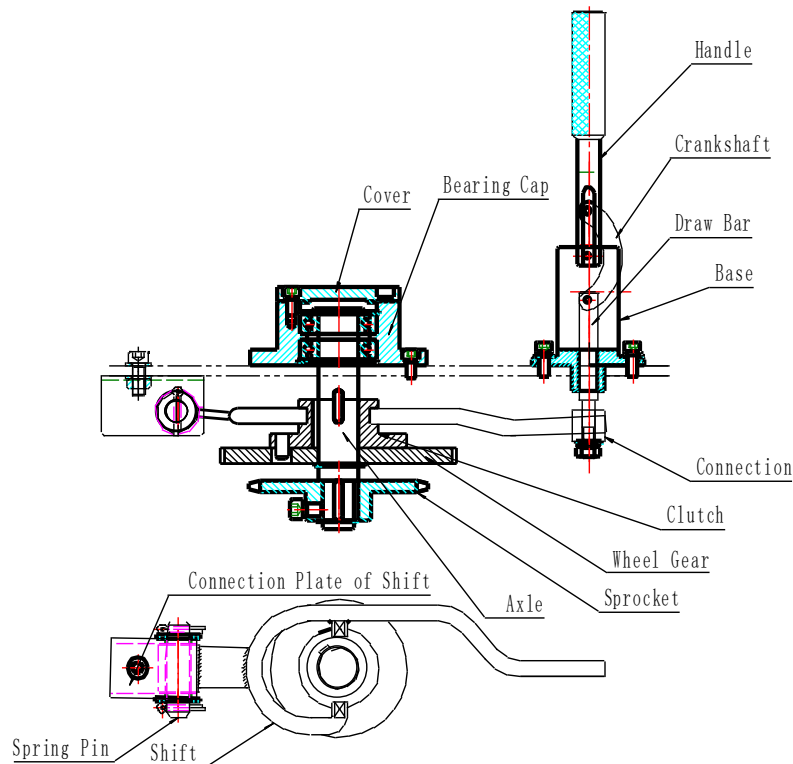
- 1: Wash the parts which food touched then wipe clean with a dry cloth to the internal and external of machine, bars and jaws before finish wrapped all product each time. Finally lubricate the sliding bearings of sealing.
- 2: After work off over half of the packaging film should be take off from film rolls in case of bending.
- 3: Keep the photoelectric sensor clean and electrical should prevent dust and moisture.
- 4: Check each parts screw frequently and replace flexible or defect's in time.
- 5: Change the oil 40 hours for the first time use then 1000 hours.

SECTION 4 APPEARANCE

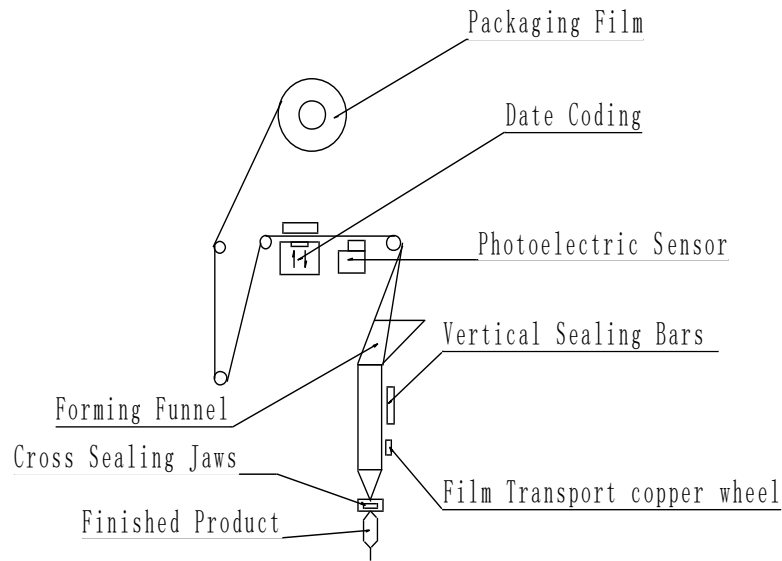


SECTION 5 CLUTCH STRUCTURE

Pull clockwise at the handle for 90 degree was on, otherwise was off.



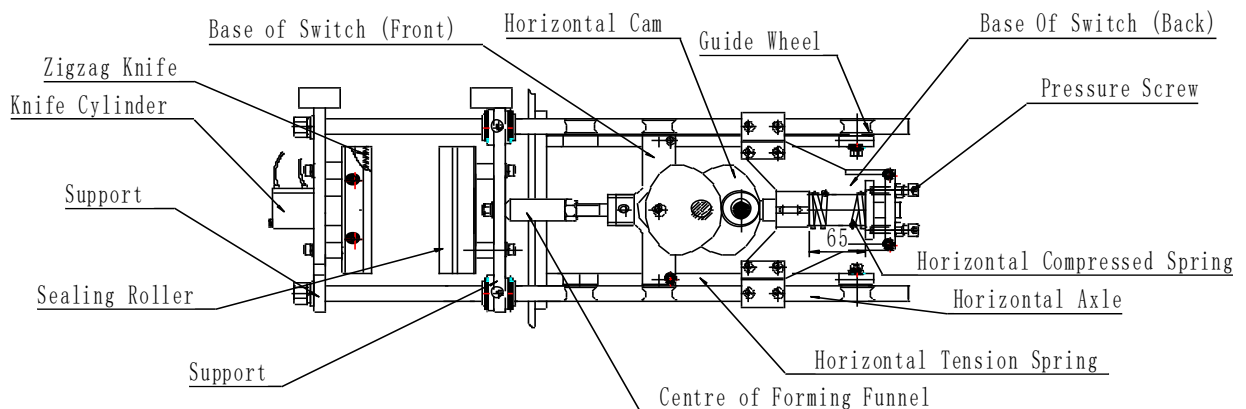
SECTION 6 SCHEMATIC OF PACKAGING FILM



SECTION 7 ADJUSTMENT

1: Adjust the pressure Of Cross Sealing Jaws

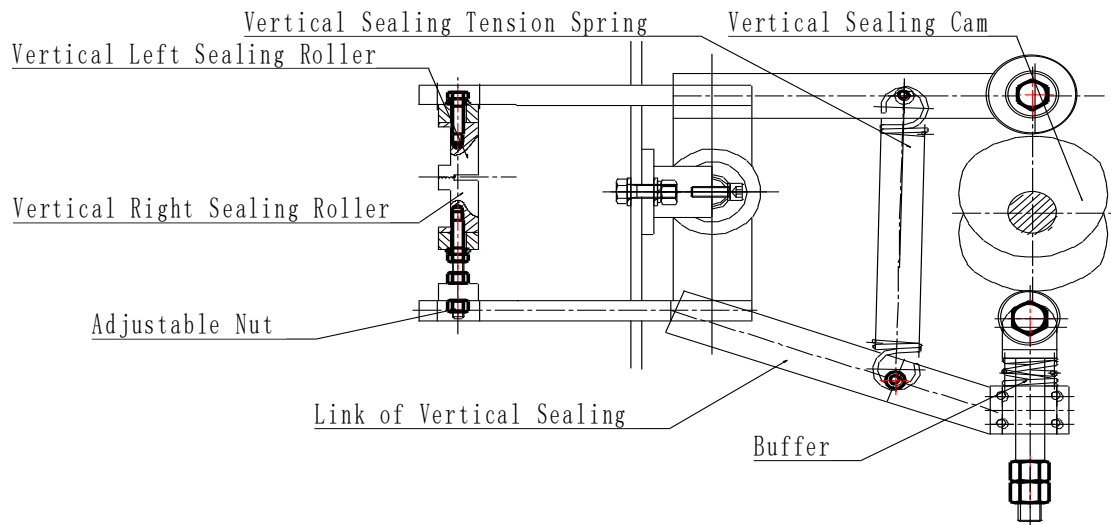
Tighten the screw of pressure was increase, otherwise loose. (See Figure below)



2: Adjust the Pressure of Vertical Sealing Bars (See Figure below)

- 1: Turning adjustable nut make vertical sealing roller move to the rightmost.
- 2: Turn the main axle make other two shafts to the vertical sealing cam highest.
- 3: Turn adjustable nut make both of vertical sealing axle coincide mutually.
- 4: Turn belt pulley make vertical sealing roller separate 0.55mm.
- 5: Turn adjustable nut make both of vertical sealing roller together again.

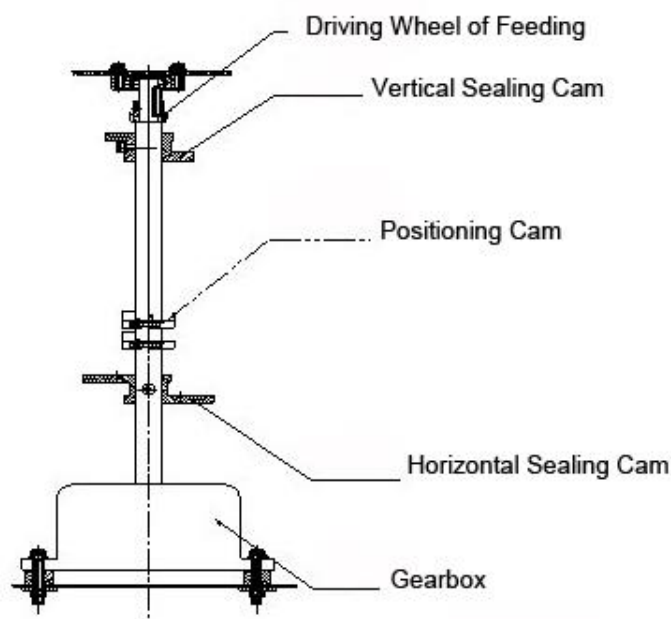
NOTICE: The distance between vertical sealing roller should not be over 1mm or the link easily broken.



3: Adjust each cam on the shaft (The ganged adjustment)

- 1: First adjust the pressure of vertical and horizontal.
- 2: Clockwise rotating the hand-wheel of reducer and leaving the horizontal sealing roller fully closed.
- 3: Adjust the direction of vertical sealing roller on the main axle and fixed ensure vertical and horizontal sealing roller closed at same time.
- 4: Turn the hand-wheel of reducer make closed horizontal sealing roller separate about 30mm.
- 5: Adjust the positioning cam: After completing the previous step, the main axle will be stopped, the loosen the fastener of positioning cam and turn it to the indicator light of proximity switch lit up, finally tighten the fastener and ensure positioning cam is fixed.

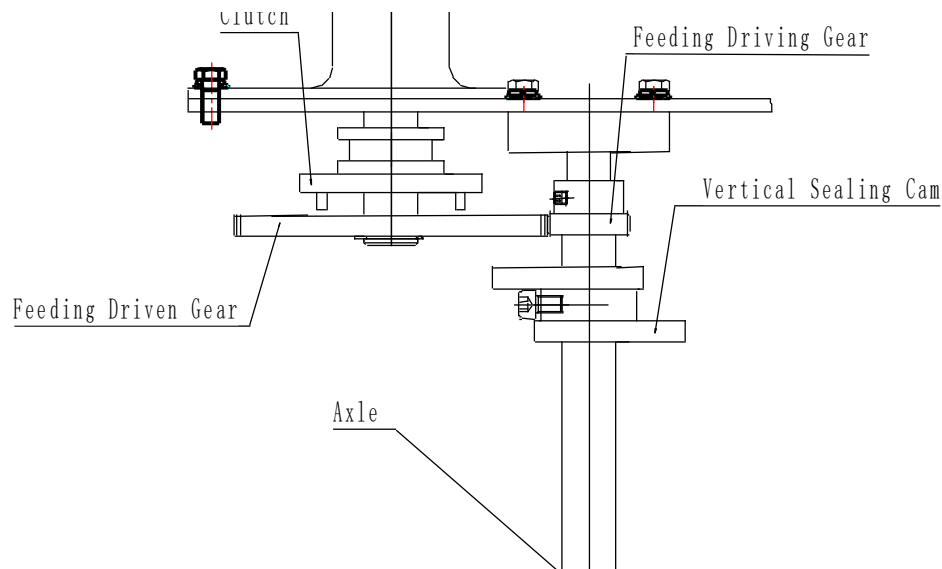
REMARK: Positioning Cam use to adjust the position of Packaging film.



4: Adjust the Time of Falling Product. (Especially the product be clamped)

Adjust the time of feeding. First lift up the feeding driven gear and clutch then turn several teeth to the right or left, finally putting down make it mesh with feeding driving gear.

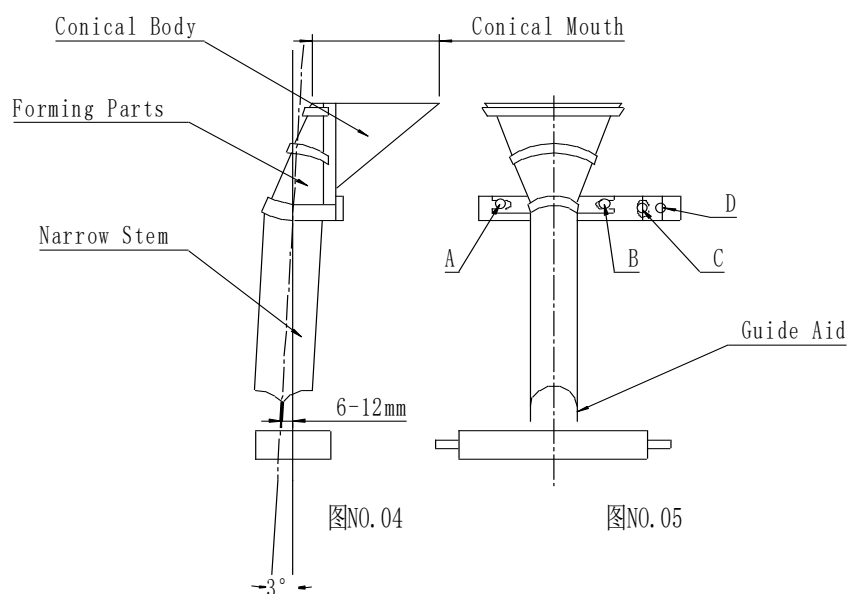
REMARK: The time of product falling is closely related to packaging speed.



5: Forming Funnel Install & Adjust

a: How to install forming funnel (See Figure No.04 and No. 05)

NOTICE: Forming Funnel should lean 3°. The distance between the end of forming funnel and cross sealing jaws should keep 6-12mm.



b: Adjust the Forming Funnel

First according Figure No.04 and No. 05 install the forming funnel, make the conical mouth directed at the end of product hopper; then adjust vertical sealing roller and web control ensure twice vertical sealing very well, meanwhile should be notice keep film pulled wheel close to the end of vertical sealing position.

Forming process if the packaging film with wrong such as going single-layer, sealing position asymmetric, crumpled. You can adjust A, B, C, D, screws. Loosen A, B, screws can let forming funnel move left or right then fixed in order to control packaging bag shape.

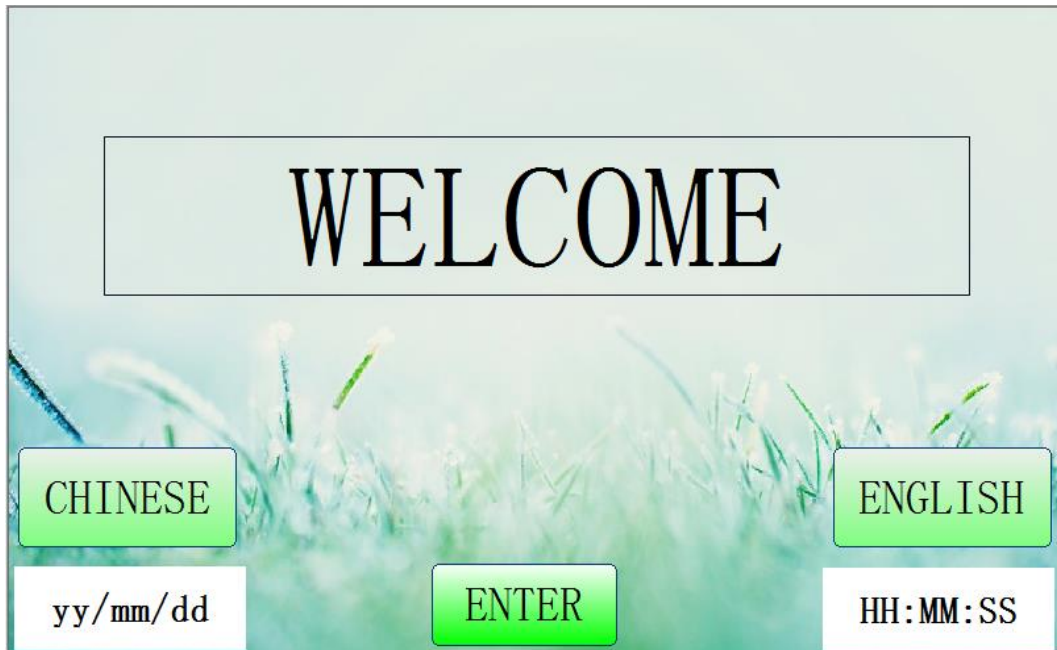
Loosen C, D screws let forming funnel narrow stem swinging side to side to solve the film going single-layer.

Adjust the guide aid in order to keep the shape of packaging bag.

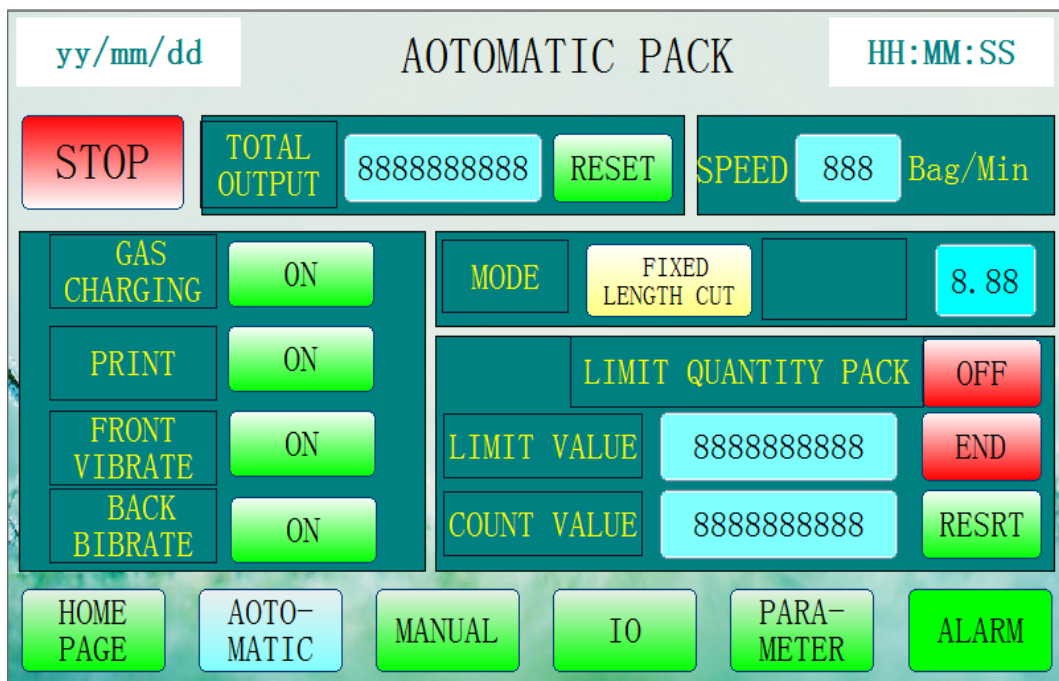
When packaging bag with crumple, first keep a little leaning distance between machine and funnel or open the guide aid.

SECTION 8 TOUCH SCREEN

1: Turn on the machine, the screens below show examples of home page.



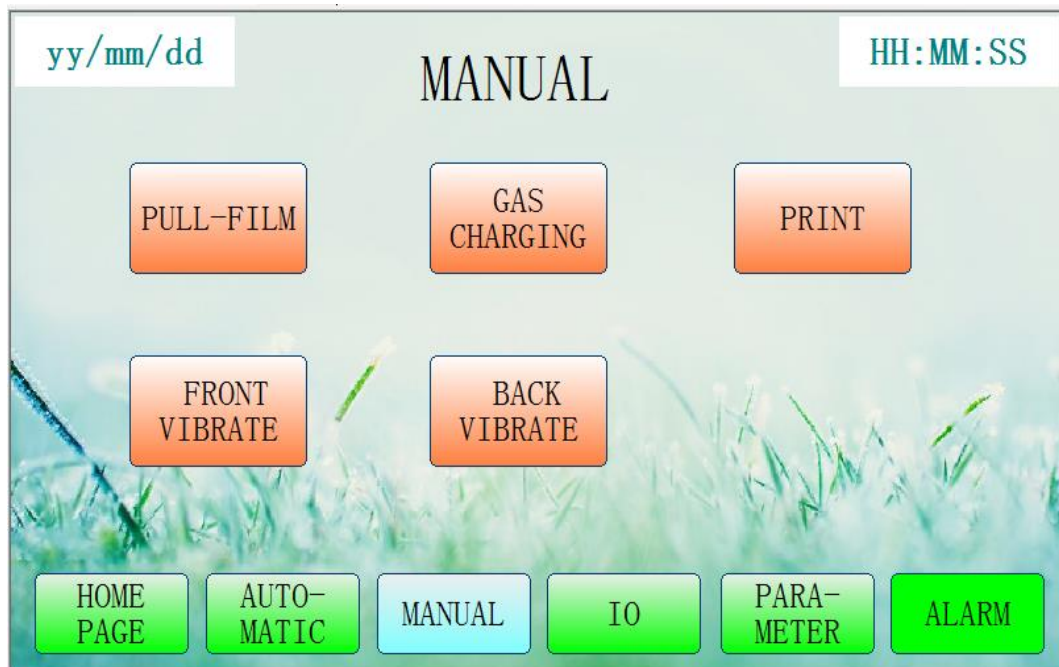
2: Choose language the enter page **Automatic Packaging** as follows



- 1: Click **STOP** on the top-left, it will turn green and change to **START**, machine is working.
- 2: **TOTAL OUTPUT**: The quantity of packaging bags.
- 3: **SPEED**: It will display when machine is working.
- 4: **GAS CHARGING**: It shows the status if the bag will be filled with air or not.

-
- 5: PRINT: It shows the status if the bag needs an MFG, EXP date or not.
- 6: FRONT VIBRATE: Make sure the status is *ON* to avoid product pile up in the forming funnel.
- 7: BACK VIBRATE: Make sure the status is *ON* to avoid product pile up in the hopper.
- 8: MODEL: There are two models, one is setting that means bag length will be cut according your setting number; Another is tracking that means bag length will be cut according the distance between color marks in the film.
- NOTICE:** Choose setting models, the setting number must longer 2cm then distance between color marks.
- 9: LIMITED: According demands to set how many products need to be packed.

Manual Model



- 1: PULL-FILM: Set packaging bag length.
- 2: GAS CHARGING
- 3: PRINT: Click once, the device will print code on the surface of the bag. Click again, the device will stop.
- 4: FRONT VIBRATE
- 5: BACK VIBRATE

IO

yy/mm/dd

IO

HH:MM:SS

<input type="radio"/> X0:POSITION SIGNAL	<input type="radio"/> Y0:PULL-FILM
<input type="radio"/> X1:COLOR CODE SIGNAL	<input type="radio"/> Y1:
<input type="radio"/> X2:MATERIAL LEVL SIGNAL	<input type="radio"/> Y2:MAIN MOTOR
IN <input type="radio"/> X3:RIBBON ALARM	OUT <input type="radio"/> Y3:LINK BAG
PUT <input type="radio"/> X4:START	PUT <input type="radio"/> Y4:GAS CHARGING
<input type="radio"/> X5:EMERGENCY STOP	<input type="radio"/> Y5:PRINT
<input type="radio"/> X6:INCHING	<input type="radio"/> Y6:FRONT VIBRATE
<input type="radio"/> X7:TEMPERATURE ALARM	<input type="radio"/> Y7:brateBACK VIBRATE

HOME PAGE

AUTO-MATIC

MANUAL

IO

PARA-METER

ALARM

Page IO: Input and output of PLC, it monitors the PLC working and overhaul.

Setting Parameters

yy/mm/dd

PARAMETER

HH:MM:SS

BAG LENGTH	888	CUTTER DELAY	8.88	CUTTER TIME	8.88
PULL-FILM FREQUENCY	8888	GAS-CHARGING DELAY	8.88	GAS-CHARGING TIME	8.88
LINK BAG NUMBER	888	PRINTING DELAY	8.88	PRINTING TIME	8.88
TROLLEY CIRCUMFERENCE	888	FRONT VIB-RATE DELAY	8.88	FROT VIB-RETE TIME	8.88
SOTP DELAY	8.88				

HOME PAGE

AUTO-MATIC

MANUAL

IO

PARA-METER

ALARM

- 1: BAG LENGTH: Set the length of packaging bag.
- 2: PULL-FILM FREQUENCY: Motor pull the film fast or slow.
- 3: LINK BAG NUMBER: The quantity that packaging bags should be linked.
- 4: TROLLEY CIRCUMFERENCE: The perimeter of the film pull wheel.
- 5: STOP DELAY: After normal shutdown, horizontal and vertical keep going a little for keep the jaws open before machine turn off totally.

- 6: CUTTER DELAY: Cross sealing jaw received a command but do it later.
- 7: CUTTER TIME: The time of cutting cylinder working once.
- 8: GAS-CHARGING DELAY: Receiving command but do it later.
- 9: GAS-CHARGING TIME: The time to take that inflate once
- 10: PRINTING DELAY: Coding device received a command but do it later.
- 11: PRINTING TIME: The time to take that the coding device printing once.
- 12: FRONT VIBRATE DELAY: Front vibrator received a command but do it later.
- 13: FRONT VIBRATE TIME: The time to take that the front vibrator working once.

REMARK: All of signal come from fill pull cams.

Alarms

yy/mm/dd

ALARM

HH:MM:SS

RIBBON ALARM	ON	DATE SET	8888	88	88
TEMPERATURE ALARM	ON	TIME SET	88	88	88
COLOR CODE ALARM	ON	ALARM TIMES	88888		
POSITION ALARM	CLEAR	CYCLE ALARM	888.88		

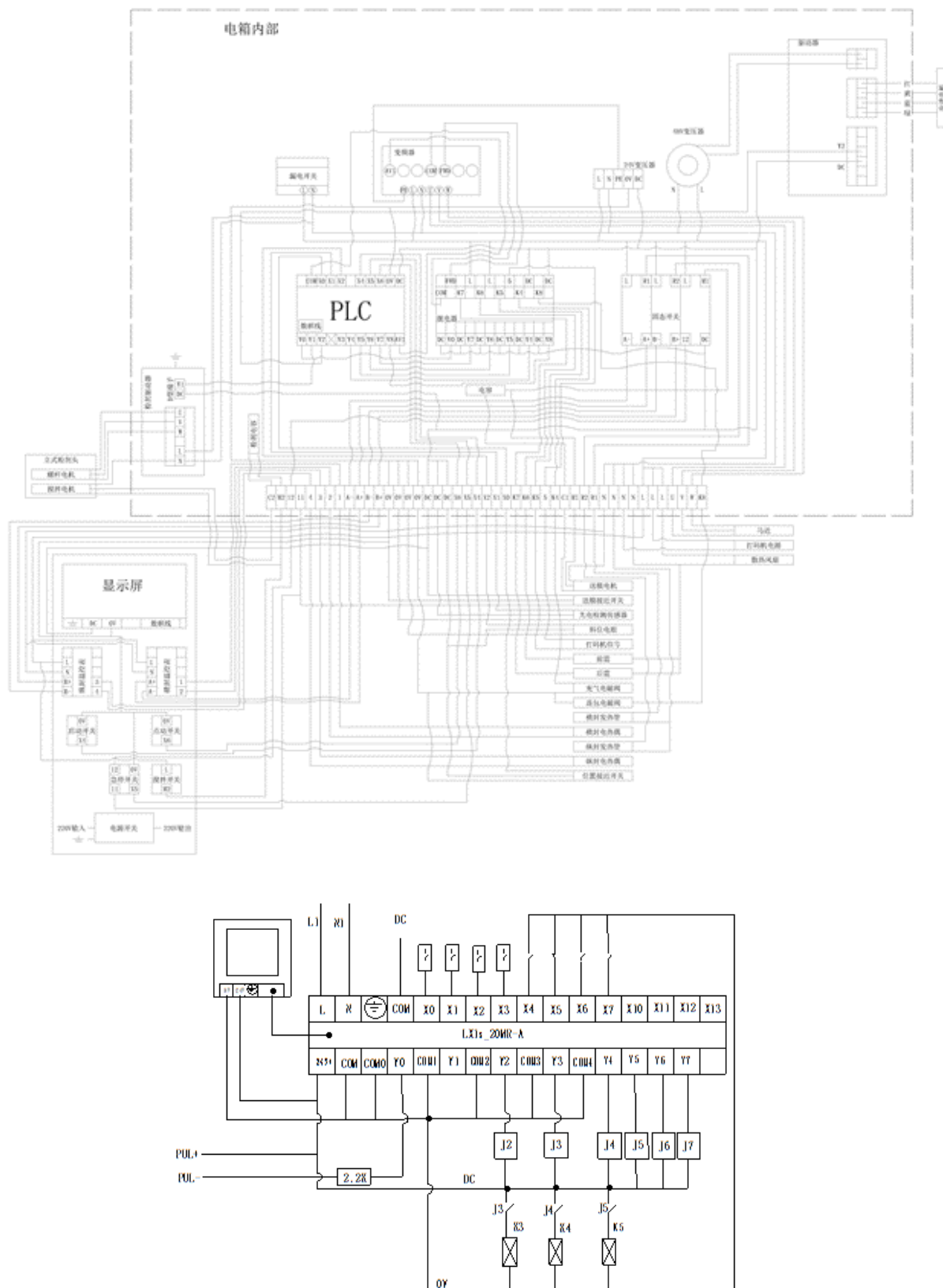
HOME PAGE AUTO-MATIC MANUAL IO PARAMETER ALARM

- 1: RIBBON ALARM: Open it, Machine will warning then stop when the ribbon uses out.
- 2: TEMPERATURE ALARM: Open, Warning when the actual temperature lower then setting's 5 degrees.
- 3: COLOR CODE ALARM: Open, after forming two bags, machine will warning then stop when the color mark was not be tracing by photo eye.
- 4: POSITION WARNING: Open, it's about packaging speed, for example the speed was 30 bags every minute that's means packing one bag need two seconds, then setting alarm must more than that.

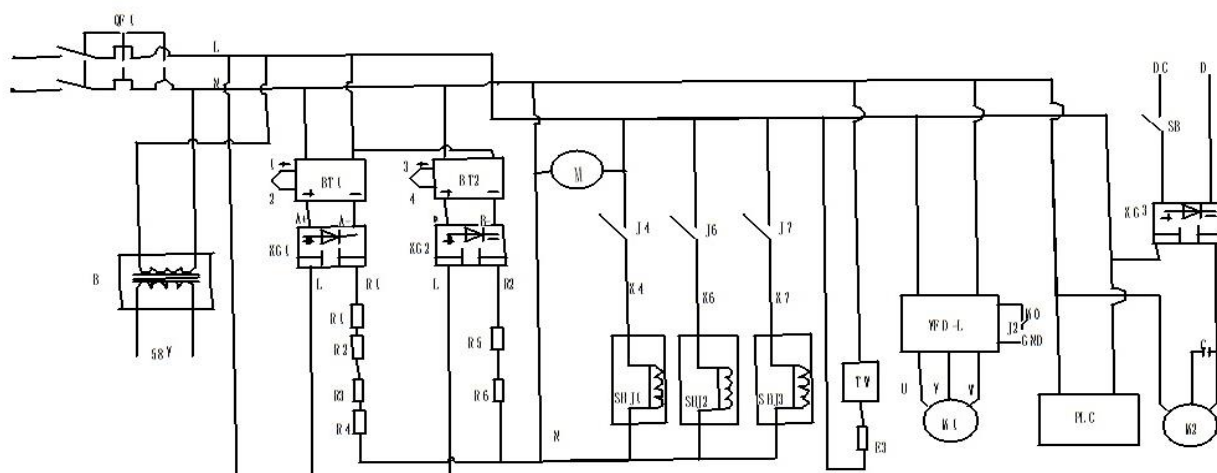
REMARK: The machine totally stopped when it is warning. If need it working again, you can deactivate the alarm or close.

SECTION 9 CIRCUIT DIAGRAM

Circuit Diagram Picture No. 1



Circuit Diagram Picture No. 2



SECTION 10 COMMON PROBLEM & REPAIR

Failure Type	Reason	Solution
Not Working	1: Power no good connect 2: Circuit Breaker tripped 3: Motor damaged 4: Frequency Changer alarm	1: Eliminate the troubles 2: Reset 3: Change a new motor or parts 4: Eliminate the troubles
Circuit Breaker tripped	Heating Tube, Motor or other electrical parts leakage	Check all electrical equipment one by one
Sealing Roller is not hot enough	1: Heating Elements Burned Out or Temperature Control Instrument Damage 2: Solid-State relay 3: Short Circuits	1: Change all relevant parts 2: Change Solid-State relay 3: Check the line
1: Temperature display OPEN 2: Figure flash	1: Thermocouple short 2: Thermocouple loose or damage	1: Check the line 2: Tighten or replace
Turn off temperature was normal, turn on dropping	Voltage too low to weaken the power of heating elements.	Reduce speed of packaging or install voltage stabilize.
Film always be torn	1: Too much resistance 2: Spring of web control was lost tension 3: Forming funnel broken	1: Check film surface 2: Too much viscosity of film surface. 3: Increase the tension of spring 4: Change a new forming funnel
Pulled film copper wheel stopped	Stepping motor warning or damage	Turn on again, change motor or drive

Position uncontrollable or bag be cut into half	1: The edge of film was crumpled or optical path with wrong 2: Low sensitivity of the photo eye 3: Be setting length of bag was too short to pack	1: Change the packaging film 2: Adjust the sensitivity of photoelectric sensor 3: Resetting bag length and longer than previous
Shape of bag not very well	1: Forming funnel wasn't adjust good 2: A roll of film move to left and right from time to time	1: Adjust forming funnel again 2: Adjusted and fasten
Seal of bag leaked	1: Un-Paralleling between before and after sealing roller working 2: Inadequate temperature of sealing 3: Insufficient Pressure	1: Adjust the parallel between sealing rollers 2: Raise temperature properly. 3: Increase pressure appropriately

SECTION 11 ACCESSORIES LIST

NAME	QUANTITY
Vertical Heating Tube	1 PCS
Horizontal Heating Tube	1 PCS
Open-end Wrench (12 - 14)	1 PCS
Allen Wrench (3 - 6mm)	1 PCS
Zigzag Knife	1 PCS
Horizontal Tension Spring	2 PCS
Machine Instruction Manual	1 PCS
Temperature Control Manual	1 PCS
Date Coding Device Manual	1 PCS
Thermocouple	1 PCS
Metal Latter-Press	1 BOX