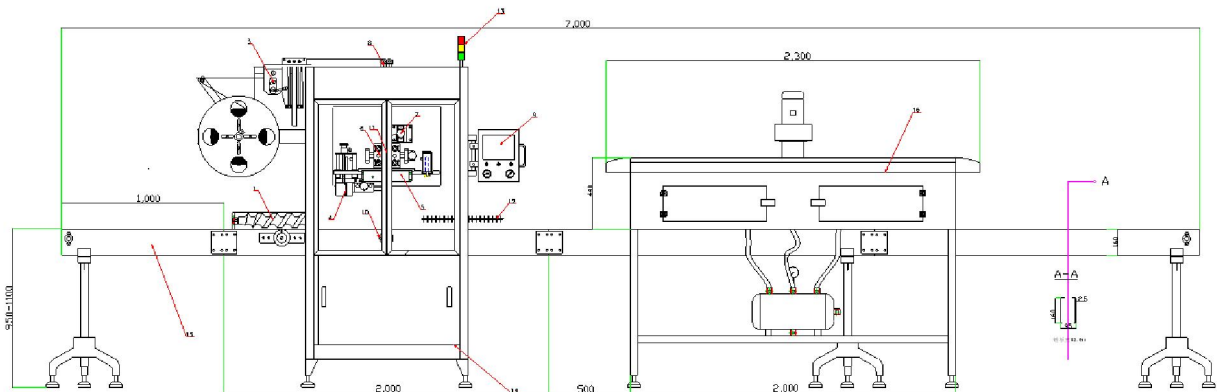


Automatic Sleeve & Shrink Labeling Machine Manual







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Chapter One Preamble

First of all, thank you for the use of the Automatic Sleeve & Shrink Labelling Machine. For the purpose of giving full reflect to the function of each part of this machine and operation personnel's correct and safe use of it, please be sure to read this manual in advance. And we believe that it will soon help you come into familiar fields and give you more and more satisfactory.

The body of this machine, with a large number of used aluminum alloy anode and dealing with 304 stainless steel, is very durable. The performance of the machine to a more modular design of human nature makes it easier for high-speed running and replacement. In the control circuit, the use of man-machine interface is very easy to learn and understand and the superior circuit design makes this machine sets the speed of the leading international standard. This completely new design, according to research and development, not only reduces a lot of mechanical adjustments, but also enhance s the precision of Label Cutting and the speed of production. The following contents on mechanical operation will be carried out in detail.

Chapter Two Norms and Regulations of Security

Section 1 Safe Requirements of Installation

Before the arrival and installation of machine, you must first check for damage, including the deformation of framework, the damp of electrical cabinets, and the traces of all components' damage (such as traces of the collision). If it is unable to determine whether it has the damage to machine, please contact with the manufacturing unit to verify it. Once it has been found damaged, please notify the transportation unit immediately.

Before totally positioning machine, do not dismantle the packaging. This machine can be carried by forklift which should insert from the front bottom of the machine for removal. Do not use hoisting rope! Only in strict accordance with the above description can ensure the safety of



the installation. Otherwise, they may cause harm and damage to the machine.

Do not impede and cover the radiator of electrical cabinet so as to ensure the normal heat, or the overheating of electrical components will cause damage and insecurity to the machine.

Confirm whether the power supply is suitable to the working power of this machine. The discordant voltage will damage the electrical components.

Section 2 Safe Measure of Protection and Maintenance

- ◆ The operating staff to electrical and mechanical components must be trained and authorized.
- ◆ On the mechanical and electrical components for maintenance personnel must be approved by the trained staff. He must be familiar with the installation of mechanical and electrical maintenance of a certain experience of professionals.
- ◆ Regularly maintain and overhaul machine, if it is found safety problems, immediately rule it out so as to avoid big losses.
- ◆ Never be allowed to do maintenance on the machine with electrification.
- ◆ Only after totally disconnecting circuit breaker in the controlling cabinet and cutting off the machine's total power supply can carry out maintenance operations on electrical components.

Attention:

- **Even if the power of machine is switched off, there is still some electrical components with electrification.**
- **All machine components and drive system need to be checked at least once a year. If the working environment is serious corroded, it is necessary to raise the frequency of inspection.**

Maintenance of safety measures

All components must be maintained by professional so as to avoid the damage to machine and the injury of staff. Once the machine broke down, maintenance must be dealt with immediately. The technical staff who have been authorized must rule out the machine's fault in time. After each maintenance, the safety devices must be checked before they can start running.

Do not cut any components by welding or flaming, unless the fire will not be caused and there is no damage to other parts of the components.

Machine must be provided with appropriate protection measures. Once there is fire, fire



extinguisher can be gotten at once.

- **Do not climb on machine and it should be used the safe platform or scaffolding.**
- **When using machinery and equipment (cranes, etc.) to lifting or moving components, even if they are light, you should be careful because there are also some risks to falling down or losing their balance.**
- **If it is unable to repair damaged components, you should demand it from the manufactory (in limited warranty), with no permission to mapping or manufacturing because it will cause damage to the proper co-ordination from other components.**

Section 3 Pre-screening

Check out whether the machine is intact. If it is found that the packaging is damaged or incomplete, immediately report to the transportation company. Please confirm whether the machine is in accordance with your company's requirement, and compare with the subscription model whether they have the same brand name. Confirm the installation of all attachments have been received, complete and not damaged.

Be sure to carry a reference 3 size, the installation space in order to ensure that all connections are adequate operation and maintenance of the space.

- **Only from the designated place can be moved by forklift and hoisting is strictly prohibited.**
- **Having sufficient carrying capacity to install the machine, or at least having the appropriate measures to ban solid.**
- **Each side of the machine must have a suitable space in order to maintain the flow of air ventilation cooling and electrical components.**
- **In the correct location of the installation of machine should have enough points.**
- **It is not allowed to pushing the prohibition of pressure and leveraging**



the control cabinet of machine. The bottom of machine is the only load-bearing part.

Section 4 Notes of Electricity

The standard operating situation can be listed as follows:

- Temperature: -10°C to +40°C
- Installation: indoor
- Frequency of power supply: 50±5 HZ
- Voltage: 1Ø210-230VAC
- Power: 2KW

The requirement of electric security

Only the personnel through a professional evaluation will be allowed to operate with electrical components. In particular, it needs to be point out that all the power supply connected to a machine must be cut off the power before carrying out any operations. The main power supply can be disconnected by cutting the main circuit breaker.

●Risk of electric shock: even when the main power supply was cut off, or main circuit breaker was off, some electrical components of the machine may still be with electrification.

●Risk of burn: current electrical components would result in temporary or heat for a long time, so it must be careful when contacting with power lines and cables, control cables, power cables, wiring and electrical lid shell.

●Even when the machine shut down, power line cable lines are still with electrification as long as the power supply circuit breaker are closed. Refer to the details according to the electrical schematics.

●If we are going to clean the electrical cabinet, use the vacuum cleaner, it can not be used without a filter to clean the air directly. Compressing



air in the water, oil pollution can cause electrical short circuits and reduce the insulation resistance.

Chapter Three Preparation before Operation

Section 1 Notes of Operation

Check before boot-strap whether there is a loose bolt body.

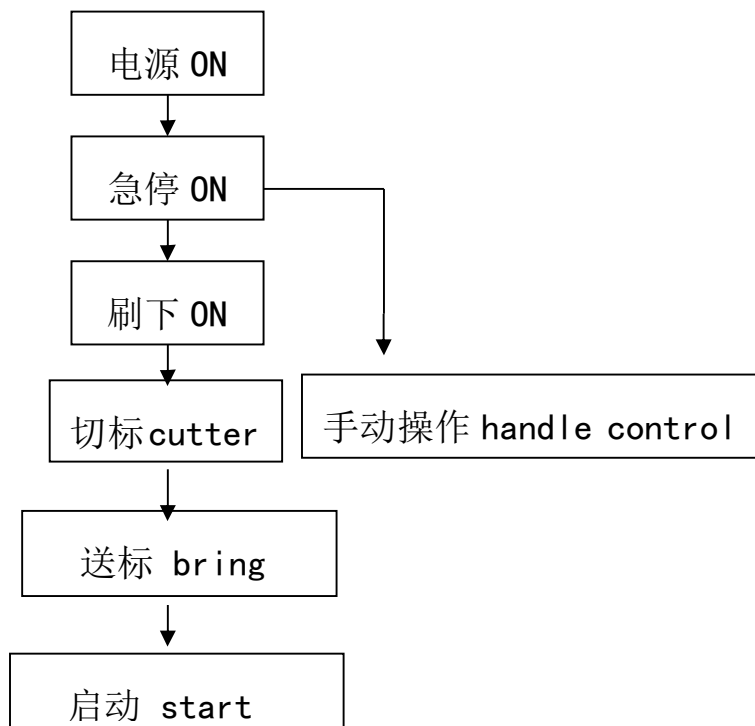
- ◆After boot-strap try to find out whether there is unusual. If there is no abnormalities, then use the automatic state to operate.
- ◆Turning on Cutter stop switch will automatically search for the origin, and we should ensure that the former center Derivative column is not in place to install loose, or else they will damage, and cut the center Derivative column.
- ◆Replacement of cutter blade should be paid attention to whether the blade is too long, so as not to break Cutter.
- ◆When Stand-by or normal operation of the cutter, it is not allowed to put the hands into the working area
- ◆Do not open the manual to send standard will be null and void.

Section 2 Installation and Cleanliness

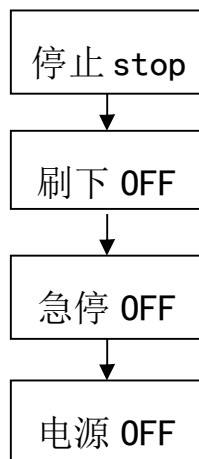
Host machine, transportation machine, heaters and so on must be contracted to a straight line. The transportation machine's Center and the host machine's Center for cutter must be placed by alignment, and level to level. Host-based high-speed screw to support the ground really can not have a gap. It has to check the voltage of power. There should be enough space for future maintenance inspection, and environmental humidity can not be higher than 45 ° C so as to avoid some of the city to buy component failure. Host location of the place that they should keep away fans or air-conditioning mouth straight hair blowing, the wind will affect the flow of standard sets of tags.



●开机流程



●关机流程



■ Cleanliness

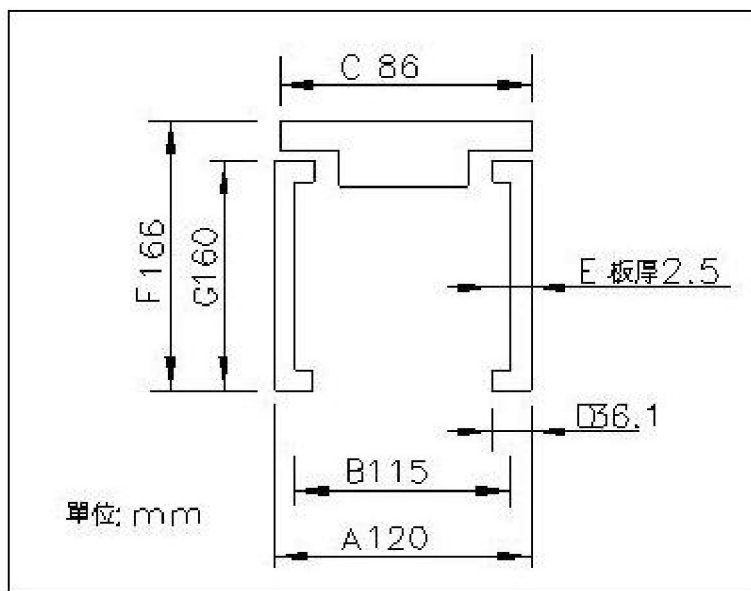
Remove the dust from the period of installation and transportation. some parts of the machine, such as screw, gear, and so on, need to be cleaned with a clean wipe, put re-lube on it, and it should be noted:

Pulley, belts, rubber wheel, motors and other electrical components can not be oiled.



Chapter Four Structure and Function of Each Framework

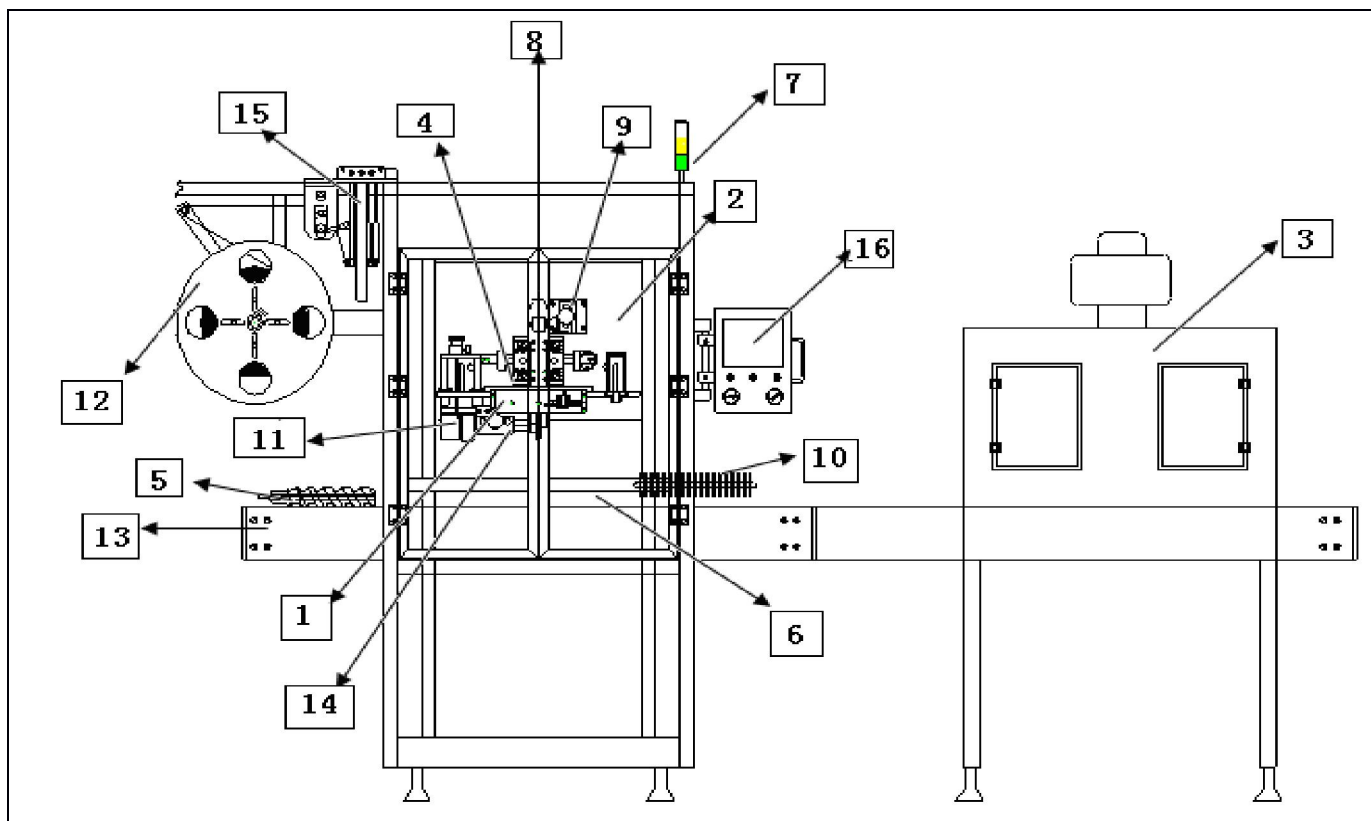
Section 1 Host paragraph transmission line interface map



Section 2 Logo of Machine's Icon

unit Description

- | | |
|-----------------------------|-------------------------------|
| 1、Cutter group | 2、Machine group |
| 3、Contraction furnace | 4、Driver group |
| 5、Sub-bottle screw | 6、Stabilization Bottles group |
| 7、Three-color warning light | 8、Center column |
| 9、Electric eye group | 10、Brush group |
| 11、Under brush group | 12、Rack group |
| 13、Conveyor belt | 14、Electric eye to the bottle |
| 15、Rack-fed | 16、Machine interface |



Section 3 Various parts of the presentation Function

● Cutter group

Inside blade, match the planets way and the deflection-steel crankshaft body structure, Contraction of the film to do cutting moves.

● Machine group

Machine-wide use of aluminum alloy anode with treatment and 304 stainless steel, used to host and support a fixed conveyor belt

● Contraction furnace (Electric or steam)

Use the electric or steam heat and let the bottle's label affixed to shrink evenly on top of the bottle

● Driver group

Single-or dual-agency group-synchronous servo motor control, so that the film can shrink the size of fixed transmission.



● Sub-bottle screw

Expected to slot into the top of the bottle, will be away from the use of screw conveyor so that the bottles are equidistant separate sets of tags to facilitate the entry

● Stabilization Bottles group

On both sides of the synchronous rotation, and the level folder location only the bottle with one hand wheel adjustment, so that the purpose of the bottle when they are not shaking in the transmission and conducive to the set the high degree of sets.

● Three-color warning light

When the normal operation of a warning light for the green, missing label film material for yellow flashing lights, host abnormal red lights flash.

● Center column

Film label will be expected to slot into the open so that the film is expected to cut and transmission.

● Electric eye group

The use of electric light eyes send signals to provide control system is scheduled to do transmission size and power to adjust the level position to determine the cutter blade cutting location.

● Brush group

The use of rubber will slot into the bottle's label to fix the brush positioning.

● Under brush group

Used simultaneously agencies, will send two groups of the next round of the brush to adjust the center column below the wheel contact with a minor, to be adopted when the label is the higher speed will be set into the bottle labels.

● Rack group

The film label materials of paper fixed by the Central 5 "to 10" after adjusting settings, the expected delivery of a set of wheel motors slow down pressure to send feed.

● Conveyor belt

Use frequency converter to adjust the speed of conveyor belt in order to apply to the production capacity to match the speed.



● Electric eye to the bottle

To monitor the bottle to the appropriate location, so that the signal that output automatically set to host the label.

● Rack-fed

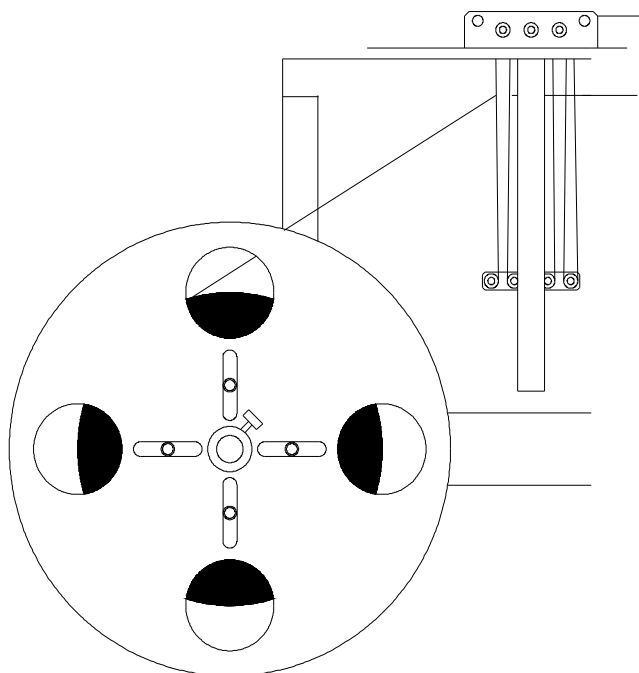
Controlled by the tension of the label feed fed me and label positioning to the electric eye frame at the top of the group fed the aircraft, for the delivery of film label materials.

● Machine interface

Machine-based control center, the display page is divided into operation manually, automatically, set, show unusual, and so on, several other auxiliary knob, charge for the operation button label sets of operations.

Chapter Five Tag installation

Section 1 Icon





As 5-1-1 Film label will be expected to place material on the shelf, put on board membrane material and tightened up a little pressure after the screw Rack.

As 5-1-2 According to the direction expected film material, and according to a clockwise direction to feed rollers so that the film is expected to open across the wheel.

As 5-1-3 Putting the film label materials in accordance with the Road Map to wear around the wheel and then membrane material penetration of the central pillar tail.

As 5-1-4 the membrane penetration expected to center on pre-column should be grateful if you open the driving wheel, with his left hand after the boosting of the central pillar from the top and bottom so that the center column with the wheel a little out of the Department of the main driving wheel, the right hand through the membrane material Cutter location, and then center Column advantage of the opportunity to use his right hand back to the fix.

As 5-1-5 the center column back in suit, and then back to the folder on the driving wheel position can be a little contact, the installation has been completed at that time.

Section 2 Test cutting

When the interface in the show by cutting button, choose to send their marked for cutting, try again cut at least five times the standard label will not remove membrane expected, attention should be final after the start button to enter the automatic mode page.

Chapter Six Adjustment and settings of Electronic Eye's Location

Section 1 Cut off the tags when the electronic eye position adjustment

- ◆ Can be adjusted up or down the electric eyes' position
- ◆ When the top of the label is too long, Electric eye frame will slide upward.
- ◆ When the bottom of the label is too long, Electric eye frame will be adjusted downward, adjusted until the correct position to be cut.

Section 2 Electric eye sensitivity settings (In Annex)

- ◆ on a variety of labels color, strength, thickness of the membrane material, although the machine is installed at the factory, although it have been Secretary for engineers to debug settings, but in the film is expected to switch to a different label, you may have electric eye sensitivity of the standard set of tags When an impact, such as sensitivity too high or too low, resulting in production when the brush under the label into the set of abnormal sensitivity too often occur relatively short



length of the label, the sensitivity is too low and prone to label a series of films is expected to drop the case. When the above situation occurs, the electric eye that sensitivity must be adjusted to conform to this type of label film material.

- ◆ When you adjust the sensitivity to pull the tag near the eye, and transparency in the printing position at this time to observe electric eye sensors and a red light on whether the green light for the light out, if the label can not move up and down when they put out a red light This transparent for the weak sensitivity, the label will be transparent section at the electric eye, adjust the electric eye on the sensitivity knob until the traffic lights out just to adjust the location returned to red light.
- ◆ Generally it should in principle be all-traffic lights to light, due in part to expected tab on the film print, and other high degree of transparency may be caused by electric eye to detect the site of miscarriage of justice, leading to the next set of labels is not normal
- ◆ If the adjustment is still not normal, repeat the above steps, and sensors on the sensitivity of the test button a little more than transfer all or some to test out the electric eye sensitivity knob of the appropriate location.

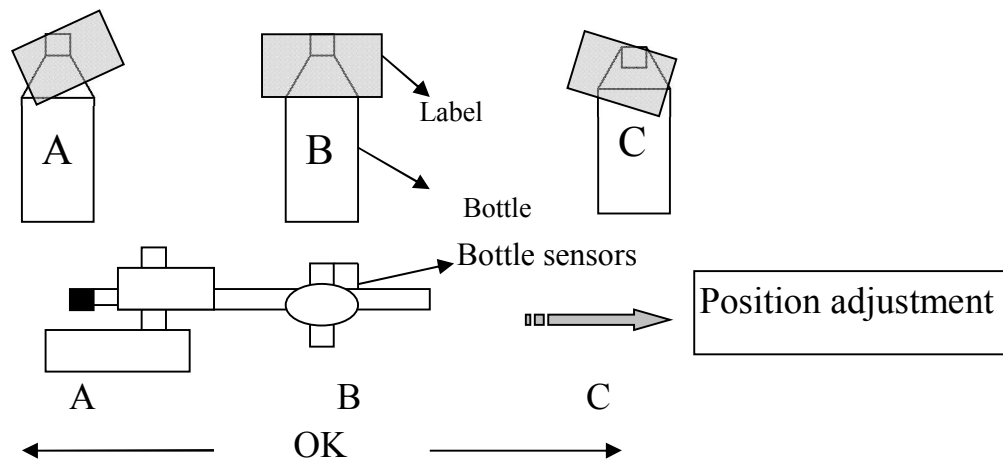
Chapter Seven Label positioning and detection

Section 1 Tags working principle

When the conveyor belt there to detect the bottle after bottle electric eye, the servo control of the group will drive a label at the same time under the brush material for the next round of the group will be a long brush label, the label will slot into the bottle. If the position at this time to detect electrical position is incorrect, the label will not be able to successfully set into the bottle.

Section 2 Icon electric eye position adjustment

According to adjust the direction of the icon, if the tag was set into the bottle A state power should be grateful if you position to move B, C, if for the situation, you power position by moving B to C, until the labels such as the B slot into the bottle Correct date.



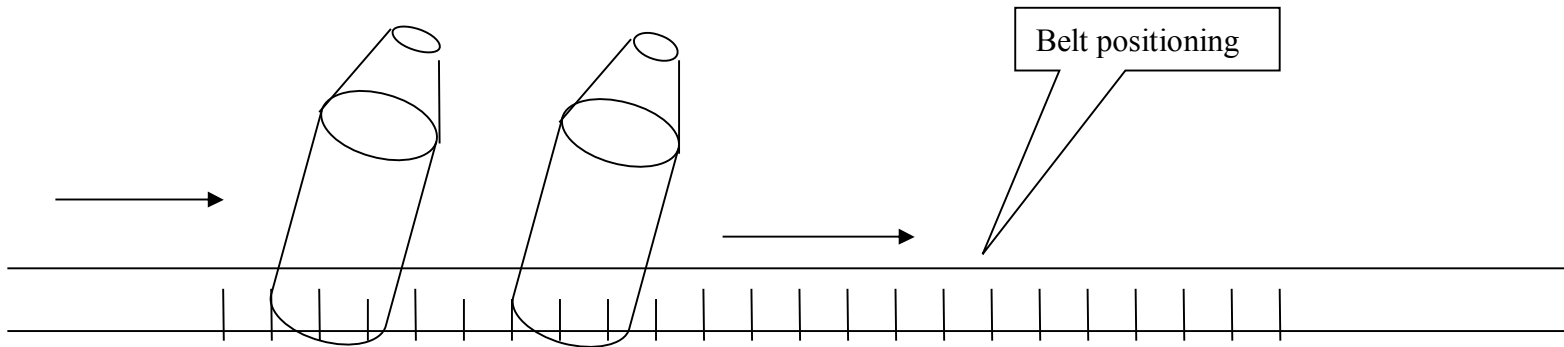
Section 3 Electric eye explanation

- ◆ Electrical devices for the eyes reflective, as the main framework for mobile, mounted on rails, the main project will be launched in the light standard-fitted, and then back to the reflection of the main reception, as a set of tags to transmit signals.
- ◆ When there is no standard-fitted, the main sensors on the lights for the OFF state, if at this time for the bright lights ON, please use the word small screwdriver to adjust the sensitivity knob until the sensors to determine motion lights out.
- ◆ When the existence of standard-fitted, light projection by the reflection of the bottle, this time on the sensor signals should be ON state; if OFF for the lights out of the situation, said the main projection light and not too weak reflection, sensitivity adjustment button Will be modulated sensitivity to light so far,
- ◆ Please try again till the machine until the confirmation of the sensor for sensitivity so far.

Section 4 Main point about debugging

- ◆ Conveyor belt, sub-bottle-screw, and Belt positioning to adjust the speed of inconsistency would not cause labels to packages or instability
- ◆ Following is a forward tilt bottles: a reason. Bottle moved too fast. 2. Conveyor line too slow.
- ◆ If there bottles tilted backward, In contrast with the above

Following phenomenon by adjusted the knob on the panel to reach consensus:



◆ Label set not in right place

Reasons: 1、 Brush label did not hit

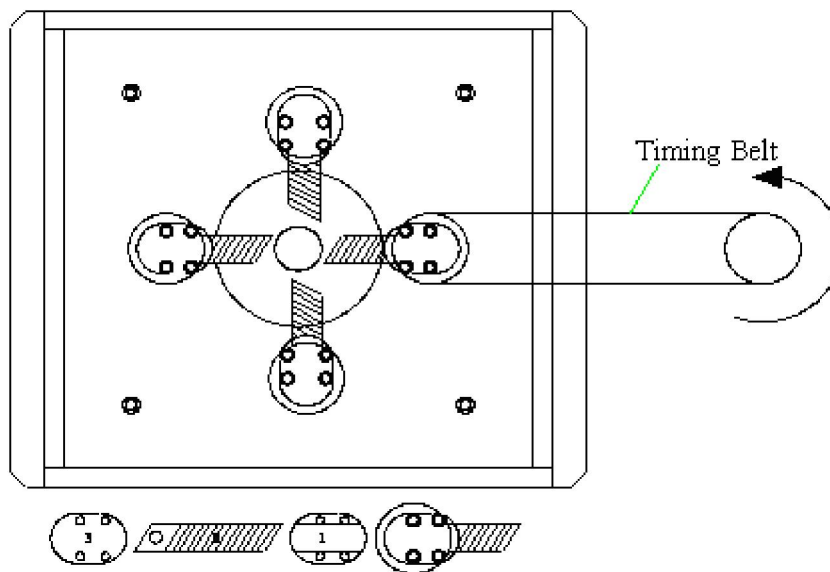
2、 Bottle belt too high

3、 Label sets of distortion

4、 7.1.1 and 7.1.2 would be also the problem.

Chapter Eight Cutter demolition and installation

Section 1 Figure Cutter agency group plan



Section 2 Details

◆ If the blades need to be replaced, according to plans shown to be demolished.



- ◆ Replacement blades, please note that the original old to stay by a broken blade grid, which is the length of the blade, a new blade than the usual length of the blades can be installed, or labels may not be able to cut off, the label can not brush under the phenomenon.
- ◆ Attention should be paid when the blade is installed: A .knife blade into whether there is a seat of the anvil trench knife. B. determine the length of the blade after the break when the blade edge can not operate with the blade of-the-art site(carefully hand injury). C. blade knife should be installed when the original installation disk to install the direction.
- ◆ Blades installed in a belt hanging on the belt should pay attention to the mark in mind, according to hang tags, to avoid card standard in order to operate normally.
- ◆ Disassembly when the blade should pay attention to safety to avoid being cut blade; the use of hand tools for demolition when the blade to leave the region, the left must hold tight to confirm when the belt regulations, the board re-blade screw disassembly, appropriate attention to the board on tight Can in order to avoid deformation board.
- ◆ If the group found there was something unusual, please notify the Company maintenance services.

Interface manipulation

Chapter Nigh Touch-screen manipulation

Section 1 Operation

The present set of standard operating equipment for the machine to operate touch-screen-based computer interface, and several outside the traditional switch-assisted device posed by the bottom, all the features of the choice of machine, such as display messages can be installed by this The page shows all the functions designed to reach, easy to understand, has a good affinity.

- ◆ **Boot:** As with the flow chart switch off process
- ◆ **The pages feature:**

Main features select table:

1. Power: the main power switch
2. Emergency stop: in normal circumstances



Manual:

1. Feeding motor: to control the feed roller action.
2. Cutter: Complete set of feed to cut off the subject of action.
3. Product feed screw: Automatic control the bottle distance.
4. Host or high / down: by the man-machine interface to control movements of the host in order to achieve the target set a high degree of bottle.

Automatic mode: Open the automatic operation mode

Set parameters:

1. Products include: account for the largest number of 99999999
2. Set the length of labels: in the fixed-length feature, set the length of the label.

◆ Accessibility switch:

1. Emergency stop: abnormal, an emergency operation to stop the procedures.
2. Button to adjust the speed of: the control group to send a bottle with a bottle of speed.
3. Screw bottle: the control the bottle into distance.
4. Furnace heat shrinkable switch: after the start of the use of labels to complete contraction action.
5. Warning lifted

◆ State of alert messages:

This machine control system with three-color signal, interface screen display text in two ways a combination of warning messages.

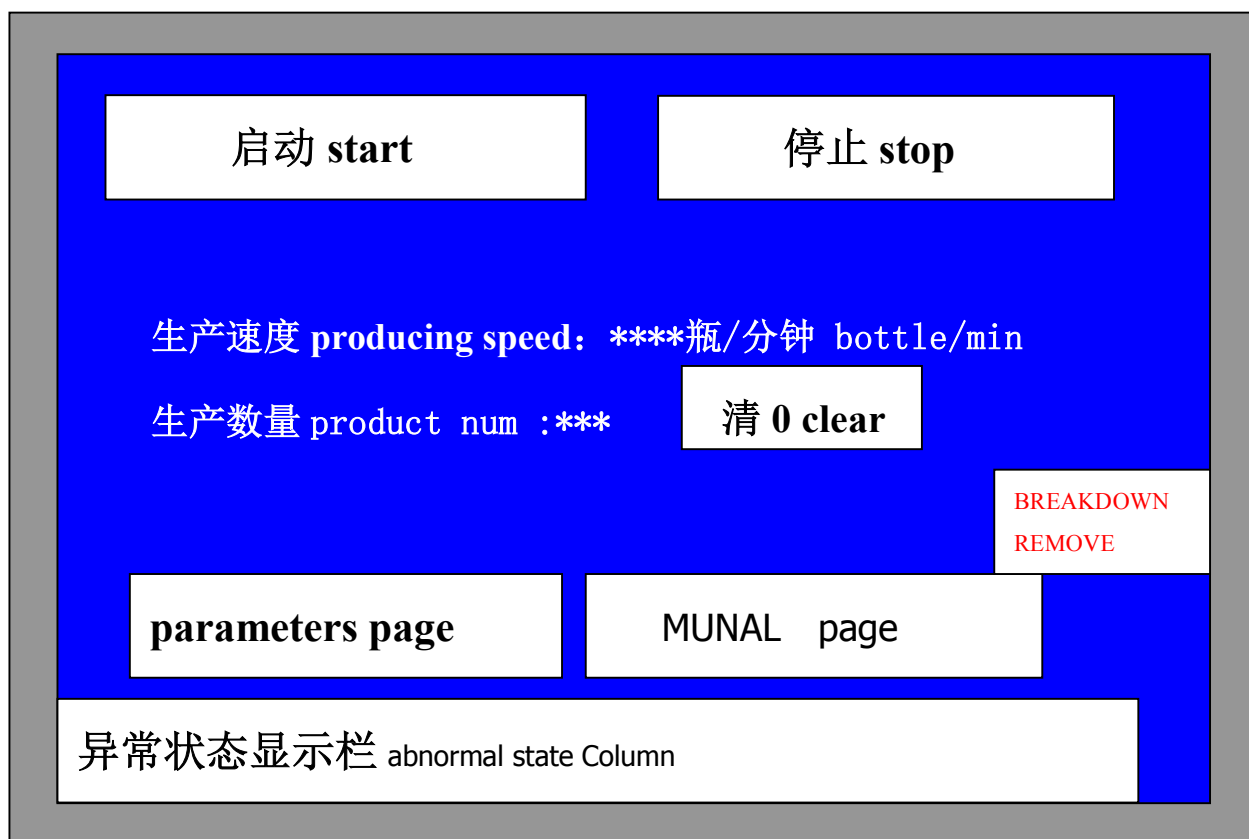
Tri-color lights: red, yellow and green colored lights from the top three ranked in the top of the host right after, on behalf of the state's significance as described in the following:

- 1、Red light: that the host abnormal
- 2、Yellow light: yellow for no abnormal manual, flashing yellow light, the label said lack of materials.



3、Green light: that automatic, no abnormal.

Section 2 Screen interpretation



启动 : Open the automatic mode

停止 : Stop automatic mode

送标 : Tags will be guided into the center column marked pending

切标 : Taking guided into the center of the column labels cut off

生产速度 : Auto-show mode, each a few minutes into the bottle

清 0 : Clear record of the production data

标签长度 : Set the length of the label

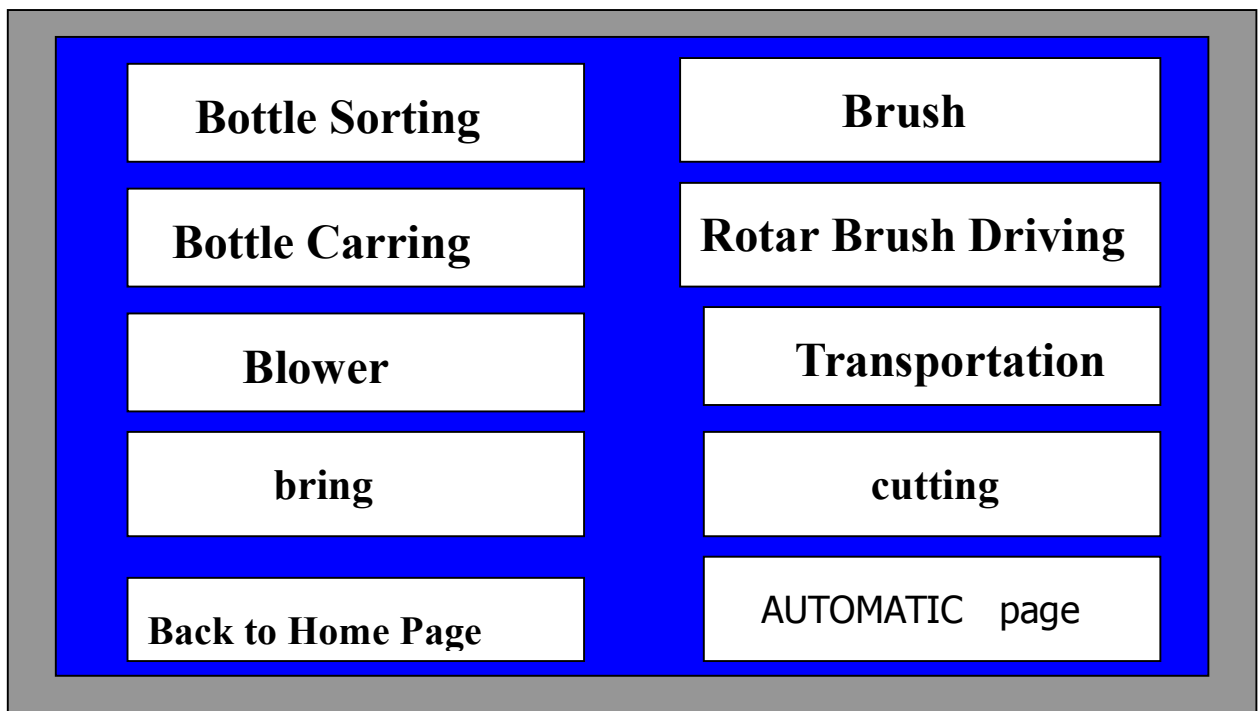
生产数量 : Records of the number of production



上升 : Top up (Open the Parameters page)

下降 : Top down (Open the Parameters page)

Bottle's sensor delay:



分瓶 : Separate bottles' screw motor on / off

毛刷 : Brush motor on / off

带瓶 : With bottle positioning motor on / off

刷下 : Under the brush motor on / off

供料 : bring motor supply one time

输送线 : Transmission motor on / off

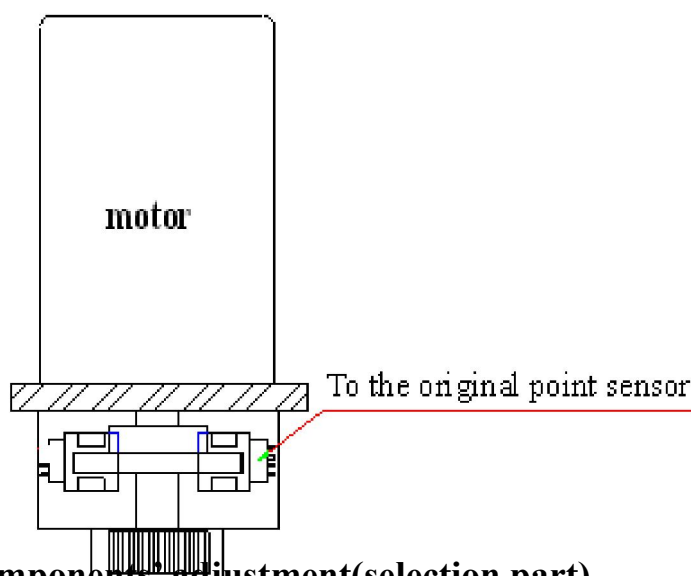
回主页 : Return homepage



Section 3: Abnormality and Solution

Touch-screen status display	Reason	Rule out Trouble way
Send abnormal signs	Server overload or service mark label stuck material	Press the 急停 and remove abnormal and restart
Cutter abnormal	cutter overload or service mark label stuck material	The same like above
Under the brush is not open	Under the brush is not open	push the 刷下 button
lack labeling materials	No material or the supply of material belt not Ferry pressed	replace the materials supply belt, check the supply of material with open wheel folder is closed
Emergency Stop	Emergency Stop OFF	Emergency button ON

Cutter can not return to square one: check whether the original point sensor is damaged.



Chapter Ten Other components adjustment(selection part)

Section 1: Specification Table

Model	PM—150B	PM—200B	PM—300B	PM—450B
-------	---------	---------	---------	---------



Host size	2100L*850W*2000H	2100L*850W*2000H	2100L*1100W*2200H	2500L*1200W*2200H
Production speed	150B~170B	200B~220B	300B~350B	450B~500B
Power Supply	1ø/220V、 3ø/220V	1ø/220V、 3ø/220V	1ø/220V、 3ø/220V	1ø/220V、 3ø/220V
Host Power	2KW	2KW	2KW	6KW
Framework material	stainless steel	stainless steel	stainless steel	stainless steel
Length of the label	30mm~260mm	30mm~260mm	30mm~180mm	30mm~180mm
Thickness of the label	0.03mm~0.13mm	0.03mm~0.13mm	0.03mm~0.13mm	0.03mm~0.13mm
Diameter of bottles	28mm~125mm	28mm~125mm	28mm~125mm	28mm~125mm
High of bottles	50mm~280mm	50mm~280mm	50mm~280mm	50mm~280mm
shape of bottles	Square, round, oval, flat bottle	Square, round, oval, flat bottle	Square, round, oval, flat bottle	Square, round, oval, flat bottle
Contraction furnace power	13~15KW (Or steam)	13~15KW (Or steam)	13~15KW (Or steam)	13~15KW (Or steam)

Section 2 With bottles group, the bottle screw separately, under the brush group, pre-contraction furnace components, such as adjustment, in line with a variety of different-shaped bottle must be suitable for the production of the bottle-shaped set conditions readjusting

Section 3 Please practice these adjustments to meet the operators of the Company to the engineers in the machine, operating education and training and more practice time

Chapter Eleven Lubrication and Maintenance

Section 1 Checking Proceedings per day

- ◆ Stroke lead, guide, screw, slide, slide bearings, such as face, the last two weeks lubricants, the use of domestic premium brand cycle oil R32, or licensing VG32 grade lubricants
- ◆ Gear oil every week, the general use of machine oil
- ◆ Before the first oil to clean soft cloth to remove the old original oil
- ◆ Lubrication points clear if foreign body contamination, such as dust, iron filings, such as water, clean-up should be done immediately to do and oil after that.
- ◆ In the period of usual mechanical inspection found rust, should be done immediately to deal with rust and oil
- ◆ Parts of the consoles, please maintain the cleanliness of its surface, to avoid irrelevant items will be placed in the machine on the stage



- ◆ Each week to check the site of transmission belt, or whether there is a fracture serious damage, this pre-please spare parts to be replaced
- ◆ Please produce maintenance-related forms on time and maintenance
- ◆ Electrical plate use air guns to remove dust or material every week to ensure the normal operation of electrical components
- ◆ Blade must be confirmed before the start of the central pillar and the relative location of the ring groove with the original point of the blade
- ◆ Confirmation before the start of the central pillar on both sides of the driving wheel position is correct, whether the driving wheel locked solid, so as not to move according to the central pillar
- ◆ Brush confirmed that the next round with the center column under the center section of the high-roller, and soft reduction at the wheel
- ◆ Confirm whether there is a conveyor belt above stranded foreign body
- ◆ Confirming that the shelf labels membrane materials is expected to wear, whether or not the normal position, whether or not film material deformation
- ◆ Confirming shrink film centers on the shelves with the central pillar center alignment, or should be expected to adjust the location of the site
- ◆ Confirming host knife block set to confirm a high position, whether or not the conditions for the production of the bottle
- ◆ Confirming the group with bottles' positioning location of the belt, gripping a bottle of pressure not suitable too tight
- ◆ Confirming that shrinking group of rotary furnace belt, gripping a bottle and the pressure should not be too tight
- ◆ Confirming that the group folder with a bottle, whether located in the center below
- ◆ Confirming the bottles' move speed after clamping, and whether the conveyor belt has the same speed.
- ◆ Confirming that bottles of eye position is correct, pre-production in the first set of test tags
- ◆ Finished work, please turn off the furnace switch shrink, to keep the cooling fan for about 10 minutes after the closure of the fan switch and power switch
- ◆ Finally, follow the interfaces that control the operation of steps to shut down, turn off the main power supply. Sub-bottle bottle screw even when the bottle is the central pillar in the center is now under the cut-off