



E D G E B A N D E R

STAR COMPACT 306DSP

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M A N U A L**



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StarCOMPACT **306DSP**

The Easy Change STAR COMPACT 306DSP Edge Bander packs robust capabilities into a space-saving design ideal for private shops. This multifunctional machine automates edge banding processes for enhanced efficiency and quality control.





PREFACE

Thank you for purchasing our products!

Please read the following precautions carefully after receiving your machine:

1

Read the following pre-installation precautions and check whether the installation environment of the machine is suitable to avoid unnecessary trouble during your installation and use.

2

Check the appearance and packaging of the machine to see if there is any damage.

* If you encounter problems while using this product, please call our after-sales service.

OPERATION AND MAINTENANCE MANUAL

Our company reserve the right to change edge banding technology and concept of each component and assume no other responsibilities, to improve our machines continuously. The pictures and data in this manual help you understand content well.

FUNCTION LIST

TT-306D: Gluing → End trimming(1 motor) → Edge trimming

TT-306DB: Gluing → End trimming(1 motor) → Edge trimming → Buffing

TT-306DS: Gluing → End trimming(1 motor) → Edge trimming → Scrapping → Buffing

TT-306A: Pre-milling → Gluing → End trimming(1 motor)

→ Edge trimming → Corner Rounding → Scrapping → Buffing

TT-306DSP: Pre-milling → Gluing → End trimming (1 motor)

→ **Edge trimming → Scrapping → Buffing**

General Introduction

Machine Model: TT-306DSP

In the event of any issues with the machine, the owner must contact the detailers or service department for assistance. Please provide the following information:

- Machine Model - Serial Number - Date of Purchase - Run Time

Ensure that you adjust and maintain the machines according to the instructions in this manual.

* If the issue is not addressed in this brochure, it should be handled by professionals authorized by the manufacturer. Any repairs conducted by unauthorized personnel will be at the buyer's risk.

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Chapter 1

Basic Information

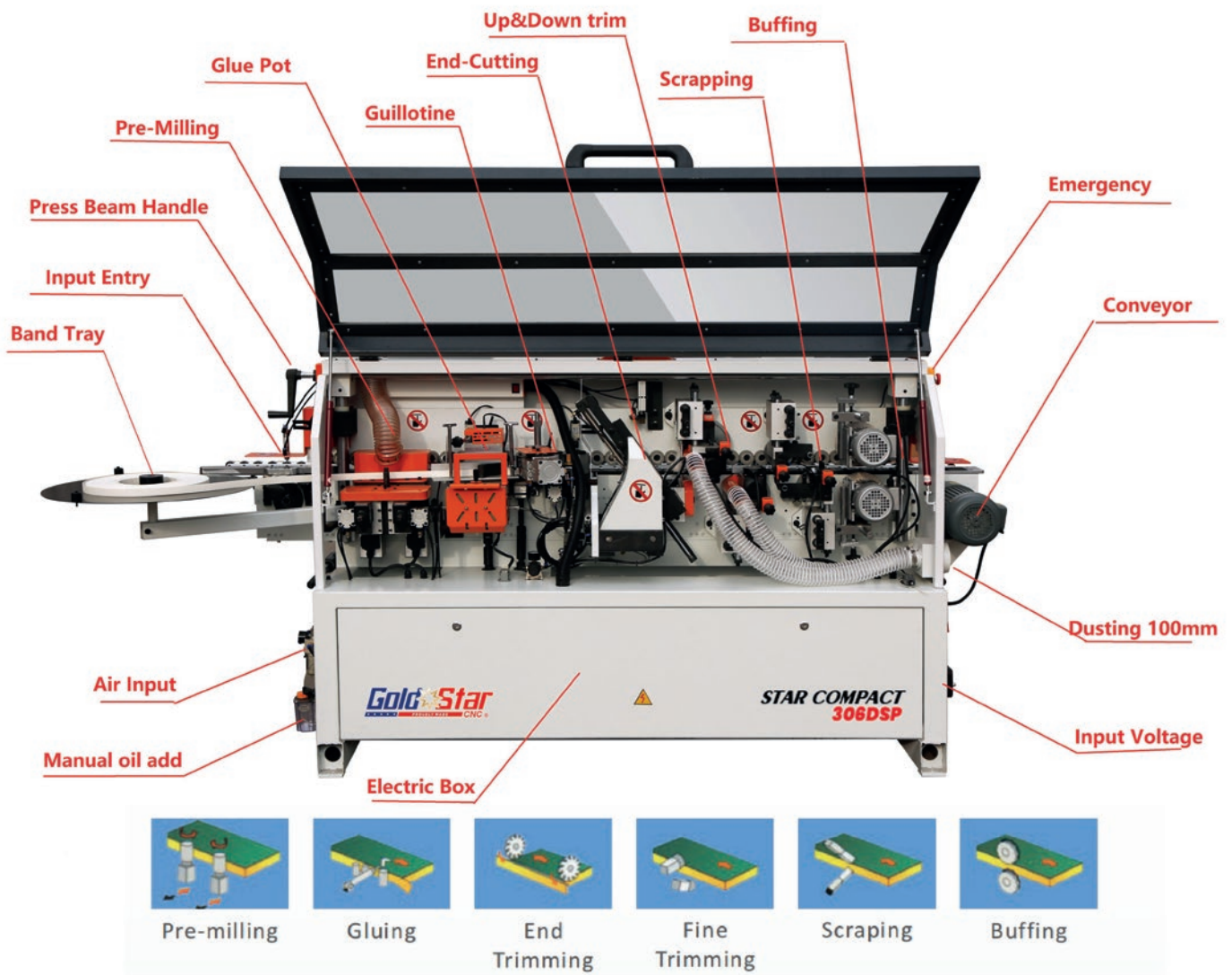
1.1 General Information

Automatic edge banding machines can glue and apply tape to panels with minimal labor.

End-cutting and edge-trimming capacity can be working at the same time. This machine can only process panels with the right angle.

Only materials mentioned in the brochure are permitted to be used on this machine.

1.2 Technical Data and appearance





Back of Machine

- 1,2: Dust outlet
- 3: Control Panel
- 4: Manual up&down

Technical Parameters

Min. panel Length(in)	4.7	Input voltage(V)	240
Min. panel Width(in)	3.15	Input frequency (Hz)	60
Panel thickness(in)	0.4-1.7	Total power (HP)	7.8
Edge width(in)	0.5-1.8	Required air pressure (Mpa)	0.6
Edge thickness(in)	0.01-0.11	Dimensions (ft)	8.5 x 1.9 x 4.6
Feeding speed(in/min)	0.3	Net Weight(lbs)	1.4

1.3 Safety Caution

Before operating the machine, read the instruction manual first.

Pay attention to the caution mentioned and always operate the machine carefully.

The operator must be trained to be able to operate this machine.

Many accidents are caused by clothes and personal belongings (bracelets, wristwatches, necklaces, etc.). Please ensure that you button up your clothes, tie your long hair back, avoid wearing a necktie, and wear appropriate shoes and glasses to protect your eyes.

Please keep the working area clean and well-lit. Ensure there are no barriers in the workspace.

Please operate the machine as technology type and designed purpose.

Safe facilities must be used forcedly and never permitted to be removed, changed, or damaged. If safe facilities are changed, the manufacturer is free of responsibility.

In special operating conditions, safe facilities may not be fully installed. Thus, you are responsible for installing all other necessary safe facilities.

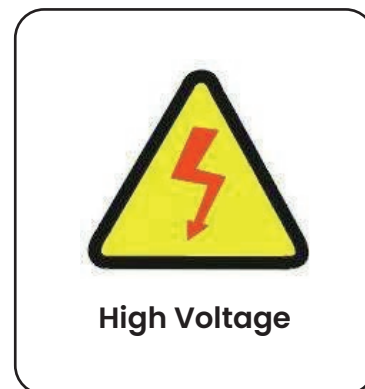
Only professional electricians are permitted to change electric accessories.

Please make sure that the power is off before maintaining the machine. Please disconnect the pressed air tube. Make sure that the machine is reopened by qualified operators or authorized personnel.

Please make sure that all cutters are sharp and all parts coordinate well.

1.4 Warning sign

Please pay attention to the protection cover, separation net, high-temperature sign, and electrified sign. All dangerous parts are signed by a warning sign. (See the following pics)



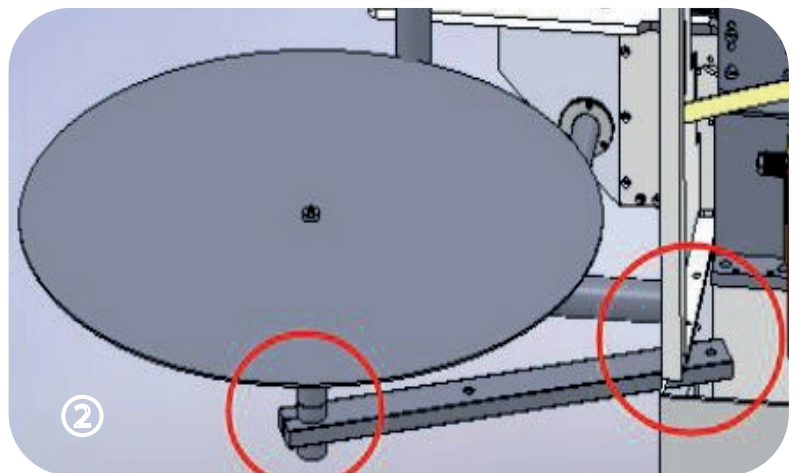
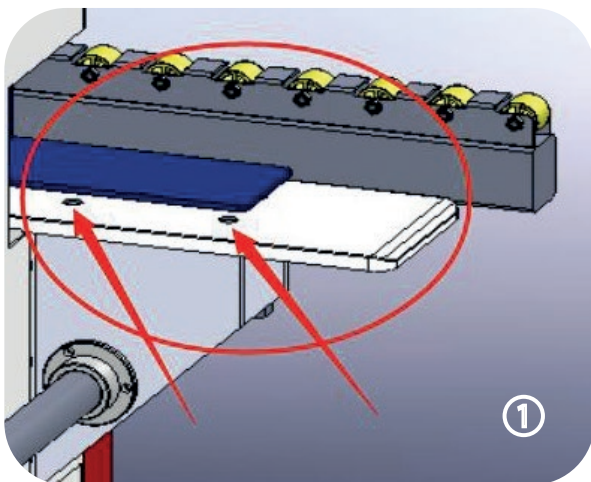
1.5 Dust Collector

Dust will be produced in edge trimming capacity. Please connect the machine with a highly efficient dust-exhaust system to ensure not less than 65ft/1min.

Chapter 2 Installation

2.1 Position of the machine

This machine is packed by iron or wooden case. To transfer it more easily, some parts of the machine are packed separately. Parts 1, 2 and 3 need to be assembled as shown in picture 2.1



Picture 2-1 Parts packed separately

Please consider the dimensions of the machine and the way to place it before placing the machine.

Make sure that there is enough space for the operator. (See pictures 1-3)

The machine base must be located on a hard and flat floor.

2.2 Assemble the separately packed parts.

All parts are tested and adjusted before delivery. It is easy to assemble the following parts.
Arms of tape platform: loosen the bolt (part A, picture 2-1), and draw out the arm. And tighten the screw on the second arm hole.

Panel fence on end of conveyor: fix the fence by tightening the bolts. See picture 2-1

2.3 Connect wires

All must be connected by a qualified wireman.

Check the actual power voltage and frequency, and make sure that they are the same as the data on the nameplate.

Please use qualified wires of 5*2.5, make sure it can burden the total power. Do not connect the neutral line to the earth.

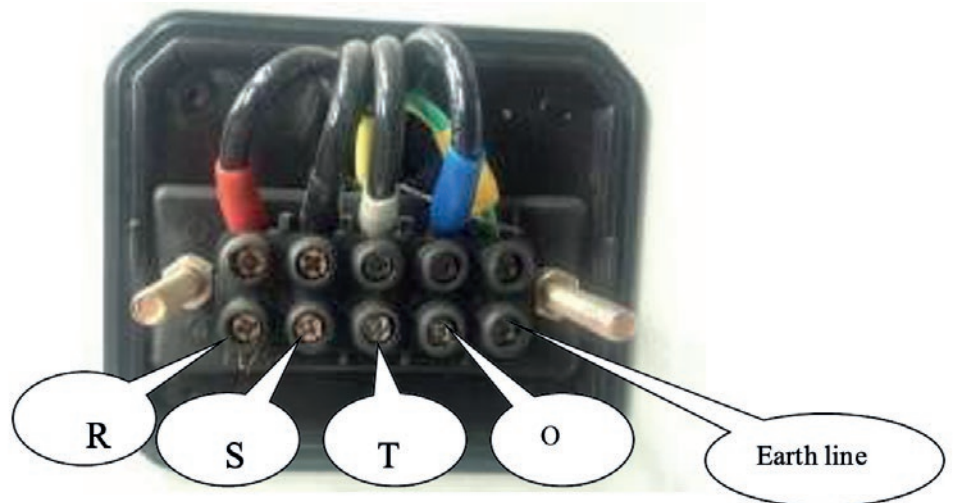
The main power system must be connected with a neutral line

and ground line.

Open the power shell, and connect the wire. Please connect the natural line with N and the earth line with the last one.

Start the buffering capacity on the control panel. Make sure that the buffering wheels are rotating in the right direction (anticlockwise, look from the front side of the machine).

See picture 2-2.



Picture 2-2 Line in main power box

2.4 Connect air tubes

The air filtration and pressure regulator is located on the right hand. See pictures 2-3.

To keep the air dry, air through the machine tubes is filtered and dried. Also, air can be oiled if you fill in oil in the oil cup.

The air service unit must be installed to connect with the air inlet tube. The air unit does not need any lubrication.

Air with oil may break some of the air accessories.

The switch will be pushed up by condensation. See part B, picture 2-3.



Picture 2-3 Air filter/ pressure conditioner

2.5 Dust collector

Please connect the dust tube with a highly efficient dust collector system. The tube joint is on the left of the machine. It is available to use a central dust collector.

The dust collector system must be working while edge trimming is on. Please regularly check the dust collector to keep it working well.

Chapter 3

How to use this machine

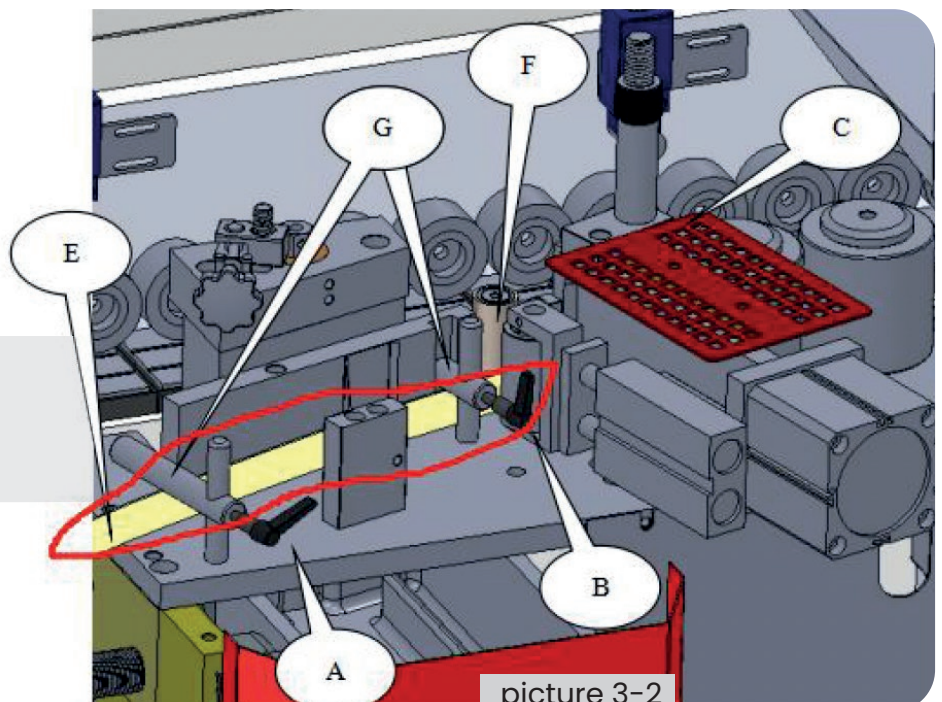
All parts are tested and adjusted before delivery. The following parts are easy to assemble. Before using the machine, please read these instructions and assemble all the parts separately.



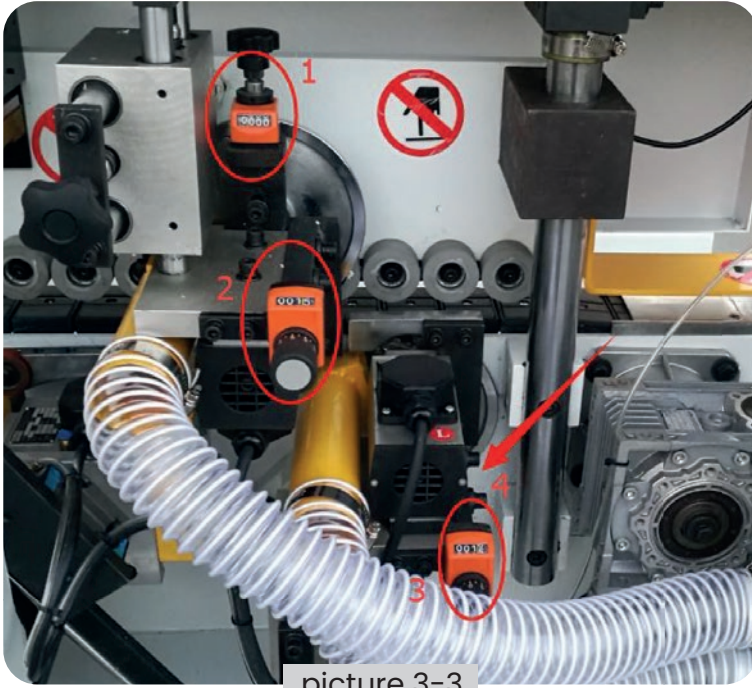
picture 3-1

1. Check this part; the number must match the panel thickness (see picture 3-1).

2. Put Band see picture 3-2



picture 3-2

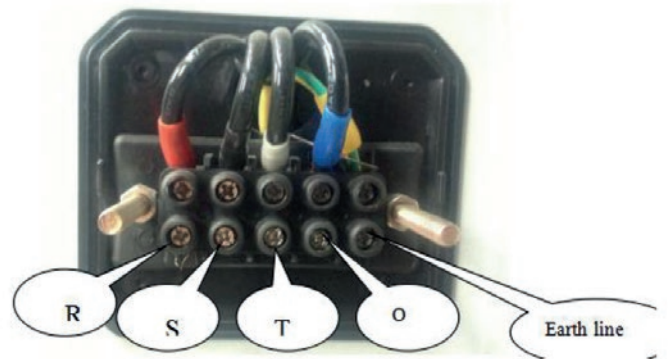


picture 3-3

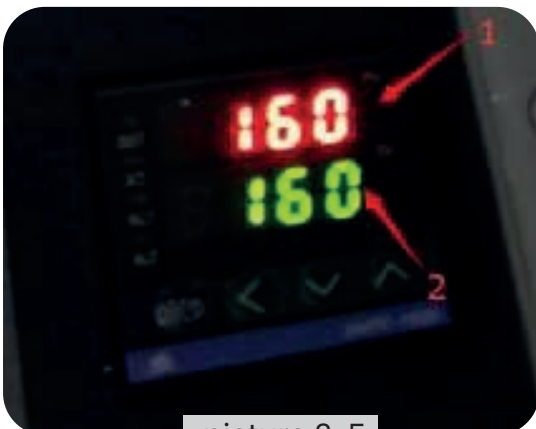
3. Adjust the wheel to ensure the number matches the band thickness. The standard thickness is 0.06 in; however, 0.03 in, 0.04 in, and 0.08 in are also acceptable. You can test these options first (see picture 3-3).

4: Connect the power according to your country's voltage (see picture 3-4).

Attention: Please check whether the conveyor motor direction is correct; this is very important. If reversed, it may damage the machine (single phase is acceptable).

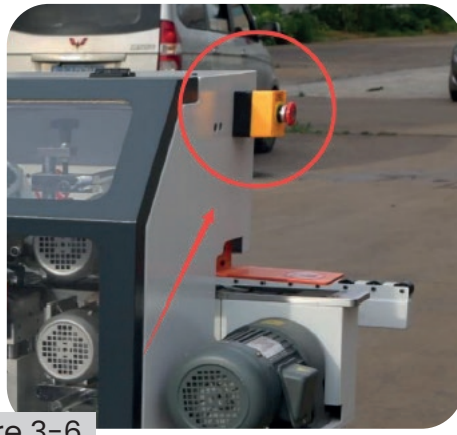


picture 3-4



picture 3-5

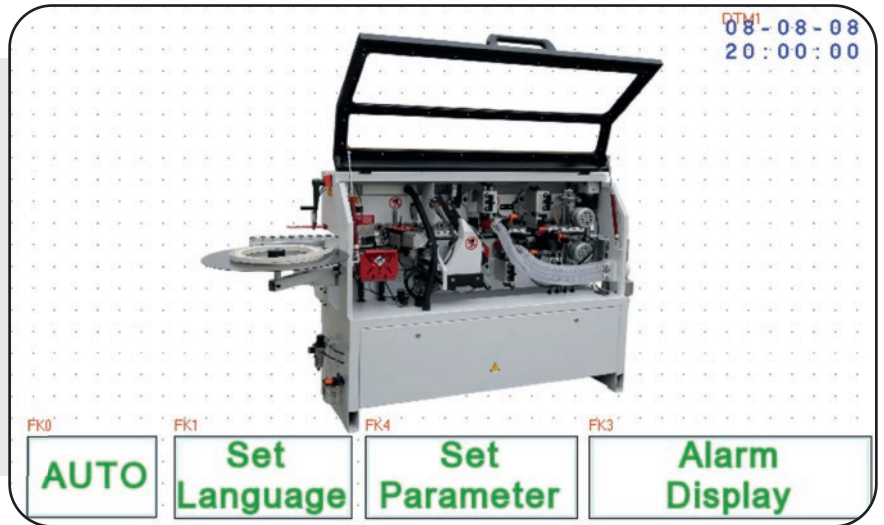
5: Wait until the temperature is stabilized, which takes about 15 minutes (the glue temperature should be between 150-180°F). (See picture 3-5).



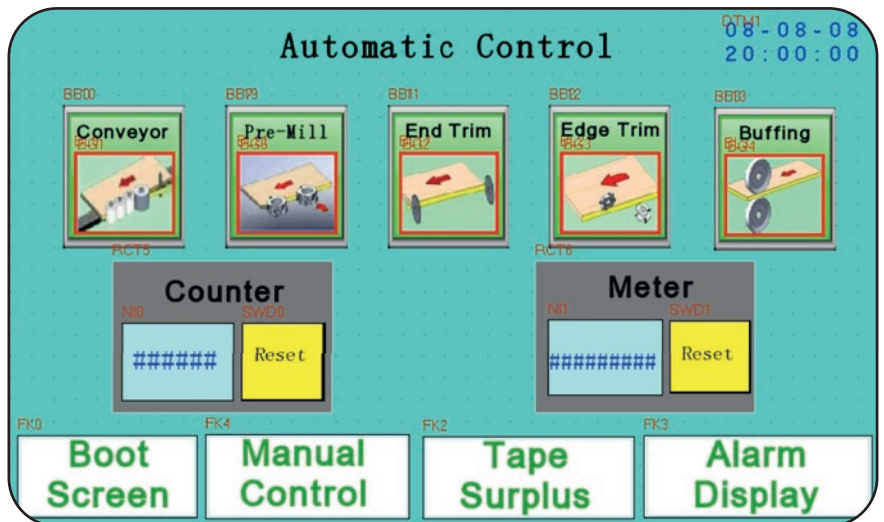
picture 3-6

6: Two emergency switch, see following picture 3-6

7: Choose your language and locate the control panel. Press Conveyor, End-Cutting, Fine Trimming, and Buffing. Then press Start to begin operation. (See pictures 3-7 and 3-8).



picture 3-7

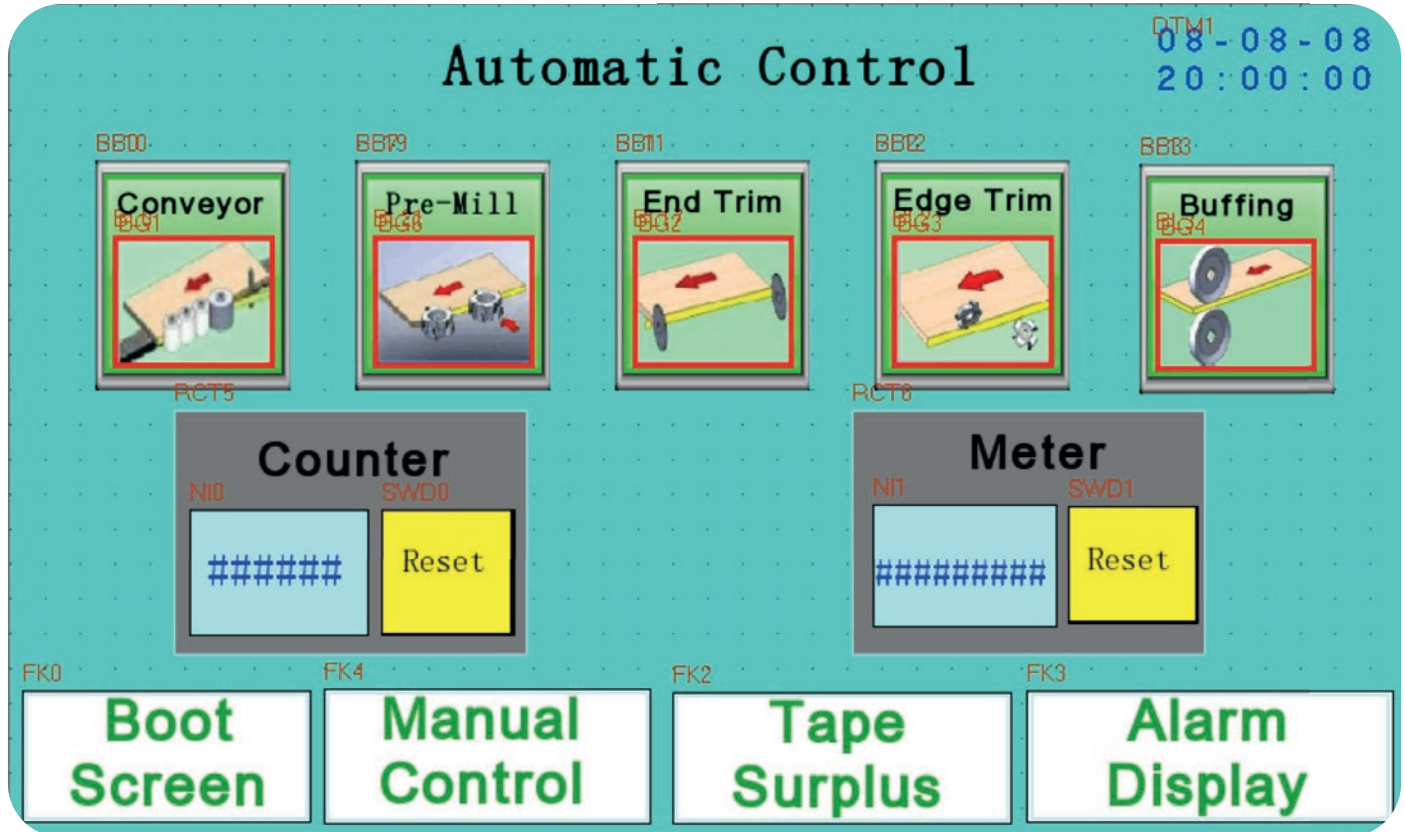


picture 3-8

Chapter 4

Unit Detail

4.1 Control Panel Operation



picture 4-1

Counter: Calculates how many pieces of board are processed.

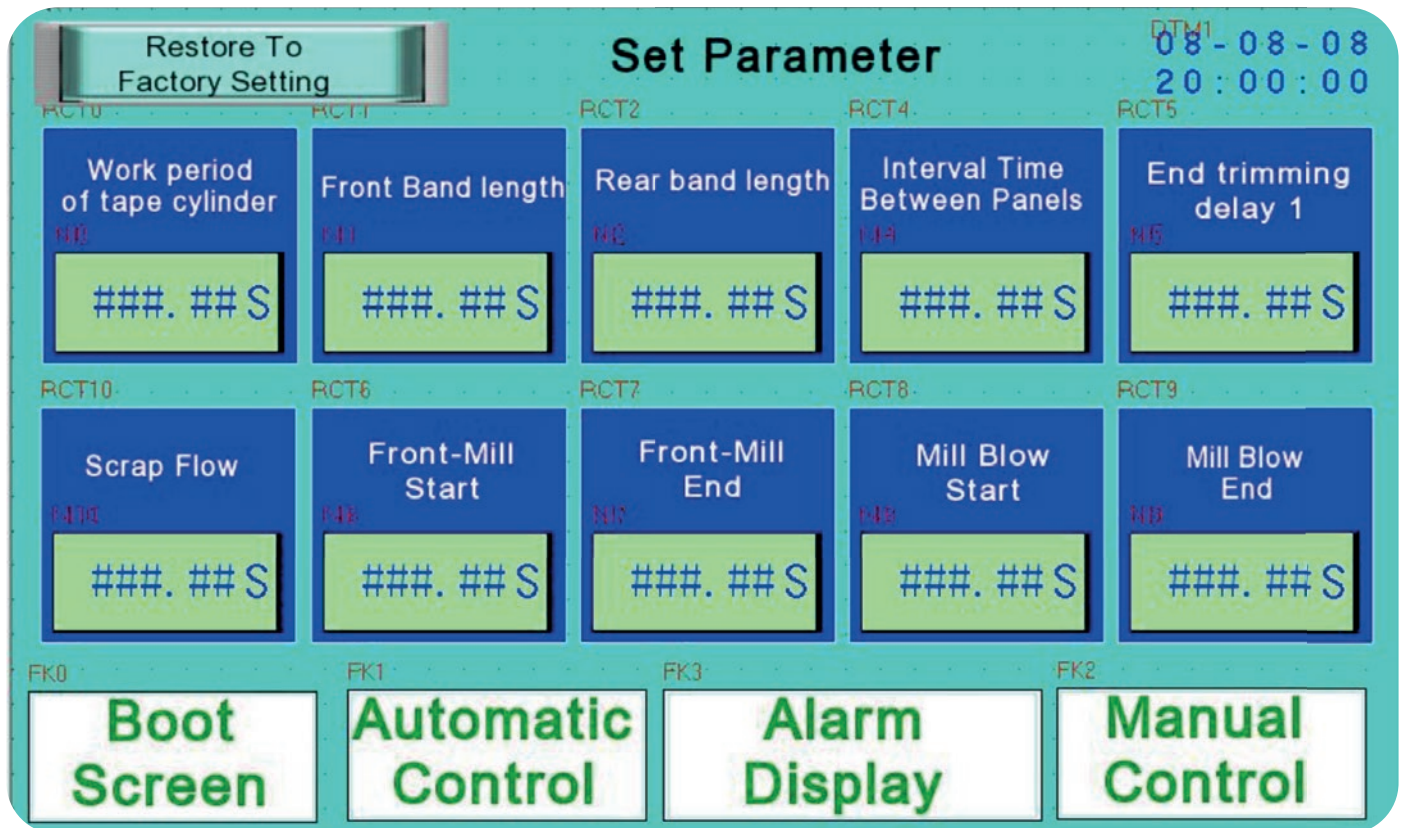
Meter: Measures the length of time the band has been in use.

Manual Control: For technical personnel to conduct tests; only for point start.

Tape Surplus: Adjusts the length of the front band.

Alarm Display: Shows all alarm pages and indicates if any alarms are present.

Parameter Page



Work Period of Tape Cylinder: Duration of the band conveyor operation.

Front Band Length: Adjusts the length of the front band.

Rear Band Length: Adjusts the length of the rear band.

Interval Time Between Panels: Time to wait after placing one board before placing another.

End Trimming Delay 1: Time delay for the front motor to start lowering after the board touches the end-cut route switch.

Scrap Flow: Adjusts the start of the scrap flow.

Front Mill Start: Time delay for the front mill motor to start moving forward after the board touches the pre-milling switch.

Front Mill End: Time delay for the pre-mill motor to return after the board leaves.

Mill Blow Start: Time delay for the blow function to start after the board touches the pre-mill switch.

Mill Blow End: Time delay for the blow function to stop after the board leaves the pre-mill switch.

Manual Control Page

DTM1
08-08-08
20:00:00

Manual Control

SW0 Feeding Band	SW1 End Trimming Motor	SW2 Fine Trimming Motor
SW3 Front-end Trim Cylinder	SW4 Limited Material Cylinder	SW5 Buffing Motor
SW6 Scraping And Cleaning	SW7 Gutter Value Cylinder	SW8 Feeding Band Cylinder
SW9 Mill Cylinder	SW10 Mill Blow	

FK0 Boot Screen	FK1 Automatic Control	FK3 Alarm Display	FK4 Set Parameter
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4.2 Alarm

DTM1
08-08-08
20:00:00

Alarm Light Instruction

BL0 Temperatur Normal BL1 Air Pressure Low BL2 Buffing Normal BL3 Feeding Normal BL4 Gluing Normal	FK4 Fault Descriptions FK5 Fault Descriptions FK6 Fault Descriptions FK7 Fault Descriptions FK8 Fault Descriptions	BL5 Emergency Stop Has Been Pressed BL6 End-Trimming Inverter Normal BL7 Fine Trimming Inverter Normal BL8 To Keep The Door Closed	FK9 Fault Descriptions FK11 Fault Descriptions FK12 Fault Descriptions FK13 Fault Descriptions
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FK0 Boot Screen	FK1 Automatic Control	FK2 Manual Control	FK14 Set Parameter
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Can show all alarm

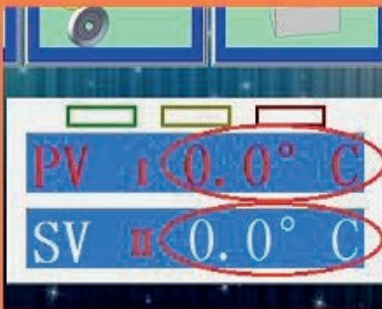
Temperature Alarm

2013-11-13 21:55:02

Temperature
Normal

Trouble Shoot

1. Please do not start the conveyer belt until the temperature of glue tank reaches the set target.
(Please set the target temperature, according to the types of glue. If setting wrong target temperature, the glue unit and motor may be damaged.)
2. If the heat-up time is too long or too short, please check the heating plate, thermocouple and temperature controller.
3. If the temperature is too high, please check if there is no glue in the tank.



- I: The actual temperature
II: Temperature setting of gluing unit
III: Main heating plate
IV: Thermocouple

BACK

Pictures 4-2-2

Air Pressure Alarm

2013-11-13 21:55:24

Air Pressure
Normal

Trouble Shoot

1. Please check if the air supplier works well.
Please keep the air pressure (I) is above 0.6Mpa.
If not, please adjust the air pressure by the control handle(II) .
2. If the air pressure is still below 0.6Mpa, after adjusting the control handle(II), please check the air supplier.
3. While the air supplier works well, please check the setted air pressure on air control switch (III), and make sure the air pressure is between 0.5-0.6Mpa. If not, please reset the right air pressure.
4. If it still does not work, please check if the air control switch is damaged.



- I: Pressure of air supplier
II: Air pressure control handle
III: Air pressure control switch

BACK

Pictures 4-2-3

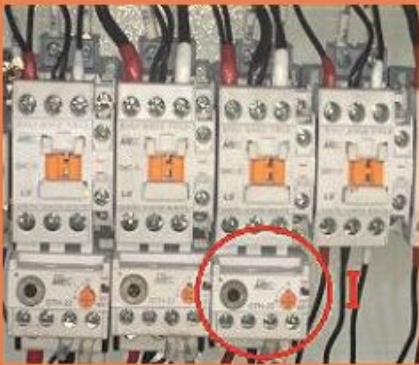
BUFFING MOTOR ABNORMAL ALARM

2013-11-13 21:56:13

Buffing Normal

Trouble-shooting

1. Check the buffing motor is working well.
2. Check thermal overload relays is working well.



I :Thermal overload
relays.
II:Buffing motor.

BACK

Pictures 4-2-3



Gluing Overload Alarm

2013-11-13 21:56:39

Gluing Normal

Trouble Shoot

1. Please check if the motor on gluing unit works well
2. Please check if the thermal overload relay works well



I: Thermal Overload Relay
II: Gluing Motor

BACK

Pictures 4-2-5

Emergency Stop Alarm

2013-11-13 21:57:09

Emergency
Stop Has Been
Pressed

Trouble-shooting

Please check the emergency stop switch of the equipment



1. Emergency stop on the control panel
2. Emergency stop on the end of machine

BACK

Pictures 4-2-6

End-Trimming Adnormal Alarm

2013-11-13 21:57:29

End-trimming
position normal

Trouble-shooting

1. Lift the press beam, take out the boards inside, adjust the press beam.
2. Make sure the working pressure of the pneumatic system.
3. Check the air-flow of the end-trimming cylinder.
4. Check the proximty switch on the top of the end-trimming unit.
5. Check the distance between two consecutive boards.



BACK

Pictures 4-2-7

End Trimming Inverter Alarm

2013-11-13 21:57:53

End Trimming
Inverter Normal

Trouble Shoot

1. Please check if the end trimming Inverter works well, if the alarm light flickers.
2. Please check if the motor of end trimming works well.

Reset Inverter



Trouble Shoot

1. Please check if the end trimming Inverter works well, if the alarm light flickers.
2. Please check if the motor of end trimming works well.

BACK

Pictures 4-2-8

Edge Trimming Inverter Alarm

2013-11-13 21:58:28

Trouble Shoot

1. Please check if the Edge trimming Inverter works well, if the alarm light flickers.
2. Please check if the motor of Edge trimming works well.

Edge Trimming
Inverter Normal

Reset Inverter



Trouble Shoot

1. Please check if the end works well, if the alarm
2. Please check if the mot works well.

BACK

Pictures 4-2-9

DOOR CLOSING ALARM

2013-11-13 21:58:49

Trouble-shooting

1. Check the door is closed well.
2. If the door is closed well, please check the door limit switch.
3. Please change the door limit switch if it is damaged.

Door is
closed



I: Door limit switch.

BACK

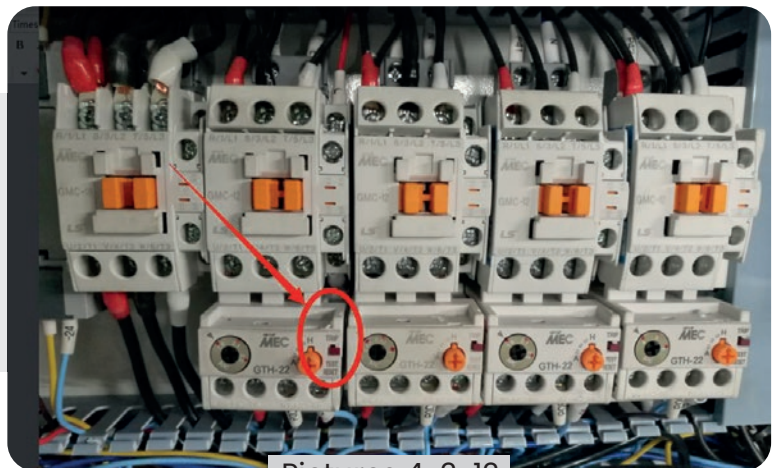
Pictures 4-2-10



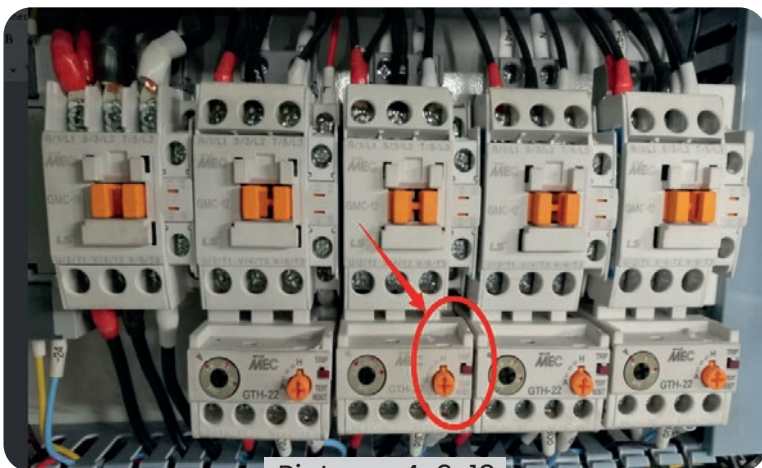
Pictures 4-2-11

If you see: "Low Pressure," please check that the air is connected and ensure that this part is set to 5-6 MPa (see picture).

02 If you see: If you see "Conveyor Overload," please check this part.



Pictures 4-2-12



Pictures 4-2-13

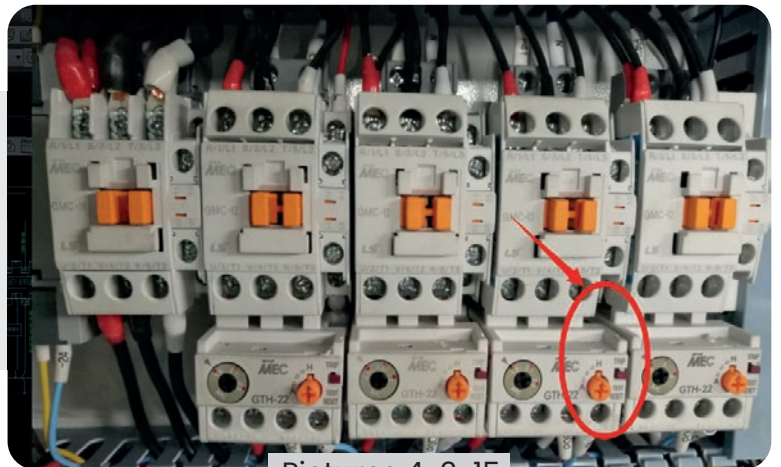
03 If you see: If you see "Gluing Overload," please check this part (see picture).



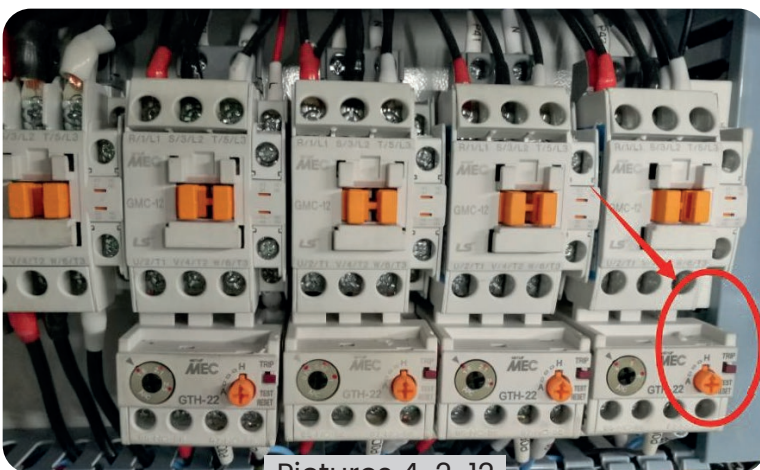
Pictures 4-2-14

04 If you see: Low temperature, please check and wait for the temperature. 1 must be the same as 2, see picture 4-2-14.

05 If you see: End-cutting overload, pls check this part, see picture.



Pictures 4-2-15



Pictures 4-2-12

06 If you see: Trimming overload Pls check this part, see picture 4-12.

07 If you see: Convery interval alarm, please check the interval, according to the number then look for inverter Instructions for help, if still can't solve the problem, contact the seller.

4.3 Pre-Milling Unit



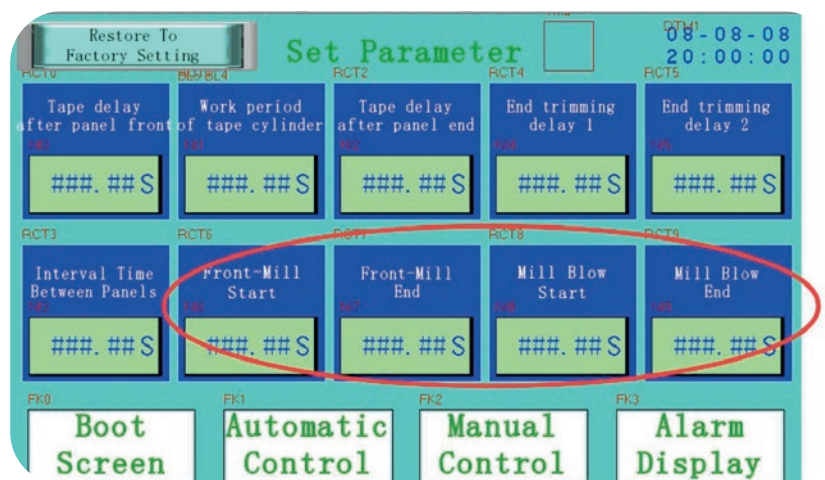
- 1: Switch for control Pre-milling working and Cleaning.
- 2: For adjusting motor up&down.
- 3: For adjust milling thickness.

Select Mill Start to adjust how much time delay will be when the panel touches Route Switch "1", then start the first milling cutter.

Select Mill End to adjust how much time delay will be when the panel moves away and then back first milling cutter.

Select Mill Blow Start for when the panel touches Route Switch "1" and set the desired time delay to start the blow.

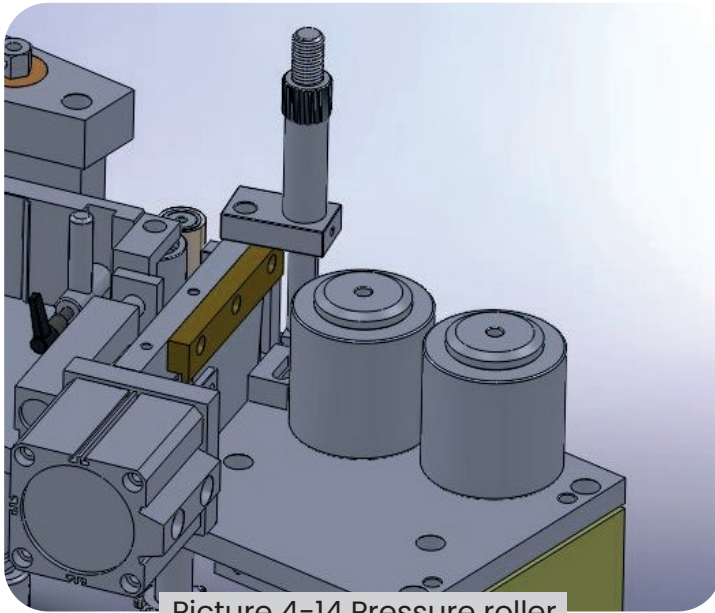
Select Mill Blow End for when the panel moves away from Route Switch "1" and set the time delay to stop the blow (it is typically better to set this to about 2 seconds after the panel moves away from pre-milling).



4.4 Air pressure rollers

Air pressure rollers can press the tape and workpiece together solidly. The quantity, diameter, and interval are all calculated and tested to ensure that the glue cools properly. The operator does not need to make adjustments but should regularly clean the glue off the rollers to keep them in good condition.

Rollers are made of metal and can press very thin tape. They can flatten and smooth the surface of the tape on the panel side. Floating rollers are suitable for uneven panels. If the panel is very rough, it is better to use rubber rollers.



Picture 4-14 Pressure roller

- Notice: Rollers may be different, but the effect remains the same.

4.5 Commissioning of gluing unit

To keep the machine working well, the tape must be 0.07in lower than the gluing rollers. If the difference is less than 0.07in, the tape may destroy the gluing roller.

Glue tank

The glue tank can supply the hot-melt glue on the workpiece. To keep it working well, please obey the following rules strictly:

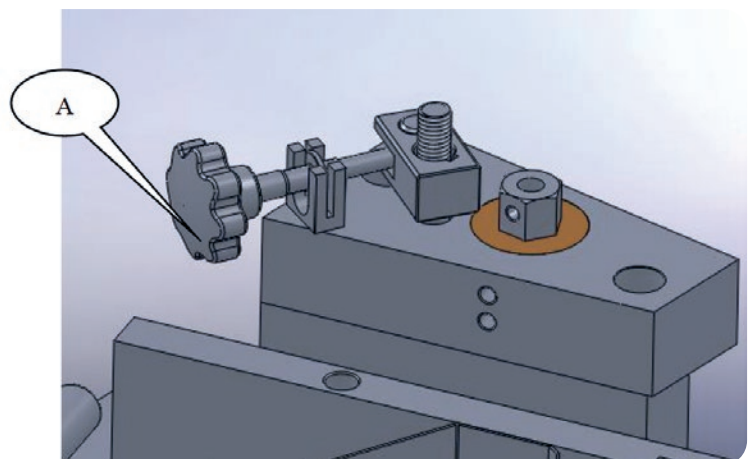
Please fill the glue in the tank, and keep the height of the glue at least 0.4 in shorter than the top edge of the tank.

Please fill the tank with the glue at the right temperature.

Temperature must be set at a suggested number. (Usually, it is 338°F)

Please do not run the gluing roller until the glue reaches the target temperature and all is melted.

The yield of glue can be adjusted by the pole A. (Picture 4-16). It has been tested and set to a proper position before delivery.



Picture 4-16 Role to adjust glue flow

• **NOTICE:**

Beware of the hot glue tank. It may scald you. Avoid the bits of wood from getting into the tank. Use the right hot-melt glue for your machine. Check the temperature controller and remaining glue regularly.

If the working interval is more than 20 minutes, please turn the heating button off.

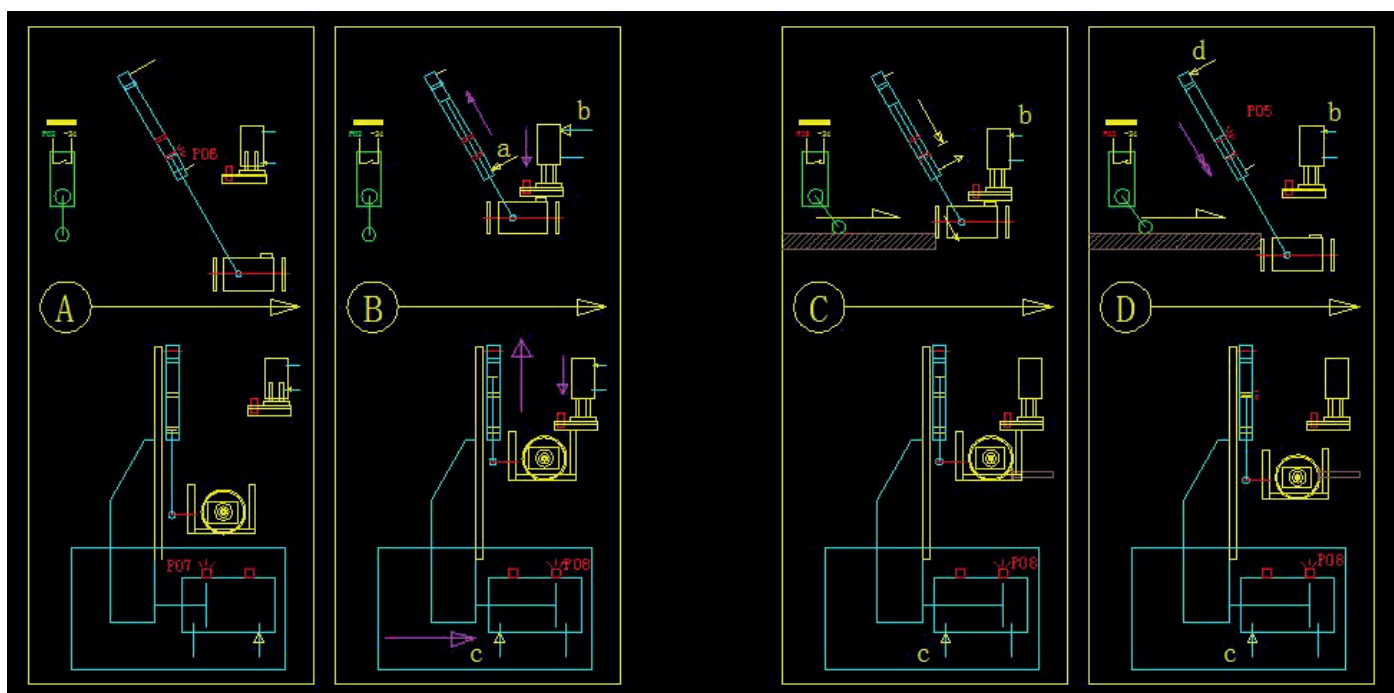
Perfect edge banding effects are determined by so many factors, like the type of tape, type of workpiece, the effect of sizing, temperature of the environment, that it is necessary to test sometimes to commission the machine at its best state.

There are 2 types of glue tanks to choose from. One is driven by chain, the other by gear. Both of them are adjusted similarly.

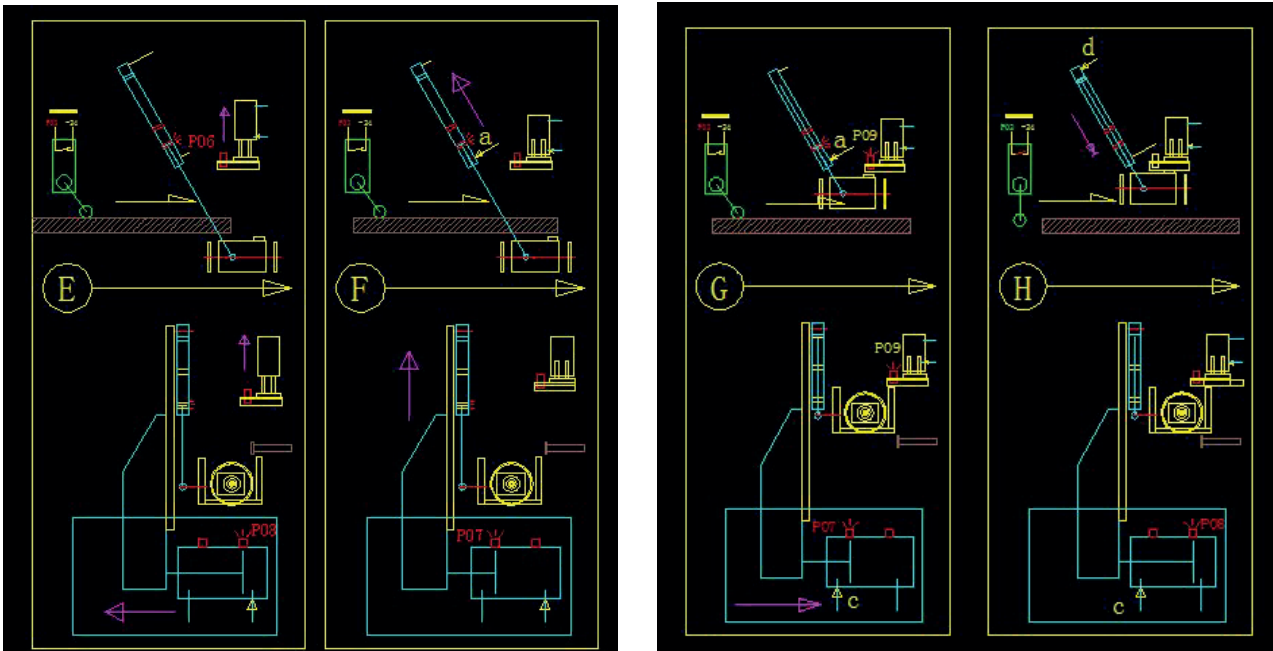
4.6 End-Cutting

The end-cutting unit can cut out the tape surplus in front and back of the workpiece.

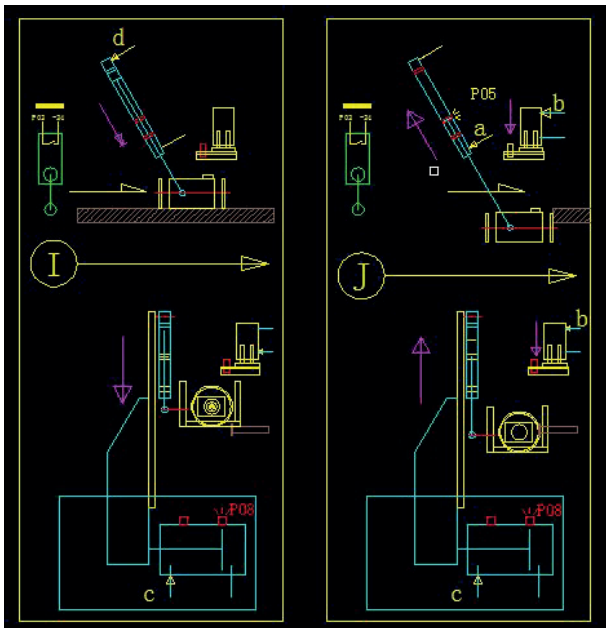
Principle.



Picture 4-17



Picture 4-18



Picture 4-19

4.7 Trimming Unit

Edge trimming unit standard features:

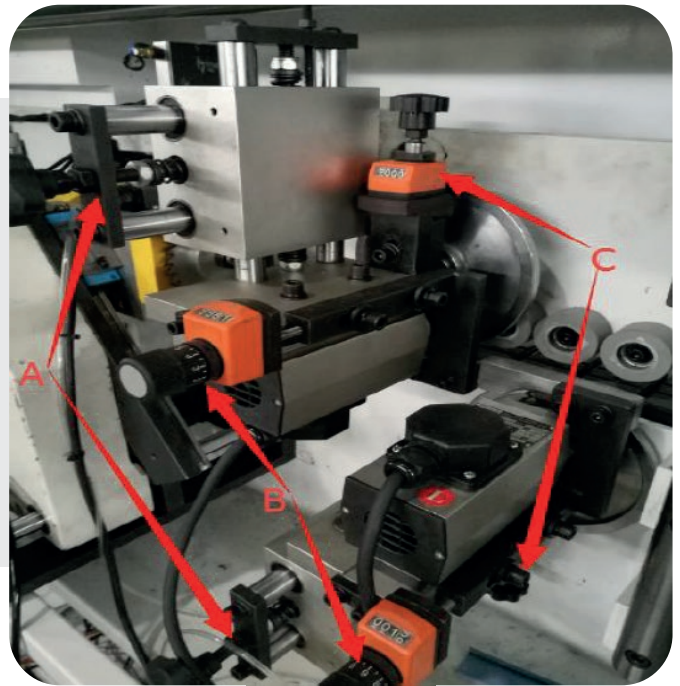
There are 2 motors in the edge trimming unit, one for top trimming, and the other for bottom trimming. Each cutter has 4 blades.

The rotation speed of the common motor is 12000 r/min.

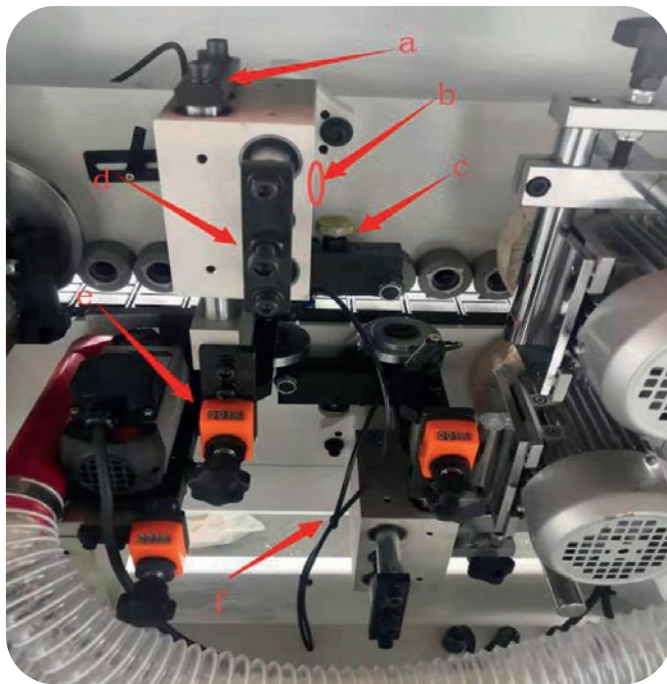
Here are double dust hoods for the edge trimming unit. They are connected to the dust collecting system.

Commissioning of edge trimming unit (picture):

- A- Move the whole trimming unit forward/back
- B- Move the bottom trimming unit forward/back
- C- Move the trimming wheel up/down to adjust the effect



Picture 4-20

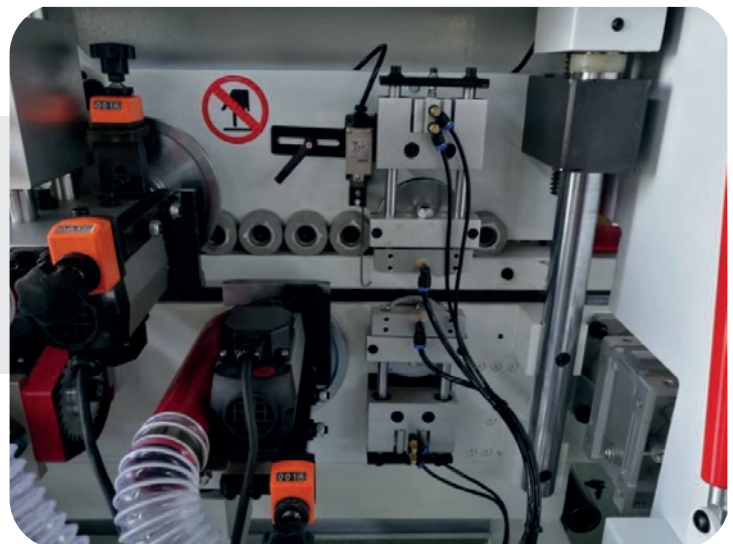


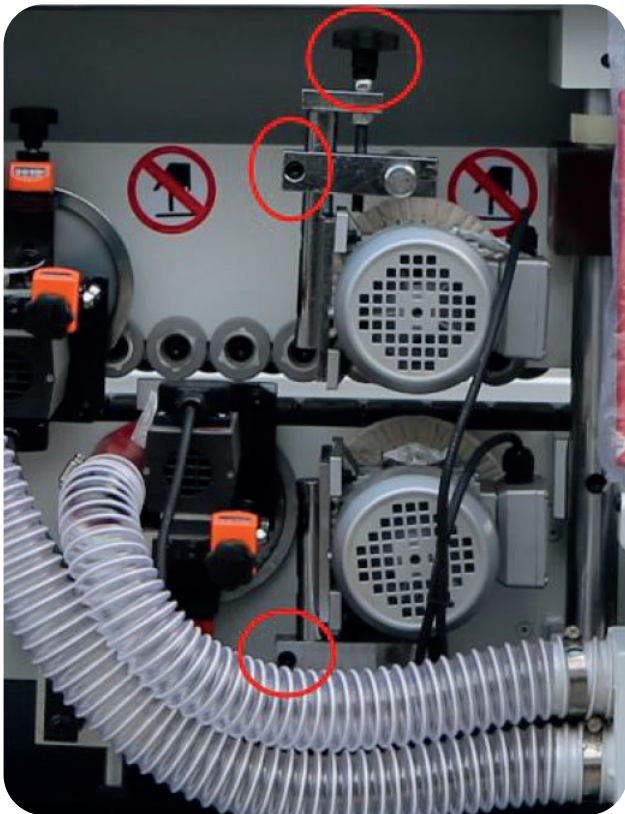
4.8 Scrapping Unit

- a: Up location limited
- b: Adjust forward & backward
- c: Up & down copy wheel
- d: Adjust spring strength
- e: For different thickness bands
- f: For cleaning/blow

4.9 Flat-Scrapping Unit

Optional





4.10 Buffing Unit

It's easy to adjust. Compact structure.

4.11 Temperature controller

Out: Shows its working
 AL1: show existing alarm
 PV: exact temperature
 SV: target temperature.



Press Set 3 seconds, will show RL1,

Adjust RL1 to 165 degrees, RL1 means the lower target temperature After show RL1, press Set one more time, will show RL2

RL2 means arrow temperature difference, normally we adjust 10 degrees

It means if your target temperature is 170 degrees, if more than 180 degrees or less than 160 degrees, The control keeps an alarm, and the machine does not work correctly

How to set Target temperature

Press set one time, then directly adjust the temperature, then press set again.

4.12 Frequency converter

The frequency converter can change the frequency of high-speed motors in the edge trimming unit. In that way, it can control the rotation speed of motors and save time and energy.

It is not suggested for operators to change the value of the frequency converter. To avoid faulty operation, they are locked. See more details on the related manuals.

It starts once the general power is on. The number displayed on it is the output frequency. Usually, the number is 200HZ (frequency of motor). The converter will inspect itself when power is on, so please do not turn on/off the general power frequently.

The sensor is sensitive to the work environment. Please check the requirements on the related manuals.

-
- Notice: Do not modify the data on the frequency converter. The attached manuals are just for searching the fault reason. It is out of warranty if buyers change any data and break the machine down.

4.13 Detailed setting of frequency converter

All the parameters are tested before delivery. Please do not change the value at will. The parameters are as follows:

LSLV-C100 series inverter paramters			
Code	Description	End&trimming inverter	If single phase Conveyor&gluing&buffing inverter
F21	Max. Frequency	200	200
F22	Rated frequency	200	200
H30	Motor capacity	1.5	1.5
H31		2	2
H33	Rated current	5.8	7.1
I60		2	2
ACC	Accelerate time	5	5
dEC	Decelerate time	6	6
DVR	Control mode	3	3
000	Target frequency	150	50

-
- Notice: All the data are suited to the LSLV-C100 series frequency inverter; the other parameters are all factory set; please read the manuals about detailed methods of setting.

Chapter 5

Maintain

1. Cleaning

The machine should be cleaned regularly, for optimal results, it's best to clean up daily after work.

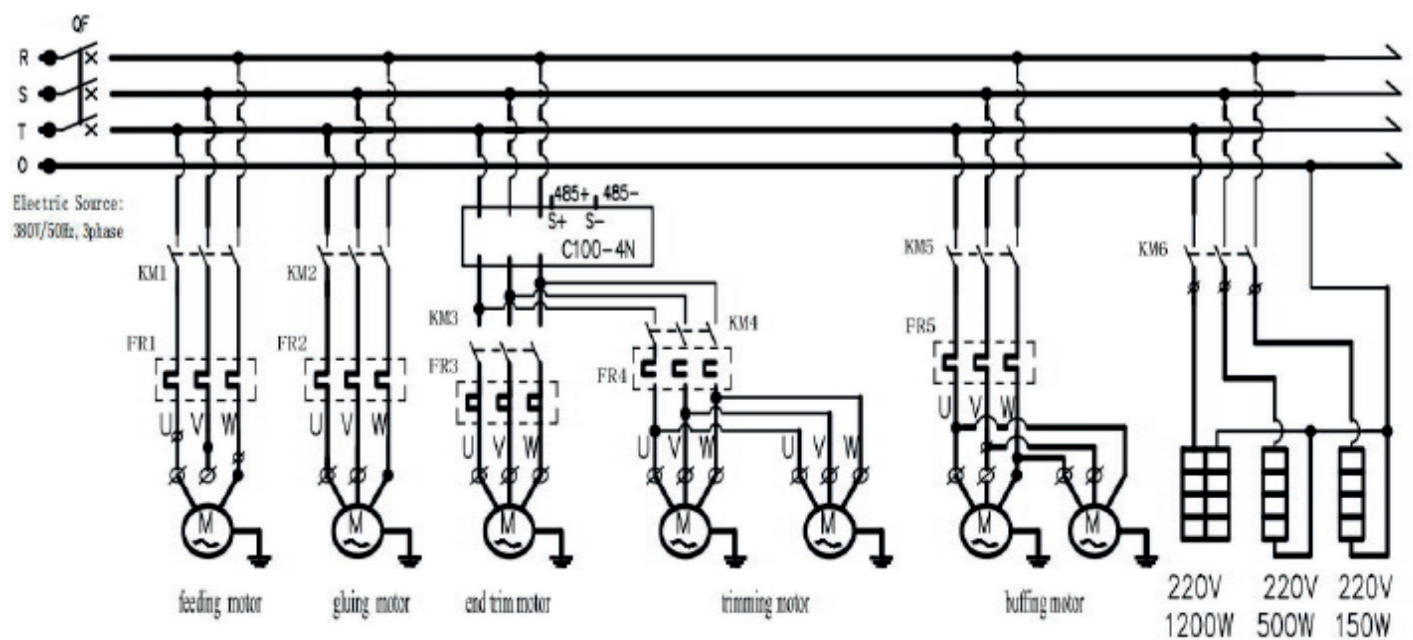
2. Tools Change

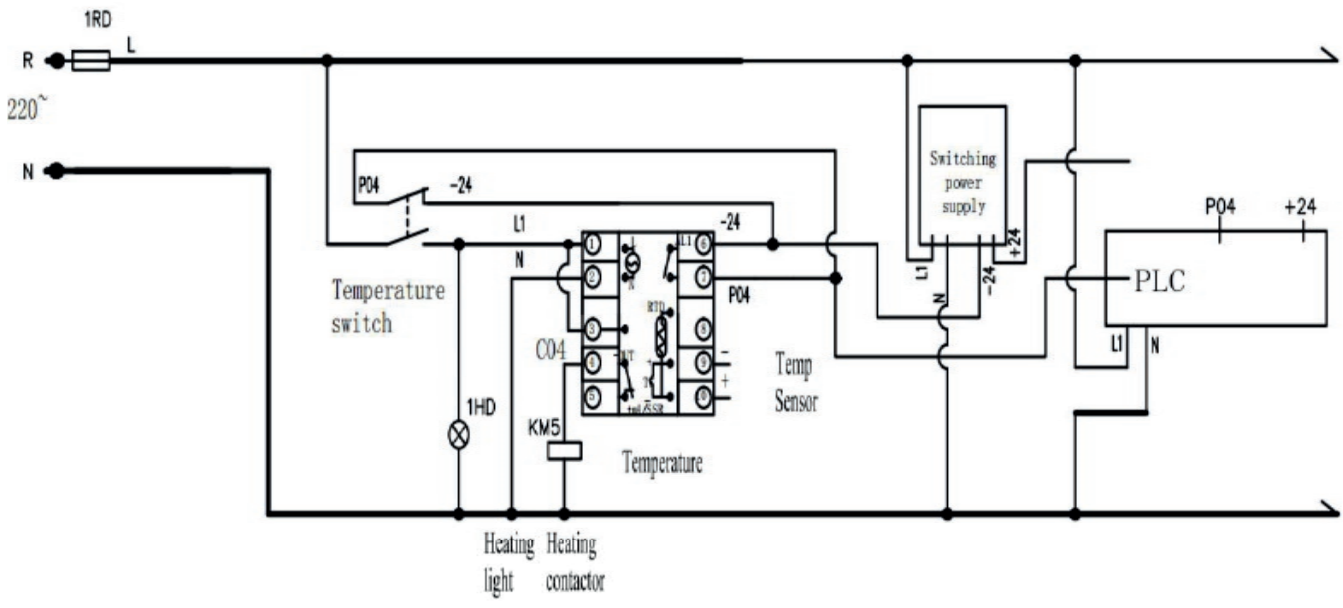
The End-Cutting and Trimming Cutter needs to be changed when you think the effect is not so good.

Chapter 6

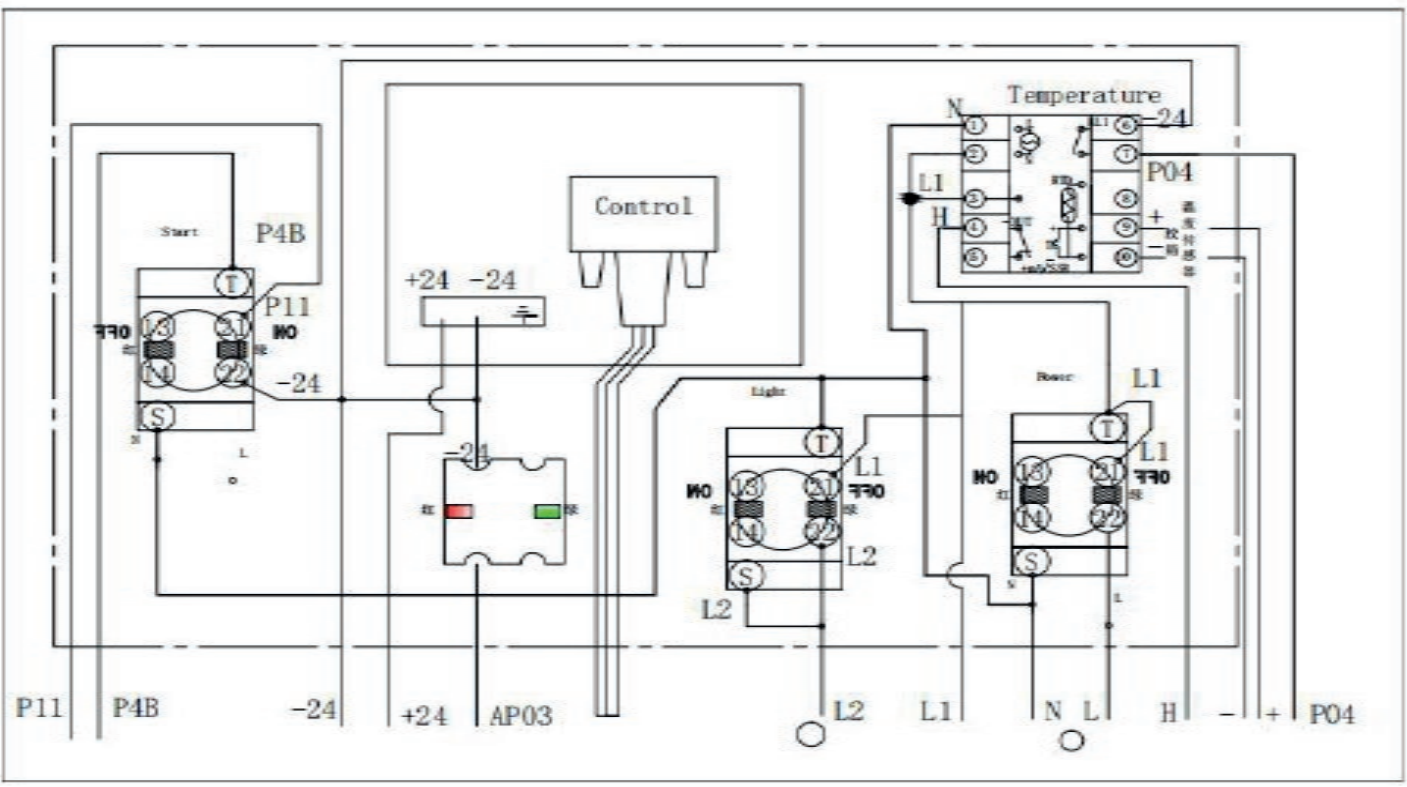
Electric Diagram

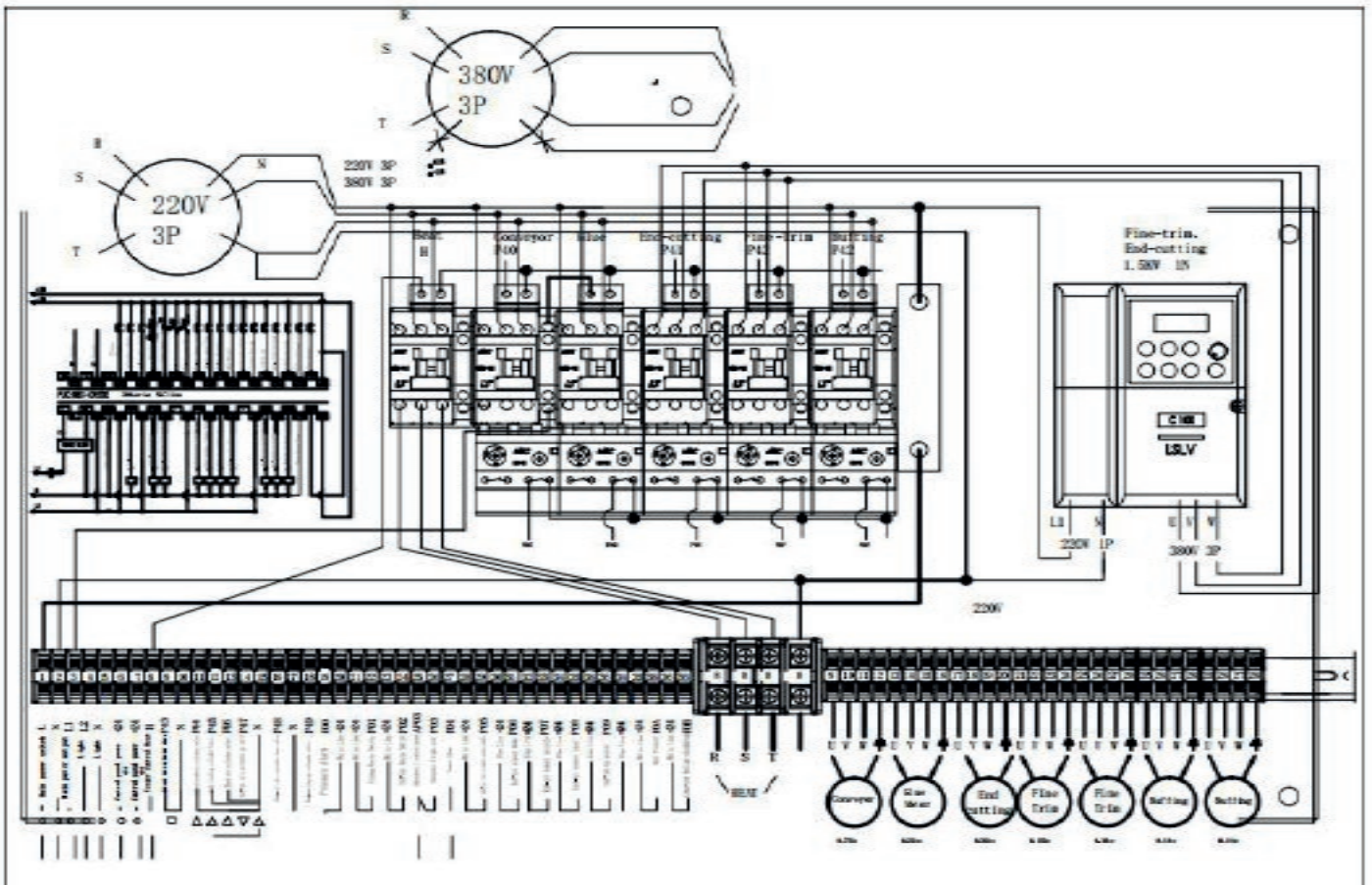
6.1 Circuit Principle Diagram





Electric Diagram







More information
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