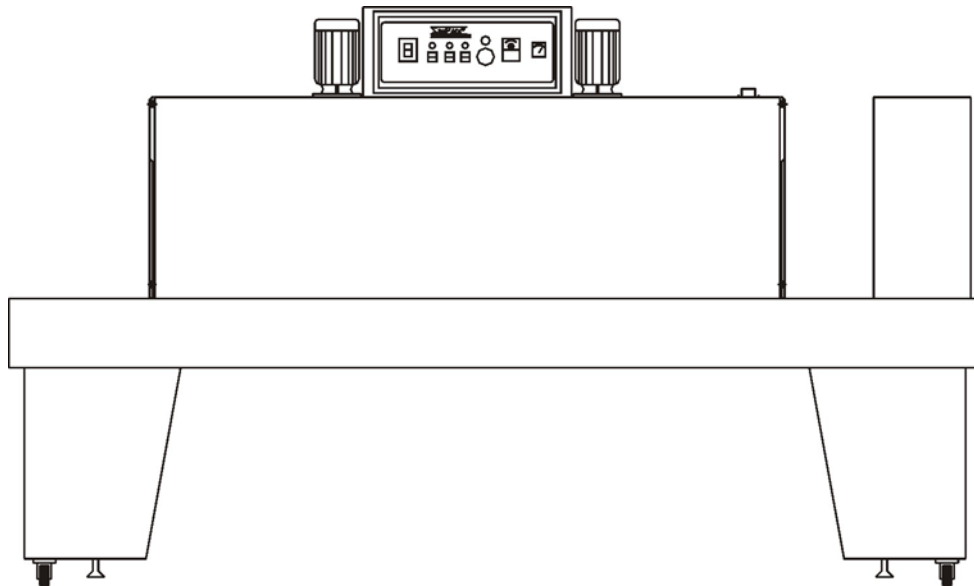


BS-6040

Shrink Tunnel

# Operation Manual

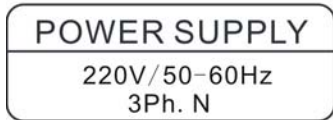


Read this operation manual carefully before using machine.

Technical data is subject to change without prior notice.



Power supply: 3Ph 380V 50/60Hz



Power supply: 3Ph 220V 50/60Hz



Indicate the conveying direction



Ensure the machine is grounded before use



No one but specialized maintainer is allowed to open this cover plate



Danger of hand injury

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## I. Foreword

### 1. How to use this manual.

- A. Read this operation manual carefully before using machine.
- B. Manual contains all instructions for this product, please keep it with machine.
- C. If the machine is resold or lent to others, the manual must follow the machine.
- D. Please keep this manual well without damage.
- E. Never remove or modify any parts of this manual without special authorization.
- F. The adjustment to the technical parameter of the machine should be in compliance with the instruction of this manual.
- G. We reserve the right to make technical modification to this machine and to this manual in order to improve and perfect the quality and performance of the machine.
- H. If you have good suggestion for this manual or machine, please don't hesitate to contact us.

### 2. Safety Instructions

- A. The breaker and wires applied must correspond to the capacity of the power supply of the machine. Otherwise, damage would occur to the parts or wiring if the small capacity breaker or the smaller diameter wires are applied.
- B. Ensure that the liquid would not leak out when packaging liquid product. If not, damage would be made to the machine and the operator would possible get an electric shock.
- C. Never operate the machine in the environment with high humidity, or a place full of a lot of vapor.
- D. Never use or place the machine in a place full of dust.
- E. The parts with high temperature warning icons are dangerous while running, never touch with hand.
- F. Don't start the heating system before the fan motor works, otherwise, the heating element will be damaged or result in fire.
- G. Cut off power before replacing parts and replace according to right procedures.

### 3. Summarize

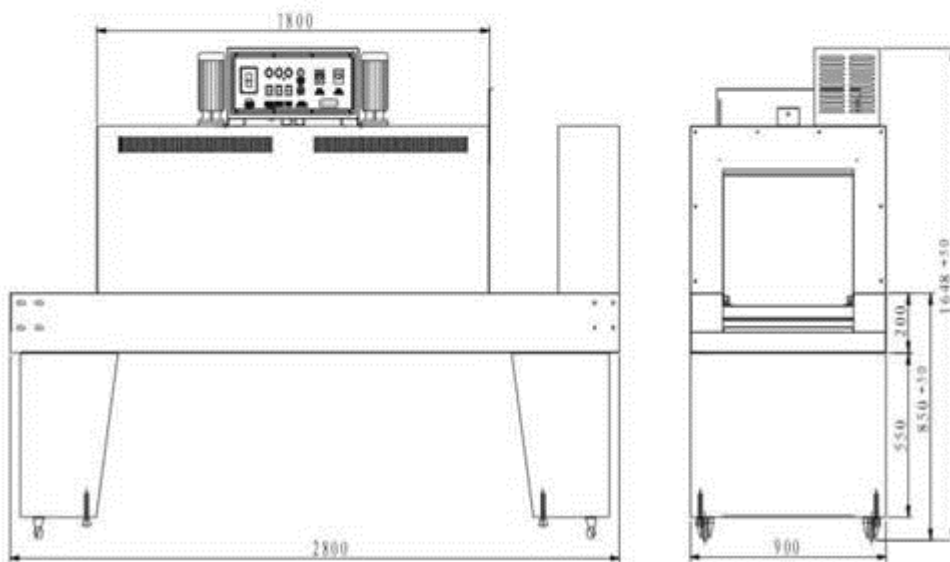
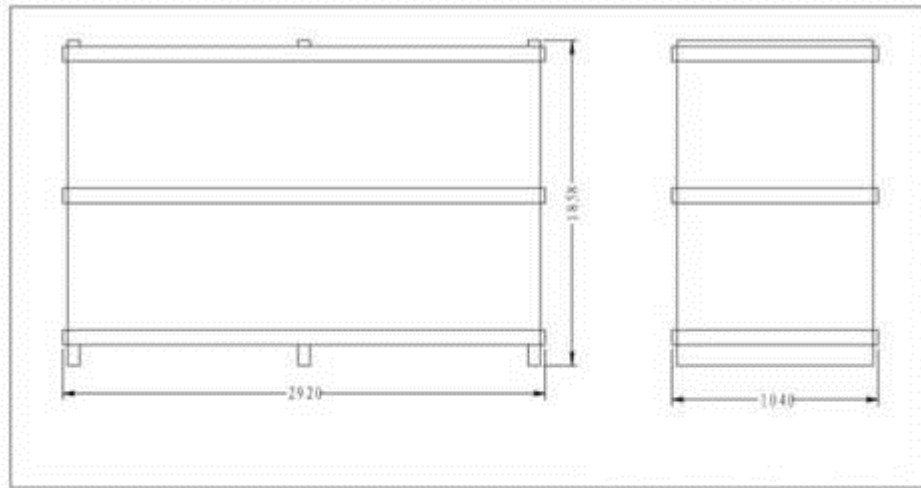
Thanks a lot for your choice of our machine, you will have a safe, applied and efficient shrink tunnel.

This machine suits for outer packing of beverage, furniture, home appliances, wood, hardware, plastics, etc. The products after packing have advantages of good appearance, dustproof, damp-proof and breakage-proof, so the image of product can be improved with low packing cost.

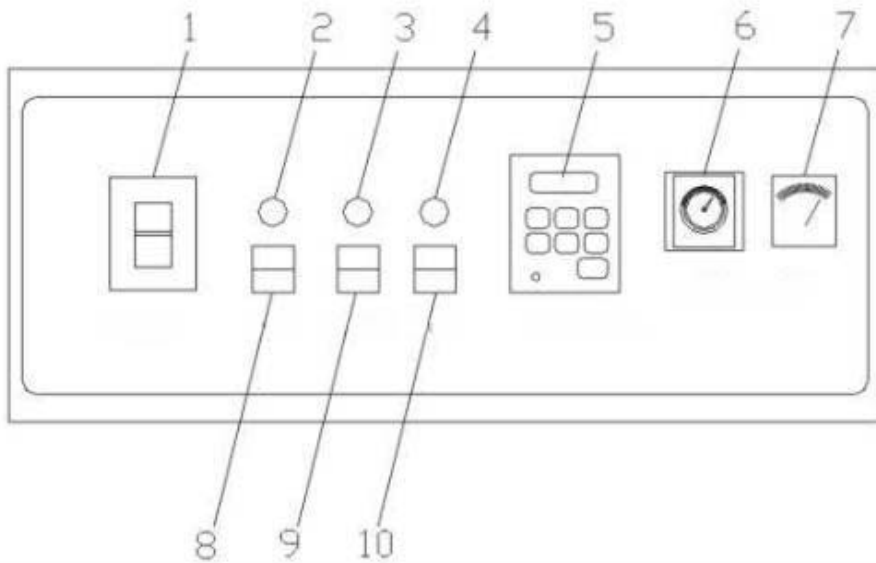
Features of the machine:

- a) Combined with advanced shrink air-blowing technology improved and designed for this machine particularly. Constant air delivering and good shrinking effect is guaranteed.
- b) Made of quality carbon steel or stainless steel, with reasonable structure and relatively long heating tunnel.
- c) The heating pipe used is made of stainless steel, as it is efficient and can be used for long time.
- d) Main electrical parts such as switch, temperature controller are adopted from well-known manufacturer, characterized by stable operation and low failure rate.
- e) Conveying and fan motor are adopted from well-known manufacturer. The motors own strong power and can work for a long time continuously.
- f) Adopt imported frequency inverter stepless speed regulation for conveying motor, with high speed regulation performance.
- g) Use imported heat insulation cord fabric, which greatly reduces heat consumption.
- h) Shrink temperature, conveying speed as well as the draught are adjustable.
- i) New-style roller is adopted as conveying roller, which is coated by silicone and can be used for a long time. Besides, it is heat resistant, wear proof, heat free and non-deforming.  
Normal type or dense roller type can be optional. Choose according to the size of product.
- j) Applied to a variety of shrink film such as POF,PVC,PE etc.

## II. Machine Dimension and Crate Dimension

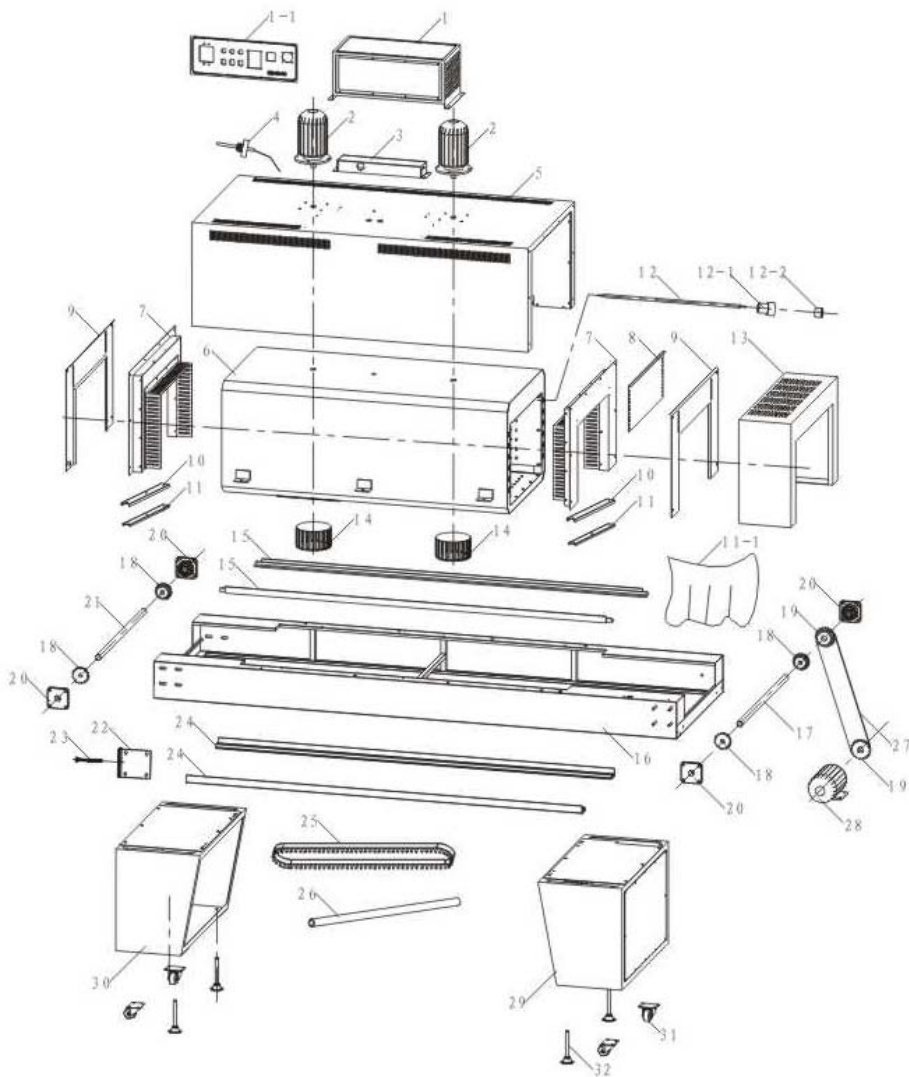


### III. Control Panel, Name & Function of Each Button



1. Power Switch: Switch on/off the main power of machine
2. Heating Indicator: Indicate whether heating system is in working
3. Fan Indicator: Indicate whether fan system is in working
4. Cooling Indicator: Indicate whether cooling system is in working
5. Frequency Inverter: Adjust the conveying speed of roller
6. Temperature Controller: Set heating temperature
7. Amperemeter: Indicate the current of heating system
8. Heating Switch: Enable or disable heating system
9. Fan Switch: Enable or disable fan system
10. Cooling Switch: Enable or disable cooling system

#### IV. Parts Illuminate Drawing

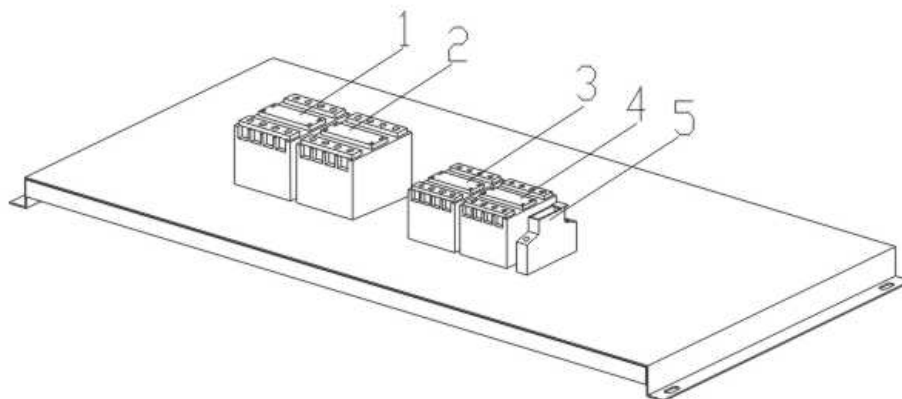


No.	Name	Quantity	Remark
1	Control box	1	
1-1	Control panel	1	
2	Fan motor	2	
3	Wire guard case	1	
4	Thermocouple	1	
5	Shuck of tunnel case	1	
6	Interior shuck of tunnel	1	
7	Two-side shrouding of tunnel body	2	One for each side (right and left)
8	Two-side wind resistant adjusting plate of tunnel body	2	One for each side (right and left)



9	Two-side thermal baffle of tunnel body	2	One for each side (right and left)
10	Groove of heat insulation curtain	2	
11	Pressure plate of heat insulation curtain	2	One for each side (right and left)
11-1	heat insulation curtain	2	
12	Heating pipe	12	
12-1	Porcelain sleeve of heating pipe	24	
12-2	Porcelain cap of heating pipe	24	
13	Cooling mechanism	1	
14	Wind wheel	2	
15	Upper bracket	2	UCF206
16	Tunnel beam	1	
17	Driven shaft	1	
18	Sprocket	4	
19	Driving sprocket	2	
20	Bearing seat	4	4"
21	Driving shaft	1	
22	Mounting plate of bearing seat	2	4"
23	M10 hexagon head adjusting screw	2	
24	Lower bracket	2	
25	Conveying chain	2 pcs	
26	Conveying roller	480 pcs (dense roller type)	Normal type: 240 pcs
27	Driving chain	1	
28	Conveying motor	1	
29	Right support	1	
30	Left support	1	
31	Castor	4	
32	Anchor screw	4	

Part Illuminate Diagram of Distribution Panel



1	KM1	Contactora of heating system
2	KM2	Contactora of heating system
3	KM3	Fan Contactora
4	KM4	Cooling contactora
5	FU1	Loop control fuse

## V. Specifications

Item	Parameter
Power supply	3 $\phi$ 380V 50/60Hz or 3 $\phi$ 220V 50/60Hz
Horizontal height of conveyor belt	850 $\pm$ 50mm
Opening of shrink tunnel	W600*H400
Packing speed	0-12m/min
Power	18KW
Temperature	0-250 $^{\circ}$ C
External dimension	L2820*W970*H1400mm
Net weight	370kg

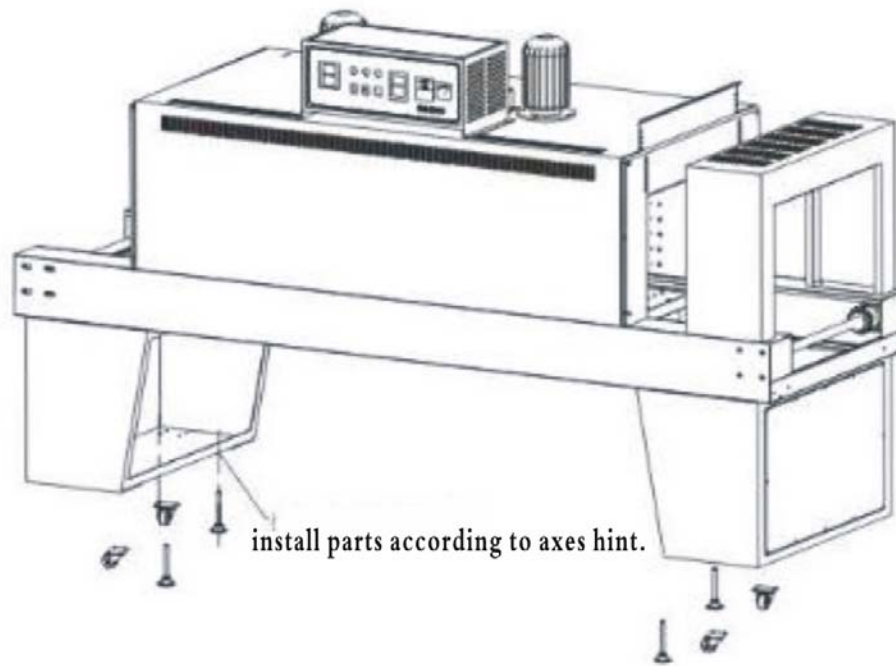
## VI. Installation

- A. Remove the upper cover of the crate as well as four pieces of side boards.
- B. Rotate the four anchor bolts on the bottom of machine.
- C. Carry out the main body of machine and place it on a firm, level floor.
- D. Unpack the protective film wrapping on the machine body
- E. To prevent conveying pole from falling off during transport, we have installed hook into conveying pole located on the bottom of machine before dispatching goods. Remove the hook before starting the machine, or machine can not work normally.
- F. Adjust the anchor bolts on the bottom of machine to regulate the horizontal height of machine to prevent the machine from sliding while running.
- G. Be sure that the power supply used corresponds to that showed on the

nameplate. Note: the machine must be earthed.

There are two kinds of voltages:

- a) Three phase 380V 50/60Hz
- b) Three phase 220V 50/60Hz



## VII. Operation Method

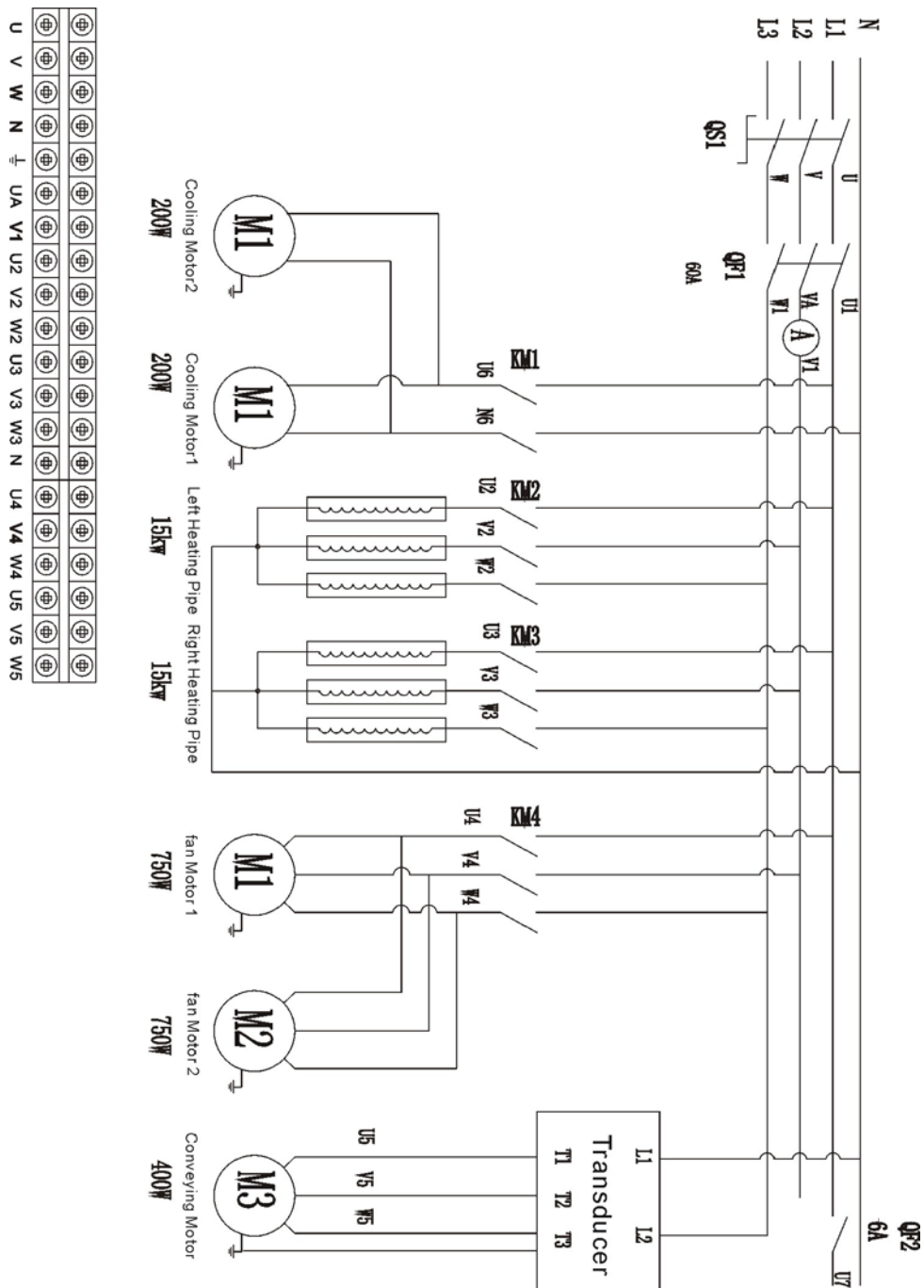
- A. Turn on the main power of machine, then enable fan switch, meanwhile, check the rotating direction of wind wheel, the right direction should be anticlockwise, otherwise, exchange phase line.
- B. Press down conveying button, conveying roller and chain will run, of which the speed can be adjusted by transducer button on panel.
- C. Switch on the temperature switch on the control panel, rotate the knob on temperature controller, set the temperature at 150~200°C.
- D. When the temperature reaches the set value, the green indicator on temperature controller will show red, heating pipe will stop heating then.
- E. The machine can begin to work once you lay the product on the machine.
- F. If the draught is too strong during running, adjust the draught regulation plate in the regulation tunnel.
- G. Before turning off the machine, first disable the heating process, set the temperature at 0°C so as to stop the heating pipe from heating.
- H. Open heat insulation curtain to keep fan and conveyor running for about 10 minutes in order to prolong the using life of machine.
- I. At last, turn off conveyor and fan, and cut off main power.

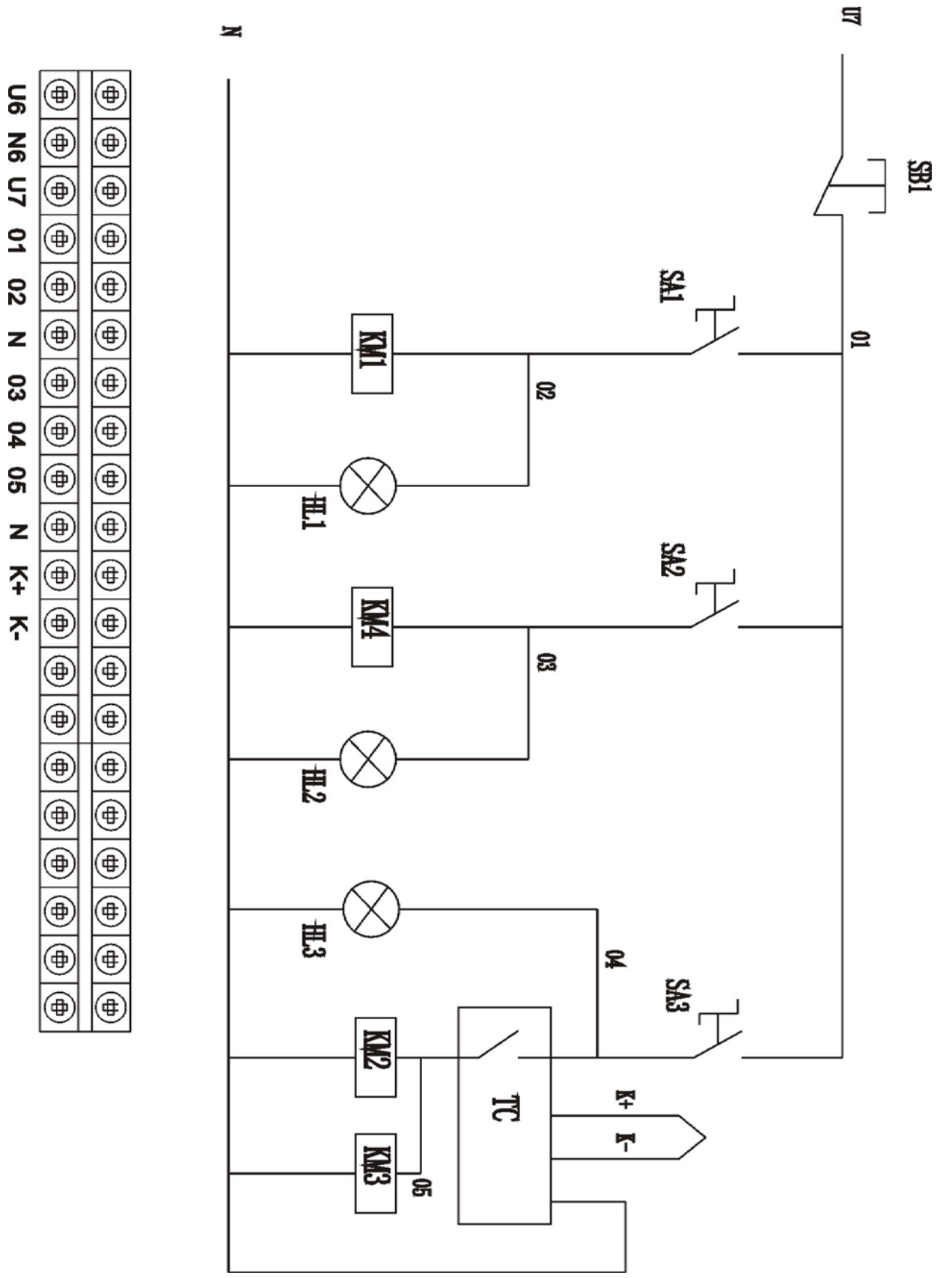
## VIII Maintenance

- A. Clear the residue and dust from machine body and conveying roller after finishing working.
- B. Check the lubricating oil in conveying motor gearbox periodically .
- C. Monthly, process an overall checking on the machine and clear dust and sundries from distribution box.
- D. Running parts like chain must be lubricated in time.

## IX Circuit Diagram

3Ph 380V 50/60Hz





## X Troubleshooting

Trouble	Cause	Solution
Poor shrinking effect	Fan motor rotates in opposite direction.	Exchange phase line
	Too low temperature	Adjust temperature
	Too high temperature	Adjust temperature
	Conveyor belt rotates too quickly	Adjust speed
	Too strong or too weak draught	Adjust draught
Too much noise caused from machine	Conveying motor lacks lubrication	Add lubrication
No temperature or low temperature after turning on heating system	Heating pipe damaged	Replace heating pipe
	Abnormal input voltage	Check input voltage
Sudden shutdown	Loose connection for power supply	Check power supply
	Fuse pipe is burnt out.	Check circuit, replace fuse

## XI. Packing List

No.	Name	Specifications	Quantity
1	Cross Screwdriver		1
2	Fuse	2A	1
3	Operation Manual		1
4	Certificate of quality		1
5	Monkey Wrench		1