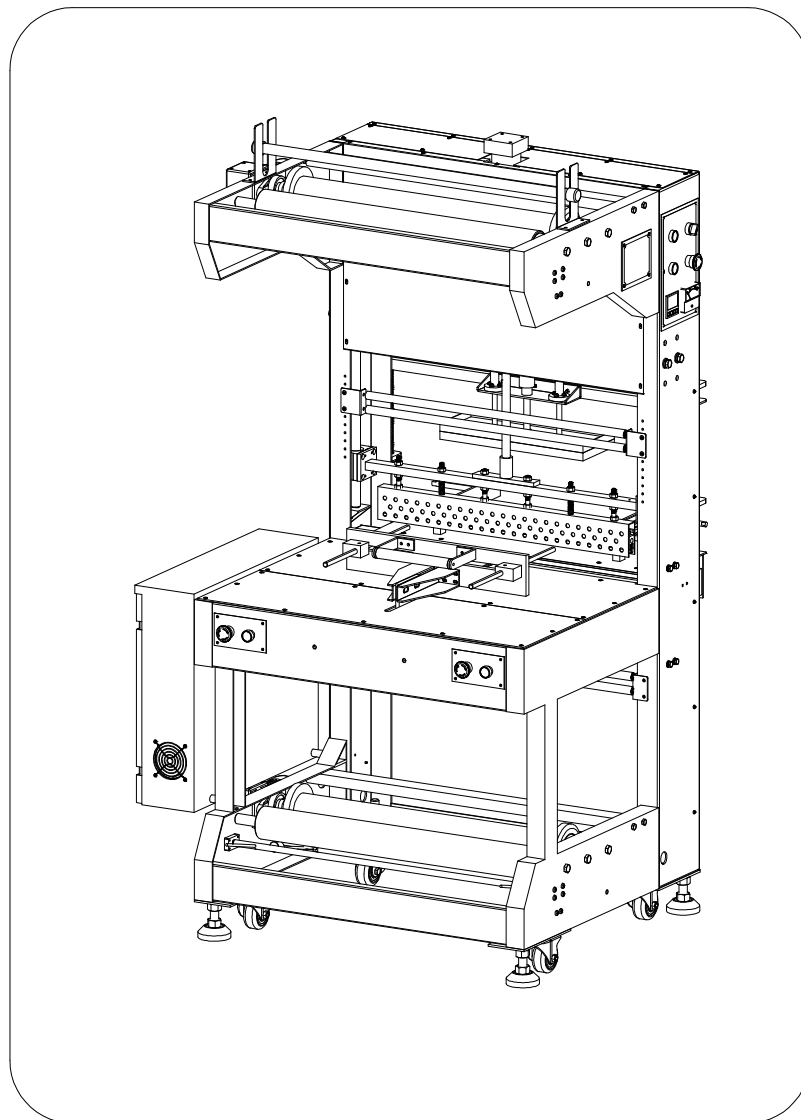


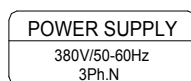
# Semi-auto Sleeve Sealing Packager Use and Maintenance Manual ST-6030



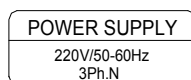
※Please read this manual carefully before operation

※Sorry for changing technical without else notice

## Please notice as below sign when use this machine



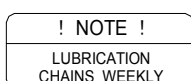
3PH 380V 50/60Hz



3PH 220V 50/60Hz



HOT



Lubrication chains weekly



Conveyor Direction



It must be connected with the ground



Non professional maintain doesn't open the door



It's dangerous to make your hands hurt or cut

Note:

2 voltages are available for this machine, please connect the power supply as on faceplate.

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# Contents

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## **ONE、 Foreword**

### 1、 how to use this manual

- A) please read this manual carefully before use the machine
- B) please keep it with the machine
- C) keep it along with the machine if resell or lend the machine to others
- D) do not damage this manual
- E) please do not delete or modify this manual without permission
- F) we reserve rights to improve the machine and modify the manual as well
- G) if necessary, please adjust the related parameters according to related instruction in this manual;
- H) Please kindly contact us if you have any advice about our machine and this manual.

### 2、 remarks on general safety

- A) must use breaker and electrical wire with the same capacitance as the machine.  
It will cause circuit or parts broken if use breaker or electrical wire with smaller capacitance;
- B) avoid liquid from leaking when packing such goods or it may cause machine damaged or operator electric shocked;
- C) don't use the machine under moist circumstances, and avoid it from heavy steam;
- D) don't use or put the machine under dusty circumstances;
- E) don't put your hands on sealing space;

- F) don't put metal or other hard materials on sealing space, or it will cause cutter damaged;
- G) set sealing time according to material and thickness of the film, general it is 0.5-1.5 sec, the shorter or longer sealing time may cause had film sealing or Teflon tape damaged;
- H) the machine requires 6-7kg/cm<sup>2</sup> compressed air for normal running;
- I) should maintain the machine regularly and keep some wearing parts in stock, e.g., sealing wire, Teflon tape and silicon gel etc.;
- J) cut off the power before exchange parts, and do it according to right process;

### 3. profile

Thank you very much for purchasing our products. Your correct decision has enabled you to have a safe, practicable, inexpensive and high-efficiency fully automatic sleeve sealing packager.

This machine is suitable for sleeve packing the big and heavy cartons or the products with a tray, such as beverage, foodstuff, wood, steel, ceramics, and home appliance etc.

Complying with a (PE) shrink tunnel, results in fine appearance after packaging, and suitable for long distance transportation.

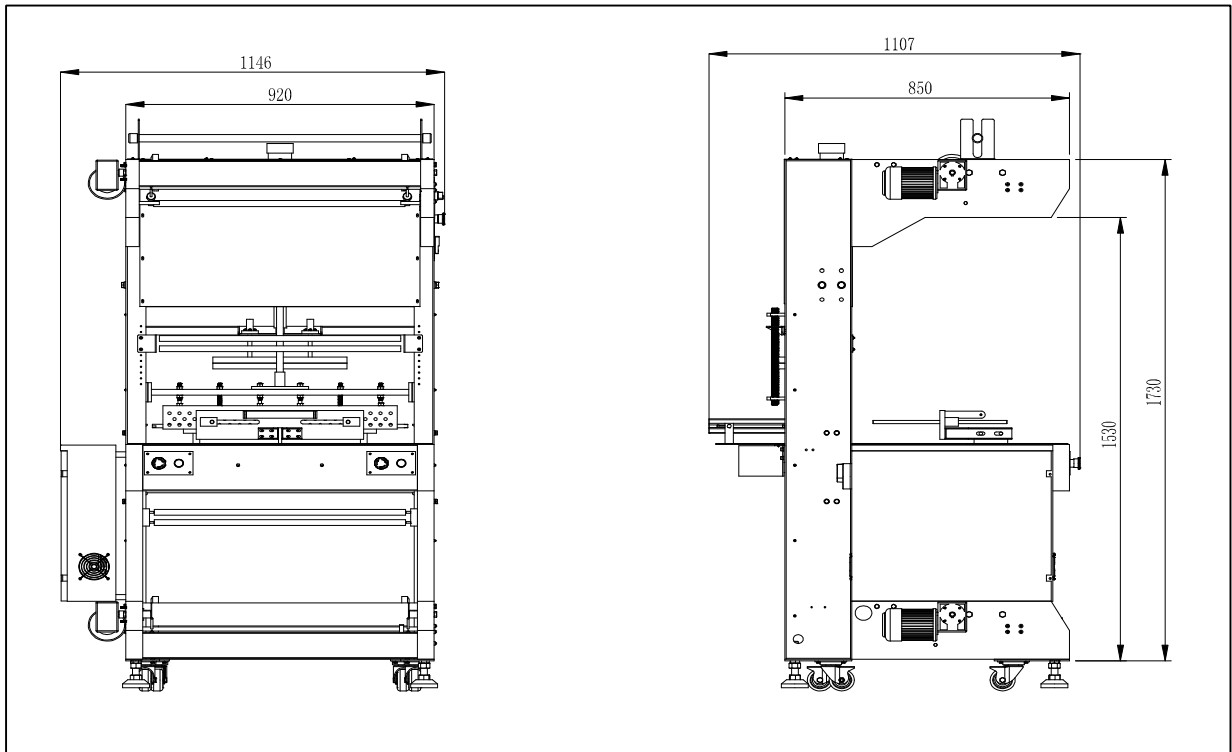
The machine has following advantages: compact structure, low electricity consumption, high sensitivity and simple operation etc.

This machine consists of three main parts: body, electrical system, and air system. Its whole work process is controlled by MITSUBISHI PLC, ensures high reliability.

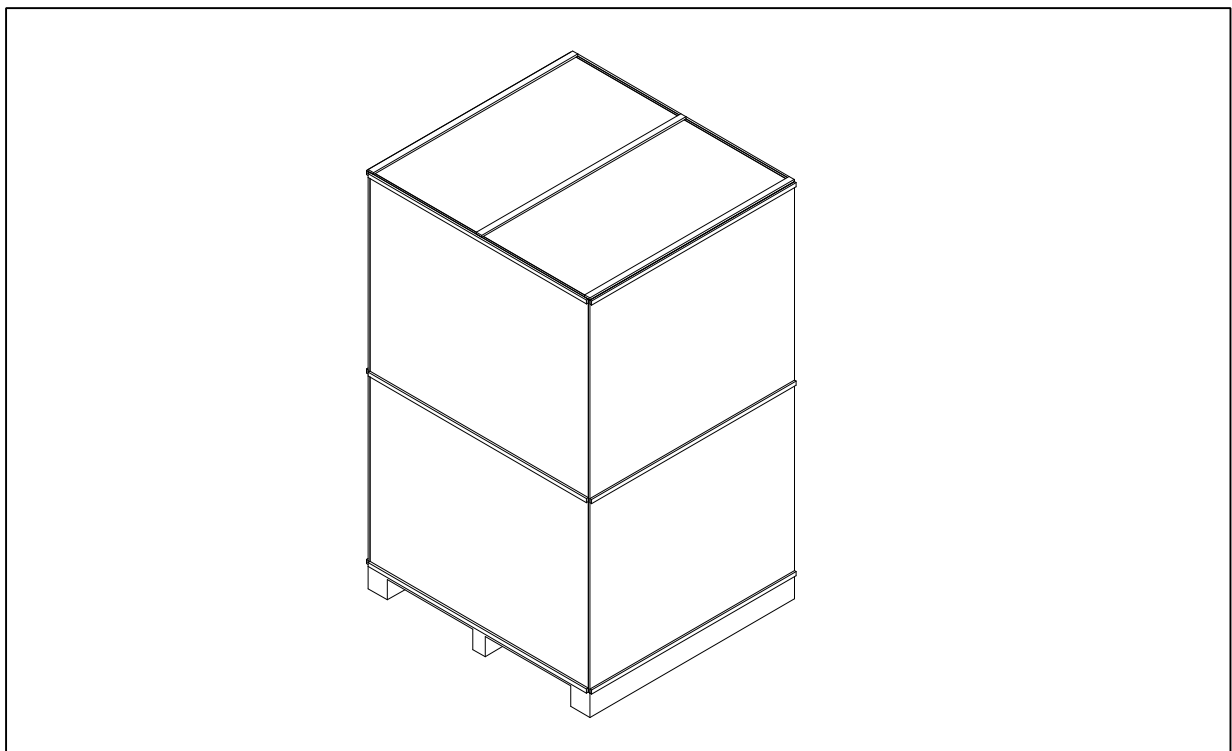
Sealing temperature is controlled by OMRON digital temperature controller, and sealing time is controlled by OMRON time relay ensures high precision. The pushing speed, sealing speed, temperature and sealing time is adjustable, it is an advanced, new type packager.

## TWO、 Machine dimension and crate dimension

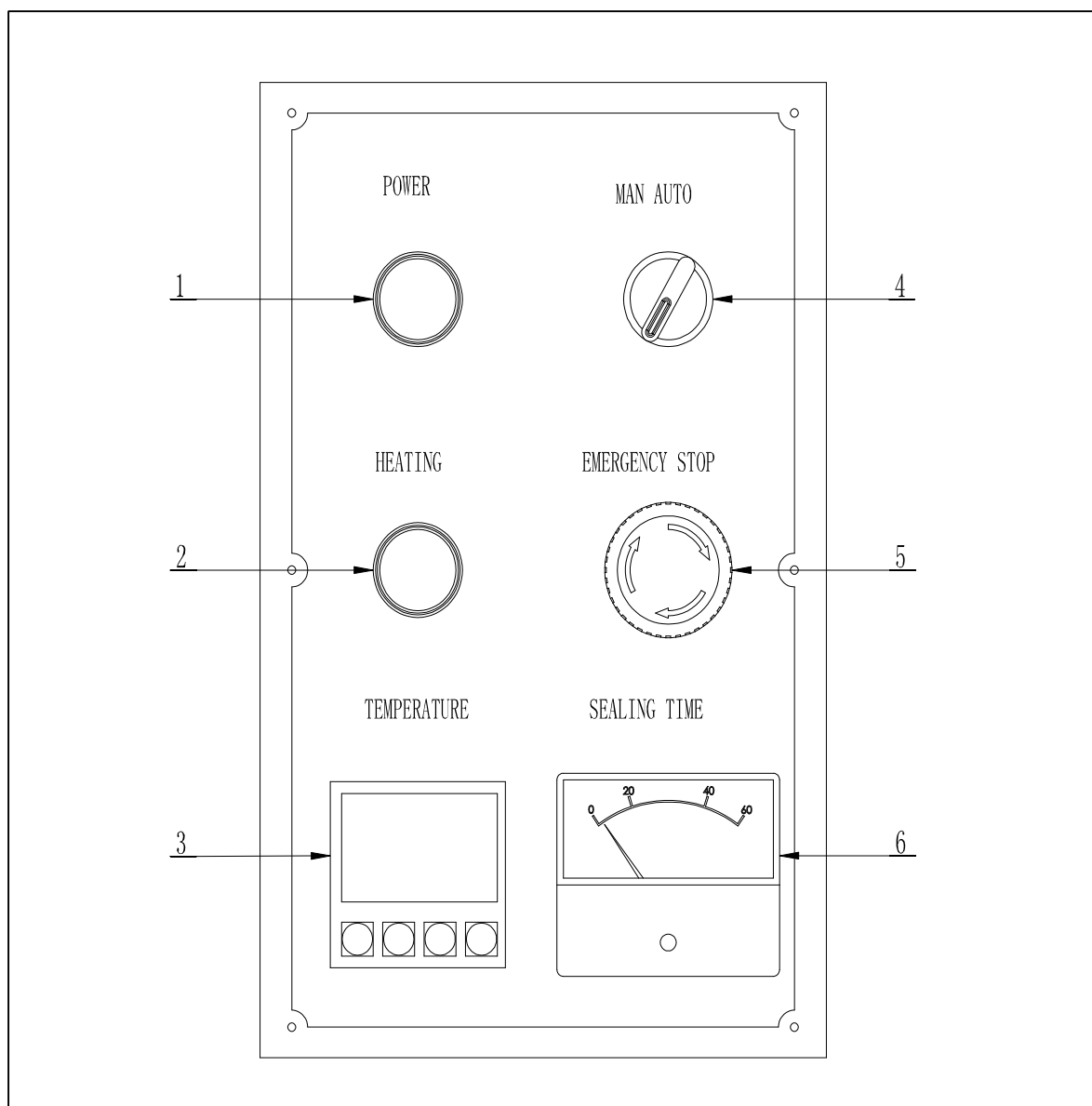
### 1、 Machine dimension



### 2、 crate size



### THREE、 Machine panel each button name and function

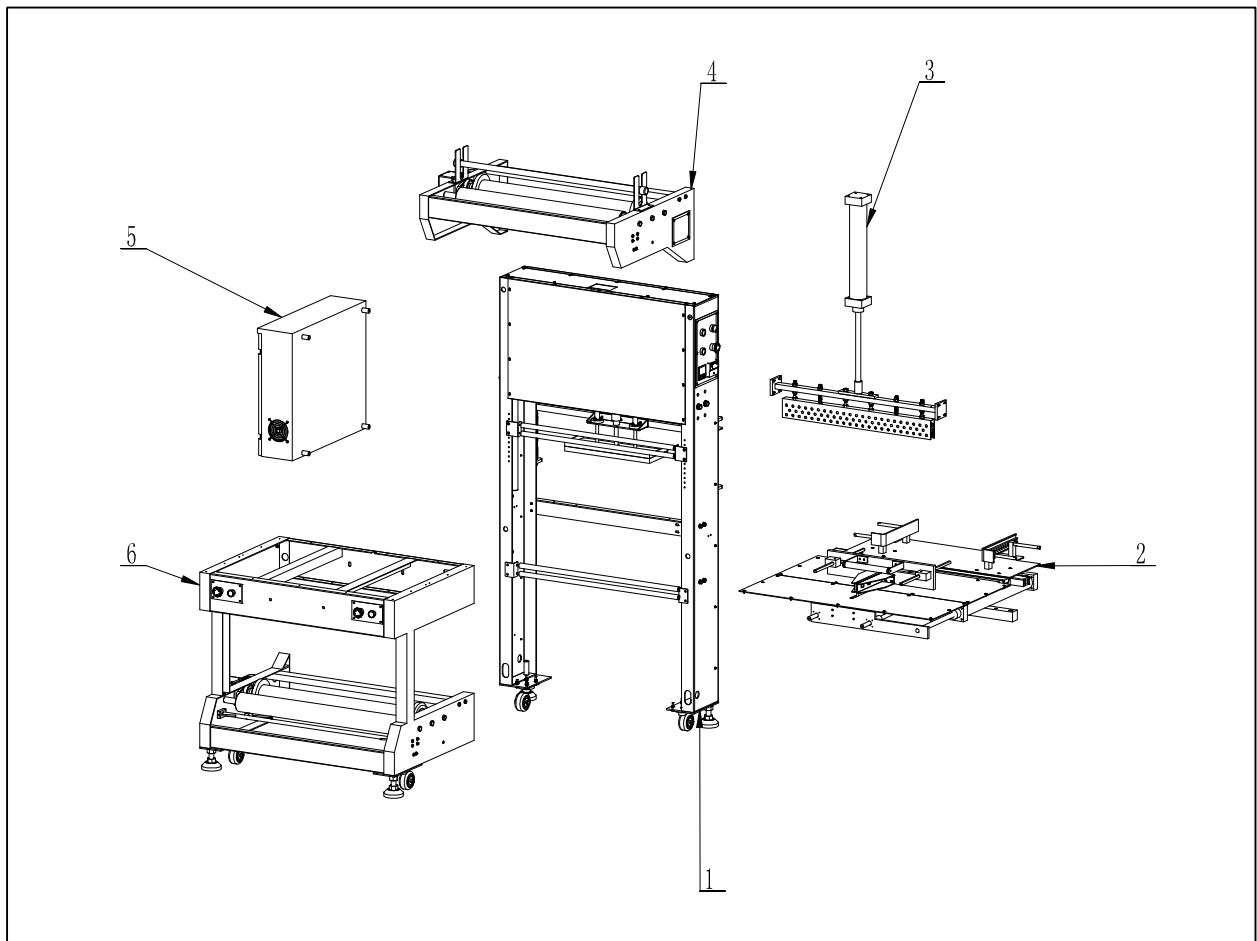


- 1、 Power switch: switch on/off power;
- 2、 heating switch: switch on/off sealing wire heating;
- 3、 temperature: temperature controller
- 4、 man/auto: manual/automatic options;
- 5、 emergency stop: stop machine running in case emergency happens;
- 6、 sealing time: adjust sealing time;



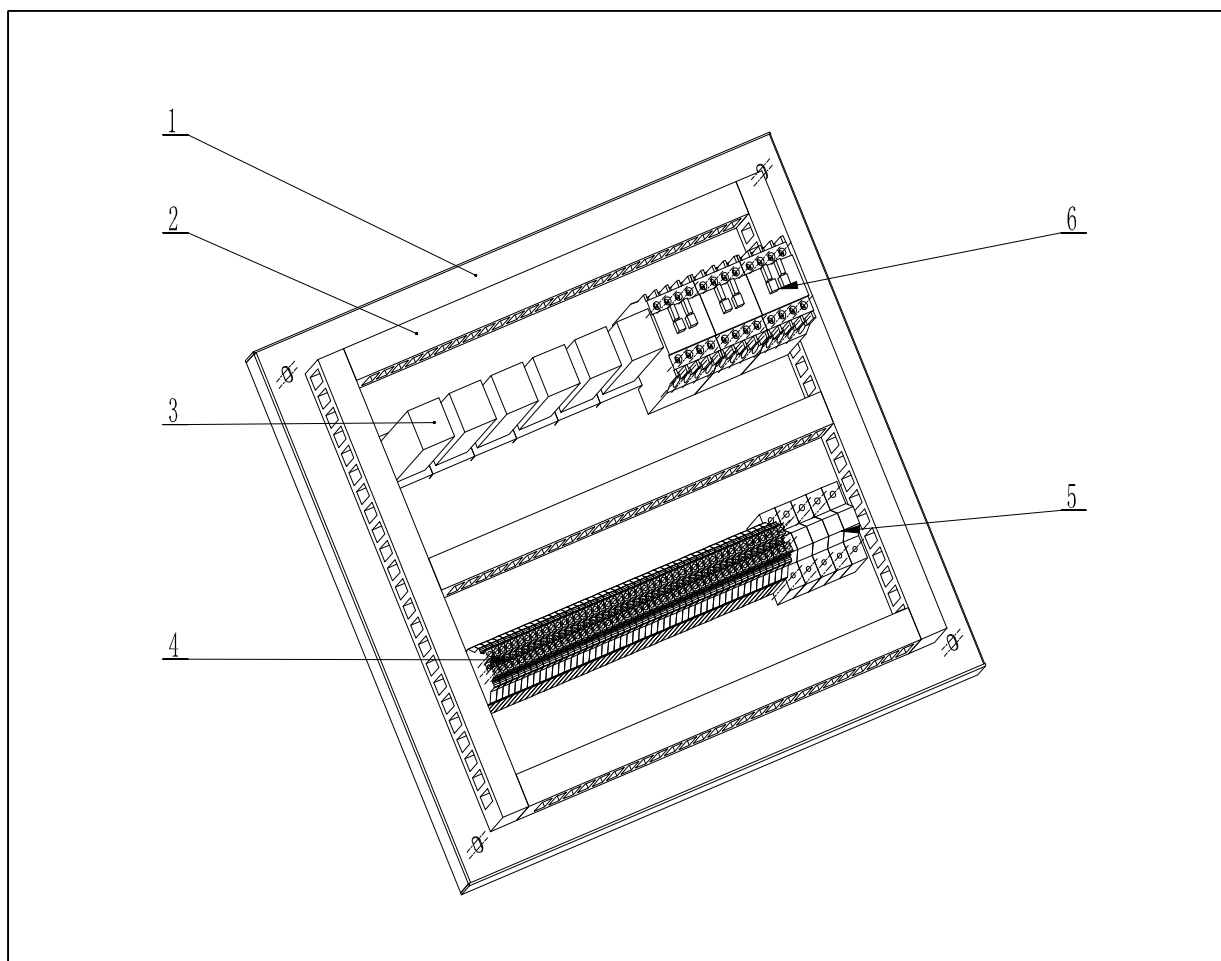
## FOUR、 machine parts illuminate drawing

### 1、 general drawing



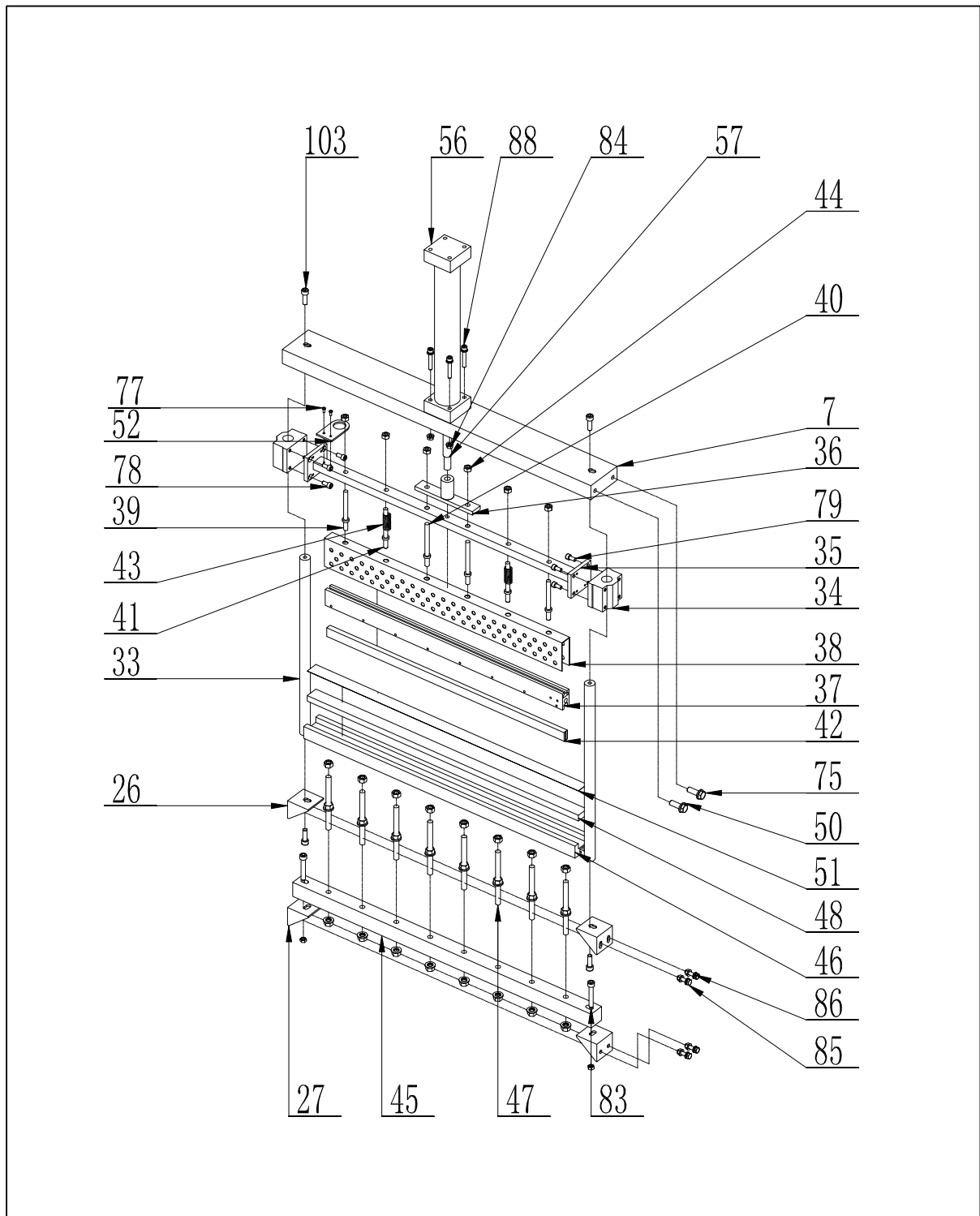
Item No.	Name	Qty
1	Upright post-assembly body	1
2	Sealing panel	1
3	Sealing system	1
4	Upper film holder-assembly body	1
5	Contribution box	1
6	Lower film holder-assembly body	1

## 2、 Contribution box



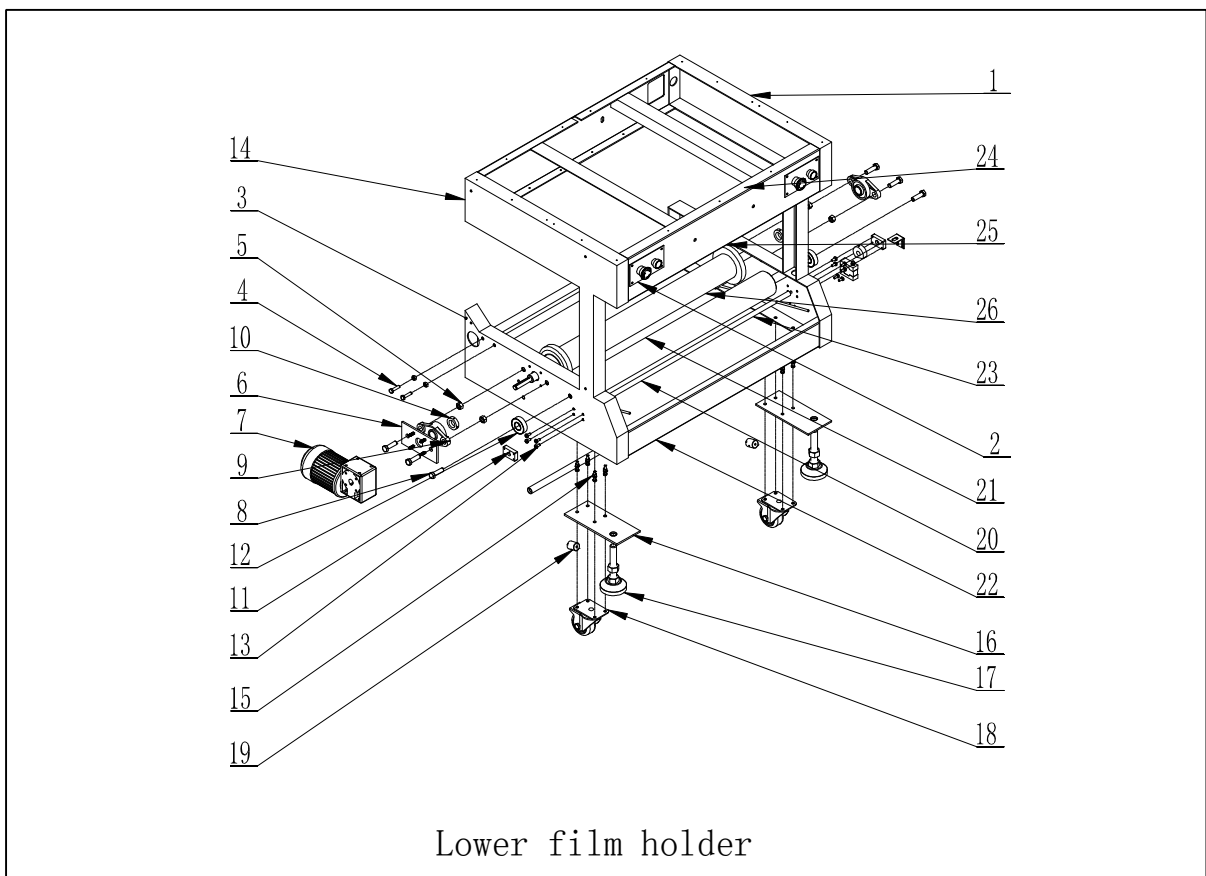
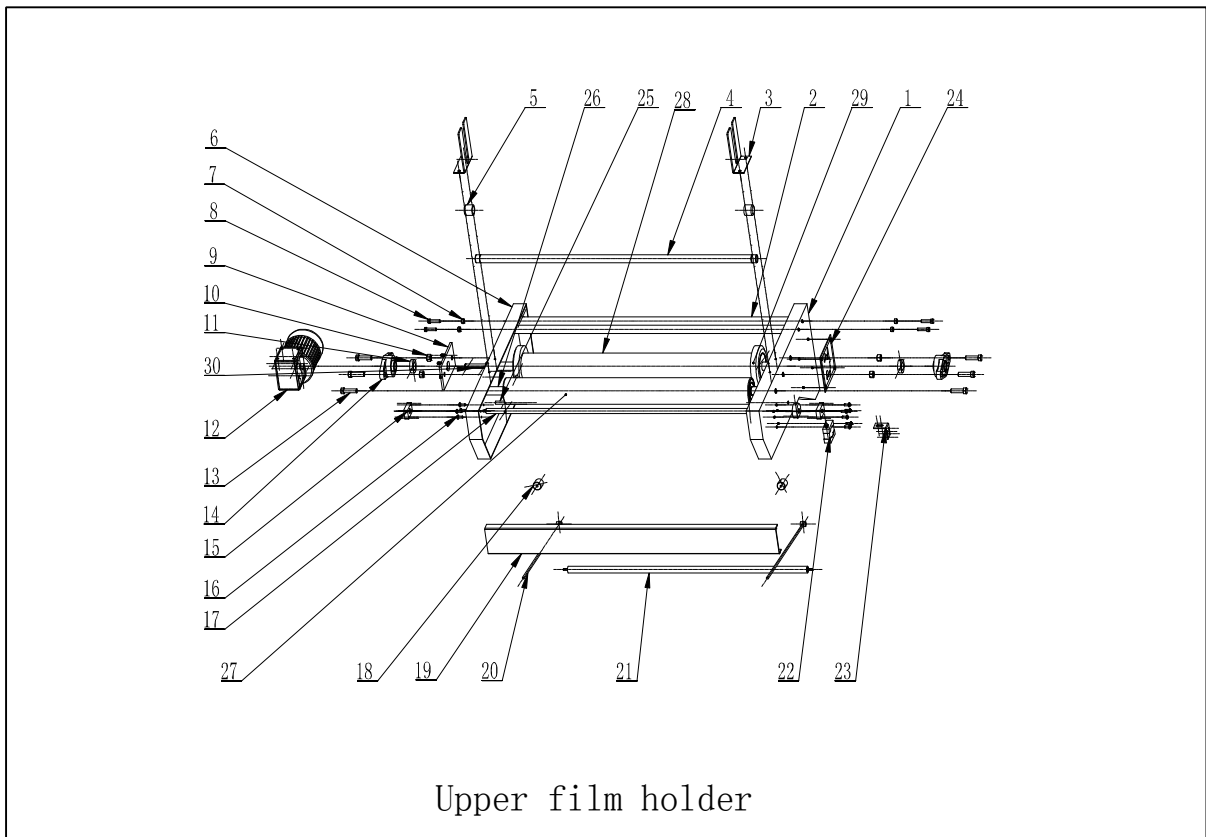
Item	Code	Name	Qty
1	K01	Sealing pressing time relay 220VAC	1
2	K02	Sealing time relay 220VAC	1
3	K03	Pushing time relay 220VAC	1
4	K04	Sealing time relay 220VAC	1
5	K05	Pushing self-protection time relay 220VAC	1
6	K06	sealing self-protection time relay 220VAC	1
7	KM1	Upper film motor contactor 0910AC220V	1
8	KM2	Lower film motor contactor 0910AC220V	1
9	KM3	Heater contactor 0910AC220V	1
10	X1	Wire connecting terminal row	1
11	QF1	Control loop breaker C32N1P2A	1
12	QF2	Upper & lower film motor breaker C32N3P6A	1
13	QF3	Heater breaker C32N1P6A	1
14	X2	Power wire connecting terminal row TB2506	1

### 3、sealing system



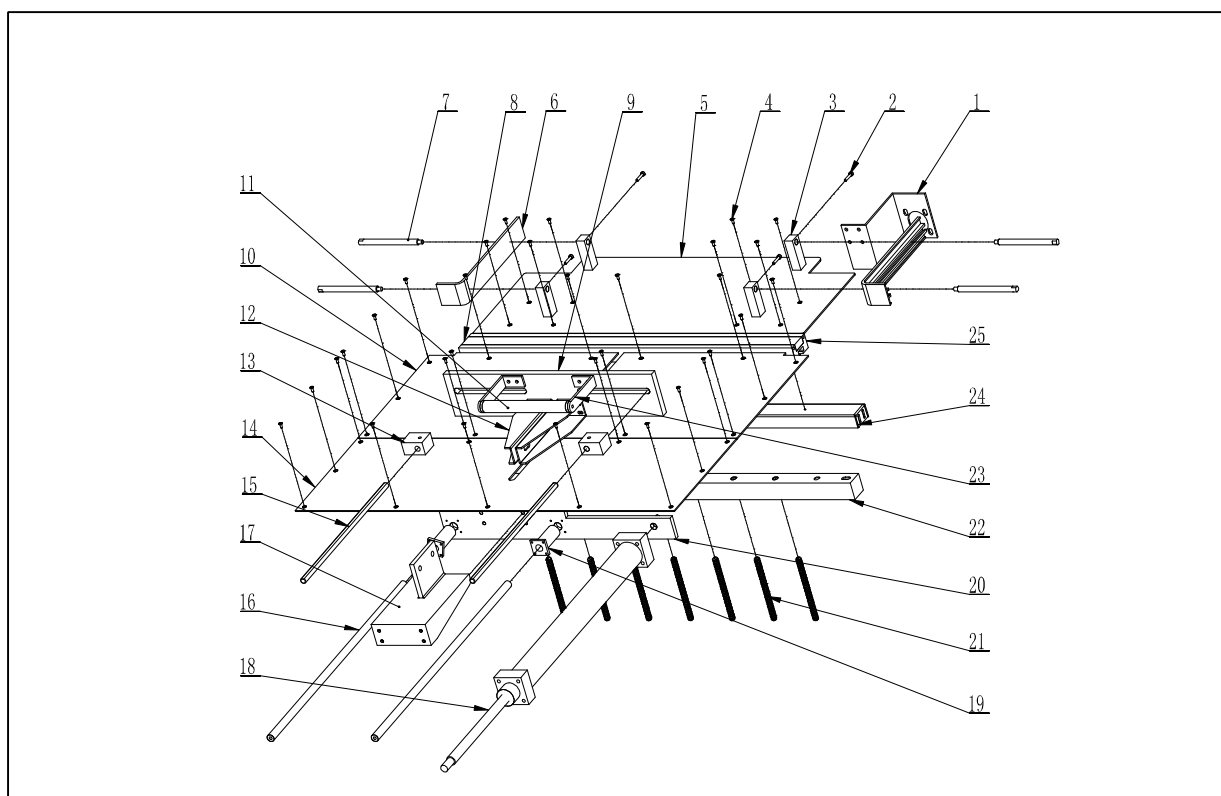
Item No.	Name	Qty
7	Sealing air-cylinder base	1
26	Sealing cutter guide base	2
27	Silicon gel groove installation beam	2
33	Sealing cutter guide rail	2
34	Sealing cutter slide cover	2
35	Sealing cutter installation beam	1
36	Sealing air-cylinder connector	1
37	Sealing element	1
38	Sealing cutter baffle	1
39	Sealing cutter balancer I	2
40	Sealing cutter balancer II	2
41	Sealing cutter balancer III	2
42	Sealing cutter	1
43	spring	2
44	GB-FASTENER-NUT-SNC1 M10-N	6
45	Silicon gel groove installation beam	1
46	Silicon gel groove	1
47	Silicon gel balancer	8
48	Silicon gel	1
50	GB-FASTENER-WASHER-SMWC 12	28
51	Teflon tape	1
52	Sealing cutter wiring protection rack	1
56	IC63B350 air cylinder seat-stroke 350	1
57	IC63B350 air cylinder-stroke	1
75	GB-FASTENER-BOLT-HHBFTC M12X35-N	4
77	GB-CROSS-SCREWS-TYPE1 M4X10-10 H TYPE-N	2
78	GB-FASTENER-BOLT-HHBFTC M8X16-N	4
79	GB-FASTENER-BOLT-HHBFTC M12X35-N	4
83	bolt-M10X30	2
84	GB-FASTENER-NUT-SNAB1 M8X16-N	14
85	bolt-M8X30	8
86	GB-FASTENER-WASHER SW 8	12
88	bolt-M8X25	4

#### 4、 Film release drawing



Item	Name	QTY	Item	Name	Qty
1	Right panel of upper film holder	1	1	Assembling and welding of upper film holder	1
2	Film guide roller 3 bearing 608Z	2	2	Control panel	2
3	Upper film protective pole base	2	3	Spindle of film holding shaft	1
4	Upper film protective pole	1	4	Hex bolt M8	4
5	Screw of upper film protective pole	2	5	Hex screw M12	4
6	Left panel of upper film holder	1	6	Motor fix board	1
7	Hex screw M8 GB	4	7	TBH film release motor	1
8	Hex bolt M8	4	8	Hex bolt M12	6
9	Motor installation board	1	9	FL205 UC205 bearing base	2
10	Hex bolt M12	4	10	Clamp ring of drive wheel	2
11	Clamp ring of drive wheel	2	11	Film rotating shaft fitting seat	2
12	TBH film release motor	1	12	Bearing 6205C	2
13	Hex bolt M12	6	13	“+” bolt M6	10
14	FL205 UC205 bearing base	2	14	Driven shaft spindle of film holder	1
15	Film rotating shaft fitting seat	2	15	M6 hex bolt & screw	4
16	“+”screw M6	10	16	Foot screw scaleboard	2
17	Film rotating shaft	1	17	M20 foot screw	2
18	Hammer for film holder	2	18	Foot wheel(without brake)	2
19	Front cross member of upper film holder	1	19	Hammer for film holder	2
20	Film holder joint pole	2	20	Film holder rotating shaft	1
21	Film guide roller of film holder	1	21	Film holder driven shaft sleeve	1
22	Switch of film release motor	1	22	Film guide roller of film holder	1
23	Switch fitting seat of film release motor	1	23	Film holder joint pole	2
24	Film fitting sketch	1	24	Hex screw M8	4
25	Limiting pole of film holder	2	25	Film fixing ring	2
26	Driven shaft spindle of film holder	1	26	Drive shaft sleeve of film holder	1
27	Driven shaft sleeve of film holder	1			
28	Drive shaft sleeve of film holder	1			
29	Film fixing ring	2			
30	Bearing 6205Z	2			
31	Drive shaft spindle of film holder	1			

## 5、 Pushing system



NO.	Name	Qty	NO.	Name	Qty
1	Rear fitting seat of pushing air-cylinder	1	14	Rear cover board of work table	1
2	Hex screw M5	4	15	Pushing limiting pole	2
3	Fixing seat of AL guide rail	4	16	Guide pole of pushing air cylinder	2
4	“+”screw M4	32	17	Pushing junction panel 2	1
5	Sealing panel	1	18	IC50B350 air cylinder	1
6	Al guide rail	2	19	Slide block of pushing air cylinder guide pole	2
7	Baffle adjusting screw	4	20	Pushing junction panel 3	1
8	Silicon gel strip	1	21	Silicon gel groove adjusting pole	7
9	Push panel	1	22	Silicon gel groove fitting beam	1
10	Front cover board of work table	2	23	Handle fitting seat	2
11	Handle and handle cover	3	24	Sealing panel fitting beam	1
12	Pushing junction panel	2	25	Silicon gel groove	1
13	Fixing seat of pushing limiting pole	2			





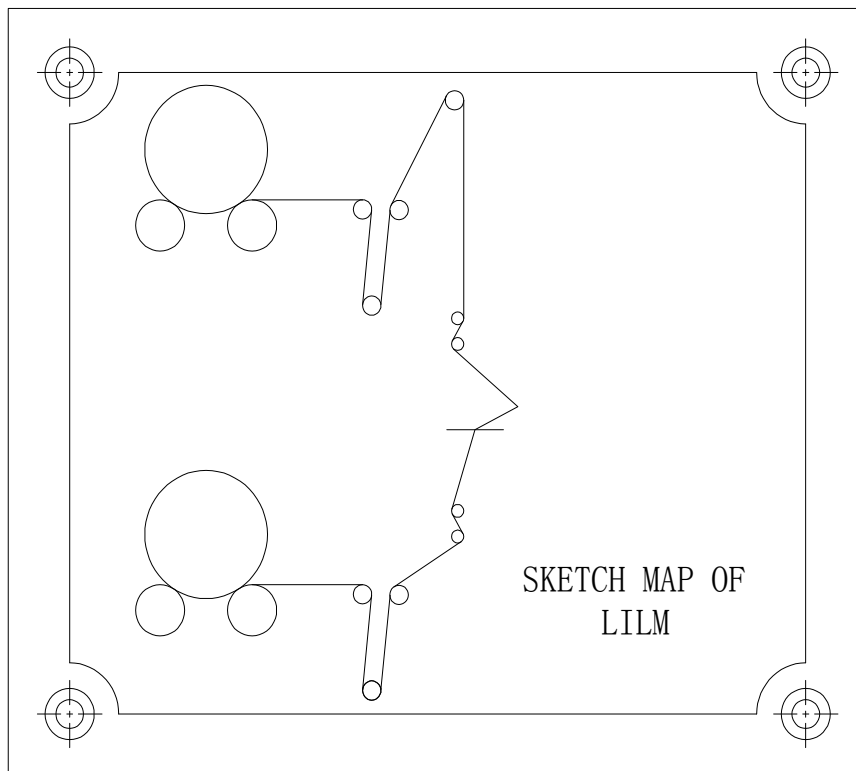
## FIVE、 Parameters

Model	ST-6030
Power supply	3ph 380V 50/60Hz    3ph 220V 50/60Hz
Max packing size	L600*W300*H300
Sealing time	0.5-1.5 sec.
Power	1.5KW
Rated air pressure	6—7kg/cm <sup>2</sup>
Film used	PE:0.04-0.12mm    PVC:0.02-0.06mm
Machine dimension	L1000*W900*H2000
Packing speed	8-12PCS/min
Sealing temperature	0-250℃
Film width	MAX: 700mm
Net weight	250KG

## SIX、 Machine installation

Please install the machine according to the following steps:

- A) Unpack the crate and remove the wooden board;
- B) Move the machine out and put it on the flat floor;
- C) Install the air-cylinder by the tools in the toolbox;
- D) Fix the air valve on the side of the machine;
- E) Connect the air source, turn on the slide switch of air valve, and set air pressure at 6—7kg/cm<sup>2</sup>;
- F) Connect the power according to the required power supply, note: must be grounded.



Film fitting sketch

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## **SEVEN、 Machine operation method**

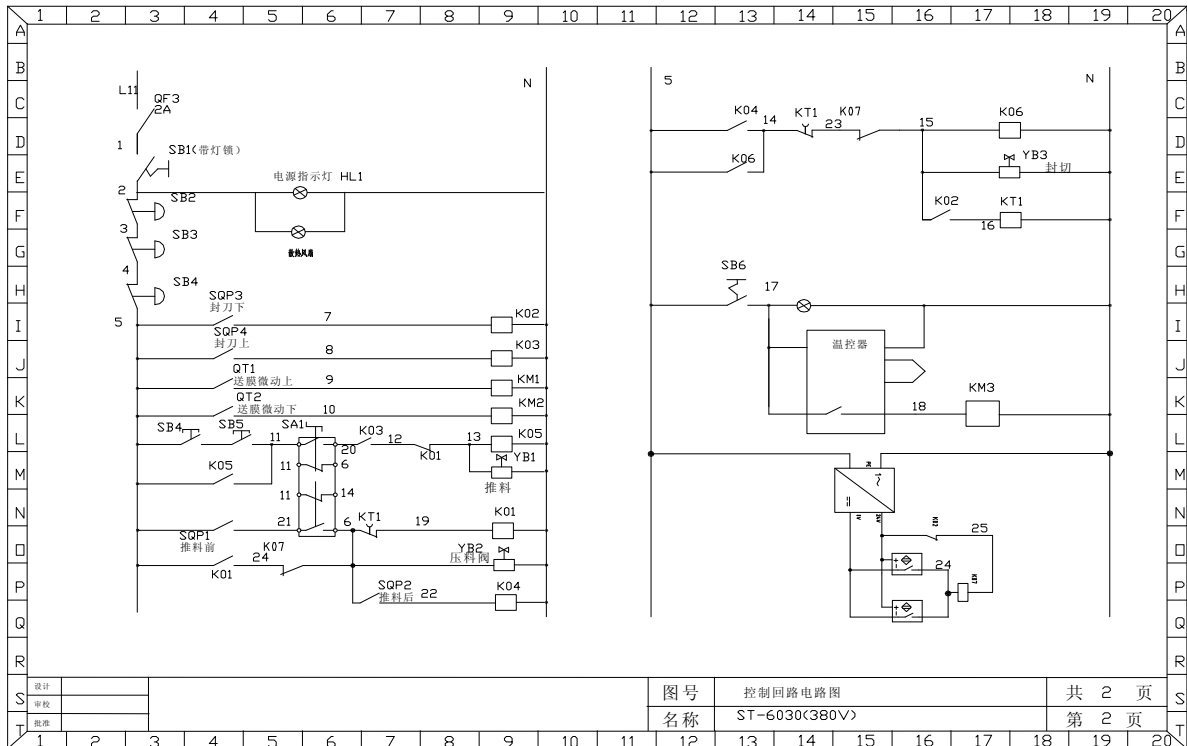
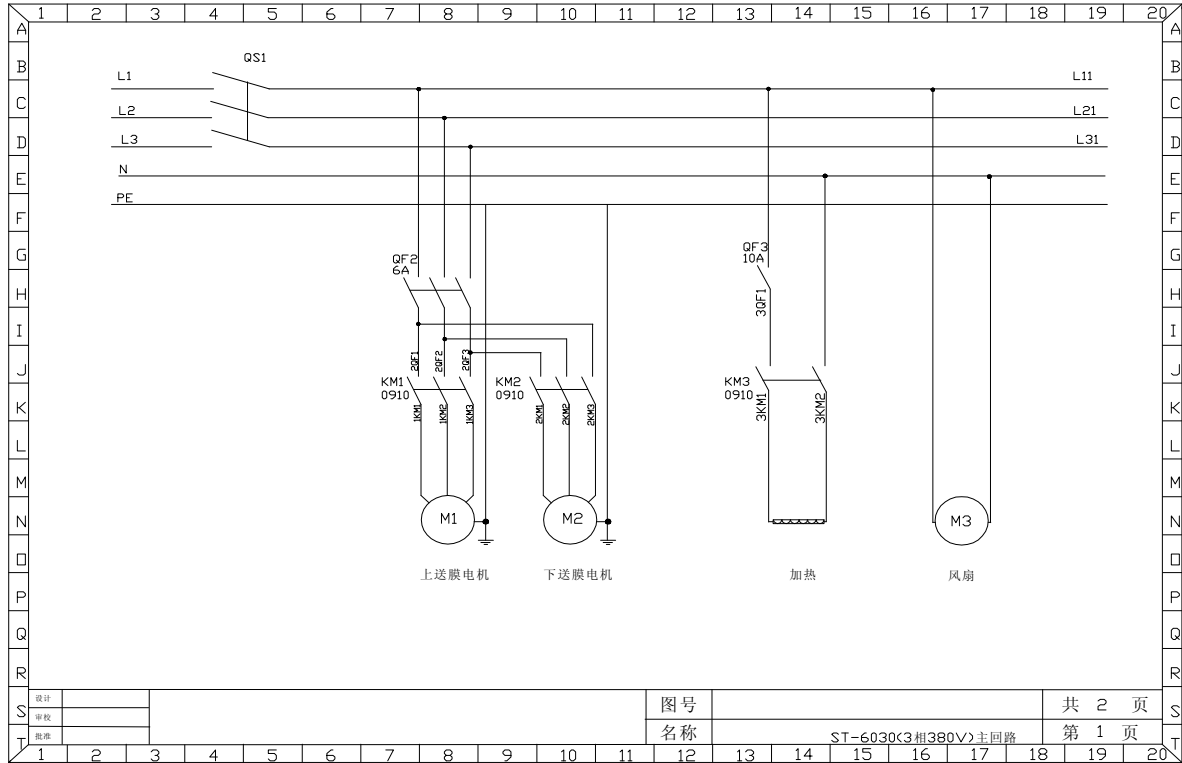
- 1、 Connect with air source, and turn on the slide switch of air valve, the pushing board and cutter will turn back at this moment; check the barometer to see the air pressure can meet the requirement or not (6—7kg/cm<sup>2</sup>);
- 2、 Switch on the power, and power indicator light is on;
- 3、 Hold up the control pole and film release motors run this moment, check the turning direction of two motor, if two motors run at wrong direction, should check the connection of electrical wires of main power; if one motor run at wrong direction, should check the connection of electrical wires of related motor;
- 4、 set the shrink film according to “film fitting sketch”;
- 5、 Air-cylinder pushing length is adjustable according to the packages;
- 6、 Sealing time and temperature is adjustable according to the thickness of film material, for PE film, we set the temperature at 150-170°C ;
- 7、 Pull the upper and lower films together, lap over the two, and exceed the sealing pedestal, then press the sealer button to seal and cut the film.
- 8、 Finish sealing: if part of the sealing is melted shows that the temperature is higher; In reverse, the film cannot be cut off shows that the temperature is lower.
- 9、 Adjust the film looser or tighter: please look over the inching switch place, when switch adjustment cover is far from the inching switch shows that the film is tight, in reverse, the two are close shows that the film is loose.
- 10、 In case the emergency occurs, press the red emergency button to stop running, turn right the button to switch on it after restore the machine.
- 11、 after finishing work, switch off power and heater, finally cut off the air source.

## **EIGHT、 Machine maintenance**

- A) Clean the machine every time after finishing work, especially work plate;
- B) Clean the cutter regularly. Note: clean it with some dry cotton and release agent; DON'T use the metal and other hard material to clean it.;
- C) To lubricate the moving parts frequently (e.g. chains & bearing etc);
- D) Operate it properly to protect the cutter, Teflon tape and silicon gel, should exchange the sealing wire and Teflon tape if damaged;
- E) Must switch off the power before repairing machine by a professional technician.

# NINE、Machine circuit diagram

## 1、ST-6030 3PH/380VAC circuit





## TEN、 Trouble shooting

Trouble	Cause	Solution
Film release motor doesn't work	Pressed emergency switch	Switch off emergency switch
	Contactator broken	Exchange a new contactor
	Motor broken	Exchange a new motor
	microswitch isn't at right position	Adjust its position
Sealing air-cylinder doesn't work	Air pressure isn't enough	Increase the air pressure
	Push electromagnetic valve broken	Exchange a new one
	Sealing cutter isn't at above position	Adjust sealing cutter's upper sensor
Sealing air-cylinder doesn't work	Rear pushing sensor not at right position	Adjust sensor's position
	Sealing electromagnetic valve broken	Exchange a new one
Can't cut off film	Sealing wire is not even	Adjust sealer's fixing screw
	Temperature is not enough	Increase sealing temperature
Bad sealing effect	Surface of sealer & cutter damaged	Exchange a new sealing wire
	There are wastes on the sealer & cutter	Clean it with dry cotton cloth

**ELEVEN、 Packing list**

Item	Name	Qty
1	Machine	1set
2	Teflon tape	1pcs
3	Tool box	1pcs
4	Manual	1pcs
5	Monkey wrench	1pcs
6	Allen key	1set
7	“+”screwdriver	1pcs