Cleveland Equipment

CE-225

Mesh Conveyor Heat Tunnel

Operation Manual

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Contents

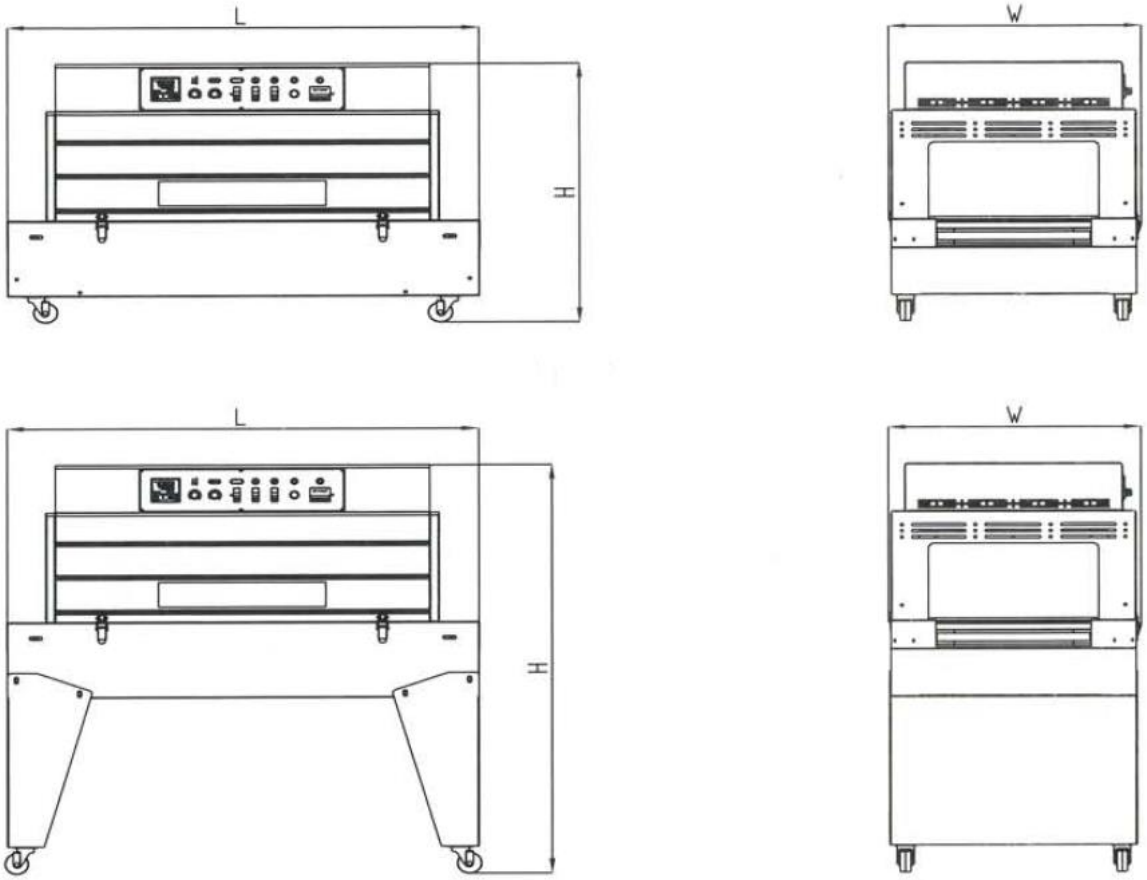
I. Foreword

The CE-225 Mesh Conveyor Heat Tunnel Machine has the advantage of high heating efficiency, accurate temperature control and stable performances.

II. Function

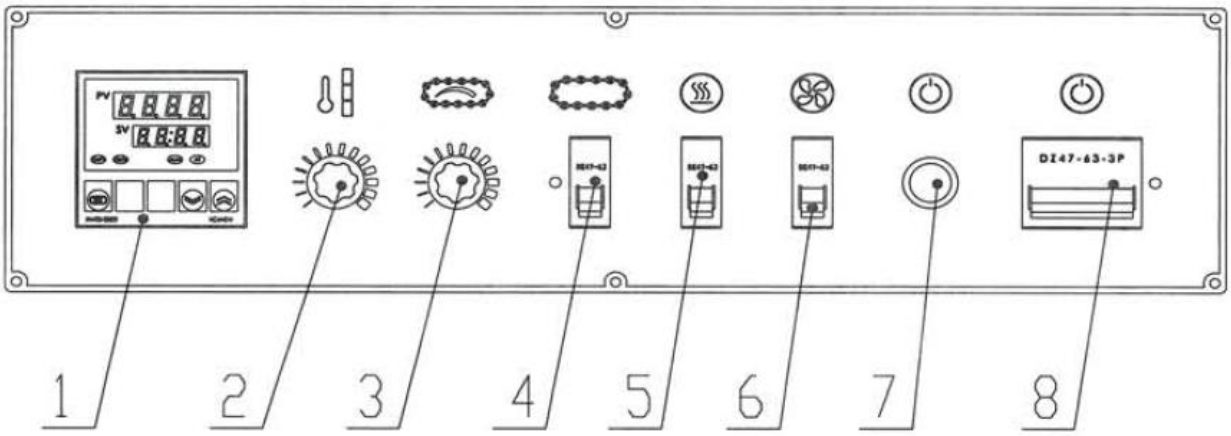
The thermal shrink packing method is a popular and economical packaging method in the packing industry. There is an increasing demand for its economical, simple packing and aesthetically pleasing appearance. The product is wrapped with the shrink film and then shrunk and molded to product by heat. The package conforms to the shape of the product and is transparent to show product clearly. The shrink film helps ensure product is protected from moisture, pollution, and scratching or marring.

III. Technical Parameters



Voltage	220V, 50~60Hz
Power	7.65 Kw
Speed	0-10 m/min
Tunnel Size	800x400x200 mm 31.5 x 15.75 x 7.9 in.
Load	5Kg (11 lbs)
Machine size (Low)	1060x620x815 mm 41.75 x 24.5 x 32 in.
Machine size (High)	1060x620x1240 mm 41.75 x 24.5 x 48.9 in.

IV. Panel

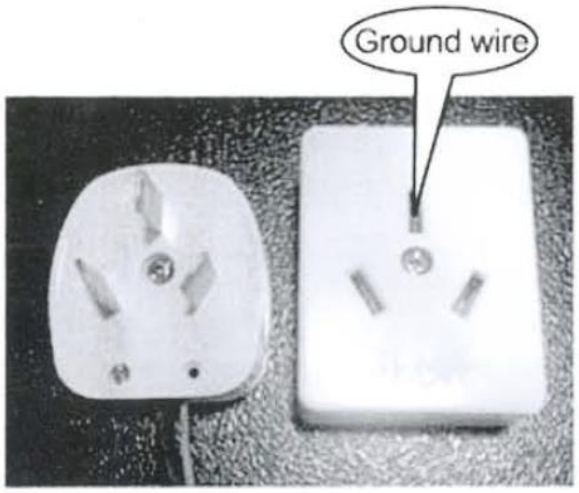


1	Temperature Control	Display/Adjust temperature inside Shrinkage Furnace
2	Heating Adjustment	Adjust Power of Heating Pipe
3	Conveying Adjustment	Adjust speed of conveying motor
4	Conveying Switch	Controlling switch of conveying belt motor
5	Heating Switch	Switch for controlling heating tube in shrinkage furnace
6	Fan Switch	Switch control for fan motor of shrinking furnace
7	Power Indicator	Indicates whether machine power is on
8	Power Switch	Control power on & off of machine

V. Instructions for Operation

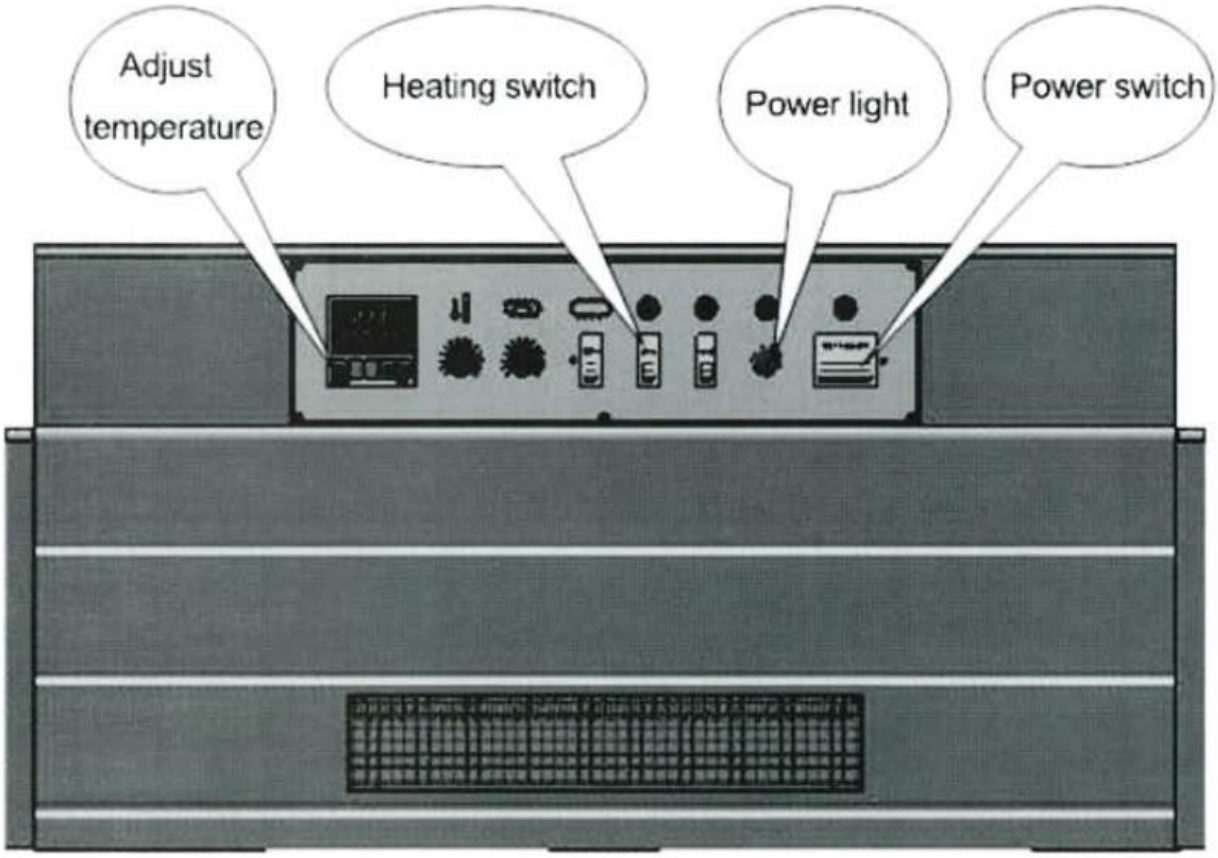
1. Place the machine on a level surface and remove the outer package.

2. For the operator's personal safety, the machine must be grounded according to the regulations before use and ensure that the contact is good (good grounding can reduce the electric shock damage to the human body when a single-phase ground fault occurs in the electrical appliance.) Connect to the power supply according to the power supply voltage specified on the machine label.

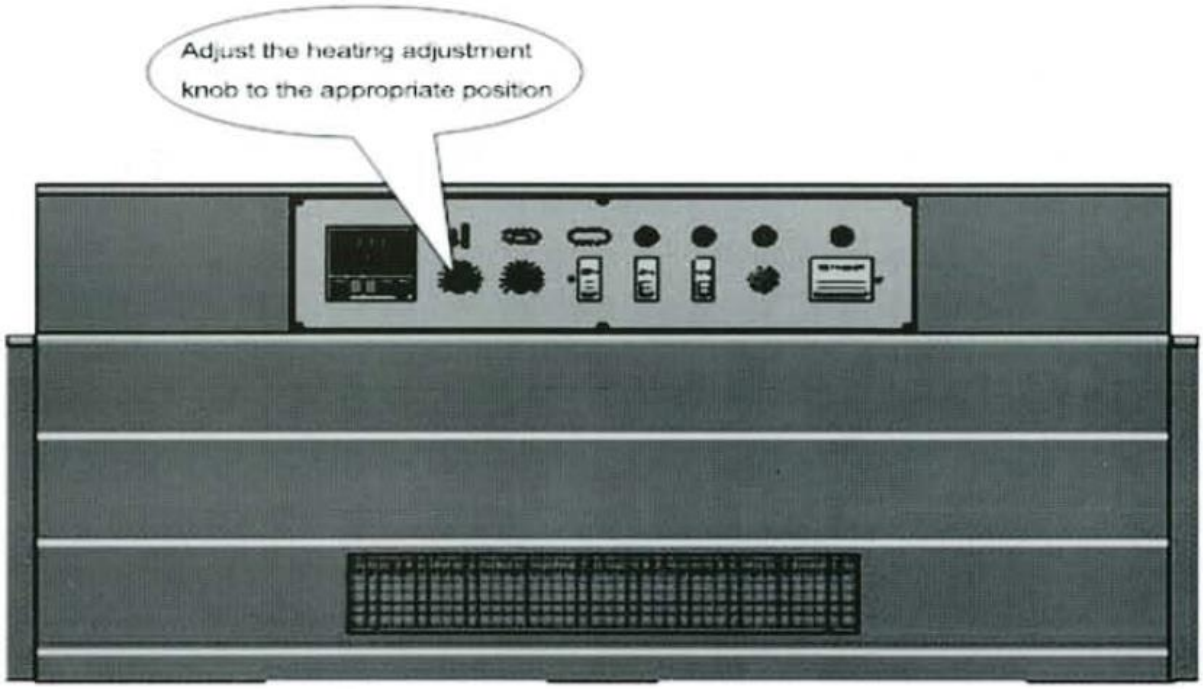


220V

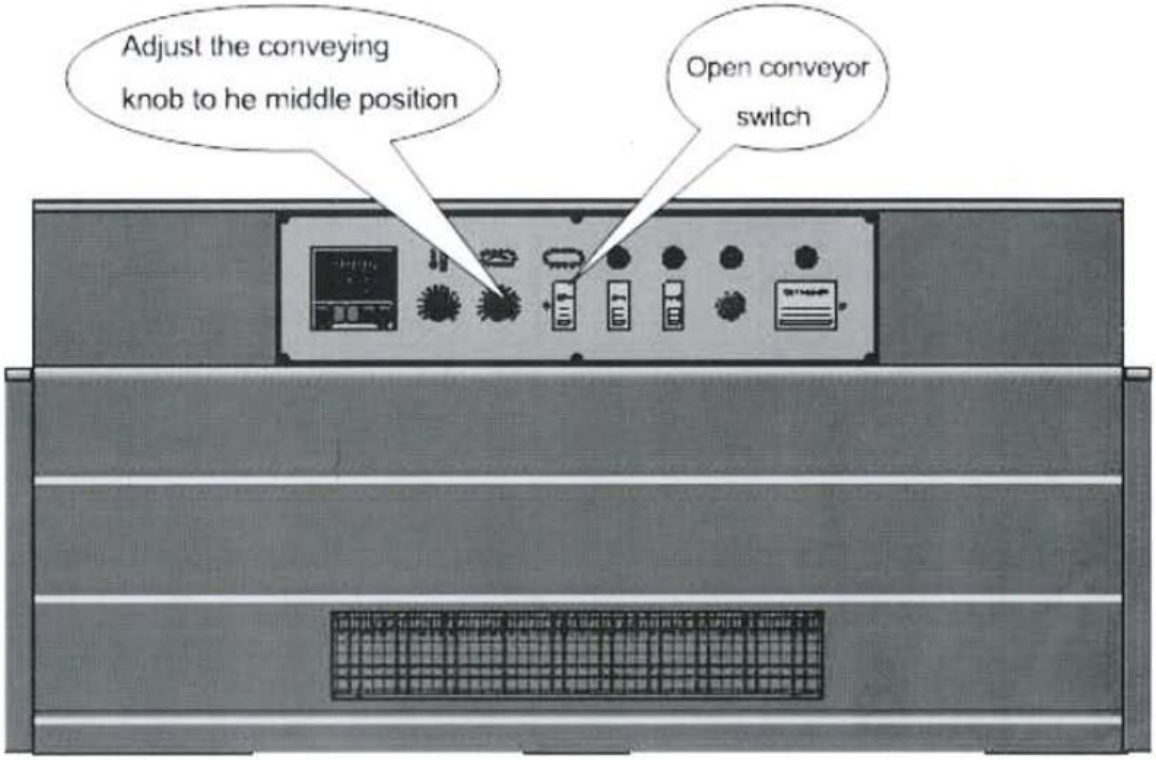
3. Close the power switch, turn on the heating switch, and set the temperature of the thermostat to about 170 °C.



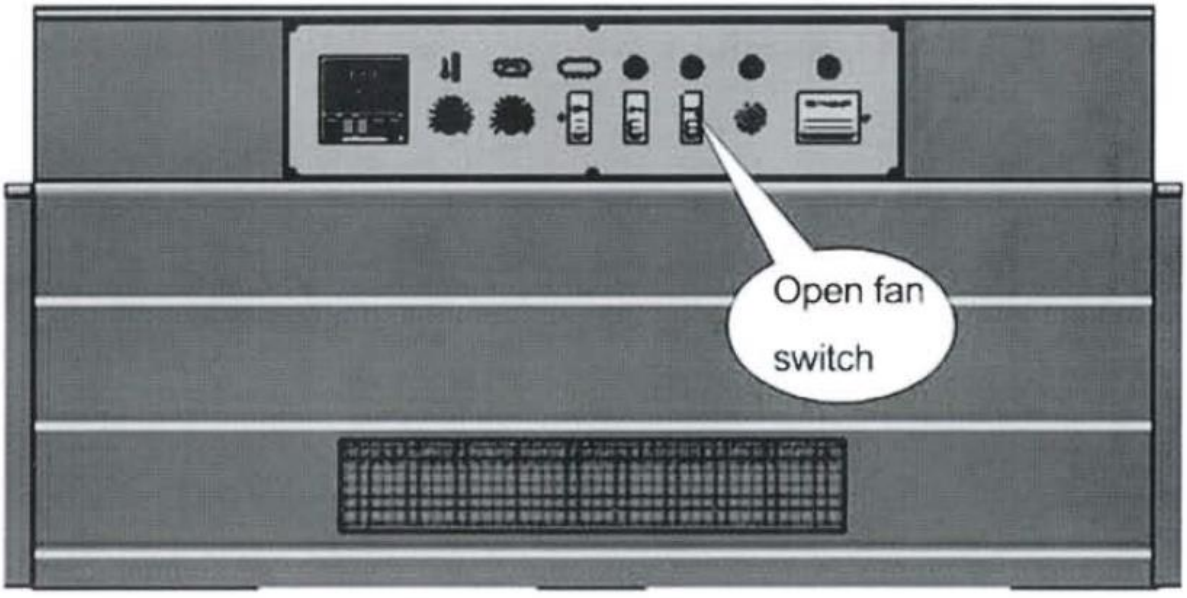
4. Adjust the heating adjustment know to the appropriate position according to the shrinkage rate of the film.



5. Turn on the conveyor switch and adjust the conveyor know to adjust the conveyor speed to the appropriate gear position.

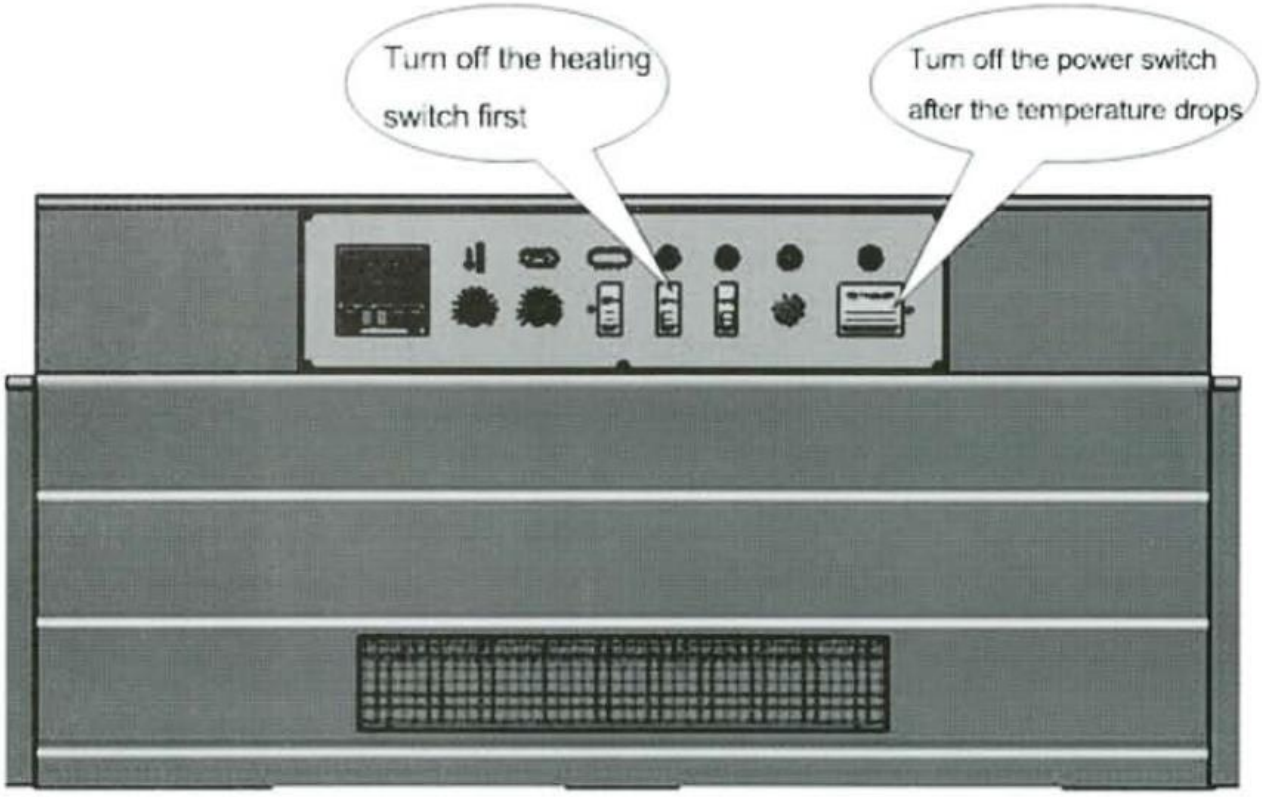


6. After the above operation is completed, let the machine run (preheat) for 5-10 minutes, then open the fan switch on the panel. The machine is now ready for operation.

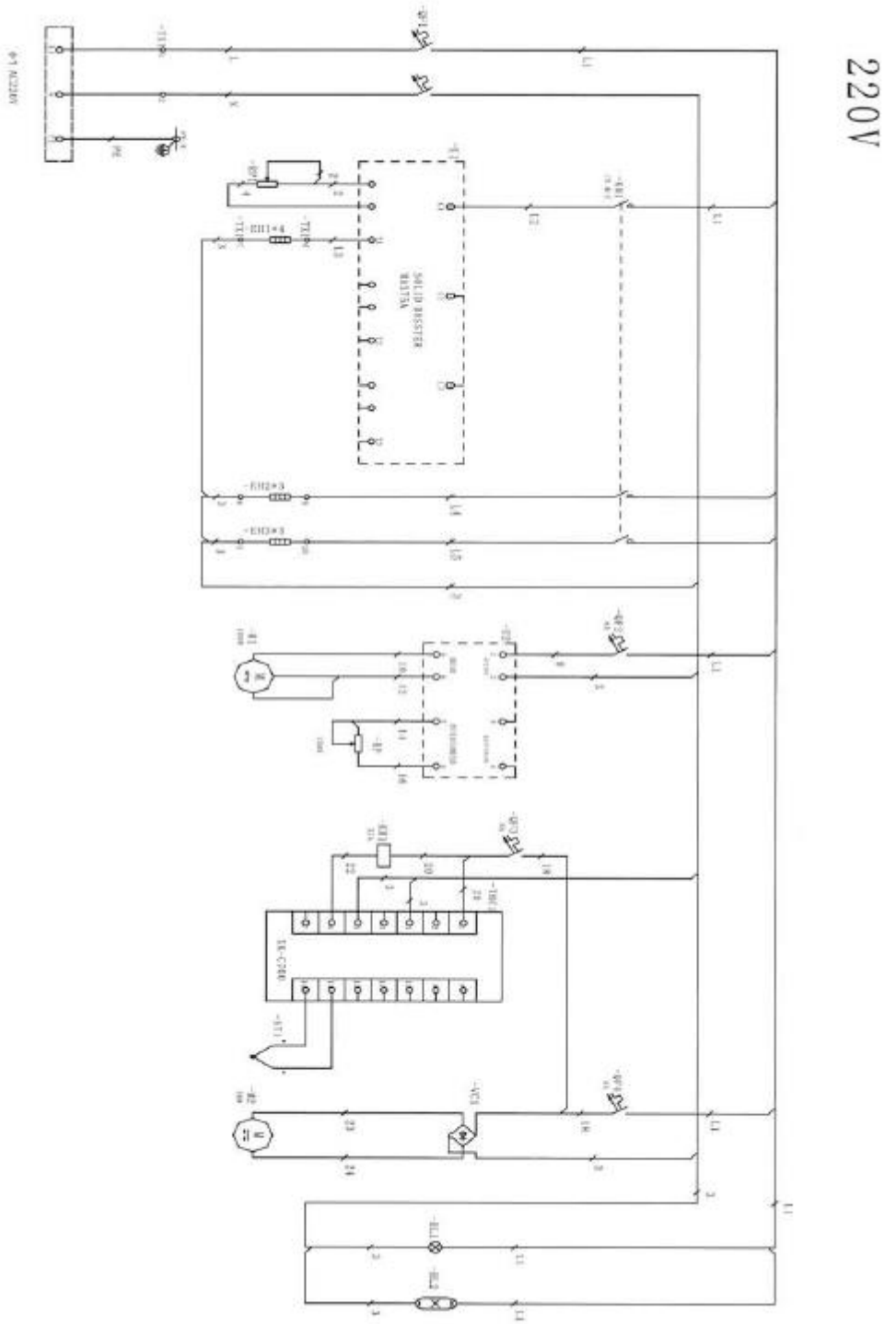


7. During the shrinking process, the speed and temperature can be adjusted according to the actual situation. Since the temperature and speed are mutually restrained, it may be necessary to repeat the adjustment several times to meet the requirements.

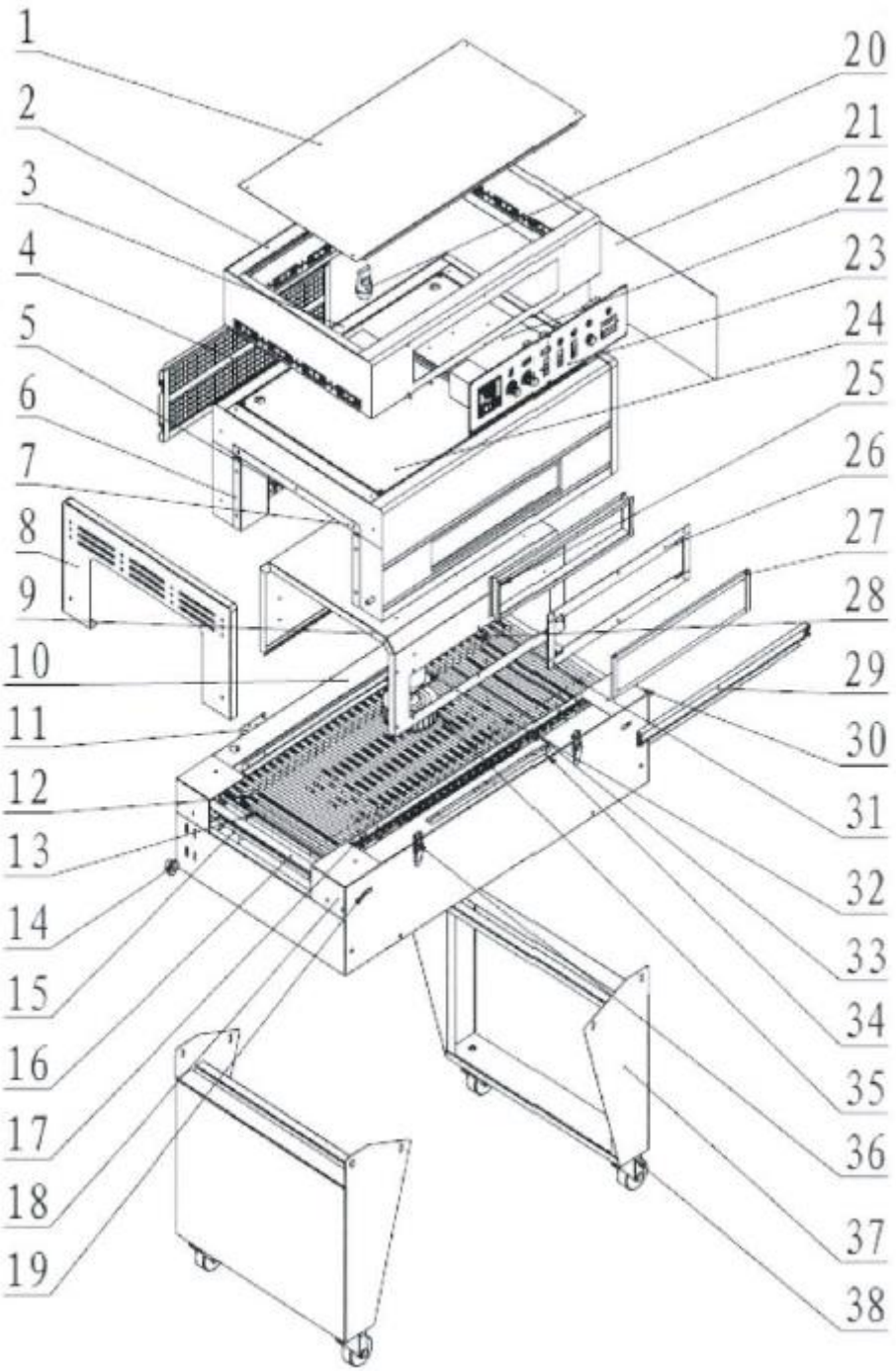
8. After the packaging is finished, the heating switch should be turned off first, and the conveying motor and the fan motor should continue to run for about 10 minutes before turning the machine off to increase the service life of the machine.



VI. Electrical Diagram



VII. Component Diagram



Number	Item	Qty	Material
1	Electrical Box Cover	1	1.0/Q235
2	Electrical Box	1	Group Weldment
3	Tunnel	1	Group Weldment
4	Medium Grid Combination	1	Group Weldment
5	Heat Pipe assembly	10	
6	Curtain vertical bead	4	1.5/Q235
7	Curtain horizontal strip	2	1.5/Q235
8	Thermal insulation board	2	Group Weldment
9	Upper Liner	1	1.0 / Galvanized Sheet
10	Frame	1	Group Weldment
11	Stainless Steel hinge (4 inch)	2	
12	Conveyor Chain	1	
13	Permanent Magnet DC Motor	1	
14	Motor Sprocket	1	45
15	Motor Board	1	5.0/Q235
16	Small Roller	2	Assembly Drawing
17	Chain Baffle	2	1.5/Q235
18	Chain Cover 2	2	1.0/Q235
19	Drive Roller	1	Assembly Drawing

Number	Item	Qty	Material
20	Explosion-Proof Bulb	1	1
21	Curtain	1	High Temperature Cloth
22	Electrical Floor	1	1.0/Galvanized Sheet
23	Electrical Control Assembly	1	
24	Cover	1	Group Weldment
25	Observation Window Partition	1	Group Weldment
26	Observation Window Platform	1	Group Weldment
27	Observation Window Partition	1	Group Weldment
28	Guide Assembly	2	
29	Furnace Shield	1	1.0 / Galvanized Sheet
30	Chain Cover 1	2	1.0/Q235
31	Passive Roller	1	Assembly Drawing
32	Fan Motor	1	50W
33	Lower Liner	1	1.0 / Galvanized Sheet
34	Pole	1	45
35	Fan	1	Self made
36	J103 Box Buckle Assembly	2	Q235/1.2/Nickel Plating
37	Tripod	2	Group Weldment
38	Casters	4	Ø75x30

VIII. Troubleshooting

Case	Cause	Solution
No Heat in the Tunnel	No Power	Turn On Power
	Heating Switch Broken	Replace
	AC Contactor, Solid-booster or temperature meter is broken	Replace or Repair
	Heat adjustment is in the lowest position	Adjust
Temperature of Tunnel is Low	Some heating pipes broken	Replace
	Heat adjustment is too low	Increase
	Temperature is set too low	Reset
	One of the 3 fire wires is loose	Re-Connect
Conveyor Motor Stops Running	Switch or Adjuster Broken	Replace
	The motor burned	Replace
	Carry Adjustments is in the Lower position	Adjust
	Block on the driving unit	Adjust / Mend
Motor of fan not working	Fan Switch Broken	Replace
	Fan Motor Broken	Replace
	Circuitry broken	Mend
Stop suddenly	Power loose or fuse pipe broken	Replace

IX. Shrink Film Temperature Guide

Name	Thickness (mm)	Heating Time (S)	Temperature (°C)
PVC	**0.02 – 0.06**	**5 – 10**	**110 – 130**
PP	**0.02 – 0.04**	**6 – 12**	**130 – 170**
PE	**0.06 – 0.20**	**10 – 60**	**150 – 180**
POF	**0.03 – 0.10**	**8 - 16**	**130 - 170**