

1. Summary

Single chamber vacuum packing machine with computer control panel is a novel packing machine which is to vacuum and seal bag. The package in high degree vacuum and less remain air can avoid the bacteria to multiply, oxygenize, mildewed. Meanwhile, it can reduce the soft product volume after vacuum packing in order to convenient to transport and reserve.

2. Usage

The vacuum packager use compound film and pack solid, liquid and powder product such as food stuff, medicine material, native and special product, marine product, chemical material and so on. The packaged production can avoid to oxygenizing, mildewing, rusting, wetting, and pro-long the reserve time.

3. Feature

The machine is equipped with transparent organic glass cover; user can use whole packing process. Lower chamber is stainless steel, reasonable structure, and strong draw vacuum and sealing, and nice appearance with durable character. It conforms to the requirement of food hygienic standard.

These machine finishes draw vacuum and seal in one time. Adjust vacuum degree, sealing temperature, and sealing time according to different packing material and requirement. Choose the best state to get best result.

The machine has character of advanced design, complete function, stable behavior, wide usage, strong sealing and convenient maintenance. It is an ideal packing machine.

4. Structure and principle

The machine composes of organic cover, vacuum chamber, machine body, electric appliance and vacuum system. The vacuum chamber has heat-seal device and the heating element is nickel belt which installed on heat-seal frame and insulated with vacuum chamber. Heat-seal frame touches closely on ballonet, which is in low vacuum state before heat-sealed. When heat-seal, ballonet connects the air through solenoid valve, then ballonet becomes big and heating element is pressed down. Press sealing part tightly and heat, the heating temperature and time can be adjusted.

The machine power is AC 230V 50Hz, the motor for vacuum pump is AC230V, the power for model 1 is 0.37KW, and for model 2 is 0.75KW.

This heating system is pressure adjustable type. Its means, the first class of heating transformer is 220V, and second class has three shifts (high, middle, low). Charging the power of second class can charge the sealing temperature, but the heat-seal temperature is adjusted by button in panel.

The vacuum system composes of heat-seal electromagnetic valve YV2, release electromagnetic valve YV1. When start the vacuum pump, vacuum chamber is drawing out the air. When reaches the preset vacuum degree, the vacuum system stops running and next process will start, and automatic seal and release at one time.

6. Control panel indication

1) Control panel

There is vacuum meter, emergency stop key, setting key, adding key, reducing key, temperature adjusting key, time display key and some pilot lamp.

2) Machine enters into waiting state when closed the air switch behind machine, Then set Vacuum degree, sealing time, cooling time and sealing temperature.

- a. to adjust vacuum degree: Press SET Button, the vacuum pilot lamp is on. Machine enters the setting state of exhausting time, it shows the current exhausting time on time monitor, Meanwhile, user could set the vacuum time according to the packing product. Press up and down key to change the vacuum time. The longer time, and the higher vacuum degree, on the contrary, the lower degree of short time(the range of exhausting time is between 1-99 second). Press "set" key, again after getting the required exhausting time, and the "sealing pilot lamp" is on, and the machine enter the heat-seal time setting state.
- b. To set the sealing time, press "set" two times, the "sealing pilot lamp" is on. The machine enters the setting state if sealing time, and it shows the current sealing time. Set sealing time according to the thickness and material of vacuum-bag, press up and down key to increase or reduce the sealing time (the range of sealing time is between 0.1-9.9 second). Press "set" again after setting

sealing time, and the “cooling pilot lamp” is on and then machine enters the cooling time setting state.

- c. To set the cooling time: model 1: press “set” key three times, the “cooling pilot lamp” is on, and the machine enters the setting state of cooling time. It shows the current cooling time on time monitor, and user set the cooling time according to the sealing time and sealing temperature. Press up and down key to increase or reduce cooling time (the range of cooling time is between 0.1-9.9 second). Press “set” key again after sealing cooling time, and show “ED” that indicate setting is success, and machine start to run according to your setting digital. Model 2: the cooling time and heat-seal time is the same as the above.
- d. To set the Sealing temperature is adjusted according to thickness and material of bag. The adjustment of temperature have three shifts: high-middle-low. There are three pilot lamps on panel, in which have the neutral shifts (pilot lamp is off, it indicate that there is without temperature). Press the “temperature adjustment” key on time, the pilot lamp beats on time, continues to press it, the temperature circulate beat among three shifts and neutral shift. As long as pilot lamp in any shift is on, it indicates the temperature is this shift one.
- e. Vacuum degree, sealing time, cooling time and sealing temperature are set by the requirement of user.

7. Inspection and adjustment

7.1 After opening the **container**, check whether accessory is completely, and the screws in all parts of the machine are tighten and the organic glass cover move up and down freely.

7.2 Lubricate the moving parts, oil hole and oil nozzle regularly. Add rational gasoline, **vacuum oil** into vacuum pump, oil level is between 1/4-3/4 of oil window.

7.3 Adjustment

7.3.1 Vacuum degree adjustment

According to the requirement of packing goods, choose the best exhausting time to obtain the appropriate vacuum degree. The longer exhausting time, the higher vacuum degree.

7.3.2 Adjustment of heat-seal time and temperature

According to the bag material and different product, choose the best heat-seal temperature (1-3 shifts adjustable) and heat-seal time (0.1-9.9second) one panel. Adjusting is from low to high until the best seal intensity and appearance.

8. Operation process

8.1 Connect to power supply, turn on the power switch, namely, the pilot lamp is on, Set exhausting time, heat-seal time and heat-seal temperature.

8.2 Put the product into packing bag (plastic compound or aluminum foil bag) into the vacuum chamber and put the bag top under heating seal strip orderly.

8.3 Press cover down, and the pilot lamp for vacuum in panel is on. The vacuum pump is exhausting, and the cover is sucked automatically. Adjust vacuum time according to the packing requirement.

8.4 When the exhausting time reaches the set one (required vacuum degree), the process are finished, and the pilot lamp is off. Now the pilot lamp for heat-seal time is on and begin to seal. There are heat-seal time and temperature adjustment buttons on panel to adapt the different thickness material, and according to the specification of bag.

8.5 When time reached the preset, the pilot lamp is off. It means the heating seal is finished and exhausting electromagnetic valve works. The air enters into vacuum chamber, and the cover is lifted up. Now the packing process is completed and turns to next process.

9. Trouble and shooting

9.1 Can not vacuum and vacuum degree is low

9.1.1 Check if the vacuum pump rotates anticlockwise, and the rotating direction of vacuum pump is the same as the arrows marked in motor.

9.1.2 When using new machine, the gasket in cover doesn't touch the vacuum chamber well.

9.1.3 Check if the micro-switch is connected well.

9.1.4 The release electromagnetic valve isn't closed well, check if the release electromagnetic valve and its

axis (rubber) is damaged or polluted and its axis is moving away. Please repair if replace if appears above states.

9.1.5 Check if the parts are leakage or loosed.

9.2 The heat-seal quality isn't good.

9.2.1 Check if the bag mouth is clean.

9.2.2 Check if the heating element works regularly.

9.2.3 Check if the transformer output the voltage, if it isn't output, please check the input circuit. If transformer has input but without output, replace the transformer.

9.3 Main board trouble

9.3.1 Keep electric circuit of main board clean and dry. Not allow the metal on surface in order not to cause short-circuit of main board interior, or the procedure chaotic.

9.3.2 Machine doesn't vacuum and heat-seal, check the relative plug is connected well or button is damaged.

9.3.3 The digital board shows the trouble or without action indicates, check the plug of digital board is loose or digital board is damaged.

9.3.4 One of heat-seal shifts is out of work, check the plug of relative relay isn't connected well or the relay is damaged.

10. Maintenance

10.1 Read the manual carefully before operation.

10.2 Add oil into the vacuum pump periodically.

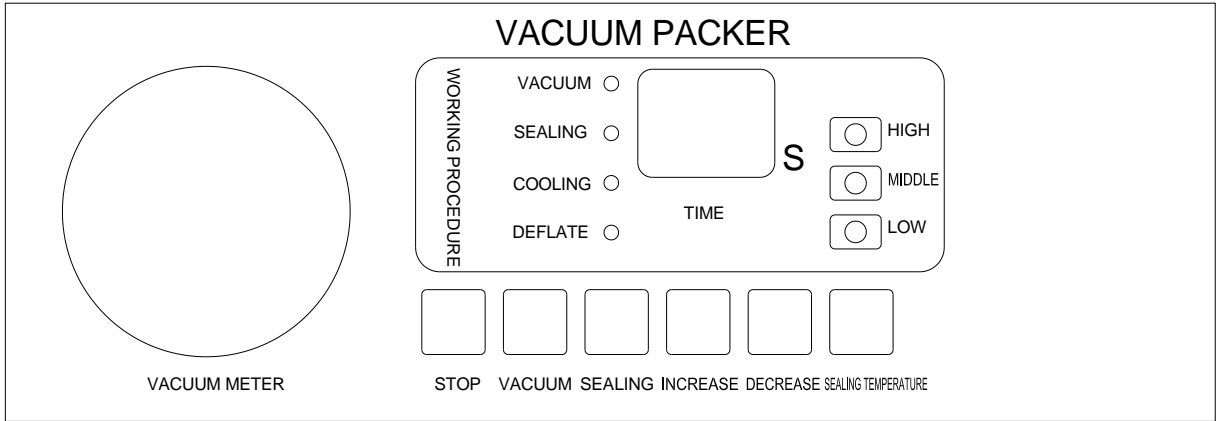
10.3 Check if the machine is connected well with ground.

10.4 check if the Teflon tape surface is clean, smooth and strong sealing.

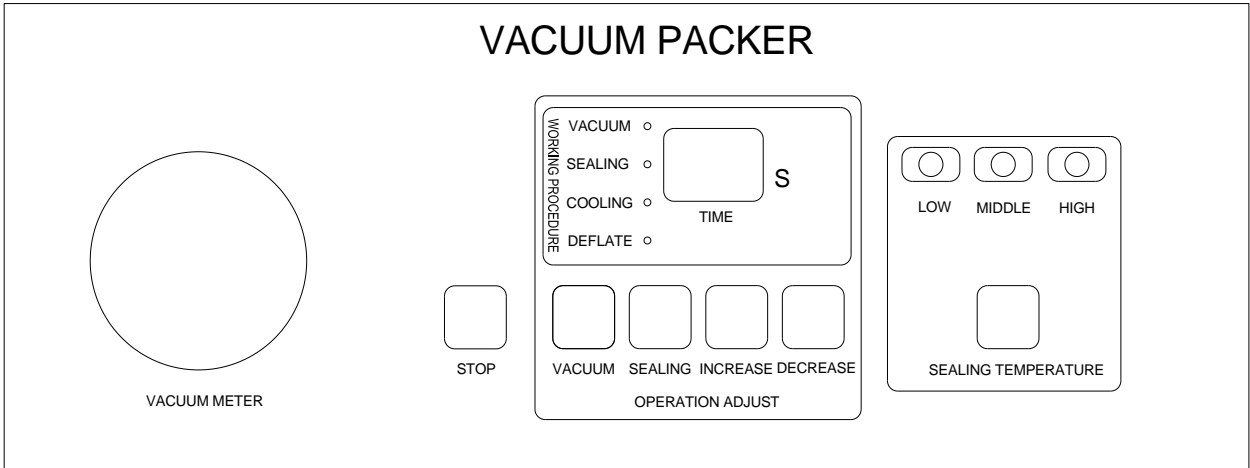
10.5 Turn off the power while appears trouble, or press the emergency stop.

10.6 Lift the cover up after releasing air, then turn of power and check it.

11. Control panel 1

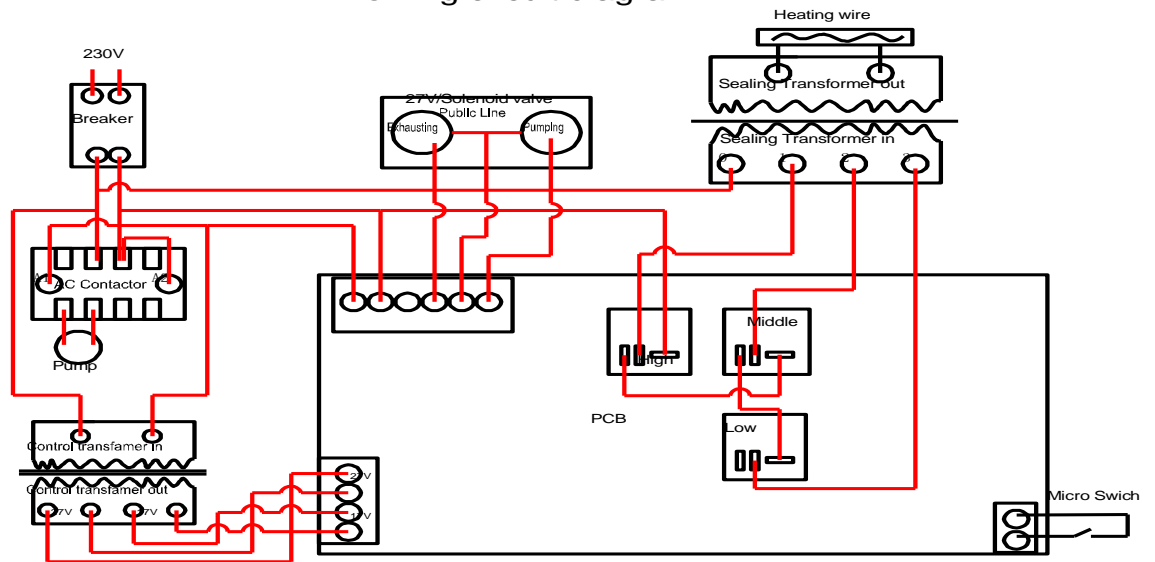


Control panel 2



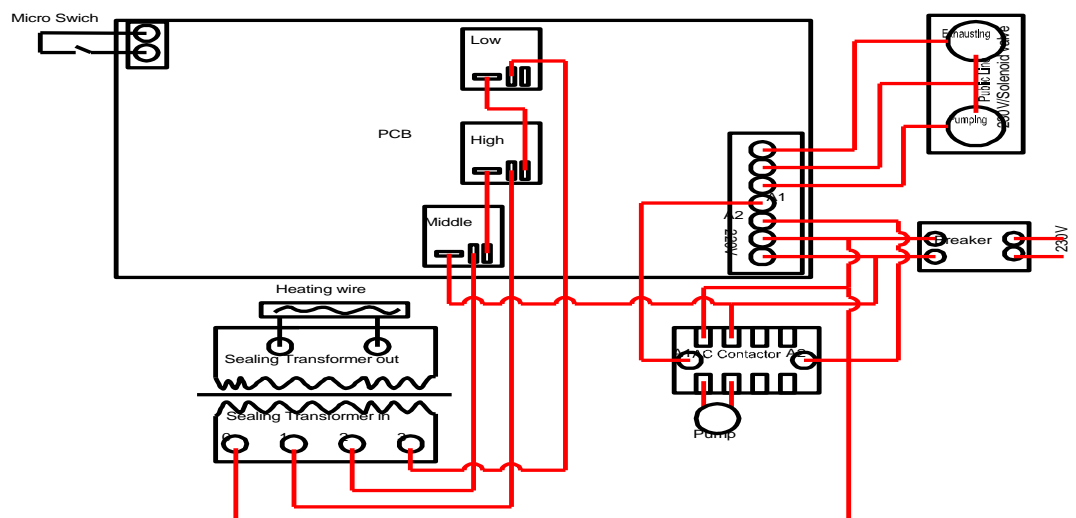
12. Model 1 electric principle diagram

Working circuit diagram

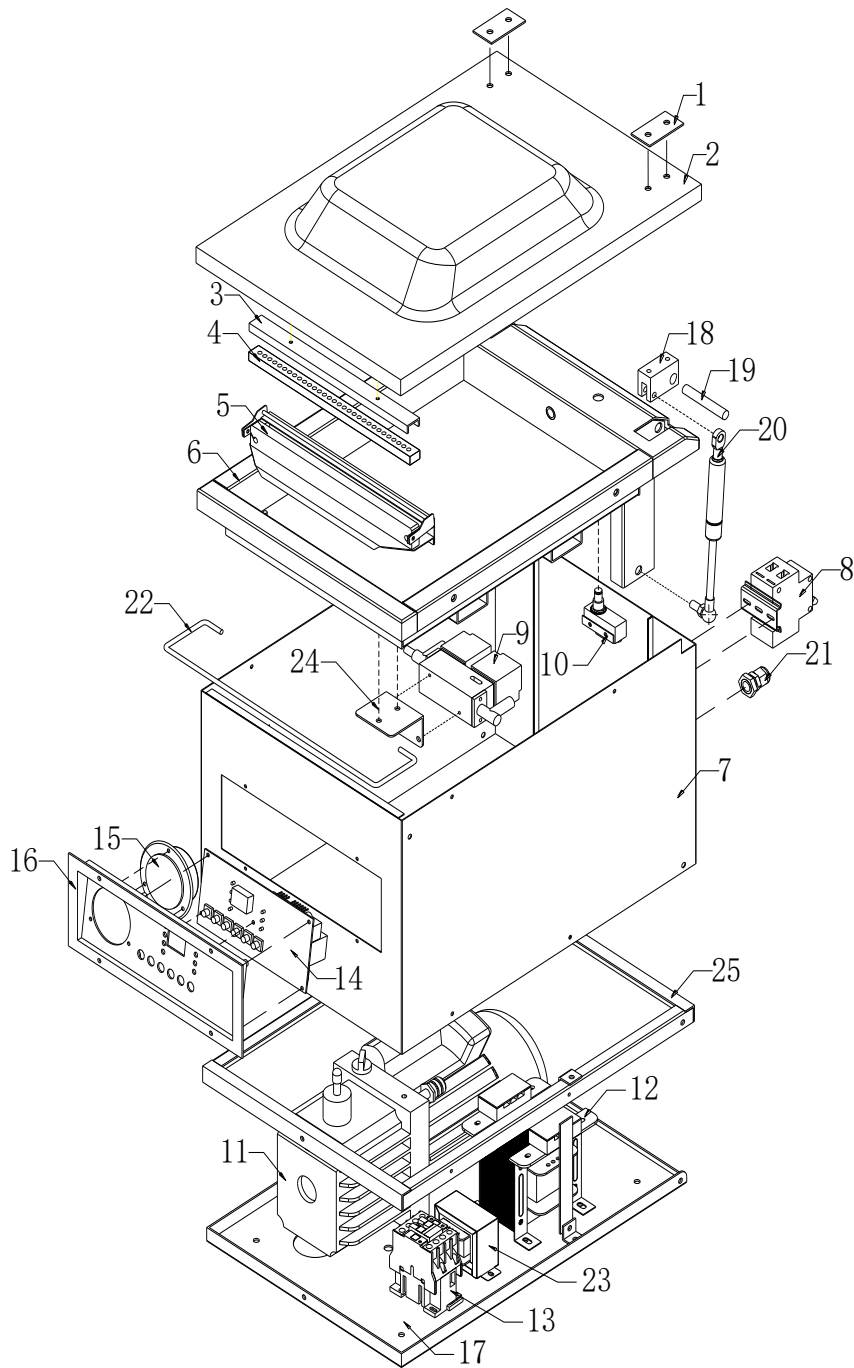


Model 2 electric principle diagram

Working circuit diagram



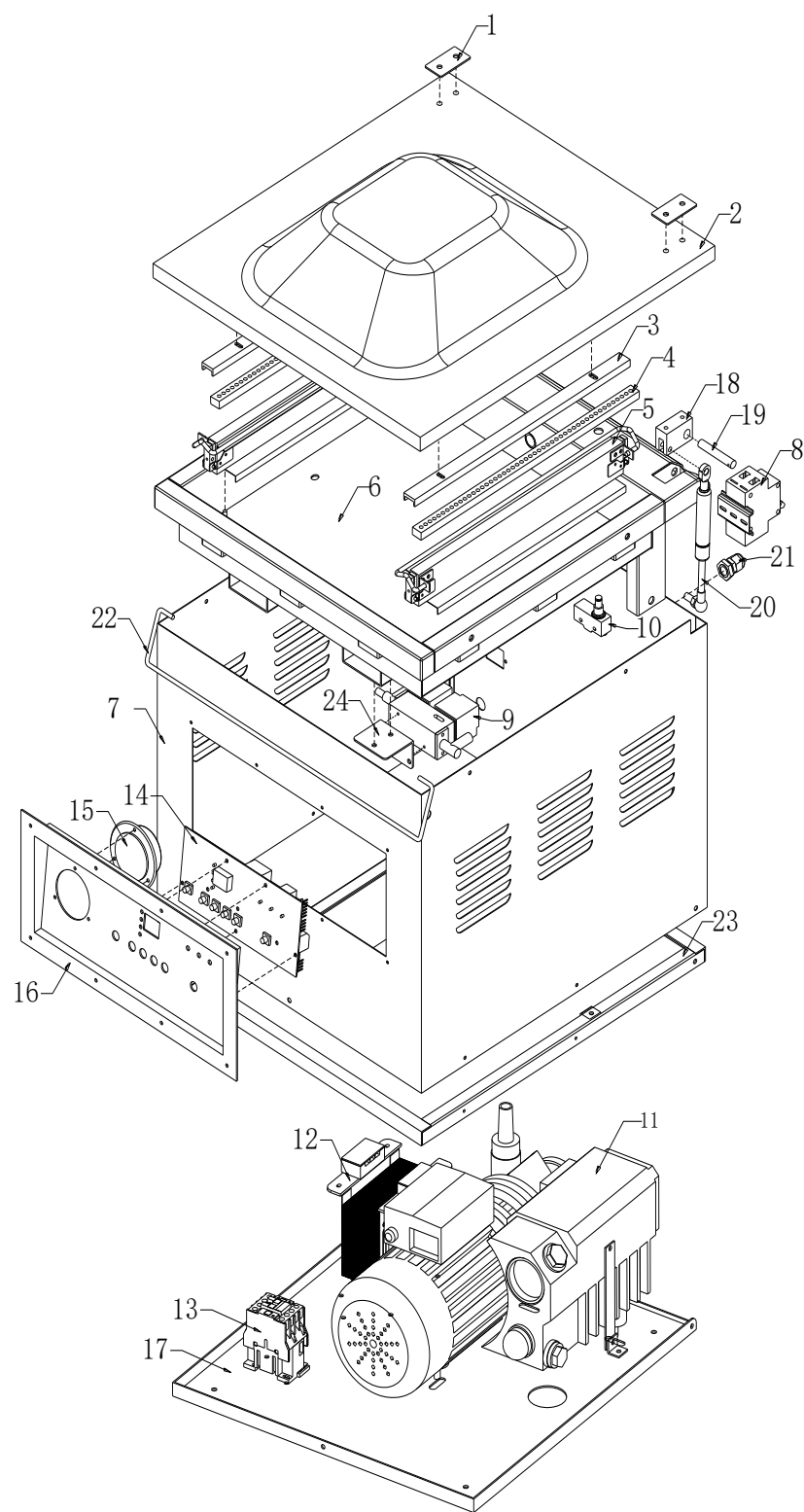
13.Model 1 Parts



Outlook and control panel

vacuum packing mahcine parts list		
Number	Name	USE Quantity
1	Cover's Platen	2
2	Plexiglass cover	1
3	Silicone seat	1
4	Silicone	1
5	Heating block	1
6	Vacuum chamber	1
7	Chassis	1
8	Breaker	1
9	Solenoid valve	1
10	Micro Switch	1
11	Vacuum pump	1
12	Sealing transformer	1
13	AC contactor	1
14	Control Panel	1
15	Vacuum Meter	1
16	Panel frame	1
17	Chassis's Bottom plate	1
18	Gas spring bracket	2
19	Gas spring pin	2
20	Gas spring	2
21	Power line waterproof connector	1
22	Gland bars	1
23	Low voltage control transformer	1
24	seatSolenoid valve seat	1
25	Bottom side box	1

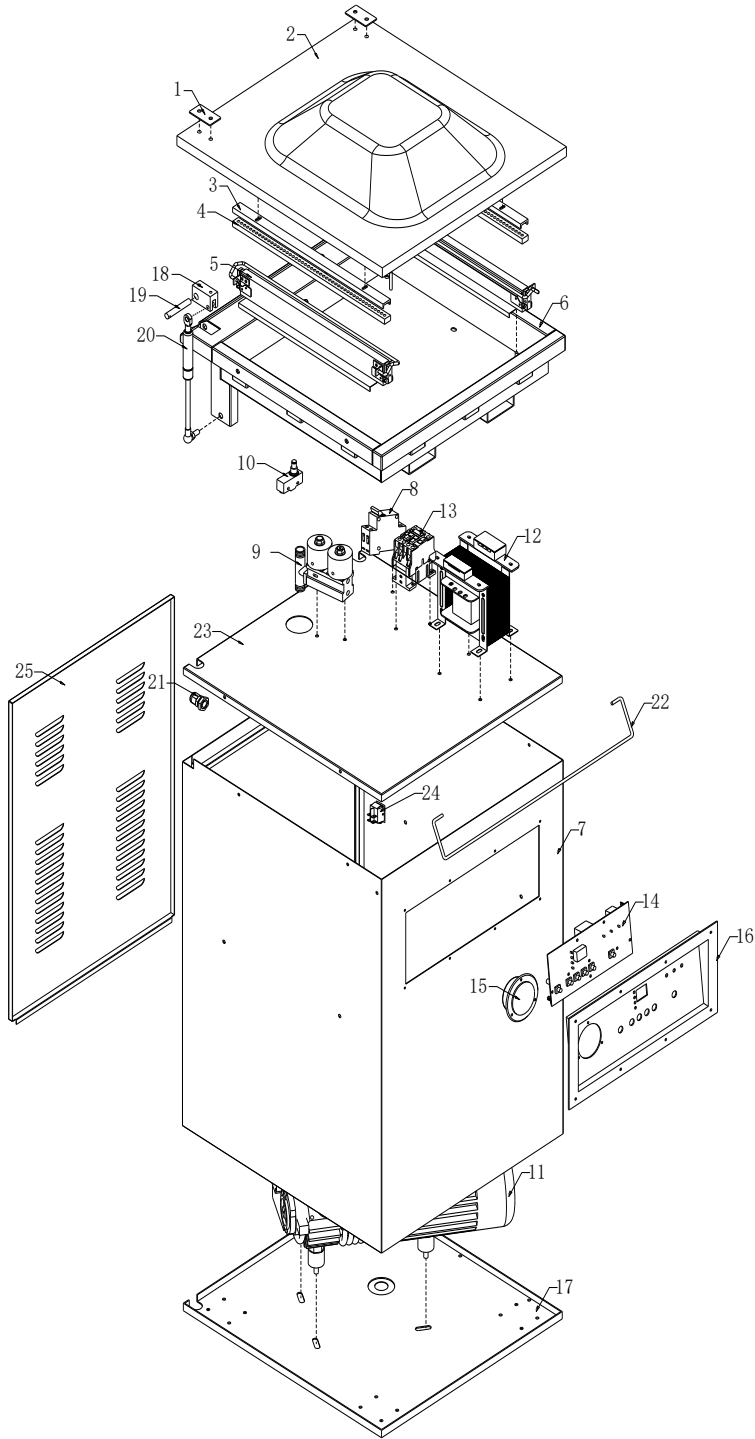
Model 2 Parts



Outlook and control panel

vacuum packing mahcine parts list		
Number	Name	USE Quantity
1	Cover's Platen	2
2	Plexiglass cover	1
3	Silicone seat	2
4	Silicone	2
5	Heating block	2
6	Vacuum chamber	1
7	Chassis	1
8	Breaker	1
9	Solenoid valve	1
10	Micro Switch	1
11	Vacuum pump	1
12	Sealing transformer	1
13	AC contactor	1
14	Control Panel	1
15	Vacuum Meter	1
16	Panel frame	1
17	Chassis's Bottom plate	1
18	Gas spring bracket	2
19	Gas spring pin	2
20	Gas spring	2
21	Power line waterproof connector	1
22	Gland bars	1
23	Bottom side box	1
24	Solenoid valve seat	1

Model 3 Parts



Outlook and control panel

vacuum packing mahcine parts list		
Number	Name	USE Quantity
1	Cover's Platen	2
2	Plexiglass cover	1
3	Silicone seat	2
4	Silicone	2
5	Heating block	2
6	Vacuum chamber	1
7	Chassis	1
8	Breaker	1
9	Solenoid valve	1
10	Micro Switch	1
11	Vacuum pump	1
12	Sealing transformer	1
13	AC contactor	1
14	Control Panel	1
15	Vacuum Meter	1
16	Panel frame	1
17	Chassis's Bottom plate	1
18	Gas spring bracket	2
19	Gas spring pin	2
20	Gas spring	2
21	Power line waterproof connector	1
22	Gland bars	1
23	Middle layer plate	1
24	Switch	1
25	Rear cover	1

15. Packing list

Name	Quantity
Vacuum packing machine	1 SET
Pump oil	1 BOTTLE 0.5L
Heating wire	2 PCS
Teflon tape	2 PCS
User's manual	1 PC
Allen wrench 4mm 5mm	2 PCS
Screwdriver	2 PCS
Open-end wrench pump	1 PC