

PCJ Sealers

User Manual

SINGLE CHAMBER VACUUM PACKING MACHINE

DZ300A and DZ400A



Model Illustrated DZ400A

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PRE use Inspection

After opening the container, check against the packing list that all accessories are complete, and the screws in all parts of the machine are tighten and that the clear glass cover moves up and down freely.

The machine should have had the oil reservoir filled prior to despatch. Please check before using that the oil level in the vacuum pump is between $\frac{1}{4}$ to $\frac{3}{4}$ of oil window.

1. Summary:

These vacuum packing machines are mainly used for oxide-free vacuum packing (with compound film) of food stuffs, produce, famous and rare medical materials native and special products, marine products after they are processed. This machine combines vacuum, sealing, printing in one process, for different packing materials and requirements. With adjustable controls for the vacuum, heat-sealing temperature and time, so the users can get optimum selection and adjustment for an optimum packaging.

The printing device with a convenient letter-change and clear printing can meet every users need. With which users may print at the same time, sealing the valid period, date of ex-factory, code of ex-factory etc. To meet with the provision of the national food labelling law.

The machine features advanced design, full function, stable and reliable performance, good sealing strength, strong packing capacity, convenient operation and service, high economic benefit etc. It is the ideal machinery for all users who require vacuum packaging.

2. Usage:

These vacuum machines can use a variety of compound film and pack solids, liquids and powder products such as food stuff, medicine material, native and special product, marine product, chemical material and so on. The packaged production can avoid oxygenizing, mildewing, rusting, wetting, and pro-long the shelf life of products.

3. Feature:

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

This machine finishes draw vacuums, seals and codes in one operation. Users can 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 is of an advanced design, has a wide usage, strong sealing capacity and is easy to use.

4. Technical Specifications:

Model	DZ 300A
Vacuum chamber size	260×380×90mm
Max. low pounds per square inch absolute of vacuum chamber	≤1KPA
Effective heat-sealing size	260mm
Power source	220V 50Hz 370W
Size	410×380×400mm
Weight	36kg

Model	DZ 400A
Vacuum chamber size	520×460×70mm
Sealing length	400MM×2
Vacuum	≤1KPA
Capacity	2-3Times/min
Voltage and power	220V 50Hz/110v60Hz 1.5kw
Pump power	0.75kw
Sealing power	0.8kw
Dimension	575×575×530mm
Weight	40kg

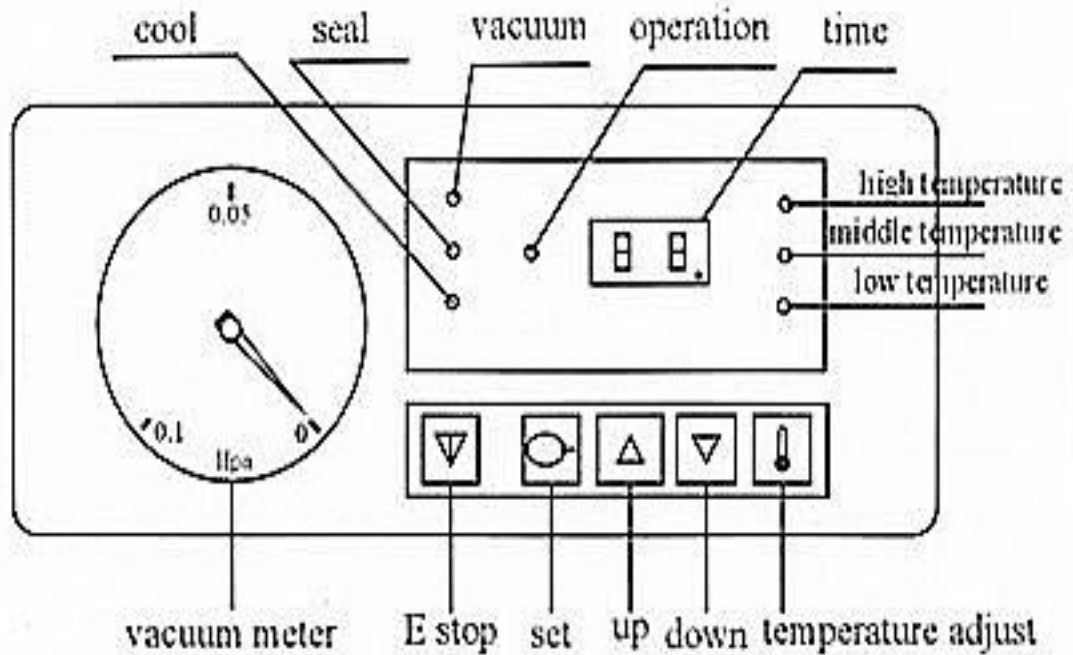
5. Structure and Principle:

The machine comprises of a clear cover, vacuum chamber, machine body, electrical appliance and vacuum systems. The vacuum chamber has a sealing device, the heating element being a nickel belt installed on a heat-seal frame and insulated within the vacuum chamber. The heat-seal frame touches snugly on the ballonet, which is in low vacuum state before sealing. When heat-sealing, the ballonet connects the air through the solenoid valve, inflating the ballonet and the heating element is pressed down to make the seal.

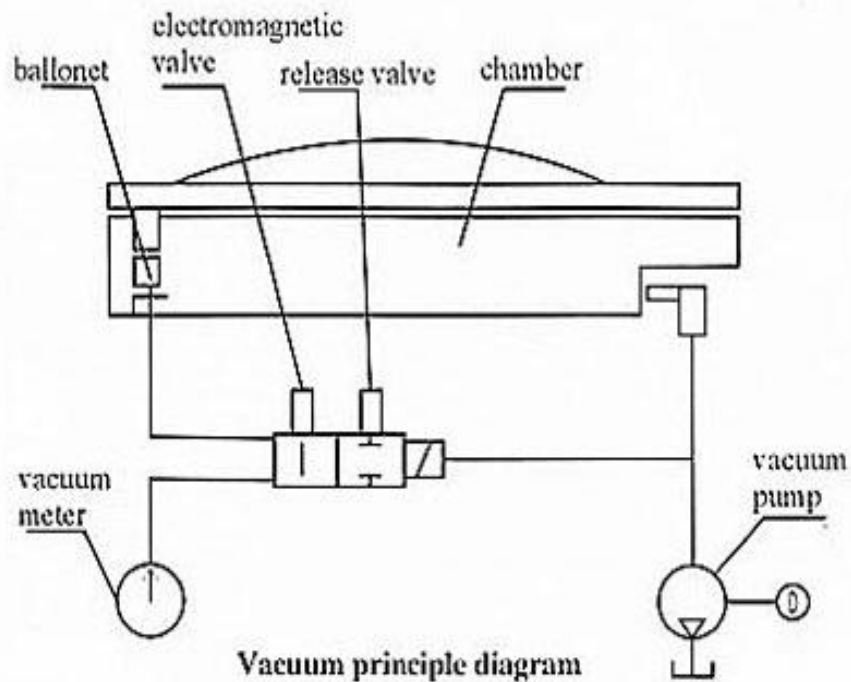
The machine power is AC 220V 50Hz, the motor for vacuum pump is AC 220v, the power for DZ300A is 0.37KW, and for DZ400A is a 75KW. This heating system is a pressure adjustable type. Its means, the first class of heating transformer is 220V, and second class has three stages (high, middle, low). Changing stages can change the sealing temperature, but the heat-seal temperature is adjusted by button on front panel.

The vacuum system comprises of heat-seal electromagnetic valve YV2 release electromagnetic valve YV1. When starting the vacuum pump draws the air out of the vacuum chamber. When the vacuum reaches the preset vacuum degree, the vacuum system stops running and the automatic sealing process begins once complete the cover will open and the whole process is complete.

6. Control panel layout:



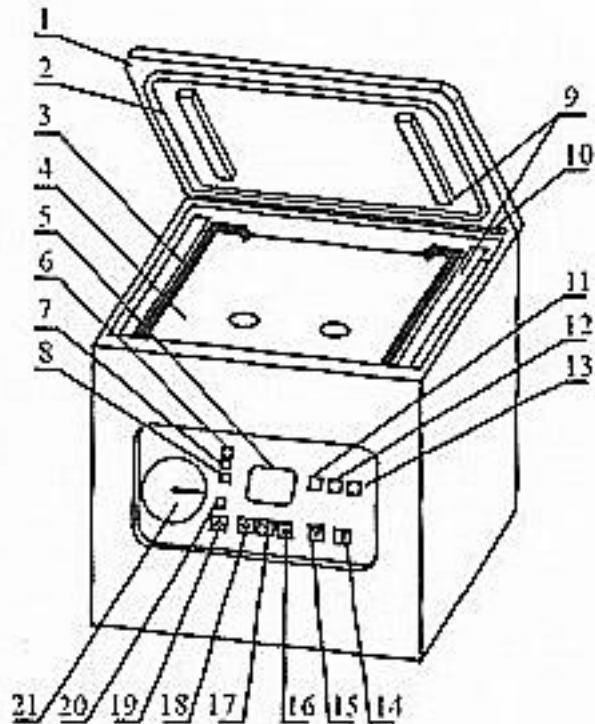
DZ300A control panel



Vacuum principle diagram

DZ400A Front Panel Controls and Descriptions

1. Clear Glass Cover
2. Gasket
3. Pressure Strip
4. Vacuum Chamber
5. Vacuum Time
6. Vacuum Pilot Lamp
7. Heat Seal Pilot Lamp
8. Cooling Pilot Lamp
9. Heat Seal System
10. Start Switch
11. High Temperature
12. Middle Temperature
13. Low Temperature
14. Temperature Adjustment
15. Down Button
16. Up Button
17. Heat Seal Time Set
18. Vacuum Time Set
19. Emergency Stop Button
20. Release Pilot Lamp
21. Vacuum Gauge



6. Control panel indication:

The Control Panel incorporates a vacuum meter, emergency stop button, setting buttons, up button, down button, temperature adjusting button, time display button, indicator lights and a pilot lamp on DZ400A model

Then set Vacuum degree, sealing time, cooling time and sealing temperature.

Model DZ300A:

To adjust vacuum degree: Press **SET** button, the vacuum pilot light will come on. The machine enters the adjusting mode of vacuum time; it shows the current vacuum time on the time monitor. Meanwhile, the user can set the vacuum time according to the requirements of the product. Press the up or down key to increase or decrease the vacuum time. The longer time set, the higher the vacuum. The range of vacuum time is between 1 Second and 99 second. Press the **SET** button, again after setting the required vacuum time, and the "sealing pilot light" will come on, and the machine enters the heat-seal time setting mode.

In order to adjust the sealing time. Press **SET** twice, the "sealing pilot lamp" now comes on. The machine enters the adjusting mode of sealing time, and it shows the current sealing time. Set sealing time according to the thickness and material of vacuum bag, press the up and down key to increase or decrease the sealing time (the range of sealing time is between 0.1 second and 9.9 second). Press **SET** button again after setting the sealing time, and the "cooling pilot light" will now come on and the machine enters the cooling time setting mode.

To set the cooling time: press **SET** button three times, the "cooling pilot lamp" is now on, and the machine enters the setting mode for cooling time, It shows the current cooling time on time monitor, and user can set the cooling time according to the sealing time and sealing temperature. Press up and down key to increase or reduce the cooling time (the range of cooling time is between 0.1 second and 9.9 second). Press **SET** button again after setting cooling time, and showing "Ed" that indicate the setting is success, and machine start to run according to your setting

Model DZ400A:

To set the Sealing temperature: The sealing temperature is adjusted according to thickness and type of material of the bag. The adjustment of temperature has three shifts: high-middle-low.

There are three pilot lamps on panel, in which have a neutral shifts (pilot lamp is off, it indicate that there is no temperature). Press the "**temperature adjustment**" button one time, the pilot lamp beats one time, continue to press it, the temperature circulates between three shifts and neutral shift. As long as pilot lamp in any shift is on, it indicates the temperature is in this shift.

Vacuum degree, sealing time, cooling time and sealing temperature are set by the user. These adjustments are made by using the appropriate button on the front panel.

7. Operating Instructions:

Connect to 230v power supply, turn on the power switch, the pilot lamp now illuminates. Set the exhausting time, heat-seal time and heat-seal temperature.

Place the product into packing bag (plastic compound or aluminum foil bag) into the vacuum chamber and put the bag top under the heating seal strip. Ensuring there are no creases

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.

When the exhausting time reaches the set one (required vacuum degree), the process is finished, and the pilot lamp is now 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.

When time reaches the preset, the pilot lamp is switches 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.

8. Troubleshooting:

8.1. Cannot vacuum and vacuum degree is low

8.1.1. Check if the vacuum pump has oil and rotates anticlockwise, also check the rotation direction of vacuum pump is the same as the arrows marked on motor case.

8.1.2 When using new machine, check that the cover gasket has a snug fit with the chamber.

8.1.3 Check if the micro-switch is connected and operating.

8.1.4 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 or replace if appears above states.

8.2 Poor heat-seal quality.

8.2.1 Check if bag opening is clean and PTFE tape clean, smooth and undamaged

8.2.2 Check operation Of heating element.

Check if the parts are leakage or loosed.

The heat-seal quality isn't good.

Check if the bag mouth is clean.

Check if the heating element works regularly.

Check if the transformer has an output voltage, if there is no output, please check the input circuit.

If transformer has input but no output, replace the transformer.

Main board trouble

Keep electric circuit of main board clean and dry. Do not allow metal on surface in order not to cause short-circuit of main board interior, Replace main board if this happens.

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

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

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

9. Maintenance:

Read the manual carefully before operation.

Add oil periodically into the vacuum pump to maintain levels.

Check if the machine is connected well with ground.

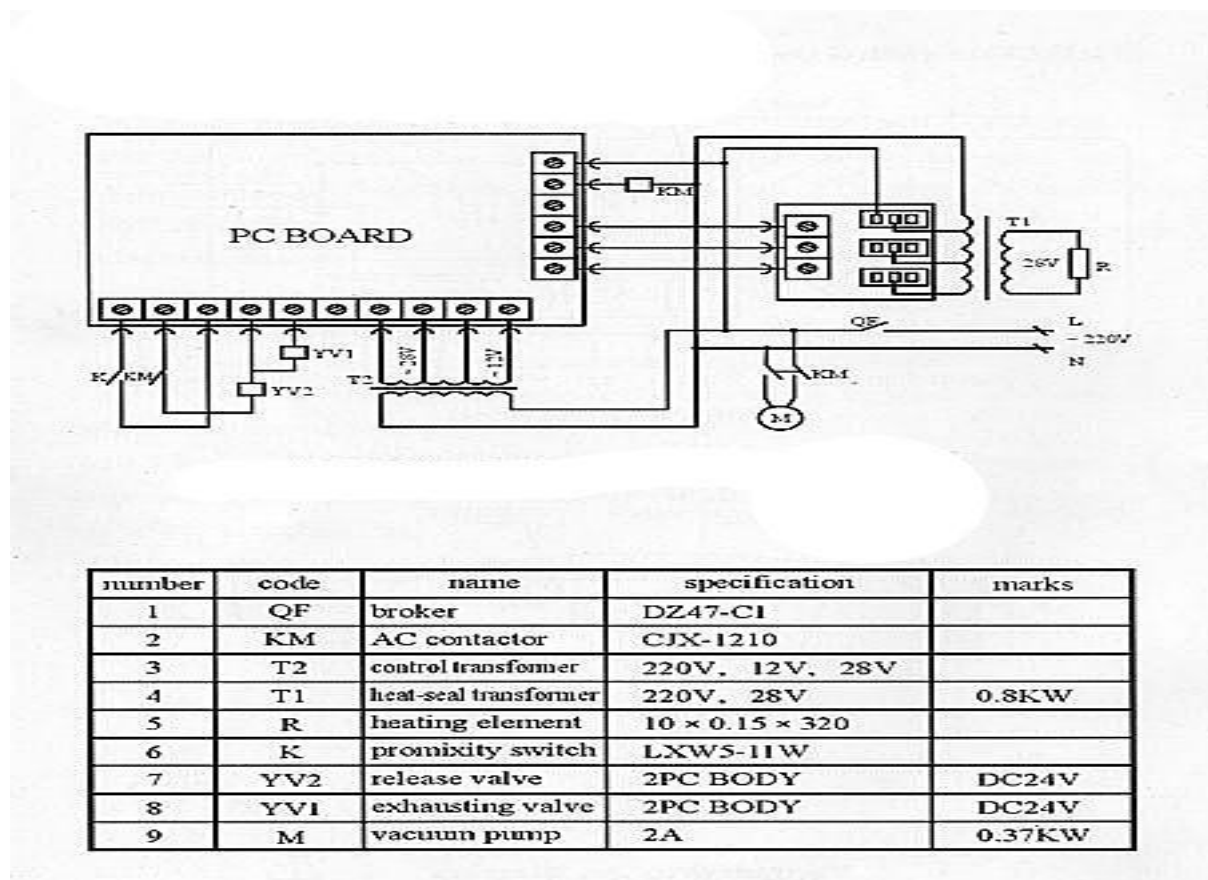
Check if the Teflon tape (polytetrafluoroethylene) is clean, smooth and strong sealing.

Turn off the power if there appears to be trouble, or press the emergency stop button if necessary. Lift up the cover after releasing the air and check

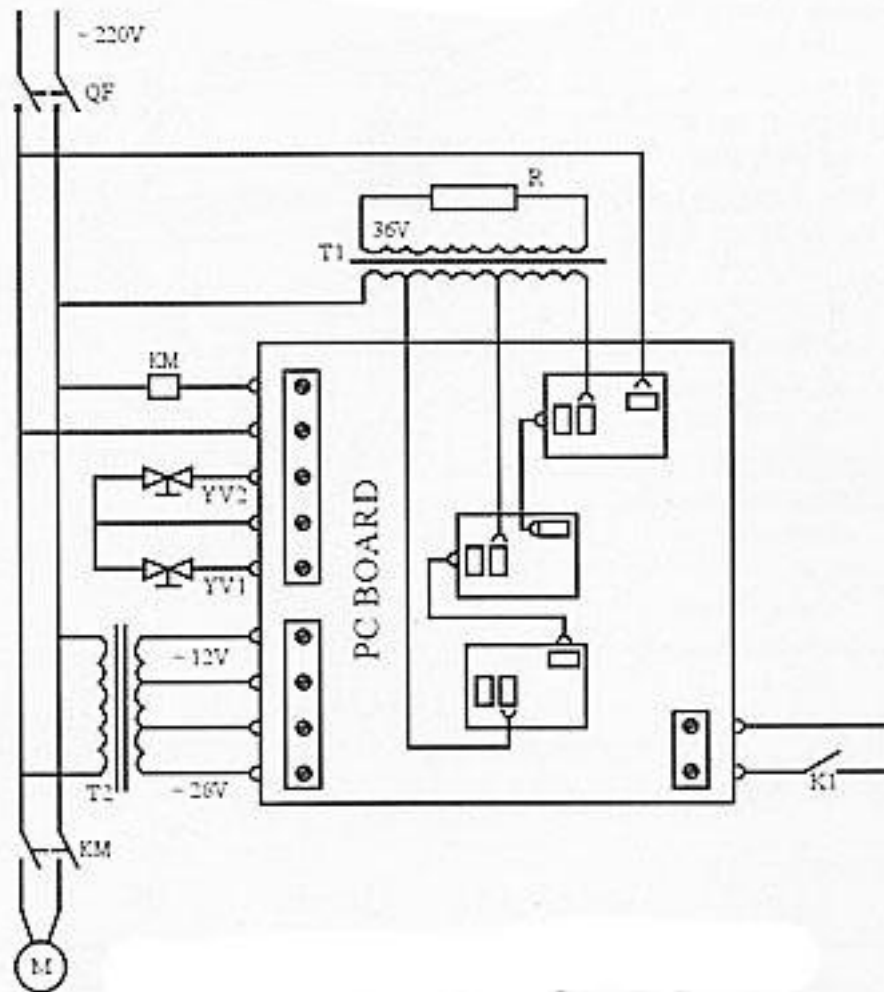
PCJ Sealers recommend that only qualified engineers service or maintain this machine.

When carrying out any maintenance on this machine **UNPLUG** from the mains supply.

10. DZ300A ELECTRIC PRINCIPLE DIAGRAM:



11. DZ400A ELECTRIC PRINCIPLE DIAGRAM:



number	code	name	specification	marks
1	QF	broker	DZ47-CI	
2	KM	AC contactor	CJX-1210	
3	T2	control transformer	220V, 12V, 28V	
4	T1	heat-seal transformer	220V, 28V	0.8KW
5	R	heating element	10 × 0.15 × 320	
6	K	promixity switch	LXW5-11W	
7	YV2	release valve	2PC BODY	DC24V
8	YV1	exhausting valve	2PC BODY	DC24V
9	M	vacuum pump	2A	0.37KW

12. Packing list:

Item	Quantity
Vacuum packing machine	1 SET
Pump oil	1 bottle 0.5 ⁴
Heating element	2PCS
Teflon tape	1PC
Manual	1PC
Inner hex spanner 4mm 5mm	2PCS
Screw driver 3 INCH	2PCS
Plug	1PC