



Model CE-975

Air-Cooled Continuous Electromagnetic Induction Sealing Machine Operation Manual



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I. General

The technology, in which aluminum plastic composite materials get heated and sealed through electromagnetic induction, is a relatively advanced and popular non-contact sealing technology both at home and abroad. The electromagnetic induction sealing machine manufactured under this principle has increasingly become the necessary equipment in medicine, pesticide, grease, subsidiary foodstuff, health product, beverage, cosmetics, chemical and other industries for high-quality airtight sealing of plastic, glass and other non-metallic bottles, so as to improve product quality level, achieve enhanced sealing and shelf-life performance, as well as meet higher requirements for anti-theft and security.

The company adopts the internationally advanced heating processing technology, and selects imported OEM components for key electronic components. Also, through improvements with years of accumulated production experience and exploration, it now has developed and produced Model LGYF-2000 Series electromagnetic induction sealing machine, which has made major breakthroughs in sealing range, machine performance stability and efficiency, becoming a high-quality but inexpensive induction sealing equipment more popular in the domestic market.

II. Principle:

Based on the principle that metal objects would produce vortex and thus generate heat under the high-frequency electromagnetic field, this machine relies upon electromagnetic induction aluminum to make foil heat and melt adhesive membrane on the lower layer of aluminum foil to bond with the sealing surface, to realize continuous, fast and non-contact sealing work.



III. Characteristics:

- ★ The sealing range of the machine is adjustable, and with either large or small sealing surface, can get the ideal sealing quality and efficiency.
- ★ In case of the equipment failure of the machine in the course of work, the conveyor automatically stops working, to realize the function of isolating the products sealed and those unsealed.
- ★ The conveyor belt adopts electronic stepless speed adjustment, and during the sealing process can based on voltage and current changes make speed adjustment in a timely manner, in order to achieve the best sealing quality.
- ★ In this machine, the height of sensor head adopts electric adjustment, capable of sealing the objects within the range of 40 to 400mm in height.
- ★ This machine has supply and voltage meter and sealing ammeter, so that it can make timely adjustments when voltage and current fails to meet normal job requirements, to ensure the sealing quality.



VI. Main Technical Parameters

1. Input voltage: AC220V \pm 10%, 50Hz
2. Input voltage: <10A
3. Sealing current: Static<2A Dynamic<10A
4. Operating frequency: 70~80KHz
5. Output power: \leq 2000W
6. Enclosure protection class: IP2 I
7. Sealing diameter: Φ 20mm~ Φ 130mm (Optimal diameter: Φ 30mm~ Φ 120mm)
8. Bottles height: 40~400mm
9. Transportation diameter: \leq Φ 200mm
10. Sealing speed: 2 to 12 m/min (bottle size, material, and sealing membrane)
11. Conveyor unit bearing load: \leq 20Kg
12. External dimensions: 155 \times 55 \times 135cm
13. Net weight: 70Kg



V. Equipment installation and use precautions:

1. It is necessary to connect the ground wire before use (**The ground wire should not directly use three-phase outlet for grounding, but a safe and reliable grounding wire should have connected separately, to ensure safe use of electricity**), and then switch on the power.
2. The cross-sectional area for power cord and ground wire should be not less than 1.5mm^2 . In case of use under supply voltage instability, mount AC automatic regulator, to ensure the quality of sealing and prevent damage to the equipment.
3. The equipment must be used in a dry, clean and ventilated environment, away from various types of heat sources.

Operating in the wet environment with severe acid corrosion will significantly shorten the use life of equipment.

For use in places with many dusts, the dusts in the sensor head and the host must be cleaned regularly.

4. The machine is only applicable for the sealing operations on plastic, glass, paper and other containers, **but NOT suitable for** those on metal and other derivative capacitors.
5. The requirements of induction machine sealing for selection of the sensing membrane and the bottle cap:
 - (1) The material of used sensing membrane must be the same as that of the sealed bottle.
 - (2) The optimum thickness range of foil on the sensing membrane is between 0.012 and 0.03mm. For the sensing membrane with the aluminum foil being less than 0.012mm in thickness, sealing speed and quality are not guaranteed.
 - (3) The vacuum aluminum plating composite membrane similar to aluminum foil induction membrane must not used.
 - (4) When using the sensing membrane without paper pad, the bottle mouth and cap must be smooth and without deformation.
 - (5) It is not applicable to non-threaded object sealing using the cover, as the cover can not completely press the sensing membrane flatly and tightly, resulting in the phenomenon of loose sealing closure.



VI. Operation steps:

1. Turn on the power switch (look at whether the voltage is normal), start the cooling fan, delay for 5 seconds and make the main circuit work, press the seal switch to make the seal work.

Note: it is prohibited to continuously and rapidly switch on and off the power supply and seal switch! Wait for at least 5 seconds after turning off the power switch, then re-open the power supply, or else, it would be easy to damage the equipment.

2. Adjust the sensing head to make it higher than the sealed object by 1 to 3mm. Place the sealed objects on both ends of the sensor head, and check whether the sensor head and the conveyor belt are parallel. If not parallel, adjust the pillar below the conveyor belt to make it parallel.

3. According to the bottle diameter, select the sealing range of the sensor head.

4. Press down the sealing switch, and try sealing. If the sealing is not firm, reduce the speed of conveyor belt. If the sealing membrane is burnt, increase the conveyor speed or increase the sensor head. After the requirements on sealing quality are met, continuous automatic sealing operation can start.

5. To ensure that the seal will be always in the best working condition, conduct the sealing process test, to identify the optimum process parameters and make records. After debugging is done, prevent accidental changes in the normal production. Also conduct regular sampling, to avoid sealing of the substandard products.

6. When the operating current is excessive, the machine's over-current protection function is activated, and the conveyor belt automatically stops working. At this time, appropriately pull up the spacing between sensor head and sealed object, to reduce the operating current. After adjustment, re-boot the machine to proceed with the sealing operation.

7. When the temperature of main circuit of the equipment is excessively high, the thermal overload protection function is activated, and the equipment automatically stops working. After the temperature drops to the normal state, the equipment will automatically start the sealing operation.



VII. Maintenance and repair:

1. The machine is electromechanical integration equipment. to avoid the equipment appliance from premature aging and damage, the working environment must remain clean and dry. Also, it is prohibited to use the machine in environment of high humidity, high corrosion, and high dust.
2. The instrument switches on the operator control panel shall not be immersed with water or other liquids, so as not to cause damage or leakage. During operation, do not use excessive force, to extend the service life.
3. The transmission part should be often added with the proper amount of lubricants, and no phenomena of blockade or serious friction should exist.
4. The sensor head and the electrical appliance in the chassis have high-voltage electricity. The untrained professional electrician shall not open the sensor head and the back cover of the electrical box, to avoid electric shock accidents.

**VIII. Warranty period:**

1. The machine has a warranty period of one year. During the warranty period, if the equipment quality problem arises during operation in accordance with requirements of this manual, the company is responsible for free repair, replacement of parts and original device until the replacement of a new machine.
2. The purchaser of this equipment shall request the Company or the local dealer to issue equipment warranty card and keep them in proper custody, as the future warranty certificate.

IX. Not under warranty responsibility:

1. There is no warranty proof.
2. The user has disassembled and repaired the machine on its own.
3. The user has caused equipment failure, damaged parts and electronic components for not operating as per the requirements in this manual.
4. Damages are resulted out of too low or too high supply voltage.
5. The warranty period expires.
6. Damages are caused due to human factors.

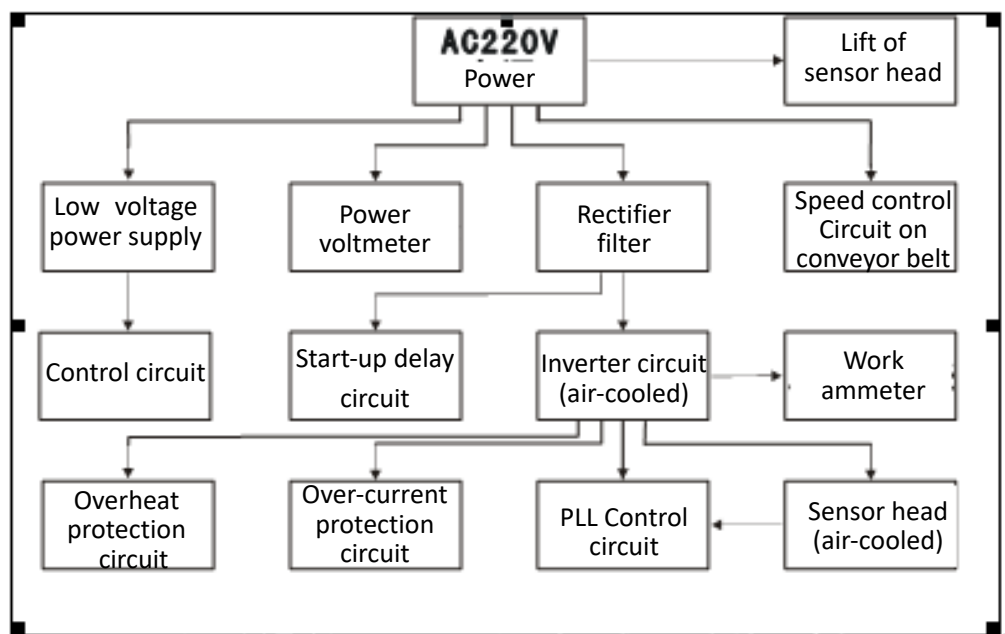
When the above situation occurs, the Company provides paid repair services.

**X. Packing list:**

No.	Name	Model Specification	Qty
1	Host	Model CE-975	1
2	Power cord		1
3	Fuse pipe	10A	3
4	Hexagon wrench	6", 8"	1 Each
5	Screwdriver	4" (Cross)	1
6	Machine Test Bottle	Φ40	20
7	Operation Manual		1
8	Ex-factory Certificate		1
9	Warranty Card (Triple sheets)		1
Note: The above are essential spare parts attached. Other customized accessories, if required, can be specified in the order contract.			



Attached drawings:



**Circuit Schematic Diagram of
Air-Cooled Continuous Electromagnetic Induction Sealing Machine**