KIOXIA LIGHT RING EQUIPMENT GROUP CO.,LTD.

TEL/WhatsApp: +86 17622605414

Mail: admin@transformercoilwindingmachine.com

Web:www.transformercoilwindingmachine.com

KXV-SC01 Single cylinder semi-auto vacuum impregnation machine



1. Vacuum impregnation machines are mainly used in various medium and small transformers, inductors, ballasts, relay contactors,

Insulation dipping process for coils of electronic parts such as motors, motors, electronic circuits, and frequency modulators. With improved insulating paint Penetration ability, increase filling rate, thereby improving the overall mechanical strength, insulation strength, moisture resistance and mildew resistance of the electronic coil etc. performance. It is also suitable for resin filling of various metal film capacitors, vacuum degassing process of electrolytic capacitors and medium and small resin crafts. Its advantages are uniform and thorough penetration, filling and degassing, short time, easy and safe operation, and no pollution. And vacuum degassing process for various plastic PU raw materials.

The coil is insulated under vacuum negative pressure. The insulating oil can quickly, evenly and thoroughly penetrate into every tiny pore and gap of the coil, and the surface is smooth. By quickly insulating the product, its insulation performance can be greatly improved, and the power consumption, vibration noise and low temperature of the product can be significantly reduced. It can also improve the quality of the product and extend the service life of the product. Therefore, The use of vacuum dipping paint is a process choice that traditional dipping paint cannot match and an equipment that improves market competitiveness.

The use of vacuum immersion paint shortens the soaking time dozens of times compared with the traditional immersion paint process. It also shortens the time and loss of materials in the oil dripping process, directly reduces product costs, and improves product quality and market competitiveness. Therefore, the vacuum impregnation machine is a necessary production equipment for the high standards and requirements of the modern electronics industry. It is also a necessary production equipment for products to compete in the international market.

2. Main technical parameters：

2.1 The inside of the vacuum paint dipping tank is 700*530*200 (according to user needs); it is divided into two layers: the upper layer is used for vacuum paint dipping and the lower layer is used for storing paint.

2.2 Vacuum degree: -0.095Mpa

2.3 Opening the gas spring cover

2.4 Equipped with vacuum pump XD-020 (5L/S)

2.5 Manual ball valve for returning paint

2.6 Install sealing ring on cylinder

2.7 Installed lighting on cylinder head

2.8 Vacuuming and releasing vacuum manual copper ball valve

3. Equipment composition: vacuum pump, paint dipping tank, paint storage tank (bottom of paint dipping tank) and electrical control part.

4. Equipment operation: Open the cover, place the preheated workpiece in the paint dipping tank, and close the cylinder cover. Only one person should operate when opening and closing the cover to avoid misoperation when multiple people are operating.

4.1 Vacuuming

Start the vacuum pump, close valve 1, open valve 2, when the vacuum indication reaches -0.095Mpa, maintain vacuum for about 5 minutes according to the size of the workpiece and coil diameter, and close valve 2. Open the vacuum valve of the paint storage tank and close the valve when all equipment operations are completed.

4.2 Dip paint

When the paint dipping tank is in a vacuum state, open the 3# valve (be careful to open the valve slowly to prevent the insulating paint from splashing to the upper cover). Let the insulating paint enter the paint dipping tank and immerse the workpiece. Pay attention to the liquid level and paint surface foam during operation. If there is a lot of foam, you should close the 3# valve and open the 1# valve to release the vacuum, then close the 1# valve and open the 2# valve to vacuum. When the vacuum reaches -0.095Mpa, close the 2# valve and open the 3# When the valve reaches the paint level, the workpiece is immersed.

The soaking time is generally 5 minutes. Stop the vacuum pump, close valve 2, and stop the vacuum pump.

4.3 Paint back

Open valve 1# (be careful to open it slowly to prevent the insulating paint from splashing onto the upper cover). Release the vacuum in the paint immersion tank. After the vacuum in the paint immersion tank is released, open valve 3 to return the paint. After returning the paint, close valve 3.

4.4 Paint dripping

After the paint is returned, let the paint drip for about 4-5 minutes. Open the cover, take out the workpiece, and dry it in the oven.

4.5 When using the vacuum pump, please pay attention to the rotation direction of the vacuum pump.

4.6 The liquid level in the paint storage tank shall not exceed 2/3 of the liquid level centerline.

5. Things to note

5.1 Fireworks are strictly prohibited in the dipping workshop. Fire-fighting equipment must be complete, including carbon dioxide fire extinguishers. Operators must have fire-fighting knowledge.

5.2 Whether the conditions are normal during shift handover, whether the insulating paint meets the requirements, whether the quantity is sufficient, and whether the total amount of insulating paint is too high.

5.3 There is very little solvent smell in the workshop before opening the cover of this equipment. If you find that there is a strong solvent smell in the workshop, you should check the equipment for leaks or abnormalities and eliminate them.

5.4 The viscosity of insulating paint should be checked regularly. When adding

insulating paint or solvent, open flame devices should be stopped in the workshop to avoid danger.

5.5 The paint dipping tank is the key equipment of this machine. During operation, attention must be paid to the height of the immersion paint liquid level to avoid affecting the vacuum pump.

If the paint dipping liquid level exceeds the height, the valve should be closed, the cover of the paint dipping cylinder should be opened, and the paint should be returned immediately. If any, it must be cleaned before use.

5.6 The vacuum pump should be maintained regularly. When the vacuum degree does not meet the requirements, all vacuum systems should be carefully checked.

Problems should be repaired in time and recorded. When the insulating paint used contains more than 30% solvent, the number of vacuum pump oil changes should be increased. If there is no leakage in the vacuum system but the vacuum degree does not meet the requirements, the vacuum pump oil must be replaced.

5.7 When the electrical control motor is not in use, pay attention to its operation and repair it if abnormal.

5.8 Under the premise of strictly abiding by the operating procedures 5 and precautions, the warranty is one year and lifetime warranty.

Packaging

Packaging Material: Carton/Wooden case with foam inside.

1. General package(Paper carton or plastic bag): For small equipped parts for Digital CNC Wire Coil Winding Machine, Package it with form and pack paper to guarantee unbroken during the transport.

2.Wooden case package: For larger scale Digital CNC Wire Coil Winding Machine ,we have special skilled carpenter, who would make the proper wooden case with exact thickness, density,length. The up arrow ↑marked on the outer wooden case. Buffer material would be put in the wooden case to prevent crack and shock.



6.FACTORY:

Founded in 1993, KIOXIA LIGHT RING EQUIPMENT GROUP CO.,LTD. has established itself as a well-known manufacturer specializing in high-performance winding machines, along with supporting production equipment, auxiliary technologies, and professional services. A notable addition to its comprehensive product lineup is the KXV-SC01 Single Cylinder Semi-Auto Vacuum Impregnation Machine—a specialized solution designed for efficient vacuum impregnation of wound components, enhancing their insulation and structural stability through precise, semi-automated processes.

Beyond manufacturing core winding machines and integrating auxiliary equipment like the KXV-SC01 Single Cylinder Semi-Auto Vacuum Impregnation Machine, KIOXIA LIGHT RING provides highly cost-effective comprehensive manufacturing solutions. These solutions cover the entire production chain of various wound components, including transformers, chokes, and more, delivering end-to-end support for efficient, high-quality processing across diverse manufacturing requirements.

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Add: Building G, No.209 Zhonghuan East Road, Free Trade Zone (Airport Economic Zone), Tianjin