KIOXIA LIGHT RING EQUIPMENT GROUP CO.,LTD.

TEL/WhatsApp: +86 17622605414

Mail: admin@transformercoilwindingmachine.com

Web:www.transformercoilwindingmachine.com

KX-900PM Epoxy Filling machine



1.Parameters：

Three-axis platform	journey	700mm ╳700mm ╳ 100mm
	Displacement speed	XY：250mm/s Z：100mm/s
	Displacement accuracy	≤±0.1mm
Two-component	Glue ratio	1 ： 1 ---10：1（Adjustable within range）
	Glue output speed	1g/s --12g/s
	Glue dispensing accuracy	≤±1%
Program Inventory		99 个
Operation method		Manual / Auto

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Proportional control	PLC/Double cylinder plunger
Ratio/glue quantity control	Digital Input
Automation Control System	Touch screen/button switch/handheld programmer
Glue supply unit	Dynamic mixing/automatic cleaning
Storage barrel	Stainless steel barrel（A25L/B10L），Cleaning bucket（5L）
	Liquid level sensing (low level/high level)
	AB Glue barrel mixing
	Glue constant temperature heating (room temperature -80°)
	Automatic loading
	Vacuum degassing
	Glue Filtration
Input air pressure	0.4MPa—0.7MPa
Power supply	220V/50Hz/5000W
Dimensions	1500mm×1000mm×1500mm

2. Functional introduction

This equipment is a two-liquid fluid metering and control equipment, suitable for the proportioning, mixing, quantitative control, etc. of two-liquid fluids.

2.1 Pretreatment of two-component glue (automatic feeding, vacuum degassing, glue barrel stirring, constant temperature heating, filtration, etc.);

2.2 Proportioning and quantitative of two-component glue;

2.3 Full mixing of two-component glue;

2.4 Quantitative dispensing of single-component glue;

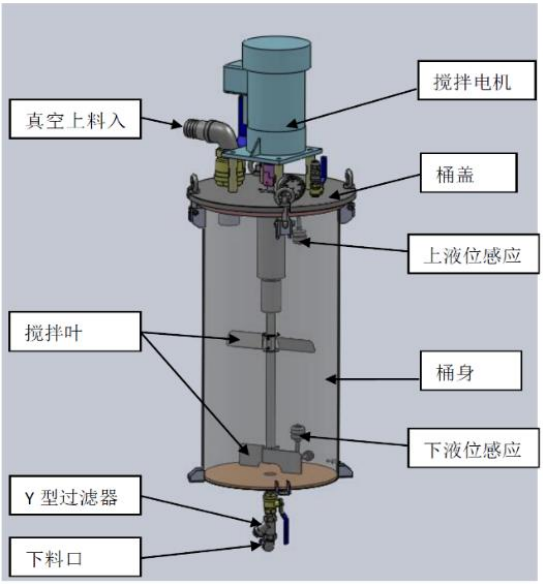
2.5 Automatic glue dispensing at set time to prevent glue from solidifying in the mixing tube;

2.6 Automatic cleaning;

2.7 Automatic glue filling of products of different specifications through program editing;

3. Pretreatment

AB glue is stored separately in the equipment. The glue needs to be pretreated before use to meet the gluing process. It can be done in AB glue barrels, made of stainless steel, with various volumes of 10L/25L/40L/60L.



3.1 Stirring the glue barrel

If the glue is left standing for a long time, stratification will occur. After the glue is heated, the viscosity becomes lower, and the filler in the glue will precipitate. Stirring the glue barrel can make the glue composition consistent. The AB glue barrel is heated by the heating plate on the barrel wall. Stirring can make the glue temperature in the barrel more uniform, and the stirring speed can be adjusted according to the needs of the site.

3.2. Liquid level sensor switch.

The upper liquid level sensor switch, when manual feeding or automatic glue

extraction, the glue liquid level reaches the upper liquid level sensor switch, alarm and take corresponding measures; the lower liquid level sensor switch, during the production process, the glue liquid level reaches the lower liquid level sensor switch, alarm and take corresponding measures.

3.3 Constant temperature heating

Due to environmental changes, the viscosity of the glue may change, which is not conducive to glue application. The glue barrel, metering pump, and pipeline are heated at a constant temperature to ensure the temperature and viscosity of the glue are stable.

3.4 Filtration

The bottom filter of the barrel prevents the possible debris in the barrel from blocking the pipeline and pump body;

3.5. Vacuum glue suction

The glue suction hose is inserted into the incoming barrel, and the AB glue is automatically sucked into the AB glue barrel through negative pressure, without manual dumping.

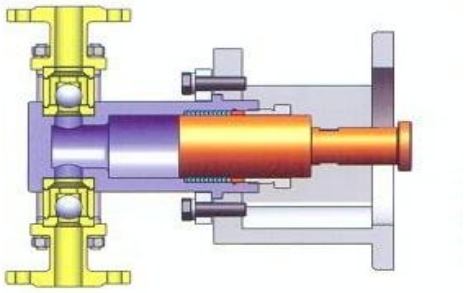
3.6 Vacuum degassing

Remove the bubbles generated during glue suction and stirring, reduce the air dissolved in the glue, and the vacuum degree and vacuum time can be set.

4. Glue Proportion, Quantity and Delivery

4.1 Metering Pump (Double Cylinder Plunger Pump)

In order to reduce its cost or achieve certain characteristics, fillers will be added to the glue. The glue pump is the core part of the glue filling machine and is the most important part of the entire machine. Therefore, a more wear-resistant plunger pump is used to supply glue to the machine. The parts of the plunger pump that constitute the sealed volume are cylindrical plungers and cylinder holes. The flow rate can be changed by simply changing the working stroke of the plunger. It is easy to realize variables and obtain higher ratio accuracy. The plunger pump is more wear-resistant than the gear pump and the glue output is more accurate. As a new glue supply method, it makes the machine have a longer service life and a longer equipment update time.



Plunger diameter: D
Plunger stroke per second: L/S
Glue output: V=∏(D/2)2L/S

4.1.1 The metering cylinder metering system has high ratio accuracy (±1%) and is suitable for the ratio of two-component materials with medium and low viscosity;

4.1.2 The graphite sealing component will not corrode, ensuring a longer life of the pump;

4.1.3 Equipped with Daheng high-pressure precision double-liquid glue valve, multiple sealing methods and back suction function, it is convenient for glue valve cleaning and precise glue dispensing;

4.1.4 Advanced system control can accurately program glue dispensing and pre-store multiple glue filling programs;

4.1.5 The control system module with built-in self-diagnosis function can realize rapid fault detection;

.4.1.6 Through the selection and combination of different metering cylinders, the variable ratio requirements of 1:1~10:1 can be achieved;

4.1.7 The double-cylinder plunger pump is a patented product of Daheng, and its structure has very good performance for glue with high filler and high density;

4.1.8 The pump body size needs to be customized according to the flow requirements and the usage requirements of individual products.

4.2 Hose



4.2.1 Strong toughness, not easy to break, no aging, no splitting, no color change after long-term use;

4.2.2 Teflon has stable chemical properties, corrosion resistance and high and low temperature resistance of -200 to +260 degrees, high insulation and flame retardancy;

4.2.3 No adhesion, any dust can be easily removed, good release effect, wear resistance coefficient as low as 0.05;

4.2.4 The length of the hose can be customized according to the customer's needs. The shortest path, Ø3.2 hose ensures its metering accuracy;

4.2.5 Carbon fiber heating belt, safe, stable, and high heating efficiency.

5.Mixing, anti-curing, cleaning

5.1. Mixing system (static mixing)

5.1.1 Static mixing is a high-efficiency mixing equipment without moving parts. Its basic working mechanism is to use the mixing unit fixed in the tube to change the cutting state of the fluid in the tube to achieve good dispersion and full mixing between different fluids;

5.1.2 The static mixing method is an international standard and is suitable for mixing liquids with small proportions or small viscosity differences. Its stability and mixing effect are accepted by a large number of equipment suppliers and customers;

5.1.3 The back-suction double-liquid valve with back-suction function ensures that the glue is closed cleanly and without drawing to avoid dripping on the product;

5.2. Anti-curing function

Short-term shutdown can set automatic glue dispensing according to the glue reaction time. The glue dispensing time and glue dispensing amount can be set to prevent the glue from curing and then mixing in the tube after mixing.

5.3. Automatic cleaning

Long-term shutdown can automatically clean the contact parts of the mixed glue without manual disassembly to prevent the glue from curing and blocking the pipeline. The double cleaning mode can prevent the glue from blocking the pipeline.

6. Three-axis motion platform

6.1. Gantry structure, mature and stable;

6.2. High-quality parts are selected to ensure its accuracy and stability, touch screen display operation, full Chinese interface, operation/display/record various parameter settings, point, line, arc, circle or various irregular graphics glue pouring, glue pouring program can be taught and edited, touch screen programmer supports whole column, graphical browsing, group editing and other functions;

7.Machine Configuration

category	Configuration	quantity	Brand
Body	Basic frame-square steel pipe welding structure/sheet metal	1set	\
Three-axis motion platform	XY axis: synchronous belt, Z axis: screw	3 sets	TBI
	Stepper motor and driver	3 sets	Leisai/Research and Control
Control System	PLC Programmable Controllers	1 set	Panasonic Japan
	Software system	1 set	GREWIN
	Industrial human machine interface touch screen	2PCS	Kunlun Tongtai
	Pneumatic components (battery valve/pressure regulating valve/pneumatic duplex, etc.)	Several	AirTAC
	Electrical components (relays/contactors/power supplies/leakage switches, etc.)	Several	Chint etc.

Glue supply part	Stainless steel A/B/C Plastic buckets	3 sets	\
	Liquid level alarm	2 sets	\
	A barrel mixing	1 set	Han Chuang
	Double cylinder plunger pump	2 set	GREWIN
	Metering pump motors and drivers	2 sets	Leisai/Research and Control
	Dynamic dual fluid valve	1 set	GREWIN
	Constant temperature heating	4 sets	Yudian
	High quality Teflon tube	2 sets	\
	Vacuum Pump	1 set	Flyover
	Clamp/Glue head	1 set	GREWIN

8.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.

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9.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 key offering in its comprehensive product portfolio is the KX-900PM Epoxy Filling Machine—a precision-engineered solution designed for accurate epoxy filling of wound components, enhancing their structural integrity, insulation, and environmental resistance through controlled, efficient filling processes.

Beyond manufacturing core winding machines and integrating specialized auxiliary equipment like the KX-900PM Epoxy Filling 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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