Automaattinen 4-akselinen liimausrobotti WPM-332

Model No. WPM-332



SPECIFICATIONS

Malli	WPM-332
Akseleita	4
Paineensäädön alue	0,05-0,9 MPa
Liikkuvuus	X-, Y-, Z-akselit ja referenssilevy
Toiminto	Automaattinen liimaus, manuaalinen liimausnappi, hätäseis
Ohjaus	Ohjainkytkin, nollauskytkin, aloitus/nollaus/pysäytys -nappi

Elevate Your Manufacturing Precision with the High-Performance Automatic Glue Dispenser Machine: Achieve Unparalleled Accuracy and Efficiency in Adhesive Application

Introduction:

In today's demanding manufacturing environment, achieving flawless and consistent adhesive application is critical for product quality and operational efficiency. Introducing the **High-Precision Automatic Glue Dispenser Machine**, a cutting-edge solution designed to revolutionize your dispensing processes. This advanced **Automatic Rotating Dispensing Robot**, also known as a **4 Axis Dispenser Robot Glue** or **Glue Spreader Machine**, automates and optimizes glue application, providing unmatched precision, speed, and versatility. Say goodbye to inconsistent manual dispensing and embrace the future of automated accuracy. From intricate electronics assembly to robust mechanical part coating, this machine is engineered to deliver exceptional performance and elevate your production capabilities.

Key Features and Benefits: Precision, Speed, and User-Centric Design

This Automatic Glue Dispenser Machine is meticulously engineered for superior performance and ease of use, offering a comprehensive suite of features to transform your adhesive application process:

- **Uncompromising Precision and Repeatability:** Achieve flawless dispensing with pinpoint accuracy. This machine boasts a **repeat accuracy of ±0.02mm-0.05mm (customizable within ±0.02mm)**, ensuring consistent and repeatable glue application for even the most demanding and intricate tasks. The **mechanical parts are processed by CNC** guaranteeing dimensional accuracy and consistent performance across every machine.
- **High-Speed Operation for Maximized Throughput:** Boost your production output with exceptional speed and efficiency. The machine achieves a **maximum speed of 300mm/s (customizable up to 800mm/s)**, significantly accelerating dispensing cycles and maximizing production throughput. This high-speed capability allows you to meet demanding production schedules without compromising precision.
- **Intuitive and User-Friendly Control System:** Operate with ease and efficiency using the **teaching hand-held control system**, developed in cooperation with leading domestic listed companies. The **teaching box with a**

320*240 LCD display provides a clear and intuitive interface for programming dispensing paths, adjusting parameters, and monitoring operation.

- **Precise Pressure Regulation for Optimal Dispensing Control:** Fine-tune your dispensing process with the integrated **pressure regulating valve**. This valve allows you to **adjust the syringe’ s inside pressure within a range of 0.05-0.9MPa**, providing precise control over glue flow and ensuring optimal dispensing for various adhesives and applications. The **pressure gauge** clearly displays the regulated pressure for easy monitoring.
- **Robust and Durable Construction for Industrial Environments:** Built to withstand demanding industrial conditions, the machine features a **molded aluminum profile construction**. This robust framework provides exceptional durability, a **beautiful appearance**, and **strong consistency**, ensuring long-term reliable performance and a professional aesthetic.
- **Modular Design for Easy Maintenance and Scalability:** Minimize downtime and simplify maintenance with the machine's **modular assembly process**. Each key component and position can be **dismantled separately**, allowing for quick and efficient replacement of accidentally damaged parts. This modularity also enhances scalability and adaptability for future upgrades or modifications.
- **Advanced Motion Control System for Smooth and Accurate Movement:** Experience precise and reliable movement across all axes with the sophisticated motion control system. The machine utilizes a **step/servo motor drive mode (imported from Japan)**, coupled with a **synchronous belt/Screw mandrel and Linear slide-way (Taiwan brand)**. This combination ensures smooth, accurate, and repeatable motion, essential for high-precision dispensing. The **special assembly process of the synchronous pulley and motor, combined with new technology synchronous belt**, eliminates tension and looseness issues common in long-term use, further enhancing reliability.
- **Large Program and File Storage Capacity for Complex Applications:** Handle complex dispensing programs and extensive data with ample storage capacity. The machine can **store 1,000 sets of processing data**, and a single processing file can occupy **up to 3M storage space (5,000 processing points)** in the program storage. The **hand-held box offers 256M file storage**, and the **card remover provides an additional 32M**, ensuring sufficient space for even the most demanding applications **(up to 100,000 processing points per file in file storage space)**.
- **Versatile File Support for Seamless Integration with Design Software:** Integrate seamlessly with your existing design workflows. The machine **supports document formats including CAD and CORELDRAW**, enabling direct import of design files and streamlining the programming process. Compatible file formats include **CAD and CORELDRAW files, PLT files, TCF files, and G code files**.
- **Desktop Design with a Small Footprint for Easy Integration into Workspaces:** Optimize your workspace utilization with the machine's **desktop design and small footprint**. This compact design makes it ideal for batch assembly line dispensing operations and allows for easy integration into existing workstations without requiring extensive floor space.
- **High Durability and Reliability for Continuous Operation:** Engineered for long-lasting performance and minimal downtime, the machine boasts **high durability** and is designed for demanding industrial environments. The robust construction and high-quality components ensure reliable operation, even under continuous use.
- **Clean and Precise Corner Dispensing for Enhanced Aesthetics:** Achieve visually appealing and high-quality finishes. The machine is engineered to deliver **no liquid residue and no skew in the shape of the corner R**, resulting in a beautiful and precise drawing of dispensing patterns, enhancing the aesthetic appeal of your products.
- **Adjustable Working Range for Diverse Product Sizes:** Adapt to various product dimensions with the adjustable working range. The **working range is selectable from 100mm to 400mm**, with various strokes available to suit different worksite requirements. This adaptability ensures the machine can handle a wide range of product sizes and dispensing areas.
- **Convenient Data Management and Program Transfer via U Disk:** Streamline data management and program transfer with the **dispensing program file upload/download capability via a U disk**. This feature facilitates easy

data backup, program sharing, and convenient transfer of dispensing programs between machines and computers, improving data management and saving valuable time.

- **Essential Control Buttons and Indicators for User-Friendly Operation:** Operate with confidence and control using the conveniently placed buttons and indicators:
  - **Controller Switch:** Provides clear on/off control of the control box power.
  - **Manual Glue Button:** Allows for manual glue dispensing with a simple button press and release.
  - **Reset Switch:** Pauses the running program and returns the machine to the origin, allowing for program reset and reprogramming.
  - **Emergency Stop Button:** Immediately aborts the program and stops the device for safety and emergency situations.
  - **Start/Reset/Pause Button:** Functions as a system reset switch upon power-up or emergency stop release, and as a start/pause switch during operation.
- **Robust Load Capacity for Handling Various Syringes and Dispensing Valves:** Accommodate different dispensing setups with a robust load capacity. The machine offers a **Y-axis load capacity of 5KG and a Z-axis load capacity of 2KG**, allowing for the installation of various syringes or dispensing valves depending on the specific process requirements. The **fixture hanging plate** provides a secure mounting point for the syringe or dispensing valve.

Technical Specifications:

Feature	Specification
Maximum Speed	300mm/s (Customizable up to 800mm/s)
Repeat Accuracy	±0.02mm-0.05mm (Customizable within ±0.02mm)
Control System	Teaching hand-held control system
Drive Mode	Step/servo motor (imported from Japan), synchronous belt/Screw mandrel, Linear slide-way (Taiwan brand)
Program Storage	1,000 sets of processing data (up to 5,000 processing points per file)
File Storage Space	Hand-held box 256M, card remover 32M (up to 100,000 processing points per file)
Support Document	CAD, CORELDRAW, PLT, TCF, G code files
Maximum Load (Y/Z Axis)	5KG/2KG
Power Supply	AC220V/110V, 50-60HZ, 350W
Pressure Regulating Valve Range	0.05-0.9MPa
Working Temperature	5~40 degrees
Working Humidity	20~90 degrees (No condensation)

Applications:

This Automatic Glue Dispenser Machine is a versatile solution for a wide range of industries and applications, including:

- **Electro-acoustic Industry:** Horns, audio equipment, buzzers, headphones (MP3/MP4).
- **Communications Industry:** Mobile phone cases, phone buttons, telephones, fax machines, walkie-talkies.
- **LED Industry:** LED bulbs, LED point light sources, LED strips.
- **Inductor Industry:** Chip transformers, small transformers, inductor coils, small coil motors, relays.

- **Electron Industry:** Integrated circuits, electronic components, electronic parts fixing, circuit board spot solder paste, LCD screens.

FAQ

Mitkä ovat WPM-332 4-akselisen automaattisen liimausrobotin keskeiset ominaisuudet?

WPM-332:ssa on korkeatarkkuinen 4-akselinen (XYZ ja kierto) liikkeenohjaus monimutkaisia liimausreittejä varten, säädettävä painesäätö 0,05–0,9 MPa:sta johdonmukaista liimaussauman tasaisuutta varten sekä integroitu hätäseis operaattorin turvallisuuden varmistamiseksi. Se on suunniteltu erityisesti luotettavaan, toistettavaan liiman levitykseen johtosarjatuotannossa.

Miten 4-akselinen suunnittelu hyödyttää johtosarjatuotantoa?

4-akselinen suunnittelu (X, Y, Z ja kiertoakseli) mahdollistaa robotin levittää liimaa tarkasti johtokimppuihin ja liittimiin useista kulmista ja monimutkaisissa kolmiulotteisissa muodoissa. Tämä varmistaa täydellisen, tasaisen peiton tiivistyksessä, sulkemisessa tai rasituksen lievityksessä johtosarjakokoonpanoissa, parantaen tuotteen luotettavuutta ja nopeuttaen tuotantoa verrattuna manuaalisiin tai vähemmän joustaviin automaattisiin menetelmiin.

Minkä tyyppisiä liimoja WPM-332 voi levittää?

WPM-332 on suunniteltu teollisuusluokan liimoille, joita yleisesti käytetään elektroniikassa ja johtosarjakokoonpanossa, mukaan lukien silikonit, epoksit, UV-kovettuvat liimat ja kuumaliimat. Sen tarkka painesäätö ja venttiiliohjaus varmistavat johdonmukaisen levityksen materiaaleille, joilla on laaja viskositeettialue, tehden siitä monipuolisen ratkaisun erilaisiin liittämis- ja tiivistyssovelluksiin.

Sopiiko WPM-332 suurten tuotantomäärien tuotantoympäristöihin?

Kyllä, WPM-332 on rakennettu teollisiin suurten tuotantomäärien tuotantotarpeisiin. Sen automaattinen, ohjelmoitava toiminta poistaa manuaaliset epäjohdonmukaisuudet, lisää merkittävästi tuotantonopeutta ja vähentää materiaalihukkaa. Kestävä rakenne ja luotettava tarkkuus varmistavat jatkuvan toiminnan vähäisellä seisokeajalla, mikä tekee siitä ihanteellisen investoinnin johtosarjatuotannon tuotannon skaalaukseen.

Miten tarkka levityskyky parantaa tuotteen laatua?

Robotin tarkka XYZ-akseliohjaus ja hieno painesäätö takaa tarkan liimasauman sijoituksen ja määrän jokaisella syklillä. Tämä poistaa yleiset ongelmat kuten alilevitys (joka voi johtaa vikaantumiseen) tai ylilevitys (aiheuttaen sotkua ja hukkaa), johtaen korkealaatuisempiin, luotettavampiin johtosarjoihin, joissa on johdonmukainen suorituskyky ja parannettu kestävyys.