



PD500D Five-Axis Linkage Dispensing Machine VR Glasses TWS Product Smart Ring TP Side Curved Screen Flexible Screen

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: MingSeal
- Certification: ISO CE
- Model Number: PD500D
- Minimum Order Quantity: 1
- Price: \$1000-\$150000
- Packaging Details: WOODEN
- Delivery Time: 5-60 days
- Payment Terms: L/C, T/T, D/A, D/P, MoneyGram, Western Union



Product Specification

- Product: Liquid, Adhesive
- Type: Volumetric
- Applications: For The Electronics Industry
- Other Characteristics: High-precision, Automatic, Robotic
- Dimensions W*D*H: 770x1200x2000mm(W/o Tricolour Light)
- Positioning Accuracy: X1/Y1/X2/Y2 $\pm 0.008\text{mm}$ Z1/Z2 $\pm 0.01\text{mm}$
B1/B2 $\pm 2\text{Arc Min}$ C1/C2 $\pm 26\text{Arc Sec}$
- Repeatability: X1/Y1/X2/Y2 $\pm 0.003\text{mm}$ Z1/Z2 $\pm 0.005\text{mm}$
B1/B2 $\pm 10\text{Arc Sec}$ C1/C2 $\pm 1.2\text{Arc Sec}$
- Max. Movement Speed: X1/Y1/X2/Y2 1300mm/s Z1/Z2 500mm/s
B1/B2: 1rps C1/C2: 4rps
- Max. Accelerated Velocity: X1/Y1/X2/Y2 13000mm/s² Z1/Z2 5000mm/s²
B1/B2: 10rps² C1/C2: 40rps²
- Z Axis Motion Range: 200mm
- Max. Dispensing Range: 200x200mm
- Standard: Cleaning Module Audible And Visual Alarm
System Vision Module Air Pressure

Product Description

PD500D Five-Axis Linkage Dispensing Machine

PD500D series five-axis linkage dispensing system is a piece of high-precision 3D dispensing equipment which is developed based on the dispensing requirements of smart wearable products such as mobile phone middle bezel, VR/AR frame and TWS shell. It can realize not only traditional linear interpolation, circular interpolation and curve interpolation, but also space arc interpolation, space ellipse interpolation and space involute interpolation, etc., and has the ability to dispense on complex irregular surfaces.

Features and Advantages

Ease of Operation

3D import: The dispensing trajectory is quickly generated by importing the product 3D diagram.

Real-time display of dispensing trajectory: The dispensing trajectory path is always consistent with the product overturning posture, improving the convenience of programming.

Graphical programming: The five-axis algorithm is optimized, so that the running trajectory of the camera is the real dispensing path, which is convenient for debugging.

Our Product Introduction

Achievement of High-Quality and High-Precision Dispensing

3D guidance: The dispensing trajectory is automatically generated by line laser scanning of the product to ensure the dispensing accuracy.

Position comparison mode: The uniform transition of the arc dispensing is realized by means of frequency conversion. The linear motor platform is adopted to ensure the equipment accuracy and stability.

Efficiency Improvement

Double-station design: The left and right stations work alternately to save the loading and unloading time.

Back-to-back design: Dispensing operation and glue path inspection are carried out simultaneously.

Quality Control

3D inspection: Online glue path inspection is realized by line scanning laser.

Solving of Incoming Material Consistency Problem

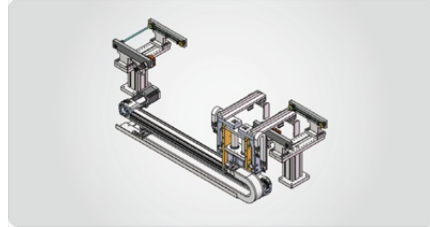
Visual edge grabbing: Precise control of dispensing position is realized by feature point position compensation.

Intelligent Closed-Loop Control System

The MES production traceability system can be expanded.

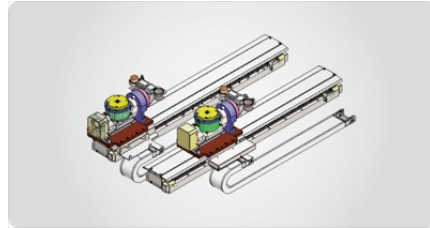
CCD Mark positioning function and CCD programming are supported.

Special Process Modules



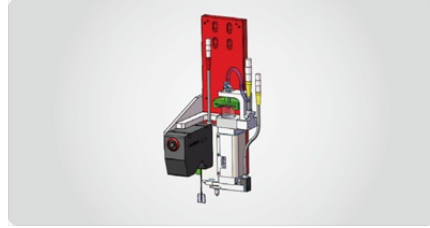
Online Pick & Place and Handling Modules

Unmanned loading and unloading are realized by automatic picking + handling to save the labor costs.



Double Y-Axis Conveying Module

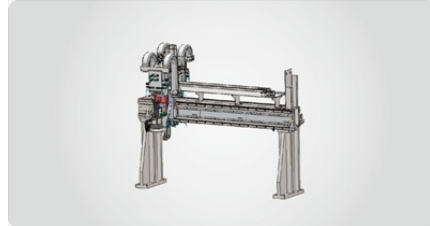
The double stations work alternatively to improve the production efficiency.



3D Vision Module

3D guidance: The dispensing trajectory is automatically generated by line laser scanning of the product to ensure the dispensing accuracy.

3D inspection: Online glue path inspection is realized by line scanning laser.



Dispensing Detection Execution Module

Back-to-back design: Dispensing operation and glue path inspection are carried out simultaneously to improve the production efficiency.

Application Fields

TP Side Dispensing

Curved Screen Dispensing

Flexible Screen Side Dispensing

Smart Bracelet / Watch Dispensing

Smart Ring Dispensing

LiDAR Optical Component Dispensing

Special-Shaped Screen Dispensing

Mobile Phone Middle Bezel Dispensing

Flexible Screen FPC Reinforcement

VR Glasses Dispensing

TWS Product Dispensing

Technical Specifications

Model	PD500S	PD500D
Dimensions W*D*H	770 × 1200 × 2000mm(w/o tricolour light)	1087 × 1630 × 2000mm
Positioning Accuracy	X1/Y1/X2/Y2: ±0.008mm Z1/Z2: ±0.01mm B1/B2: ±2Arc min C1/C2: ±26Arc sec	X1/Y1/X2/Y2: ±0.008mm Z1/Z2: ±0.01mm B1/B2: ±2Arc min C1/C2: ±26Arc sec
Repeatability	X1/Y1/X2/Y2: ±0.003mm Z1/Z2: ±0.005mm B1/B2: ±10Arc sec C1/C2: ±1.2Arc sec	X1/Y1/X2/Y2: ±0.003mm Z1/Z2: ±0.005mm B1/B2: ±10Arc sec C1/C2: ±1.2Arc sec
Max. Movement Speed	X1/Y1/X2/Y2: 1300mm/s Z1/Z2: 500mm/s B1/B2: 1rps C1/C2: 4rps	X1/Y1/X2/Y2: 1300mm/s Z1/Z2: 500mm/s B1/B2: 1rps C1/C2: 4rps

Max. Accelerated Velocity	X1/Y1/X2/Y2:13000mm/s² Z1/Z2:5000mm/s² B1/B2: 10rps² C1/C2: 40rps²	X1/Y1/X2/Y2:13000mm/s² Z1/Z2:5000mm/s² B1/B2: 10rps² C1/C2: 40rps²
Z axis Motion Range	200mm	200mm
Max. Dispensing Range	200×200mm	200×200mm
Standard	Cleaning Module,Audible and visual alarm system,Vision Module,Air pressure regulation module,Piezoelectric Valve,Standard Operation Software,Needle calibration module,IPC Industrial Control Computer,Nozzle heating device,Single-station(single Y axis actuation units)	
Optional	Low liquid level detection and alarm,Weighing module ,Laser calibration module,Special cleaning module,Dispensing Module (Screw Valve/Precision Dispensing Controllers,etc) , Automatic loading/unloading,Bar code&QR code recognition,3D contouring Track programming guidance,3D contouring glue shape inspection,Duplex station (Dual Y axis actuation units) , Front and rear dispensing (Dual X actuation units) ,on-line conveyor modules	



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