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

Our Product Introduction

## 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: 770×1200×2000mm( W/o Tricolour Light)
- Positioning Accuracy: 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
- 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: 200×200mm
- Standard: Cleaning Module、Audible And Visual Alarm System、Vision Module、Air Pressure

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Our Product Introductio

## 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.

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**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.

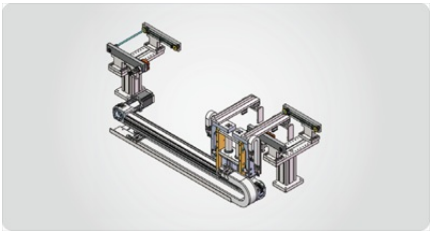
**Efficiency Improvement**
Double-station design: The left and right stations work alternately to save the loading and unloading time.
Back-to-back design: Dispensing operation and glue path inspection are carried out simultaneously.

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

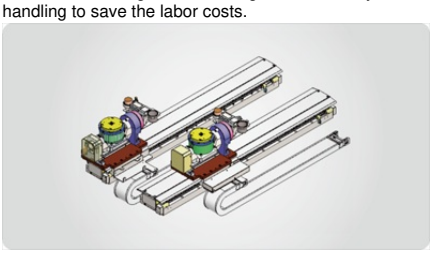
**Solving of Incoming Material Consistency Problem**
Visual edge grabbing: Precise control of dispensing position is realized by feature point position compensation.

**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) | 1087x1630x2000mm |
| 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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