



CHARMHIGH

Chinese Leading Brand of High-end Pick and Place Machine

TM08

8-head High-speed High-precision Multi-function
Pick and Place Machine



CHARMHIGH TECHNOLOGY LIMITED

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Specifications

Dimensions	1280mm(L) × 1580mm(W) × 1500mm(H)
Weight	1450kg
Power Supply	AC220V(50Hz, single phase), 3.5kw
Air Supply	0.5MPa ~0.7MPa
Vacuum Generation	Built-in vacuum pump
Mounting Head Quantity	8
Mounting Speed	Optimal Speed 35000CPH (best conditions under our company);
Mounting Accuracy	(xy)±0.05mm CPK≥1.0
Component Height	≤12mm
Component Type	Resistor capacitor exclusion, cylindrical diode, aluminum capacitor, SOT, SOP, QFP, QFN, BGA, etc
Component Range	Inch size 0201 to 36mm*36mm, and larger components mounting
PCB Thickness	0.6mm~3.5mm
PCB Size	600mm(L)×350mm(W) (standard) ; 1200mm(L)×350mm(W) (optional)
PCB Conveying	3-section-rail automatic conveying,PCB support
Nozzle Change	Automatic nozzle change (31-hole nozzle library)
Control System	Built-in industrial computer (Windows7) equipped with monitor,keyboard,and mouse
Drive System	X&Y axis driven by Panasonic A6 servo motors (Y axis by double motors); adopting flexible S-curve acceleration and deceleration
Transmission System	Ball screw + linear guide (Y axis with double screws)
Feeding System	80 NXT 8mm standard feeder stacks (also suitable for IC tray and stick feeder)
Vision System	Fly camera×8 (component size applicable: 16mm×16mm) IC camera×1 (component size applicable: 36mm×36mm),it has the function of image stitching Mark camera×2



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Optimal Speed: 35000CPH (under the best conditions of our company)

Mounting Accuracy: (xy)±0.05mm CPK≥1.0

Components Mounting Range: Inch size 0201–36mmX36mm and larger components

Optional: blue light scanning, lens mounting, 1.2m long PCB mounting production

Large-size Component Identification (easy to pick up, identify and accurately mount)

When the IC camera recognition area is exceeded, segmentation recognition is supported and a complete device image is automatically formed

The Y-axis Adopts Twin Servo Control System

The Y-axis adopts twin Panasonic A6 servo motor, ground screw, silent linear guide

Support CPK Detection

Ensuring that process capabilities remain stable and guaranteed

ANC (Auto Nozzle Changer)

Automatic nozzle distribution and automatic nozzle replacement

Automatic Thermal Compensation Correction System

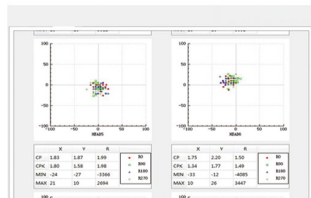
Ensure long-term working stability of equipment



1. Optimize Configuration to Greatly Improve Reliability

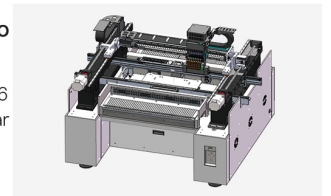
Support CPK Detection

Mounting accuracy: (xy)±0.05mm CPK≥1.0 ensures continuous and stable process capability.



The Y-axis Adopts Twin Servo Control System

The Y-axis adopts twin Panasonic A6 servo motor, ground screw, silent linear guide, meet long-term high-speed mounting requirements.



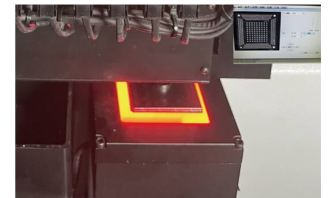
ANC(Auto Nozzle Changer)

The 37-hole nozzle library can preset different types of nozzles. Software control automatically allocates and replaces nozzles according to component mounting requirements, reducing mounting rounds and improving production efficiency.



HD IC Vision System

- 1. Support global one-time imaging and high-definition identification of large components within 36mmx36mm.
- 2. Supports oversized component identification and mounting: components are segmented and identified, accurately merged into a single component image, and then the entire component is displayed to achieve accurate mounting.



Frame Structure

The grinding platform and the Y-axis gantry are integrally cast. Refuse to use low-cost marble structure, which has poor impact resistance and cannot be repaired if it is damaged one day.



Vacuum Detection Function

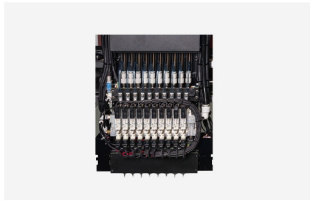
Each nozzle has an independent detection function to improve the stability of the equipment and the reliability of the product.



2.Ensure Equipment Efficiency and Stability

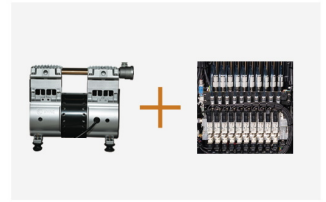
High-precision Universal Mounting Head

Independent Z-axis and R-axis motor control, combined with a high-speed front camera and a set of precision IC vision systems, realize universal high-speed mounting.



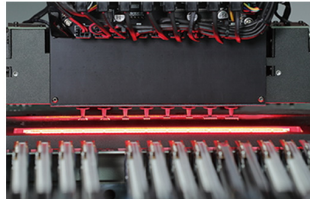
Built-in Vacuum Pump + Solenoid Valve Structure

It is optimized into a vacuum pump device and adopts a solenoid valve structure to make the adsorption stronger and more stable.



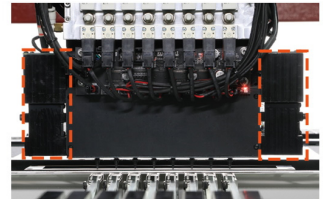
High Speed Fly Camera

Can simultaneously identify 16mmX16mm components at high speed to improve work efficiency.



Dual Mark Camera

- 1.Wider recognition range.
- 2.Correct PCB angle and coordinate acquisition.
- 3.Quickly teach the component picking position.



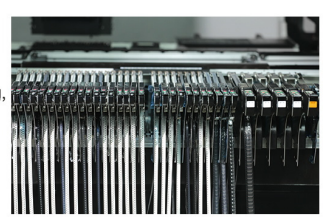
Automatic Thermal Compensation Correction System

Monitor and correct accuracy deviations caused by thermal energy during work to continuously maintain mounting accuracy and stability.



80 feeder stacks (8mm standard)

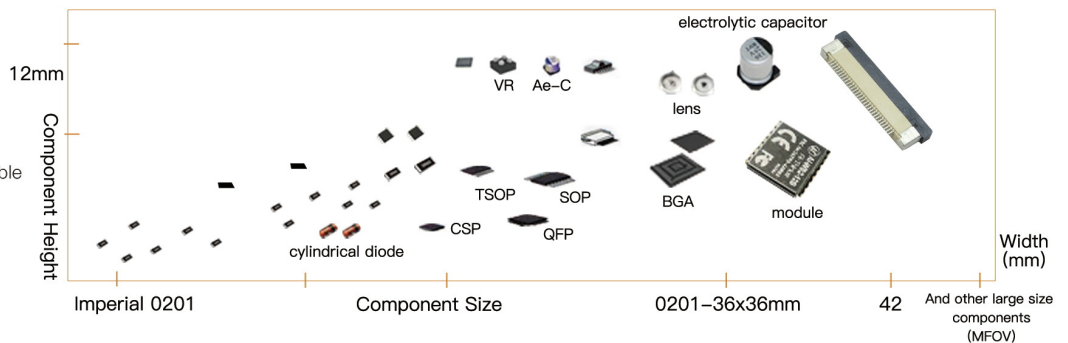
Using NXT electric feeder for feeding, the feeding accuracy reaches $\pm 0.03\text{mm}$.



3.Mounting Capabilities and Substrate Processing Capabilities

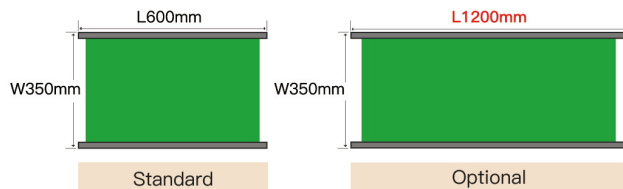
General Purpose Mounting of Various Components

It can achieve high-precision and stable mounting of the smallest 0201 and large-size components.



PCB Adaptability Range

Support: L600mm*W400mm (three-stage transfer standard);
Optional: L1200mm*W400mm (two-stage split mounting).



Lens Mounting (optional)

It has blue light scanning positioning, precise lens mounting, and supports up to 1.2m long board mounting (two-stage split mounting).



Feeding System

Feeding method: electric feeder is used for feeding, and the feeding accuracy reaches $\pm 0.03\text{mm}$.

Feeder feeding table: supports offline feeding in advance, saving working time.

Vibration feeder: support the feeding of tubular components.

IC tray: support TRAY feeding and bulk components feeding.