



CHARMHIGH

Chinese Leading Brand of High-end Pick and Place Machine

CHM-751

**6-head High-precision Universal
SMT Pick and Place Machine**



CHARMHIGH TECHNOLOGY LIMITED

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Specifications

Dimensions	1280mm(L) × 1260mm(W) × 1500mm(H)
Weight	670kg
Power Supply	AC220V(50Hz, three phase), 2.8kw
Air Supply	0.5MPa ~0.7MPa
Vacuum Generation	Built-in vacuum pump
Mounting Head Quantity	6
Mounting Speed	Optimal Speed 18400CPH (best conditions under our company); IPC9850 Actual Mounting Speed: 13400CPH
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	Can mount components within the range of imperial 0201 to 36mm×36mm
PCB Thickness	0.6mm~3.5mm
PCB Size	450mm(L)×350mm(W) (standard); 800mm(L)×350mm(W) (optional)
PCB Conveying	3-section-rail automatic conveying,PCB support
Nozzle Change	Automatic nozzle change (19-hole nozzle library)
Control System	Built-in industrial computer (Windows7) equipped with monitor,keyboard,and mouse
Drive System	X&Y axis driven by 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	50 Yamaha 8mm standard pneumatic/electric feeder stacks (also suitable for IC tray and stick feeder)
Vision System	Fly camerax6 (component size applicable: 16mm×16mm) IC camerax1 (component size applicable: 36mm×36mm) Mark camerax2



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CHM-751 6-head High-precision Universal Pick and Place Machine

Optimal Speed: 18400CPH (under the best conditions of our company)

IPC9850 Actual Mounting Speed: 13400CPH

Mounting Accuracy: (xy) \pm 0.05mm CPK \geq 1.0

Components Mounting Range: Inch size 0201-36mmX36mm

The Y-axis Adopts Twin Servo Control System

The Y-axis adopts twin servo + twin screw+ linear guide transmission

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

High-speed and High-precision Industrial-grade Vision System

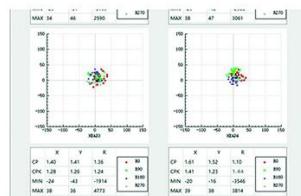
Fly camerax6, IC camerax1, Mark camerax2



1. Optimize Configuration to Greatly Improve Reliability

Support CPK Detection

Mounting accuracy: (xy) \pm 0.05mm CPK \geq 1.0 ensures continuous and stable process capability.



The Y-axis Adopts Twin Servo Control System

Twin servo motor advantage: effectively synchronously drives the movement of the beam to ensure that the X beam works parallel to the Y axis when the mounting machine is working at high speed for a long time, avoiding the problem of angular pendulum torque caused by single motor drive during work, and improving accuracy and continuous reliability.



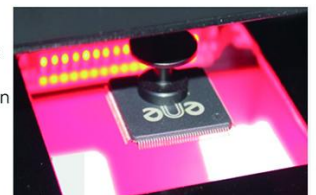
Built-in Vacuum Pump + Solenoid Valve Structure

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



HD IC camera

High-definition identification of BGA, QFP, QFN and other 36*36mm components to achieve high-precision general-purpose mounting.



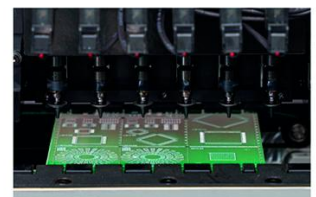
6 Heads Capable of Picking Components Simultaneously

The Z-axis independent motor of the mounting head has a closed-loop control of a high-precision nozzle rod. It has good concentricity, high precision in simultaneous picking, and is not easy to deform. It can realize simultaneous picking and high-speed mounting of components.



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.



High Speed Fly Camera

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



Automatic Thermal Compensation Correction System

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



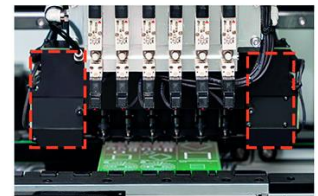
ANC(Auto Nozzle Changer)

The 19-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.



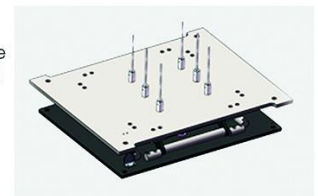
Dual Mark Camera

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



PCB Support Device

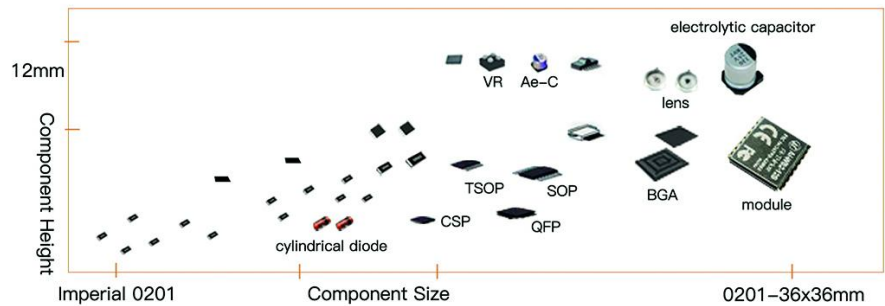
It can support the PCB to prevent the mounting quality from being affected when the PCB is large or thin.



3.Mounting Capabilities and Substrate Processing Capabilities

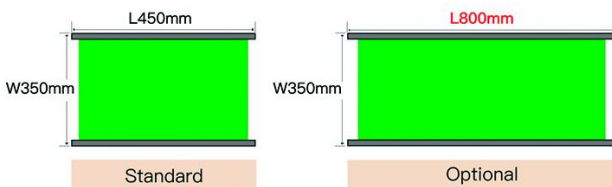
General Purpose Mounting of Various Components

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



PCB Adaptability Range

Support: L450mm*W350mm (three-stage transfer standard);
Optional: L800mm*W350mm (two-stage split mounting)



Software Function Integration

Easy to carry out and manage production, easy to learn.



Feeding System

Feeding system: using electric/pneumatic feeder, which is economical and stable.

Vibration feeder: support the feeding of tubular components.

IC tray: support TRAY feeding and bulk components feeding.