CHARMHIGH

Chinese Leading Brand of High-end Pick and Place Machine

CHM-551

4-head Small High-precision SMT Pick and Place Machine

CHARMHIGH TECHNOLOGY LIMITED
E-mail: sales@charmhigh-tech.com
Official website: www.charmhigh-tech.com
www.charmhigh-smt.com

Specifications

Dimensions (without base)	1050mm(L) × 1050mm(W) × 885mm(H)
Dimensions (with base)	1050mm(L) × 1050mm(W) × 1360mm(H)
Weight	190kg
Power Supply	AC220V(50Hz, single phase) 1.5kw
Air Supply	0.5MPa ~0.7MPa
Vacuum Generation	Built-in vacuun pump
Mounting Head Quantity	4
Mounting Speed	Optimal Speed 11500CPH (best conditions under our company), IPC9850 Actual Mounting Speed:8850CPH
Mounting Accuracy	(xy)±0.06mm 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 bange of imperial 0201 to 36mm×36mm
PCB Thickness	0.6mm～3.5mm
PCB Size	350mm(L)×270mm(W) (standard); 600mm(L)×270mm(W) (optional)
PCB Coneveying	Automatic Transfer Rails
Nozzle Change	Automatic Nozzle Change (13-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, adopting flexible S-curve acceleration and deceleration
Transmission System	Ball screw + linear guide
Feeding System	50 Yamaha 8mm standard pneumatic/electric feeder stacks (also suitable for IC tray and stick feeder)
Vision System	Snapshot camera×4 (component size applicable: 14mm×14mm) IC camera×1 (component size applicable: 36mm×36mm) Mark camera×2

CHARMHIGH TECHNOLOGY LIMITED
Telephone: +86 131 0721 9945
E-mail: sales@charmhigh-tech.com
Whatsapp/Wechat: +86 135 1067 5756
Address: 104-604, Building D, Jindao Industrial Park, No.179 Huizhi Middle Road, Changsha High-tech Development Zone, Changsha City, Hunan Province, China.

CHM-551 4-head Small High-precision Pick and Place Machine

Optimal Speed：11500CPH (under the best conditions of our company)

IPC9850 Actual Mounting Speed: 8850CPH

Mounting Accuracy: (xy)±0.06mm CPK≥1.0

Components Mounting Range: Inch size 0201-36mmX36mm

ANC (Auto Nozzle Changer)
Automatic nozzle distribution and automatic nozzle replacement

Support CPK Detection
Ensuring that process capabilities remain stable and guaranteed

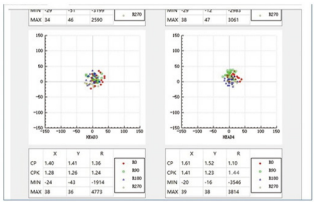
Built-in Vacuum Pump + Solenoid Valve Structure
Stronger and more stable adsorption, increased by 20%

High-precision Universal Mounting Head
Independent Z-axis and rotating motor control

Automatic Thermal Compensation Correction System
Automatic nozzle distribution and automatic nozzle replacement

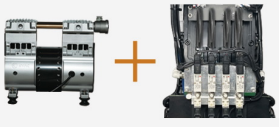
1.Optimize Configuration to Greatly Improve Reliability

Support CPK Detection
Mounting accuracy: (xy)±0.06mm CPK≥1.0 ensures continuous and stable process capability.

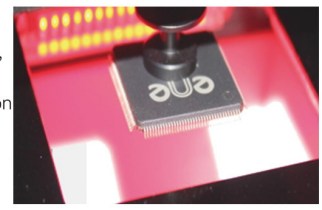


Short Belt Device
This solves the problem of low quality and low efficiency caused by leakage, reverse mounting, etc. when the customer's sample is only provided with short component tape production and can only be placed manually.

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.

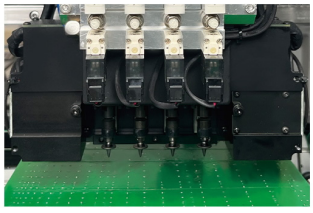


HD IC camera
High-definition identification of BGA, QFP, QFN and other 36*36mm components to achieve high-precision general-purpose mounting.



Automatic Thermal Compensation Correction System
Monitor and correct accuracy deviations caused by thermal energy during work to continuously maintain mounting accuracy and stability.

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

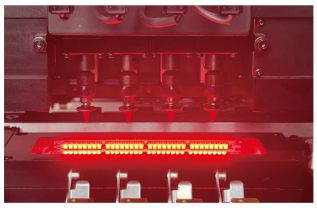
Independent Z-axis and R-axis motor control, combined with a high-speed front camera and a set of precision IC vision systems, realize universal high-speed mounting.

ANC(Auto Nozzle Changer)

The 13-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.

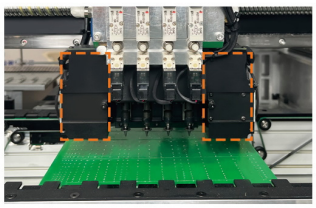
High Speed Snapshot Camera

Can simultaneously identify 14mm×14mm components at high speed to improve work efficiency.

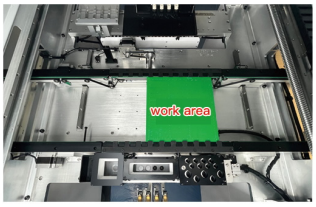


Dual Mark Camera

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

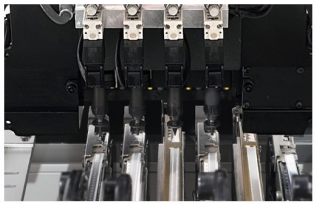


Automatic Board Transfer



4 Heads Capable of Picking Components Simultaneously

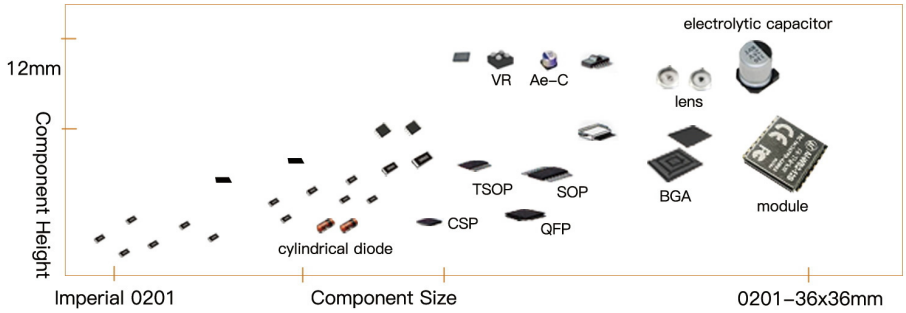
The Z-axis independent motor of the mounting head has a closed-loop control of a high-precision nozzle rod. It has good concentricity, high precision in simultaneous picking, and is not easy to deform. It can realize simultaneous picking and high-speed mounting of components.



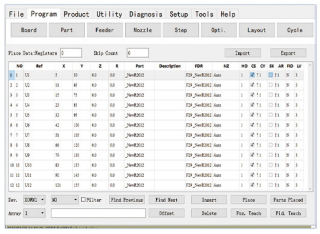
3.Mounting Capabilities and Component Types

General Purpose Mounting of Various Components

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

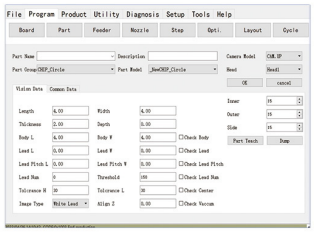


Software Function Integration



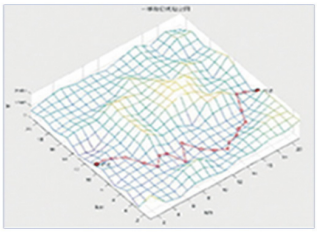
Coordinate Import

Coordinates can be imported with one key to realize fast programming.



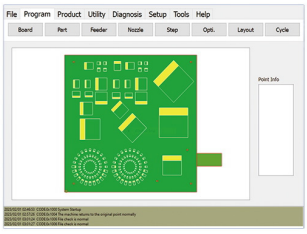
Component Editing

There is a standard component library to support editing and registration of new devices.



Intelligent Optimization

Automatic path optimization, automatic nozzle allocation, automatic arrangement of feeders.



Function Integration Convenient Operation

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

YAMAHA Electric Feeder

YAMAHA Pneumatic Feeder

Vibration Feeder

IC Tray

Feeding System

Feeding system: using electric/pneumatic feeder, which is economical and stable.
Vibration feeder: support the feeding of tubular component.
IC tray: support TRAY feeding and bulk components feeding.