

R Customers First, Innovation Paramount



www.charmhighsmt.com

ENTERPRISE PRODUCT CATALOG

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CHINA LEADING BRAND OF HIGH-END SMT MACHINE



Company Profile

Hunan Charmhigh 17 years of SMT experience manufacturer, factory area is 40,000 square meters, It is an enterprise with strong R&D capabilities. It has become a leading brand in China's industry with its high-end SMT pick and place machine. With Top notch quality and service, provide customers with high-quality one-stop SMT solutions.

As a national high-tech enterprise, charmhigh has 24 intellectual property rights, including 22 national patents and two software Copyrights, and has passed ISO quality management system certification, European CE certification, RoHS certification and FCC SGS certification. We have provided customized SMT service programs for national Research Institutes, national key laboratories, universities and colleges, and created industry models, which have been recognized and praised by customers at home and abroad.



ABOUT US · CHARMHIGH

17 years

Established

40000m²

Factory area

8000000USD

Annual turnover

300+

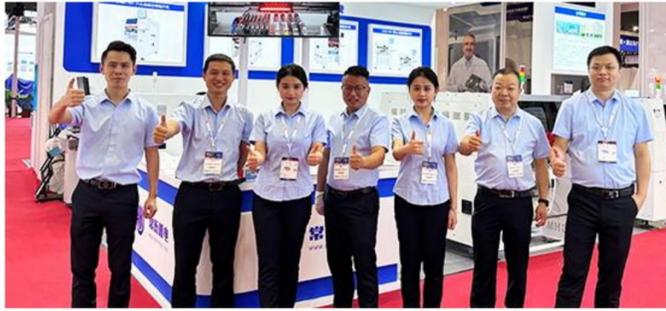
Number of employees

42+

R&D team

100+

Partners and Regions



Partners

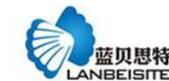


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RS20

2 gantry, 2-track, 20-head high-speed pick and place machine

Product Features

Dual-arm combined mounting: 82,000 CPH (under optimal company conditions)

Dual-track conveyance: Supports simultaneous production of 2 PCBs for higher efficiency

Mounting Accuracy: (xy)±0.035mm CPK≥1.0

- Y-axis dual linear motor structure
- Support CPK Detection
- Double Gantry Combination Mounting
- ANC (automatic replacement of double nozzle library)
- Automatic Thermal Compensation Correction System

Specifications

China Charmhigh Precision Manufacturing

Dimensions	1400mm(L) × 1890mm(W) × 1550mm(H)
Weight	2500kg
Power Supply	AC380V(50Hz, three phase), 5kw
Air Supply	0.5MPa ~0.7MPa
VacuumGeneration	Built-in dual vacuum pumps
Mounting Head Quantity	10 head * 2 gantry (front and rear arms)
Mounting Speed	Optimal Speed 82000CPH (best conditions under our company)
Mounting Accuracy	(xy)±0.035mm CPK≥1.0
Component Height	≤12mm
Component Type	Resistor capacitor exclusion, cylindrical diode, aluminum capacitor, SOT, SOP, BGA, etc.
Component Range	The minimum: 01005 The maximum:15mm(L)×15mm(W)
PCB Thickness	0.6mm~3.5mm
PCB Size	Single Lane 520mm(L)×50~450mm(W); Dual Lane 520mm(L)×50~250mm(W)
PCB Conveying	Built-in automatic transmission system
Nozzle Change	Automatic nozzle change (31-hole nozzle library*2 gantry)
Control System	Built-in industrial computer (Windows 7) with dual monitors, keyboard and mouse
Drive System	Y-axis double linear motor X-axis Panasonic servo motor
Transmission System	Y-axis THK linear guide, X-axis THK linear guide and lead screw
Feeding System	100 NXT 8mm standard feeder stacks (also suitable for IC tray and stick feeder)
Vision System	Fly: 10*2 sets (component size applicable: 15mm×15mm) Mark camera: 2*2 sets



RS12

High-speed module pick and place machine

Product Features

Dual-arm combined mounting: 60,000 CPH (under optimal company conditions)

Dual-track conveyance: Supports simultaneous production of 2 PCBs for higher efficiency

Mounting Accuracy: (xy)±0.035mm CPK≥1.0

- Y-axis linear motor
- Support CPK Detection
- Double Gantry Combination Mounting
- ANC (automatic replacement of double nozzle library)
- Automatic Thermal Compensation Correction System

Specifications

China Charmhigh Precision Manufacturing

Dimensions	950mm(L) × 1890mm(W) × 1500mm(H)
Weight	1450kg
Power Supply	AC220V(50Hz, single phase), 3.5kw
Air Supply	0.5MPa ~0.7MPa
VacuumGeneration	Built-in dual vacuum pumps
Mounting Head Quantity	6 head * 2 gantry (front and rear arms)
Mounting Speed	Optimal Speed 60000CPH (best conditions under our company)
Mounting Accuracy	(xy)±0.035mm CPK≥1.0
Component Height	≤12mm
Component Type	Resistor capacitor exclusion, cylindrical diode, aluminum capacitor, SOT, SOP, BGA, etc.
Component Range	The minimum: 01005 The maximum:15mm(L)×15mm(W)
PCB Thickness	0.6mm~3.5mm
PCB Size	Single Lane 350mm(L)×50~450mm(W); Dual Lane 350mm(L)×50~250mm(W)
PCB Conveying	Support for monorail or dual-track three-stage conveying
Nozzle Change	Automatic nozzle change (19-hole nozzle library*2 gantry)
Control System	Built-in industrial computer (Windows 7) with dual monitors, keyboard and mouse
Drive System	Y-axis linear motor X-axis Panasonic servo motor
Transmission System	Y-axis THK linear guide, X-axis THK linear guide and lead screw
Feeding System	60 NXT 8mm standard feeder stacks (also suitable for IC tray and stick feeder)
Vision System	Fly: 6*2 sets (component size applicable: 15mm×15mm) Mark camera: 2*2 sets



RS10

RS10 ten-head magnetic suspension
high-speed and high-precision pick and place machine

Product Features

Optimal Speed: 45000CPH (under the best conditions of our company)

Mounting Accuracy: $(xy)\pm 0.033\text{mm}$ $\text{CPK}\geq 1.0$

Components Mounting Range: Inch size 01005-36mmX36mm and larger components

- Y-axis dual linear motor drive
- Support CPK Detection
- Large-size Component Identification (easy to pick up, identify and accurately mount)
- ANC(Auto Nozzle Changer)
- Automatic Thermal Compensation Correction System
- Integrated gantry-style cast iron platform

Specifications

China Charmhigh Precision Manufacturing

Dimensions	1400mm(L) × 1890mm(W) × 1550mm(H)
Weight	2315kg
Power Supply	AC380V(50Hz, three phase), 3.5kw
Air Supply	0.5MPa ~0.7MPa
VacuumGeneration	Built-in vacuum pump
Mounting Head Quantity	10 Head
Mounting Speed	Optimal Speed 45000CPH (best conditions under our company)
Mounting Accuracy	$(xy)\pm 0.033\text{mm}$ $\text{CPK}\geq 1.0$
Component Height	$\leq 12\text{mm}$
Component Type	Resistor capacitor exclusion, cylindrical diode, aluminum capacitor, SOT, SOP, QFP, QFN, BGA, etc.
Component Range	Inch size 01005 to 36mm*36mm, and larger components mounting.
PCB Thickness	0.6mm~3.5mm
PCB Size	520mm(L)×520mm(W) (standard) ; 1000mm(L)×520mm(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-axis is driven by servo motor (Y-axis is driven by dual linear motor)
Transmission System	Adopting linear motor + grating ruler
Feeding System	100 NXT 8mm standard feeder stacks (also suitable for IC tray and stick feeder)
Vision System	Fly camera×10 (component size applicable: 15mm×15mm) IC camera×1 (component size applicable: 36mm×36mm), it has the function of image stitching, automatic pin and feature recognition Mark camera×2



TS10

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

Product Features

Optimal Speed: 42000CPH (under the best conditions of our company)

Mounting Accuracy: $(xy)\pm 0.035\text{mm}$ $CPK\geq 1.0$

Components Mounting Range: Inch size 01005-36mmX36mm and larger components

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

- The Y-axis Adopts Twin Servo Control System
- Support CPK Detection
- Large-size Component Identification (easy to pick up, identify and accurately mount)
- ANC (Auto Nozzle Changer)
- Automatic Thermal Compensation Correction System

Specifications

China Charmhigh Precision Manufacturing

Dimensions	1600mm(L) × 1690mm(W) × 1560mm(H)
Weight	1750kg
Power Supply	AC380V(50Hz, three phase), 4.5kw
Air Supply	0.5MPa ~0.7MPa
VacuumGeneration	Built-in vacuum pump
Mounting Head Quantity	10 Head
Mounting Speed	Optimal Speed 42000CPH (best conditions under our company)
Mounting Accuracy	$(xy)\pm 0.035\text{mm}$ $CPK\geq 1.0$
Component Height	$\leq 12\text{mm}$
Component Type	Resistor capacitor exclusion, cylindrical diode, aluminum capacitor, SOT, SOP, QFP, QFN, BGA, etc.
Component Range	Inch size 01005 to 36mm*36mm, and larger components mounting.
PCB Thickness	0.6mm~3.5mm
PCB Size	600mm(L)×520mm(W) (standard) ; 1200mm(L)×520mm(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)
Transmission System	X&Y axis adopting THK ground ball screw and THK mute linear guide (Y axis with double screws)
Feeding System	100 NXT 8mm standard feeder stacks (also suitable for IC tray and stick feeder)
Vision System	Fly camera×10 (component size applicable: 16mm×16mm) IC camera×1 (component size applicable: 36mm×36mm), it has the function of image stitching, automatic pin and feature recognition Mark camera×2



TM08

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

Product Features

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

Mounting Accuracy: (xy)±0.035mm CPK≥1.0

Components Mounting Range: Inch size 01005–36mmX36mm and larger components

- The Y-axis Adopts Twin Servo Control System
- Support CPK Detection
- Large-size Component Identification (easy to pick up, identify and accurately mount)
- ANC (Auto Nozzle Changer)
- Automatic Thermal Compensation Correction System

Specifications

China Charmhigh Precision Manufacturing

Dimensions	1320mm(L) × 1600mm(W) × 1500mm(H)
Weight	1550kg
Power Supply	AC220V(50Hz, single phase), 3.5kw (Average power: 700w)
Air Supply	0.5MPa ~0.7MPa
VacuumGeneration	Built-in vacuum pump
Mounting Head Quantity	8 Head
Mounting Speed	Optimal Speed 35000CPH (best conditions under our company)
Mounting Accuracy	(xy)±0.035mm 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 01005 to 36mm*36mm, and larger components mounting.
PCB Thickness	0.6mm~3.5mm
PCB Size	450mm(L)×350mm(W) (standard) ; 900mm(L)×350mm(W) (optional).
PCB Conveying	3-section-rail automatic conveying
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)
Transmission System	Ground 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, automatic pin and feature recognition Mark camera×2



LS08

8-head high-speed and high-precision
DOB pick and place machine

Product Features

Optimal Speed: 37000CPH (under the best conditions of our company)

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

Components Mounting Range: Inch size 0201 and larger components, and can mount 20mm high special-shaped components

Optional: Support blue light scanning, suitable for lens mounting

- The Y-axis Adopts Twin Servo Control System
- Large-size Component Identification (easy to pick up, identify and accurately mount)
- ANC (Auto Nozzle Changer)
- Built-in Vacuum Pump + Solenoid Valve Structure
- Automatic Thermal Compensation Correction System

Specifications

China Charmhigh Precision Manufacturing

Dimensions	1320mm(L) × 1600mm(W) × 1500mm(H)
Weight	1440kg
Power Supply	AC220V(50Hz, single phase), 3.5kw
Air Supply	0.5MPa ~0.7MPa
Vacuum Generation	Built-in vacuum pump
Mounting Head Quantity	8 Head
Mounting Speed	Optimal Speed 37000CPH (best conditions under our company)
Mounting Accuracy	(xy)±0.05mm CPK≥1.0
Component Height	≤20mm
Component Type	Resistor capacitor exclusion, cylindrical diode, aluminum capacitor, SOT, SOP, QFP, QFN, BGA, etc.
Component Range	Inch size 0201 to 16mm*16mm, and larger components mounting.
PCB Thickness	0.6mm~3.5mm
PCB Size	450mm(L)×350mm(W) (standard) ; 900mm(L)×350mm(W) (optional).
PCB Conveying	3-section-rail automatic conveying, PCB support
Nozzle Change	Automatic nozzle change (20-hole nozzle library)
Control System	Built-in industrial computer (Windows7) equipped with monitor, keyboard and mouse
Drive System	X and Y axes are driven by servo motors in closed loop (Y axis by double motors)
Transmission System	Ground ball screw + linear guide
Feeding System	25 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, it has the function of image stitching, automatic pin and feature recognition Mark camera×2



TC06

6-head Module Universal Pick and Place Machine

Product Features

Optimal Speed: 27800CPH (under the best conditions of our company)

Mounting Accuracy: (xy)±0.03mm CPK≥1.0

Components Mounting Range: Inch size 01005–36mm×36mm and larger components

- Monolithic Cast Iron Construction with X-Beam Reinforcement – Unmatched Structural Rigidity in Its Class
- Delivering Premium Performance at 1/4 the Cost: Match Global Brands' Specs with Unbeatable Value
- Full NXT feeder compatibility ensures material stability
- Space-optimized dimensions compatible with standard commercial elevators.
- Panasonic servo motors paired with precision ground ball screws enable high-speed, high-accuracy operation
- Support offline programming, saving line change time
- Modular architecture allows flexible capacity expansion through unit combinations

Specifications

China Charmhigh Precision Manufacturing

Dimensions	890mm(L) × 1450mm(W) × 1500mm(H)
Weight	960kg
Power Supply	AC220V(50Hz, single phase), 1.8kw (Average power: 650w)
Air Supply	0.5MPa ~0.7MPa
VacuumGeneration	Built-in vacuum pump
Mounting Head Quantity	6 Head
Mounting Speed	Optimal Speed 27800CPH (best conditions under our company)
Mounting Accuracy	(xy)±0.03mm 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 01005 to 36mm*36mm, and larger components mounting.
PCB Thickness	0.6mm~3.5mm
PCB Size	350mm(L)×300mm(W) (standard) ;
PCB Conveying	3-stage buffer transmission
Nozzle Change	Automatic nozzle change (19-hole nozzle library)
Control System	Built-in industrial computer, equipped with monitor,keyboard and mouse
Drive System	X&Y axis driven by Panasonic servo motors
Transmission System	Ground screws + linear guide
Feeding System	50 NXT 8mm standard feeder stacks (also suitable for IC tray and stick feeder)
Vision System	Fly camera×6 (component size applicable: 16mm×16mm) IC camera×1 (component size applicable: 36mm×36mm), it has the function of image stitching, automatic pin and feature recognition Mark camera×2

CHM-551P

4-head Small High-precision
Pick and Place Machine



Product Features

Optimal Speed: 14400CPH (under the best conditions of our company)

Mounting Accuracy: (xy)±0.035mm CPK≥1.0

Components Mounting Range: Inch size 01005–30mmX30mm

- ANC (Auto Nozzle Changer)
- Support CPK Detection
- Built-in Vacuum Pump + Solenoid Valve Structure
- High-precision Universal Mounting Head
- Automatic Thermal Compensation Correction System

Dimensions	1020mm(L) × 1180mm(W) × 1450mm(H) (standard)
Weight	556kg
Power Supply	AC220V(50Hz, single phase) 1.5kw (Average power: 350w)
Air Supply	0.5MPa ~0.7MPa
VacuumGeneration	Built-in vacuun pump
Mounting Head Quantity	4 Head
Mounting Speed	Optimal Speed 14400CPH (best conditions under our company)
Mounting Accuracy	(xy)±0.035mm 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 01005 to 30mm×30mm
PCB Thickness	0.6mm~3.5mm
PCB Size	350mm(L)×280mm(W) (standard); 600mm(L)×280mm(W) (optional)
PCB Conveying	Automatic Transfer Rails
Nozzle Change	Automatic nozzle change (13-hole nozzle library)
Control System	(Linux system) with monitor, keyboard, 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: 30mm×30mm) Mark camera×2

CHM-T48VB



2-head Desktop Vision Pick and Place Machine

- Total 58 feeders (Left and right), put more material
- High speed mounting with double Vision system
- Axis Closed-loop control
- Embedded Linux system
- Industry level high reliable main board
- PC in build, no need external PC
- High quality Juki Nozzles
- Multi PCB assembly support
- All-in-one Machine
- 7-inch built-in computer

Dimensions	940mm(L)×710mm(W)×340mm(H)
Weight	39kg
Power Supply	AC220V (50Hz, single phase) /AC110V (60Hz, single phase);300W
Air Supply	No external air supply required
Vacuum Generation	Built-in vacuum pump
Mounting Head Quantity	2
Mounting Speed	6000cph(optimal without vision detection); 4000cph (optimal with vision detection)
Control Accuracy	0.025mm
Component Type	0402/0603~5050/SOT/SOP/QFP/QFN/BGA, etc. (resistor/capacitor/diode/triode/LED/IC, etc.)
PCB Thickness	0.6mm-3.5mm
PCB Size	10mm(L)×10mm(W)~345mm(L)×360mm(W)
PCB Conveying	Manual operation
Nozzle Change	Manual operation
Control System	Built-in computer (embedded Linux operating system), 7-inch touch screen
Drive System	X&Y-axis driven by stepping motors in the way of closed-loop control realized by encoder; Z-axis capable of reset detection; all motors adopting flexible S-curve acceleration and deceleration; tape puller automatic reset supported
Transmission System	Synchronous belt+polished rod
Feeding System	29 tape feeding stacks(8mm: 22, 12mm: 4, 16mm: 2, 24mm: 1; customization supported), 14 preset general IC stacks, work surface custom IC trays and stick feeder supported
Feeding System	Up-looking camera for component automatic calibration (component size applicable: 22mm×22mm); down-looking camera for PCB calibration via Mark Point and component positioning

CHM-T36VA

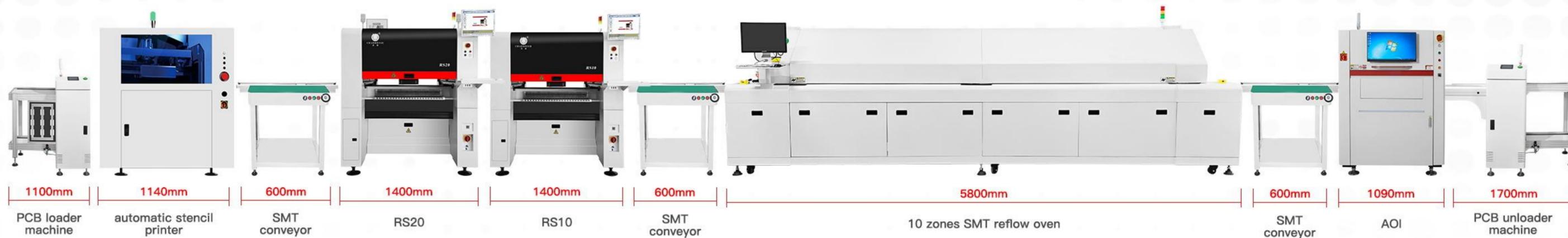


2-head Desktop Vision Pick and Place Machine

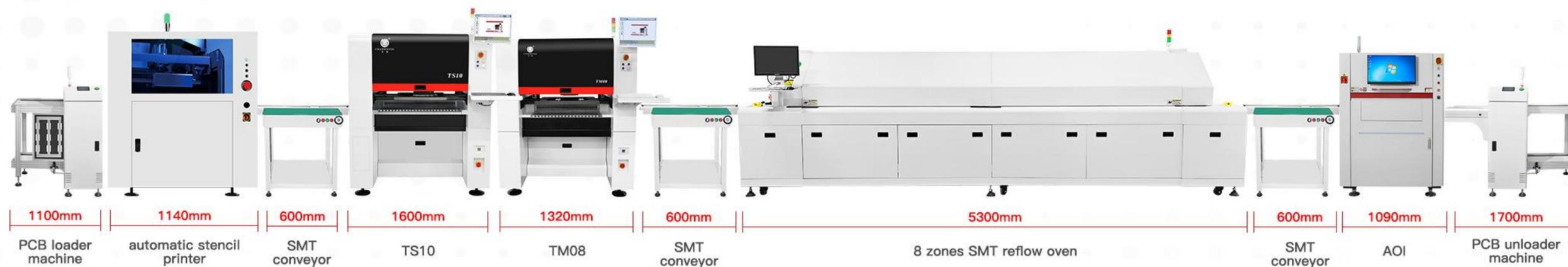
- Total 29 feeders(Left and right), put more material
- High speed mounting with double vision system
- Axis Closed-loop control
- Embedded Linux system
- industry level high reliable main board
- PC in build, no need external PC
- High quality Juki Nozzles
- Multi PCB assembly support
- All-in-one Machine
- External computer

Dimensions	940mm(L)×710mm(W)×340mm(H)
Weight	39kg
Power Supply	AC220V (50Hz, single phase) /AC110V (60Hz, single phase);300W
Air Supply	No external air supply required
Vacuum Generation	Built-in vacuum pump
Mounting Head Quantity	2
Mounting Speed	6000cph(optimal without vision detection); 2500cph (optimal with vision detection)
Control Accuracy	0.025mm
Component Type	0402/0603~5050/SOT/SOP/QFP/QFN/BGA, etc. (resistor/capacitor/diode/triode/LED/IC, etc.)
PCB Thickness	0.6mm-3.5mm
PCB Size	10mm(L)×10mm(W)~345mm(L)×360mm(W)
PCB Conveying	Manual operation
Nozzle Change	Manual operation
Control System	External computer required (Windows)
Drive System	X&Y-axis driven by stepping motors in the way of closed-loop control realized by encoder; Z-axis capable of reset detection; all motors adopting flexible S-curve acceleration and deceleration; tape puller automatic reset supported
Transmission System	Synchronous belt+polished rod
Feeding System	29 tape feeding stacks(8mm: 22, 12mm: 4, 16mm: 2, 24mm: 1; customization supported), 14 preset general IC stacks, work surface custom IC trays and stick feeder supported
Feeding System	Up-looking camera for component automatic calibration (component size applicable: 22mm×22mm); down-looking camera for PCB calibration via Mark Point and component positioning

HIGH-SPEED SMT PRODUCTION LINE (TOTAL LENGTH OF PRODUCTION LINE: 15.43M)



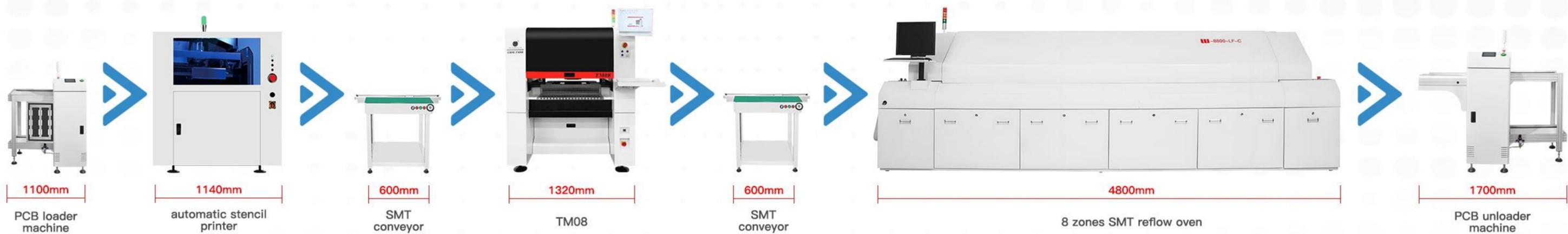
HIGH-SPEED SMT PRODUCTION LINE (TOTAL LENGTH OF PRODUCTION LINE: 12.10M)



HIGH-SPEED SMT PRODUCTION LINE (TOTAL LENGTH OF PRODUCTION LINE: 10.52M)



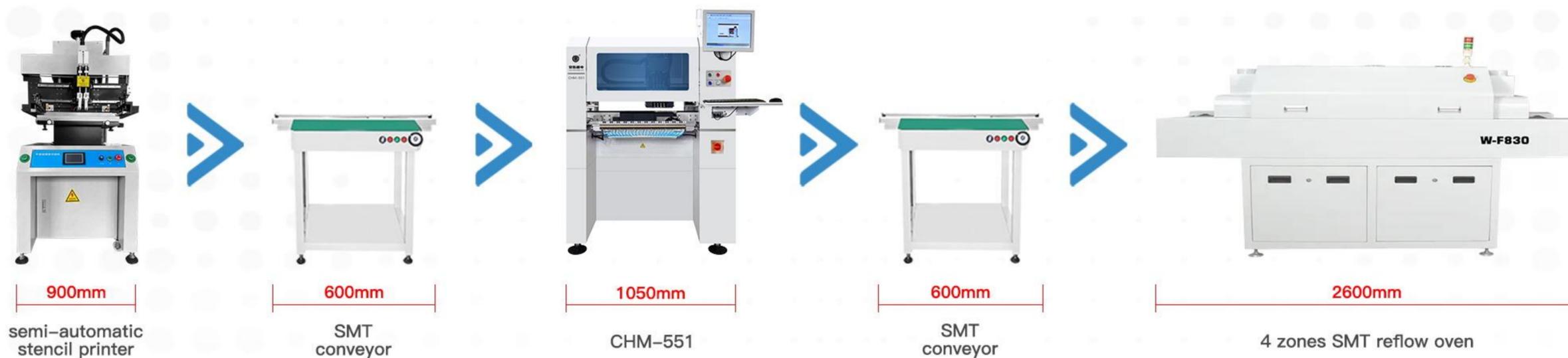
FULLY AUTOMATIC SMT PRODUCTION LINE (TOTAL LENGTH OF PRODUCTION LINE: 10.06M)



HIGH-SPEED SMT PRODUCTION LINE (TOTAL LENGTH OF PRODUCTION LINE: 9.63M)



HIGH-PRECISION SMT PRODUCTION LINE (TOTAL LENGTH OF PRODUCTION LINE: 5.75M)



SAMPLE MAKING SMT PRODUCTION LINE



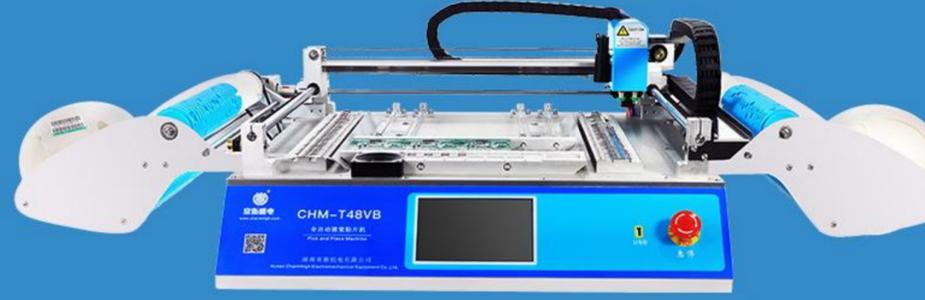
400mm

Stencil printer



540mm

Stencil printer



1310mm

CHM-T48VB



405mm

reflow oven



400mm

Stencil printer



540mm

Stencil printer



940mm

CHM-T36VA



405mm

reflow oven

W-8800-LF-C COMPUTER CONTROL EIGHT TEMPERATURE ZONE HOT AIR GUIDE RAIL TYPE REFLOW SOLDERING MACHINE



Technical features of the whole machine

- Using brand computer Siemens PLC intelligent control system, high temperature control precision $\pm 2^{\circ}\text{C}$ (if the computer crash, can achieve offline work, does not affect the production), to ensure the control system is stable and reliable;
- Windows Operation Interface, powerful, easy to operate;
- The upper furnace body is opened by an electric pusher automatic jacking machine to ensure safety and reliability;
- Equipped with Mesh Belt tensioning device, smooth transportation, no shaking, no deformation to ensure smooth PCB transportation, synchronous guide rail transmission mechanism (can connect with automatic smt machine on-line) to ensure accurate guide rail width adjustment and High Service Life;
- All heating areas are PID controlled by computer (the upper and lower temperature areas are independent temperature control, can be opened separately. Can Be divided heating, to reduce the starting power) ;
- The net belt transmission is controlled by the computer in full closed loop, which can satisfy the PCB production of different varieties simultaneously;
- It has the function of sound and light alarm;
- Equipped with leakage protector to ensure the safety of operators and Control Systems;
- The built-in ups and automatic time delay adopt the turbine heating mode, the upper and lower independent hot air small circulation system, the temperature is uniform, the thermal compensation efficiency is high, the high-efficiency supercharged accelerating air duct greatly improves the circulating hot air flow, the temperature rises rapidly (about 20 minutes), the thermal compensation efficiency is high, and the high-temperature welding and curing can be carried out;
- Each temperature zone of upper and lower layers is equipped with independent temperature sensing sensors, which can monitor and compensate the temperature balance of each temperature zone in real time;
- With the operation system of Password Management, it can prevent the irrelevant personnel from changing the process parameters, and the operation record management can trace the process of changing the process parameters, which is convenient to improve the management. The utility model can store the user's existing temperature speed settings and the temperature curves under the settings, and print all the data and curves;
- Integrated Control Window, computer switch, test curve, print curve and transfer data are easy to operate, design humanization. Equipped with three-channel on-line temperature curve testing system, can be detected at any time the actual temperature curve of welding objects (without the need for additional temperature curve Tester) ;
- Specially designed supercharged air transport structure and shaped heating wire design, no noise, no vibration, with very high heat exchange rate, the temperature difference between the bottom of components and PCB board Δt minimum, most in line with the strict requirements of lead-free process, especially for high-difficulty welding requirements of lead-free products.

Technical features of the whole machine

Model No.	WDS-8800	WDS-1010	WDS-8800D	WDS-1010D
Specification				
Heated Length	3110mm	3890mm	3110mm	3890mm
Dimensions (L*W*H)	5330*1422*1530mm	6570*1422*1530mm	5330*1697*1530mm	6570*1697*1530mm
Net Weight	Approx.2250kg	Approx.2600KG	Approx.2600KG	Approx.2950KG
Exhaust Volume	10m ³ minx2 Ducts			
Supply Power				
Power	Starting: 30KW Operating: 9KW	Starting: 36KW Operating: 10KW	Starting: 32KW Operating: 10KW	Starting: 38KW Operating: 11KW
Heat up Time	Approx.25min		Approx.30min	
Temp. Range	Room temperature -300°C			
Max. Width of PCB	400mm (Option: 450mm)		270mmx2 (Single Rail 50-490mm)	
PCB Top Height	Top 25mm/Bottom 25mm			
Conveyor Direction	Left to Right (Option:Right to Left)			
Fixed Rail Side	Front Rail Fixed (Option:Rear Rail Fixed)		1st & 4rd Rails Fixed (Option : 1st & 3th Rails Fixed)	
Conveyor Height	900+20mm			
Conveyor Speed Range	300-2000mm/min			
Data Storage	Various parameters and storable			
Abnormal Alarm	Abnormal Temp.(Over/under-heat.) Sound & Light Alarm			
Device Layout				
NO.of	Top 8,Bottom 8	Top 10,Bottom 10	Top 8,Bottom 8	Top 10,Bottom 10
NO.of	Top 2Cooling Zones			
Control System	WIN10+Computer+PLC			
Temp. Control Method	PID+SSR			
Thermocouple Wire	4wires			
Conveyor System	Single Rail+ Mesh		Dual-Rail+Mesh	
Conveyor Control Mode	Inverter+Import Conveyor Motor			
Chain Structure	Single side link avoid block			
Width Adjustment	Electric adjustable			
Cover Open	Electric openforeasy maintenance.			
UPS Power	Backup power supply to ensure PCB production finish normally.			
Cooling System	Forced Air Cooling			



ACCESSORY PRODUCTS

PC6635 FULLY COMPUTER CONTROLLED LEAD-FREE REFLOW OVEN COST EFFECTIVE LEAD FREE WITH CUSTOM MADE TRACK



Product Features

1. SINOEVER's patented heating wire heating technology, independent circulating air structure, and top-bottom heating method ensure high thermal efficiency and rapid temperature rise. It takes approximately 20 minutes to reach the set working temperature from room temperature, and the difference between the set temperature in the soldering area and the actual temperature is less than 30°C.
2. It adopts a special high-temperature motor from Taiwan Sanyue, which directly drives the hot air heating. The hot air is evenly distributed, with low noise and small vibration. Components of 0201 can remain in place during transportation.
3. With a unique air duct design, an imported volute for air transportation is equipped with a three-layer air equalizing device. The air transportation is uniform, and it has a large heat capacity. The preheating zone, constant temperature zone, and soldering zone are heated from top and bottom, with independent circulation and independent temperature control. The temperature control accuracy of each temperature zone is $\pm 1^\circ\text{C}$. The furnace chamber is opened with a pneumatic top cover.
4. Two forced cooling zones are standard. The cold air temperature at the cold air outlet can reach 5°C , and the cooling rate of the first cooling zone can reach $-5^\circ\text{C}/\text{S}$. It can effectively meet various lead-free processes.
5. It is suitable for adjusting the temperature curves of various models. It has a dual soldering zone or triple soldering zone setting. For the eight-line PROFILE TEST, the minimum ΔT can reach 8°C . The online curve test especially meets the lead-free soldering process standards of Japan, Europe, and the United States.
6. It uses a newly designed special transportation guide rail, which is made of high-temperature-resistant and wear-resistant aluminum alloy, featuring high rigidity and no deformation.
7. The transportation system adopts stepless variable frequency speed regulation, driven by an imported motor from Tokawa, Japan. The high-quality stainless steel chain and the stainless steel mesh belt made of SUS316 material are transported synchronously, further ensuring smooth transportation. It is also equipped with the UPS uninterruptible power supply function, which can effectively prevent the PCB from being burned in the furnace due to a sudden power outage.
8. It is controlled by an industrial computer, with a Dell liquid crystal display and the Windows 10 operating system. It has flexible curve testing and powerful dynamic curve analysis functions. At the same time, all data can be printed and saved to meet the lead-free process requirements.
9. All electrical components are imported, and all signal wires are shielded to ensure long-term stable and reliable operation for 24 hours of SMT. The whole machine comes with a one-year free warranty and lifetime maintenance.

Technical features of the whole machine

Heating part parameter	
Heating zone	Upper 6/ Lower 6
Heating length	2200mm
Cooling zone	2
Conveyor parameter	
Max.width of PCB	Mesh belt width 350mm, guide rail adjustable 250mm
Conveyor direction	L→R (R→L.option)
Height of conveyor	Mesh belt 880±20mm
Transport system	Mesh belt + guide rail transmission
Conveyor speed	0-2000mm/min

Controlling parameter	
Power supply	5 wires 3 phases 380V 50/60Hz
Power of start up	24KW
Power of consumption of operation	Approx.5-6KW
Control fashion	Industrial computer + Dell monitor
Warm-up time	about 20 minutes
Range of temperature control	room temperature -350°C/Room Temperature-350°C
Temperature control	Industrial computer + temperature control module control, SSR driver
Precision of temperature control	$\pm 1^\circ\text{C}$
Temperature distributing error	$\pm 3^\circ\text{C}$
Trouble alarm	Abnormal temperature (super high temperature or low temperature after constant temperature)
Board drop alarm	Option

Machine size&weight	
Weight	Approx.400kg
Dimension(mm)	L3600xW700xH1430

Heating characteristics	
Heating ZONE number	up 6 down 6
Number of cooling zones	2
Heating time	Starting time from normal temperature to temperature equilibrium: about 20 minutes
heating sequence	Raise the temperature one by one from the middle to both sides, saving 1/3 of the energy or time
Temperature curve conversion time	<15min (temperature adjustment amplitude difference <100°C)
Heating zone temperature control accuracy	$\pm 1^\circ\text{C}$
Temperature deviation within the substrate	$\pm 2^\circ\text{C}$
No load → full load (or reverse) thermal balance recovery time	≤25 秒
Temperature zone independent shutdown function	Each independent temperature control zone can be turned off independently on the computer. When the air circulation and heating in the lower temperature zone are all turned off, the maximum temperature difference can be generated on the front and back sides of the PCB.

heating element	
hot air motor	Imported high temperature resistant long axis motor, speed 2800rpm
Heating element	Specially made long-life winding heater with high thermal efficiency and sensitivity and small thermal inertia
Air duct structure	Efficiently accelerates the air duct to provide sufficient circulating air volume

Machine body structure	
Rack structure	Overall frame welded structure, sturdy and durable
door structure	They are all detachable structures, providing maximum maintenance space.

Electrical appliances and control performance	
Control host	Industrial computer + Siemens PLC
Control surface	Genuine Windows 10, free switching between Chinese and English online
Equipment and personnel safety	Install leakage protector

Too high or too low temperature alarm function	
Appliance reliability	All imported components
Machine status record	Automatically records the working status of each temperature zone and each operating part of the whole machine, and the data is saved for one year.
Temperature zone temperature curve chart	Temperature curve files for each temperature zone are generated daily, and users can view and analyze the temperature trend of each temperature zone.
production database	The system can generate PCB production reports for different board numbers.
Alarm list	The system will save all alarms into files, and users can view the alarm items and alarm time.
Temperature curve test	The system has a temperature curve test function and analyzes based on the curve. (Standard configuration: 3 points)

ECONOMICAL 4-ZONE REFLOW OVEN



Technical features of the whole machine

Model No.	W-F830	W-F530-LF
Heating Parts Parameters		
Number of Heating Zones	Up 4 + Bottom 4	Up 3 + Bottom 2
Length of Heating Zones	1400mm	1100mm
Heating Pattern	Up:Hot air; Bottom:Hot air (Forced convection of hot air, Taiwan SAYA motor)	
Number of Cooling Zones	2 Plasma DC Fan	
Conveyor Parts Parameters		
Max.Width Of PCB	300mm (stainless steel mesh belt)	
Conveyor Direction	L→R	
Conveyor Height	880±20mm	
Transport Mode	Mesh Belt	
Conveyor Speed Range	0-2200mm/min	
Control Parts Parameters		
Power Supply	5 Wire, 3 Phase, 380V 50/60Hz	
Start Power	10KW	7KW
Power Consumption	Approx 2.5KW	Approx 1.5KW
Warming Time	Approx 15-20 mins	
Temp. Setting Range	Room Temp.-380°C	
Temperature Control Method	Instrument-controlled	
Temperature Difference Between Adjacent Zone	70 °C, can correspond to the highest standards of lead-free process.	
Temperature Control Precision	±2°C	
Temperature Deviation on PCB	±2°C	
Abnormal Alarm	Temperature abnormal (too high or too low after the constant temperature keeping)	
Open Way	Manual	
General Parameters		
Dimension(L*W*H)mm	2500*650*1400mm	2000*612*1450mm
Weight	Approx220Kg	Approx200Kg

LED SMT REFLOW OVEN



Technical features of the whole machine

Model	T-960/T-960e/T-960W
The heating zone quantity	upper3/down2
The length of the heating zone	960mm
The cooling zone quantity	IR and hot air heating
The heating type	1
Maximum width of PCB board	300MM
The operation direction	left→right
Delivery options	Net transmission+ chain transmission
The speed of conveyer belt	0-1600mm/min
The power supply	3 phase 5 lines 380V /single phase 3lines 220V
Peak power	4.5KW(220/380V)
Heating up time	Around 15mins
Temperature control range	Room temperature~300°C/350°C/350°C
Temperature control mode	PID closed-loop control
Temperature control accuracy	±1°C
PCB temperature distribution deviation	±2°C
Overall dimensions	1450x630x470 / 1200x630x470 / 1450x630x470mm
Machine weight	98KGS / 88KGS / 98KGS

DRAWER TYPE REFLOW OVEN



CHMRO-420 Reflow Oven Specifications

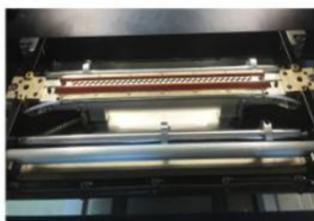
Dimensions	420mmx405mmx265mm
Net Weight	20kg
Rated Power	2500W (peak power)
Rated Voltage	AC220V 50Hz/60Hz
Drawer Size	300mmx300mm
Soldering Type	Lead Soldering / Lead-free Soldering
Maximum Soldering Temperature	300°C
Heating Mode	Infrared ray & hot air

Temperature Control Accuracy	±1°C (at constant temperature)
Soldering Cycle	5-10 minutes
Saved Reflow Curve Quantity	8

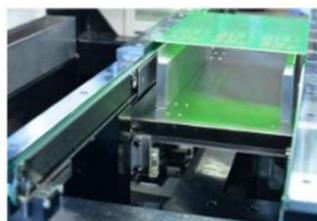
GD450+ PRSTE PRNITER



High stability CCD camera system
Four-way light source adjustable, with uniform illumination and the perfect image collection, making the various types of Mark points can be a very good identification (including the rugged Mark point), to meet the tin, Gold-plated, spray tin, FPC, and other types of different colors of the PCB.



High efficiency stencil cleaning system
The new wiping system ensures full contact with the stencil and the increased vacuum suction ensures that the solder paste remaining in the mesh is effectively removed, and the effective automatic cleaning function is achieved.



Simple and reliable PCB positioning system
Adaptive PCB board thickness, software tunable flexible side pressure and magnetic supporting device.



Intelligent scraper system
Programmable and independent direct-coupled stepper motor control, built-in precision pressure control system.

Technical features of the whole machine

GD450+™ Parameters

Max board size	450mm x 350mm
Min board size	50mm x 50mm
PCB thickness	0.4mm~6mm
Warpage	Max. PCB diagonal 1%
Max board weight	6Kg
Board edge spacing	configuration to 3mm
Max bottom spacing	15mm

Transmission speed	1500mm/s(Max)
Transmission height to the land	900±40mm
Transmission direction	Left-Right, Right-Left, Left-Left, Right-Right
Transmission method	One-stage transmission rail
PCB pick-up method	Software can change the elastic lateral pressure (Optional: multipoint on the bottom or partial vacuum or whole vacuum).
Board supporting method	Magnetic thimble, contour blocks, special workpiece fixture

Printing parameters

Printing head	Two independent straight league motor drives
Template frame size	370mm x 470mm (470 left/right placed) ~737 mm x 737 mm
Max printing area	450mm x 350mm
Scraper type	Stencil scraper/rubber scraper(angle 45°/55°/60° select according to the printing technology)
Printing mode	Single or two scrapers printing
Demoulding length	0.02 mm to 12 mm
Printing speed	6 mm/s to 200 mm/s
Printing pressure	0.5kg to 10Kg
Printing movement	±250mm (from the center)

Image parameters

Field of view (FOV)	6.4mm x 4.8mm
Table adjustable area	X,Y:±7.0mm θ:±2.0°
Reference point type	Standard reference point (see SMEMA standard), bonding pad/hole
Camera system	Individual camera, Up/down individual imaging visual system, geometric matching positioning

Performance parameters

Imaging alignment repeated accuracy	±12.5μ(±0.0005") @6 σ, Cpk≥2.0
Printing repeated accuracy	±25μ(±0.001") @6 σ, Cpk ≥ 2.0
Cycle time	Less than 7.5s
Replace line time	Less than 5mins

Equipment

Power	AC220V±10%,50/60HZ,15A
Compressed air	4~6Kg/cm2, 10.0 tube
Operation system	Windows XP
Equipment size	1140mm(L) x 1400mm(W) x 1480mm(H) (Do not include the screen and tri-color light height)
Equipment weight	About 1000kg

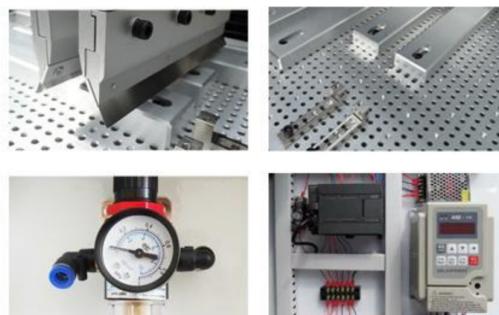
W-3088A SEMI-AUTOMATIC STENCIL PRINTER



High efficiency stencil cleaning system

- ★ Utilizes BTI high-speed linear guides and variable-frequency motors to drive the squeegee holder, ensuring printing precision.
- ★ The printing squeegee can be rotated and fixed at 45° upward for easy cleaning and replacement of the stencil and squeegee.
- ★ The squeegee holder is adjustable forward and backward to select the optimal printing position.
- ★ The modular printing table features fixed grooves and pins for easy installation and adjustment, suitable for both single and double-sided PCB printing.
- ★ The stencil alignment system employs movable stencil combined with X, Y, Z-axis fine-tuning of the PCB, enabling quick and convenient registration.
- ★ Equipped with a 4.3-inch SamDraw true-color touch screen and PLC-based HMI control, offering user-friendly human-machine interaction.
- ★ Supports both unidirectional and bidirectional printing modes with multiple printing options.
- ★ The squeegee holder is adjustable forward and backward to select the optimal printing position.

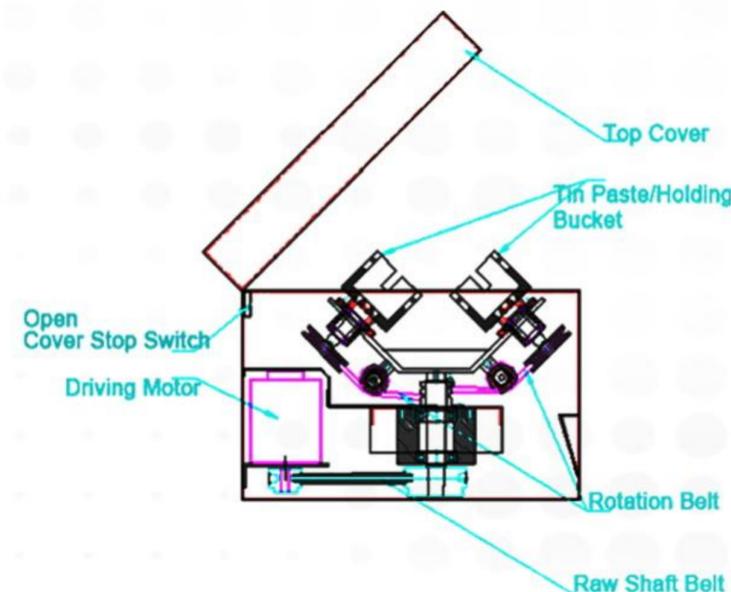
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- ★ Supports both unidirectional and bidirectional printing modes with multiple printing options.



Technical features of the whole machine

W-3088A	
Printing table area	320x700mm
Frame size	420x850mm
Substrate size	320x600mm
Substrate thickness	0.2-2.2mm
Fixed printing position	PCB Outer Or Pin Positioning
Deck fine adjustment	Front/Back±10mm R/L±10mm
Machine repeatability	±0.05mm
Minimum spacing	0.35mm
Use air pressure	4-6Kgf/Cm2
using electric	220V 50/60Hz 100W
Machine size LxWxH	1050x900x1650m
Machine weight	260Kg

SOLDER PASTE MIXER



Machine features & functions:

- ★ Maximum speed up to 1000 RPM;
- ★ When stirring, the tin paste should be deiced beforehand;
- ★ You don't have to open the container;
- ★ Power supply single phase 220v;
- ★ No moisture problem;
- ★ It does not destroy the shape of the tin powder;
- ★ The fixture is suitable for all kinds of 500g packaging tin paste cans;
- ★ Stirring time can be set arbitrarily;



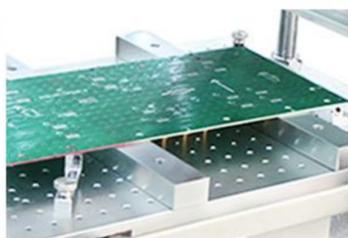
ZD-400	
Running speed	motor speed: 1350RPM; a revolution 1000RPM; the second rotation : 500RPM
Working ability	0-1000G*2 CANS
Can accept tin paste cans	apply to 500G tin solder paste can
Time setting	0.1-9.9minutes, Adjust for 1 minutes each time; 10-30minutes, Adjust for 10 minutes each time
Display mode	LED digital display
Motor	1350/min
Working power supply	220V 50/60HZ >60W
Dimension	400mm*400mm*420mm
Machine weight	35KG

CHM-T3040 STENCIL PRINTER SPECIFICATIONS



Technical features of the whole machine

CHM-T3040	
Dimensions	540mmx380mmx390mm
Net Weight	20kg
Work Table Size	300mmx400mm
Maximum Printable Size	300mmx400mm
Maximum Net Frame Size	370mmx470mm
Printing Speed	Manual Control
Thickness of Printable Substrate	0mm ~ 80mm
Work Table Horizontal Adjustable Volume	10mm
Printing Platform Height	190mm
Repeated Printing Accuracy	±0.01mm
Positioning Mode	Border positioning or benchmark hole positioning



Flexible positioning



Quick and firm



Guarantee repeated precision



Adjustable in height



Technical features of the whole machine

Model No.	PCB Loader Machine	PCB Unloader Machine
Dimensions	L1150*W800*H1300mm	L1600*W800*H1300mm
Transmission structure	Special aluminum profile guide rail and special Houndstooth plastic chain	
Drive structure	90W brake motor drive uses ball screw to make Magazine step up and down	
Electrical machinery	The transmission motor uses a 15W fixed speed motor	
Fixture category	Pneumatic clamp structure	
Magazine specifications	L355*W320*565mm	
The maximum PCB size	L330*W250	
Direction	Right to Left / Left to Right	
Lift adjustment	The pitch of the lifting platform can be selected as 10, 20, 30, 40	
Transmission height	H = 920 ± 30	
Software system	PLC programmable controller control	
Transmission mode	With automatic loading function	With automatic board collection function
Display	The operation control panel is an intelligent true color touch screen	
Pneumatic components	The push plate cylinder position is adjusted by a screw	
Power supply	220V 50HZ	
Air source	0.4-0.6MPa	
Fully loaded storage board quantity	50PCS	
Accessory	Electric control box set	One set of electric control box Comes with a set of 0.6M long push plate conveyor

CUSTOMER/EXHIBITION SITE AND AFTER-SALES SERVICE

■ CUSTOMER SITE



■ EXHIBITION SITE



■ TECHNICAL SUPPORT

Sales team with rich SMT technology experience could offer customer SMT full line layout, machine type recommendation and technology solution.

Offer free machine installation and debugging service, machine operation and maintenance training (for China market only).

Offer update software to guarantee machine runs with latest function.

Offer technical enquiry and guidance about SMT manufacturing quality.

Offer selection guidance for special accessories, components and tools.

■ AFTER SALES SERVICE

One year warranty of free maintenance after machine sold and offer lifetime maintenance service.

Free hotline service is provided 24 hours a day, and customer engineers can get technical support from Charmhigh at any time, and immediately handle and solve equipment failures and production problems in the production line.

Feedback in 30 minutes after receiving any complaint over the phone, offer on spot technical support in 24 hours.