

INTEGRITY · RESPONSIBILITY · CRAFTSMANSHIP · INNOVATION · ALTRUISM · AND WIN-WIN





FOCUSING ON RESEARCH AND DEVELOPMENT, DESIGN, PRODUCTION,  
AND SALES OF VARIOUS ELECTRONIC MOUNTING AND WELDING EQUIPMENT

# ENTERPRISE PRODUCT CATALOG

ZHEJIANG HUAQI ZHENG BANG AUTOMATION  
TECHNOLOGY CO., LTD.

ZHEJIANG HUAQI ZHENG BANG AUTOMATION TECHNOLOGY CO., LTD.

 **Whatsapp:** +86 137 7777 9528  **Email:** steven@smtpro.net

 **Mobile:** 86-137-7777-9528  **Company website:** smtpro.net

 **Production Base:** No. 1 Shanha Road, Nanming Mountain Street,  
Liandu District, Lishui City, Zhejiang Province China. Zip code 323000

**Marketing Center:** 6 / F, International Chamber of Commerce Building,  
Renhui Road Ouhai District, Wenzhou City, Zhejiang Province, China.  
Zip code 325000



## INTELLIGENT MANUFACTURING IN CHINA

浙江华企正邦自动化  
ZHEJIANG HUAQI ZHENG BANG AUTOMATION

# EMPOWERING ELECTRONIC INTELLIGENT MANUFACTURING UPGRADE

## TO ACCELERATE INDUSTRY DEVELOPMENT



## ABOUT US - HUAQI ZHENGBANG

### ZHEJIANG HUAQI ZHENGBANG AUTOMATION TECHNOLOGY CO., LTD.

Zhejiang Huaqi Zhengbang Automation Technology CO., Ltd. (Wenzhou Zhengbang Electrical Equipment CO., Ltd.) is founded in 2007, focusing on developing, design, manufacturing and sales automatic manufacturing devices and electronic production equipment.

The company supplies professional and individual solutions for LED lighting, electronic, electrical products, toys, metal, cars. Major products are LED lighting automatic assembly lines, THT soldering device, SMT soldering machines and multiple working tables and non-standard equipment. Major products are LED bulb automatic assembly lines, flood lights assembly lines, downlights assembly lines, THT soldering equipment, SMT soldering device, working table and non-standard customized machines.

Huaqi Zhengbang has big scale market covering 30+ province and districts inside of china and 30% products are selling to Hongkong, Taiwan, Southeast Asia, Africa, Europe, and America. Huaqi Zhengbang believes "Qualified Base, Market Leading, Technical Development, Profitable Management" company role in order to improve core competitiveness, providing qualified service to most clients with "Qualified Products, Reasonable Pricing, Excellent Reputation and full range after-sale service".

COMPANY VISION: Contributing to create Chinese first brand in electronic and electrical production equipment.

COMPANY  
ESTABLISHMENT

**2007** YEAR

SERVING  
CUSTOMERS

**200,000+**

COMPANY  
STAFF

**300+**

FACTORY  
AREA

**33639** m<sup>2</sup>



# HONORARY QUALIFICATIONS

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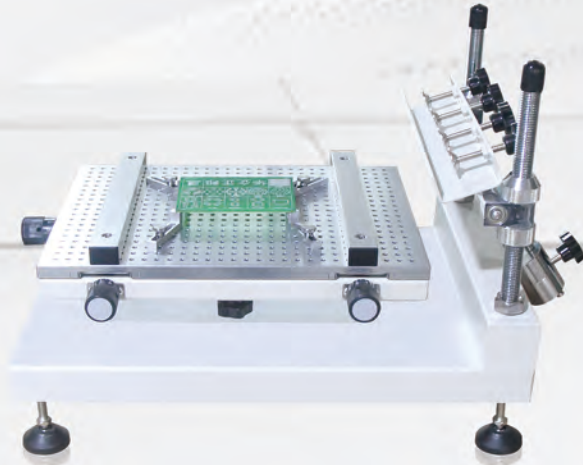
# SMT COMBINATION ASSEMBLY LINE

## Research and Development Sample Combination 1



400MM

Solder Paste Mixer



540MM

Solder Printing Table



1080MM

Desktop Pick And Place Machine



675MM

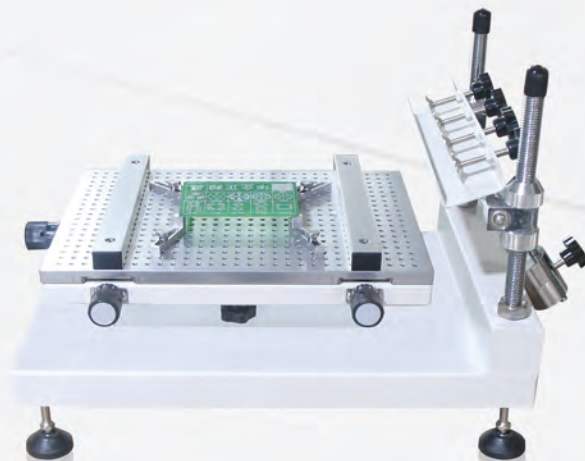
Desktop Reflow Oven

## Research and Development Sample Combination 2



400MM

Solder Paste Mixer



540MM

Solder Printing Table



1185MM

Desktop Pick And Place Machine



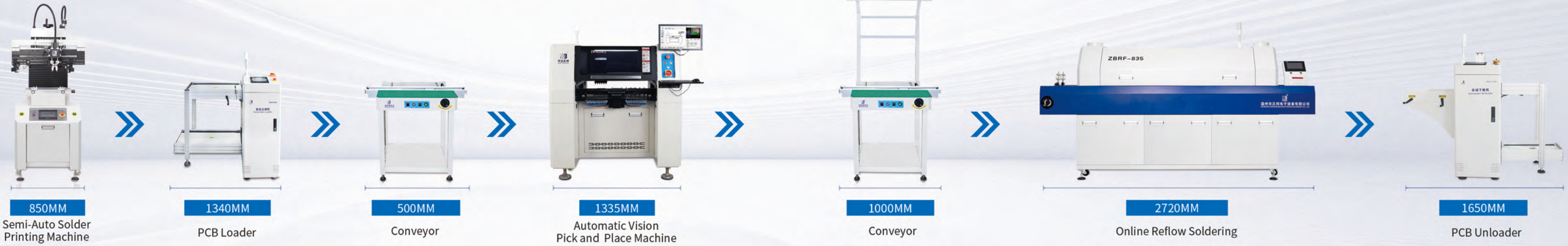
1700MM

Mesh Belt Reflow Soldering

SMT MEDIUM-SIZED PRODUCTION COMBINATION 1 · TOTAL LENGTH 7465MM



SMT MEDIUM-SIZED PRODUCTION COMBINATION 2 · TOTAL LENGTH 9395MM



SMT MEDIUM-SIZED PRODUCTION COMBINATION 3 · TOTAL LENGTH 12700MM



# SELECTION OF SMT MACHINE SERIES



**BC-8Y**

Model: BC-8Y      Number of Mounting Heads: 8  
 Feeder Slots: 1      Positioning Accuracy: 0.02mm  
 Camera: Flying Camera      PCB Size: 500×400mm  
 Normal CPH: 16000      Motor/Drive: Servo System  
 Mounting Head Structure: Independent Direct Drive  
 Transmission Main Shaft: Ground Screw + Linear Guide  
 Control Configuration: Industrial Computer + 19" Display Screen

120mm Marble Countertop



**WS-8Y**

Model: WS-8Y      Number of Mounting Heads: 8  
 Feeder Slots: 70      Positioning Accuracy: 0.02mm  
 Camera: Flying Camera      PCB Size: 500×400mm  
 Normal CPH: 16000      Motor/Drive: Servo System  
 Mounting Head Structure: Ball Spline  
 Transmission Main Shaft: Ground Screw + Linear Guide  
 Control Configuration: Industrial Computer + 19" Display Screen



**BC-6Y**

Model: BC-6Y      Number of Mounting Heads: 6  
 Feeder Slots: 66      Positioning Accuracy: 0.02mm  
 Camera: Flying Camera      PCB Size: 500×400mm  
 Normal CPH: 12000      Motor/Drive: Servo System  
 Mounting Head Structure: Independent Direct Drive  
 Transmission Main Shaft: Ground Screw + Linear Guide  
 Control Configuration: Industrial Computer + 19" Display Screen



**WS-8N**

Model: WS-8N      Number of Mounting Heads: 8  
 Feeder Slots: 70      Positioning Accuracy: 0.02mm  
 Camera: Flying Camera      PCB Size: 500×400mm  
 Normal CPH: 16000      Motor/Drive: Servo System  
 Mounting Head Structure: Ball Spline  
 Transmission Main Shaft: Ground Screw + Linear Guide  
 Control Configuration: Industrial Computer + 19" Display Screen

120mm marble countertop, supporting NXT Feeder



**ZB4050LS**

Model: ZB4050LS      Number of Mounting Heads: 6  
 Feeder Slots: 64      Positioning Accuracy: 0.02mm  
 Camera: Fixed Camera      PCB Size: 500×400mm  
 Normal CPH: 11000      Motor/Drive: Servo System  
 Mounting Head Structure: Swing Hip Drive  
 Transmission Main Shaft: Ball Screw + Linear Guide  
 Control Configuration: Industrial Computer + 19" Display Screen



**WS-8S**

Model: WS-8S      Number of Mounting Heads: 8  
 Feeder Slots: 70      Positioning Accuracy: 0.02mm  
 Camera: Flying Camera      PCB Size: 500×400mm  
 Normal CPH: 16000      Motor/Drive: Servo System  
 Mounting Head Structure: Ball Spline  
 Transmission Main Shaft: Ground Screw + Linear Guide  
 Control Configuration: Industrial Computer + 19" Display Screen

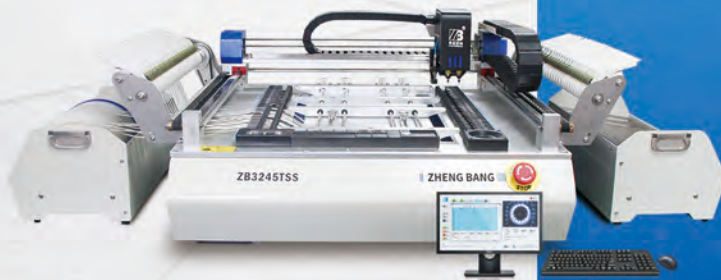
120mm marble countertop, supporting Samsung Feeder

# SELECTION OF SMT MACHINE SERIES



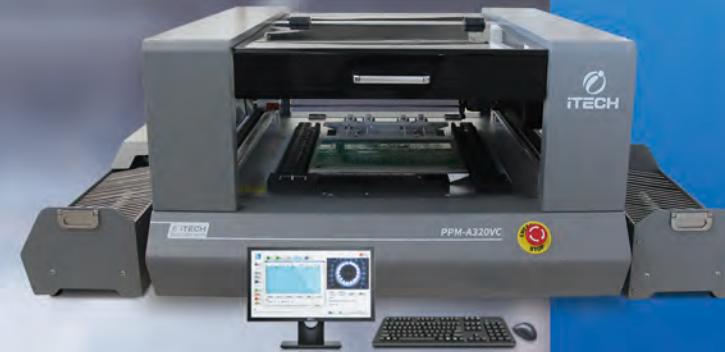
**ZB3545TP**

Model: ZB3545TP      Number of Mounting Heads: 4  
 Feeder Slots: 38      Positioning Accuracy: 0.05mm  
 Number of Cameras: 6      PCB Size: 350×450mm  
 Normal CPH: 5000      Motor/Drive: Stepper Servo  
 Transmission Main Shaft: Synchronous Belt + Linear Guide  
 Control Configuration: Industrial Computer + 19" Display Screen  
 Visual Correction: CCD High-Definition Camera  
 + 4 Sets of Quick Cameras



**ZB3245TSS**

Model: ZB3245TSS      Number of Mounting Heads: 2  
 Feeder Slots: 54      Positioning Accuracy: 0.05mm  
 Number of Cameras: 4      PCB Size: 320×450mm  
 Normal CPH: 3500      Motor/Drive: Stepper Servo  
 Transmission Main Shaft: Synchronous Belt + Linear Guide  
 Control Configuration: Industrial Computer + 19" Display Screen  
 Visual Correction: CCD High-Definition Camera  
 + 2 Sets of Quick Cameras



**PPM-A320VC**

Model: PPM-A320VC      Number of Mounting Heads: 2  
 Feeder Slots: 54      Positioning Accuracy: 0.05mm  
 Number of Cameras: 4      PCB Size: 320×450mm  
 Normal CPH: 3500      Motor/Drive: Stepper Servo  
 Transmission Main Shaft: Synchronous Belt + Linear Guide  
 Control Configuration: Industrial Computer + 19" Display Screen  
 Visual Correction: CCD High-Definition Camera  
 + 2 Sets of Quick Cameras

Flip Dust Cover



**ZB3245TS**

Model: ZB3245TS      Number of Mounting Heads: 2  
 Feeder Slots: 27      Positioning Accuracy: 0.05mm  
 Number of Cameras: 2      PCB Size: 320×450mm  
 Normal CPH: 3000      Motor/Drive: Step Servo  
 Transmission Main Shaft: Synchronous Belt + Linear Guide  
 Control Configuration: Industrial Computer + 19" Display Screen  
 Visual Correction: CCD Gaotao Camera



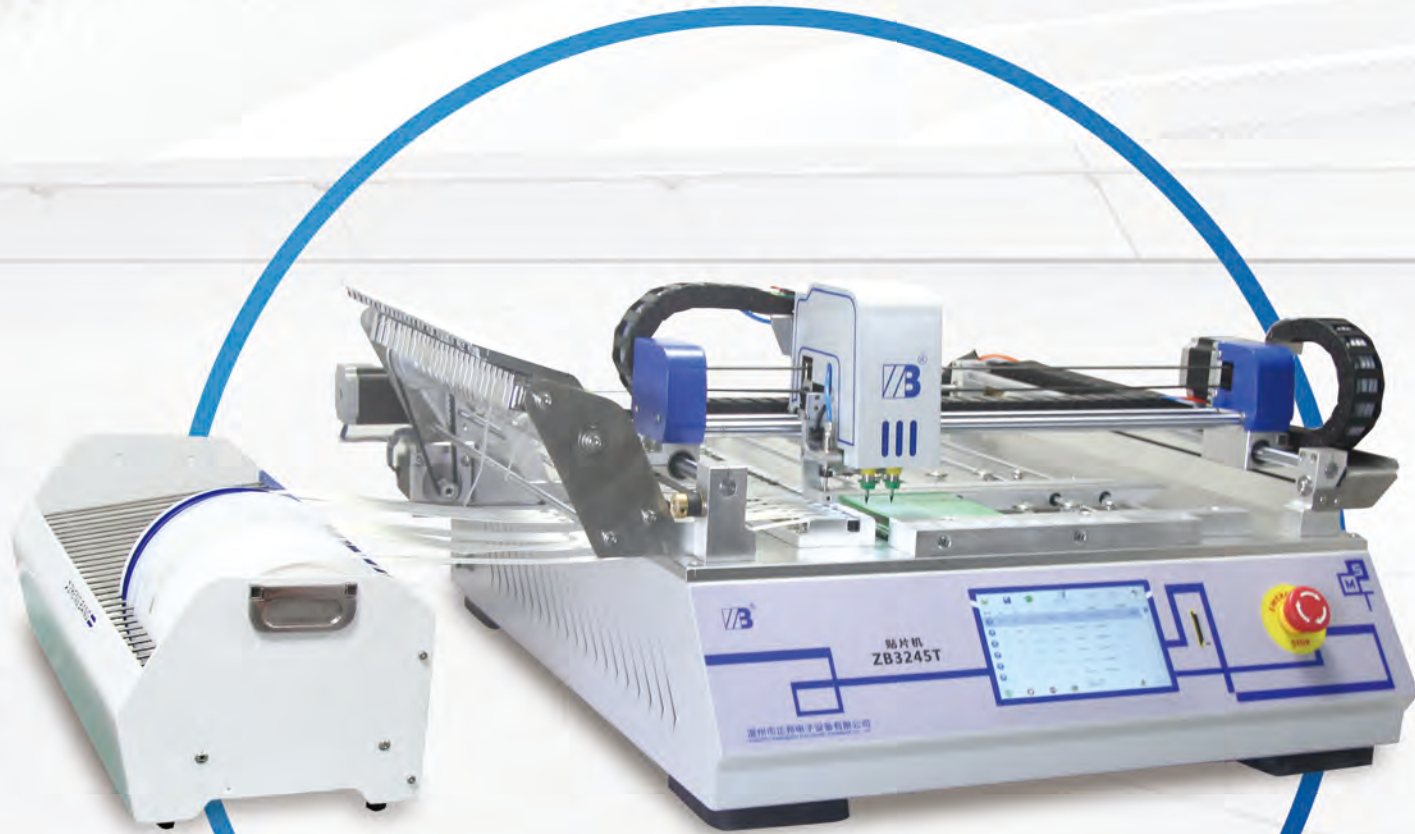
**ZB3245T**

Model: ZB3245T      Number of Mounting Heads: 2  
 Feeder Slots: 27      Positioning Accuracy: 0.05mm  
 Number of Cameras: None      PCB Size: 320×450mm  
 Normal CPH: 4000      Motor/Drive: Stepper  
 Transmission Main Shaft: Synchronous Belt + Optical Axis  
 Control System: Built-in MCU + 7" Touch Screen  
 Visual Correction: None

# ZB3245T

## Desktop Pick and Place Machine

ZB series placement machine main features: Small volume, easy operate, run stable and price affordable. They can mount 0402, 0603, 0805, 1206, 1210, 3528, 5050, SOP and QFN etc chips precise. These machines can help to avoid the unstable performance because of manual mounting and reduce the rent cost, improve the product capacity at the same time.



### TECHNICAL PARAMETER

|                    |   |                                 |                                 |
|--------------------|---|---------------------------------|---------------------------------|
| Model              | ZB3245T   | 16 mm                           | 2PCS                            |
| Mounting Numbers   | 2 PCS   | 24 mm                           | 1PCS                            |
| Mounting Precision | 0.05mm  | Preposition IC Material Level   | 8PCS                            |
| Mounding Angle     | 0~360°  | <b>Tubular Materials Feeder</b> | ZB Customized Feeder(Optional)  |
| Theoretical Speed  | 4000  | X/Y Axis Moving Range           | 410×490mm                       |
| Normal CPH         | 4000  | Operational Software            | Embedded HRM System             |
| Nozzle Type        | Juki Series Nozzle  | Compatible File Format          | CSV、TXT.format                  |
| SMD Height         | ≤5.5mm  | Program Method                  | Support Online and Offline Ways |
| PCB Minimal Size   | 10×10mm   | Air Pressure                    | 0.4 Mpa                         |
| PCB Maximum Size   | 320×450mm   | Vacuity Degree                  | -92kpa                          |
| PCB Thickness      | ≤2mm  | Storage                         | 8G(Kingston SD Card)            |
| Type               | 27 types of ribbon materials:<br>(8mm x 20 types, 12mm x 4 types,<br>16mm x 2 types, 24mm x 1 type)<br>supports customization | Power                           | 150W                            |
| 8 mm               | 20PCS   | Power Supply                    | AC220V±10% 50Hz                 |
| 12 mm              | 4PCS  | Main Engine Outline Size        | L800×W780×H380mm                |
| Applicable Element | RC (0603,0805,1206 etc)<br>LED Lamp Beads (0603,0805,3014,5050 etc)<br>Chip (SOT,SOP etc)                                     | Materials Feeder Outline Size   | L235×W700×H245mm                |
|                    |   | Weight                          | 50kg                            |



Double mounting head mounting

Dual Mounting Heads 360  
Degrees Rotate by Any  
Angles



Dual Mark point positioning function

Dual Mark Point Positioning  
Function



Cross laser positioning

Cross Laser Positioning



Vacuum negative pressure detection

Vacuum Negative Pressure  
Detection



# ZB3245TS

## Desktop Pick and Place Machine

The ZB series mounter is suitable for small and medium-sized enterprises' mass production, experimental development, sample trial production and school teaching and so on. The design concept of the machine is to meet the needs of the vast number of small and medium customers, with the rapid and accurate mounting, easy operation, stable running and affordable price. It has a very high performance-price ratio and is your best choice!



## TECHNICAL PARAMETER

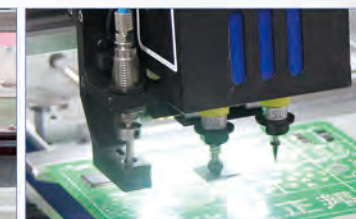
|                     |   |                               |                                 |
|---------------------|---|-------------------------------|---------------------------------|
| Model               | ZB3245TS  | X/Y Axis Moving Range         | 430×530mm                       |
| Mounting Numbers    | 2PCS  | Z-Axis Rotation Angle         | 0~360°                          |
| Mounting Precision  | 0.05mm  | Visual Camera                 | CCD High-definition Camera      |
| Mounting Angle      | 0~360°  | Numbers of Visual             | Parts Camera×1、PCB Camera×1     |
| Normal CPH          | 3000  | Recognition Capability        | MAX.22×22mm                     |
| Suction Nozzle Type | Juki Series Nozzle  | PC System                     | Microsoft WIN7                  |
| SMD Height          | ≤5.5mm(Customize ≤11mm)   | Operational Software          | R & D                           |
| PCB Minimal Size    | 10×10mm   | Compatible File Format        | CSV. Format                     |
| PCB Maximum Size    | 320×450mm   | Program Method                | Support Online and Offline Ways |
| PCB Thickness       | ≤2mm  | Air Pressure                  | 0.4 Mpa                         |
| Type                | 27 types of ribbon materials:<br>(8mm x 20 types, 12mm x 4 types,<br>16mm x 2 types, 24mm x 1 type)<br>supports customization | Vacuity Degree                | -92kpa                          |
| Front IC Location   | 10PCS   | Power                         | 150W                            |
| Back IC Tray        | 1PCS  | Power Supply                  | AC220V±10% 50Hz                 |
| Vibration Feeder    | ZB Customized Feeder(Optional)  | Main Engine Outline Size      | L830×W730×H375mm                |
| Applicable Element  | RC (0201,0402,0603,0805,1206 etc)<br>LED Lamp Beads (0603,0805,3014,5050 etc)<br>Chip (SOT,SOP,QFN,BGA etc)                   | Materials Feeder Outline Size | L235×W470×H245mm                |
|                     |   | Weight                        | 56kg                            |


**Stepping Servo Motor**

Realize closed-loop control of position, speed, and torque Control and overcome the problem of stepping motor out of step


**CCD industrial camera**

High resolution CCD industrial dual camera, correcting material deviation, improving the reliability of mounting


**Double mounting head mounting**

Double head design, achieving fast mounting of small components and integrated IC components


**Built in industrial computer**

Embedded industrial control PC and Windows system, simple and convenient operation, stable performance

# ZB3245TSS

## Desktop Pick and Place Machine

The ZB3245TSS series mounter with 2heads ,can pick and place at the same time. Independent 54 feeder station, 19"Dell display, multiple sets of high resolution CCD industry dual camera vision.The transmission mechanism is equipped with high precision synchronous belt.and Linear Guideway, stepping servo motor.support CSV. document edit. Maximum PCB 320\*450mm, suit for general resistance capacity



## TECHNICAL PARAMETER

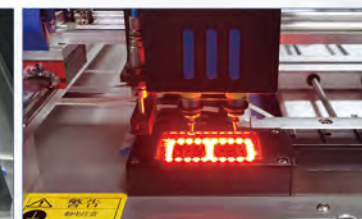
|                     |   |                               |                                 |
|---------------------|---|-------------------------------|---------------------------------|
| Model               | ZB3245TSS   | X/Y Axis Moving Range         | 430×530mm                       |
| Mounting Numbers    | 2PCS  | Z Axis Rotation Angle         | 0~360°                          |
| Mounting Precision  | 0.05mm  | Visual Camera                 | CCD High-definition Camera      |
| Mounding Angle      | 0~360°  | Numbers of Visual             | Parts Camera×3、PCB Camera×1     |
| Normal CPH          | 3500  | Recognition Capability        | MAX.22×22mm                     |
| Suction Nozzle Type | Juki Series Nozzle  | PC System                     | Microsoft WIN7                  |
| SMD Height          | ≤5.5mm(Customize ≤11mm)   | Operational Software          | R & D                           |
| PCB Minimal Size    | 10×10mm   | Compatible File Format        | CSV. Format                     |
| PCB Maximum Size    | 320×450mm   | Program Method                | Support Online and Offline Ways |
| PCB Thickness       | ≤2mm  | Air Pressure                  | 0.4 Mpa                         |
| Type                | 54 types of ribbon materials:<br>(8mm x 40 types, 12mm x 8 types,<br>16mm x 4 types, 24mm x 2 type)<br>supports customization | Vacuity Degree                | -92kpa                          |
| Front IC Location   | 10PCS   | Power                         | 230W                            |
| Back IC Tray        | 1PCS  | Power Supply                  | AC220V±10% 50Hz                 |
| Vibration Feeder    | ZB Customized Feeder(Optional)  | Main Engine Outline Size      | L990×W730×H375mm                |
| Applicable Element  | RC (0201,0402,0603,0805,1206 etc)<br>LED Lamp Beads (0603,0805,3014,5050 etc)<br>Chip (SOT,SOP,QFN,BGA etc)                   | Materials Feeder Outline Size | L235×W470×H245mm                |
|                     |   | Weight                        | 85kg                            |


**Stepping Servo Motor**

Realize closed-loop control of position, speed, and torque Control and overcome the problem of stepping motor out of step


**54 bit material stack**

54 bit material stack, meeting diverse mounting requirements, supporting multiple feeders


**Double mounting head mounting**

Two sets of recognition camera designs to achieve high-speed recognition and inspection of mounted components


**Built in industrial computer**

Embedded industrial control PC and Windows system, simple and convenient operation, stable performance

# ZB3545TP

## Desktop Pick and Place Machine

It is with Multi-group industrial CCD camera solution, identification and correction system, 4 head pick and place at the same time. PC monitor, 19 inch Dell display. For the transmission structure, machine with HIWIN linear guider, Japanese belt, can achieve long term high precision and stable mounting. Maximum support 38 pcs of 8mm YAMAHA CL feeder stations. Also CSV, TXT coordinate file can be adopted. The maximum PCB size allowed: 350\*450mm, normally it is used for normal resistance, capacitance LED, chips, BGA, etc. Mainly used for small production and prototyping business, with self-designed operating system for developers



## TECHNICAL PARAMETER

|                       |                         |                        |   |
|-----------------------|-------------------------|------------------------|---|
| Model                 | ZB3545TP                | Z Axis Moving Range    | 12mm  |
| Mounting Numbers      | 4PCS                    | Visual Camera          | CCD High-definition Camera  |
| Mounting Precision    | 0.05mm                  | Numbers of Visual      | PCB Camera×1、<br>Precision Identification Camera×1、<br>High Speed Identification Camera×4             |
| Mounding Angle        | 0~360°                  | Recognition Capability | MAX.22×22mm   |
| Normal CPH            | 5000                    | PC System              | Microsoft WIN7  |
| Suction Nozzle Type   | Juki Series Nozzle      | Operational Software   | R & D   |
| SMD Height            | ≤6mm(Customize ≤11mm)   | Compatible File Format | CSV. Format   |
| PCB Minimal Size      | 10×10mm                 | Program Method         | Support Online and Offline Ways   |
| PCB Maximum Size      | 350×450mm               | Air Pressure           | 0.8 Mpa   |
| PCB Thickness         | ≤2mm                    | Vacuity Degree         | Vacuum Generator  |
| Feeder Type           | YAMAHA CL Feeder        | Air Pressure           | -80kpa  |
| Feeder                | 8mm,12mm,16mm,24mm,32mm | Power                  | 500W  |
| Feeder Locations      | 38 Feida hole positions | Power Supply           | AC220V±10% 50Hz   |
| Vibration Feeder      | YAMAHA YV Feeder        | Outline Size           | L1185×W840×H560mm   |
| IC Tray               | Front 1 Piece           | Weight                 | 123kg   |
| X/Y Axis Moving Range | 655×575mm               | Applicable Element     | RC (0201,0402,0603,0805,1206 etc) LED Lamp Beads (0603,0805,3014,5050 etc) Chip (SOT,SOP,QFN,BGA etc) |


**Stepping+servo system**

Step servo system was adopted to improve the machine reliability and never loose step.


**CCD high-definition recognition camera**

Multi-grouped industrial CCD camera solutions are adopted to improve efficiency and precision.


**Upper silver slide rail+imported belt**

HIWIN Linear Guide generates long term of high precise performance.


**Four sets of fast recognition cameras**

To improve the machine adaptability, it is adopted 4 head synchronous identification and mounting solution.

**ZB4050LS (Rolling)**
**ZB4050LY (Grinding)**

ZB4050 mounting machine adopted built-in WIN7 system industrial control computer, eight sets of high-resolution CCD industrial camera vision correction system, online 6-head synchronous calibration production placement.

The transmission mechanism is equipped with Panasonic high-resolution servo drive and motor, silver linear guide, and TBI ball screw to maintain long-term high-precision and stable placement. 64 PCS of YAMAHA pneumatic feeder station, support CSV coordinate file import and editing, maximum 500\*400mm PCB placement. It is suitable for high-precision placement of conventional resistance, LED lamp beads, IC, BGA and other components, suitable for automated mass production.

**VERTICAL VISION PICK AND PLACE MACHINE (6-HEAD)**

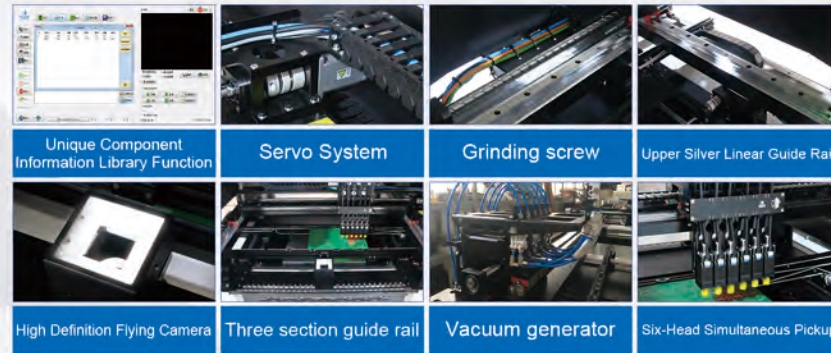
**TECHNICAL PARAMETER**

|                                   |  |                                    |   |
|-----------------------------------|--|------------------------------------|---|
| Model                             | ZB4050LS/ZB4050LY  | Width Adjustment Structure         | Synchronous Belt + Linera Slide Rail  |
| Mounting Numbers                  | 6 Heads (Three-Head Simultaneous Pickup)   | Width Adjustment Method            | One Click Width Adjustment  |
| Positioning Accuracy              | 0.02mm   | Top Plate Structure                | Top pin cylinder  |
| Mounting Precsisian               | ±0.05mm  | Supported Types                    | Yamaha Pneumatic CI Model, Electric YV Model, Tube Feeder, etc.                         |
| Mounding Angle                    | 0~360°   | Supported Specifications           | 8mm,12mm,16mm,24mm,32mm,44mm etc.   |
| Theoretical Mounting Speed        | 15000  | Number of Component Positions      | 64 Positions  |
| Normal CPH                        | 11000  | IC Tray Positions                  | 2 Positions   |
| Suction Nozzle Type               | Juki Series Nozzle   | X, Y-Axis Travel Range             | 639mm*656mm   |
| Component Packaging               | Tray Loading/Tube Loading/<br>Tray Packaging/Vibrating Tray  | Z-Axis Mounting Stroke             | 15mm  |
| SMD Height                        | ≤6mm(Customize ≤12mm)  | R-Axis Rotation Angle              | 0~360°  |
| Component Dimensions              | ≤40mm(Customize Support)   | Vision Camera                      | CCD High-Definition Camera  |
| PCB Minimal Size                  | 45×45 mm   | Number of Vision Cameras           | Mark Camera×1、 Precision Identification Camera×1、<br>High Speed Identification Camera×6 |
| Maximum Board Size (Without Tray) | 500×400 mm   | Recognition Method                 | High-Definition Fixed Camera  |
| Maximum Board Size (With Tray)    | 500×250 mm   | PC System                          | Microsoft WIN7  |
| PCB Thickness                     | ≤2mm(Customize Support)  | Operating Software                 | Self-Developed  |
| Permissible Board Warpage         | ≤1mm   | Compatible File Formats            | .CSV.Format   |
| XY drive system                   | Servo Drive + Motor  | Programming Method                 | Support Online and Offline Ways   |
| X drive Structure                 | Single-Drive Direct-Connected Dual Linear Guide<br>Rail+ High-Strength Aerospace Aluminum  | External Air Source                | 0.8Mpa  |
| Y drive Structure                 | Single-Drive Direct-Connected Dual Linear Guide<br>Rail+ High-Strength Aerospace Aluminum  | Vacuum Generation Method           | Vacuum Generator  |
| XY Transmission Structure         | Imported Ground Ball Screw +<br>Imported Linear Slide Rail   | Vacuum Value                       | -80kpa  |
| Z-Axis motion Structure           | Swing arm drive  | Safety Protection                  | Feeder Lift Protection,Slow Down Or<br>Stop When Cover Is Opened                        |
| A-Axis motion Structure           | Independent Direct Drive   | Upper and Lower Computer Interface | Standard SMEMA Connector  |
| Conveying Structure               | Aluminum Guide Rail  | Power                              | Rated Power 1.5Kw, Working Power 0.35Kw   |
| Conveying Motor                   | Drive-Control Integrated Stepper Motor   | Power Supply                       | AC220V±10% 50Hz   |
| Conveying Method                  | Three-stage Six-Drive  | Mainframe Dimensions               | L 1335 × W 1200 × H 1390 mm   |
| Conveying Direction               | L→R (Customize Support)  | Weight                             | 440kg   |
| Compatible Components             | Resistance and capatitance (0201, 0402, 0603, 0805, 1206, etc.), Led Lamp Beads,Diodes, Mos Tubes,Electrolytic Capacitors, Irregular Components,etc. Chips(SOT,SOP,QFN,BGA,etc.) |                                    |   |

# BC-6Y

The BC-6Y placement machine uses an independent direct-drive structure for the mounting heads, supporting simultaneous pickup with 6 heads. It is equipped with Panasonic high-resolution servo drive and motor, imported linear guide rails, and imported ground ball screws, ensuring long-term high-precision and stable mounting. It features a built-in industrial computer, high-definition Ethernet flying camera vision correction system. With 56 feeder positions, it supports CSV coordinate file import and can accommodate PCB mounting up to 400\*500 mm. Suitable for precise mounting of standard resistors, chips, irregular components, ultra-high devices, and extra-large components, it is ideal for automated mass production.

## VERTICAL VISION PICK AND PLACE MACHINE (6-HEAD)



## TECHNICAL PARAMETER

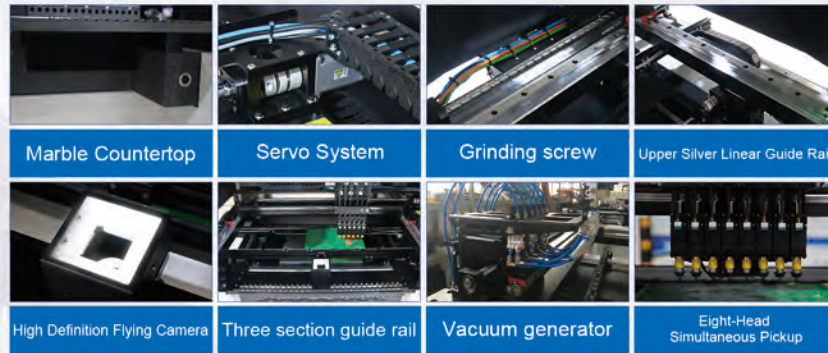
|                                   |  |                                    |   |
|-----------------------------------|--|------------------------------------|---|
| Model                             | BC-6Y  | Width Adjustment Structure         | Synchronous Belt + Linera Slide Rail                            |
| Mounting Numbers                  | 6 Heads (Six-Head Simultaneous Pickup)   | Width Adjustment Method            | Automatic Width Adjustment                                      |
| Positioning Accuracy              | 0.02mm   | Top Plate Structure                | Cylinder Tray + Movable Needle                                  |
| Mounting Precsisian               | ±0.05mm  | Supported Types                    | Yamaha Pneumatic CI Model, Electric YV Model, Tube Feeder, etc. |
| Mounding Angle                    | 0~360°   | Supported Specifications           | 8mm,12mm,16mm,24mm,32mm,44mm etc.                               |
| Theoretical Mounting Speed        | 21000  | Number of Component Positions      | 66 Positions  |
| Normal CPH                        | 12000  | IC Tray Positions                  | 2 Positions   |
| Suction Nozzle Type               | Juki Series Nozzle   | X, Y-Axis Travel Range             | 620mm*700mm   |
| Component Packaging               | Tray Loading/Tube Loading/<br>Tray Packaging/Vibrating Tray  | Z-Axis Mounting Stroke             | 27mm  |
| SMD Height                        | ≤13mm(Customize ≤12mm)   | R-Axis Rotation Angle              | 0~360°  |
| Component Dimensions              | ≤40mm(Customize Support)   | Vision Camera                      | Industrial Ethernet High-Definition Camera                      |
| PCB Minimal Size                  | 45×45 mm   | Number of Vision Cameras           | Mark Camera X1、 Flying Probe Camera X1                          |
| Maximum Board Size (Without Tray) | 500×400 mm   | Recognition Method                 | Flying Probe + High-Definition Fixed Camera                     |
| Maximum Board Size (With Tray)    | 500×220 mm   | PC System                          | Microsoft WIN10   |
| PCB Thickness                     | ≤2mm(Customize Support)  | Operating Software                 | Self-Developed  |
| Permissible Board Warpage         | ≤1mm   | Compatible File Formats            | .CSV.Format   |
| XY drive system                   | Panasonic Servo Drive + Motor  | Programming Method                 | Support Online and Offline Ways                                 |
| X drive Structure                 | Single-Drive Direct-Connected Dual Linear Guide Rail+ High-Strength Aerospace Aluminum   | External Air Source                | 0.8Mpa  |
| Y drive Structure                 | Single-Drive Direct-Connected Dual Linear Guide Rail+ High-Strength Aerospace Aluminum   | Vacuum Generation Method           | Vacuum Generator  |
| XY Transmission Structure         | Imported Ground Ball Screw + Imported Linear Slide Rail  | Vacuum Value                       | -80kpa  |
| Z-Axis motion Structure           | Independent Direct Drive   | Safety Protection                  | Feeder Lift Protection,Slow Down Or Stop When Cover Is Opened   |
| A-Axis motion Structure           | Independent Direct Drive   | Upper and Lower Computer Interface | Standard SMEMA Connector  |
| Conveying Structure               | Aluminum Guide Rail  | Power                              | Rated Power 1.5Kw, Working Power 0.35Kw                         |
| Conveying Motor                   | Drive-Control Integrated Stepper Motor   | Power Supply                       | AC220V±10% 50Hz   |
| Conveying Method                  | Three-stage Six-Drive  | Mainframe Dimensions               | L 1310 × W 1220 × H 1450 mm                                     |
| Conveying Direction               | L→R (Customize Support)  | Weight                             | 680kg   |
| Compatible Components             | Resistance and capatitance (0201, 0402, 0603, 0805, 1206, etc.), Led Lamp Beads,Diodes, Mos Tubes,Electrolytic Capacitors, Irregular Components,etc. Chips(SOT,SOP,QFN,BGA,etc.) |                                    |   |

# BC-8Y

The BC-8Y surface mount machine adopts an independent direct connection structure for the mounting heads, supporting synchronous feeding of 8 mounting heads. Equipped with Panasonic high-resolution servo drive and motor, imported linear guide rail, and imported grinding screw, it can maintain long-term high-precision and stable mounting. Built in industrial computer, high-definition Ethernet flight camera visual correction system. Using a 120mm marble base for stable operation, supporting CSV coordinate file import, and supporting up to 400 \* 500mm PCB mounting.

Suitable for precision and high-speed mounting of various shaped components, suitable for automated mass production.

## VERTICAL VISION PICK AND PLACE MACHINE (6-HEAD)



## TECHNICAL PARAMETER

|                                   |  |                                    |   |
|-----------------------------------|--|------------------------------------|---|
| Model                             | BC-8Y  | Width Adjustment Structure         | Synchronous Belt + Linera Slide Rail                          |
| Mounting Numbers                  | 8 Heads (Eight-Head Simultaneous Pickup)   | Width Adjustment Method            | Automatic Width Adjustment                                    |
| Positioning Accuracy              | 0.02mm   | Clamping Method                    | Top lifting clamp   |
| Mounting Precsisian               | ±0.05mm  | Top Plate Structure                | Cylinder support plate+movable ejector pin                    |
| Mounding Angle                    | 0~360°   | Supported Types                    | Flexible vibration feeding system                             |
| Theoretical Mounting Speed        | 28000  | Supported Specifications           | Customize according to product requirements                   |
| Normal CPH                        | 16000 (Customized According to Actual Product)   | Number of Component Positions      | 1 Positions   |
| Suction Nozzle Type               | Juki Series Nozzle   | X, Y-Axis Travel Range             | 620MM*700MM   |
| Component Packaging               | Tray Loading/Tube Loading/<br>Tray Packaging/Vibrating Tray                            | Z-Axis Mounting Stroke             | 27MM  |
| SMD Height                        | ≤13mm(Customize ≤12mm)   | R-Axis Rotation Angle              | 0~360°  |
| Component Dimensions              | ≤40mm(Customize Support)   | Vision Camera                      | Industrial Ethernet High-Definition Camera                    |
| PCB Minimal Size                  | 45×45 mm   | Number of Vision Cameras           | Mark Camera X1. Flying Probe Camera X1                        |
| Maximum Board Size (Without Tray) | 500×400 mm   | Recognition Method                 | Flying Probe + High-Definition Fixed Camera                   |
| Maximum Board Size (With Tray)    | 500×220 mm   | PC System                          | Microsoft WIN10   |
| PCB Thickness                     | ≤2mm(Customize Support)  | Operating Software                 | Self-Developed  |
| Permissible Board Warpage         | ≤1mm   | Compatible File Formats            | .CSV.Format   |
| XY drive system                   | Panasonic Servo Drive + Motor  | Programming Method                 | Support Online and Offline Ways                               |
| X drive Structure                 | Single-Drive Direct-Connected Dual Linear Guide Rail+ High-Strength Aerospace Aluminum | External Air Source                | 0.8MPA  |
| Y drive Structure                 | Single-Drive Direct-Connected Dual Linear Guide Rail+ High-Strength Aerospace Aluminum | Vacuum Generation Method           | Vacuum Generator  |
| XY Transmission Structure         | Imported Ground Ball Screw + Imported Linear Slide Rail                                | Vacuum Value                       | -80KPA  |
| Z-Axis motion Structure           | Independent Direct Drive   | Safety Protection                  | Feeder Lift Protection,Slow Down Or Stop When Cover Is Opened |
| A-Axis motion Structure           | Independent Direct Drive   | Upper and Lower Computer Interface | Standard SMEMA Connector                                      |
| Conveying Structure               | Aluminum Guide Rail  | Power                              | Rated Power 1.5Kw, Working Power 0.35Kw                       |
| Conveying Motor                   | Drive-Control Integrated Stepper Motor   | Power Supply                       | AC220V±10% 50HZ   |
| Conveying Method                  | Three-stage Six-Drive  | Mainframe Dimensions               | L 1310 × W 1220 × H 1450 MM                                   |
| Conveying Direction               | L→R (Customize Support)  | Weight                             | 960KG   |
|                                   |  | Compatible Components              | Support various types of irregular and bulk products          |

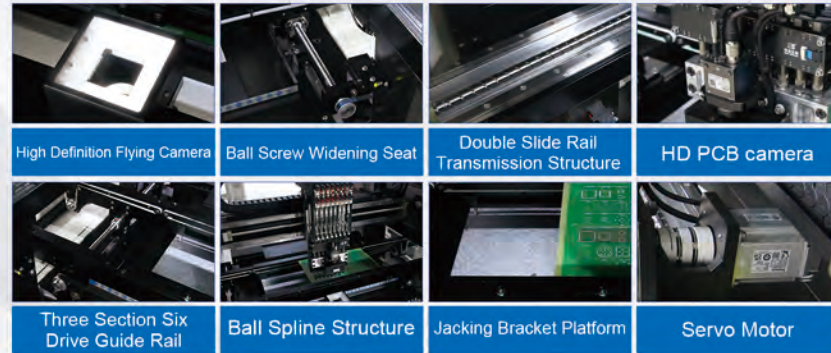
# WS-8Y

The WS-8Y placement machine features a ball spline structure for the mounting heads, supporting simultaneous pickup with 8 heads. The transmission mechanism is equipped with Panasonic high-resolution servo drive and motor, THK linear guide rails, and THK ground ball screws, ensuring long-term high-precision and stable mounting.

The conveying structure adopts super-flat aluminum guide rails, and the three-stage six-drive conveying mechanism ensures smooth and stable board transfer. It includes a built-in industrial computer and a high-definition Ethernet flying camera vision correction system. With 70 feeder positions, it supports CSV coordinate file import and can accommodate PCB mounting up to 400\*500 mm.

Suitable for precise mounting of standard resistors, chips, irregular components, ultra-high devices, and extra-large components, it is ideal for high-speed automated production requirements.

## VERTICAL VISION PICK AND PLACE MACHINE (8-HEAD)



## TECHNICAL PARAMETER

|  |   |   |   |
|--|---|---|---|
| <b>Model</b>                             | WS-8Y   | <b>Width Adjustment Structure</b>         | Dual Ground Ball Screws + Linear Slide Rail                     |
| <b>Mounting Numbers</b>                  | 8 Heads (Eight-Head Simultaneous Pickup)  | <b>Width Adjustment Method</b>            | Automatic Width Adjustment                                      |
| <b>Positioning Accuracy</b>              | 0.02mm  | <b>Top Plate Structure</b>                | Cylinder Tray + Movable Needle                                  |
| <b>Mounting Precision</b>                | ±0.05mm   | <b>Supported Types</b>                    | Yamaha Pneumatic CI Model, Electric YV Model, Tube Feeder, etc. |
| <b>Mounting Angle</b>                    | 0~360°  | <b>Supported Specifications</b>           | 8mm,12mm,16mm,24mm,32mm,44mm etc.                               |
| <b>Theoretical Mounting Speed</b>        | 30000   | <b>Number of Component Positions</b>      | 70 Positions  |
| <b>Normal CPH</b>                        | 16000   | <b>IC Tray Positions</b>                  | 1 Positions   |
| <b>Suction Nozzle Type</b>               | Juki Series Nozzle  | <b>X, Y-Axis Travel Range</b>             | 630mm*700mm   |
| <b>Component Packaging</b>               | Tray Loading/Tube Loading/Tray Packaging/Vibrating Tray   | <b>Z-Axis Mounting Stroke</b>             | 27mm  |
| <b>SMD Height</b>                        | ≤13mm(Customize ≤12mm)  | <b>R-Axis Rotation Angle</b>              | 0~360°  |
| <b>Component Dimensions</b>              | ≤40mm(Customize Support)  | <b>Vision Camera</b>                      | Industrial Ethernet High-Definition Camera                      |
| <b>PCB Minimal Size</b>                  | 45×45 mm  | <b>Number of Vision Cameras</b>           | Mark Camera X1、Flying Probe Camera X1                           |
| <b>Maximum Board Size (Without Tray)</b> | 500×400 mm  | <b>Recognition Method</b>                 | Flying Probe + High-Definition Fixed Camera                     |
| <b>Maximum Board Size (With Tray)</b>    | 500×260 mm  | <b>PC System</b>                          | Microsoft WIN10   |
| <b>PCB Thickness</b>                     | ≤3mm(Customize Support)   | <b>Operating Software</b>                 | Self-Developed  |
| <b>Permissible Board Warpage</b>         | ≤2mm  | <b>Compatible File Formats</b>            | .CSV.Format   |
| <b>XY drive system</b>                   | Servo drive + motor   | <b>Programming Method</b>                 | Support Online and Offline Ways                                 |
| <b>X drive Structure</b>                 | Single-drive direct-connected dual linear guide rail + high-strength molded aluminum  | <b>External Air Source</b>                | 0.8Mpa  |
| <b>Y drive Structure</b>                 | Single-drive direct-connected triple linear guide rail + high-strength molded aluminum  | <b>Vacuum Generation Method</b>           | Built-in Oil-Free Vacuum Pump                                   |
| <b>XY Transmission Structure</b>         | Imported Ground Ball Screw + Imported Linear Slide Rail   | <b>Vacuum Value</b>                       | -80kpa  |
| <b>Z-Axis motion Structure</b>           | Ball Spline   | <b>Safety Protection</b>                  | Feeder Lift Protection, Slow Down Or Stop When Cover Is Opened  |
| <b>A-Axis motion Structure</b>           | Synchronous Spline  | <b>Upper and Lower Computer Interface</b> | Standard SMEMA Connector  |
| <b>Conveying Structure</b>               | Super-Flat Aluminum Guide rail  | <b>Power</b>                              | Rated Power 2Kw, Working Power 0.7Kw                            |
| <b>Conveying Motor</b>                   | Drive-Control Integrated Stepper Motor  | <b>Power Supply</b>                       | AC220V±10% 50Hz   |
| <b>Conveying Method</b>                  | Three-stage Six-Drive   | <b>Mainframe Dimensions</b>               | L 1355 × W 1300 × H 1450 mm                                     |
| <b>Conveying Direction</b>               | L→R (Customize Support)   | <b>Weight</b>                             | 840kg   |
| <b>Compatible Components</b>             | Resistance and capacitance (0201, 0402, 0603, 0805, 1206, etc.), Led Lamp Beads, Diodes, Mos Tubes, Electrolytic Capacitors, Irregular Components, etc. Chips(SOT, SOP, QFN, BGA, etc.) |   |   |

# WS-8N

The WS-8N surface mount machine adopts a ball spline structure for the mounting head, which supports synchronous feeding of 8 mounting heads.

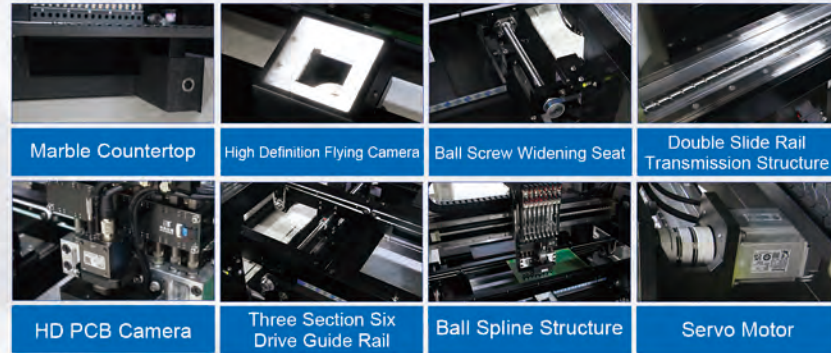
The transmission mechanism is equipped with Panasonic high-resolution servo drive and motor, THK linear guide rail, THK grinding screw, which can maintain long-term high-precision and stable mounting.

The transfer plate structure adopts ultra flat aluminum guide rails, and the three-stage six drive transfer plate is stable and stable. Built in industrial computer, high-definition Ethernet flight camera visual correction system.

Using a 120mm marble base for stable operation, with 70 feeding and delivery positions, supporting NXT delivery, CSV coordinate file import, and maximum support for 400 \* 500mm PCB mounting.

Suitable for precision and high-speed mounting of various shaped components, suitable for automated mass production.

## VERTICAL VISION PICK AND PLACE MACHINE (8-HEAD)



## TECHNICAL PARAMETER

|                                   |   |                                    |  |
|-----------------------------------|---|------------------------------------|--|
| Model                             | WS-8N   | Width Adjustment Structure         | Dual Ground Ball Screws + Linear Slide Rail                                |
| Mounting Numbers                  | 8 Heads (Eight-Head Simultaneous Pickup)  | Width Adjustment Method            | Automatic Width Adjustment   |
| Positioning Accuracy              | 0.02mm  | Top Plate Structure                | Cylinder Tray + Movable Needle   |
| Mounting Precision                | ±0.05mm   | Supported Types                    | Yamaha Pneumatic CI Model, Electric YV Model, Tube Feeder, NXT Feeder etc. |
| Mounting Angle                    | 0~360°  | Supported Specifications           | 8mm, 12mm, 16mm, 24mm, 32mm, 44mm etc.                                     |
| Theoretical Mounting Speed        | 30000   | Number of Component Positions      | 70 Positions   |
| Normal CPH                        | 16000   | IC Tray Positions                  | 1 Positions  |
| Suction Nozzle Type               | Juki Series Nozzle  | X, Y-Axis Travel Range             | 630mm*700mm  |
| Component Packaging               | Tray Loading/Tube Loading/ Tray Packaging/Vibrating Tray  | Z-Axis Mounting Stroke             | 27mm   |
| SMD Height                        | ≤13mm(Customize ≤12mm)  | R-Axis Rotation Angle              | 0~360°   |
| Component Dimensions              | ≤40mm(Customize Support)  | Vision Camera                      | Industrial Ethernet High-Definition Camera                                 |
| PCB Minimal Size                  | 45×45 mm  | Number of Vision Cameras           | Mark Camera X1、 Flying Probe Camera X1                                     |
| Maximum Board Size (Without Tray) | 500×400 mm  | Recognition Method                 | Flying Probe + High-Definition Fixed Camera                                |
| Maximum Board Size (With Tray)    | 500×260 mm  | PC System                          | Microsoft WIN10  |
| PCB Thickness                     | ≤3mm(Customize Support)   | Operating Software                 | Self-Developed   |
| Permissible Board Warpage         | ≤2mm  | Compatible File Formats            | .CSV.Format  |
| XY drive system                   | Servo drive + motor   | Programming Method                 | Support Online and Offline Ways  |
| X drive Structure                 | Single-drive direct-connected dual linear guide rail + high-strength molded aluminum  | External Air Source                | 0.8Mpa   |
| Y drive Structure                 | Single-drive direct-connected triple linear guide rail + high-strength molded aluminum  | Vacuum Generation Method           | Built-in Oil-Free Vacuum Pump  |
| XY Transmission Structure         | Imported Ground Ball Screw + Imported Linear Slide Rail   | Vacuum Value                       | -80kpa   |
| Z-Axis motion Structure           | Ball Spline   | Safety Protection                  | Feeder Lift Protection, Slow Down Or Stop When Cover Is Opened             |
| A-Axis motion Structure           | Synchronous Spline  | Upper and Lower Computer Interface | Standard SMEMA Connector   |
| Conveying Structure               | Super-Flat Aluminum Guide rail  | Power                              | Rated Power 2Kw, Working Power 0.7Kw                                       |
| Conveying Motor                   | Drive-Control Integrated Stepper Motor  | Power Supply                       | AC220V±10% 50Hz  |
| Conveying Method                  | Three-stage Six-Drive   | Mainframe Dimensions               | L 1355 × W 1300 × H 1450 mm  |
| Conveying Direction               | L→R (Customize Support)   | Weight                             | 1080kg   |
| Compatible Components             | Resistance and capacitance (0201, 0402, 0603, 0805, 1206, etc.), Led Lamp Beads, Diodes, Mos Tubes, Electrolytic Capacitors, Irregular Components, etc. Chips(SOT, SOP, QFN, BGA, etc.) |                                    |  |



# WS-8S

The WS-8N surface mount machine adopts a ball spline structure for the mounting head, which supports synchronous feeding of 8 mounting heads.

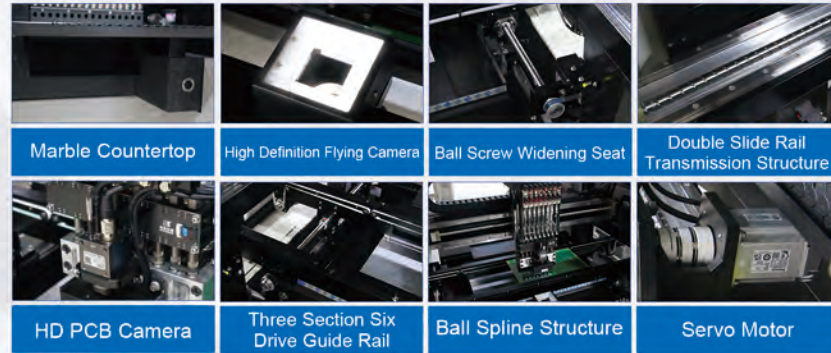
The transmission mechanism is equipped with Panasonic high-resolution servo drive and motor, THK linear guide rail, THK grinding screw, which can maintain long-term high-precision and stable mounting.

The transfer plate structure adopts ultra flat aluminum guide rails, and the three-stage six drive transfer plate is stable and stable. Built in industrial computer, high-definition Ethernet flight camera visual correction system.

Using a 120mm marble base for stable operation, with 70 feeding and delivery positions, supporting Samsung Fit, CSV coordinate file import, and maximum support for 400 \* 500mm PCB mounting.

Suitable for precision and high-speed mounting of various shaped components, suitable for automated mass production.

## VERTICAL VISION PICK AND PLACE MACHINE (8-HEAD)



## TECHNICAL PARAMETER

|                                   |   |                                    |  |
|-----------------------------------|---|------------------------------------|--|
| Model                             | WS-8S   | Width Adjustment Structure         | Dual Ground Ball Screws + Linear Slide Rail                                    |
| Mounting Numbers                  | 8 Heads (Eight-Head Simultaneous Pickup)  | Width Adjustment Method            | Automatic Width Adjustment   |
| Positioning Accuracy              | 0.02mm  | Top Plate Structure                | Cylinder Tray + Movable Needle   |
| Mounting Precsisian               | ±0.05mm   | Supported Types                    | Yamaha Pneumatic CI Model, Electric YV Model, Tube Feeder, Samsung Feeder etc. |
| Mounding Angle                    | 0~360°  | Supported Specifications           | 8mm, 12mm, 16mm, 24mm, 32mm, 44mm etc.   |
| Theoretical Mounting Speed        | 30000   | Number of Component Positions      | 70 Positions   |
| Normal CPH                        | 16000   | IC Tray Positions                  | 1 Positions  |
| Suction Nozzle Type               | Juki Series Nozzle  | X, Y-Axis Travel Range             | 630mm*700mm  |
| Component Packaging               | Tray Loading/Tube Loading/ Tray Packaging/Vibrating Tray  | Z-Axis Mounting Stroke             | 27mm   |
| SMD Height                        | ≤13mm(Customize ≤12mm)  | R-Axis Rotation Angle              | 0~360°   |
| Component Dimensions              | ≤40mm(Customize Support)  | Vision Camera                      | Industrial Ethernet High-Definition Camera                                     |
| PCB Minimal Size                  | 45×45 mm  | Number of Vision Cameras           | Mark Camera X1、 Flying Probe Camera X1   |
| Maximum Board Size (Without Tray) | 500×400 mm  | Recognition Method                 | Flying Probe + High-Definition Fixed Camera                                    |
| Maximum Board Size (With Tray)    | 500×260 mm  | PC System                          | Microsoft WIN10  |
| PCB Thickness                     | ≤3mm(Customize Support)   | Operating Software                 | Self-Developed   |
| Permissible Board Warpage         | ≤2mm  | Compatible File Formats            | .CSV.Format  |
| XY drive system                   | Servo drive + motor   | Programming Method                 | Support Online and Offline Ways  |
| X drive Structure                 | Single-drive direct-connected dual linear guide rail + high-strength molded aluminum  | External Air Source                | 0.8Mpa   |
| Y drive Structure                 | Single-drive direct-connected triple linear guide rail + high-strength molded aluminum  | Vacuum Generation Method           | Built-in Oil-Free Vacuum Pump  |
| XY Transmission Structure         | Imported Ground Ball Screw + Imported Linear Slide Rail   | Vacuum Value                       | -80kpa   |
| Z-Axis motion Structure           | Ball Spline   | Safety Protection                  | Feeder Lift Protection, Slow Down Or Stop When Cover Is Opened                 |
| A-Axis motion Structure           | Synchronous Spline  | Upper and Lower Computer Interface | Standard SMEMA Connector   |
| Conveying Structure               | Super-Flat Aluminum Guide rail  | Power                              | Rated Power 2Kw, Working Power 0.7Kw   |
| Conveying Motor                   | Drive-Control Integrated Stepper Motor  | Power Supply                       | AC220V±10% 50Hz  |
| Conveying Method                  | Three-stage Six-Drive   | Mainframe Dimensions               | L 1355 × W 1300 × H 1450 mm  |
| Conveying Direction               | L→R (Customize Support)   | Weight                             | 1080kg   |
| Compatible Components             | Resistance and capatitance (0201, 0402, 0603, 0805, 1206, etc.), Led Lamp Beads, Diodes, Mos Tubes, Electrolytic Capacitors, Irregular Components, etc. Chips(SOT, SOP, QFN, BGA, etc.) |                                    |  |

## Solder Paste Mixer

ZB500S Automatic Solder Paste Mixer makes solder cream move downward constantly through centrifugal force generated by revolution and cooperation with energy from rotation at 45 degree angle of axis of revolution. Solder cream located in the tank bottom makes upward movement from the surrounding, which forms a tornado-funnel shaped stirring action, and it can stir, soften and defoam the solder cream with appropriate viscosity. Solder cream has good wettability, even diffusivity, excellent printing effect after mixing, which achieves the best welding performance when reflowing soldering.



Appearance Design  
Simplicity

Safety Device Rse  
At Ease

Time Set Optional  
Balance Stir

Simple Panel  
Convenient to Operate

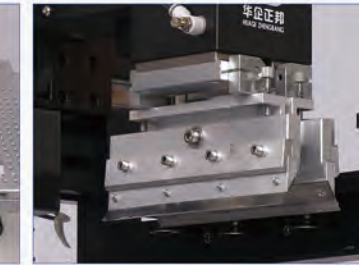
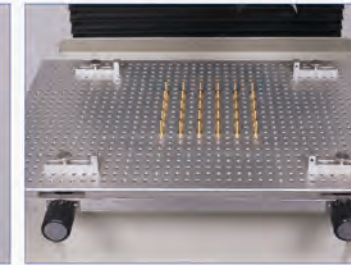
### Specification

|                        |                                     |                                |   |
|------------------------|-------------------------------------|--------------------------------|---|
| Model                  | ZB500S                              | Rated Power                    | Constant Speed 60W  |
| Operating Speed        | Motor Speed: 1350RPM                | Working Power Supply           | AC 220V±10% 50Hz  |
| Operational Capability | 0~500g*2Tanks                       | Outline Size                   | L400×W400×H500mm  |
| Time Setting           | 0.01s~99h99s, Minute and Second Set | Weight                         | 45kg  |
| Display Mode           | LED Digital Display                 | Acceptance of Solder Cream Pot | Tank diameter Φ60-Φ67 standard configuration (suitable for general 500 g solder cream bottle) |


**ZB3250LY**
**ZB32125LY**

## Solder Paste Printer

The main frame of ZB series semi-automatic solder paste printing machine adopts rigid structure, and the universal honeycomb cast aluminum table top realizes precise positioning of single-sided and special-shaped plates with high repeatability. The whole machine adopts PLC control system, Omron sensor and full color touch screen. The system is more stable and easy to operate. This product is suitable for solder paste and red glue printing on circuit boards, and is an indispensable equipment in the production process of SMT automated production line.



Double Knobs Starting  
Design

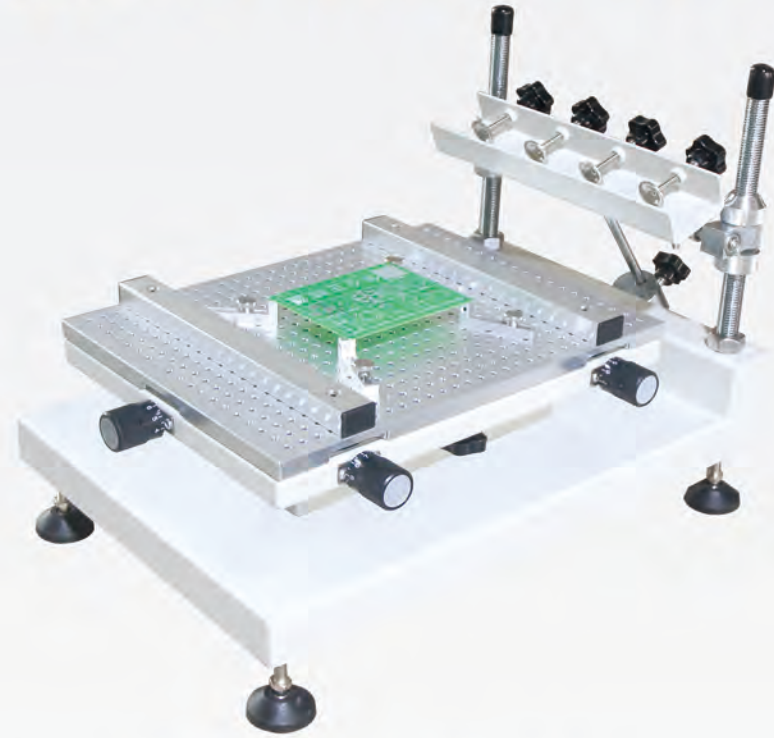
Multiple Functions  
Printing Table

Two Blade Design

Full Color Touch Screen

### Specification

|                    |                      |                              |
|--------------------|----------------------|------------------------------|
| Model              | ZB3250LY             | ZB32125LY                    |
| Size of Workbench  | 320*500mm            | 320*1250mm                   |
| Max. Printing Size | 320*450mm            | 320*1200mm                   |
| Max. Stencil Size  | 920*576mm            | 1570*576mm                   |
| Outline Size       | L1020*W750*H1670mm   | L1670*W765*H1670mm           |
| Weight             | 200KG                | 260KG                        |
| Repeat Precision   | ±0.05mm              | Power Source AC220V±10% 50Hz |
| Compressed Air     | 8Kgf/cm <sup>2</sup> | Power 100W                   |
| Work Altitude      | 130mm                |                              |



## Silk Screen Printing Table

ZB3040H high precision stencil printer is mainly designed for the requirement of the single or double-side PCB soldering paste and red glue printing, the working platform is processed by cellular positional hole with high-quality aluminum and the pedestal is soldered by thick steel plate, steadiness and durability.



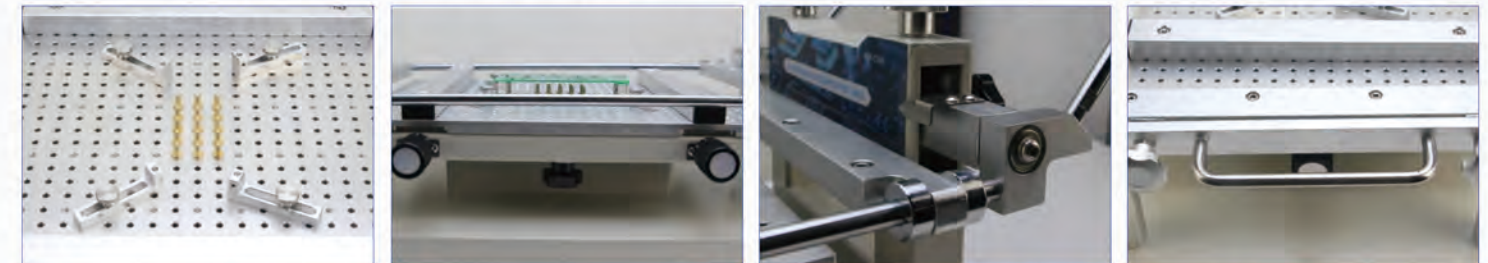
Flexible Positioning      Fast and Strong      Precision Fine-tuning      Angle Adjustable

| Specification                             |                  |                              |                         |
|---|------------------|------------------------------|-------------------------|
| Model                                     | ZB3040H          | Size of Workbench            | 300×400mm               |
| Max. Printing Size                        | 250×400mm        | Max. Stencil Size            | 370×470mm               |
| Vertical and Horizontal Adjustment Volume | 10mm             | Thickness of Printing Matter | 0~80mm                  |
| Repeatability Precision                   | ±0.01mm          | Location Mode                | Shape or Benchmark Hole |
| Outline Size                              | L540×W370×H380mm | Weight                       | 23kg                    |



## Printing Table Frameless

The PTR-C300 series frameless printing table is a PCB solder paste printing equipment. It is a precision printing product which is designed for both single and double-sided PCB, and also can be used for solder paste and red glue. The printing table is specially designed for frameless printing.



Convenient positioning      X, Y-axis precision fine adjustment      Height Adjustable      Fixed fast and secure

| Specification           |                  |                              |                         |
|-------------------------|------------------|------------------------------|-------------------------|
| Model                   | PTR-C300         | Size of Workbench            | 300×400mm               |
| Max. Printing Size      | 280×380mm        | Max. Stencil Size            | 310×410mm               |
| XYZ Axis Adjustment     | 15mm             | Thickness of Printing Matter | 0~20mm                  |
| Repeatability Precision | ±0.01mm          | Location Mode                | Shape or Benchmark Hole |
| Outline Size            | L620×W380×H300mm | Weight                       | 24kg                    |



## Micro Board Loader

Micro PCB loading machine is used for PCB feeding at the beginning of SMT production line, with a small footprint, Easy to use and other advantages.

The circuit board can be placed directly without the need for a turnover rack for storage and delivery. The operation panel adopts True color touch screen, intuitive operation.



Triple screw width adjustment

Self assembling material rack

Color Screen Touch Operation Model

SMEMA Standard Signal

### Specification

|                                |   |
|--------------------------------|---|
| Applicable PCB board size (MM) | 450* (50-250)   |
| Applicable PCB thickness       | 0.6-3.0mm   |
| Body size L * W * H (MM)       | 500*600*1500  |
| Whole body weight              | 90KG  |
| Source                         | AC:~220V±10% 50HZ   |
| Starting power/no-load power   | 0.2kw   |
| Operation control              | Seven inch full-color touch screen                            |
| Fixed edge                     | Front fixation (can be customized as rear fixation)           |
| Transmission direction         | Regular left to right (or can be customized as right to left) |
| Transfer height                | 900±20mm  |

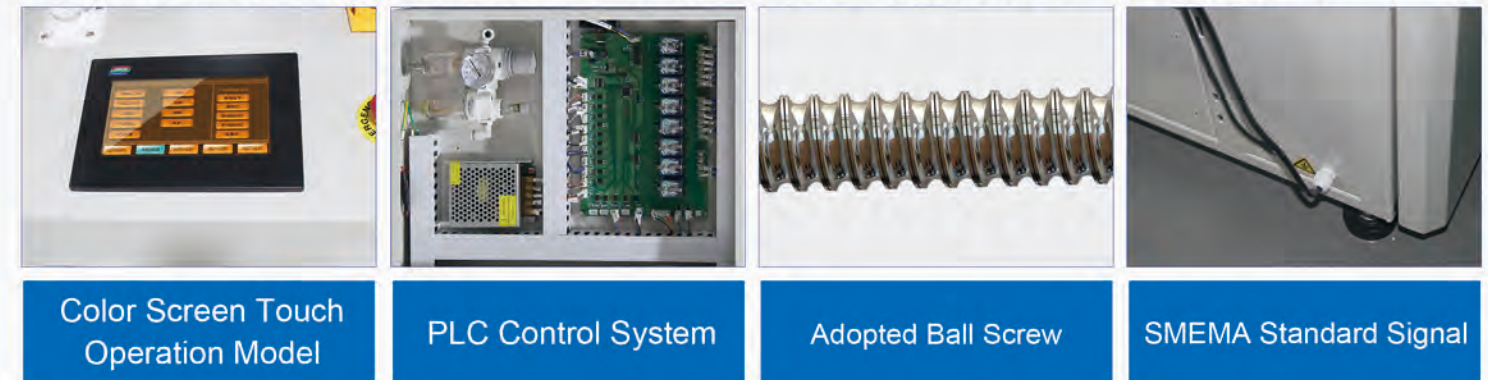


Automatic Unloader

Automatic Loader

## PCB Loader and Unloader

The ZB series loader and unloader is used for PCB transfer at the beginning of SMT production line and PCB receiving and storage at the end of production line to the PCB rack. This machine adopts PLC programmable control system with ball screw, and the whole machine runs stably and accurately. The operation control panel adopts a true color touch screen, which is intuitive and easy to use. It is suitable for repeated transportation of single-sided or double-sided circuit boards, which greatly reduces labor costs and improves efficiency.



Color Screen Touch Operation Model

PLC Control System

Adopted Ball Screw

SMEMA Standard Signal

### Specification

| Name                     | Automatic Unloader | Automatic Loader             |
|--------------------------|--------------------|------------------------------|
| Model                    | ZB2535SBJ          | ZB2535XBJ                    |
| Outline size             | L1340×W790×H1200mm | L1650×W790×H1200mm           |
| Weight                   | 150KG              | 161KG                        |
| PCB Size                 | Max.350×250mm      | Delivering Height 900±20mm   |
| PCB Delivering Direction | L→R(R→L Optional)  | Delivering Speed 0.16m/s     |
| NOs of Rack              | 3PCS               | Supply Power AC220V±10% 50Hz |
| Rack Size                | L355×W320×H565mm   | Air Pressure 0.6Mpa          |
| Step Distance of Loading | 10,20,30,40        | Power 200W                   |


 Five temperature zone  
 Hot Air Reflow Soldering

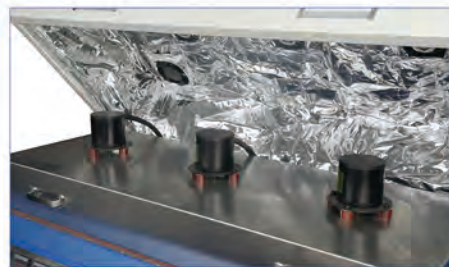
 Six temperature zone  
 Hot Air Reflow Soldering

 Eight temperature zone  
 Hot Air Reflow Soldering

 Twelve temperature zone  
 Hot Air Reflow Soldering

## Mesh Belt Hot Air Reflow Soldering

ZBHW330 reflow soldering adopts infrared radiation heating, which is suitable for the production of small batches of single circuit boards. ZBRF530, ZBRF630 and ZBRF830 reflow soldering all use stainless steel heaters which are resistant to high temperature and corrosion, combined with the hot air circulation system to make full use of heat, rapid heating and high thermal efficiency. Accurate and stable temperature control, suitable for SMT small and medium batch production welding.


 Full-Color HMI  
 Human-Computer  
 Interface(Touch Screen)

 Liner Hearth Use Industrial  
 Grade Anti High Temperature  
 and Corrosion Panel Paint

 High-Efficiency  
 Energy-Saving Heating Tube

| Specification                 |  |         |  |                      |
|-------------------------------|--|---------|--|----------------------|
| Model                         | ZBRF530  | ZBRF630 | ZBRF830  | ZBRF1230/ZBRF1230-PC |
| Heat Zone Numbers             | 5 Zones (Up 3+Down 2) 6 Zones (Up 3+Down 3)                                |         | 8 Zones (Up 4+Down 4) 12 Zones (Up 6+Down 6)               |                      |
| Length of Heating Zones       | 960mm  | 1060mm  | 1400mm   | 2080mm               |
| Height of Net Belt            | 300±20mm   |         | 880±20mm   |                      |
| Input Supply Power            | AC220V/AC380V ±10% 50Hz  |         | AC380V ±10% 50Hz   |                      |
| Starting Power                | 7KW  | 9KW     | 11KW   | 14W                  |
| Working Power                 | 2.5KW  | 3KW     | 3.5KW  | 5KW                  |
| Method of Temperature Control | PID Close Cycle Control  |         | Touch Screen Control<br>(PID Close-Cycle Calculate Method) |                      |
| Outline Size                  | L1700×W710×H660mm L2100×W680×H1200mm L2440×W680×H1200mm L3500×W710×H1250mm |         |  |                      |
| Weight                        | 150kg  | 215kg   | 250kg  | 450kg                |
| Heat Method                   | Hot wind   |         |  |                      |
| Width of Net Belt             | 300mm  |         |  |                      |
| Allow PCB Height              | <20mm (Customize)  |         |  |                      |
| Transport Direction of        | L→R(R→L)   |         |  |                      |
| Transit time                  | 3.5~5.5 mins   |         |  |                      |
| Cooling Zone Numbers          | Two Natural Air Cooling  |         |  |                      |
| Allow PCB width               | Max. 280mm   |         |  |                      |
| Transport Speed               | 160-1350mm/min   |         |  |                      |
| Heating up Time               | 15~20 mins   |         |  |                      |
| Temperature Control           | Indoor Temperature~400 Degrees   |         |  |                      |



Hot air Eight Temperature Zone Rail Type Reflow Soldering



Hot air Twelve Temperature Zone Rail Type Reflow Soldering

## Rail Type Hot Air Reflow Oven

ZBRF series Online reflow oven supports two transmission modes: mesh and conveyor, and can be connected to the pick and place machine and the PCB loader and unloader machines to realize automatic welding. This series of products have the characteristics of high efficiency, connectivity, and low investment.

The heaters use of high-efficiency and energy-saving finned heating tubes, combined with the hot air circulation system, makes full use of the heat evenly distributed, and improves the welding effect. The split fume exhaust furnace is more effective to eliminate the fumes generated during the welding process.

## TECHNICAL PARAMETER

| Model                                      | ZBRF835                       | ZBRF1235                      |                                  |
|--|-------------------------------|-------------------------------|----------------------------------|
| Heat Zone Numbers                          | 8 Zones (Up 4+Down 4)         | 12 Zones (Up 6+Down 6)        |                                  |
| Heat Method                                | Hot Wind                      |                               |                                  |
| Length of Heating Zones                    | 1400mm                        | 2060mm                        |                                  |
| Starting Power                             | 15KW                          | 22KW                          |                                  |
| Working Power                              | 3KW                           | 4.5KW                         |                                  |
| Outline Size                               | L2720×W820×H1360mm            | L3380×W820×H1360mm            |                                  |
| Weight                                     | 450kg                         | 560kg                         |                                  |
| Hot Wind                                   | Variable frequency air supply | Transportation Speed          | 160~1350mm/min                   |
| Cooling Zone Numbers                       | Three Natural Air Cooling     | Transportation Method         | Digital Speed Control            |
| Mesh Width                                 | 450mm                         | Transport Direction           | L→R(R→L)                         |
| Conveyor Width                             | 350mm                         | Chain Dripping                | Timing Automatic Dripping        |
| Allow PCB width                            | Max. 350mm                    | Input Supply Power            | AC220V/AC380V ±10% 50Hz          |
| Allow PCB width                            | No Limited                    | Heating up Time               | 15~20 mins                       |
| Allow PCB Height (Mesh)                    | 50mm                          | Transit Time                  | 3.5~5.5 mins                     |
| Allow PCB Height (Conveyor)                | 25mm                          | Temperature control range     | Room temperature~350°C           |
| The Height of the mesh from the ground     | 880±20mm                      | Method of Temperature Control | PID Close-Cycle Calculate Method |
| The Height of the conveyor from the ground | 900±20mm                      |                               |                                  |



Touch Screen



Deliver Both By Rail Way And Chain



Available Connect To The Conveyor



Auto-drip Oil Cup



Stainless Steel Furnace



Split Type Smoke Exhaust



High efficiency and energy saving heater

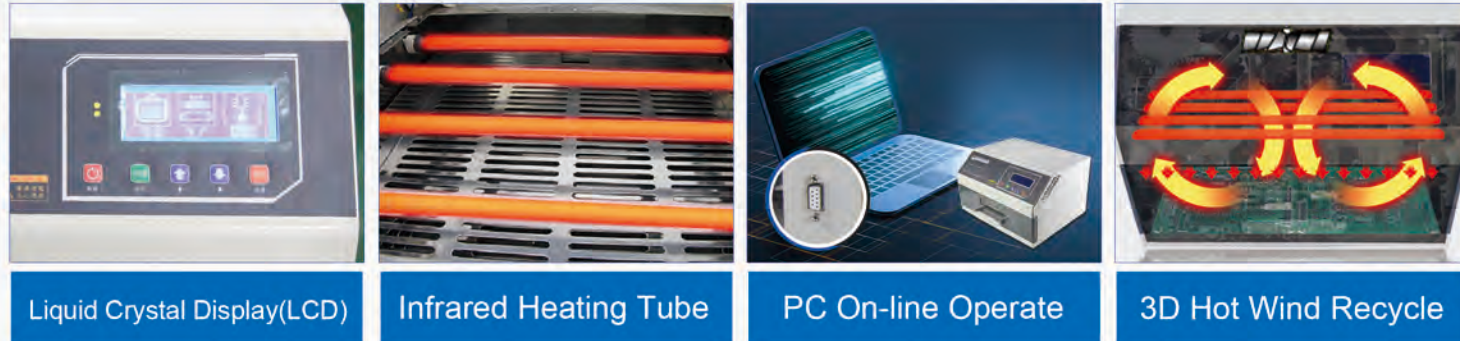


Width Manual Adjustment



## Precision Lead-Free Reflow Oven

The ZBHL series reflux furnace adopts 3D hot air circulation and ultra strong infrared radiation heating, which ensures balanced internal heat flow and adapts to the reflux requirements of different alloys and lead-free solder. Suitable for design and development, experimental teaching, and small-scale production and processing.



Liquid Crystal Display(LCD)

Infrared Heating Tube

PC On-line Operate

3D Hot Wind Recycle

### Specification

| Model                   | ZB2015HL  | ZB2520HL   | ZB3530HL         | ZB5040HL         |
|-------------------------|---|--|------------------|------------------|
| Power Supply            | AC220V ±10% 50Hz (AV110V Custom-Made)   |  |                  |                  |
| Max Power               | 700W  | 1600W  | 2400W            | 3600W            |
| Heating Method          | Infrared Radiation Heating  | Infrared Radiation Heating & Hot Air Circulation |                  |                  |
| Effective Welding Area  | 200mm×150mm   | 250mm×200mm                                      | 350mm×300mm      | 500mm×400mm      |
| Drawer Size             | L250×W180×H20mm   | L300×W250×H30mm                                  | L400×W330×H30mm  | L550×W430×H30mm  |
| Operating System        | Chinese and English Bilingual Language Operate System                           |  |                  |                  |
| Display Mode            | Graph Mode/Text Mode and Display Mode Optional                                  |  |                  |                  |
| Temperature Curve Zones | Preheating Zone, Heating Zone, Holding Zone and Cooling Zone Totally Five Zones |  |                  |                  |
| Outline Size            | L375×W350×H312mm  | L425×W400×H312mm                                 | L525×W500×H312mm | L675×W600×H312mm |
| Weight                  | 13.5kg  | 19kg   | 24.9kg           | 37.1kg           |



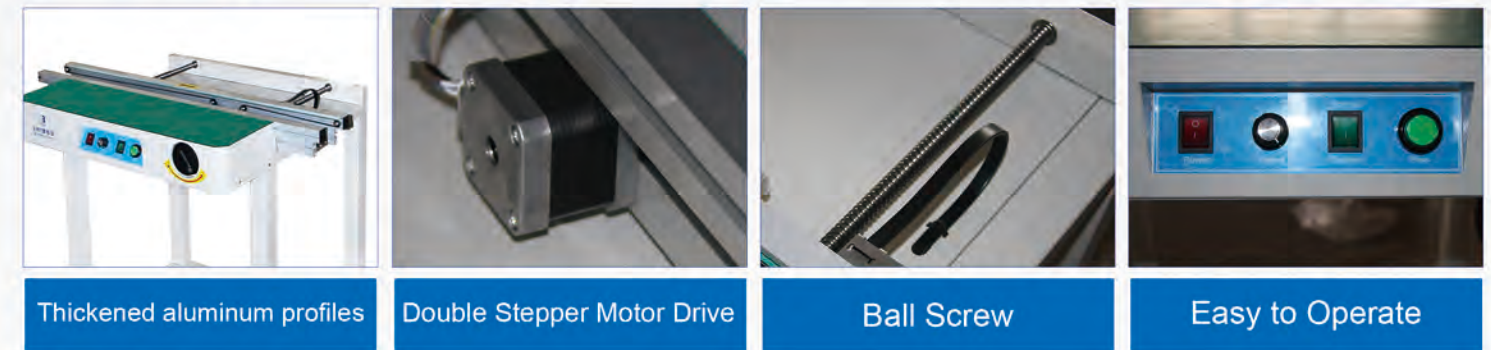
(No lamp holder)

(With lamp holder)

(Double Track)

## SMT Automatic Conveyor

The ZB series docking station adopts a sturdy aluminum structural design and thickened body to improve the stability of the entire machine, ensuring long-term use without deformation. The precision screw adjustment seat makes parallel width adjustment smoother. Modular design and user-friendly operation interface, easy to use and operate. SMEMA standard signal line can be directly connected to other devices for use. Suitable for connecting equipment on SMT automatic production lines, and can also increase the feasibility of special process positions.



Thickened aluminum profiles

Double Stepper Motor Drive

Ball Screw

Easy to Operate

### Specification

| Model           | PCB size   | Power | Rail Way Length | Outline Size       |
|-----------------|--|-------|-----------------|--------------------|
| ZBJBT350-0.5M   | 50~350mm (customization)   | 75W   | 500mm           | L500×W670×H880mm   |
| ZBJBT350-0.6M   |  |       | 600mm           | L600×W670×H880mm   |
| ZBJBT350-0.8M   |  |       | 800mm           | L800×W670×H880mm   |
| ZBJBT350-1.0M   |  |       | 1000mm          | L1000×W670×H880mm  |
| ZBJBT350-1.2M   |  |       | 1200mm          | L1200×W670×H880mm  |
| ZBJBT350-1.5M   |  |       | 1500mm          | L1500×W670×H880mm  |
| ZBJBT300GS-0.6M | Double track, 1, 2 tracks, 3, 4 tracks with adjustable widths of 50-310mm, single track 50-600mm | 140W  | 600mm           | L600×W1145×H900mm  |
| ZBJBT300GS-1.2M |  |       | 1200mm          | L1200×W1145×H900mm |



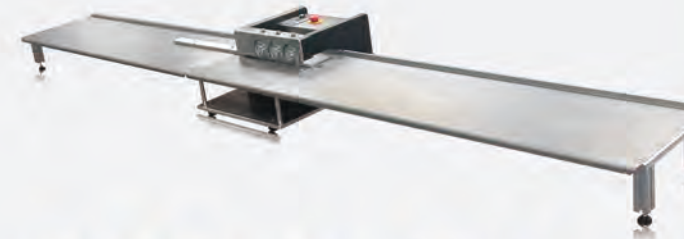
## Constant Temperature Heating Plate



The ZBJRT series heating table is a controlled heating equipment with stable temperature, suitable for any situation that requires stable temperature control heating. It is easy to operate, fast, and efficient, making it a good helper for your production and processing.

This machine adopts efficient heating tube multi tube technology combined with high-quality aluminum plate as the heating element. The heating tube is easy to replace, the heat transfer is uniform, and the conduction efficiency is extremely high. The temperature is intelligently controlled by PID, which is accurate, intuitive, and aesthetically pleasing.

| Specification |       |                    |                                   |                |                  |
|---------------|-------|--------------------|-----------------------------------|----------------|------------------|
| Model         | Power | Source             | Temperature range                 | Workbench size | Overall Size     |
| ZB1010JRT     | 300W  | AC220V±10%<br>50Hz | Normal Temperature<br>~<br>450 °C | 100×100mm      | L120×W120×H140mm |
| ZB1515JRT     | 400W  |                    |                                   | 150×150mm      | L170×W170×H140mm |
| ZB1810JRT     | 350W  |                    |                                   | 180×100mm      | L200×W120×H140mm |
| ZB2020JRT     | 900W  |                    |                                   | 200×200mm      | L230×W230×H143mm |
| ZB2525JRT     | 1200W |                    |                                   | 250×250mm      | L280×W280×H143mm |
| ZB2820JRT     | 900W  |                    |                                   | 280×200mm      | L310×W230×H140mm |
| ZB3530JRT     | 1800W |                    |                                   | 350×300mm      | L380×W330×H140mm |
| ZB4030JRT     | 2400W |                    |                                   | 400x300mm      | L430×W330×H140mm |
| ZB5020JRT     | 1800W |                    |                                   | 500x200mm      | L530×W230×H143mm |
| ZB5040JRT     | 3300W |                    |                                   | 500x400mm      | L530×W430×H143mm |



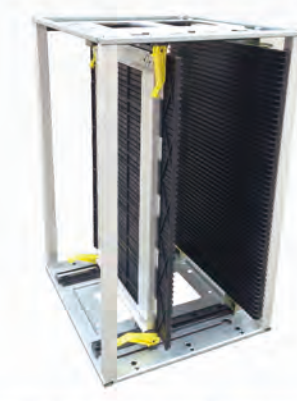
## PCB Splitter

The PCB Separator can further improve the quality of PCB separate. It is suitable for cutting all kinds of PCB, SMT board, aluminum substrate board, LED board and LED light bar with V groove, Import high speed steel blade, long life span, It mainly applies to LED industry, SMT industry, mobile phone /MP3 industry, electric toy sweat, various electronic industry, and other industries using circuit boards.

| Specification            |   |             |
|--------------------------|---|-------------|
| Model                    | ZB906L  | ZB908L      |
| Product Specification    | 6 PCB Blade   | 8 PCB Blade |
| Working Temperature      | 10~35°C   |             |
| Thickness                | 0.5~3mm   |             |
| Speed                    | 0~300mm/S   |             |
| Blade Material           | Import SKD11  |             |
| Work Power               | AC220V±10% 50Hz   |             |
| Power                    | 40W   |             |
| Storage Temperature      | -20~50°C  |             |
| Aluminium Substrate Size | Unlimited   |             |
| Material of Cut PCB      | Aluminum Substrate FR-4, Wave Fiber Board etc.              |             |
| Main Engine Size         | L300×W280×H200mm  |             |
| Complete Machine Size    | L1436×W430×H200mm   |             |
| V-CUT Peripheral Parts   | Height Limit<13mm,<br>Distance Welding Spot to V Slot>0.5mm |             |
| Weight                   | 60kg  |             |



Anti static turnover vehicle



Anti static loading and unloading rack

| Specification  |                            |                                   |                   |
|----------------|----------------------------|-----------------------------------|-------------------|
| Model          | Number of installed boards | Board installation specifications | Outline Size      |
| ZB-SMS-06D-13  | 300                        | 460×170mm (Average)               | L875×W505×H1310mm |
| ZB-SMS-06A-03G | 50                         | 350×(50~250) mm                   | L355×W320×H565mm  |

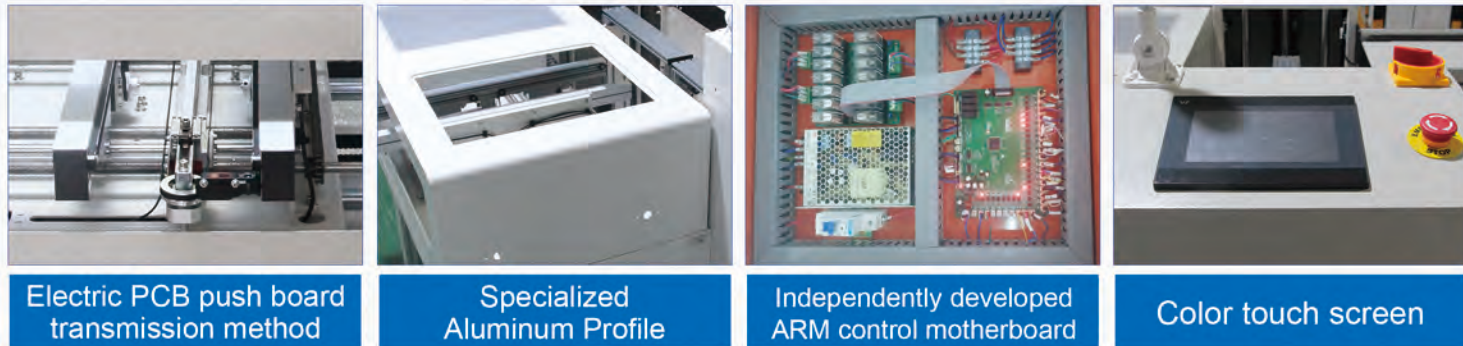


## NGOK Unloading Machine



Mainly suitable for automatic frame storage behind AOI or other testing equipment in SMT production lines based on the NG/OK signal given by the testing equipment. The OK PCB board is directly pushed into the OK material rack, and the NG PCB board is pushed into the NG material rack after being translated.

This machine is widely used in various electronic manufacturing companies, especially in the fields of consumer electronics, communication equipment, automotive electronics, etc., and can significantly improve the automation level and production efficiency of the production line.



Electric PCB push board transmission method

Specialized Aluminum Profile

Independently developed ARM control motherboard

Color touch screen

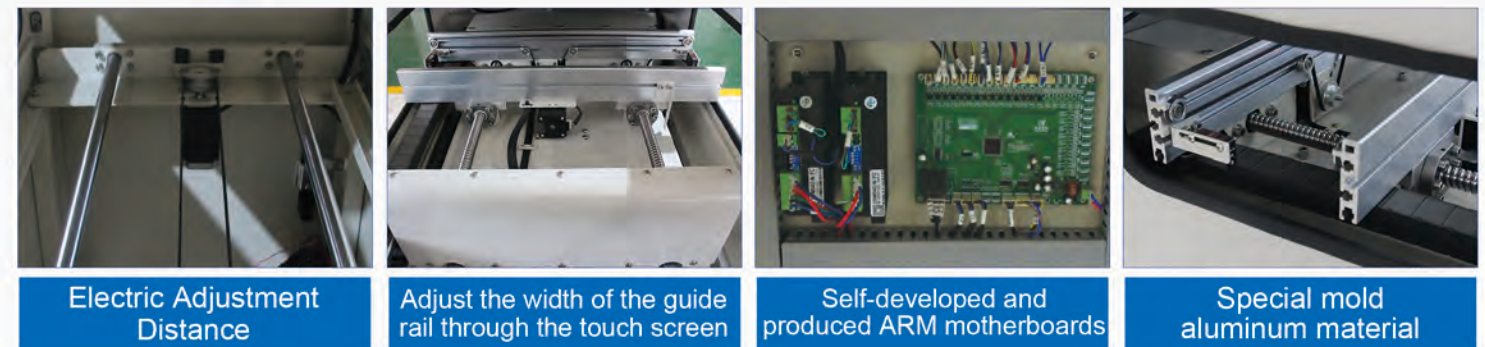
### Specification

|                     |           |              |                     |
|---------------------|-----------|--------------|---------------------|
| Model               | ZB2535NOX | Power        | 500W                |
| PCB Allowable width | 50~300mm  | Power Supply | AC 220V±10%         |
| PCB Thickness       | 0.3~3.5mm | Dimensions   | L1760×W1535×H1210mm |
| PCB Weight          | 50g~500g  | Weight       | 320kg               |

## PCB Transfer Machine



PCB transfer machine is an auxiliary equipment used in SMT production lines. Its main function is to realize the translation connection between single-track SMT line and double-track SMT line, as well as to complete the two-in-one and one-in-two functions, and transport the PCB circuit board to the next specific equipment.



Electric Adjustment Distance

Adjust the width of the guide rail through the touch screen

Self-developed and produced ARM motherboards

Special mold aluminum material

### Specification

|                     |                            |                      |                           |
|---------------------|----------------------------|----------------------|---------------------------|
| Model               | ZB250DYZ                   | Power                | 150W                      |
| PCB Allowable width | 50~300mm                   | Power Supply         | AC:110V~220V 50Hz         |
| Transmission method | Stepper motor transmission | Dimensions           | L1350×W500×H1050mm        |
| Running distance    | 500~720mm                  | PCB width adjustment | Electric width adjustment |



## PCB NG OK Buffer Conveyor

PCB NG OK Buffer Conveyor is a key machine used in the SMT production line. It is mainly used to detect qualified and unqualified PCB, and release the qualified PCB (OK) to the next process, while the unqualified PCB (NG) will flow to the designated collection area.

This machine mainly works between reflow oven and online AOI (automatic optical inspection) equipment. It can play a buffering role on the production line, especially when the production line is too fast and the back-end equipment cannot detect it.



| Specification   |  |              |                  |
|-----------------|--|--------------|------------------|
| Model           | ZB350DSH                                     | Power        | 500W             |
| PCB Width Range | L50~450mm                                    | Power Supply | AC 220V±10%      |
| PCB Thickness   | 0.3~3.5mm                                    | Dimension    | L800×W810×H950mm |
| PCB Buffer Qty  | 10PCS (Accept Customization For More Layers) | Weight       | 320kg            |

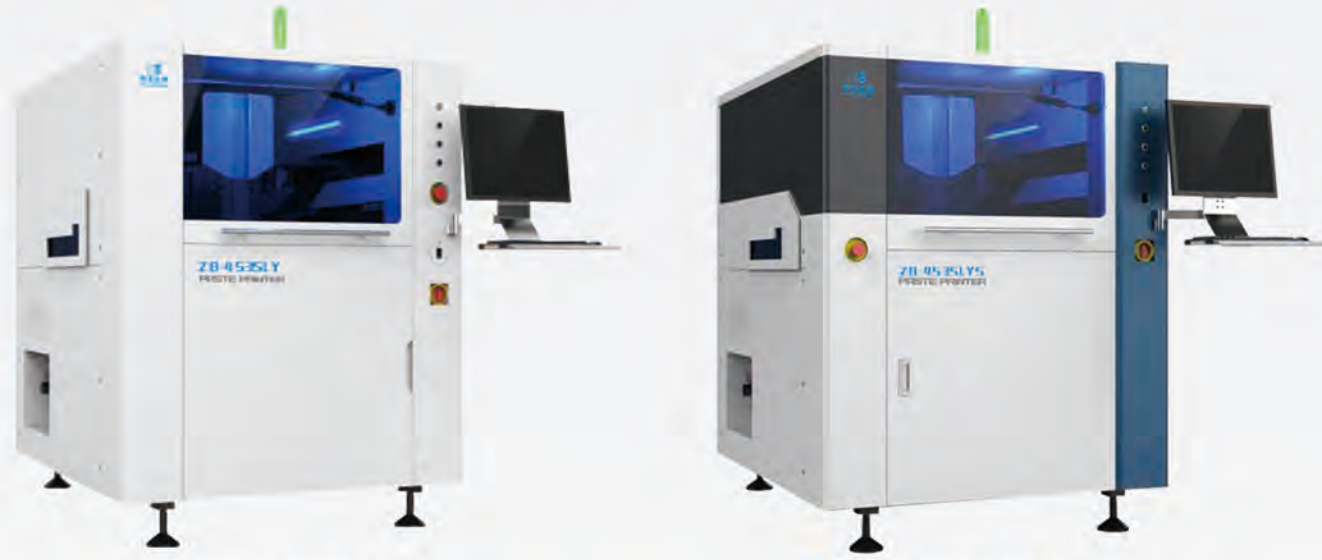


## Vacuum PCB Loader

Vacuum PCB Loader is an automated equipment designed for the electronics manufacturing industry, mainly used for the handling and positioning of printed circuit boards (PCB). It is suitable for the front end and full section of the SMT production line, and can automatically load the stacked bare boards onto the belt and transfer them to the back-end equipment through vacuum suction, with automatic board loading function.

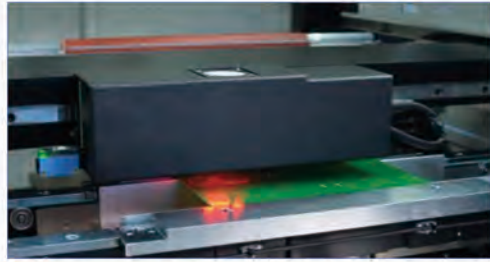


| Specification          |                    |  |                    |
|------------------------|--------------------|--|--------------------|
| Model                  | ZB3035ZK           | Power  | 300W               |
| Maximum Board Size     | W300*L350mm        | Power Supply                                   | AC 220V±10%50HZ    |
| Air Source             | 0.4 ~ 0.6 MPA      | Dimensions                                     | L1150×W600×H1250mm |
| Maximum Board Weight   | 2KG                | Board Placement Height of the Lifting Platform | 350 mm             |
| Maximum Conveyor Speed | 15sec/pcs[W=135mm] |  |                    |

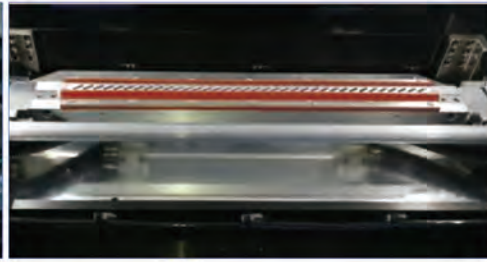

**ZB-4535LY**
**ZB-4535LYS**

## Automatic Solder Paste Stencil Printer

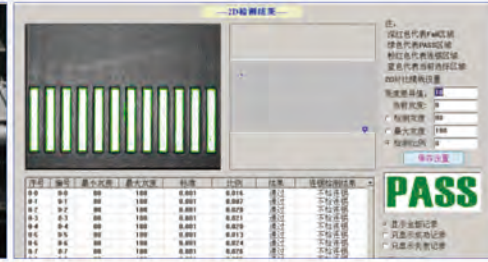
The structure is simple and reliable, with precise positioning and easy use. It has the characteristics of high precision, high stability, and high cost-effectiveness.


**Accurate optical positioning system**

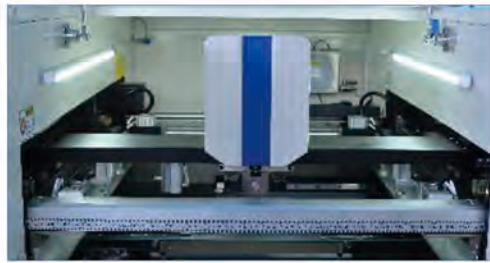
Adjustable four light sources, light intensity is adjustable, light is uniform, and image acquisition is more perfect; Good identification (including uneven mark points), apply for tinning, copper plating, Gold plating, tin spraying, FPC and other types of PCB with different colors.


**High efficiency and high adaptability stencil cleaning system**

The new wiping system ensures full contact with the stencil; three cleaning methods of dry, wet and vacuum, and free combination can be selected; soft wear-resistant rubber wiping plate, thorough cleaning, convenient disassembly, and universal length of wiping paper.


**2D solder paste printing quality inspection and SPC analysis**

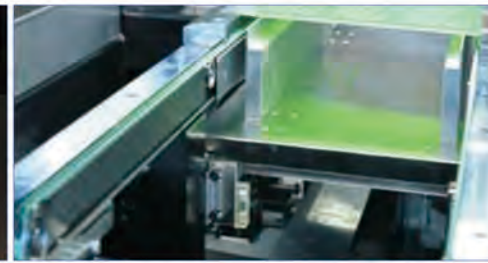
2D function for offset, less tin, leakage, tin connection and other printing problems can be quickly detected, the detection point arbitrary increase; The SPC software can analyze the samples collected by the machine CPK index ensures printing quality.


**Intelligent squeegee system**

Intelligent programmable setting, two independent direct motors driven squeegee, built-in precise pressure control system.


**HTGD Special PCB thickness adaptive system**

The platform height is automatically calibrated according to PCB thickness setting, which is intelligent, fast, simple and reliable in structure.


**Simple and reliable PCB positioning system**

Programmable elastic side clamp and magnetic supporting device.

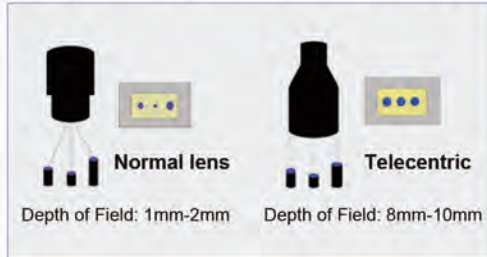
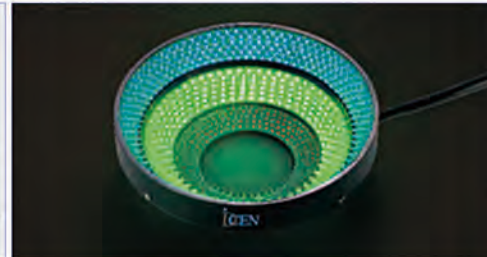
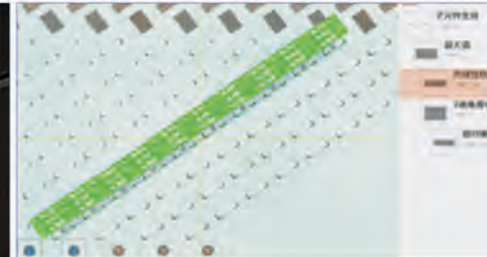
|                            |  |                                    |
|----------------------------|--|------------------------------------|
| Model                      | ZB-4535LY  | ZB-4535LYS                         |
| Max. board size (X*Y)      | 450mm x 350mm  |                                    |
| Min. board size (X*Y)      | 50mm x 50mm  |                                    |
| PCB thickness range        | 0.4mm~6mm  |                                    |
| PCB Warp                   | ≤1%Diagonal  |                                    |
| Max. board weight          | 6Kg  | 3Kg                                |
| PCB edge clearance         | 3 mm Configuration to 3mm  |                                    |
| PCB bottom clearance       | 20mm   |                                    |
| Conveyor speed(Max.)       | 1500mm/s(Max)  |                                    |
| Conveyor height            | 900±40mm   |                                    |
| Conveyor direction         | L→R, R→L, L→L, R→R   |                                    |
| PCB clamping method        | Programmable elastic side clamp + Automatic adjustment plate thickness                   |                                    |
| Support method             | Magnetic thimble + Equal high block  |                                    |
| Print head                 | Linear motor closed-loop printing head   | Floating intelligent printing head |
| Stencil frame size         | 370mm x 370mm~737 mm x 737 mm  | 470mm x 370mm~737 mm x 737 mm      |
| Max. printing area (X*Y)   | 450mm x 350mm  |                                    |
| Squeegee Material/Angle    | Steel squeegee/Rubber squeegee   |                                    |
| Squeegee length            | 220mm~500mm  | 300mm                              |
| Squeegee height            | 65±1mm   |                                    |
| Squeegee thickness         | 0.25mm Diamond-like carbon   |                                    |
| Print mode                 | Single or double squeegeeprinting  |                                    |
| PCB Sp                     | 0.02 mm - 12 mm  |                                    |
| Print speed                | 0 ~ 200 mm/s   |                                    |
| Print pressure             | 0.5kg - 10Kg   |                                    |
| Print stroke               | ±200 mm (From the center)  |                                    |
| Cleaning system            | 1,Drip cleaning system;2,Dry,wet,vacuum modes  |                                    |
| Cleaning length            | 380mm  |                                    |
| Field of view              | 6.4mm x 4.8mm  | 8mm x 6mm                          |
| Adjustment range           | X,Y:±7.0mm,θ:±2.0°   | X:±5.0mm,Y:±7.0mm,θ:±2.0°          |
| Fiducial Types             | Standard Fiducial type,Solder pad/openings   |                                    |
| Vision methodology         | Independent camera, upwards/downwards imaging vision system, geometric matching location |                                    |
| Positioning accuracy       | ±10.0μm @6 σ,Cpk ≥ 2.0   |                                    |
| Full process repeatability | ±20.0μm @6 σ,Cpk ≥ 2.0   |                                    |
| Core Cycle time            | <7s  |                                    |
| Product changeover time    | <5min  |                                    |
| Power supply               | AC220V±10%,50/60HZ,15A   |                                    |
| Air supply                 | 4~6Kg/cm <sup>2</sup>  |                                    |
| Operating system (OS)      | Windows XP   | Win7                               |
| External dimension         | 1140mm(L) x 1415mm(W) x 1480mm(H)  |                                    |
| Machine weight             | Appro 1000Kg   |                                    |


**Offline - ZB-500A**

**Online - ZB-800A**

## Fully Automatic AOI Detector

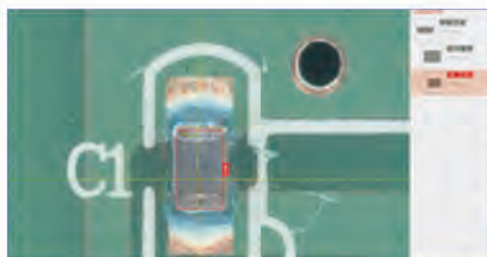
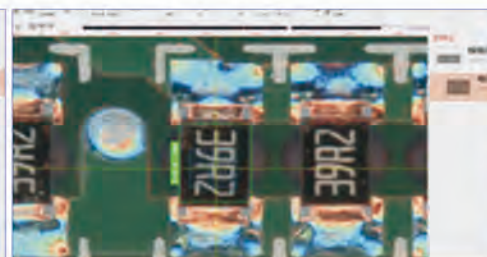
Using high-speed and high-precision visual processing technology to automatically detect various mounting errors and welding defects on PCB boards. The range of PCB boards can range from fine pitch high-density boards to low-density large-sized boards, and online inspection solutions can be provided to improve production efficiency and soldering quality.


**Precise optical imaging**

**Tri color tower type light source**

**Collinearity**

Far center lens: no parallax in capturing images, effectively avoiding reflection interference, minimizing high components, and solving depth of field problems

The combination design of RGB tri color LED and multi angle tower shape can accurately reflect the gradient information of the object surface

The backplane LED light strip needs to detect the relative offset between the LEDs to ensure that the entire LED light strip is collinear, perfectly solving the industry problem of testing the distribution of S-shaped non collinear LEDs and truly achieving collinearity analysis and judgment of non adjacent LEDs


**Scratch Detection**

**Resistance Value Recognition**

**Intelligent Judgment**

This algorithm will search for dark stripes of a specified length within the target area and calculate the average brightness value of the dark stripe area. This algorithm can be used to detect scratches, cracks, etc. on flat surfaces.

This algorithm adopts the latest machine recognition technology to recognize the characters printed on the resistor and calculate the precise resistance value and electrical characteristics of the resistor. The algorithm can be used to detect resistor errors and achieve the function of automatically matching substitute materials

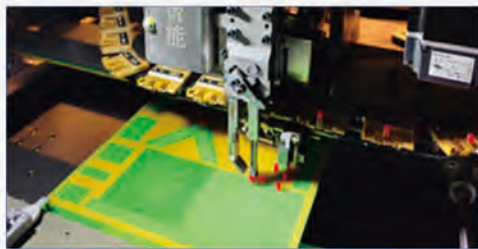
This algorithm collects various qualified and unqualified image samples separately, establishes an intelligent judgment model through training, calculates the similarity of the tested images, simulates human thinking patterns, and can easily deal with some problems that are difficult to detect by traditional algorithms. For example: peak solder joint detection, reset solder ball detection, polarity detection of circular components, etc

| Model                   | ZB-500A   | ZB-800A  |
|-------------------------|---|--|
| Camera                  | 5M High speed smart digital industrial camera(optional 10M, 12M)  |  |
| Image Resolution        | 10/15/20μm/Pixel(optional) standard 15μm/Pixel(corresponding to FOV: 38mm * 30mm)   |  |
| Optical industry lens   | 5M Telecentric lens at pixel level of , depth of field: 8 mm - 10 mm  |  |
| Light source system     | High-brightness RGB coaxial ring multi angle LED light source   |  |
| Detection Method        | Template matching, intelligent detection, circular detection, polarity detection, bridge detection, brightness average, brightness maximum, brightness minimum, brightness extraction, brightness range, relative offset, character recognition, two-end angle detection, full-page detection, intelligent judgment, Resistance value recognition, common linear testing, component generation, calculation value, scratch detection, character verification, BGA value ball detection, IPE and more than 30 algorithms   |  |
| Characteristic          | IPE is an abbreviation of Image Design Express. It allows users to customize image sources using simple expressions. Different algorithms can be combined with different effects, which can greatly improve the detection rate and error rate. The image source in the system can understand the pixel. Pixel set Each pixel is represented by data from 1 to 4 channels. IPE expressions can perform independent calculations of each pixel in the image source to generate new images that can detect multiple positions on the board   |  |
| Bar code recognition    | Automatic camera recognition(one-dimensional or two-dimensional)  |  |
| Mark Calibration Images | Using more than 2 Mark, support the use of different types of Mark simultaneously calibrating the image to restore the image to an ideal state, solve the image deformation problem from the root, improve the stability of detection   |  |
| Operation               | CAD import, graphical programming, built-in component library, automatic generation of detection boxes based on component shape selection standards, accurate automatic positioning, Micron bit fine-tuning, fast process, support for unlimited "undo" / "redo" operations, Effective prevention of engineer programming due to accidental operations caused by errors, to facilitate engineers to do simulation tests   |  |
| Image Processing Speed  | FOV processing time <170ms, 0201 chip <10ms   |  |
| Detect coverage type    | 1. Tin paste printing: there is no, tilt, less tin, more tin, broken road, pollution, even tin, etc<br>2. Parts defects: missing parts, offset, askew, monument, side stand, reverse parts, polarity, wrong parts, damage, multiple pieces, etc<br>3. Welding spot defects: tin more, tin less, even tin, virtual welding, multiple pieces, etc<br>4. Red rubber plate: missing parts, offset, askew, monument, side stand, flip pieces, polarity reverse, wrong pieces, damage, spillage, multiple pieces, etc<br>5. Wave peak welding: insert needles, Wuxi, Shaoxi, multi tin, virtual welding, tin beads, tin holes, broken roads, multiple pieces, etc |  |
| PCB Size                | 30 x 30 mm ~ 450 x 330 mm   | 50 x 50mm ~ 500 x 340 mm                           |
| PCB Thickness           | 0.3 mm ~ 6mm  |  |
| PCB Warping Degree      | ≤6mm(with fixture assisted deformation) can eliminate PCB deformation   |  |
| PCB splint method       | Bilateral fixture automatically opened or closed  |  |
| PCB Part height         | Top Side ≤35mm, Bottom Side ≤70mm   | Top Side ≤30mm, Bottom Side ≤20mm                  |
| Minimum part            | 01005 Chip, 0.3 mm spacing and above IC   |  |
| PCB Weight              | ≤3KG  |  |
| X/Y Driver              | Silk rod guide rail and AC servo motor system<br>Y axis marble, precise positioning <10μm   | Silk rod guide rail and AC servo motor system      |
| Operating system        | Windows 10  |  |
| Computer Host           | I5 CPU, 8G GPU graphics card, 16G memory, 120G SSD, 1TB mechanical hard disk  |  |
| Display                 | 21.5 inch LCD wide screen   |  |
| Dimension               | 110 cm x 90 cm x 135 cm(L x W x H)  | 900 mm x 950mm x 1600mm (L x W x H)                |
| Weight                  | About 400KG   | About 500KG  |
| Humidity                | 5~40°C 35~80% RH (No dew)   |  |
| Power supply            | AC 220 Volts ± 10 %, 50/60 Hz, Rated Power 1.2 KW   | AC 220 Volts ± 10 %, 50/60 Hz, Rated Power 1.5 KW  |
| Selection               | Thimble, Offline Programming Software, External Barcode Gun   | Offline Programming Software, External Barcode Gun |

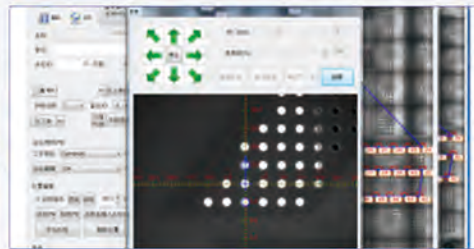


## Fully Automatic Vertical Plug-in Machine

The Mini type vertical plug-in machine can achieve a substrate transfer speed of 3 seconds and a component insertion speed of 0.19 seconds per point. It adopts a fast scanning programming method, and the whole machine adopts a fully computerized control system, which can be operated with minimal manpower. It can handle substrates with a size range of 50mm \* 50mm~300mm \* 230mm and has ultra-high PCB correspondence capability.



The Optimal Solution For Plug-in Components



CCD Image Recognition System



Automatic Replacement Function

### Specification

|                               |  |
|-------------------------------|--|
| Substrate transfer height     | 900±20mm   |
| Insertion direction           | Standard: -90°~+90°, 360° optional, increment of 1°                        |
| Equipment size                | (7Stations) L1560mm*W1530mm*H1620mm  |
| Component specifications      | The maximum height is 23mm and the maximum diameter is 13mm (customizable) |
| Circuit board input method    | Fully automatic: left to right (standard) or right to left (optional)      |
| Theoretical speed             | 0.19 seconds per point   |
| Substrate transfer speed      | 3Sec   |
| Substrate size                | Minimum 50mm * 50mm, maximum 280mm * 260mm                                 |
| Substrate thickness           | 0.79~2.36mm(standard :1.6mm)   |
| PCB can be adjusted by height | Up 23mm/ Down 8mm  |
| Lead span                     | Double spacing of 2.5/3.5/5.0/7.5/10.0mm (optional)                        |
| Weight                        | 900kg  |



TPJFD-8\*2



TPJFD-8\*4



TPJFD-12



TPJFD-16



TPJFD-24

### Pneumatic Feeder Specification

| Model        | TPJFD-8*2        | TPJFD-8*4   | TPJFD-12          | TPJFD-16          | TPJFD-24          |
|--------------|------------------|-------------|-------------------|-------------------|-------------------|
| Standard     | 8×2mm            | 8×4mm       | 12×4/8/12mm       | 16×4/8/12/16mm    | 24×4~36mm         |
| SMD Type     | 8mm Belt Package |             | 12mm Belt Package | 16mm Belt Package | 24mm Belt Package |
| Material     | Aluminium Alloy  |             |                   |                   |                   |
| Outline Size | L500×W230mm      | L570×W240mm | L560×W250mm       | L580×W300mm       |                   |
| Weight       | 0.9kg            | 1.45kg      | 1.55kg            | 2.2kg             |                   |



Y8DF-Q/D



Y12/16DF-Q/D



Y24DF-Q/D



TPJFD-ZD-3G



Y12/16DF-Q/D

### Electric Feeder Specification

| Model        | Y8DF-Q/D        | Y12/16DF-Q/D | Y24DF-Q/D   |
|--------------|-----------------|--------------|-------------|
| Voltage      | 24V             |              |             |
| Motor speed  | 80ms/pcs        |              |             |
| Material     | Aluminium Alloy |              |             |
| Outline Size | L586×W237mm     | L585×W245mm  | L622×W252mm |
| Weight       | 1kg             | 1.7kg        | 2kg         |

### Vibration Feeder Specification

| Model        | TPJFD-ZD-3G      | TPJFD-ZD-5G |
|--------------|------------------|-------------|
| Standard     | 3 Tube           | 5 Tube      |
| Voltage      | 24V/220V         |             |
| SMD Type     | Tube Pacakage IC |             |
| Outline Size | L365×W100mm      | L365×W150mm |
| Weight       | 3.02kg           | 3.32kg      |



### Feeder Trolley

|                 |                |
|-----------------|----------------|
| Model           | ZB-T80         |
| Feeder Location | 80             |
| Outline Size    | L80×W60×H108cm |

# THT COMBINATION ASSEMBLY LINE

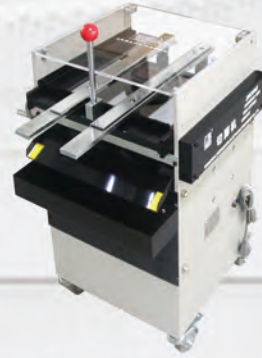
## THT WELDING SMALL PRODUCTION COMBINATION KIT 1



Manual Plug-in Line



Semi-Automatic Dip Soldering Machine



Circuit Board Trimming Machine



Grinding Machine

## THT WELDING AUTOMATIC PRODUCTION COMBINATION SET 1



Automatic insertion line



Input machine



Fully automatic dip soldering machine



Fully automatic trimming machine



Grinding machine

## THT WELDING AUTOMATIC PRODUCTION COMBINATION SET 2



Automatic insertion line



Input machine



Fully automatic wave soldering

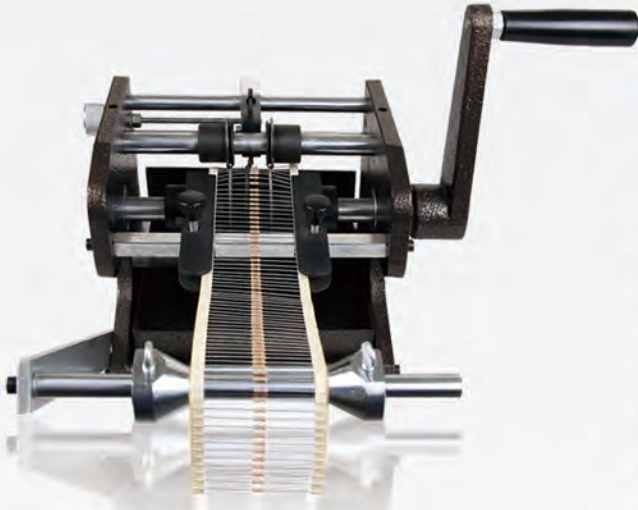


Output machine

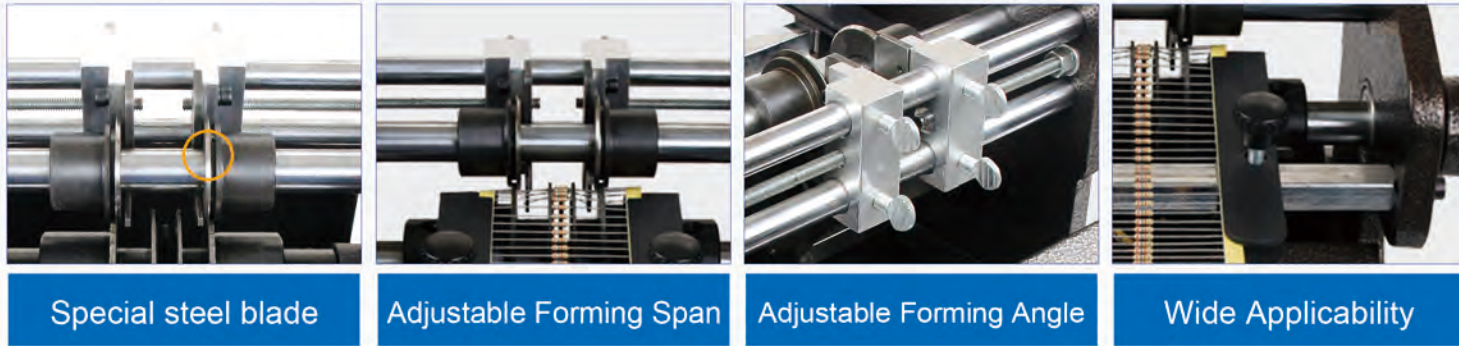


Fully automatic trimming machine

## Resistance Forming Machine



The ZB101U/ZB101F hand cranked resistance forming machine is mainly used as a specialized equipment for cutting and bending the pins of electronic components such as axial braided resistors, capacitors, inductors, diodes, etc. into horizontal (U-shaped)/vertical (F-shaped) assemblies. This machine is made of high-precision parts and high-quality materials. Its action principle is that a pair of cutting gears and cutting cutters act together to cut the component feet, and then a pair of forming gears and forming cutters complete the forming process.



Special steel blade

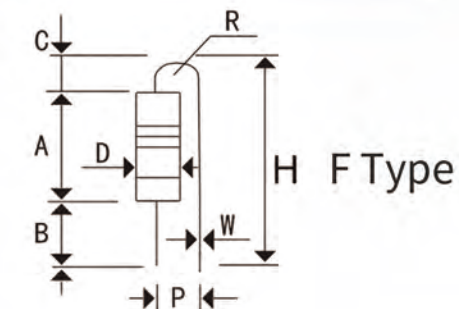
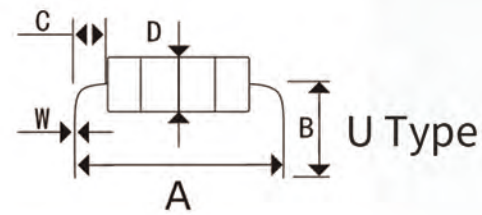
Adjustable Forming Span

Adjustable Forming Angle

Wide Applicability

| Specification |          |            |
|---------------|----------|------------|
| Model         | ZB-101U  | ZB-101F    |
| A             | 6~40mm   | 4~18mm     |
| B             | 3.6~15mm | 2.5~20mm   |
| C             | 1.2mm    | 3.5mm      |
| D             | 1.5~8mm  | 1.5~8mm    |
| W             | 0.35~1mm |            |
| H             | Not      | 25mm       |
| P             | Not      | 2.5~13.5mm |

Notes: U type and F type is not the same one machine.


**ZB3022P**

**ZB3025P**

## Spray Furnace

ZB Series flux spraying machine is the ideal machine that before PCB soldering ,operate simply and efficiently.

- Soldering flux is finer grains, atomization effect is more ideal.
- It's help to improve the flux activity.
- Soldering flux spray uniform, reduce spatter the tin effectively
- 304 stainless steel spray tank with anti-corrosion and not easy oxidation.

| Specification |                            |                             |
|---------------|----------------------------|-----------------------------|
| Name          | Low pressure spray furnace | High pressure spray furnace |
| Model         | ZB3022P                    | ZB3025P                     |
| Specification | 300×220mm                  | 300×250mm                   |
| Air Supply    | Built-in                   | Need extra                  |
| Power         | 35W                        | 70W                         |
| Power Supply  | AC220V±10% 50Hz            |                             |
| Weight        | 15kg                       | 20kg                        |
| Outline Size  | L380×W300×H710mm           | L375×W325×H700mm            |



Soldering Pot



Lead-Free Soldering Pot

## Tin Melting Furnace

### What's the difference between B and D type?

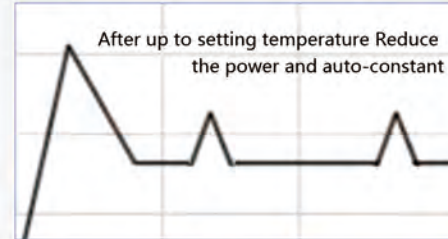
B type is using 304 stainless steel material for tin tank, D's tin tank is using the military-grade titanium, D type is more anti-corrosion, high temperature resistant, longer life, B type is just for ordinary tin bar, but D type is apply to any types of tin bar, even for the lead, so the D type is more cost-effective.



Built-in High Precision Temperature Probe



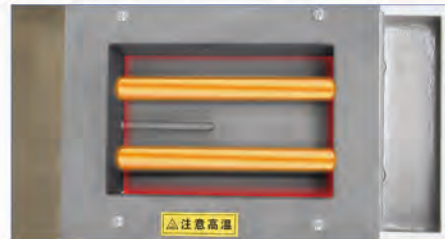
Using PID(Micro-computer) Temperature Control System



PID Automatic Temperature Constant



Independent Tin Slag Collector



With Multi-pieces Heating Tube Inside



Accessories Completely

### Specification

| Model              | Temperature range          | Tin Bath Size   | Melting Capacity | Power | Power Supply        | Outline Size     |
|--------------------|----------------------------|-----------------|------------------|-------|---------------------|------------------|
| ZB1510B<br>ZB1510D | Normal temperature ~400 °C | L150×W100×H70mm | 7.5kg            | 600W  | AC 220V±10%<br>50Hz | L370×W160×H140mm |
| ZB2015B<br>ZB2015D |                            | L200×W150×H70mm | 15kg             | 1200W |                     | L420×W210×H140mm |
| ZB2520B<br>ZB2520D |                            | L250×W200×H70mm | 25kg             | 1500W |                     | L470×W260×H140mm |
| ZB3025B<br>ZB3025D |                            | L300×W250×H70mm | 38kg             | 2000W |                     | L520×W310×H140mm |
| ZB3530B<br>ZB3530D |                            | L350×W300×H70mm | 53kg             | 2200W |                     | L570×W360×H140mm |



## Semi-Automatic Dip Soldering Machine

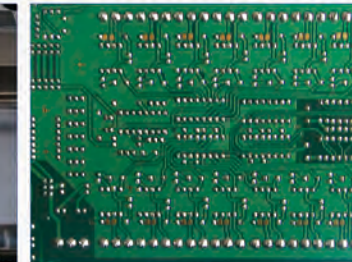
ZB series semi-automatic soldering machine use mechanical arm equipment to spray the scalding powder, PCB pre-heating, soldering, cooling, smoking and tin splash collection functions; It's apply to long and short plug-in elements and different PCB soldering requirement; soldering spot full, smooth, it's the cost-effective soldering equipment.



Automatic sensing spray



Heat-up Fast



Soldering Spot Full



PID Intelligent Temperature Control

- Newly automatic induction spray system, quicker and higher efficiency, no need manual operation.
- Using newly precision spray nozzle, spraying partical thinner and even, better atomization effect.
- High-efficiency pre-heat drying, speed up the circuit board scalling powder volatilize and activation of molecules, fully exert the scalling powder capability.
- Temperature controlled by the temperature control instrument, show the setting temperature and actual temperature at current time. Range of temperature control : Normal temperature -400°C. Main features: constant temperature ,precision and electric-saving.
- Discharging plate and cooling completed for only one time, forced cooling by super calm wind mechanism, equipped with exhaust device inside, which can delete the harmful gas produced in the process of soldering.
- Equipped with tin splash collection groove, which is convenient and save the cost through tin splash secondary reduction.
- Equipped with tin splash collection groove, which is convenient and save the cost through tin splash secondary reduction.

### Specification

| Model                        | Melting Capacity | Temperature Control Range  | Temperature Control Precision | Tin Bath Size | Power | Power Supply        | Outline Size    | Weight |
|------------------------------|------------------|----------------------------|-------------------------------|---------------|-------|---------------------|-----------------|--------|
| ZB3020BG-1.1<br>ZB3020DG-1.1 | 30kg             | Normal temperature ~400 °C | ±1%                           | 300×200×70mm  | 2500W | AC220V ±10%<br>50Hz | 1130×750×1160mm | 92kg   |
| ZB3525BG-1.1<br>ZB3525DG-1.1 | 45kg             |                            |                               | 350×250×70mm  | 2500W |                     | 1230×800×1160mm | 101kg  |





**ZB200BF Fully Automatic Wave Soldering**

- Zone heating
- Efficient and energy-saving
- Structure Compact
- Orbital Transmission
- Rapid Heating up
- Automatic Synchronization



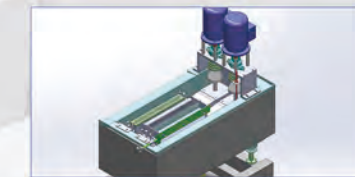
**Control System**  
Using touch screen and microcontroller operation Simple and convenient, with higher stability



**Modular preheating system**  
Adopting a drawer style structural design, Easy to remove for maintenance and repair



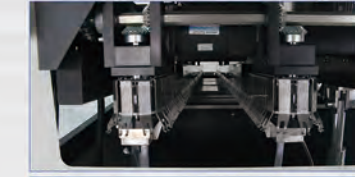
**Using high-temperature long axis fans**  
New turbocharging technology, Improve the efficiency of hot air circulation



**Using 316L stainless steel tin bath**  
TA1 Industrial Pure Titanium Impeller Has strong corrosion resistance and high temperature resistance



**Anti oxidation cover**  
Can greatly reduce The oxidation amount of tin



**Transport board system**  
Balanced and uniform transportation system



**Spraying Systems**  
Adopting stepper motor, linear guide rail A100 nozzle reciprocating motion



**High precision adjustment**  
Width adjustment through helical gears and high-precision trapezoidal gears Screw three-point synchronous width adjustment,



**Cleaning System**  
By using anti-corrosion brushes to wash the claws on both sides, Automatic cycle cleaning of chain claws.

**COMPLETE MACHINE**

|                  |                                |
|------------------|--------------------------------|
| Name             | Fully automatic wave soldering |
| Model            | ZB200BF                        |
| Outline Size     | L2250 * W1140 * H1650mm        |
| Weight           | 670kg                          |
| Power supply     | AC380V/50Hz (50A)              |
| Starting power   | 9KW                            |
| Operating power  | About 3KW                      |
| Control system   | Touch screen+microcontroller   |
| Transport height | 760 ± 20mm                     |

**PREHEATING**

|                            |                              |
|----------------------------|------------------------------|
| Preheating method          | Modular full hot air heating |
| Temperature control        | PID+SSR                      |
| Number of preheating zones | 1 unit                       |
| Preheating zone length     | 450mm                        |
| Temperature range          | Room temperature -250 °C     |
| Preheating zone power      | 3KW                          |

**SPRAY**

|                     |   |
|---------------------|---|
| Transmission mode   | Stepper motor+digital driver +linear guide rail |
| Spray pressure      | 0.25MPa-0.4MPa                                  |
| Type of nozzle      | A100-1.0  |
| Flow control method | flowmeter                                       |
| Flux storage tank   | 5.5L  |

**TIN FURNACE**

|                        |   |
|------------------------|---|
| Tin furnace type       | External heating tin furnace                        |
| Tin furnace material   | 316L stainless steel/titanium alloy δ= 4.0mm        |
| Tin furnace power      | 2000W*3=6KW   |
| Peak type              | One wave disturbance wave, two wave smoothing waves |
| Peak height            | 0-12mm  |
| Solder temperature     | Room temperature -320°C                             |
| Tin furnace capacity   | 180KG   |
| Tin melting time       | 70 minutes (set temperature of 245°C)               |
| control mode           | PID+SSR   |
| Lifting method         | Manual  |
| Entry and exit methods | Manual (optional electric)                          |
| Timed opening          | Have  |

**TRANSPORTATION**

|                          |                         |
|--------------------------|-------------------------|
| PCB board width          | 50mm-200mm              |
| PCB transfer direction   | L → R                   |
| Transmission speed range | 200-2200mm/min          |
| PCB pin length           | < 10mm                  |
| Speed control mode       | Touch screen control    |
| Welding angle            | 4-7 °                   |
| Width adjustment method  | Manual width adjustment |

**CLEANING**

|                 |                        |
|-----------------|------------------------|
| Cleaning agent  | Alcohol                |
| Nozzle capacity | 2.4L                   |
| Washing claws   | Optional configuration |

**BURIAL**

|                |                      |
|----------------|----------------------|
| Cooling method | Natural wind cooling |
|----------------|----------------------|



# ZB300BF

## Fully Automatic Wave Soldering

-   
Zone heating
-   
Efficient and energy-saving
-   
Structure Compact
-   
Orbital Transmission
-   
Rapid Heating up
-   
Automatic Synchronization

|                         |                        |                                |
|-------------------------|------------------------|--------------------------------|
| <b>COMPLETE MACHINE</b> | <b>Name</b>            | Fully automatic wave soldering |
|                         | <b>Model</b>           | ZB300BF                        |
|                         | <b>Outline Size</b>    | L3400 * W1240 * H1650mm        |
|                         | <b>Weight</b>          | 900kg                          |
|                         | <b>Power supply</b>    | AC380V/50Hz (50A)              |
|                         | <b>Starting power</b>  | 23KW                           |
|                         | <b>Operating power</b> | 8KW                            |
|                         | <b>Control system</b>  | Touch screen                   |
| <b>Transport height</b> | 760 ± 20mm             |                                |

### TECHNICAL PARAMETER

|                          |                                   |                              |   |
|--------------------------|-----------------------------------|------------------------------|---|
| <b>PREHEATING</b>        | <b>Preheating method</b>          | Modular full hot air heating |   |
|                          | <b>Temperature control</b>        | PID+SSR                      |   |
|                          | <b>Number of preheating zones</b> | 3 unit                       |   |
|                          | <b>Preheating zone length</b>     | 1350mm                       |   |
|                          | <b>Temperature range</b>          | Room temperature -250 °C     |   |
|                          | <b>Preheating zone power</b>      | 9KW                          |   |
|                          | <b>SPRAY</b>                      | <b>Transmission mode</b>     | Stepper motor+digital driver +linear guide rail |
|                          |                                   | <b>Spray pressure</b>        | 0.25MPa-0.4MPa                                  |
|                          |                                   | <b>Type of nozzle</b>        | A100-1.0  |
|                          |                                   | <b>Flow control method</b>   | flowmeter                                       |
| <b>Flux storage tank</b> | 5.5L                              |                              |   |



**Control System**

Using touch screen and microcontroller operation Simple and convenient, with higher stability



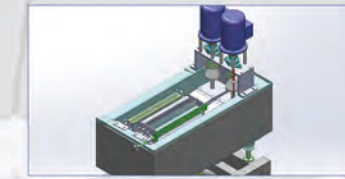
**Modular preheating system**

Adopting a drawer style structural design, Easy to remove for maintenance and repair



**Using high-temperature long axis fans**

New turbocharging technology, Improve the efficiency of hot air circulation



**Using 316L stainless steel tin bath**

TA1 Industrial Pure Titanium Impeller Has strong corrosion resistance and high temperature resistance



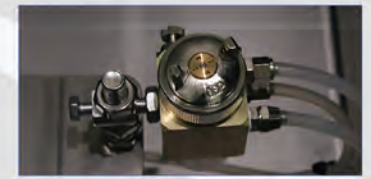
**Anti oxidation cover**

Can greatly reduce The oxidation amount of tin



**Transport board system**

Balanced and uniform transportation system



**Spraying Systems**

Adopting stepper motor, linear guide rail A100 nozzle reciprocating motion



**High precision adjustment**

Width adjustment through helical gears and high-precision trapezoidal gears Screw three-point synchronous width adjustment,



**Cleaning System**

By using anti-corrosion brushes to wash the claws on both sides, Automatic cycle cleaning of chain claws.

|                               |                             |   |
|-------------------------------|-----------------------------|---|
| <b>TIN FURNACE</b>            | <b>Tin furnace type</b>     | External heating tin furnace                  |
|                               | <b>Tin furnace material</b> | 316L Stainless steel δ= 4.0mm                 |
|                               | <b>Tin furnace power</b>    | 4500W*3=13.5KW                                |
|                               | <b>Peak type</b>            | Double wave (disturbance wave+advection wave) |
|                               | <b>Peak height</b>          | 0-12mm  |
|                               | <b>Solder temperature</b>   | Room temperature -320°C                       |
|                               | <b>Tin furnace capacity</b> | 280KG   |
|                               | <b>Tin melting time</b>     | 70 minutes (set temperature of 245°C)         |
|                               | <b>control mode</b>         | PID+SSR                                       |
|                               | <b>Lifting method</b>       | Manual  |
| <b>Entry and exit methods</b> | Manual                      |   |
| <b>Timed opening</b>          | Have                        |   |

|                       |                                 |                         |                      |
|-----------------------|---------------------------------|-------------------------|----------------------|
| <b>TRANSPORTATION</b> | <b>PCB board width</b>          | 50mm-200mm              |                      |
|                       | <b>PCB transfer direction</b>   | L → R                   |                      |
|                       | <b>Transmission speed range</b> | 200-2200mm/min          |                      |
|                       | <b>PCB pin length</b>           | < 10mm                  |                      |
|                       | <b>Speed control mode</b>       | Touch screen control    |                      |
|                       | <b>Welding angle</b>            | 4-7 °                   |                      |
|                       | <b>Width adjustment method</b>  | Manual width adjustment |                      |
|                       | <b>CLEANING</b>                 | <b>Cleaning agent</b>   | Alcohol              |
|                       |                                 | <b>Nozzle capacity</b>  | 2.4L                 |
|                       |                                 | <b>Washing claws</b>    | 2.4L                 |
| <b>BURIAL</b>         |                                 | <b>Cooling method</b>   | Natural wind cooling |



# ZB350M Fully Automatic Dip Soldering Machine

- Tin saving/Power saving/Can work with long legs
- Infrared heating and preheating system
- High precision specialized nozzle

|                         |                          |   |
|-------------------------|--------------------------|---|
| <b>COMPLETE MACHINE</b> | <b>Name</b>              | Fully automatic immersion welding machine |
|                         | <b>Model</b>             | ZB350M                                    |
|                         | <b>Frame size</b>        | L2600 * W1100 * H1675mm                   |
|                         | <b>Outline Size</b>      | L2600 * W1050 * H1680mm                   |
|                         | <b>Weight</b>            | 650kg                                     |
|                         | <b>Power supply</b>      | AC380V/220V 50Hz                          |
|                         | <b>Starting power</b>    | 11KW                                      |
|                         | <b>Operating power</b>   | 3KW                                       |
|                         | <b>Control system</b>    | Touch screen+PLC                          |
|                         | <b>Production</b>        | MAX.2200PCS/8H                            |
| <b>SPRAY</b>            | <b>Start stop mode</b>   | Tracking PCB board length start stop      |
|                         | <b>Transmission mode</b> | Mechanical rodless cylinder               |
|                         | <b>Spray pressure</b>    | 0.25MPa-0.4MPa                            |
|                         | <b>Spray form</b>        | Spray                                     |
|                         | <b>Type of nozzle</b>    | A100-1.0 (Taiwan Wina)                    |
|                         | <b>Flux storage tank</b> | 5.5L                                      |

|                                    |                                   |                                 |  |
|------------------------------------|-----------------------------------|---------------------------------|--|
| <b>PREHEATING</b>                  | <b>Preheating method</b>          | Infrared heating                |  |
|                                    | <b>Temperature control method</b> | PID+SSR                         |  |
|                                    | <b>Number of preheating zones</b> | 1 Segment                       |  |
|                                    | <b>Preheating zone length</b>     | 600mm                           |  |
|                                    | <b>Temperature range</b>          | Room temperature -150 °C        |  |
|                                    | <b>Teating time</b>               | 10 minutes (temperature 150 °C) |  |
|                                    | <b>Preheating zone power</b>      | 6KW                             |  |
|                                    | <b>TIN FURNACE</b>                | <b>Tin furnace type</b>         | External heating tin furnace             |
|                                    |                                   | <b>Tin furnace structure</b>    | Independent modular                      |
|                                    |                                   | <b>Tin furnace material</b>     | 304 stainless steel/anchor alloy 6=2.0mm |
| <b>Heating plate power</b>         |                                   | 3000W * 2 pieces=6KW            |  |
| <b>maximum temperature</b>         |                                   | 400 °C                          |  |
| <b>Tin furnace capacity</b>        |                                   | 70KG (Tin Bar 63/37)            |  |
| <b>Heating time of tin furnace</b> |                                   | 40min (set temperature 260°C)   |  |
| <b>Tin furnace control method</b>  |                                   | PID+SSR                         |  |
| <b>Tin furnace timed on</b>        |                                   | Have                            |  |



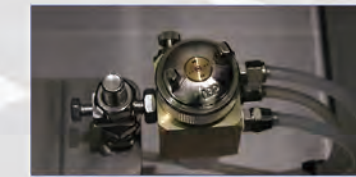
**Control System**  
 PLC+touch screen intelligent control  
 Powerful functions enable automated operation



**Preheating System**  
 Ensure even and sufficient preheating of the PCB board surface The temperature control method adopts PID+SRR closed-loop control



**Paw Washing System**  
 Automatic circulation alcohol claw washing device



**Spraying Systems**  
 Stepper motor drive automatically adjusts with PCB width



**In/out Board System**  
 Directly connect the plug-in assembly line and automatic foot cutting machine without the need for a connecting device



**Transport Board System**  
 Balanced and uniform transportation system



**Tin Scraping System**  
 User-friendly design Adjustable frequency for convenient use



**Welding System**  
 Automatic tin surface detection, tin saving welding, adjustable tilt angle

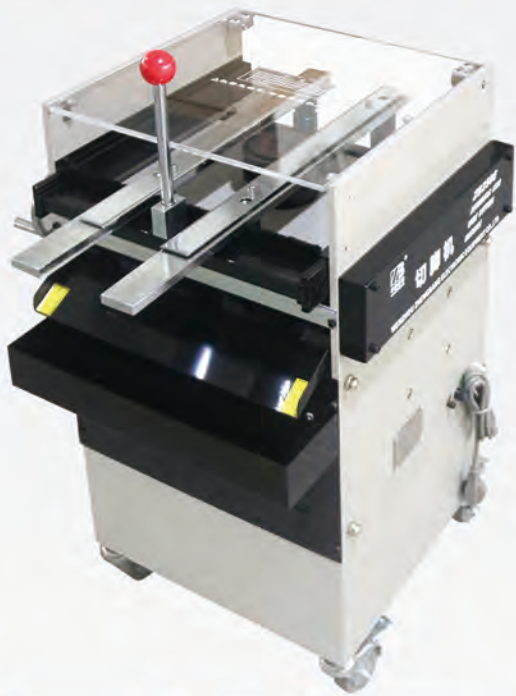


**Lead-Free Conversion**  
 Lead free and convenient conversion with low cost

|                      |                                   |  |
|----------------------|-----------------------------------|--|
| <b>TIN IMMERSION</b> | <b>Tin immersion method</b>       | Closed loop stepper motor drives up and down tin immersion |
|                      | <b>Tin dipping tilt height</b>    | 0-30mm   |
|                      | <b>Tin immersion fast speed</b>   | 1-80mm/s   |
|                      | <b>Tin immersion slow speed</b>   | 1-20mm/s   |
|                      | <b>Tin immersion time</b>         | 1-99s  |
|                      | <b>Surface Inspection</b>         | Automatic tracking detection                               |
|                      | <b>Tin addition method</b>        | Manual tin addition  |
|                      | <b>Low tin alarm method</b>       | Beep+text prompt   |
|                      | <b>Tin impregnated chain claw</b> | Double hook claw (alloy)                                   |
|                      | <b>Tin scraping method</b>        | automatic  |
| <b>SCRAPING TIN</b>  | <b>Tin scraping drive mode</b>    | Reduction motor  |
|                      | <b>Scraping speed</b>             | 160mm/s  |
|                      | <b>Scraper quantity</b>           | Two sections side by side detachable                       |
|                      | <b>Scraping cycle</b>             | 1-50 adjustable times                                      |

|                       |                                       |   |
|-----------------------|---------------------------------------|---|
| <b>TRANSPORTATION</b> | <b>PCB board width</b>                | 50mm-250mm  |
|                       | <b>PCB transfer direction</b>         | L-R   |
|                       | <b>Number of segments</b>             | 3 stages (feeding conveyor+tin dipping conveyor+discharging conveyor) |
|                       | <b>Transmission speed range</b>       | 1-74mm/s  |
|                       | <b>Transport height</b>               | 750+20mm  |
|                       | <b>Allow PCB component height</b>     | <60mm   |
|                       | <b>Allow PCB component pin length</b> | <35mm   |
|                       | <b>Allow minimum PCB size</b>         | MIN.50 * 130mm  |
|                       | <b>Allow maximum PCB size</b>         | MAX250 * 350mm  |
|                       | <b>Speed control mode</b>             | Touch screen control  |
| <b>CLEANING</b>       | <b>Transportation method</b>          | Nickel plated 35B chain   |
|                       | <b>Width adjustment method</b>        | Manual width adjustment   |
|                       | <b>Cleaning agent</b>                 | Alcohol   |
|                       | <b>Alcohol tank capacity</b>          | 2.4L  |

## TECHNICAL PARAMETER

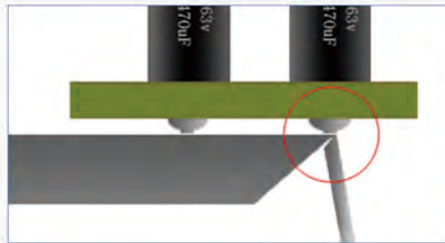


## PCB Pin Cutting Machine

ZB series cutting machine are apply to cut the extra pin after components and spares soldering, it's by the high precision process components assembled, grinding process at the key part, good cutting consistency, quick blade rotate speed , stable, low noise, high efficiency and convinent to operate. Double lead rails travel adjust same time and the height of wide cutting can be adjusted casually and cost-effective.



Imported bearings, high-precision



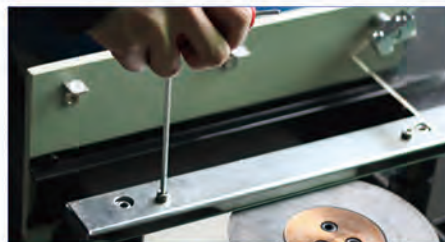
Wire cutting, blade saving



The whole machine is stable with little shaking



Exclusive technology, safer



Precision steel guide rail, more wear-resistant



Mass production, more reassuring

### Specification

| Model               | ZB200E           | ZB250E           | Circuit Board Thickness | Approx 0.8~2.5mm |
|---------------------|------------------|------------------|-------------------------|------------------|
| Lead Rail Stroke    | 0~220mm          | 0~280mm          | Cut Foot Height         | Approx 1.5~3mm   |
| Blade Specification | Φ200×70×3.5mm    | Φ250×70×3.5mm    | Blade Speed             | 4500r/min        |
| Outline Size        | L615×W415×H780mm | L665×W475×H780mm | Power                   | 550W             |
| Weight              | 80kg             | 95kg             | Power Supply            | AC220V±10% 50Hz  |



## Fully Automatic PCB Pin Cutting Machine

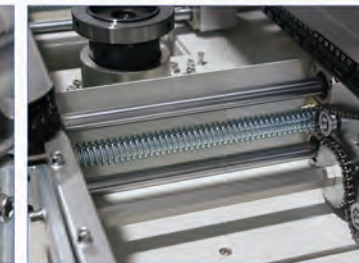
ZB250QE series fully automatic foot cutting machine. This model is currently a device developed for pin cutting in plug-in electronic products, mainly used to cut off excess pins after component welding. This machine is assembled from precision manufactured components. The key parts are ground, assembled with imported bearings, with good consistency in cutting feet, fast and stable blade speed, low noise, high efficiency, and easy operation. PCB boards are automatically transported through chains and can be connected to production lines or automatic immersion welding machines, with a high degree of automation and adjustable cutting height.



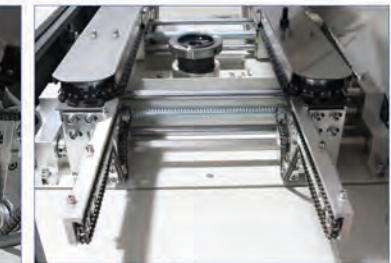
Precision craftsmanship



Pressure type claw



Linkage type width adjustment mechanism



Chain Conveyor

### Specification

|                |                   |                      |                    |
|----------------|-------------------|----------------------|--------------------|
| Model          | ZB250QE           | PCB conveyor height  | 750±20mm           |
| Outline Size   | L1000*W680*H900mm | PCB width            | 50-250mm           |
| Weight         | 170KG             | Substrate thickness  | Approx 0.8mm-2.5mm |
| Power Supply   | AC380V/50Hz       | Blade Speed          | 4500 rpm           |
| Power          | 0.7KW             | Transportation speed | 5-36mm/s           |
| Control System | Touch Screen      | Cutting foot height  | Approx 1-3mm       |



## ZBSRJ350

### PCB Input Machine

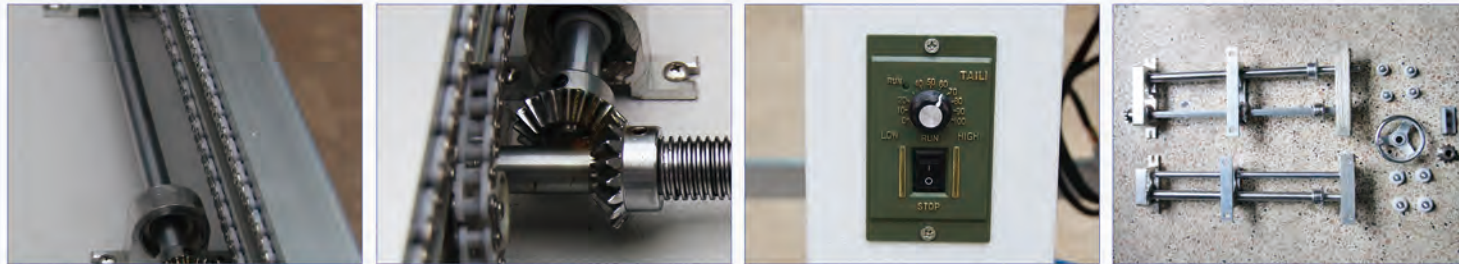
Wave soldering input connected machine apply to THT plug in line and wave soldering connected machine combine together for input, which the features including the speed can be adjustable, low noise and easy to operate. The stainless steel materials chain design make this machine wearable and beautiful appearance.



## ZBSCJ400

### PCB Output Machine

Wave soldering output connected machine apply to THT plug in line and wave soldering connected machine combine together for output, which the features including the speed can be adjustable, low noise and easy to operate.



The Chain Design

Synchronous Modulation

Stepless Speed Regulation

Regulation Mechanism

#### Specification

|                 |                                   |
|-----------------|-----------------------------------|
| Model           | ZBSRJ350                          |
| PCB Width       | Max. 350mm                        |
| Transfer Speed  | 0~5000mm/min                      |
| Transport Motor | AC220V 50/60Hz 40W                |
| Power Supply    | AC220V 50/60Hz                    |
| Adjust Method   | Hand Screw Adjusting              |
| Outline Size    | L1000×W655×H750~900(Adjustable)mm |



Stepless Speed Regulation

Axial Flow Fan

Connector

The Conveyor Belt

#### Specification

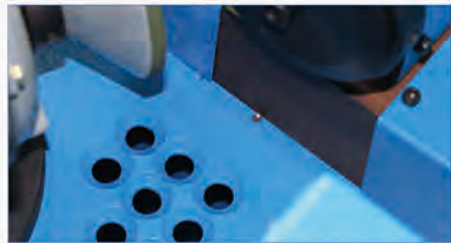
|                 |                                    |
|-----------------|------------------------------------|
| Model           | ZBSCJ400                           |
| Belt Width      | 400mm                              |
| Transfer Speed  | 0~5000mm/min                       |
| Transport Motor | AC220V 50/60Hz 60W                 |
| Power Supply    | AC220V 50/60Hz                     |
| Track Materials | Aluminum Alloy                     |
| Outline Size    | L1400×W486×H940~1300(Adjustable)mm |


**Vertical**

**Desktop**

## Knife Grinder

ZB series sharpen machine is mainly use the blade of PCB cutting machine to grinding, this machine assembled by high precision components, excellent motor and diamond grinding wheel, convenient, efficient, the grinding angle can adjustable; Diamond grinding wheel speeding faster, stable, low noise, cutting feeder rail stable and so on.



Enclosed Design Safety and Health



Sharpen Smoothly, Low Loss



Micro-Adjust Control, High-Precision



Multiple Protection, More Secure



Angle Adjustable, Used Widely



High Temperature and High Pressure, Multiple Protection

### Specification

| Model   | Sharpen Angle | Blade Size | Grinding Wheel Speed | Blade Speed | Power | Power Supply         | Outline Size     | Weight |
|---------|---------------|------------|----------------------|-------------|-------|----------------------|------------------|--------|
| ZB250FL | 18°~25°       | MAX. Φ250  | 2800R.P.M            | 25R.P.M     | 750W  | AC 220V<br>±10% 50Hz | L630×W490×H950mm | 90kg   |
| ZB250FT |               |            |                      |             |       |                      | L630×W490×H350mm | 70kg   |

## Cutting Machine Blade

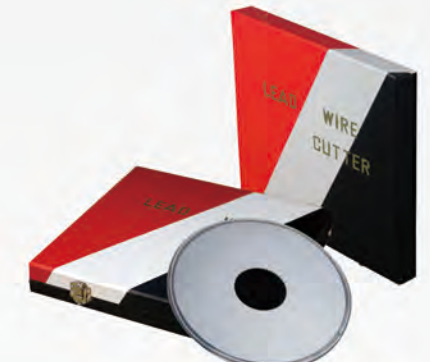
The selected material is the national standard tungsten steel grade (YG8), which is the best choice for rough machining tools. It can bring convenience to users with high production, high safety, and its quality meets international standards. Truly made of top-grade tungsten steel material, it remains basically unchanged even at a temperature of 500 ° C, effectively improving the quality of the blade, eliminating the worry of high-temperature annealing and extending its service life. Changing the traditional blade manufacturing technology, improving hardness and reducing brittleness, 5 senior experts in blade manufacturing have studied for 4 years to create the most durable cutting machine blade!



ZB Brand Tungsten Steel Blade



Mitsubishi tungsten steel blade



Zhuzhou Diamond Tungsten Steel Blade

### Specification

|                | 200            | 250            |
|----------------|----------------|----------------|
| Model          | 200            | 250            |
| Material       | Tungsten steel | Tungsten steel |
| Specifications | 8 inches       | 10 inches      |
| Outer diameter | Φ200mm         | Φ250mm         |
| Inner diameter | Φ70mm          | Φ70mm          |
| Thickness      | 3.5mm          | 3.5mm          |



Long table assembly line



Aircraft-style assembly line



Double-sided automatic insertion line



Double-sided non-powered insertion line



Double-sided enclosed workstation



Long table packaging line



Horizontal loop high-speed chain assembly line



Vertical loop high-speed chain assembly line



Long table assembly line



Single-sided enclosed workstation



Single-sided automatic insertion line



Belt turning machine