TECHNOLOGY & AUTOMATION



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Enterprise Product Manual

Odd-Form Component Insertion Machines
AOI Optical Inspection
Custom Automation Solutions
Complete DIP Line Automation Solution

www.ruixh.cn
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Suzhou Ruixinhao Electronic Technology Co., Ltd

RuiXH
睿新浩

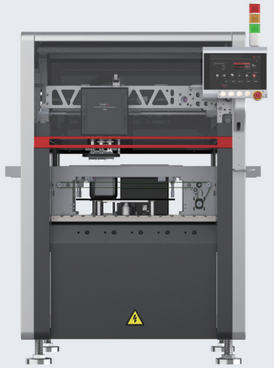
A technology-driven enterprise with 'innovation' at its core

Empowering Electronics Manufacturers with Smart, Future-Ready Solutions

Specializing in high-mix PCB assembly, we provide turnkey automation systems with AI-driven odd-form insertion, flexible feeders, and IoT-enabled process control!

An enterprise delivering integrated smart manufacturing solutions

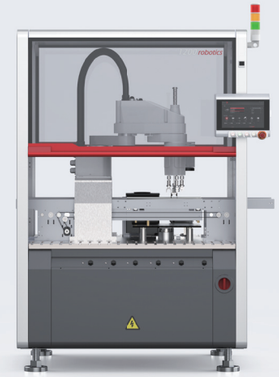




680 High-Speed Odd-form Platform **Superfast**

XY Linear Motion Module
high-speed, high-precision

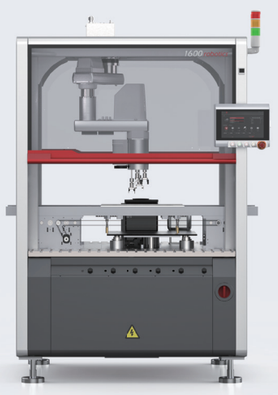
6/8	0.68	±0.02
Nozzle/gripper quantity per head	Insertion speed	Insertion Accuracy



1200 Odd-form Platform with Robots **Robotics**

Desktop installation SCARA robot
Super cost-effective

4/6	2.0	±0.02
Nozzle/gripper quantity per head	Insertion speed	Insertion Accuracy



1600 Odd-form Platform with Robots **Robotics**

Top Installation SCARA Robot
Larger working range of degree

4	1.8	±0.02
Nozzle/gripper quantity per head	Insertion speed	Insertion Accuracy



+ ZDF series **Bowl Feeder**

Bulk/Loose Package



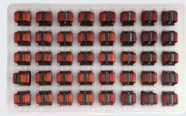
0.5s	30min		
Feed Speed	Continuous Feed	Forming Function	Sizing Function

16 Maximum Feeders per Odd-form Platform



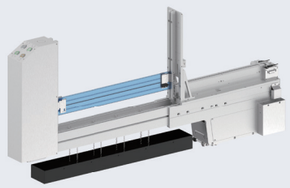
+ TRF series **Tray Feeder**

Tray Package



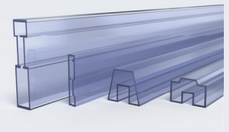
0.8s	20		
Feed Speed	Maximum capacity	Forming Function	Sizing Function

4 Maximum Feeders per Odd-form Platform



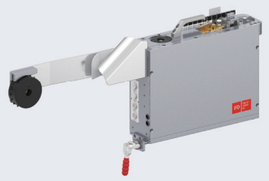
+ TUF series **Tube Feeder**

Tube/Stick Package



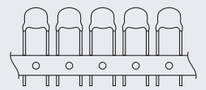
0.6s	20		
Feed Speed	Maximum capacity	Forming Function	Sizing Function

10 Maximum Feeders per Odd-form Platform



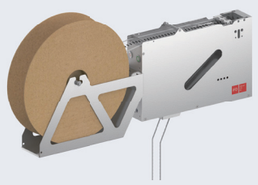
+ TDF-VT series **Radial Tape Feeder**

Radial Tape Package



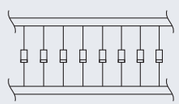
0.8s		
Feed Speed	Forming Function	Sizing Function

12 Maximum Feeders per Odd-form Platform



+ TDF-HT series **Axial Tape Feeder**

Radial Tape Package



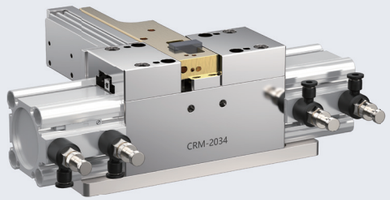
0.8s		
Feed Speed	Forming Function	Sizing Function

12 Maximum Feeders per Odd-form Platform

Rich Experience In Gripper Design

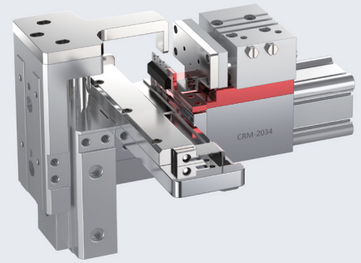
We have designed over 500 different grippers and nozzles to fitall kinds of odd-form components，custom-design is available.

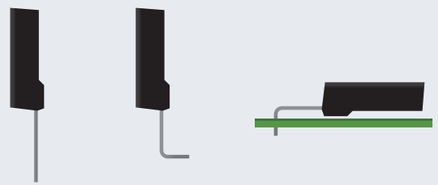
Capacitor Pre-Form





Bridge Pre-Form





Coil Pre-Form





Pick Mode



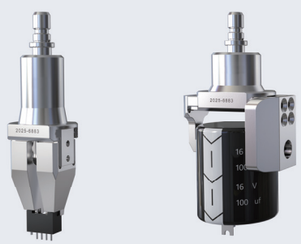
Nozzle



Gripping

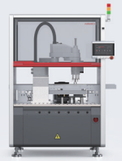
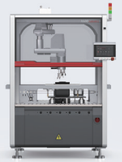


Push Open



Custom-Design

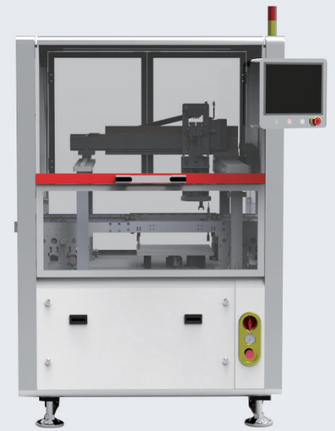
Device Parameters

High-Speed Odd-form Platform				
Machine Model	680	1200	1600	680 XL
PCB Size(LxW)	410x400mm / 800x400mm	300x350mm	410x450mm	410x550mm / 800x550mm
PCB Thickness	0.8-5mm			
Max PCB Weight	Max.6kg			
Clamping Edge Width	3mm/5mm			
Plug-in Performance				
Insertion Speed	5300cph	1800cph	2000cph	5300cph
Insertion Speed	0.88 sec / part	2 sec / part	1.8 sec / part	0.88 sec / part
Insertion Accuracy	±0.02mm			
Work Head Characteristics				
Material Supply Method	Gripping/Nozzle			
Number of Working Heads	6/8	4/6	4	6/8
Component Dimensions	35/50mm（Custom-Design）			
Component Height	40/50mm（Custom-Design）			
Component Weight	Max.500g			
Insertion Direction	0-360°			
Insertion Angle	360°			
PCB Conveyor System				
Conveyor Structure	Three-section Structure			
Conveyor	Belt / Chain			
Transport Mode	Synchronous / Asynchronous			
Delivery Speed	Max.800mm/s			
Direction of Plate Entry	L→R or R→L			
Width Adjustment	Automatic			
Stationary Edge Bracke	Front Section			
Component Specifications	U45 / D20			
Radial Tape Feeder				
Axial Tape Feeder	12	12	12	12
Tube Feeder	12	12	12	12
Tray Feeder	10	10	10	10
Bowl Feeder	4	4	4	4
Bowl Feeder	16	16	16	16
Basic Parameters				
Power Supply	380VAC ±11%			
Rated Power	2KVA	1.8KVA	1.8KVA	2KVA
Operating Air Pressure		0.6~0.8 Mpa 50L/min		
Online Interface		SMEMA（European 14-pin Interface）		
Machine Size(LxW)	1425*1388*1500mm	1211*1111*1800mm	1211*1210*1800mm	1425*1548*1500mm
Machine Weight	1600kg	950kg	1050kg	1600kg
Safety Protection				
Machine Certification	ISO 9001 Certification、CE Certification			
Safety Door Design	Safety Door Switch (Door-Open Stop)、Safety Light Curtain			
Pressure Failure Alarm	Electronic Pressure Switch Protection			

Online Insertion Machine		
Device Name	Online T-type Radial Insertion Machine	Online Axial Insertion Machine
Machine Model	HR30	HR20
Theoretical speed	24000piece/h	24000piece/h
Poor insertion	500PPM	500PPM
Insertion direction	0-360 degrees in 1 degree increments	0-360 degrees in 1 degree increments
Pin span	2.5/5.0mm or (2.5/3.5/5.0mm) or (2.5/5.0/7.5/10.0mm)	5.0-20mm,jumper wire 5.0-25mm
Substrate size	Maximum 400mm*350mm Minimum 50mm*50mm	Minimum100mm*100mm,maximum 330*300mm （customizable for larger sizes)
Substrate thickness	0.79-2.36mm	0.79-2.36mm
Component specifications	Standard:Maximum height is 23mm,maximum diameter is 13mm	The maximum length ofthe body is 16mm,the maximum diameter of the body is 5mm, and the pin diameter is 0.6mm
Component type	Standard vertical ribbon packaged electronic components such as capacitors, transistors, and transistors	Horizontal tape packaging materials forresistors, diodes,transistors, fuses, capacitors, etc., with independent conveyor-forjumper winding
Cutting foot length	1.5±0.25mm	1.2-2.2mm
Insertion angle	15-35degrees	0-35 degrees
Using the power supply	Single phase 220V/AC,50/60HZ,2KVA	Single phase 220V/AC,50/60HZ,2KVA
Using air pressure	0.6-0.8MPA	0.6-0.8MPA
Direction of plate entry	Left toright or right to left (optional)	Fully automatic(left to right or right to left)

GS-690

High-Speed Wire Insertion Machine



Device Parameters	
Machine Size(L*W*H)(mm)	1400*1450*1700mm
Machine Weight(kg)	1200kg
Operating Air Pressure	0.5MPA,50L/min
Power Supply	220V AC±10%
Rated Power	2.5KW
Number of Cameras	2/4
Number of Working Heads	2/4/6
Material Supply Method	Gripping/Nozzle
Insertion Angle	360°
Conveyor	Belt/Chain
Axis Driving System	AC servo
Wire Insertion Accuracy	0.02mm
Wire Insertion speed	5300CPH
PCB specifications	50mm*70mm—400mm*400mm
PCB Board Edge Requirements	3mm
Wire Diameter	1~5mm
Wire Height	＜40mm

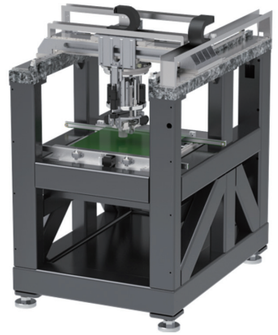
Model 1000

Hi-Speed Connector Pre-Insertion Machine



Device Parameters

Machine Size(L*W*H)(mm)	1600*1100*1800mm
Max.PCB Size(LxW)(mm)	500*500mm
Rail Parameters	Servo motor with auto-adjustment, load capacity >10 kg
Motion Module	X axis: Linear Motor Y axis: Dual-Drive Linear Motor Z、U、THaxis: Servo Motor
Insertion Accuracy	± 0.02mm
Visual Accuracy	± 0.0125mm
Component Grip Structure	Stroke <50 mm; Automatic finger changeover (<5 sec)
Number Of Feeders	10 Tray Feeders，8 Tube Feeders
Device Features	Full-process Pressure Monitoring 100% 3D Vision Scanning for Pins





NO 1

Direct-Drive Linear Motor

Higher speed and precision

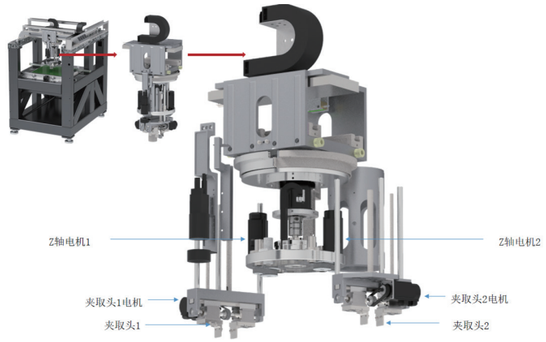
- Maximum acceleration of X/Y axes: 20 m/s
- Maximum speed of X/Y axes: 2 m/s

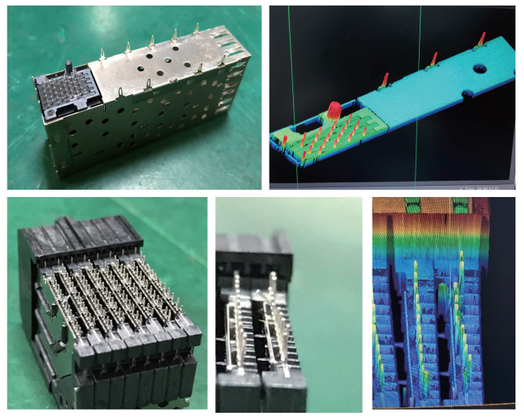
NO 2

Servo Gripper

High compatibility precise clamping force control, ensuring compatibility with large components

- A dual-head servo gripper
- independently driven with a stroke of 50mm





NO 3

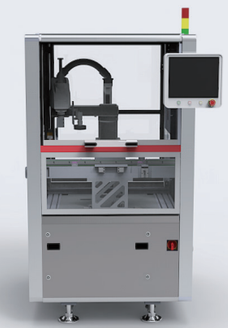
3D Vision System

Dual-Head Servo Gripper
High compatibilit

PRODUCT OVERVIEW | Modular leg cutting machine

GS-01

Modular leg cutting machine



Device Parameters	
Machine Size(L*W*H)(mm)	1300*1050*1600mm
Axis Driving System	Robot / Servo Module
Positioning Accuracy	±0.05mm
Conveyor	Online belt conveyor
Operation System	LCD
Vision System	CCD Visual Positioning System
Auto-Adjustable Width Range	50~400mm
Material Feed Sensing	Fiber Optics / Optoelectronics
Overall Structure	Square Steel / Aluminum Profile
Driving system	RUKING / Panasonic Servo Motors
Transmission Type	TBI / HIWIN Ball Screw
Component lead trimming	Pneumatic circular scissors
cutting tools	Pungsten steel
Cutting-tool angle	15°
Clearance around leads	5mm
Cutting speed	1. 5m/pass
Chamfer line diameter	< 1mm
Operating Air Pressure	0.5-0.6Mpa
Using the power supply	AC220V 50-60Hz 2500W
Environmental Temperature	10-40℃
Environmental Humidity	20-90%
Machine Weight(kg)	700kg

PRODUCT OVERVIEW | In-line Precision Dispensing Machine

KT-613Z

In-line Precision Dispensing Machine



Device Parameters	
Machine Size(L*W*H)(mm)	100*900*1700mm
Working Range	600(X)*450(Y)*100(Z)mm
Dispensing Methods	Piezoelectric Valve / Screw Valve
Travel Speed	10-500mm / sec adjustable
Control System	Motion control card + PC
Positioning Accuracy	± 0.02 mm
3-Axis Motion	Standard XYZ configuration
Dispensing Control	Dedicated controllers
Driving system	AC Servo Motor
Control Interface	R232
Drive System	Guide rail + ball screw
Operation Mode	In-line production
Signal Ports	24 Inputs / 8 Outputs
Using the power supply	AC220V / 50Hz / 2.5kw
Operating Air Pressure	0.4-0.6Mpa
Machine Weight(kg)	650KG

FHS-500

On-line Selective Wave Soldering



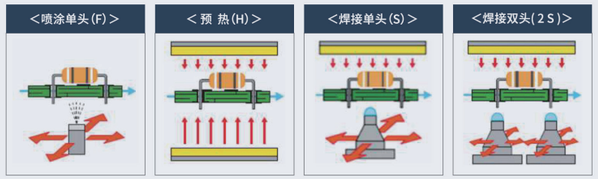
Overall Dimensions
2560*1750*1480mm
2560*1950*1480mm

Transport Height
900±20mm

Track Range
50-500mm

Number of Solder Pots
Single Solder Pot

Composition Form



FS-H500

On-line Integrated Selective Wave Soldering



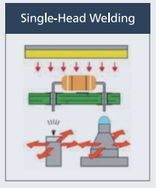
Overall Dimensions
1063*1750*1480mm

Transport Height
900±20mm

Track Range
50-500mm

Number of Solder Pots
Single Solder Pot

Composition Form



Tak-330f/460f

Small floor type selective sprayer



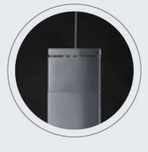
Overall Dimensions
630*970*990mm
800*1130*990mm

Number of Solder Pots
Single Solder Pot

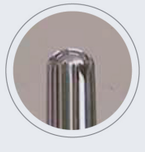
Composition Form



Two-Fluid
Atomization Valve



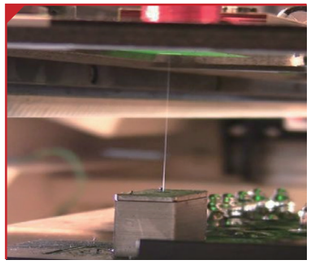
High-Frequency
Pulse Jet Valve

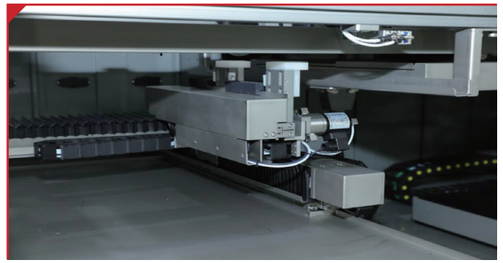


Proprietary Annular Nitrogen
Heating Protection System and
Segmented Nozzle Design

NO.1 Spray

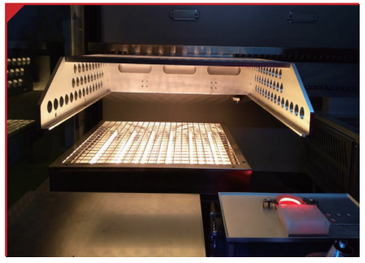
German-origin piezoelectric ceramic jet valve enables precision flux deposition with minimized consumption and enhanced penetration

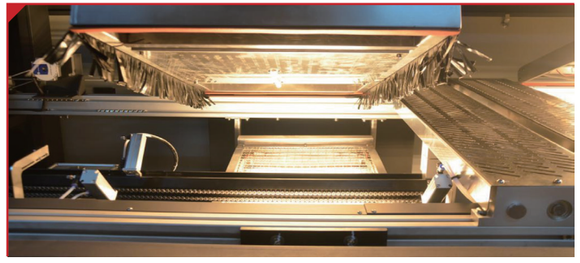




NO.2 Preheating

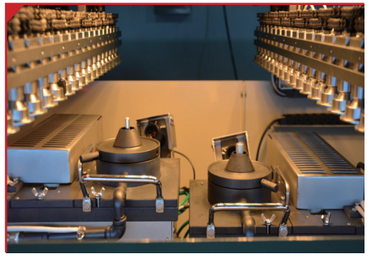
Hybrid Heating Modules:
Upper zone: Forced convection airflow
Lower zone: Far-infrared radiation lamps

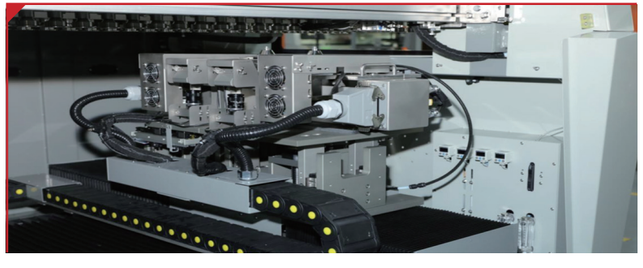


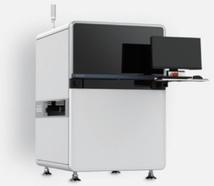


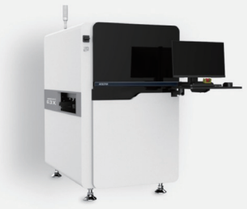
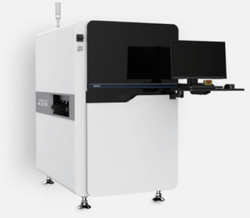
NO.3 Solder

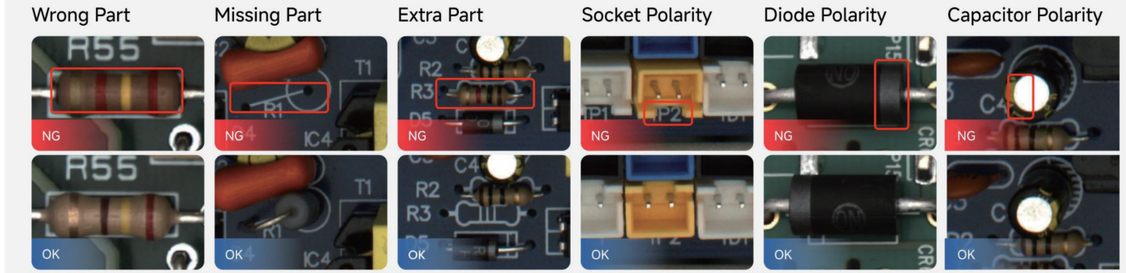
Titanium Alloy Solder Pot:
Integral structure prevents leakage
External heating plates ensure uniform thermal transfer36
Nitrogen-Assisted Process:
Inline heating enhances solder wetting performance
Reduces dross formation by 40-60%

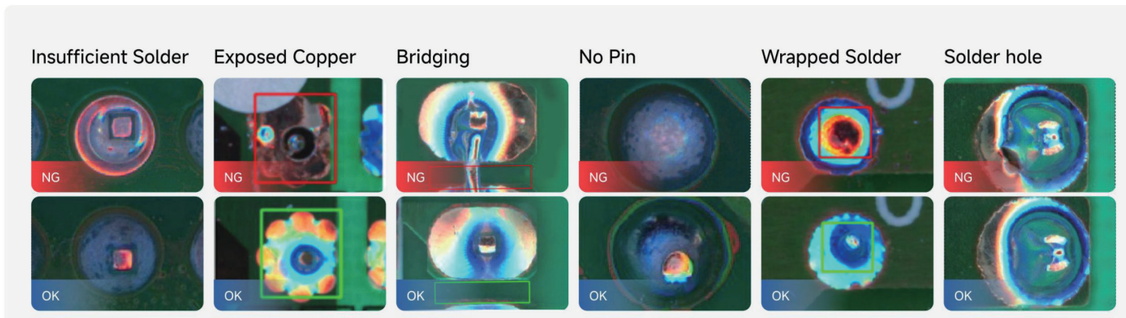


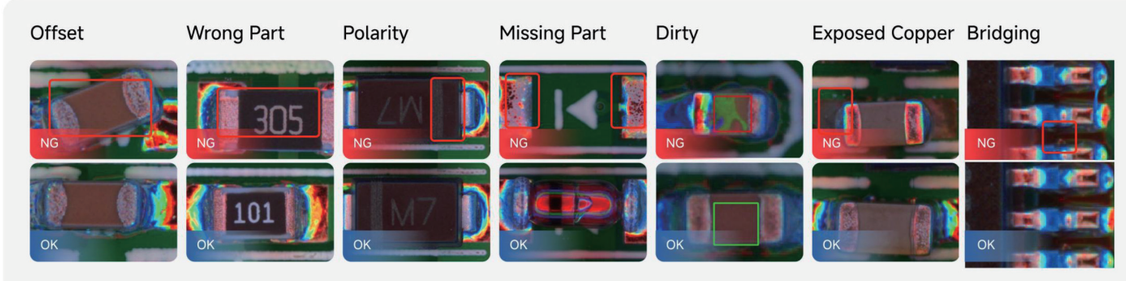


Automated Optical Inspection			
Device Model	AIS 20X	AIS 30X	AIS 50X
Device Name	Inline PCBA AOI For THT Components	Inline THT Solder Automated Optical inspection Machine	Inline PCBA Double-sided Optical inspection Equipment
Detection Range	Wrong Part、Missing Part Extra Part、Socket Polarity Capacitor Polarity	Insufficient Solder、Exposed Copper Bridging、No Pin Wrapped Solder、Solder hole	Missing、Broken、Shift Sank、Deformation、Foreign matter
Core Advantages	High Accuracy. Low False Call simplified Programming Continuously ImprovingDetection Performance	Accurate solder shapeRestoration with specific LightSource, AI Algorithm intelligentRecognize solder on Entire Board, Multi-Dimensional FeatureExtraction and stable Identification	Higher Range. wider shooting FOV, AI Driving more Powerful Detection capabilities

Automated Optical Inspection			
Device Model	AIS 63X	AIS 40X	AIS 43X
Device Name	Inline Solder Paste PCBA 3D Optical inspection Equipment	Inline SMD Automated 2D Optical inspection Machine	Inline SMD Automated 3D Optical inspection Machine
Detection Range	Excessive、Solder Projections Bridge、Dffset、Insufficient、Good	Offset、Wrong Part、Polariy Missing Part、Dirty、Exposed Copper Bridging	Lifted、Lifted Lead、Side Damage Wrong Part、Missing Part、Shift Exposed Copper、Insufficient Solder Cold Solder、Bridging
Core Advantages	Dedicated Light source Technology EnhancesSurface Feature Visibility, Excellent Anti-interference PerformanceHigher Accuracy in Detecting Bridging	AI simplified Programming. saving Personnel and Cost, OCR Recognizes Silk-Screen Characters withHigher Accuracy	High-Precision 3D AI Imaging System: Self-developed Panoramic Multi-Camera and AI Algorithms for Accurate 3D Shape Restoration







AOI InsightX

Intelligent Integrated Platform



Core Advantage

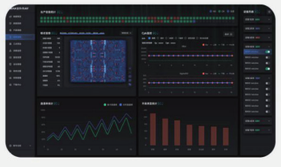
Multi-Device Data Integration for Efficient Queries

Centralized multi-device data management enables quick queries without moving between lines, ensuring efficient work



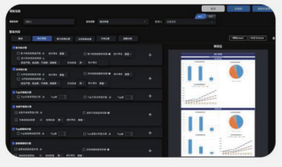
Professional Data Analysis for Efficient Problem Tracing

Comprehensive statistics of NG enable quality personnel to quickly analyze defects and locate problems.



Real-Time Monitoring and Early Warning to Accurately Locate Abnormalities

Intelligently monitor product quality, issue real-time warnings for abnormalities, and ensure production stability.



Rich Report Templates for Flexible Data Dashboard Construction

Provide rich report templates, multiple combinations, and flexibly build data large screens to meet enterprise management needs.

Inline/offline Repair station
The Cursor Quickly Locates the Defect Position to lmprove Maintenance Efficiency

Freely select offline or inline, support multi-station operation, flexible and efficient. Support whole board/divided area.
Single point/multi-point and different size cursor projection methods. Support arbitrary cursor color setting. Adapt to various pcb board backaround colors.



Inline Repair Station



Offline Repair Station

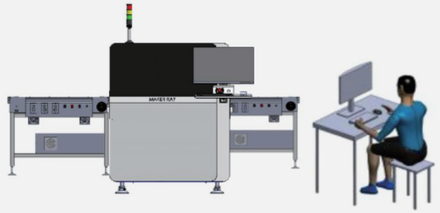
Project	Offline Repair Station	Inline Repair Station
Model	MKR-AOI-OFFLR100	MKR-AOI-ONLR100
Projector Specifications	NEW F3/YF201	NEW F3/YF201
Detection Board Size	Actual Detection Size: 550mm*400mm	Actual Detection Size: 550mm*400mm
Host Type	I3 8G DDR4\128G, Ubuntu 18.04 LTD 64 Bit	I3 8G DDR4\128G, Ubuntu 18.04 LTD 64 Bit
Dimensions	(L* H* W) 550mm* 830mm* 760mm	(L* H* W) 910mm* 1531.5~1831.5mm* 1128mm
Power Supply	Single Phase AC220V,50/60Hz	Single Phase AC220V,50/60Hz
Platform	Aluminum Frame + Sheet Metal	Aluminum Frame + Sheet Metal
Control Method	Botton Box/Metal USB Foot Switch	Botton Box/Metal USB Foot Switch
Other Configurations	Keyboard + Mouse	Keyboard + Mouse
Conveyor	None	Manually Adjustable Docking Station, Adjustable Board Height 700~1000mm
Average Power Consumption	200W	400W

Review Station:MKR-AOI-RS100

A work software that review the test results, quickly locates the defective area, and guides maintenance. It can be used with AIS30X, AIS40X, AIS50X, And AIS63X to display the defect location.

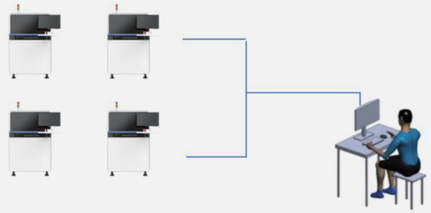
Scenario A

Used with AOI one-to-one, review defective results detected by AOI.



Scenario B

One-To-Many AOI, one person reviews the inspection data of multiple AOI (Mostly used in smt production lines)



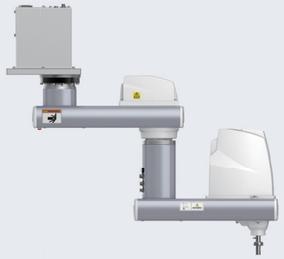
P series



Faster speed
Higher efficiency

- Loading capacity 3kg~100kg
- Arm length 400-1000mm
- Provide flexible customization of arm length

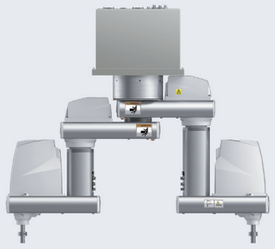
E series



360° non-blind spot working range

- Loading capacity 4kg, 10kg
- Arm length 400-550mm
- Provide flexible customization of arm length

D series



Higher efficiency
More flexible space

- Loading capacity 4kg
- Arm length 400mm
- Provide flexible customization of arm length

S series



Larger range of motion
Improvingproduction efficiency.

- Loading capacity 5kg~50kg
- Controlled Axes 6
- Range of motion: 650mm~1200mm(max.)

Teach Pendant



Product features:

7-inch 16:9 LCD with touch, TFT LED, Supports FDM standard (75x75mm hole spacing) bracket and wall-mounted installation.
Equipped with both buttons and touch, making it suitable for a wider range of applications and providing more flexible options.
Color display, 16.77 million true colors.

Integration of drive and controller



Product features:

Supports remote I/0 modules
Supports TCP/IP communication protocol
Integration of drive and controller, Dedicated for SCARA robots

Brand Assurance, Quality Guaranteed, Worry-Free After-Sales

Partnering with Global Industry Leaders

Collaboration with leading international brands ensures premium quality while delivering sustainable spare parts and after-sales support.

>20 million cycles

EWTEX 株式会社ニューテックス Cables

6000r/min

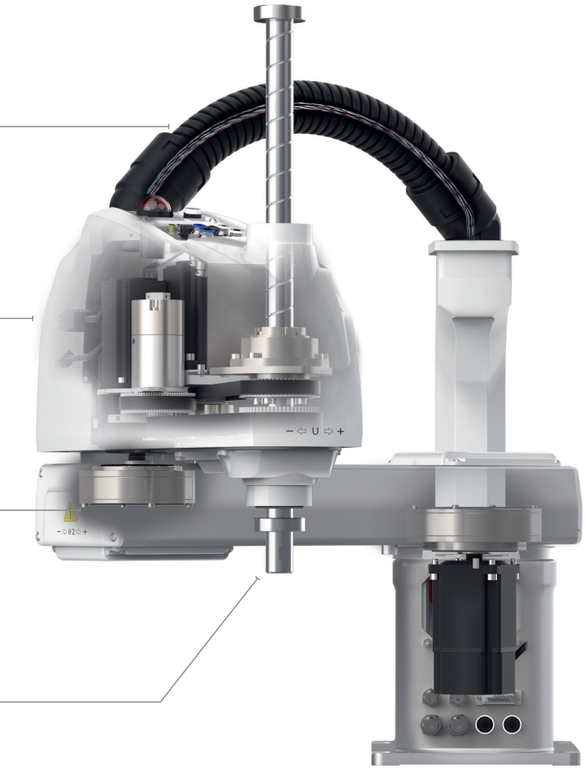
DELTA Servo Motors

10,000 hours

Nidec –All for dreams Harmonic Drive Reducers

36-month warranty period

LAIEN Ball Spline Screws



Simplify complexity Born for application. Making the design of automation equipment as simple as assembling building blocks.

Through the perfect integration of automation technology and experience, ProEasy Robotics creates new technologies, applications, and modules, implementing the "robot+" strategy.

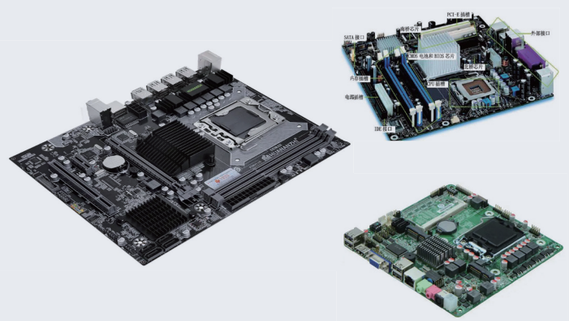






Material handling, palletizing, laser processing, loading and unload-ing, welding, cutting. polishing, gluing, assembly, labelling and more.



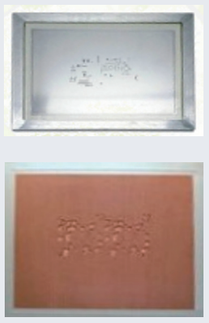


Plasma Cleaning Machine

Application: Power supply, computer motherboard, automotive electronics, medical equipment, etc.



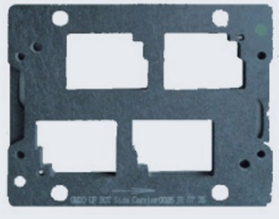


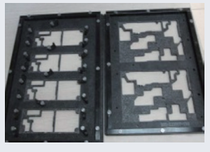


Pneumatic Steel Mesh Cleaning Machine

Application: Micro-hole nets and wafer trays, steel mesh, copper mesh, etc.





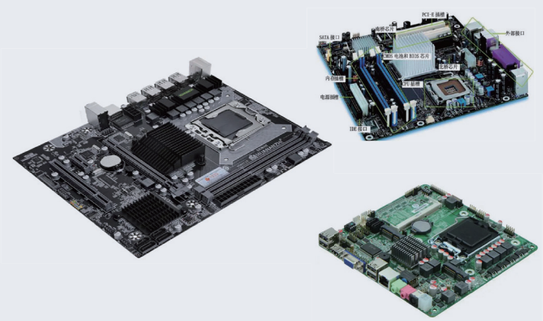




FR-630 Spray Fixture Cleaning Machine

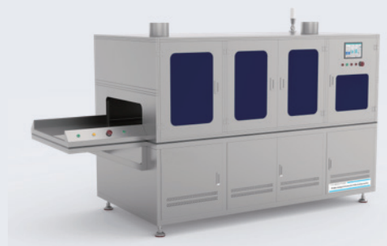
Application: Reflow soldering fixtures, wave soldering fixtures, condensers, etc.

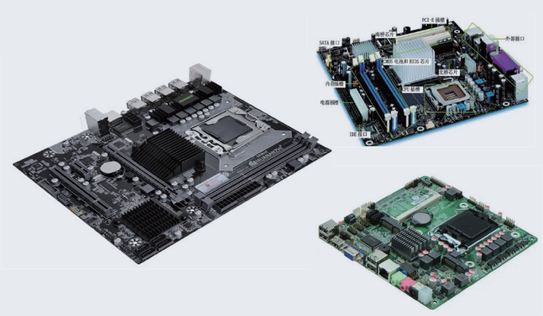




Single-sided Brush Cleaning Machine

Application: Power supply, computer motherboard, automotive electronics, medical equipment, etc.





Fully Automatic PCBA Single-sided Cleaning Machine

Application: Power supply, computer motherboard, automotive electronics, medical equipment, etc.











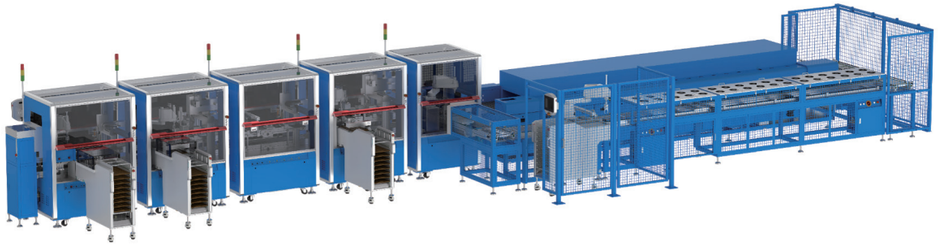
Fully Automatic Nozzle Cleaning Machine

Application: Various nozzles, etc.

Building Block Automation Production Line

Robot loading and unloading | Visual guidance/detection | Precision assembly
Automatic dispensing | Automatic welding

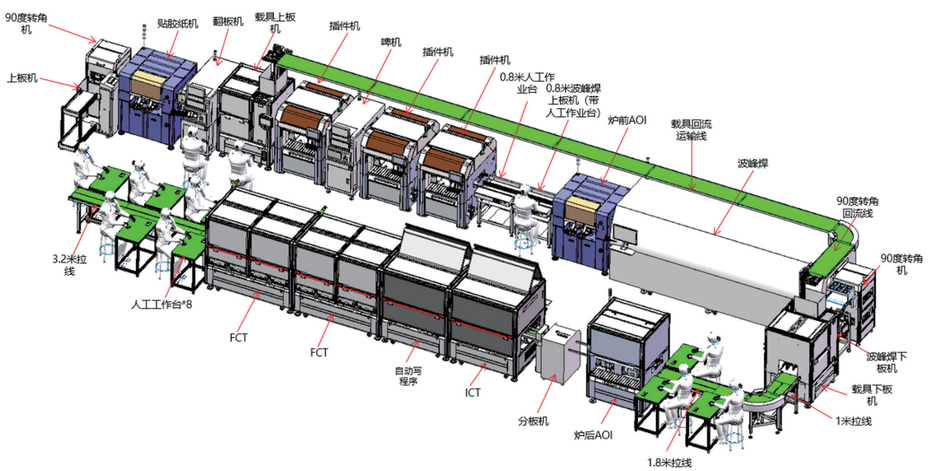
Application: Automated Toner Cartridge Assembly Line、Automated Adapter Production Line



DIP Automation Production Line

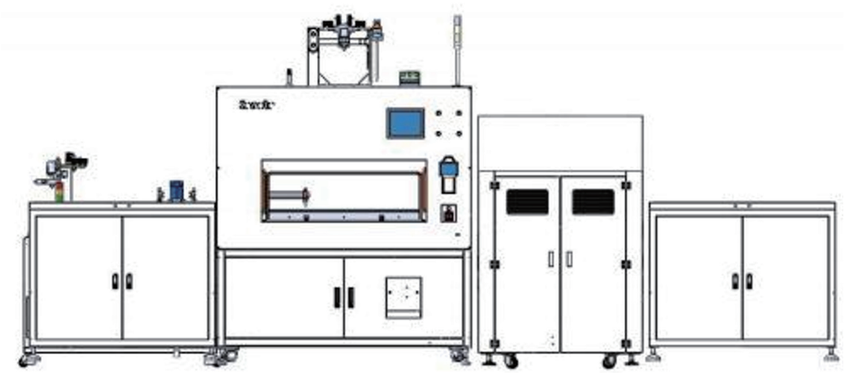
Labeling | Insertion | Board Splitting | ICT/FCT | Burn-in | Appearance Inspection

Application: Home Appliances，3C，Power supply



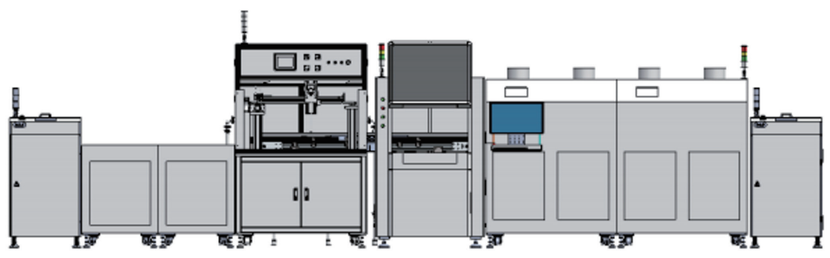
Fully Automatic Vacuum Glue Pouring Production Line

The vacuum glue pouring production line mainly consists of lifters, vacuum glue pouring machines, curing ovens, lifters, and reflow lines. This production line uses an inline vacuum chamber for vacuum pumping, with three sets of automatic lifting doors, good airtightness, convenient for manual inspection and subsequent maintenance, and online vacuum chamber, realizing automatic glue pouring, automatic



Fully Automatic Glue Dispensing, Detection, Curing, and Reflow Production Line

Integrated glue dispensing, curing, flipping, detection, and fixture reflow, providing customers with a complete set of automated solutions to reduce labor costs and improve product efficiency and quality. The glue dispensing equipment uses a high-speed gantry robot arm, with a speed of up to 800mm/s. UV curing can be equipped with UV light sources for glue curing, and the detection workstation can be equipped with CCD visual inspection, contour scanner 3D glue strip detection, and equipped with a reflow track line to support fixture reflow. Equipped with ergonomic operation software, improving programming efficiency and production efficiency. This equipment can be used for underfill, sealing protection, camera module point glue, solder joint reinforcement glue, mobile phone frame hot melt glue, PCB double-sided



CUSTOMER AND COMPANY DISTRIBUTION

● Overseas customer distribution

▶ World Map



★ Company Headquarters ● Branch office

▶ China Map



▶ European map



COOPERATIVE PARTNER

Hand in hand for win-win cooperation

100+

睿新浩