



Custom Automatic Assembling Machine For Industrial Components

Our Product Introduction

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Basic Information

- Place of Origin: Shanghai
- Brand Name: Quanstar
- Certification: ISO
- Packaging Details: wooden box
- Delivery Time: 90 days
- Payment Terms: L/C,T/T



Product Specification

- Name: Custom Automatic Assembling Machine For Industrial Components
- Application: Industrial Automation
- Products: Automation Machinery
- Operation: Fully Automatic
- Control System: PLC, HMI
- Software: SCADA, MES
- Highlight: **Custom Assembling Machine,
Automatic Assembling Machine,
Industrial Components Assembling Machine**

Product Description

Custom Automatic Assembling Machine for Industrial Components

Assembly technology:

Has the ability to self-analyze the assembly process: flowcharts, PFMEA, control plans.

Adopts appropriate technologies to prevent errors in the incorrect installation, missing installation, and reverse installation of various small parts.

Has the assembly technologies for various small parts, including manual, semi-automatic, and fully automatic assembly.

Has the control technologies for the assembly of various screws and bolts, including torque control, sequence control, prevention of missed tightening, prevention of torque stripping of threads, and control of whether the installation is in place.

Has the press-fitting analysis and control technologies (metal to metal, metal to plastic): collection, analysis, and monitoring of the curve relationship between force and displacement.

Has the capabilities of press riveting, spin riveting, Tox riveting, and rivet flanging riveting.

Has the spraying control technologies for semi-fluids or fluids: grease, oil, glue, thread locker, thermal conductive adhesive, soldering flux, etc.

Has the integrated application of robot gripping, camera inspection, AGV handling, etc.

Has the integrated capabilities of laser welding and laser marking.

Has the conveying technologies of stepped speed chains, tooling plates, roller chains, belt conveyors, etc.

Has the integrated application of motor winding, stator hot fitting, automatic magnetic punching, etc.

Has the assembly control ability for appearance parts.

Key Parameters:

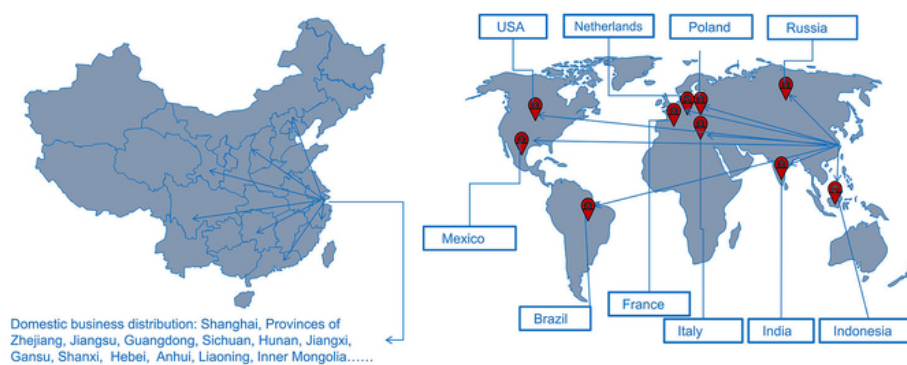
Category	Parameter	Description/Value
General Specifications	Line Length	10-50 meters (adjustable based on layout)
	Production Cycle Time	3-15 seconds/part (depends on complexity)
	Workstation Number	5-20 modular stations
	Power Supply	380-480V AC, 50/60Hz, 3-phase
	Compressed Air Requirement	0.5-0.7 MPa, ~100 L/min
Assembly Module	Assembly Accuracy	±0.05 mm
	Gripper Type	Pneumatic/Servo-electric (customizable)
	Torque Control Range	0.1-20 Nm (for screwdriving units)
	Part Size Range	5-500 mm (L/W/H)
	Max. Part Weight	10 kg/station
Inspection Module	Vision System Resolution	5-12 MP (with 10-50 µm/pixel)
	Defect Detection Sensitivity	≥0.02 mm (for dimensional defects)
	Camera Type	CCD/CMOS (2D/3D options)
	Lighting System	LED ring/backlight (adjustable intensity)
	OCR Verification	Font size ≥1.5 mm
Motion System	Conveyor Type	Belt/Chain/Pallet (motorized)
	Positioning Accuracy	±0.1 mm (with servo positioning)
	Linear Speed	0.1-2 m/s (variable)
Control System	PLC	Siemens/Brand (e.g., S7-1500, Allen-Bradley)
	HMI	10"-15" touchscreen (multi-language)
	Communication Protocol	PROFINET/EtherCAT/Modbus TCP
	Data Logging	SQL database (local/cloud)
Quality Metrics	False Rejection Rate	≤0.5%
	First-Pass Yield	≥99.2%
	MTBF (Mean Time Between Failures)	>2,000 hours
Environmental	Operating Temperature	5-40°C
	Humidity Range	20-80% RH (non-condensing)
	Noise Level	≤75 dB
Safety	Safety Standards	ISO 13849-1 (PLd), CE/UL certified
	Protective Measures	Light curtains, E-stop, safety interlocks

Notes:

Customization: Parameters can be adjusted based on part materials (metal/plastic) and complexity.

Optional Add-ons: AI-based defect classification, RFID tracking, robotic welding/gluing stations.

Business Global Service



We are committed to providing customers with high-quality, competitive products and services. A project cooperation process usually includes the following key steps.



FAQ

1.Q: Are you trading company or manufacturer?

A: We are a manufacturer with over 10 years of production and development experience.

2.Q: What are your major products?

A: We are an assembly automation solution provider specialized in customized automatic machinery for production. For example, we provide customized assembly line, testing and packaging solutions to several electric vehicle (EV) manufacturers, such as component-level lines for battery packs, thermal management systems, steerings and so on.

3. Q: How long is your delivery time?

A: Usually 3 months is a production cycle, the specific delivery date should be arranged according to the product's complexity and real-time production schedule. Please contact us for the latest delivery date.

4.Q: How about your price?

A: Show us your parts and we will be glad to find solutions and provide a suitable scheme, and offer the most competitive price to you.

5.Q: What is your terms of payment ?

A: 40% deposit and 60% balance payment before delivery.

6.Q: What is the package for you machine?

A: We have standard wooden case package.

7.Q: How long is the warranty?

A: Our aftersale service is one year free warranty, and life-time maintenance guaranteed.

8.Q:What partners do you work with?

A: We can both work with customer's designated partners and propose other components partners at customer's request. Some of our technical partners as below:

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