



Custom Automated Assembly And Test Machinery 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 Assembly And Test Machinery For Industrial Components
- Application: Industrial Automation
- Products: Automation Machinery
- Operation: Fully Automatic, Semi-automatic
- Control System: PLC, HMI
- Software: SCADA, MES
- Highlight: **Industrial Components Assembly Test machinery**
, Automated Assembly Test machinery,
Custom Assembly Test machinery

Product Description

Custom Automatic Assembling Machine for Industrial Components

Assembly technology:

The ability to detect and analyze various forces (operating force, torque, resistance, friction force, etc.).

The ability to detect and analyze the stiffness, strength, clearance (play), and efficiency of structural components.

The ability to detect and analyze leakage (internal leakage and external leakage).

The ability to detect and analyze electrical components (motors, actuators, sensors, solenoid valves).

The ability to detect and analyze automatic armature and magnetic flux.

The ability to detect and analyze the brightness, light leakage, and color of indicator lights.

The ability to automatically detect and analyze geometric tolerances such as position tolerance, runout, and roundness.

The ability to detect and analyze noise and abnormal sounds (NVH).

The ability to detect and analyze wind speed, wind pressure, and flow rate.

The ability to detect and analyze programming and calibration.

Key Parameters:

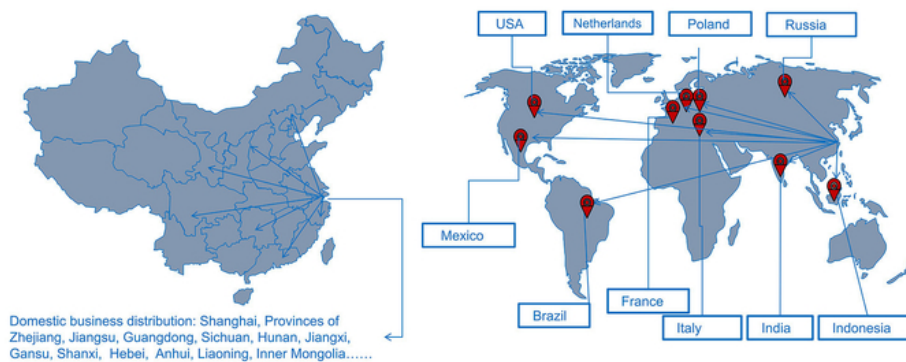
Category	Parameter	Description/Value
General Specifications	Line Length	10-50 meters (adjustable based on layout)
	Production Cycle Time	3-15 seconds/part (depends on complexity)
	Workstation Number	5-20 modular stations
	Power Supply	380-480V AC, 50/60Hz, 3-phase
	Compressed Air Requirement	0.5-0.7 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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