



Car Parts Assembly Machine For Automation Solution

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: Car Parts Assembly Machine For Automation

Solution

Application: Automotive PartsCycle Time: Customized

Operation: Fully Automatic, Semi

Control System: PLC, HMISoftware: SCADA, MES

Highlight: Automation Solution Car Parts Assembly

Machine

, Automation Solution Assembly Machine,

Car Parts Assembly Machine

Product Description

Car parts assembly machine for automation solution

Engine parts assembling and testing equipment

Thermal management assemling and testing equipment

Roof parts assembling and testing equipment

EPS assembling and testing qeuipment

Assembly and test systems for the powertrain (engines, cylinder heads, transmissions, axles, brakes and steering systems)

Quanstar Intelligent Controls (Shanghai) Co.,Ltd. developed fully automated assembly and test lines for automotive parts. We have a high reutation for providing custom automated manufacturing, processing, assembling and packing solutions for all industries including:

- Automotive
- Medical
- Healthcare
- Industrial
- Cosmetics
- Commodities

Core competencies of our manufacturing automation solutions:

- Resistance and laser welding
- Ultrasonic and RF Welding
- Industrial robot integration for flexible, multi-axis problems
- · Material handling
- · Power & free linear transfer systems
- · Servo press
- Vision inspection
- Build to print
- · Precision machining
- · Lean cells
- · Leak testing
- Traceability

Category	Parameter	Description/Value
General Specifications	Line Length	10-50 meters (adjustable based on layout)
	Production Cycle Time	5-30 seconds/part (depends on component complexity)
	Workstation Number	6-25 modular stations
	Power Supply	380-480V AC, 50/60Hz, 3-phase
	Compressed Air Requirement	0.5-0.7 MPa, ~150 L/min
Assembly Module	Assembly Accuracy	±0.05 mm (for precision components like bearings, gears)
	Gripper Type	Pneumatic/Servo-electric (customizable for different parts)
	Torque Control Range	0.1-50 Nm (for fastening bolts, nuts)
	Component Size Range	5-500 mm (L/W/H)
	Max. Component Weight	15 kg/station
Inspection Module	Vision System Resolution	5-12 MP (with 10-50 μm/pixel defect detection)
	Defect Detection Sensitivity	≥0.02 mm (cracks, misalignments)
	Measurement Accuracy	±0.01 mm (for dimensional checks)
	Inspection Types	Dimensional, surface defects, missing parts, OCR (barcodes, labels)
Motion System	Conveyor Type	Belt/Chain/Pallet (motorized with servo positioning)
	Positioning Accuracy	±0.1 mm (for robotic pick-and-place)
	Linear Speed	0.2-1.5 m/s (variable)
Control System	PLC	Siemens (S7-1500), Allen-Bradley (ControlLogix)
	НМІ	12"-19" touchscreen (multi-language, real-time monitoring)
	Communication Protocol	PROFINET, EtherCAT, OPC UA
	Data Logging	SQL database (local/cloud), MES integration
Quality Metrics	False Rejection Rate	≤0.3%
	First-Pass Yield	≥99.5%
	MTBF (Mean Time Between Failures)	>2,500 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), ANSI/RIA R15.06 (for robotic cells)
	Protective Measures	Light curtains, E-stop, safety interlocks, fencing

Key Notes:

Flexibility: Supports mixed-model production (e.g., engine blocks, transmission parts, sensors).

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

Materials: Corrosion-resistant stainless steel for food-grade or harsh environments (if required)

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 asembly 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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