



Automatic Assembly Testing Line For Thermal Management Integrated Module

Our Product Introduction

Basic Information

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



Product Specification

- Name: Thermal Management Assembly And Test Line
- Application: Electric Vehicle Power System
- Assembled Products: Integrated Module
- Type: Fully Automatic
- Control System: PLC Programmer
- Condition: New
- Highlight:
 - Thermal Management Module Automatic Assembly Line
 - Thermal Integrated Module Automatic Assembly Line
 - Thermal Management Automatic Assembly Testing Line

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Product Description

Fully automatic thermal management integrated module assembly and testing line

The assembly and inspection line for electric vehicle thermal management assemblies has the following important functions:

I. Functions in assembly

Improve production efficiency:

Realize automated flow production and quickly assemble various parts of the thermal management assembly according to the predetermined process flow. Compared with manual assembly, it greatly shortens the assembly time and increases the output per unit time.

Each assembly station has a clear division of labor and simultaneously performs different assembly tasks, reducing waiting time in the production process and making the entire production process more compact and efficient.

Ensure assembly accuracy:

Using high-precision automated equipment and tooling fixtures can ensure that the installation positions of parts are accurate. For example, when installing key components such as heat exchangers and water pumps, precise positioning can ensure the connection sealing and fluid channel patency between them.

Automated equipment can strictly control parameters such as torque and pressure during the assembly process, avoid problems such as too tight or too loose caused by human factors, and improve product consistency and reliability.

Reduce labor costs:

Reduce the dependence on a large amount of manual labor and reduce the enterprise's labor cost expenditure. The automated assembly line only requires a small number of technicians to monitor and maintain the equipment, greatly saving human resources.

At the same time, automated assembly also reduces the scrap rate and rework cost caused by human operation errors.

II. Functions in inspection

Ensure product quality:

Comprehensively inspect various performance indicators of the thermal management assembly, including sealing performance, pressure testing, flow testing, temperature control accuracy testing, etc. Only products that pass strict inspections can enter the market, ensuring the reliability and stability of the electric vehicle thermal management system.

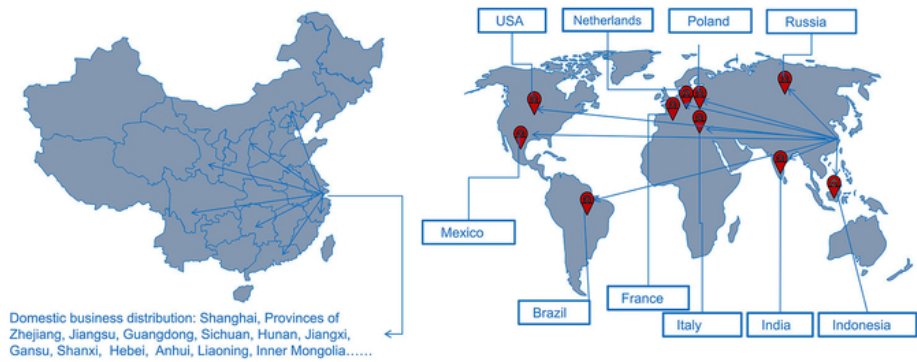
Timely discover quality problems in the assembly process, such as part defects and improper installation, and handle them in a timely manner to avoid defective products flowing into the next process or market, improving the overall quality level of the product.

Optimize production process:

Through the analysis of inspection data, we can understand the performance of the thermal management assembly under different working conditions and provide a basis for optimizing product design and assembly process. For example, adjust the tolerance fit of parts and optimize the assembly sequence according to the inspection results to improve product performance and quality.

The inspection line can also compare the quality of products of different batches, discover potential problems in the production process, take timely measures for improvement, and continuously improve the production process level.

Function	automatic feeding, assembly, testing & packaging
Production	integrated module for EV thermal management system
Defective rate	below 0.5%
Processes	laser marking
	visual detection
	screwing
	EOL test
	sevo press
	calibration
	greasing detection
	Helium detection
	labelling
Features	packaging
	automated MES system, real time monitoring status
	whole line A level traceability



PROCESSES

主要工艺

- 自动上料
- 激光打标
- 视觉检测
- 自动拧紧
- 自动压装
- EOL测试
- 下线贴标
- Automatic feeding
- Laser marking
- Visual detection
- Auto tightening
- Auto press-fit
- EOL test
- Off-line labeling

PARAMETER

性能参数

- 生产节拍: 35秒/件
- 不良率: $\leq 0.5\%$
- Production cycle: 35 s/pcs
- Defective rate: $\leq 0.5\%$

FEATURES

核心优势

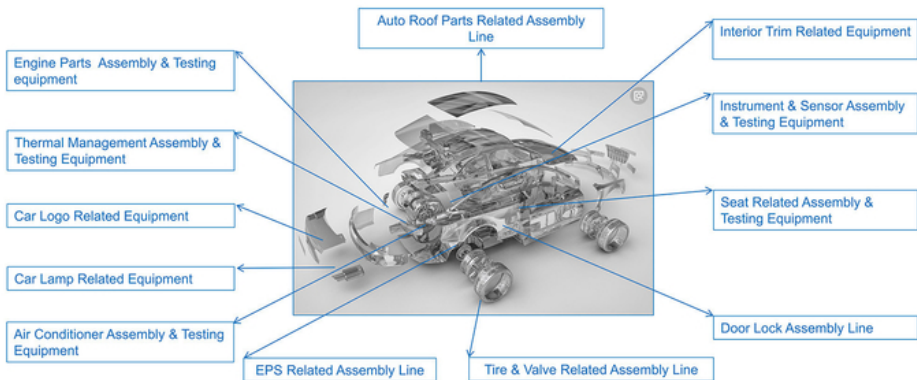
- 自动化MES系统, 实时监控状态
- 整线A级追溯
- Automated MES system, real-time monitoring status.
- Whole line A level traceability.

PRODUCT

主要产品



Automotive Industry & Related Auto Parts



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



Quanstar Intelligent Controls (Shanghai) Co.,Ltd

+86 15002179039

sales@automation-assembly.com

automation-assembly.com

No.368 Xiaonan Road, Fengxian District, Shanghai 201401, China