

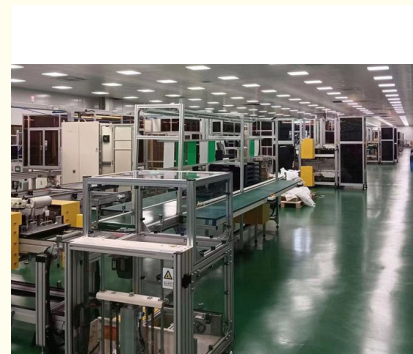


## Automated Assembly Line For Electric Vehicle Thermal Management System

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

- Item: Thermal Management Assembly And Test Line
- Application: Electric Vehile Manufacturing Automation
- Assembled Parts: Integrated Module
- Type: Fully Automated
- Control System: PLC Programmer
- Origin: Shanghai Of China
- Highlight: **Electric Vehicle Automated Assembly Line ,  
EV Thermal Management System Assembly  
Line**  
,  
**Thermomanagement System Automated  
Assembly Line**

for more products please visit us on [automation-assembly.com](http://automation-assembly.com)

## Product Description

### Electric vehicle Thermal Management System assembly automation solution

leading provider of assembly solutions for manufacturing. We design, build, and support engineering service to manufacturers in need of lean production system.

Function	assembly and test line for electric vehicle expansion valve
Cycle time	8s
Defective rate	Below 0.5%

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:

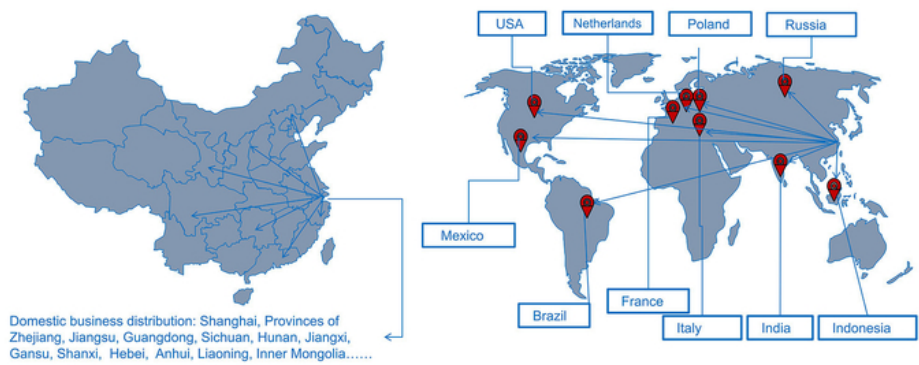
Comprehensively inspect various performance indicators of the thermal management assembly, including sealing performance, pressure testing, flow testing, temperature control accuracy testing, etc. Only products that pass strict inspections can enter the market, ensuring the reliability and stability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

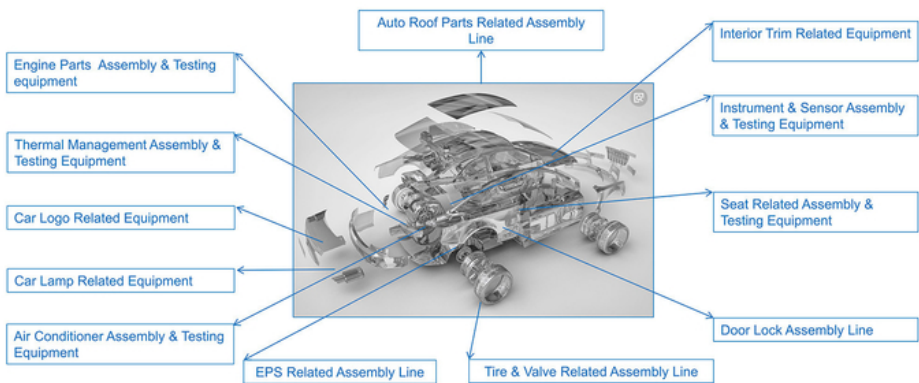
Optimize production process:

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.

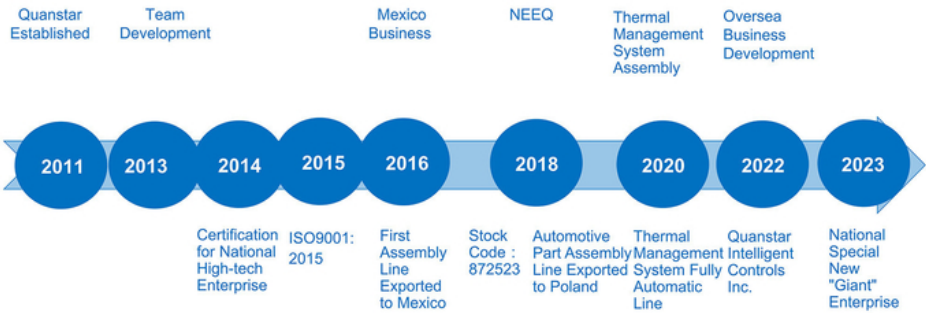


Automotive Industry & Related Auto Parts



1

Development History



```
graph LR; S1[Customer Needs & Product Info] --> S2[Concept Review]; S2 --> S3[Concept Confirming With Customer]; S3 --> S4[Cost Evaluation, Quotation & Contracting]; S4 --> S5[Internal Order Releasing & Schedule Confirming]; S5 --> S6[Design Review Update & Drawing Releasing]; S6 --> S7[Meeting For Drawing Releasing]; S7 --> S8[Components Purchasing & Manufacturing]; S8 --> S9[Quality Inspection & Storage]; S9 --> S10[Material Picking Notification]; S10 --> S11[Assembly & Debugging]; S11 --> S12[Inhouse Quality Inspection]; S12 --> S13[Notifying Customer For Inspection]; S13 --> S14[Delivery]; S14 --> S15[Equipment Installation & Aftersales Service]; S15 --> S1; S15 -.-> S5;
```

The flowchart illustrates the 15 steps of the equipment manufacturing process, organized into three rows and five columns. The steps are as follows:

- Row 1:** Customer Needs & Product Info, Concept Review, Concept Confirming With Customer, Cost Evaluation, Quotation & Contracting, Internal Order Releasing & Schedule Confirming.
- Row 2:** Material Picking Notification, Quality Inspection & Storage, Components Purchasing & Manufacturing, Meeting For Drawing Releasing, Design Review Update & Drawing Releasing.
- Row 3:** Assembly & Debugging, Inhouse Quality Inspection, Notifying Customer For Inspection, Delivery, Equipment Installation & Aftersales Service.

The process flow is indicated by arrows: a main sequence of arrows connects the steps in a zig-zag pattern (right, left, right, left, right), and a feedback loop arrow connects the final step back to the first step.

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