

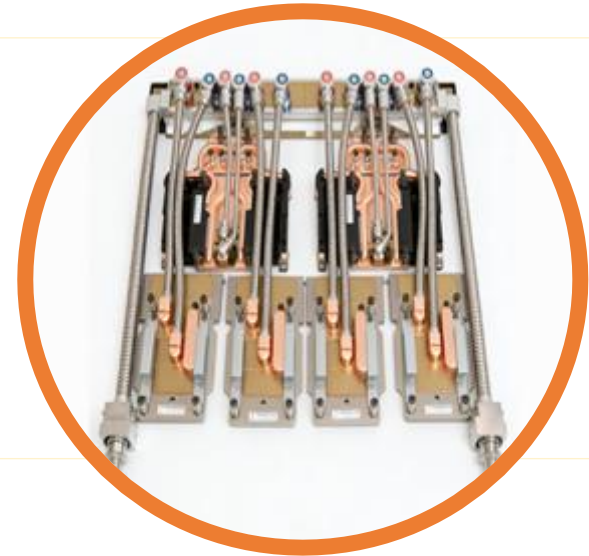
Product Lines



Fixtures

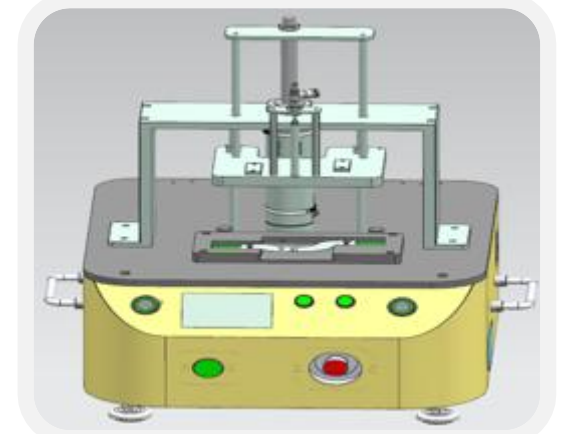
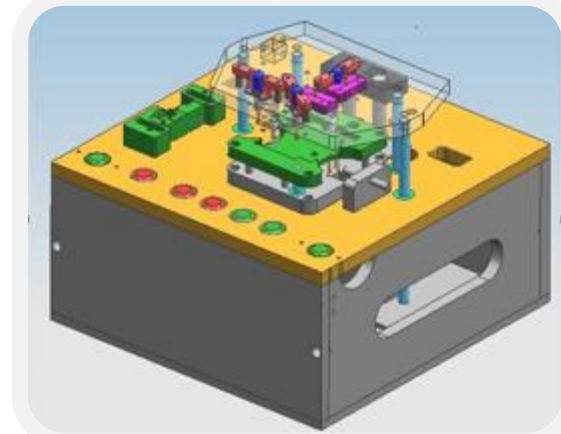


Automation



Liquid Cooling

Product Lines – Fixtures



Core Competencies :

■ Precision Fixture Solution

- ✓ Customized ICT/FCT fixtures designed for high-density PCB assemblies.
- ✓ Stable contact performance ensures high test repeatability and product quality.

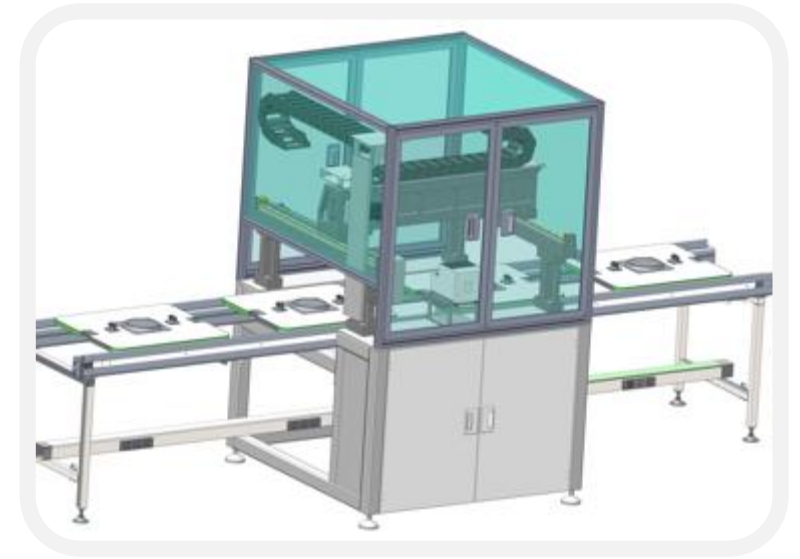
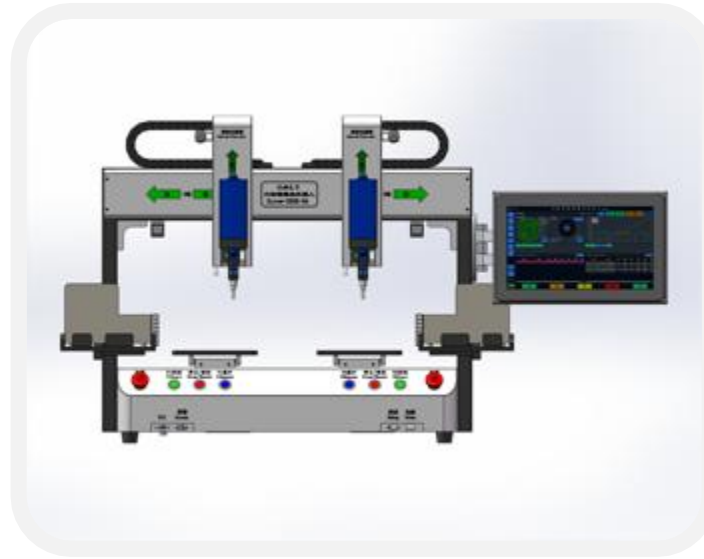
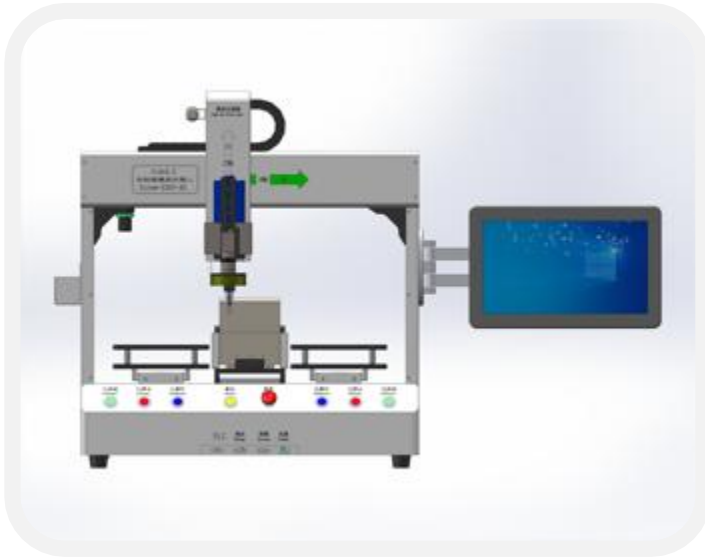
■ One-Stop Manufacturing

- ✓ Complete capability from fixture design, CNC machining, assembly to validation.
- ✓ Rapid prototype development supports NPI and engineering changes.

■ Production Efficiency

- ✓ Quick fixture replacement minimizes setup time and maximizes production efficiency.
- ✓ Compatible with manual, semi-automatic and fully automated production lines.

Product Lines – Automation (Screwing)



Core Competencies :

■ High Precision and Stability

- ✓ Repeatable positioning accuracy: $\pm 0.01\text{mm}$ (6-axis) / $\pm 0.02\text{mm}$ (gantry/coordinate type)
- ✓ Torque control accuracy: $\pm 3\%$, high-rigidity structure ensures long-term stable operation

■ Intelligentization and Digitalization

- ✓ Integrated PC control system connected with MES to achieve full production traceability
- ✓ Smart dashboard monitors key production metrics like OEE and yield rate in real time

■ Flexibility and Adaptability

- ✓ 6-axis robot + AI vision guidance, fixtureless production for fast changeover, adapting to non-standard requirements

Product Lines – Automation (Dispenser)



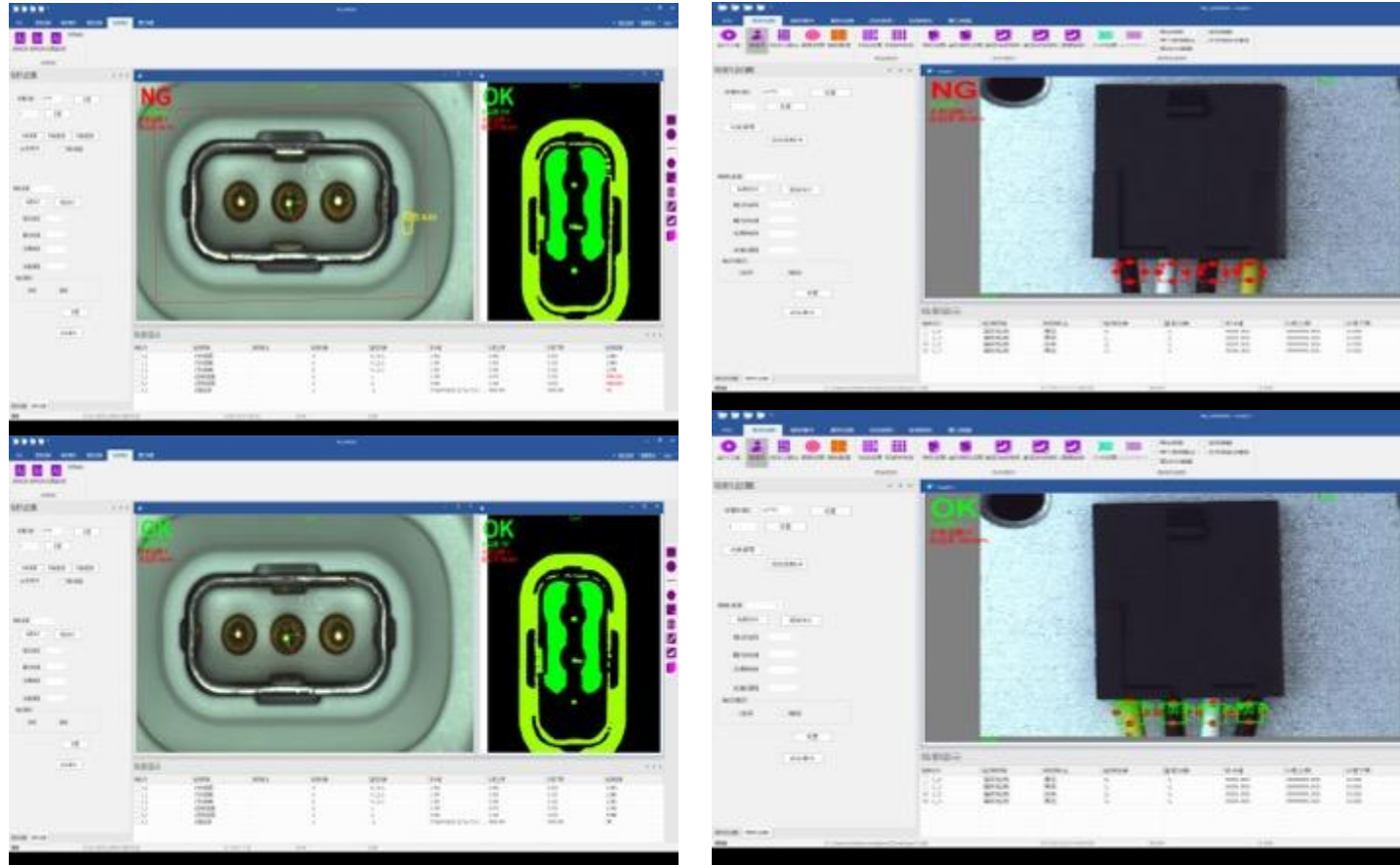
Hardware Performance

- **Full Automation**
 - ✓ Replaces manual labor with high-efficiency automatic dispensing.
- **Premium Drive System**
 - ✓ Equipped with Japan-made stepper motors (3/4-axis).
 - ✓ Belt-driven mechanism ensures high speed and consistency.
- **Precision Fluid Control**
 - ✓ Individual delay settings for glue opening and closing.
 - ✓ Independent advanced glue-close function.
 - ✓ Effectively eliminates glue accumulation and piling issues.

Software & Control

- **Advanced Graphic Capabilities**
 - ✓ Supports points, lines, 3D arcs, circles, tracks, and rectangles.
 - ✓ Handles complex, irregular 3D trajectories smoothly.
 - ✓ Direct input and recall for common shapes without manual coding.
- **3D Motion & CAD Integration**
 - ✓ Enables any multi-axis 3D motion path.
 - ✓ Features direct CAD file input mode.
- **Intelligent Programming & Operations**
 - ✓ Supports rapid batch modification to boost editing efficiency.
 - ✓ Auto-execution, auto-reset, and integrated output timers.

Product Lines – Automation (Vision Application)



Core Competencies :

✓ Proprietary Vision Algorithms

In-house developed algorithms provide reliable performance and can be quickly customized for different applications.

✓ AI + Traditional Machine Vision

Combines AI technology with traditional vision tools to improve inspection accuracy and efficiency.

✓ Complete Hardware & Software Integration

Supports PLC, industrial cameras, motion control, and standard communication protocols for fast system integration.

✓ Wide Range of Industrial Applications

Suitable for vision positioning, dimensional measurement, AOI inspection, and automated production lines.

✓ Flexible Customization

Provides customized vision solutions to meet different customer needs and production requirements.

Product Lines – Liquid Cooling Solution (Bellows/Manifold)



- Leveraging over 20 years of expertise in precision machining and assembly from CCP Group, CCP Vietnam is dedicated to delivering industry-leading liquid cooling components solutions
- ✓ Providing high-quality machining for advanced liquid cooling thermal management components.
- ✓ Ensuring high precision and stability through advanced processes and stringent quality control to meet rigorous global demands.

Manufacturing Capability – Fixtures/Automation



Equipment Name	Specification	Qty.	Application
CNC Machining Center	JR-G800, 3-axis Vertical Machining Center	2	Precision Parts Machining
High-Speed Engraving Machine	JR-600, High-Speed Spindle	1	High-Precision Parts and Micro-feature Machining
High-Speed Drilling Machine	HJ-LM01H	1	Drilling and Tapping Operations
Vertical Milling Machine	3-axis Vertical Milling Machine	1	Fixture Fabrication and Prototype Machining
Lathe Machine	Model C6136-750	1	Turning of Shaft and Cylindrical Components



Manufacturing Capability – Bellow/Manifold



Laser Welding



Cleaning System



**Cleanliness
Inspection**



**Helium Leak
Test**