

# Bipolar plate laser welding solution

As the biggest professional machinery manufacturer in Bosch China, the business scope of Bosch Manufacturing Solutions covers all kinds of assembly and testing equipment, flexible and innovative software solutions and related services. It is committed to providing Bosch worldwide plants and customers with special machinery and professional manufacturing solutions that meet European quality standards.

In the field of hydrogen energy, Bosch Manufacturing Solutions division and its partners cooperate deeply with complementary advantages, work together to provide customers with tailored intelligent assembly and testing equipment in hydrogen production and fuel cell field, aim to support Bosch and local hydrogen energy enterprises maximizing their value.



## Characteristics

- High speed and high precision welding
- Precise positioning system
- High-efficiency solution for various cycle time requirements
- Small deformation after welding, zero leakage
- Laser safety protection in compliance with international standards

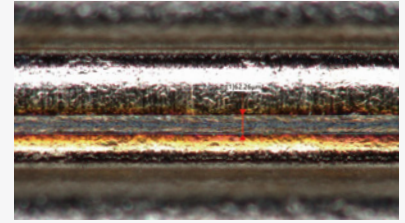
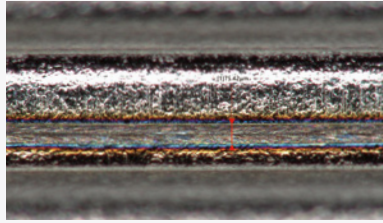
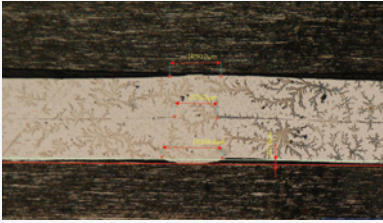
## Machine Introduction



## TCL series

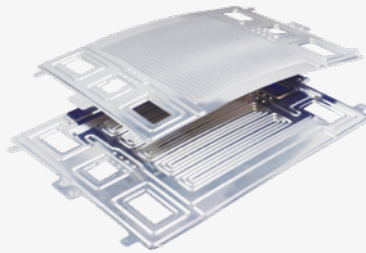
Item	
Sheet Thickness	0.075mm~1mm
Welding Method	High Speed Scanning
Cycle Time	≤10s/pcs
Welding Power	100w~1000w
Accuracy	≤±0.02mm
Vision System	Optional
Exhausting System	✓
Shielding Gas	✓
Adjustable Clamping Force Control	✓
Technical Availability	≥98%
Welding Inspection	Optional
After Welding Deformation	≤2mm

## Examples Effect



## Application Area

- Thin plate heat sink welding
- Hydrogen fuel cell metal bipolar plate welding
- Other metal sheet products



## Service

- Process development support
- Sample welding test
- Small batch trial production
- Prototype machine buildup

## Laboratory

- Laser process development
- Process quality inspection
- Various laser systems

