

LAPRISS

Laser Processing Robot Integrated System Solution

Comes with Five Elements for Laser Welding

Laser oscillator, welding processes, software, trepanning head, and laser robot

Five Elements Integrated in Simple and Compact System!



- One controller directly controls the system* (laser oscillator, trepanning head, robot)
- No need to combine products of multiple manufacturers
- Service and maintenance of whole system

*For single robot system only

Feature 1 High-quality beam with high-output (4 kW) by direct diode laser

The laser oscillator is jointly developed with TeraDiode and uses wavelength beam combining (WBC) technology developed by MIT Lincoln Laboratory in the U.S.

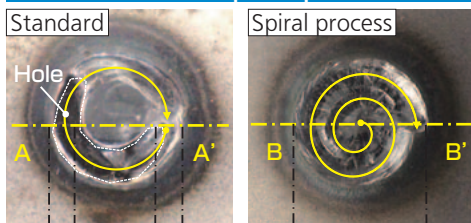
- Low distortion & high-speed welding
High energy density allows low heat input welding.
- Lower running costs
Energy conversion efficiency is more than 3 times as high as LD pumped YAG laser, which reduces electricity costs.



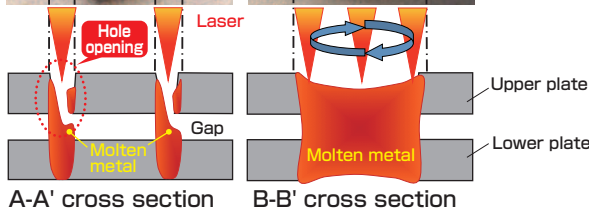
Feature 2 Great condition tolerance

- Increased tolerance for gap and target point misalignment (Unique Spiral process and Spinning process)

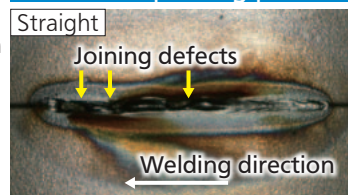
Effects of Spiral process



Material: Mild steel
Plate thickness: 0.8 mm
Joint: Lap
Gap: 0.5 mm



Effects of Spinning process



Material: Mild steel
Plate thickness: 0.8 mm
Joint: Butt
Gap: 0.2 mm
Target point misalignment: 0.4 mm

