



Ultra-high Speed and High Welding by Simultaneous Welding of Three Electrodes Greatly Improves Productivity and Quality

Twin Arc-laser Hybrid Welding System

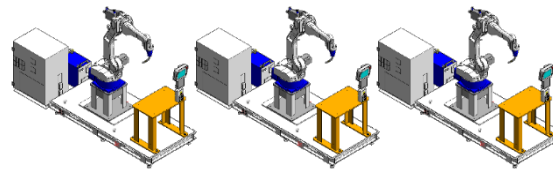
A time when each industry is required to change materials, plate thickness, and shape to achieve further **efficiency** in order to create a decarbonized society



<Challenges in improving productivity>

- ① There is not enough space in the factory
- ② Unable to reduce personnel

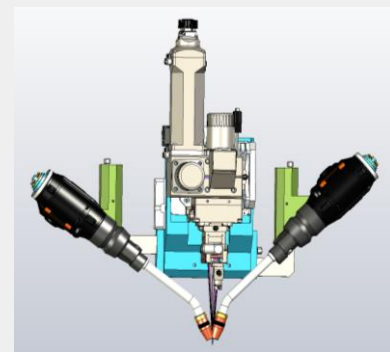
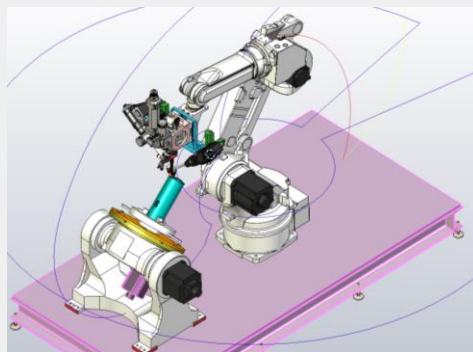
Multiple units required



<counter-measure>

- ① Consolidated into one cell by high-speed welding
(10 times more than conventional)
- ② It is possible to reduce the number of personnel by improving efficiency in one cell

Twin Arc-Laser Hybrid Welding System



Applicable plate thickness/welding speed

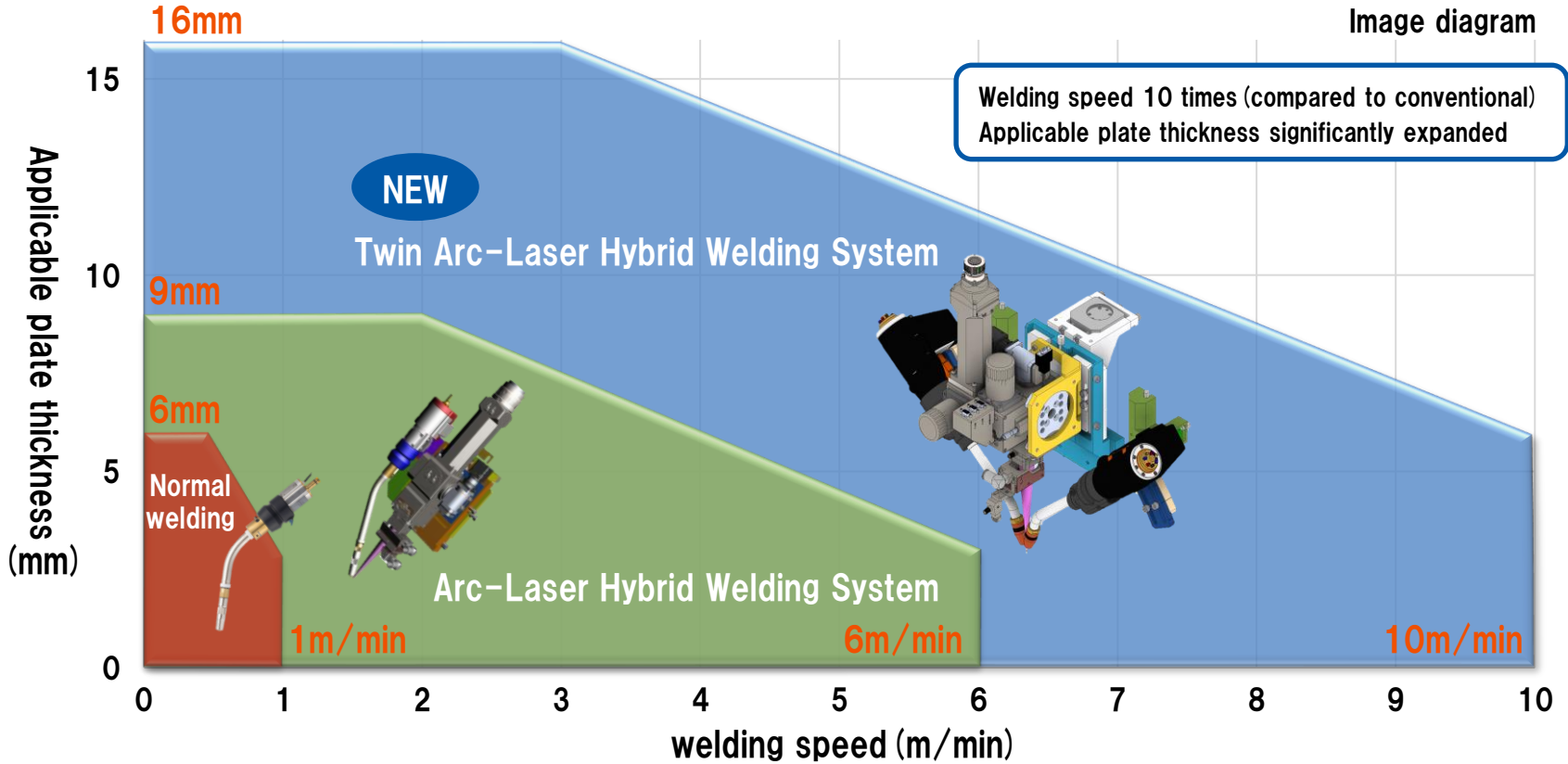


Image diagram

Pipe demonstration

Welding conditions

laser power: 10kw (central + ring)

welding current: 300A+300A

welding speed: 7.5m/min

Base material: STKM Plate thickness 2.5mmt

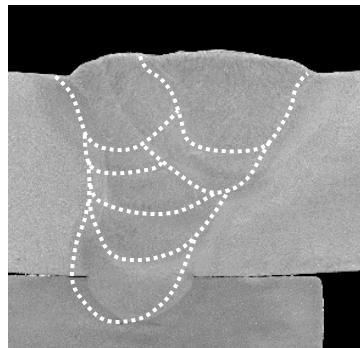
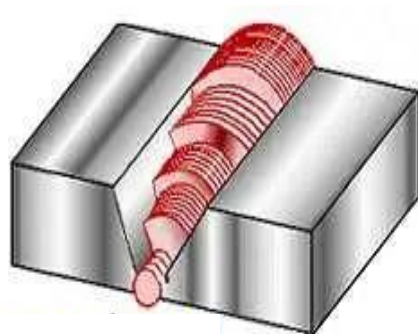
Shielding gas: MAG CO₂ 80% Ar 20%

Wire: YGW-12 1.2mmΦ

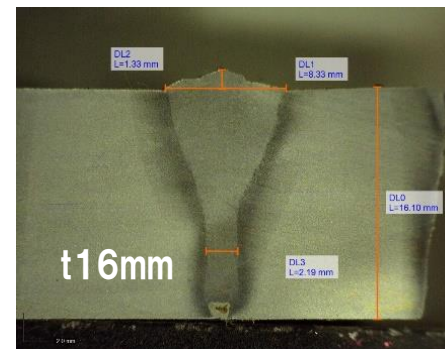
Arc welding is often used for thick plates in large structures.
Laminated joints are common with groove shapes.
Bevel processing and lamination takes time



lamination welding



Bevel-less 1 pass

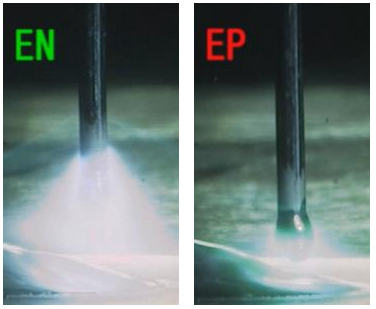


Introduction of aluminum laser hybrid

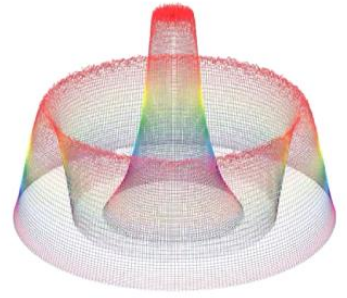


Laser hybrid welding aluminum

AC mode



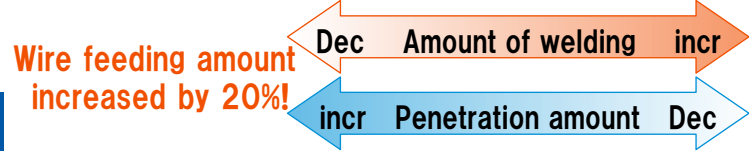
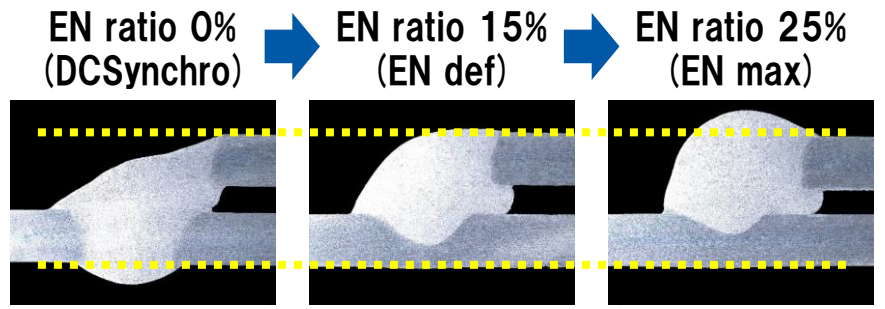
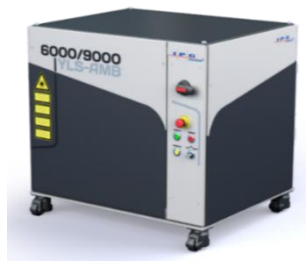
Ring mode



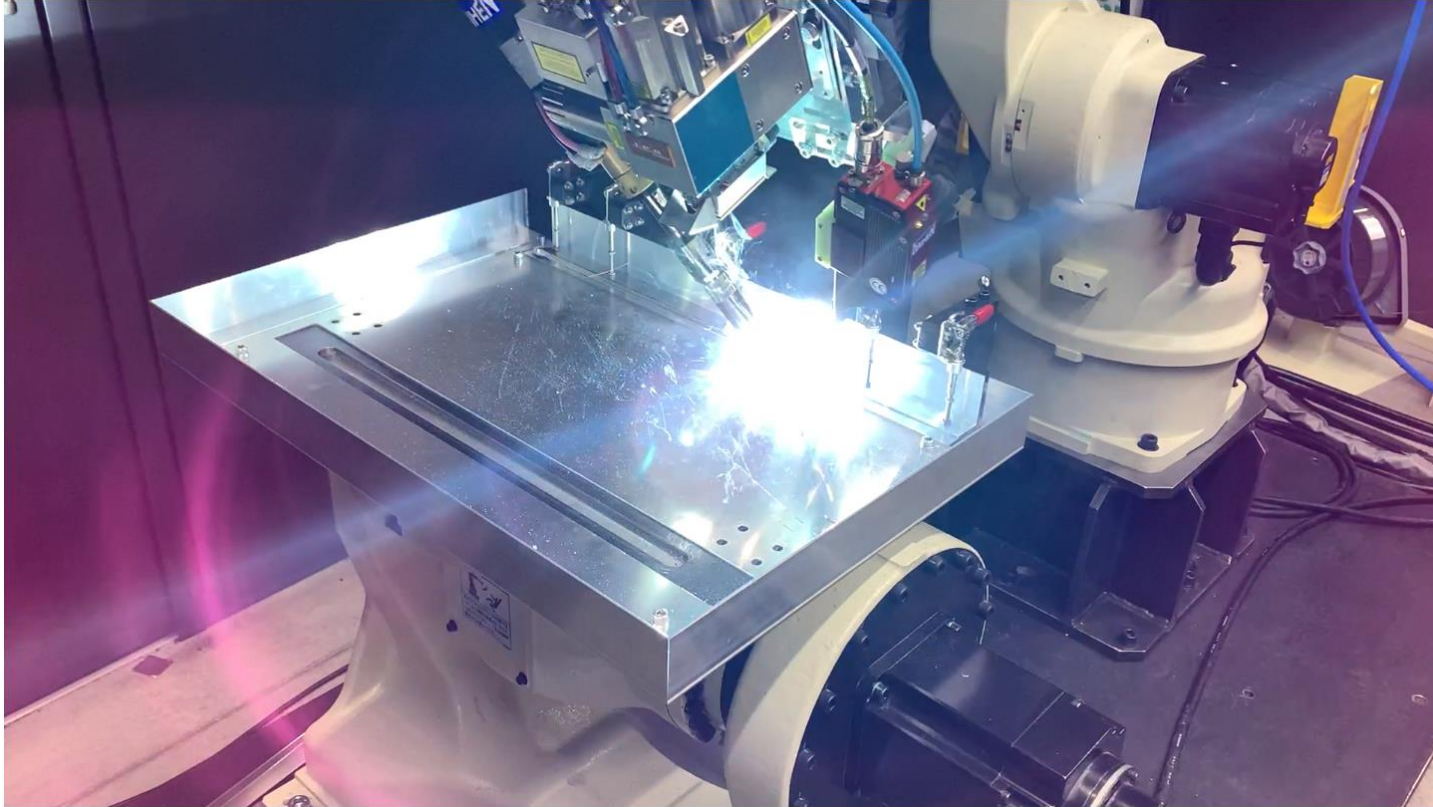
Synchro-feed



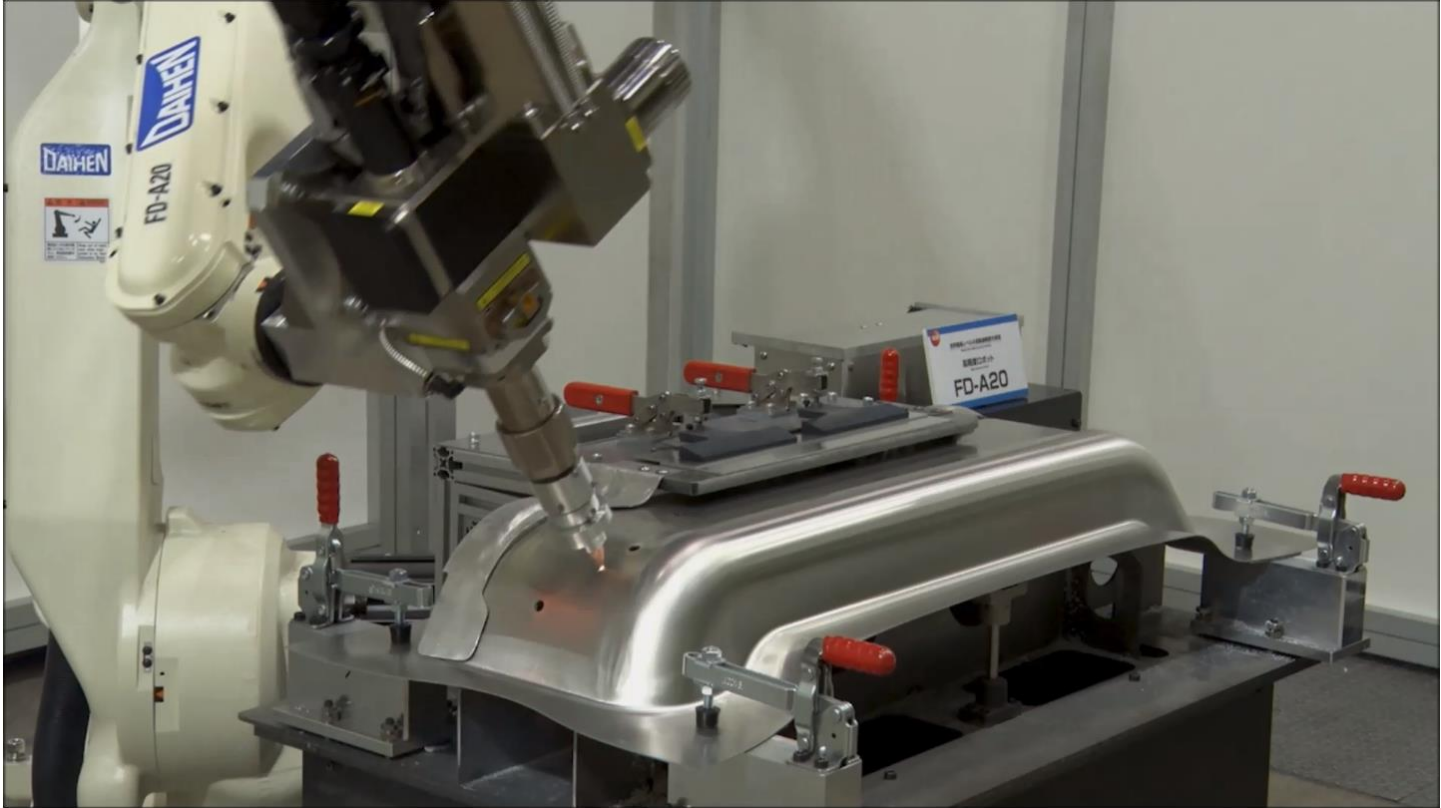
AMB



Laser hybrid (aluminum material) welding speed 10m/min



Laser cutting (aluminum material) Cutting speed 30m/min



With our extensive experience in laser processing, we can help you with your production.

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