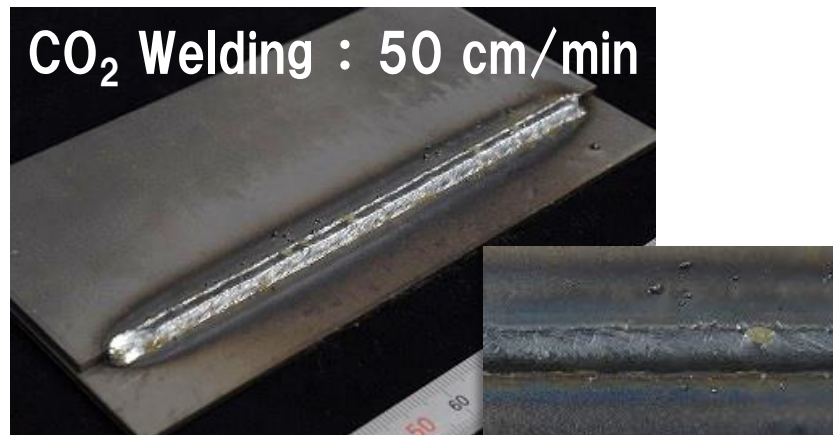
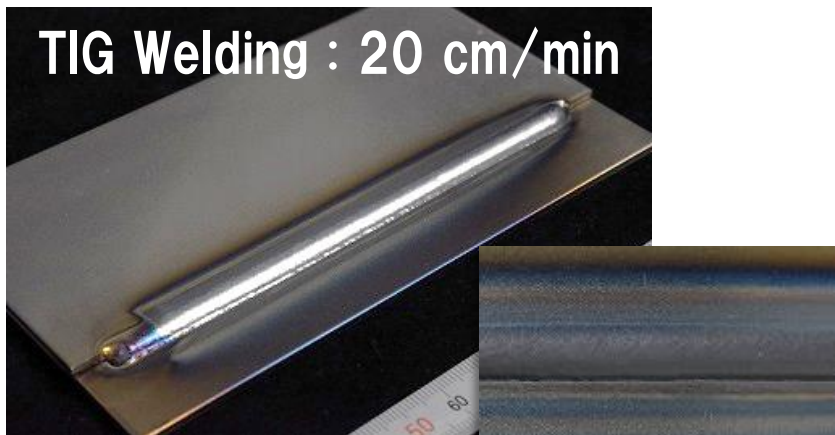




# High-Speed and Fully-Automated TIG Welding for Improved Production Efficiency

**Plasma Jet TIG & TS-Sharpener**

## Example) SPCC (t2.3 mm) Joint : Overlapping



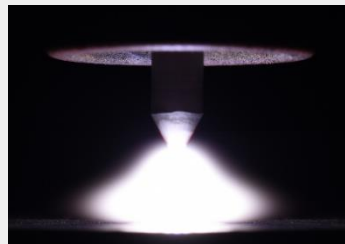
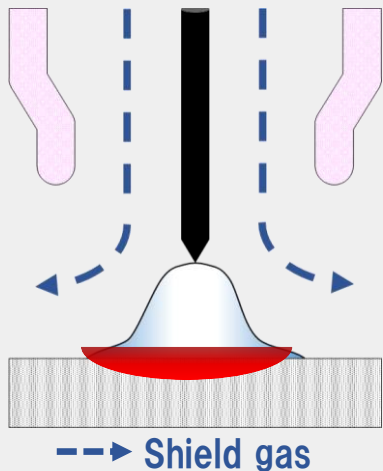
Less than half the welding speed with TIG

【challenge】

"I can't speed up the welding speed..."

Plasma Jet TIG is the answer!

## TIG welding

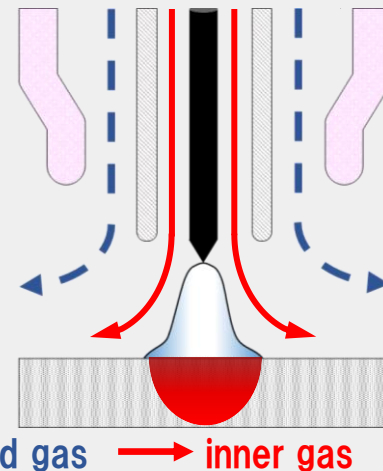


Conventional Arc

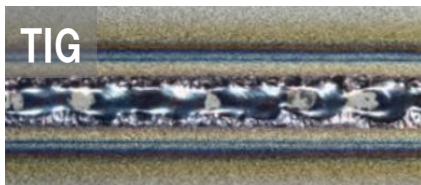
## Plasma Jet TIG



**Focused Arc !**  
Stable bead formation,  
even at high welding  
speeds!

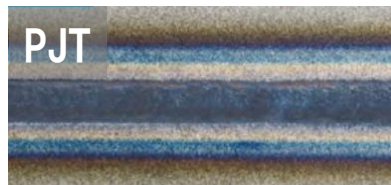


--> Shield gas    --> inner gas



TIG

Speed cannot be increased.



PJT

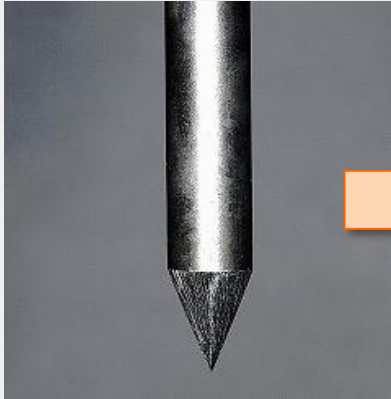
Up to 1.5 times faster

### 【Welding conditions】

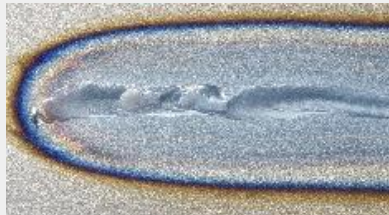
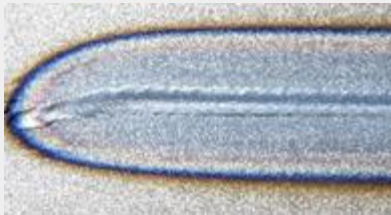
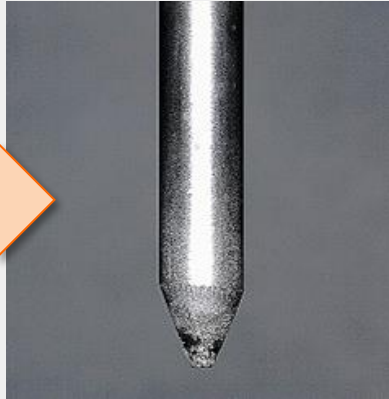
Welding current : 120 A, Welding speed : 80 cm/min

Base material : SPCC (t2.3 mm)

Electrode after Grinding



Consumed Electrode electrode



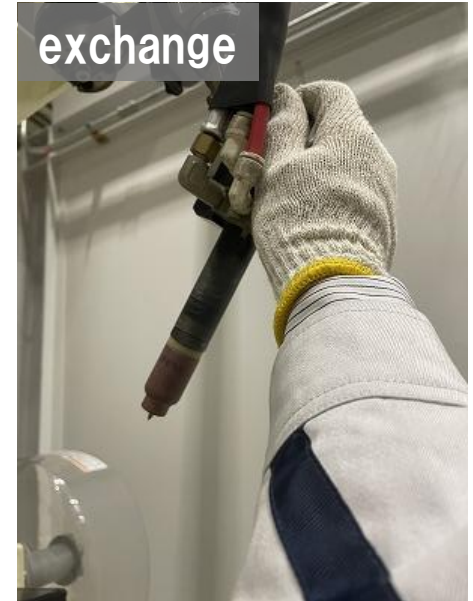
Electrode wear causes instability of the bead shape

**"It requires manual intervention and halts the production line."**

Grinding



exchange



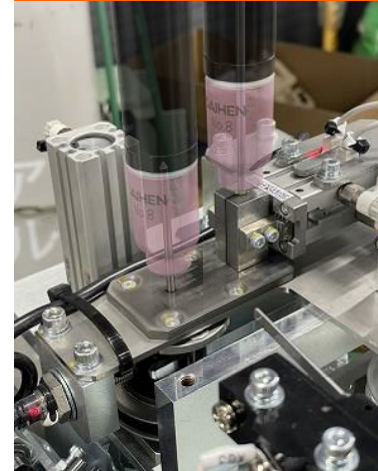
## Fully automated electrode maintenance



GRINDING



EXCHANGE



CONTROL



**Compact design**

**Dimensions : H390 mm, W380 mm, D450 mm**

**16 times/day For exchange**  
**Hours : 320 hours (per year)**

## High-speed welding with Plasma Jet TIG

<Demonstration conditions>

- Material : Stainless steel SUS304
- Thickness : t1.0 mm
- Joint : Butt joint
- Welding current : 95 A
- Welding speed : **1.5 m/min**  
Use aftershield



After the welding demonstration, you will witness the fully automated electrode maintenance process using the TS-Sharpner.

**Plasma Jet TIG and TS-Sharpner enable the high efficiency and complete automation of TIG welding, leading to a significant improvement in production efficiency.**

**DAIHEN**