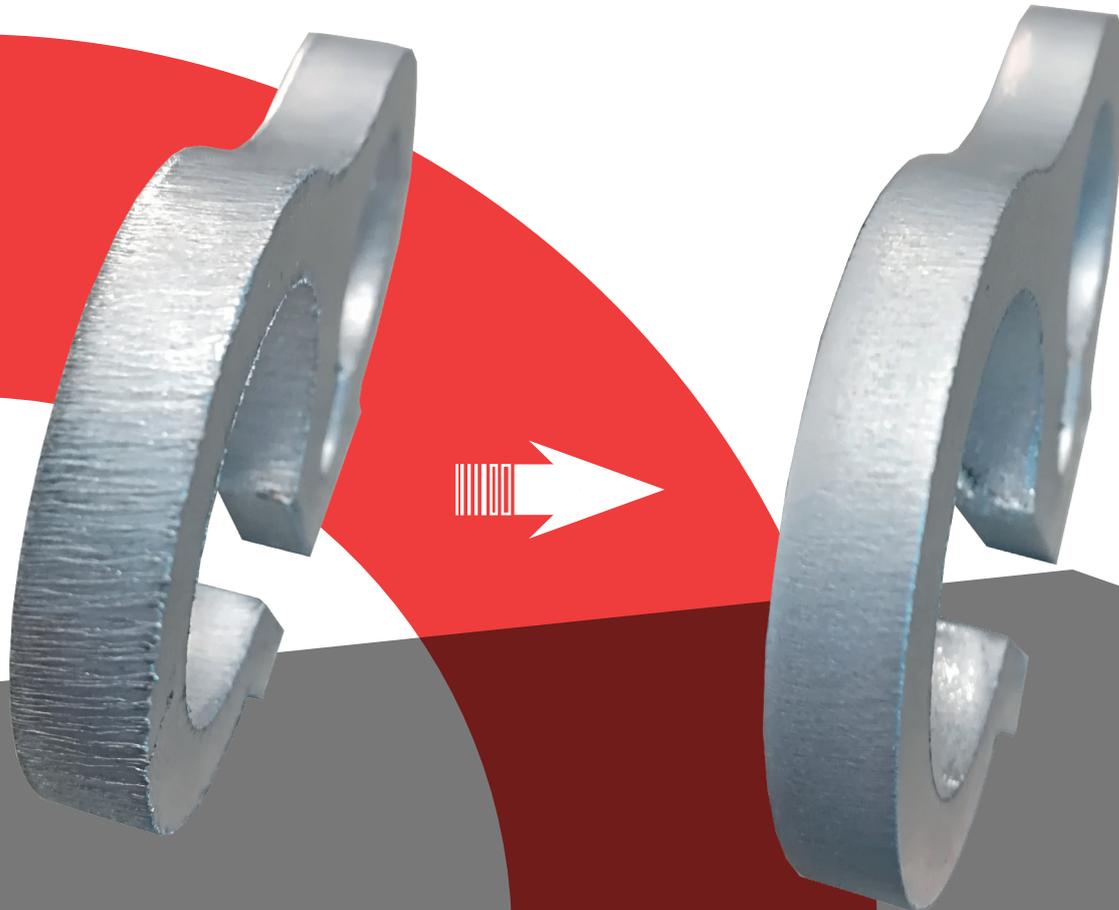




# SOLUTION

## **ENHANCED FIBRE LASER PROCESSING**

GAS MIX TECHNOLOGY  
*HIGH QUALITY ALUMINIUM AND MILD STEEL CUTTING*



# ENHANCED FIBRE LASER PROCESSING

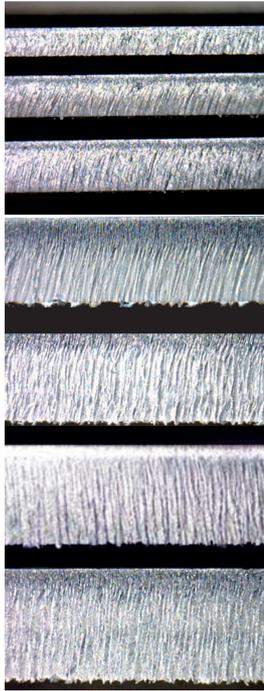
## HIGH QUALITY ALUMINIUM AND MILD STEEL CUTTING

Cutting aluminium and mild steel with oxygen causes problems later in the manufacturing process. There is the inability to consistently weld aluminium parts cut with oxygen, and mild steel needs the oxidised scale removing before welding. Nitrogen cutting is one option, but can lead to lower quality parts, especially in thicker plate.

Using mixed gases allows a high quality finish to be obtained (without dross for aluminium and less dross vs nitrogen / without scale vs oxygen for mild steel), removing the potential bottlenecks further down the production line.

### IMPROVED HIGH QUALITY FIBRE LASER ALUMINIUM PROCESSING EXAMPLES

Cutting gas : Nitrogen



Material thickness

1.0 mm

1.5 mm

2.0 mm

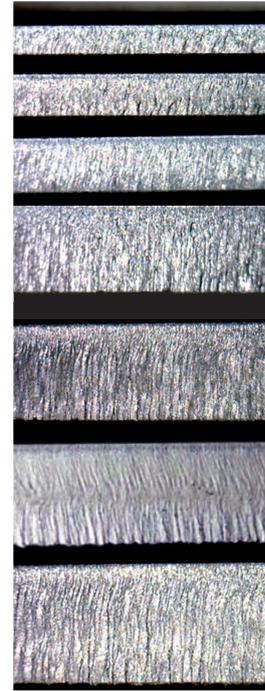
3.0 mm

4.0 mm

5.0 mm

6.0 mm

Mixed gas cutting



Material : Aluminium - Fibre Laser cutting machine 4 kW

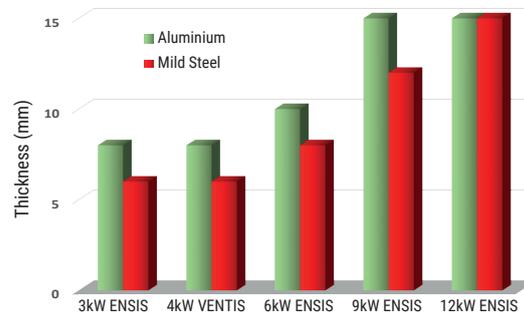
### DUAL GAS MIXING SYSTEM WITH VARIABLE PRESSURE SETTINGS

- Continuous variable mixture settings
- Possibility to change quickly between pure nitrogen and gas mixer cutting when required.
- Independent of pressure fluctuations
- Lockable transparent door for protection of settings
- Splash-proof and robust stainless steel housing
- Parts are welding-ready after mixed gas cutting

#### Gas Mixer models

- MG 50-A
- MG 100-A

#### SPECIFICATIONS



Note: results achieved may vary depending on material, gases and laser cutting equipment, parameters and conditions. AMADA teams remain at your disposal to qualify the reachable results within your own environment.

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