



JASIC 3 in 1 Handheld Fiber Laser Welding Machine LS-15000M (G4J201) & LS-20000M (G4J301)

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Why handheld fiber laser welding?

Using laser beam to melt and join metals, this is an emerging manual welding technology that is much more efficient and precise than MIG/TIG with minimal distortion, undercut or burn-though thanks to very limited heat affected zone (HAZ).

It delivers excellent welding results with much less costs compared to manual MIG/TIG welding. As the challenges of metal fabrication industry grow, this new technology can significantly improve fabricators' efficiency and profitability in a competitive landscape where fast project delivery and effective cost control are vital.

TIG welding Laser welding

Comparison of HAZ









Welding Technology		Arc Welding	Solid YAG Laser	CW Handheld Fiber Laser
Welding experience	Heat input	High	Low	Low
	Distortion	High	Low	Low
	Weld seam formation	Fillet	Fillet	Variable
	Post weld processing	Yes	Yes	No
	Welding speed	Low	Medium	High
	Ease of use	Low	High	High
Sustainability	Hazard to people	High	Low	Low
	Pollution to environment	High	High	Low
Cost	Consumables	Electrode/welding wire/shielding gas	Crystal, Xenon gas	Shielding gas
	Energy efficiency	High	Low	High
	Skill requirement	High	Moderate	Low
	Footprint	Small	Large	Small

In comparison to other types of welding technologies...

Our handheld fiber laser lets you weld with ease thanks to...



High Welding Efficiency

- Up to 10x faster than manual TIG welding
- Very limited spatter thus little post-weld cleaning needed

• Little need for rework thanks to minimal porosity, undercut, or distortion



Low welding skill requirement, save on labor cost for experienced arc welder
Almost 0 maintenance needed for key

component, pump source has over 100k hours life span



• CW(continuous wave) laser with 30+% electro-optical conversion efficiency, 10x that of a solid YAG laser



- Color touch screen control panel with intuitive user interface
- Comprehensive job parameter settings
- Small foot print, great mobility and flexibility



Extended work perimeter, easily accessing hard-to-reach spots

Equipped with 12-20m fiber cable, this machine allows users to work well beyond the confine of the laser source. Its high precision laser beam can be applied from any angle, allowing user to access hard-to-reach parts of the work piece with ease.



Integrated design with great mobility

Laser source, control unit, and cooling unit are integrated into one compact cabinet with omni direction wheels; small footprint, great mobility, plus great flexibility thanks to separated wire feeder



Compact interior design



Exceptional welding results

Continuous wave laser beam delivers high quality weld seams with minimal distortion, undercut or burn-though thanks to very limited heat affected zone (HAZ). As a result, very little post weld processing is needed - less labor, shorter delivery time.



Laser cleaning and cutting

The machine is also capable of laser cleaning and thin plate cutting. User can modify the cleaning laser beam's width by changing the torch's focusing lens.

Fast cutting with limited heat affected zone is possible for thin plates (thickness 2mm or less).





Commonly used in...







Door & windows frame fabrication





Outdoor advertising signage

Water tank fabrication



Kitchenware & bathroom accessories fabrication



Decorative lighting fabrication

Accessories



Protective glasses



Toolkit



Gas tube



Diagnostic cable



Focusing lens (1 x D20*4.5 F150 & 1 x D20*3.5 F400)



Signal cable



Liner (1)



Power cord

Protective lenses (5 pcs)



Torch head nozzles



Liner(2)



Ground clamp



USB flash drive



Wire feeding rollers



Liner (3)



QBH protector



Product Specifications

Model	LS-15000M (G4J201)	LS-20000M (G4J301)	
Input power	AC230 V土5%/50 Hz	AC230 V土5%/50 Hz	
Scan width	0-6 mm	0-6 mm	
Center wavelength	1080±10 nm	1080±10 nm	
Laser power	1500 W	2000 W	
Cooling method	Water cool	Water cool	
Fiber cable length	12 m	12 m	
Shielding gas	Argon/nitrogen	Argon/nitrogen	
Shielding gas pressure	Welding >3 bar, cutting 4-7 bar	Welding >3bar, cutting 4-7bar	
Total energy consumption	8 kw	9 kw	
Electro-optical conversion efficiency	≥30%	≥30%	
Welding thickness	0.5~5 mm	0.5~6mm	
Welding gap range	≤1mm	≤1 mm	
Operating environment	-10°C~40°C	-10°C~40°C	
Maximum cutting thickness	3 mm	5 mm	
Recommended cutting thickness	≤2 mm	≤2 mm	
Max. cleaning width	20 mm (w/ D20*4.5 F150 focusing lens) 40 mm (w/ D20*3.5 F400 focusing lens)	20 mm (w/ D20*4.5 F150 focusing lens) 40 mm (w/ D20*3.5 F400 focusing lens)	
Net weight (power source + wire feeder + accessories)	114.2kg	128.6 kg	
Packed weight (power source + wire feeder + accessories)	149.7kg	162.8 kg	
Dimensions (Ex. small protruding parts)	980 x 420 x 710 mm	980 x 420 x 710 mm	

General Aftersales Policies

As a welding manufacturer with comprehensive quality assurance, we provide the following warranties for our handheld fiber laser welding machines:

- 36 months warranty on the whole machine
- 36 months warranty on the laser generator
- 36 months warranty on the water cooler
- 36 months warranty on the laser welding gun

Please note:

- Wearing parts and optical lenses are excluded from the warranty.
- Product damage or quality issues caused by improper operation or mishandling are excluded from the warranty.
- Product damage or quality issues caused by unauthorized repairs using third party parts are excluded from the warranty.

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