

MicroStep[®]

Laser



FlexiWeld

Handheld Laser Welding Machines



HANDHELD LASER WELDING

FlexiWeld handheld laser welding machines are fast, simple to master, and produce high-quality, consistent results across a wide range of materials and thicknesses. The series provides fabricators with a comprehensive range of highly productive welding solutions to choose from.

Laser welding for thick, thin, reflective, and dissimilar-thickness materials is made much easier by high speed, low heat input, and a small HAZ (heat affected zone). As an IOT-enabled product, FlexiWeld systems can be integrated with automation solutions and multiple kinds of fixtures to perform critical welding where human hands can't reach.

Features:

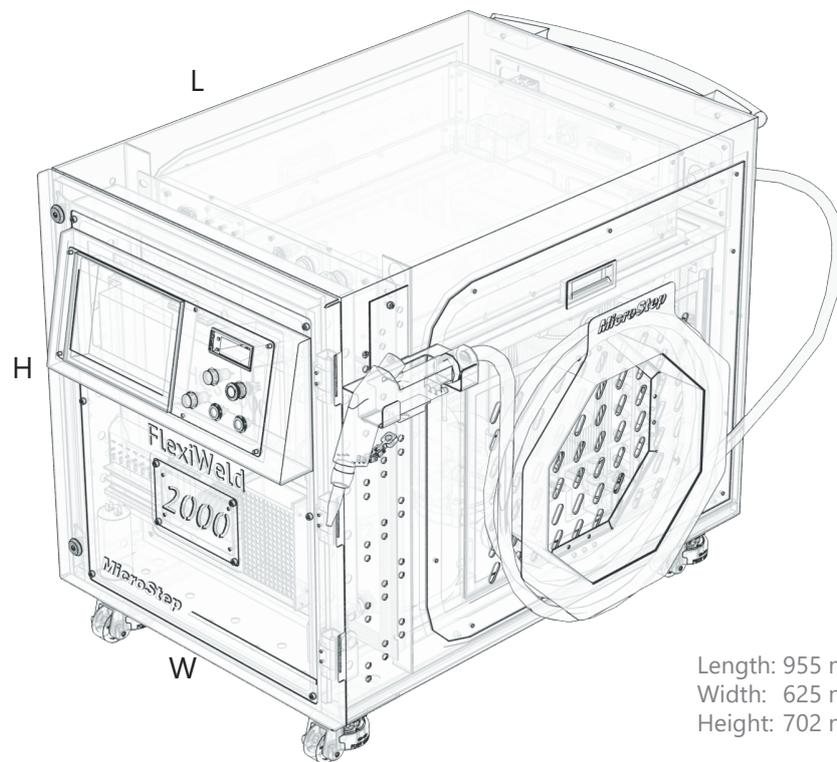
- 3-in-1 welding, cleaning and cutting
- Laser welding power up to 2 kW
- 10 meter fiber cable
- Handy & lightweight handheld welding gun
- Intelligent wire feeding system
- Simple & easy to learn and operate
- Water cooling system for continuous operation
- High laser energy density & smaller heat affected zone
- Fast welding speed, 2 – 10 times that of traditional welding
- Designed to work in harsh conditions
- Excellent weld quality with superior strength
- Weld strength & toughness greater than base metal
- Smooth weld seam – no need for polishing
- In-Built Wobble Welding feature for increased weld width, strength & efficiency
- Suitable for spot and continuous welding
- Feather-contact processing, stress-free & noise-free operation
- Factory Preset Optimization with proven parameters for similar & dissimilar material welding
- Easily adjustable with intuitive controls to optimize weld settings according to material thickness

Why Switch to Laser Welding?

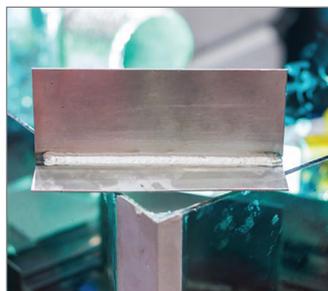
Parameters	Traditional Welding	FlexiWeld Laser Welding
Speed	Average	2 – 10 times faster than traditional methods
Quality	Highly dependent on user experience	Consistent High Quality
Learning	Steep	Quick & Simple
Material Flexibility	Limited with change in consumables	Wide material range with no additional setup
Material Deformation	High	Extremely low
Heat Affected Zone	Large	Minor
Wobble Welding	No	Yes

Specifications:

Laser Power	1 / 1.5 / 2 kW
Wavelength	1070±5 nm
Operational Power	1 phase (230V-50Hz)
Wobble Weld Width	up to 5 mm
Wobble Frequency	up to 300 Hz
Fiber Cable Length	10 meters
Parameter Presets	100+
Weight	160 – 180 kg (depending on model)
Dimensions (W x L x H)	625 x 955 x 702 mm



Samples:



Accessories:



Wire Feeder

Programmable wire feeder dedicated to laser welding



Laser Goggles

Laser safety goggles with Class IV protection



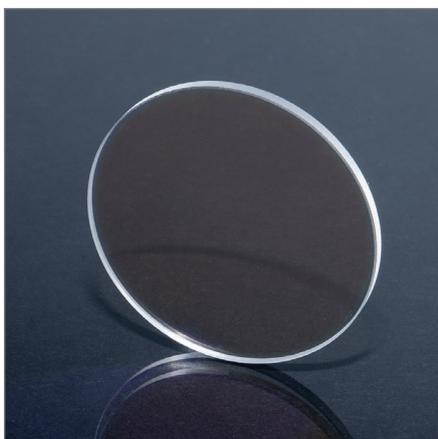
Helmet with Safety Window

Laser safety helmet with Class IV protection



Gloves

Top-grain leather gloves with the highest safety grade



Protection Window

Handheld gun protection window



Nozzles

Highest grade copper nozzles with precision



Your Partner for Cutting and Automation

MicroStep offers CNC cutting systems with a variety of processes and accessories in a single machine. Our machines enable complex bevel cutting jobs with all technologies – plasma, fiber laser, oxyfuel and waterjet along with marking, drilling, tapping, milling and countersinking operations.

By adding welding and bending to our portfolio, we bring matching fabrication processes under one roof. After cutting, MicroStep supplied welding machines and press brakes are ready to take over.

We do not stop there – we integrate our machinery with material handling systems and provide added value through automation and digitalization.

For more information visit:
www.microstep.eu/machines



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