

LightWELD[®] 1000

Handheld Laser Welding System
for materials up to 4 mm



LightWELD[®]

MADE IN
GERMANY



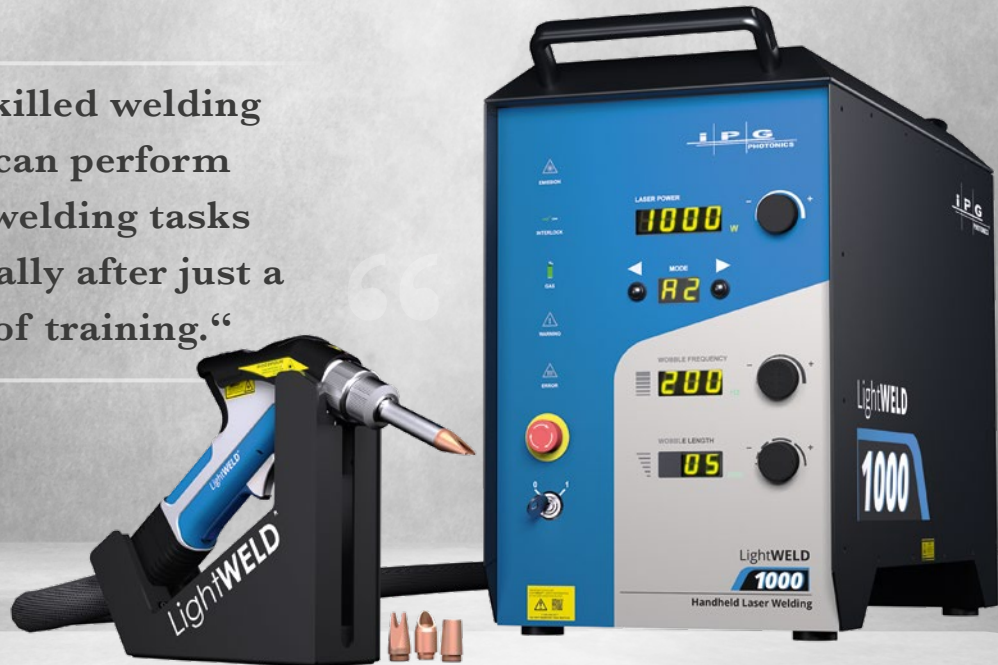

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herramientas



LightWELD® 1000

LEADING IN SAFETY & QUALITY

“Even unskilled welding beginners can perform their first welding tasks professionally after just a few hours of training.”



Reduced production times, lower costs
- **LightWELD offers you long-term benefits.**

- + Unlimited operating time
- + Minimal post-processing required
- + Consistent and high-quality results
- + Optimization of personnel costs through quick training and simple operation
- + Improved total cost of ownership thanks to energy-efficient and durable fiber lasers
- + From maintenance-free to minimal wear costs
- + Attachment parts can be replaced individually



Top quality weld seams

- Extremely clean
- Highly precise
- Reproducible results



Faster workflow without interruption

- 4x faster than TIG welding
- 100 % duty cycle thanks to integrated air cooling
- Maintenance-free system



Top results in a short time

- Steep learning curve: even unskilled users can operate the LightWELD immediately
- Repeatable and high-quality results



Virtually no deformation & reworking

- Minimized heat-affected zone (HAZ) due to focused laser beam
- Minimal distortion, hardly any deformation, no undercuts or burn-through
- Ideal for heat-sensitive materials or thin sheets
- Little to no post-processing required



For a wide range of materials

- Suitable for various materials, such as stainless steel, structural steel and aluminum
- Welds metals of various thicknesses with an without wire

LightWELD[®] vs. Traditional Welding

THE COMPARISON

	Traditional Welding Methods	LightWELD Laser Welding
Speed	Average	✓ Up to 4x faster than TIG welding
Quality	Depending on the experience of the user	✓ Consistent, high-quality results
Learnability	Long experience necessary	✓ Quick and easy
Material flexibility	Limited by changes in the consumables	✓ Wide range without set-up time
Heat distortion	High	✓ Very low
Heat-affected zone	Large	✓ Small
Wobble welding	No	✓ Yes – up to 5mm additional welding width

ZUSATZMODULE



OPTIONAL WIRE FEED PACKAGE

The optional Wire Feeder WF-100 extends laser welding applications and enables effective bridging of large gap dimensions. Like the LightWELD, the WF-100 is also manufactured in Germany, is protected according to IP54 and comes with a 24-month warranty. It is suitable for unalloyed and low-alloy steels, stainless steel, aluminum, non-ferrous metals and other alloys.



COBOT KIT

Take the next step towards automation and turn your LightWELD into a cobot with the cobot kit. The kit includes a gun holder, a connection cable and the appropriate software update.



MADE IN GERMANY

The LightWELD is manufactured specifically for European users at IPG's German headquarters in Burbach (NRW). Proximity to users ensures efficient sales and support.



THE COMPANY IPG - A BRIEF INTRODUCTION

IPG Laser GmbH & Co. KG is a leading company in the field of fiber laser technology and part of the IPG Photonics Corporation headquartered in the USA. Since its foundation in 1990, IPG has established itself as the market leader in the development and production of high-power fiber lasers. At its German site in Burbach (NRW), where the European Customer Center with its

800 m² showroom is also located, IPG employs over 1500 people. Thanks to vertical integration, the company develops and manufactures almost all components itself, which guarantees high quality and rapid adaptation to market requirements. In this way, IPG helps its customers to increase their productivity and set new standards.


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$P_s < 2500\text{ W}$
 $P_r < 5000\text{ W}$
 $\lambda = 900 - 1200\text{ nm}$
 $t \geq 1\ \mu\text{s}$
 $F = 0 - 100\text{ kHz}$

DANGER – INVISIBLE LASER RADIATION
AVOID EYE OR SKIN
EXPOSURE TO DIRECT OR
SCATTERED RADIATION
CLASS 4 LASER PRODUCT
IEC 60825-1:2014

LASER RADIATION
DO NOT STARE INTO THE BEAM
OR VIEW DIRECTLY
WITH OPTICAL INSTRUMENTS
CLASS 2M LASER PRODUCT
 $P < 1\text{ mW}$
 $\lambda = 600 - 700\text{ nm}$
IEC 60825-1:2014

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