



## 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 m<sup>2</sup>

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.

### WOULD YOU LIKE TO FIND OUT MORE?

YOUR SPECIALIST ADVISOR WILL BE HAPPY TO ANSWER ALL YOUR QUESTIONS.



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

**ANGER - 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  
 $P_e < 1\text{ mW}$   
 $\lambda = 600 - 700\text{ nm}$   
IEC 60825-1:2014

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# LightWELD<sup>®</sup> 2000 XR

## Handheld Laser Welding System for materials up to 8mm welding depth



# LightWELD® 2000 XR

## FASTER & MORE POWERFUL

„The LightWELD 2000 XR sets new standards in laser welding. Thanks to its higher performance, it enables deeper and thicker weld seams across the entire material range, is even faster and significantly increases productivity. It also ensures permanently stable joints – without compromising on quality.“



### LightWELD Benefits

- + Unlimited duty cycle of 100 %
- + Minimal post-processing required
- + Consistent and high-quality results
- + Optimization of personnel costs through quick training and simple operation
- + From maintenance-free to minimal wear costs
- + Improved total cost of ownership thanks to energy-efficient and durable fiber lasers
- + Attachment parts can be replaced individually
- + Industry-leading safety standards

### THICKER AND DEEPER WELD SEAMS

With 2 kW laser power 2 (+30 % compared to its predecessor) the LightWELD 2000 XR enables deeper and wider weld seams for increased stability:

- Steel & aluminum (series 3 & 5) up to 8 mm
- Titanium & nickel alloys up to 7 mm
- Copper up to 3 mm



### HIGHER PRODUCTIVITY

The LightWELD is already up to four times faster than TIG welding; the new LightWELD 2000 XR delivers even greater speed increases, proportionally boosting overall productivity and manufacturing throughput.



### MORE PRECISE WELDING

The LightWELD 2000 XR generates a smaller laser spot. The resulting reduced heat affected zone minimizes distortion and deformation, which is particularly advantageous for difficult-to-weld materials such as copper and titanium.



### EXTENDED CLEANING FUNCTIONS

Integrated cleaning modes remove grease, oil, rust and oxide layers before welding as well as soot and discoloration after welding. This ensures clean, high-quality weld seams and reduces the amount of reworking required.

# LightWELD® vs. Traditional Welding

## THE COMPARISON

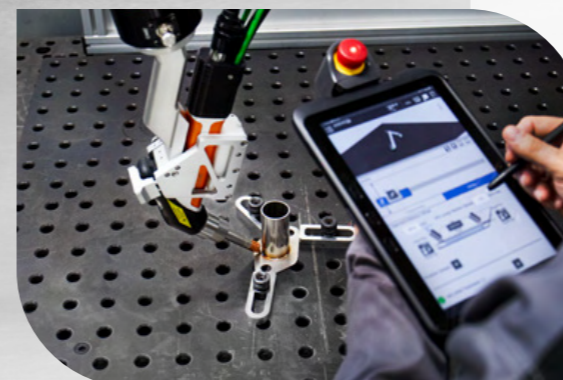
	Traditional Welding Methods	LightWELD Laser Welding
<b>Speed</b>	Average	✓ Up to 4x faster than TIG welding
<b>Quality</b>	Depending on the experience of the user	✓ Consistent, high-quality results
<b>Learnability</b>	Long experience necessary	✓ Quick and easy
<b>Material Flexibility</b>	Limited by changes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

## ADDITIONAL MODULES



### 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 and is protected according to IP54. 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.