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# LIGHTWELD™

## Revolutionising the Welding Industry

LightWELD™ handheld laser welding is **easy to learn, simple and fast to set up** and provides **consistent high-quality results** across a wide range of materials and thicknesses.

LightWELD is FASTER and Easier than Traditional MIG & TIG Welding

Experienced MIG and TIG users benefit from the more rapid and flexible processing capabilities of LightWELD:

Up to **4X faster** than TIG

Easy to learn and operate with highest process consistency.

High quality welding of thick, thin, and reflective metals without distortion, deformation, undercut or burn-through  
Welding of dissimilar metal parts of different thicknesses.

Dramatically low heat input and minimized heat affected zone  
Minimal part setup and post-processing grinding or polishing.

Increased productivity with no need for machining or straightening deformed parts.



## The Integrated Laser Welding Unit Comprised of the Following:

- ▶ Fabricated steel structure enclosing the laser generator, system controller, panel displays and interface electronics
- ▶ W 316 mm, D 641 mm, H 534 mm
- ▶ Integrated 5m/10 metre umbilical connection to the Handheld Laser Welding Head
- ▶ Easy-carry handles
- ▶ Laser Generator 1500 W CW air cooled; Ytterbium Fiber Laser System housed within the Base Unit
- ▶ 50-micron diameter fiber with 5m/10 m (~32 ft) fiber delivery to the head
- ▶ Power adjustable from 10% to 100% of maximum output power
- ▶ Class-1 collinear red guide beam
- ▶ Industrial grade controller housed within the base unit
- ▶ Provides control of all system functionality, laser parameters, gas flow, and monitoring of safety interlock circuits.
- ▶ Interface via front panel controls and Ethernet port web-page GUI with programs selection
- ▶ Front Panel Controls
- ▶ Rotary knob controls and displays for Laser Power, Wobble Length and Wobble Frequency
- ▶ Touch button access to 70 Stored Process Mode memory locations
- ▶ System status indicators
- ▶ System enable key switch.
- ▶ Emergency Off (EMO) button
- ▶ Handheld Laser Welding Head
- ▶ Optic configuration to deliver on-target beam diameter of 150 um (0.006 ins)
- ▶ Focal Length 120 mm
- ▶ On-axis red guide beam
- ▶ Wobble function: Linear beam scanning. Length 0-5 mm, Frequency 0-300 Hz
- ▶ 2-Position trigger control
- ▶ Integrated welding part touch safety sensor
- ▶ Integrated process gas delivery (Flow controlled by Base Unit)
- ▶ Interchangeable Precision welding nozzle
- ▶ Rear Panel Connections
- ▶ AC Power: 240V, 1 Ph, 50Hz, <24 Amp.
- ▶ Welding Head I/O:
- ▶ Workpiece Clamp Circuit:
- ▶ Process gas input 1/2" hose - 3m supplied
- ▶ Process gas output. (Included with welding head umbilical)
- ▶ Safety Interlock and I/O. - Customer responsibility
- ▶ RJ-45 Ethernet connection- customer configuration and status port



LightWeld with trolley options shown

## PRICE LIST JUNE 2024

Prices are excluding GST

### LightWELD™ Series Handheld Laser Welding System

#### LightWELD™ 1500

LightWELD 1500 Handheld Laser Welder		
5 Meter Cable	Item No. SYSHHW000000001U	<b>\$41,200</b>
10 Meter Cable	Item No. SYSHHW000000002U	<b>\$42,600</b>

#### Included In the box:

- ▶ 5 m/10m IPG Laser Welding Gun
- ▶ 5 m/10m Workpiece Clamp
- ▶ (4) Welding Nozzle Tips
- ▶ (5) Cover Slides
- ▶ Welding helmet with IR shield
- ▶ Laser safety glasses OD 6+
- ▶ 3 m (10 ft) CAT 6 Ethernet Cable
- ▶ Getting Started Guide

#### LightWELD™ 1500 XC

LightWELD 1500 XC Handheld Laser Welding & Cleaning System		
5 Meter Cable	Item No. SYSHHWXC0000001U	<b>\$48,500</b>
10 Meter Cable	Item No. SYSHHWXC0000002U	<b>\$50,000</b>

#### LightWELD™ 1500 XR

LightWELD 1500 XR Handheld Laser Welding and Cleaning System		
5 Meter Cable	Item No. SYSHHWXR0000001U	<b>\$56,100</b>
10 Meter Cable	Item No. SYSHHWXR0000002U	<b>\$57,700</b>

- ▶ All the welding capabilities of LightWELD 1500
- ▶ All the cleaning capabilities of LightWELD XC
- ▶ Quickly and easily converts between laser welding and laser cleaning functions with a simple switch of the nozzle
- ▶ Lower heat input than LightWELD and LightWELD XC
- ▶ Capable of welding and cleaning an expanded range of materials and thicknesses with additional factory stored preset modes
- ▶ Aluminum and Nickel Alloys up to 6.35 mm, Titanium up to 5 mm, Copper up to 2.00 mm

# LightWELD™ 2000 XR

LightWELD 2000 XR Handheld Laser Welding and Cleaning System		
10 Meter Cable	Item No. IPG LW SYSHHWXR0000002U	<b>\$61,200</b>

LightWELD 2000 XR handheld laser welding is easy to learn, simple and fast to set up and provides consistent high-quality results across a wide range of materials and thicknesses. LASER POWER 2000 W Max. Avg. Power 3000 W Peak Pulse Power Aluminum, Galvanized & Mild Steel up to 8.00mm Nickel Alloys up to 7.00mm, Titanium up to 7.00mm, Copper up to 3.00 mm

## OPTIONS:

<b>Single Wire Feed Package</b>	Item No. IPG LW CMMIXXX0003694PX	<b>\$3,800</b>
<b>Dual Wire Feed Package</b>	Item No. IPG LW CMMIXXX000??????	<b>\$4,800</b>

- ▶ The LightWELD Wire Feeding Package consists of:
  - ▶ Wire Feed Unit
  - ▶ LightWELD to Feeder Electrical Connections,
  - ▶ LightWELD wire nozzle assembly
  - ▶ IPG Wire Process Modes Software.
  - ▶ Compatible Wire Diameters - 0.9 mm (0.035 in.), 1.2 mm (0.045 in.)
- ▶ Compatible Wire Materials - Steel, Stainless Steel, Aluminum
- ▶ Wire Reel Capacity - 1 kg (2 lb), 5 kg (10 lb) or 10 kg (25 lb) by shaft change
- ▶ Requires separate 240VAC supply

<b>Welding Cart</b>	Item No IPG LW CMMIXXX0004362PX	<b>\$2,600</b>
<b>Safety Equipment</b>	Helmets, Glasses, Screens	<b>\$POA</b>

- ▶ Top platform sized for LightWELD base unit & optional wire feeder
- ▶ Three storage drawers with ball bearing slides
- ▶ Cabinet for helmet storage
- ▶ Locking cabinet with adjustable shelves
- ▶ Platform & tether chains for two 9 inch gas cylinders
- ▶ Cable hooks for LightWELD to Head umbilical
- ▶ Lockable swivel castors

## Laser Safety screening Packages

(made in the USA and laser safe certified)

<b>Basic -Stand-alone 6Pack.</b> 6 free standing panels	Item No ILSPT-5M250WB6-6	<b>\$9,800</b>
<b>Basic -Stand-alone</b> Single Panel (each) when ordered with a 6 Pack	Item No ILSPT-5M250WB6-1	<b>\$1,700</b>

- ▶ Collapsible Laser Safety Barrier, each panel is approximately 1800m x 2130mm (W x H)
- ▶ Laser-rated at 425W/cm<sup>2</sup> for at least 100 seconds, wavelength 1070nm, 1mm diameter spot (1/e).
- ▶ Certified to ANSI Z136 and CE EN 12254. Complies with ASTM E84, NFPA-701 TM2, and CSFM Title 19 CCR 1237.
- ▶ Made in the USA.

With just 5 major parts including pre-assembled laser blocking panels, these barriers are ready for use in under 5 minutes. Delivered to you in a compact and virtually non-destructible corrugated package.

Stand-alone or link several Together

## Certified to ANSI, CE and NFPA-701 standards.

**Note that this basic package does not include any safety door/ access interlock system.**



Please feel free to ask us if you require other laser screening solutions as we have curtain and fixed wall options available.

**YOUR CARE** Completing the required online operator training course prior to using the unit.  
Electrical supply and connection to the unit and wire feeder.

Regulated welding gas supply to the unit. Argon, Nitrogen, Argon + CO2 mix  
For 5 metre cable: Working pressure 10–20 psi (69–138 kPa)  
For 10 metre cable: Working pressure 15–30 psi (103–207 kPa)

Any Onsite OH&S safety requirements (this is a Class 4 laser product)

Delivery, Installation at your above address is not included but can be arranged. Engineer travel / machine freight will be charged at cost and can be quoted if required.

**FREIGHT:** Unless otherwise agreed Ex Hallam, Vic

**DELIVERY:** Normally 4 weeks from order deposit  
To be confirmed at time of order placement.

**VALIDITY:** Price is valid for **June 2024**.

**PRICE:** Is a fixed exchange rate, in A\$ and not including GST

**TERMS OF** 50% Deposit of total purchase price with your order.

**PAYMENT:** 50% prior to dispatch from INDUSTRIAL LASER SOLUTIONS PTY LTD. (if required the unit can be inspected at INDUSTRIAL LASER SOLUTIONS PTY LTD prior to shipment).

**Online training can only be carried out and unit activation code supplied after payment is made in full.**

**INSURANCE:** Above goods will be insured under our Open Policy to your door if freighted by us. Please ensure that your own Insurance Company is advised to cover any Insurance you may require beyond this point.

**TERMS & CONDITIONS:** Our standard terms and conditions of trade apply to this contract  
A copy is attached.

**WARRANTY:** 12 months Manufacturer's warranty applies against defects in materials or manufacture, warranty is parts only, not freight. Parts are to be returned to INDUSTRIAL LASER SOLUTIONS PTY LTD freight free for free warranty labour repair.

Repairs and faultfinding are free at INDUSTRIAL LASER SOLUTIONS PTY LTD's premises during the warranty period subject to the manufacturer's warranty approval.

Optical components and consumable parts are excluded from this warranty other than at time of delivery.

Onsite support is offered via INDUSTRIAL LASER SOLUTIONS PTY LTD at our normal service rates.

Please see the manufactures warranty statement in section C of the LightWELD 1500 user guide for further information.

## Who is INDUSTRIAL LASER SOLUTIONS PTY LTD?

Established in Melbourne in 1998 INDUSTRIAL LASER SOLUTIONS PTY LTD is a family owned and operated business that supports Australia and NewZealand Laser users.

Our experience includes designing and building specialised laser systems.

We have extensive knowledge in the current laser technology and work with the manufacturing, Scientific, research and Defense industries.

- ▶ Over 100 years of combined laser service and application experience
- ▶ 6 full time service technicians/engineers
- ▶ 10 Employees / Support staff
- ▶ In house clean booths and laser beam diagnostics
- ▶ Authorised Distributors and service of IPG Photonics and Precitec.
- ▶ Australia's largest laser consumables supplier to the laser industry
- ▶ Service center for the IPG LightWeld 1500

## LightWELD™

**IPG Promo video:** <https://www.youtube.com/watch?v=SkvJsyP18bk>

**Learn more about the LightWELD XC:** <https://bit.ly/3v4ancf>

**Laser Cleaning XC** <https://www.youtube.com/watch?v=OOQxO2dPvYY>

**Welding without wire:** [https://www.youtube.com/watch?v=MwcT2hK1\\_A0](https://www.youtube.com/watch?v=MwcT2hK1_A0)

**Welding with wire feeder:** [https://www.youtube.com/watch?v=H-\\_yisVaiWU](https://www.youtube.com/watch?v=H-_yisVaiWU)

**WELD.COM review:** [https://www.youtube.com/watch?v=OD3Y\\_MC0Wek](https://www.youtube.com/watch?v=OD3Y_MC0Wek)

**Schedule a demo:** <https://bit.ly/3LJMaOj>