

Authorized Nationwide Distributor
Serra Laser Center - Demo, Test Welds, Training
714-680-6211 West
906-367-0026 Midwest



LIGHTWELD™ 1500 XC

Handheld Laser Welding & Cleaning System

QUICK SPECS:

LASER POWER **HIGH PEAK POWER**
Up to 1500 W Up to 2500 W

SINGLE SIDED WELD THICKNESS
Stainless Steel, Galvanized Steel,
Mild Steel and Aluminum: Up to 4 mm
Copper: Up to 1mm

LASER CLEANING:

Adjustable width up to 15 mm
Peak power up to 2500 W

INCLUDES:

- Air-Cooled Base Unit
- 5 or 10 m (16 or 32') Gun Cable
- 5 or 10 m (16 or 32') Workpiece Clamp
- User Guide
- Welding Helmet with IR Shield
- (2) Cleaning Nozzles
- (3) Cleaning Nozzle Inserts
- (4) Welding Nozzle Tips
- Laser Safety Glasses OD 6+
- 3 m (10') CAT 6 Ethernet Cable
- (5) Cover Slides

APPLICATIONS:

- Metal fabrication shops
- Auto body applications
- Maintenance and repair
- Construction and piping
- Farm, furniture & appliances
- Aerospace & transportation



LightWELD XC handheld laser welding and cleaning system expands the welding capabilities of LightWELD with cleaning modes to quickly and easily remove oils, rust and coatings before welding, and removes debris and discoloration after welding. Exceptional visual appearance without the time and expense of abrasives or chemicals.

For welding, LightWELD XC enables dramatically faster welding and provides higher-quality, consistent results across a wider range of materials and thicknesses than MIG or TIG with minimal distortion, undercut or burn-through.

LIGHTWELD™ 1500 XC

Handheld Laser Welding & Cleaning System

LightWELD Laser Welding and Cleaning

High Speed Welding	Up to 4X Faster than traditional methods - increased productivity for lower costs-per-part
High Quality Results	Consistent welding of thick, thin and reflective metals without distortion, undercut or burn-through - minimal heat affected zone
Easy to Use	Simple set up, easy to learn and operate for consistent high-quality welds and cleaning
Exceptional Visual Finishes	Removes oils, rust and coatings before welding, and debris and discoloration after welding without the time and expense of abrasives or chemicals
Enhanced Material Capability	Metals with dissimilar thicknesses, ultra-thin parts, copper welding, materials with low and high electrical conductivity
Wobble Welding	Up to 5 mm of additional weld width - increases capability and creates highly aesthetic seams

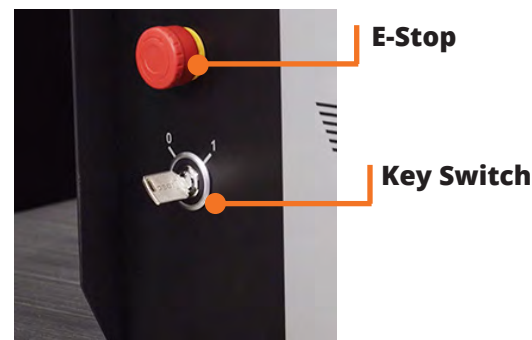
Laser Power	High Peak Power	Power	Mode Storage Capacity	Cleaning Width-Length	Wobble Length & Frequency	Dimensions LxWxH	Weight
Up to 1500 W	Up to 2500 W	220V Single Phase, 24 A	74	Up to 15 mm	Up to 300 Hz Up to 5 mm	641 x 316 x 534 mm 25.2" x 12.4" x 21"	53 kg 118 lbs

SAFETY FEATURES:

LightWELD XC is a Class IV laser system and routine precautions are required for the safe operation of the equipment.

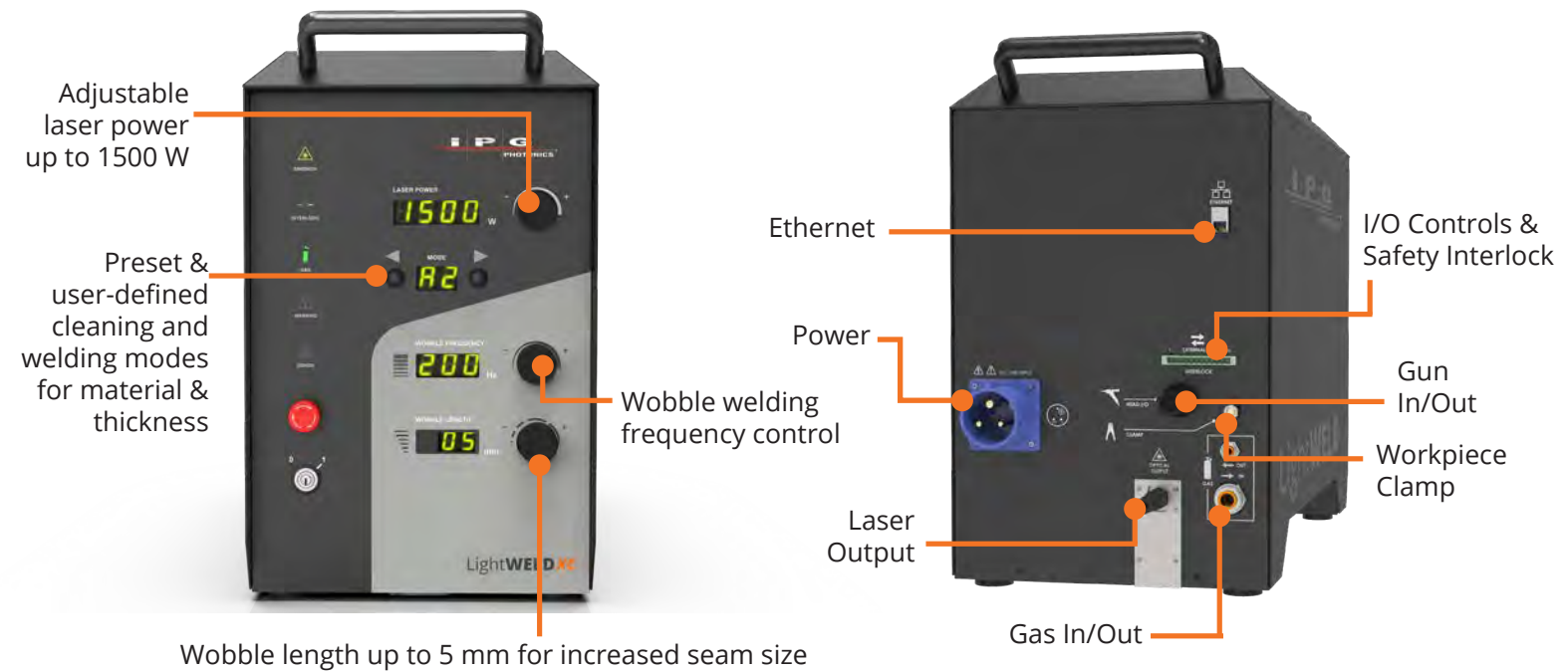
BUILT-IN FEATURES INCLUDE:

- Key switch control of laser source and Emergency-stop button ensure deliberate operation
- Fiber laser interlock verifies integrity of laser delivery to the welding and cleaning gun
- 2-step gun trigger, enable and then fire, for intentional operation
- Part contact electrical interlock turns off the laser power if the gun is not in contact with the parts



Operators must wear all recommended personal protective equipment (PPE), including the IPG laser safety glasses and IPG helmet with shield provided with LightWELD XC, laser-resistant and heat resistant gloves, caps, leather apron and other laser-resistant and heat-resistant clothing.

CONTROL PANEL AND CONNECTIONS:

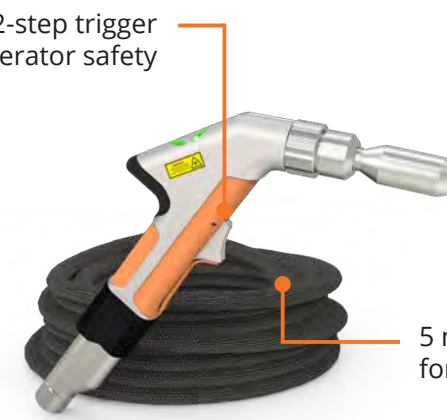


Laser power up to 1500 W is easily adjusted with intuitive controls to quickly dial in optimum weld settings for various materials and thicknesses. With 74 stored preset and user-defined process parameters, novice welders can be trained and welding in a matter of hours. Select stored modes provide up to 2500 W of high peak power for even greater welding and cleaning capability.

Clearly labeled rear connections make getting started fast and easy. Laser delivery, gas and gun control is pre-wired in a 5 m (optional 10 m) cable. Just plug in the power cord and gas connection, attach the clamp to your work surface and you are ready to go. An ethernet connection provides access to advanced parameter settings to fine tune and save process parameters.

HANDHELD GUN & NOZZLE TIPS:

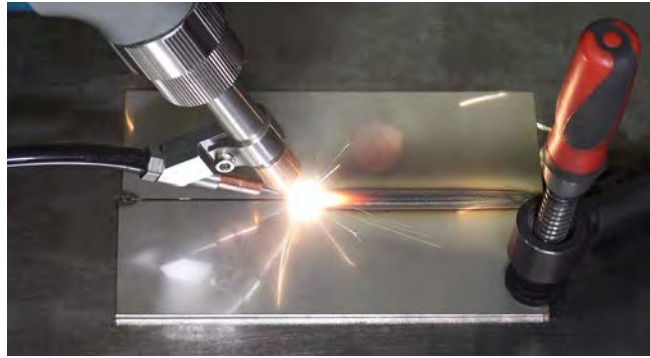
2-step trigger enhances operator safety



The handheld welding and cleaning is compact, ergonomic and proven to be the most comfortable, well balanced and easy to use gun available with a selection of nozzle tips to optimize different joint types and cleaning requirements. The light weight and built-in wobble functionality enables operators to produce high-quality welds and cleaning throughout the day and safely with its 2-step trigger.

ACCESSORIES

LIGHTWELD XC WIRE FEEDER PACKAGE Handheld Laser Welding and Cleaning



This Wire Feeder package includes all necessary hardware and software to add a wire welding capability to the LightWELD XC.

Included with Wire Feeder Kit:

- Wire Feed Unit
- Proprietary Weld Head Nozzle Attachment
- System Trigger Cable
- 2 Wire Guide Tips (0.9 mm, 1.2 mm)
- IPG Process Mode software upgrade

- Used for manual laser wire welding of low carbon steel, stainless steel, aluminum, non-ferrous metals and other alloys
- LightWELD XC provides synchronization trigger signal to wire feed unit. Wire feed settings adjusted on the wire feed unit
- Wire feeder nozzle attachment guides wire precisely to the weld pool
- LightWELD XC Process Modes provide standard parameter settings for typical materials and wire types



LightWELD XC Wire Feeder Specifications	
Wire feed delivery length	2.7 m (9 ft)
LightWELD XC Interface	Low Voltage enable signal cable
Wire Feed Speed Range	40 – 600 cm/min (15 - 230 ipm)
Compatible Wire Diameters	0.9 mm (0.035 in.), 1.2 mm (0.045 in.)
Wire Reel Capacity	1 kg (2 lb), 5 kg (10 lb) or 10 kg (25 lb) by shaft change
Compatible Wire Materials	Steel, Stainless Steel, Aluminum
Power Requirements	115V 50/60 Hz
Wire Feed Unit Weight	22 kg (48.4 lb)
Wire Feed Unit Dimensions (L X W X H)	420 mm (16.5 in) x 210 mm (8.3 in) x 570 mm (22.4 in)

Purchase Online:



LIGHTWELD XC WELDING CABINET Handheld Laser Welding and Cleaning



This heavy duty welding cabinet provides mobility for your LightWELD XC system and accessories.

KEY FEATURES INCLUDE:

- Top platform sized for LightWELD XC system and optional wire feeder
- Locking cabinet with adjustable shelves
- Three storage drawers with ball bearing slides
- Platform & tether chains for two 9 in. gas cylinders
- Cabinet for helmet storage
- Cable hooks for LightWELD XC gun cable
- Lockable swivel castors

LightWELD XC Welding Cabinet Size		Weight Capacity
Cart (L x W x H)	1238 mm (48.75 in) x 648 mm (25.5 in) x 850 mm (33.5 in)	
Weight	73.2 kg (161.3 lb)	
Top Surface (L x W)	875 mm (34.5 in) x 515 mm (20.3 in)	72.6 kg (160 lb)
Drawer 1 (L X W X H)	410 mm (16.3 in) x 320 mm (12.7 in) x 32 mm (1.3 in)	18.1 kg (40 lb)
Drawers 2 & 3 (L X W X H)	410 mm (16.3 in) x 320 mm (12.7 in) x 115 mm (4.5 in)	36.2 (80 lb) each
Helmet Cabinet (L X W)	495 mm (19.5 in) x 355 mm (14 in)	18.1 kg (40 lb)
Cylinder Platform	Up to two 9 in gas cylinders	

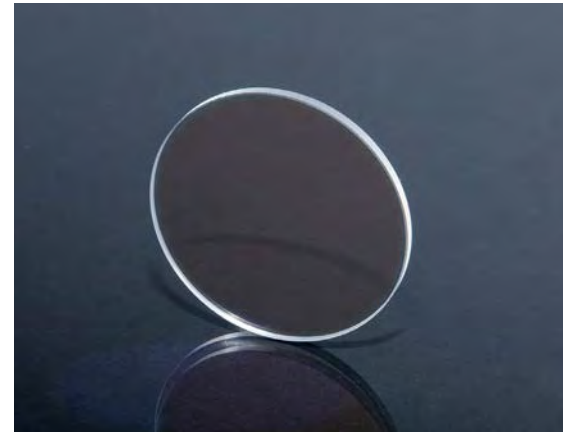
ACCESSORIES

LIGHTWELD **XC** PPE & CONSUMABLES Handheld Laser Welding and Cleaning

Purchase
Online:



Welding Helmet with Shield
CEU00002506XXXXU
Auto-Darkening Laser
Welding Helmet with IR Shield
& IR coated lens provides
protection from specular
reflections



Cover Slides
CDSBOM00023702XU
Pack of 20



Copper Nozzle tip
Set of 4
CDSBME000089XXXU



1 point
CMUS0008398XXXXU



2 point 6 mm
CMUS0008411XXXXU



2 point 9 mm
CMUS0008719XXXXU



Cone
CMUS0008794100XU



Safety Glasses LFO
CMMIXX0002677PX
Large Fit Over
1000-1550 nm OD 7+



Safety Glasses ADJ
CMMIXX0002679PX
Adjustable temple bar
1000-1550nm OD7+



Safety Glasses
CMMIXX0002678PX
w/ Side Shield Protection
1000-1550 nm OD 7+



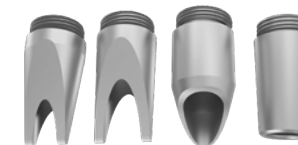
Cleaning Nozzle Kit
CEU00003724XXXXU



1 point
CMUS0009402XXXXU



2 point 6 mm
CMUS0009401XXXXU



Al 1100 Nozzle tip
Set of 4
CDSBME00008901XU



2 point 9 mm
CMUS0009400XXXXU



Cone
CMUS0009399XXXXU



LightSAFE™ is a modular welding enclosure for the LightWELD including door interlocks and Laser safe windows. Aluminum construction with easy to assemble panels. 45 in, 69 in, 93 in, or 141 in door openings. Compliant with ANSI 136-1 Safe Use of Lasers.



714-680-6211 or 906-367-0026
 ipglightweld@serralaser.com

MAX. AVERAGE OUTPUT POWER: 2500W
 MAX. PEAK OUTPUT POWER: 5000W
 PULSE DURATION: ≥ 1 us
 PULSE REPETITION RATE: 0 - 100kHz
 WAVELENGTH RANGE: 900 - 1200nm

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
 MAX. AVERAGE POWER: 1mW
 WAVELENGTH RANGE: 600 - 700nm
 IEC 60825-1:2014

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