



LIGHTWELD 1500 XC

Handheld Laser
Welding & Cleaning System

New Model Introduction

LightWELD XC

Handheld Laser Welding with Pre and Post Weld Laser Cleaning



Introduction: Fabtech, Sept 13

Product announcement, Cleaning demonstrations

Equipment: LightWELD XC

- All functions of LightWELD + High frequency pulsed cleaning
- Wide scan field, Cleaning nozzle set and Cleaning presets

Pricing:

1500 XC 5m \$26,950, 1500 XC 10m \$27,750

Includes Laser Welding and Laser Cleaning

Availability:

- Taking orders now. Leadtime ~ 4 weeks

LightWELD-CX Welding & Cleaning

Use your welding laser to provide pre and post weld cleaning



Benefits of Pre-Weld Cleaning:

- Increased weld quality and strength
 - Reduction in contaminant-induced porosity
- Improved weld surface consistency and repeatability

Benefits of Post-Weld Cleaning:

- Remove soot and weld-related debris
- Remove heat-related discoloration
- Create better looking welds with less finishing

Eliminate abrasives, chemicals and disposal problems

LightWELD XC

Laser Welding and Cleaning in a Single Tool



LightWELD 1500

- ❑ 1500 W High-brightness beam for thick, thin and reflective metal welding
- ❑ Welding head and 4 nozzles for different joint types
- ❑ CW, Pulsed and Wobble Operating Modes
- ❑ Pre-set welding modes for fast parameter setting
- ❑ Air Cooled – Compact, Single Unit

LightWELD 1500 XC

All the functionality of the LightWELD 1500

PLUS

- ❑ High frequency laser mode up to 2500 W peak power
- ❑ Wide (15 mm) scan field for high-speed coverage
- ❑ Weld head nozzle cleaning attachment with 3 tips
- ❑ Pre-set cleaning mode software

LightWELD XC

Pre and Post Weld Cleaning

LightWELD XC Laser Cleaning:

- ❑ Uses high frequency pulsed laser capability
- ❑ Laser pulses evaporate lighter elements and/or melt metal
 - Precise parameter control allows fine-tuning of surface effect
- ❑ Evaporated materials swept away by process gas stream
 - Fume extraction collects all debris
- ❑ Cleaned area can be tightly defined
 - Adjustable scan width maximizes throughput while limiting affected area
- ❑ Very low heat input – NO distortion effects
- ❑ Parts immediately available for next process step



Compatible with:
Stainless Steel
Galvanized Steel
Al 3000

Mild Steel
Al 5000

LightWELD XC Full Welding Cycle

Pre-Weld clean to remove rust. Switch nozzles and process mode for wire welding

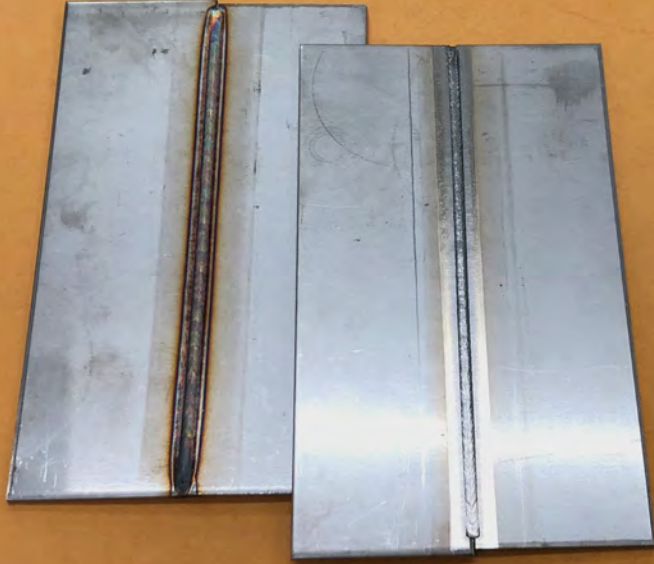


LightWELD XC Post Weld Cleaning

Remove soot, weld-related debris and discoloration

Stainless Steel, 2 mm

Standard Laser Weld

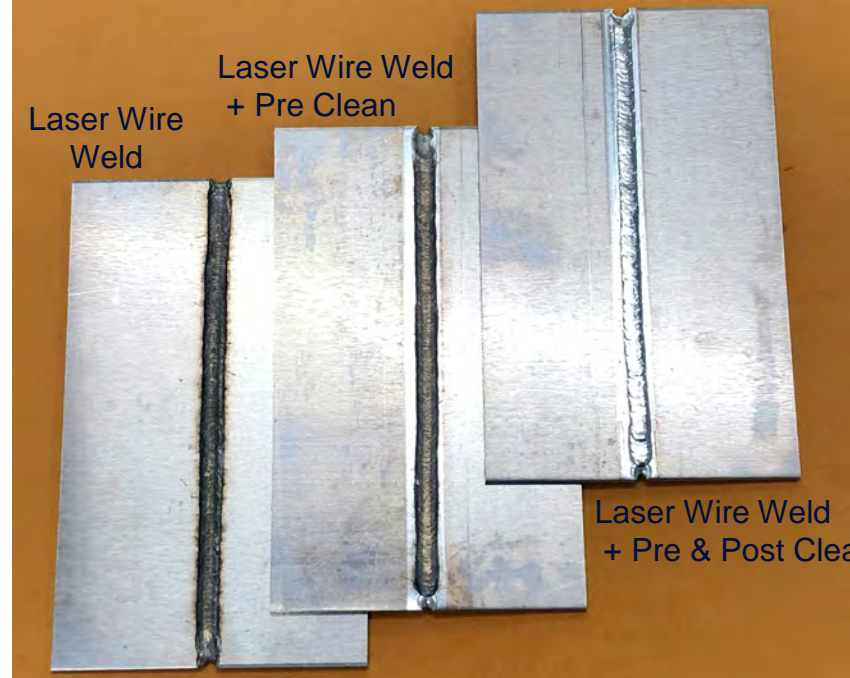


Laser Weld + Post Clean

Aluminum 5000, 2 mm

Laser Wire
Weld

Laser Wire Weld
+ Pre Clean



Laser Wire Weld
+ Pre & Post Clean

LightWELD XC – Additional Details

3 x Nozzle tips

- Notched single-point, Dual tip, Hard-metal point (for thin insulating surfaces)

Non-metal or Insulated surfaces

- Not suitable for cleaning (Tip-part contact safety circuit not satisfied)

Web page interface for parameter modification

- Adjustment of Power, Pulse frequency (50 kHz) and Pulse Duty Cycle (20%)
 - Wobble Length (15 mm) and Frequency (300 Hz), also from front panel

No upgrade path from standard LightWELD

- Cleaning only available on LightWELD XC model

LightWELD Standard and XC Pricing

Pricing

Model	BASE PRICE	Includes	Functions
LightWELD 5m-16 ft . Fiber Cable	\$21,700	**Start up kit, welding computer 12 month warranty, IPG support	Laser Fusion Welding - limited laser cleaning-..200
LightWELD 10m-32 ft.Fiber Cable	\$22,500	**Start up kit, welding computer 12 month warranty, IPG support	Laser Fusion Welding- limited laser cleaning- .200
LightWELD XC 5m - 16 Fiber Cable	\$26,950	**Start up kit, welding computer 12 month warranty, IPG support	Laser Fusion Welding Laser Cleaning = .600 wide
LightWELD XC 10m 32 Fiber Cable	\$27,750	**Start up kit, welding computer 12 month warranty, IPG support	Laser Fusion Welding Laser Cleaning = .600 wide

**Start Up Kit - Includes LightWELD helmet, pair laser glasses, nozzle set, 5 Cover glasses, plug, ethernet cable, manual, Preset Weld Conditions

Wire Feed Option and Kit - \$1,900 - Digital Wire Feed - .030 - .060 Wire- AL, SS, ST standard wire,

Other options:

Spare Set Nozzles - \$120 set 4 nozzles Pack 5 Cover Slides \$ 65

Welding Cart - \$1300 Shield Gas Set Up - \$495.00

Additional Laser Glasses - \$200

LightWELD helmet - \$350

LightSAFE Enclosure - \$225 ft w/interlocks-ANSI 136-1



THANK YOU

Authorized IPG Nationwide Distributor

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