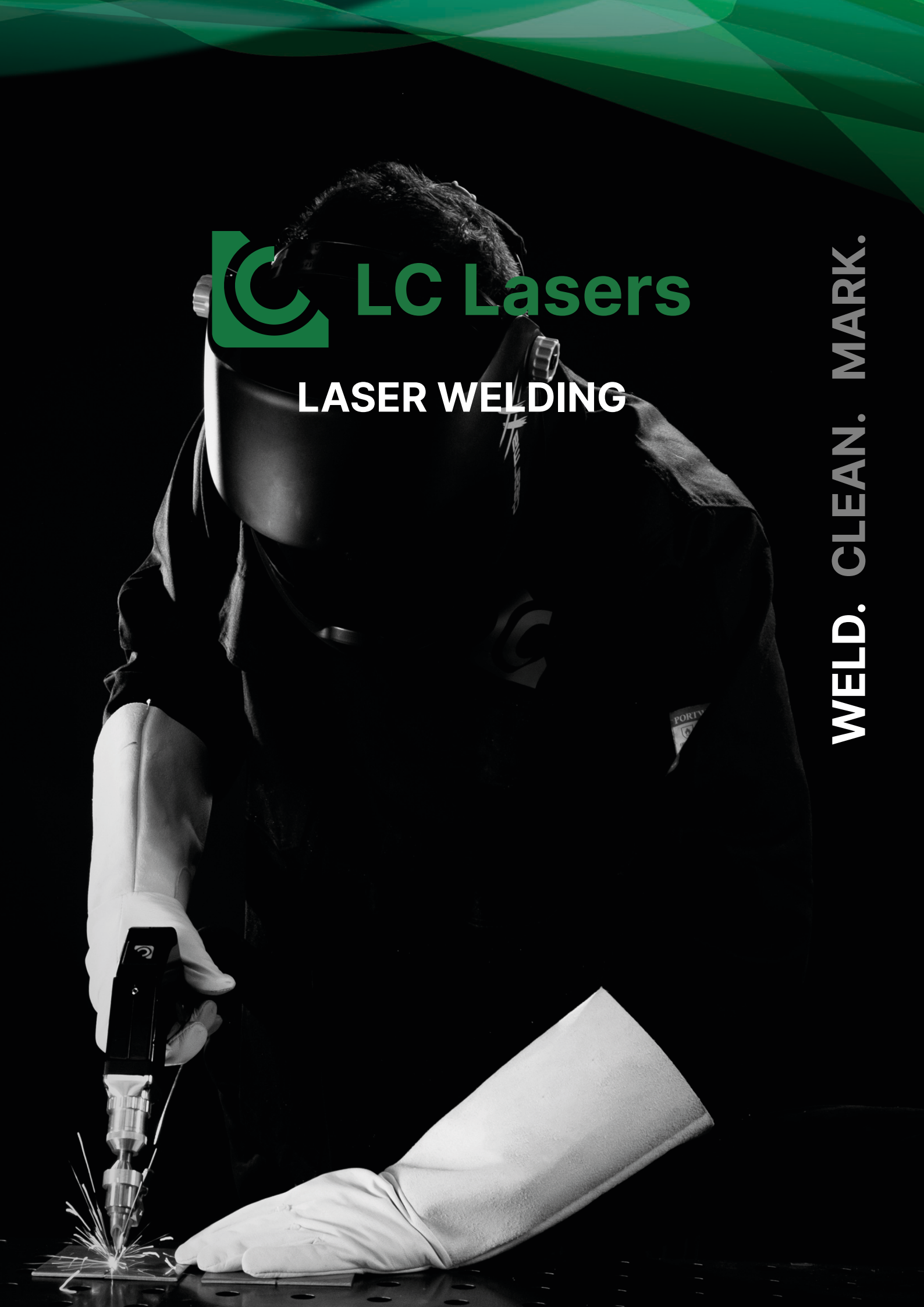
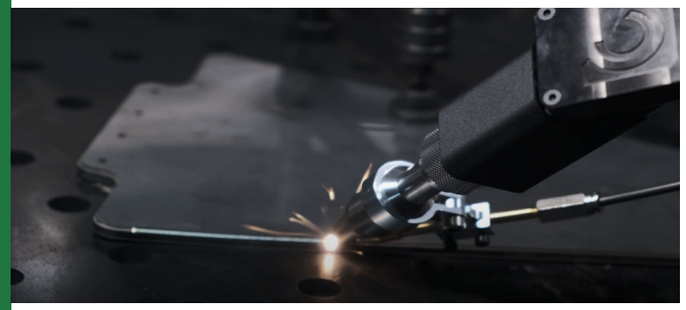
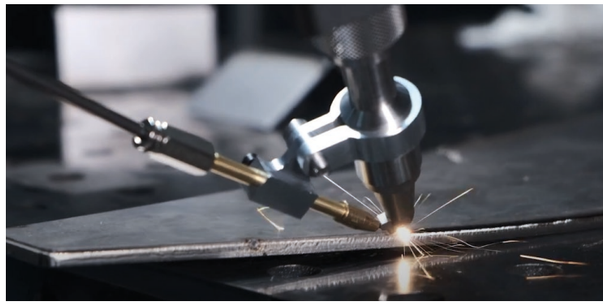

LC Lasers
LASER WELDING
WELD. CLEAN. MARK.





Global presence

Own manufacturing and original design

At LC we work to offer the best laser solutions in the world of welding, industrial cleaning and product marking and engraving.

LC Lasers

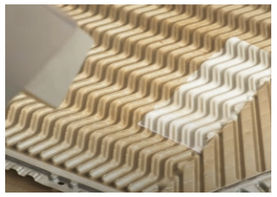
WELD. CLEAN. MARK.

Analysis, versatility and customization

Every day we work to give our clients maximum satisfaction. We aim to ensure that your laser equipment is the most suitable for you. We want it to be the best option in the laser world and that is why we want to advise you so that you make the perfect decision. We offer 100% personalized solutions to each client.

Production and design in Spain

At LC we produce laser equipment in our facilities, to provide a fast, efficient and high-quality service. Thanks to our production system we can ensure every detail and finish of our machines.



Quality and reliability

Our components are from top brands so that your laser equipment works at 100% from the first moment. We work with rigorous systems to improve controls and ensure the highest performance of the equipment.

After-sales service

We offer a comprehensive 2.0 after-sales service, with telephone and email support and, if required, in-person assistance. We have qualified technicians who provide online and in-person training, as well as offering a rigorous and fast technical service. We seek to offer the fastest and most effective solution possible.

LC Project

At LC Lasers, we understand that each industry has its own needs and challenges. That's why we offer tailor-made projects specifically designed to adapt to any industrial application. Our commitment to innovation and excellence allows us to create customized solutions that optimize productivity and improve efficiency in your processes.

I+D

Our Research and Development (I+D) team is made up of experts who continuously work on developing advanced technologies and innovative solutions. We closely collaborate with our clients to understand their requirements and provide the necessary technical support, ensuring that each project meets their expectations.

Automation and Robotic Solutions

Automation is key in modern industry, and at LC Lasers, we are at the forefront of this trend. We offer robotic solutions that not only enhance process efficiency but also improve safety and reduce operational costs. Our automated systems integrate seamlessly into existing operations, providing a smooth transition toward digitalization and automation.

Advantages of Choosing LC Lasers

Customized Solutions
Projects tailored to the specific needs of your industry.

Continuous Innovation
A dedicated I+D team focused on developing advanced technologies..

Enhanced Efficiency
Automation that optimizes processes and reduces costs.

Technical Support
Consulting and technical assistance throughout all phases of the project.

Why LC Lasers?

- **We have the lightest gun on the market**
- **Equipment with over 10 patents guaranteeing technology and innovation**
- **The easiest and fastest wire retraction system on the market**
- **The only European manufacturer**
- **The only company with a real CE certification**
- **The only one with a machine and cabin certified together for total protection**
- **The highest laser power on the market**

For greater peace of mind, all our laser welding systems come with a **2-year laser warranty,** demonstrating the confidence we have in our products and their ability to meet the highest industrial requirements. LC Lasers offers a comprehensive solution that combines cutting-edge technology with customer-focused service, ensuring that your company is always in good hands.

2-year laser warranty

Index

Welding Technology

Laser Technology

At LC Lasers, we employ high-precision, versatile, and efficient laser technology, ideal for various industrial and technological sectors. Its non-contact nature enhances productivity, reduces maintenance, and prevents hazardous or chemical residues. This allows for process optimization, improving quality and efficiency compared to traditional methods.

1
Speed and Precision

2
Minimal Deformation

3
Simple to use, no extensive experience required

Laser Welding

Our laser welding is an advanced and modern method to join materials with precision and durability. It uses a laser beam to melt and recrystallize the surface, allowing welding with or without additional material through an automatic wire-feeding system.

It stands out for its speed, process optimization, and cost reduction. Its advantages include low smoke generation, precise welds without marks or discoloration, and minimal material deformation. Additionally, it requires no rework and minimizes the use of consumables.

Our machines are easy to use, with interchangeable nozzles and an intuitive control system, ensuring optimal results even for inexperienced operators.

THE BEST WELDING QUALITY IN THE MARKET

LC-WELD PRO Equipment

Connectivity, productivity, and precision at 1500W.

Feeder V.1

Rotation system included.

10” Touchscreen

A single touchscreen to control the wire feeder and the laser equipment.

Easy Connect

Easily connected to the cabin, internal connection system, and system updates.

LC-GUN V4.4

Latest generation laser welding gun.

Laser Quality

Laser with 42% efficiency and high beam quality.

Technical Information

	LC WELD PRO
Model Reference	LC-SL1500W-PRO
Laser Power	≤1500W
Laser Type	CW HPP
Power Consumption	<5500 W
Voltage	220-240VAC | 50 Hz
Maximum Energy Consumption	20 A
Wavelength	1070nm ±10
Power Range	1-100%
Frequency Range	<50 kHz
Laser Efficiency	42%
Connection Type	QBH
Fiber Length	10m
Output Fiber Diameter	50 µm
Weight	<150kg
Dimensions	450x720x1100 mm
Ambient Temperature	5~40ºC
Humidity	10-90%
Cooling Method	Water Cooling
Storage Temperature	-10-50 ºC
Laser Class	4 (IEC 60825-1)

Technology 4.0

Water Cooling

Bottle Holder

Cost and User Control

LC-WELD SMART Equipment

Efficiency in laser welding like never before.

Feeder V.1

Rotation system included.

7” Screen

Simple control with intuitive and user-friendly software.

LC Electronics

Entirely developed by LC with proprietary firmware.

Laser with 40% Efficiency

High-efficiency laser.

LC-GUN V4.4

Latest-generation laser welding gun.

Información técnica

	LC WELD SMART
Model Reference	LC-SL1500W-SMART
Laser Power	≤1500W
Laser Type	CW
Power Consumption	<4200W
Voltage	220-240VAC | 50 Hz
Maximum Energy Consumption	20 A
Wavelength	1070nm ±10
Power Range	1-100%
Frequency Range	<20 kHz
Laser Efficiency	36%
Connection Type	QBH
Fiber Length	10m
Output Fiber Diameter	50 µm
Weight	<80kg
Dimensions	875x447x865 mm
Ambient Temperature	-10-50ºC
Humidity	10-90%
Cooling Method	Gas Cooling
Storage Temperature	-10-50 ºC
Laser Class	4 (IEC 60825-1)

Compact Design

Gas Cooling

High Profitability

Best balance between efficiency and quality

LC-WELD NEO

The best welding quality in a compact device

7” Touch Screen

A single touchscreen to control the wire feeder and laser equipment.

Feeder V.2

Includes a rotation system.

Laser Quality

Laser with 42% efficiency and high beam quality.

LC-GUN V4.4

Latest generation laser welding gun.

Información técnica

	LC WELD NEO 3.0	LC WELD NEO 4.0
Model	LC-WELD NEO	LC-WELD NEO
Laser Power	800w	1200w
Electrical Consumption	<4000W	<4800W
Voltage	220-240VAC	220-240VAC
Wavelength	1070nm ±10	1070nm ±10
Frequency Range	<50 kHz	<50 kHz
Power Stability (2 Hours)	<1,5%	<1,5%
Power Stability (24 Hours)	<2%	<2%
Laser Efficiency	**42%**	**42%**
Laser Class	4 (IEC 60825-1)	4 (IEC 60825-1)
Approx. Hose Length	6m	6m
Approx. Dimensions	440x690x430mm	440x690x430mm
Type	CW HPP (up to 60% pp)	CW HPP (up to 60% pp)
Fiber Microns	25 µm	25 µm
Cooling	Air	Air
Safety	Plug and play	Plug and play
Operating Environment	0ºC ~ 40ºC	-5ºC ~ 35ºC

Ultra-compact design

Air cooling

Feeder screen

Best price-quality ratio

Feeder

Includes special rollers for aluminum

V.1

Detachable spooler without the need for an external system

Improved drag quality

Motor with Encoder, manufactured in Italy

V.2

7” screen on the feeder

Optimized drag efficiency

Swiss Encoder Motor

Detachable spooler without the need for an external system

Gun - LC-WELD GUN SM V 4.4

New S.M. Technology

The directional mirror system replaces the galvanometric system. Impossible internal planes.

Optimized Tube

Easy insertion and collaring. Pressure fit and subsequent threading. Millimeter-marked tube to find the focal distance with the help of new software.

Improved Duty Cycle for Aluminum (Between 2 and 3 times superior)

Improved Focal Distance

The focal distance does not change with nozzle replacement.
New Software*.

Includes Laser Cleaning Option

More Ergonomic

Lighter weight and a more manageable system.

Driver Included in the Gun

Eliminates interference issues.

Protective cover and screw-fastened lens and protector compartments.

Easy maintenance and enhanced protection of the optical circuit

Built-in lens change tool

Software

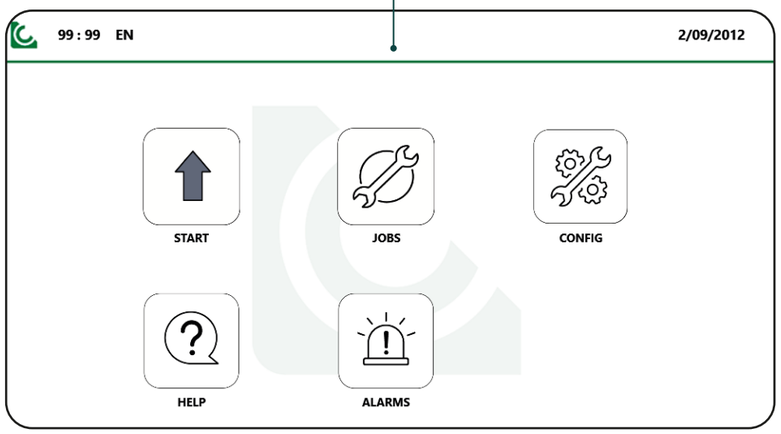
LC-WELD NEO
LC-WELD SMART

Work Modes: SYNCHRONIZED AND MANUAL

Two work mode options:

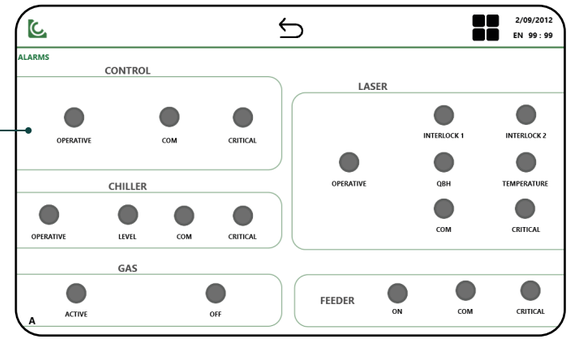
SYNCHRONIZED: Works based on preconfigured parameters.

MANUAL: The user can work with total freedom and customization, and configure 'work profiles' to preconfigure SYNCHRONIZED parameters.



Alarm Screen

An alarm screen that alerts us to possible errors that may occur in the equipment and their locations.

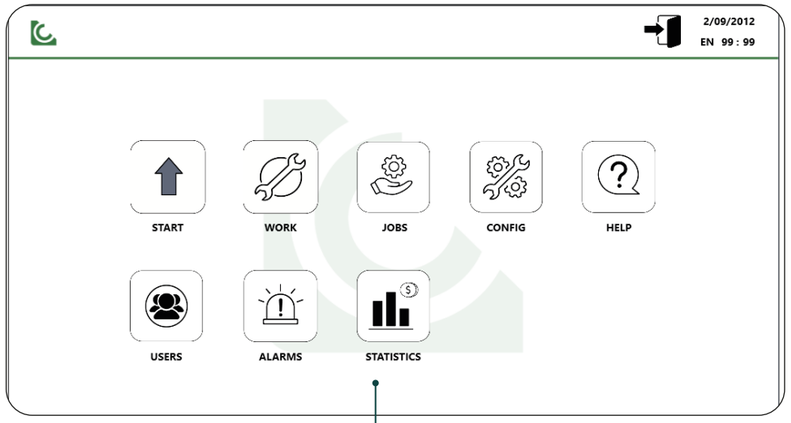


Support: Documentation, Technical Assistance, and FAQs

Direct access on the same device to:
- Documentation (manual, CE, warranty)
- Technical support
- Frequently asked questions

LC-WELD PRO

ADDITIONALLY, THE SOFTWARE OF LC-WELD PRO OFFERS US:



Work Modes: SYNCHRONIZED, MANUAL, AND TASKS

Three work mode options:

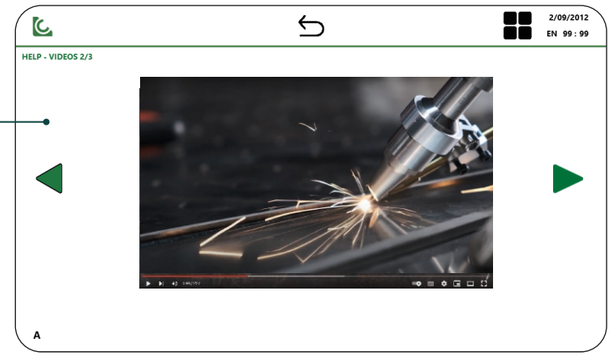
SYNCHRONIZED: Works based on preconfigured parameters.

MANUAL: The user can work with total freedom and customization, and configure 'work profiles' to preconfigure BASIC parameters.

TASKS: Works based on pending tasks and pre-established work schedules.

Videos and Documentation on the Device

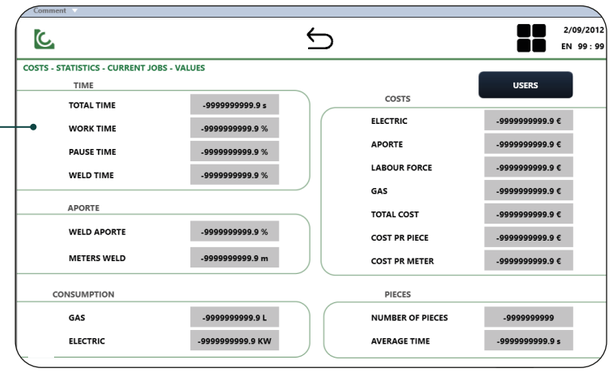
Direct access on the same device to:
- Videos for troubleshooting
- Documentation (manual, CE, warranty)



Cost Control and Statistics Visualization

Cost control divided by tasks or general equipment usage.

Calculates the cleaning cost and the cost per meter of welding.



Materials

Material Table	WELD
Stainless Steel	✓
Galvanized Steel	✓
Aluminum	✓
Titanium	✓
Carbon Steel	✓
Special Alloys	✓

1
Minimal deformation

2
Elimination of the reworking process

3
More penetration

Penetration Comparison by Equipment

	Neo 3.0	Neo 4.0	Smart	Pro
Maximum	3mm	4mm	5mm	6mm
100% Duty Cycle	2mm	3mm	4mm	5mm

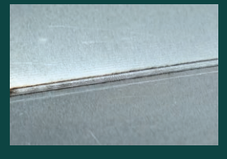
* Copper 1mm

All materials

Applications

Applications in Industry

Laser welding allows reducing the heat-affected zone when working, enabling different joining and welding techniques. Laser welding machinery has great versatility, especially due to its wide penetration range and laser power. Different applications of laser welding equipment can be highlighted: electronics, automotive parts, plating, metal furniture, some appliance components, pipes and tubing, metal tools, containers for various industries, food industry (machinery, packaging, or cutting blades), pharmaceutical industry, titanium and aluminum parts...

Why Choose Our Machines?

1 Pistol V 4.4

- The smallest and lightest on the market.
- The only one on the market with Steering Mirror (2 axes).

2 Software

- Reliable PLC.
- High usability.
- Screen up to 10".

3 Feeder

- Combined encoder and motor system.
- Best wire retraction on the market.

4 Safety

- Guaranteed European certification.
- "Plug and Play" cabin for easy installation.
- The only ones offering a certified machine and cabin set.

Product designed and manufactured in Spain
by LC Lasers

Best quality on the market

Technical Assistance Service
(throughout the territory)

Fast spare parts

Comprehensive Service

We offer
TRAINING courses

Safety

Workspace

The proper configuration of the workspace is essential to ensure the safety and efficiency of laser welding processes. There are different ways to adapt the environment to make it suitable and secure, optimizing both operator protection and equipment performance. Below, we describe these methods designed to minimize risks and maximize process efficiency:

LC-CABIN

Laser Safety Cabin

Modular installation that can be adapted to the customer's work environment. It is equipped with the necessary safety systems to comply with regulations.

At LC Lasers, we offer a comprehensive solution alongside our equipment, allowing each customer to adapt the cabin to their workspace and easily comply with the required safety measures.

General Features

LC-CABIN V1

LC-CABIN V2

Similarities

Light Signal

Traffic light indicator to show when the laser is in use:

GREEN: No danger, laser off.
YELLOW: No danger, laser ready.
RED: Danger, laser active.

Safety Labels

Safety labels compliant with European standard EN60825.

Doors

Doors with a security sensor to prevent accidental openings.

Call Button

Call button that emits an audible and luminous signal.

Lockdoor

Security locking system for safety.

Differences

LC-CABIN V1

Material: Aluminum and Rock Wool

Aluminum cabin with rock wool insulation.

Thicker and More Solid Cabin

Features composite aluminum panels with rock wool filling, making it a thicker and stronger cabin.

LC-CABIN V2

Material: Aluminum

Modular cabin made of high-quality, high-resistance aluminum panels and pillars. Tested and certified to protect against the laser.

Cost-Effective Solution and Quick

This certified cabin is a more economical solution with a faster and easier assembly process.

Personal Protective Equipment

Beyond the proper configuration of the workspace, it is crucial that the operator working with laser cleaning is protected with the appropriate PPE. People within the designated area must also protect themselves with PPE.

Safety Glasses

Laser Protection Glasses

Laser safety glasses are specifically designed to provide adequate protection when using laser equipment, complying with the EN 207 standard, which regulates the safety of these devices. These glasses are essential for protecting the eyes from radiation of different wavelengths. For Nd lasers, it is necessary to use DLB6 protection level glasses. This protection level ensures that the glasses absorb laser energy at this wavelength without compromising user safety, minimizing the risk of eye injuries, such as retina or corneal burns, which could lead to permanent vision loss.

Clearmaxx Mask

Shade 3 Protection Screen

The Clearmaxx protective mask, equipped with a shade 3 screen, is specifically designed to provide additional safety for tasks involving exposure to ultraviolet rays and particle projections. This equipment meets the highest safety standards, offering an effective barrier against risks caused in industrial and medical environments, such as UV rays and fragment impacts. Although the Clearmaxx mask is not designed to protect against laser radiation, it serves as an ideal complement to laser safety glasses compliant with the EN 207 standard. By combining both, a complete protection system is achieved: The glasses protect the eyes from specific laser radiation The Clearmaxx mask protects the face from other risks in the work environment

MASTR - Laser Welding Helmet

Full-Face Helmet for Laser Welding

Designed with safety in mind, MASTR offers complete protection for the face and eyes. This helmet is specifically designed to protect against the light radiation that each operator is exposed to during welding processes with portable laser systems operating in the near-infrared.

MASTR provides complete defense against diffused laser radiation generated by the source and incoherent UV-IR light produced during the welding process.

• Specifically designed for welding and manual laser cleaning systems

• Extended protection for the eyes and face

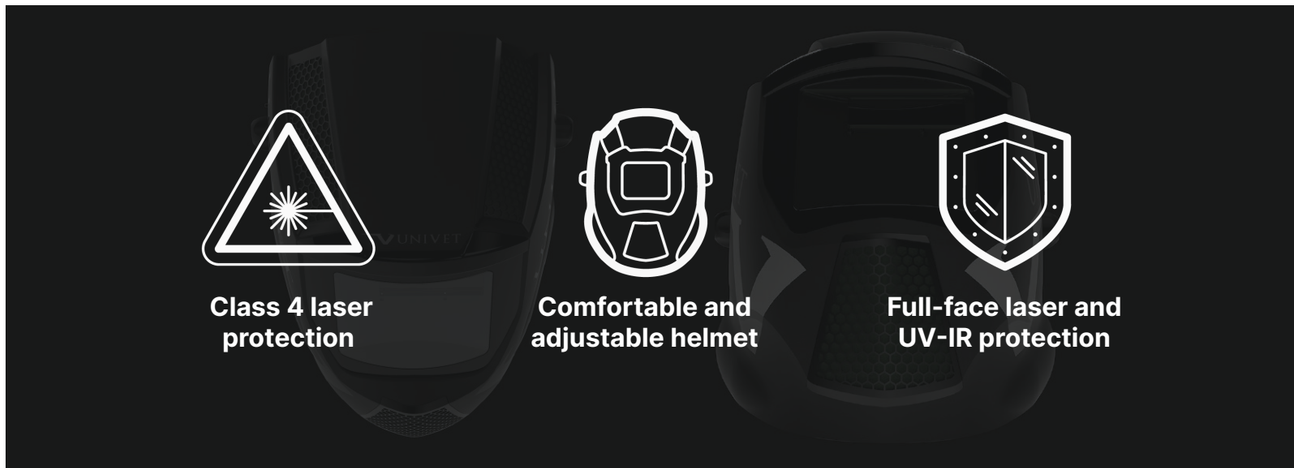
• Fully constructed from composite material resistant to laser radiation

• Wide-spectrum laser protection filter ensuring visibility of the most commonly used alignment pointers (630-670 nm)

•Digitally adjustable auto-darkening welding filter (ADF), with a “3” setting in a clear state

• Lightweight (700g) for maximum comfort during prolonged use

• Adjustable height and tilt system for the helmet, along with a fully adaptable headband



Safety and Certifications

At LC Lasers, safety is our top priority. That is why we always place it at the center of our operations. We provide the necessary training information to ensure that users can work correctly with laser welding equipment.

WE CARE ABOUT YOU

"We Care About You" is the laser safety document that we provide with our equipment. It details protocols, best practices, and safety systems for working with laser technology.

Additionally, it includes technical explanations on how this type of technology works.

Regulations

Article 6 of Directive 2006/25/EC, concerning the minimum safety and health requirements regarding worker exposure to risks from physical agents (artificial optical radiation), requires that workers exposed to optical radiation risks receive information and training. This is particularly important for workers using laser products of Class 3B and Class 4. The training must include:

- Measures taken to ensure safety.
- Exposure limit values and associated potential risks.
- Results of evaluations, measurements, and/or calculations of exposure levels to artificial optical radiation, along with explanations of their significance and potential risks.
- How to detect harmful health effects due to exposure and how to report them.
- Circumstances in which workers are entitled to medical surveillance.
- Safe working practices to minimize exposure risks.
- Correct use of appropriate personal protective equipment.

The above provisions are subject to the obligations set forth in Directive 2006/42/EC of the European Parliament and the Council of May 17, 2006, regarding machinery, amending Directive 95/16/EC, and Directive 2006/25/EC concerning the minimum safety and health requirements related to worker exposure to risks from physical agents (artificial optical radiation). In addition to European regulations UNE EN 60825-1 and UNE EN 60825-4 regarding laser safety and laser classification, UNE-EN 208 (2010) and UNE-EN 207 (2018) establish eye protection standards, which are essential for the safe use of the equipment.

Certificates

All our equipment is certified by the laser safety expert company PROCARELIGHT.
This certification has involved exhaustive studies verifying its reliability, safety, and compliance with all regulations.

ULTIMATE PRECISION, ABSOLUTE SAFETY

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