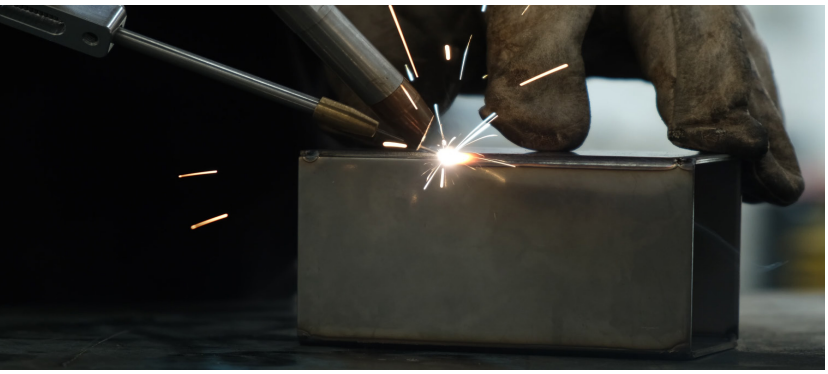
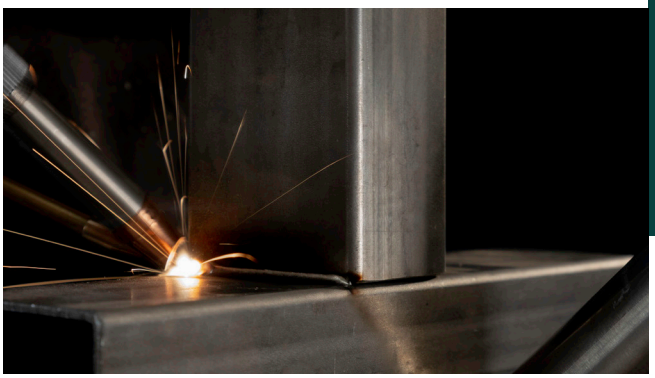
Laser welding PRO

LC-WELD PRO by

Company

LC is a leader in laser technology, we develop all kinds of solutions for industries and businesses.
We have a qualified team with big experience in laser and eco-efficient technologies.
We are a company committed to industrial productivity, energy efficiency and taking care of the environment.
Our biggest goal is to make laser technology accessible worldwide, we want to share our knowledge and make the job as easy as possible.





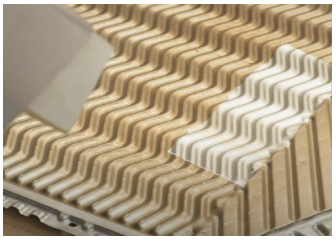
Manufacturing Laser Technology

Analysis

Day by day we work to give our clients the best service. We want that every laser equipment is the most suitable for every case. LC is comitted to offer the best option in the laser technology world, we will advise you so you can make the perfect decision. We offer 100% personalized solutions to each client.

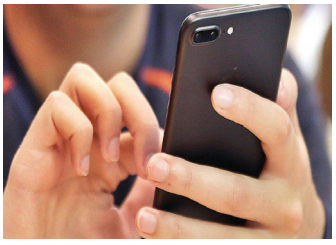
Production

LC produces laser equipment in our facilities, to provide a faster, more efficient and higher quality service. Thanks to our production system we can ensure every detail is perfect and our machines are ready to work.



Quality

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



After-sales service

We offer a comprehensive 2.0 after-sales service, with phone attention, mail and videocall assistance. We have qualified technicians who provide training online and face-to-face, in addition to offering a technical service thoroughfull and fast. We aim to offer the fastest and effective solution as possible aim.

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Laser Type and Technology

1
Speed and precision

Laser technology is very versatile, it can be applied in cutting and engraving, laser marking, even in cleaning. Laser welding is increasingly present in different sectors and can be used in metal surfaces, stainless steel or other welding processes in industries. It can replace traditional arc welding, stainless steel plate, iron plate, aluminium plate and the welding of other materials.

2
Minimal deformation

The laser welding machine has a high quality fibre laser and is designed to be easy and comfortable to use, it has an integrated interactive control system that can vary the finish, depth and width of the weld, according to the work to be done depending on the surface.

3
Easy to use, no experience required

LC WELD PRO is the improved version of the latest generation of LC laser welding equipment. It is a device with new functionalities and is much more user-friendly.

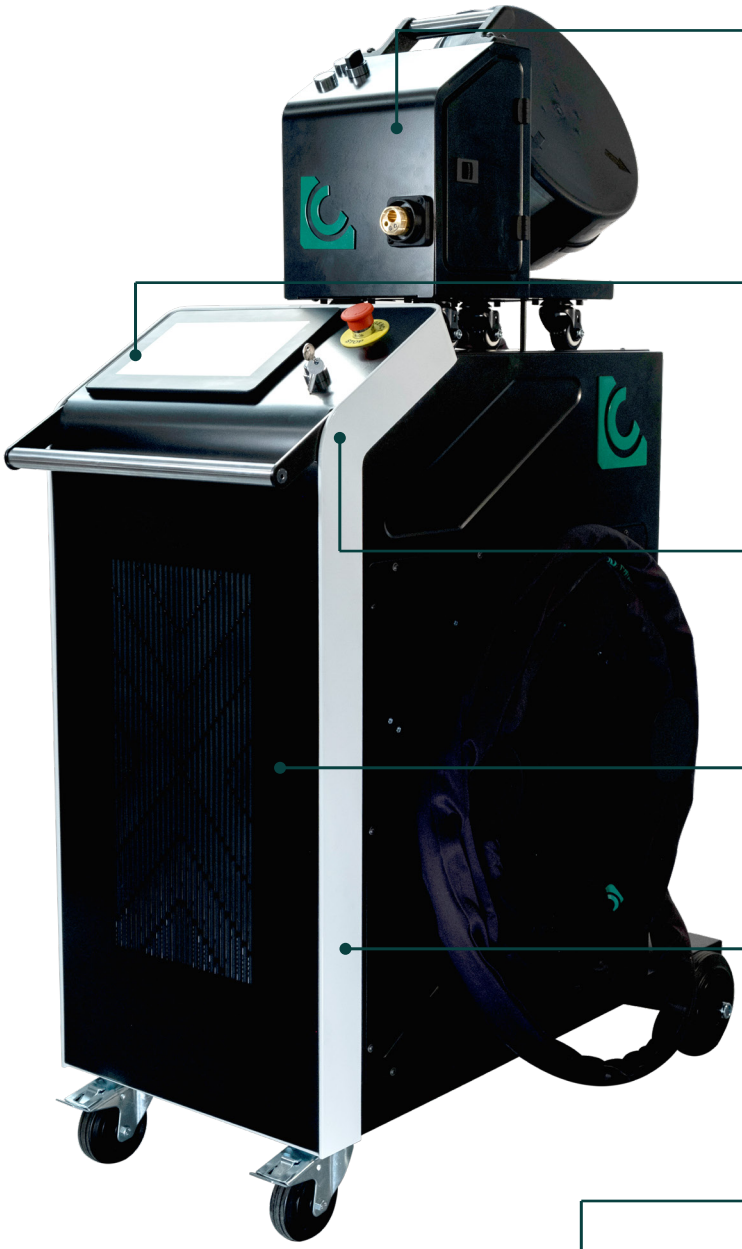
The laser welding equipment has a gun designed exclusively by LC, a new 40% more efficient laser generator and a new software system designed specifically for laser welding.

The programme allows us to work with user control at different levels, it has 3 work functionalities to adapt to each user, a technical help system in the same equipment and the possibility of controlling welding costs and obtaining statistics. The equipment can work with or without material input. Fibre laser welding can be used on surfaces such as stainless steel sheets, carbon steel or galvanised sheets, thus allowing the arc welding system to be replaced.

In addition, laser welding can be used at high speeds, with very fast welds. The deformation in this type of welding is minimal, with a very focused and reduced heat input on the material. Laser welding does not require high skilled labor. Other advantages of laser welding are: low fume generation, the possibility of working on very small and detailed seams, eliminating the need for later polishing and minimal heat input.

LC-WELD PRO equipment

Our laser welding equipment is convenient, easy to use and offers great versatility.



Removable feeder

Touch screen

A single touch screen to control the wire feeder and laser equipment.

Electronics

All developed by LC

Own firmware

Laser Quality

Highly efficient laser

Wheels

Improved mobility

Welding gun

- Laser emission light
- Galvanometric motors made in the USA
- Original design by LC

Interchangeable nozzle

Possibility of varying laser nozzles for all types of jobs

Improved running factor

Improvement in difficult welds such as aluminium

General characteristics

Control

Designed system with a controller including in a wider range. Possibility to work from different modes.

Easy to use

This laser machine does not require a great deal of experience on from the worker as is the case with traditional welding equipment.

Thread contribution

Removable winder without the need for an external system. Improvement in the quality of the take-up.

Clean welding

Fast, consumable-free, clean and discolouration-free welding.

Precision

Laser welding makes it possible to work on very small and detailed seams.

Cooling

German-made radiator with its own design and control.

Convenience

Lightweight design, comfortable and easy to move and operate, for more comfortable working.

Speed

They have a welding speed of 0-60mm/s.

Incorporates laser cleaning

Savings in electricity consumption, working hours, gas and material.

Great depth

The different LC models can reach up to 5mm welding depth.

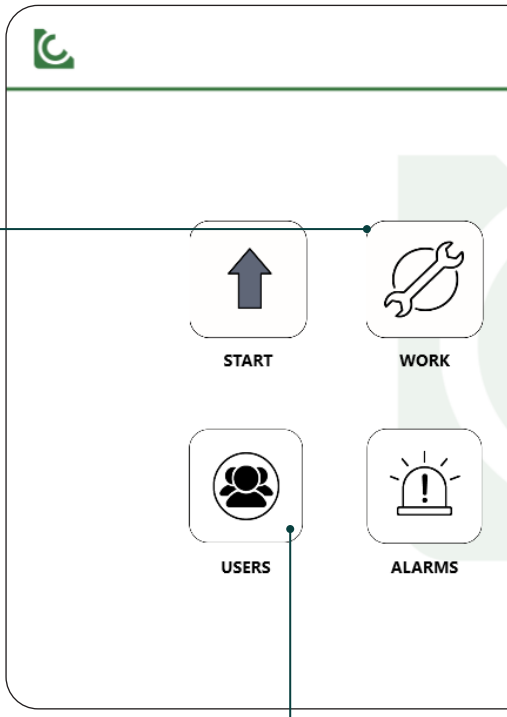
Great versatility

The same machine can be used for many types of work, depends on the parameters applied.

Gun by LC

Made with higher quality aluminium.

Software



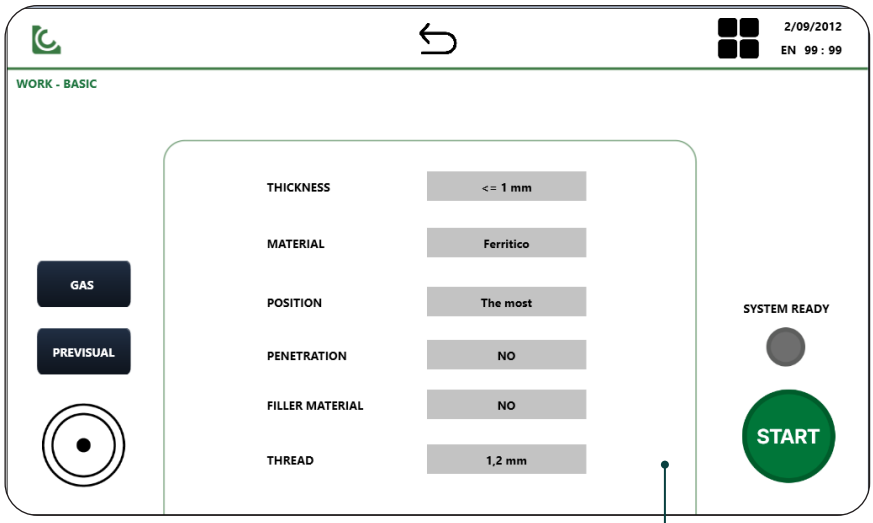
Work: Basic, Advanced & Jobs

Three working options:

- ***BASIC***: Work from pre-configured parameters.

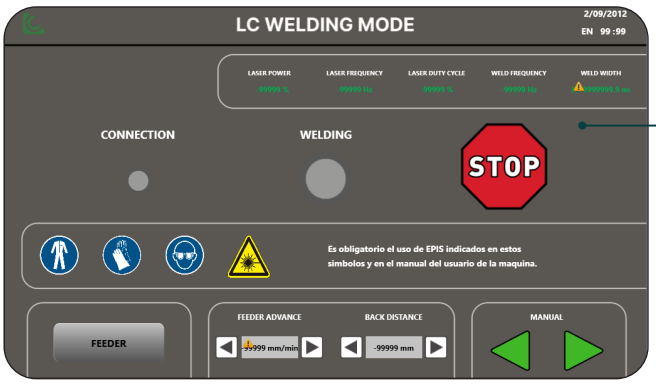
-***ADVANCED***: the user can work with total freedom and parameterisation, and configure 'work profiles' to preconfigure the BASIC parameters.

- ***JOBS***: Work from previously established pending tasks and jobs to be carried out.



Users

User access control. Creation of groups to assign jobs. Establish user levels for different permissions.



Welding screen

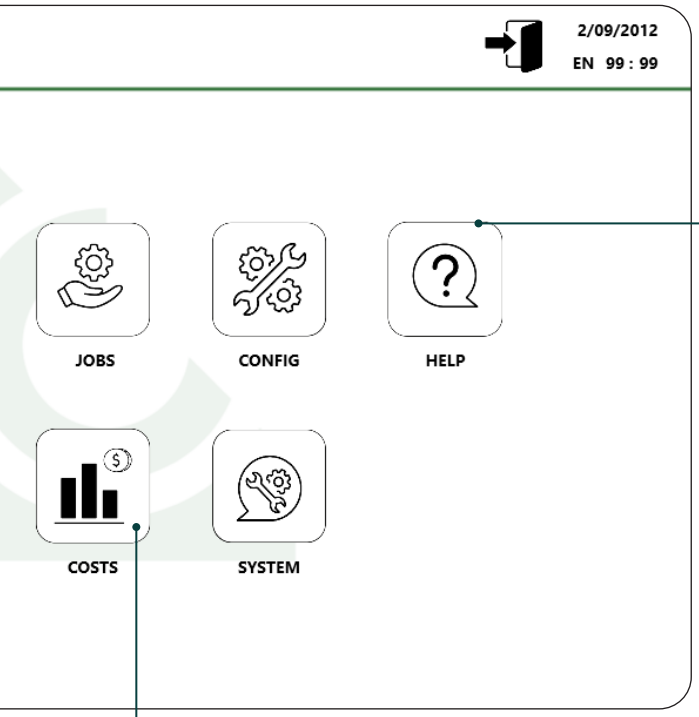
EPIS reminder, laser status indicators and feeder control.

Indicator light when the laser is operating.

BASIC woking screen

Integrated software designed and programmed by LC. Intuitive and easy to use, with different functionalities. Software that allows remote technical assistance, different work modes, job scheduling and user control at different levels.

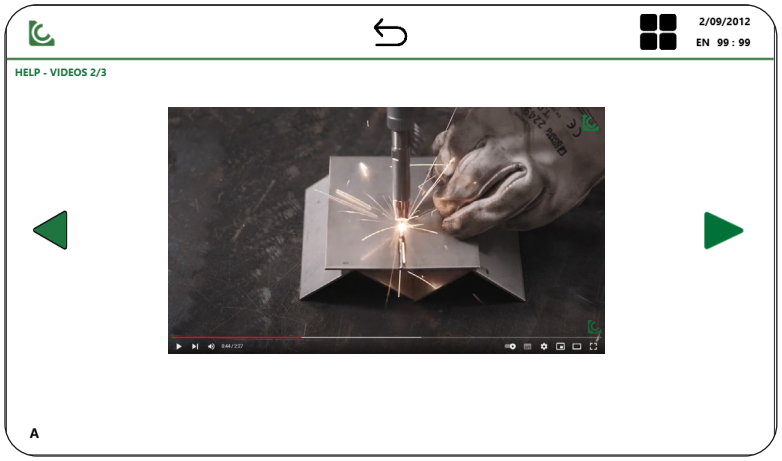
Depending on the user's permissions, the operator will have access to some functionalities or others.



Video and documentation on the same equipment

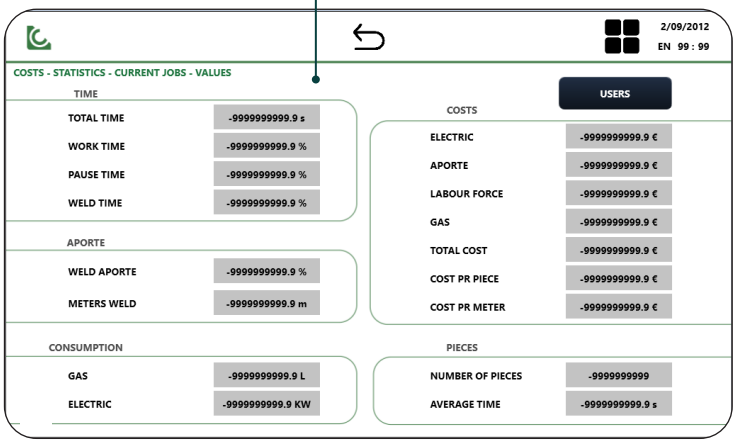
Direct access on the same computer to:

- Videos for questions and doubts
- Documentation
- FAQS



Cost control and statistics visualisation

Cost control broken down by job or overall equipment costs.



Feeder

Winding machine designed to work at low speeds, improved laser welding performance.

Electronic board manufactured by LC

Removable wire feeder without the need of an external system

Improved wire feed quality

Encoder motor made in Italy

Gears

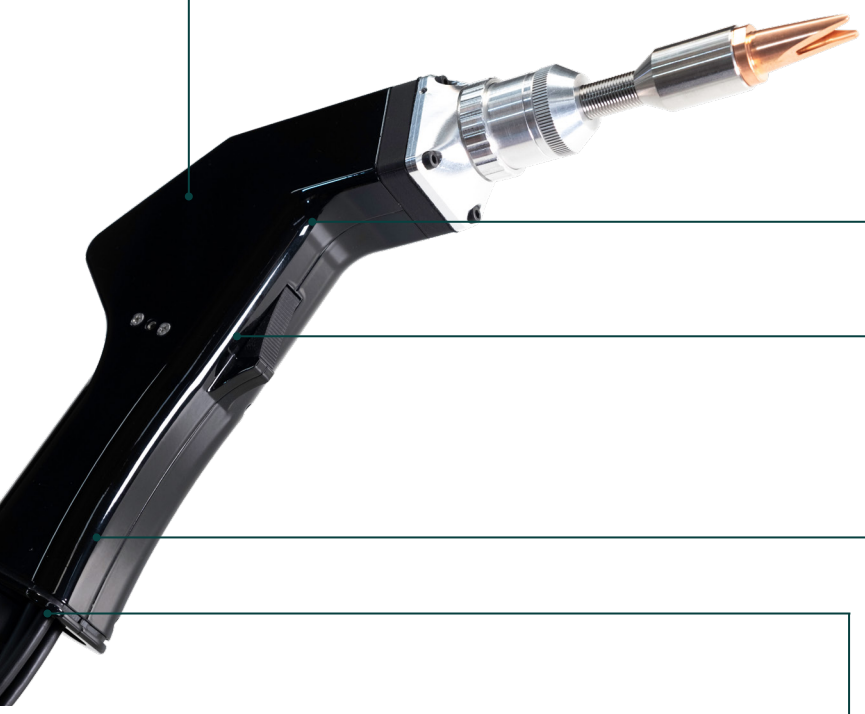
Double drive gear system for aluminium.

Gun

Status indicator light

Indicator when the laser is in emission.

LC-WELD PRO presents a new gun with a renewed and original design.



Highest quality aluminium

Original design by LC

Improved performance factor in aluminium (2 to 3 times higher)

Incorporates laser cleaning option

Single-axis gun

Reduced weight

Interchangeable nozzles depending on the job

- Different types of welding
- Laser cleaning

Materials and applications

Material tables

	WELDING
Stainless steel	✓
Galvanised steel	✓
Aluminium	✓
Titanium	✓
Carbon steel	✓
Special alloys	✓

1
Minimal deformation

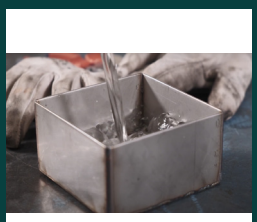
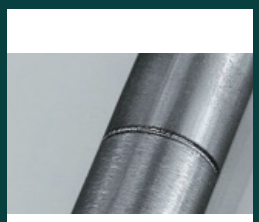
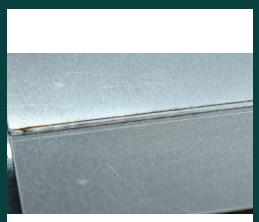
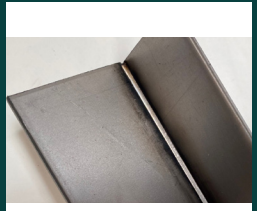
2
Elimination of the reworking process

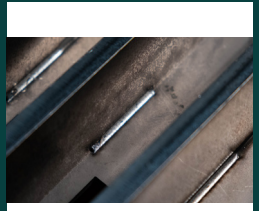
3
More penetration

Applications and Industry

Laser welding allows to reduce the affected thermal zone at the moment of working, being able to use different joining and welding techniques.

Laser welding machinery is highly versatile, especially due to its wide range of penetration and laser power. Different applications of laser welding equipment can be highlighted: electronics, automotive parts, veneering, metal furniture, some parts of household appliances, tubes and pipes, metal tools, containers for different industries, food industry (machinery, packaging or cutting blades), pharmaceutical industry, titanium and aluminium parts...



Laser security

LC has the necessary PPE to work with the LC-WELD PRO equipment.

Safety glasses

Mandatory for working with lasers, DLB 6 protection.

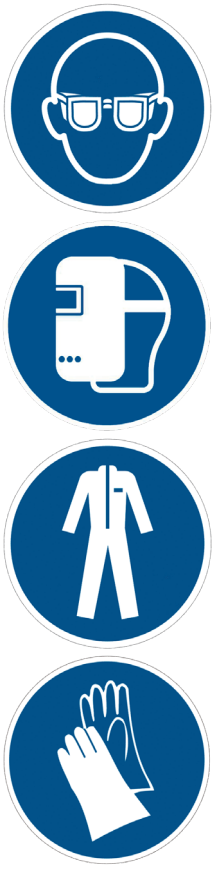
Note: Make sure your goggles provide protection for the laser beam and wavelength of your laser equipment. Consult an expert.

Welding mask

Necessary protection from UV light generated by the welding process.

Cabin

Adaptable according to the customer's needs, if necessary. LC-CABIN is a modular cabin to establish a controlled laser working area, in case the customer does not have one by his own means.



WE CARE ABOUT YOU.

Process comparsion

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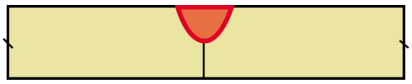
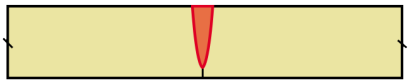
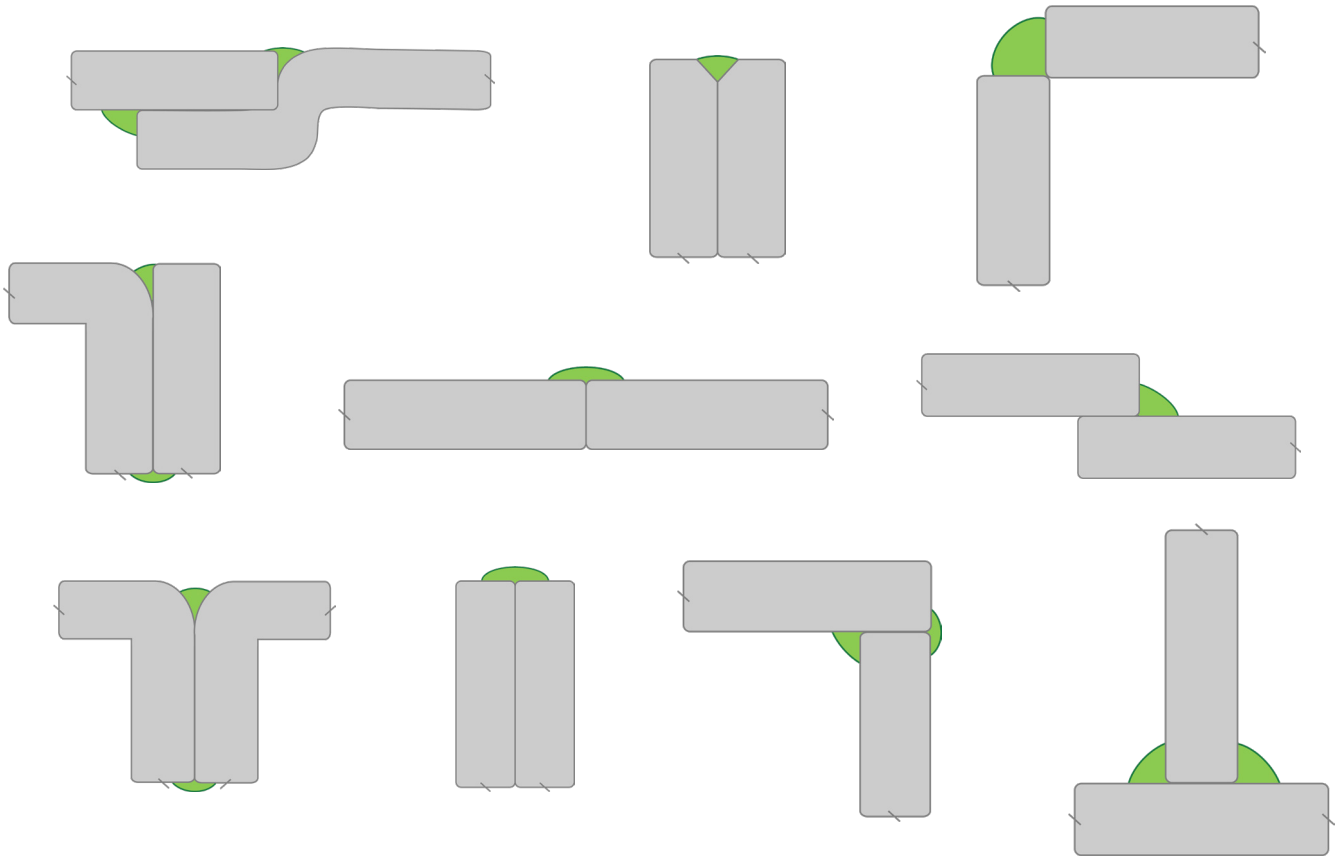
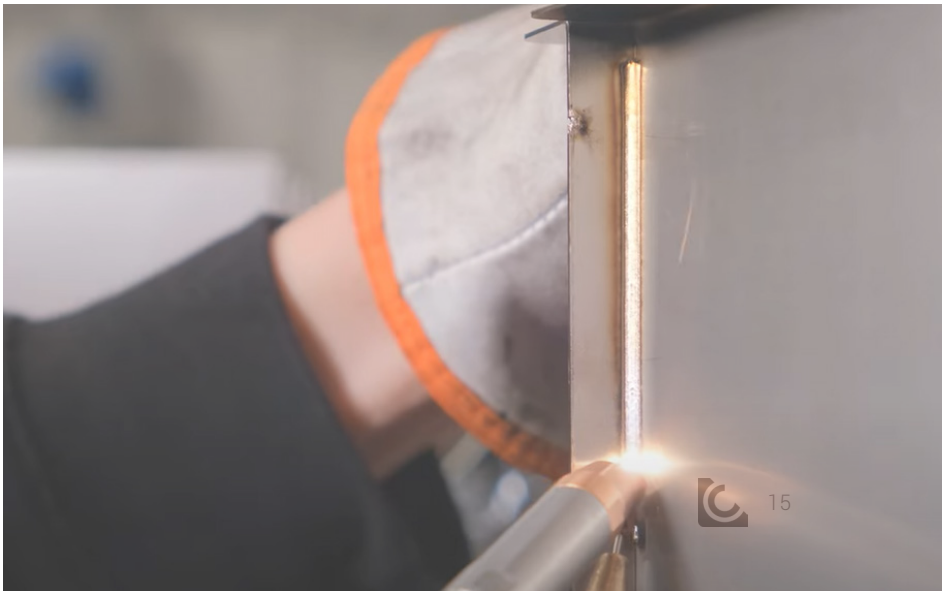
		
PENETRATION	1.0-1.5mm	Up to 5mm
SPEED	Slow welds	Very fast welds
DISTORSION	High deformation	Minimal deformation
ABILITY	Soldador con alta habilidad	No great experience required

Joint configurations



Technical information

	LC WELD PRO
Model	LC-WELD PRO
Product number	LC-SL1500W-PRO
Laser power	1500w
Power consumption	<5500W
Power supply voltage	220-240VAC
Wavelength	1070nm ±10
Frequency range	<50 kHz
Power stability (2 hours)	<1,5%
Power stability (24 hours)	<2%
Laser efficiency	42%
Laser class	4 (IEC 60825-1)
Weight	<110kg
Hose length Approx.	8m
Approx. dimensions	420x720x1100 mm



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