



## LC-WELD ROBOT

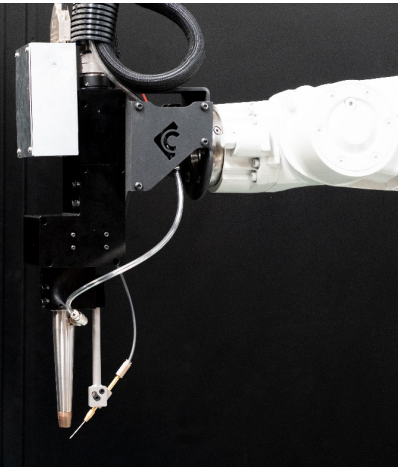
**WELD. CLEAN. MARK.**



# LC-WELD ROBOT

**LC-WELDROBOT** is our version of robotic welding, a piece of equipment with many functionalities and controls that allows us to perform different types of welding automatically and semi-automatically.

The equipment has a gun designed exclusively by LC Lasers, a 2000w laser generator to be able to work with the necessary power depending on the application and new intuitive software designed specifically for laser welding. This laser head and generator is ready to be integrated into a robot.



**Nozzles:** interchangeable for greater work versatility F150, F200 and F250.

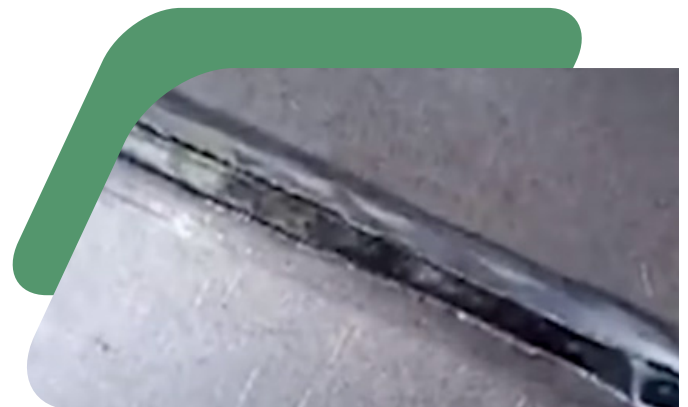
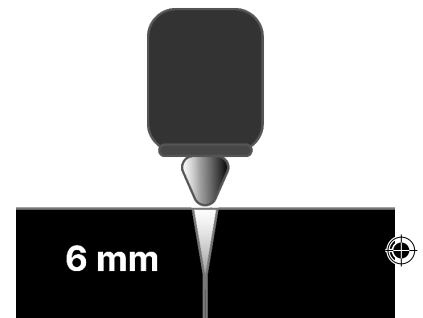
**Clean weld:** It is a very fast welding, very repetitive and precise, clean and with hardly any discoloration.

**Great versatility:** With a great capacity for parameterization and configuration, we can work with a wide range of applications.

**Filler material:** Removable feeder with a push-pull system installed on the robot itself that allows us to have maximum control of the thread and its position and to have the thread spool far away.

**Laser cleaning:** Cleaning can be carried out on the parts without having to change the nozzle, since the width that we can configure for the laser reaches up to 10mm. In this way, with the same head, we can clean surfaces.

**Great depth**



Electronics by LC

Welding quality

Speed

2000W





### **Push pull**

Small and light that helps us with great precision in thread delivery.

### **Driver included**

In the gun itself to control the galvanometric motors.

### **Reduced weight**

Reduced weight head to be able to easily install our equipment on any robot or cobot.

### **Easy-extract drawers for lenses and protectors**

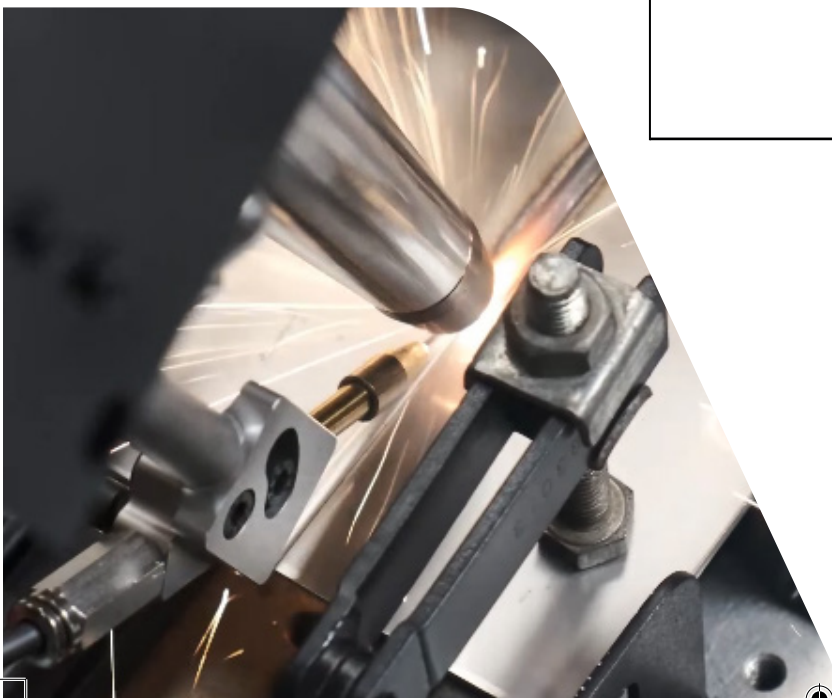
4 lens protectors and 1 lens placed in drawers for easy removal and maintenance of lenses and lens protectors.

### **Single tube and nozzle**

A single nozzle and welding tube is available for each lens. There is no need to seek to regulate the focal length since it is defined in each case by the lens and its nozzle.

### **Multipurpose nozzle**

Thanks to its multipurpose nozzle we can carry out welding and cleaning work without changing any accessories.



## Head

Original head designed by LC. Greater accessibility to the work to be done. It contains two galvanometric motors, that is, two axes. This allows us to draw many shapes with the laser pointer and adapt to any material. It has a REDUCED WEIGHT so that it is not necessary to have a robot with a high kg capacity to support the work. Made with high quality aluminum. EASY application and INSTALLATION on robots. There are different types of nozzles that change their height along with the appropriate lenses, in order to have a lot of versatility for the job.



## Feeder + Push pull

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**Electronic board manufactured by LC**

**Removable feeder without the need for an external system**

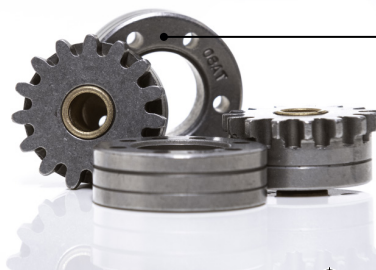
**Improvement in drag quality**



**Motor with Encoder and made in Italy**

## Rollers

Double drag roller system for aluminum



# Software

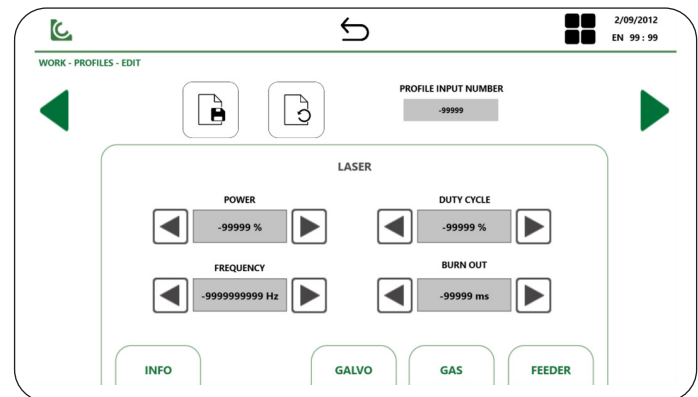
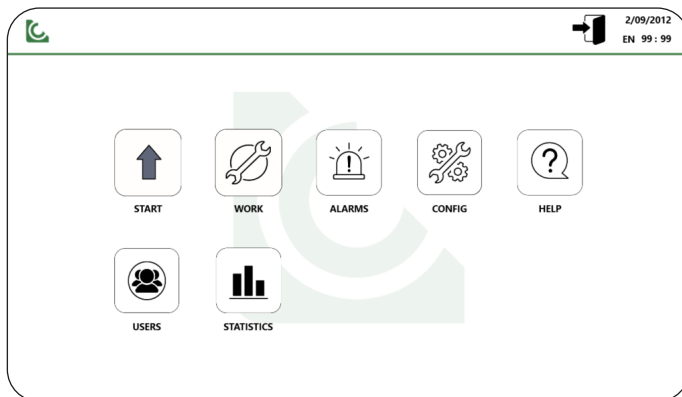
**Users:** Access control with different permissions.

**Welding screen:** Reminder of the use of PPE, laser status indicators and alarms. It does not allow us to start the work if we have an error in the laser or in the gas supply.

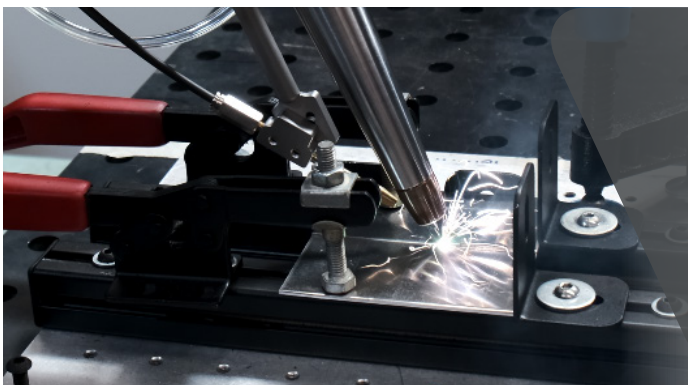
**Work screens:** Integrated software designed and programmed by LC. Intuitive and easy.

**Videos and documentation on the equipment:** Direct access on the same machine to videos about doubts, documentation and FAQs.

**Cost control:** general statistics on welding, wire input, gas and work performed.



# Materials



Stainless steel

Galvanised steel

Aluminum

Carbon steel

## WELDING

✓

✓

✓

✓



## Refrigeration

With water to guarantee that the laser temperature is optimal at all times for welding 24-25°C.

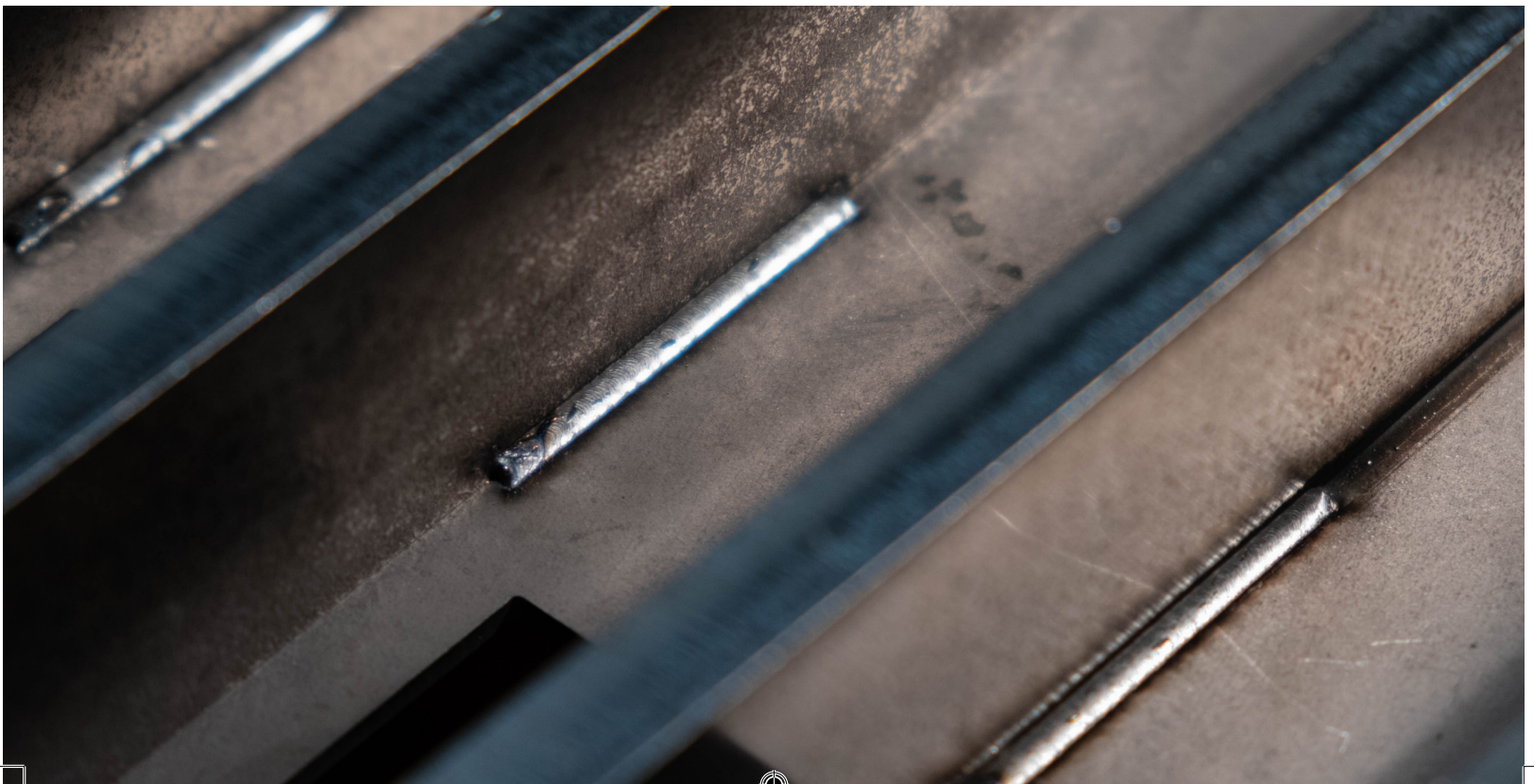
## Security

The robot must be in a completely closed cabin with certain thickness characteristics so that it complies with regulations, there can be no leakage of laser light to the outside. It must be a cabin with controlled access.

Security systems to access the machine such as security locks, sensors on the doors and "traffic light" light signals that indicate the working status of the machine.



At LC we have laser welding cabins and information to create safe work spaces with our laser equipment.



# General characteristics of LC-WELD ROBOT

## Synergistic parameters

We have the possibility of having a minimum of 16 independent programs to be able to call from the robot with Digital Inputs and Digital Outputs, regardless of the brand of the robot.

## Clean weld

Fast, clean welding, without discoloration and with a quality and repeatability impossible to achieve with manual equipment.

## Great depth

Thanks to the 2000W laser you can achieve up to 6-7mm of total penetration in the weld.

## Simple use

Our LC WELD Robot does not require extensive experience on the part of the operator regarding welding as occurs with other traditional equipment.

## Precision

Thanks to the installation of our laser equipment in an industrial robot, it allows us to carry out many jobs that would be very complicated if welded by hand. LC WELD ROBOT has great precision and repetitive quality.

## Speed

Laser welding allows us to work at much higher feed rates than other types of welding and this helps us both in quality and in the production of our clients.

## Great versatility

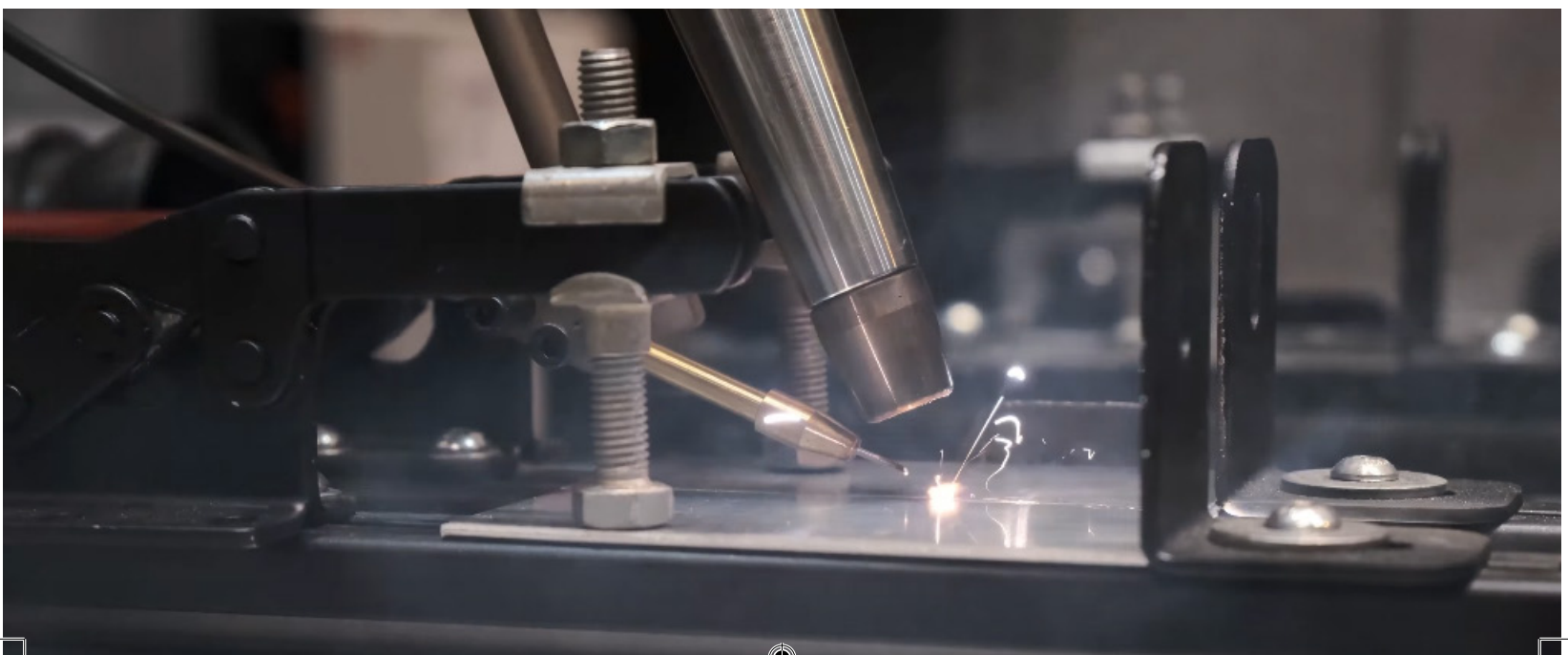
With the same machine we can carry out many different welding jobs and change between them very quickly and autonomously from the robot. Furthermore, with the same head we can carry out cleaning operations without changing accessories.

## Filler material

In our robotic laser application we have an external winder that can be independent or installed on the robot itself. In addition, we have a push-pull system which is another winder synchronized with the main one and placed on the head itself. This gives us great precision and constant thread tension.

## Chiller

We have a cooling system that helps us keep the laser at the optimal temperature for welding at all times.



# 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.



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