

# Laser Cleaning



# Company

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LC is a leader in laser technology, we develop all kinds of solutions for industries and businesses.

We have a qualified team with great experience in laser and eco-efficient technologies.

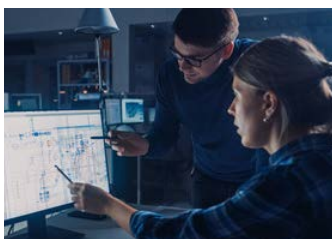
We are a company committed to industrial productivity, energy efficiency and taking care of the environment.

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 committed 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.



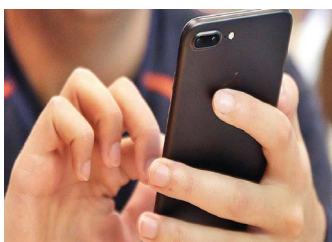
### Production

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.



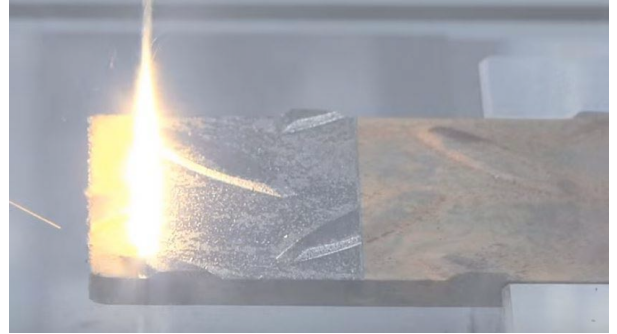
### Quality

Our components are top 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 after-sales service, with telephone, face-to-face assistance and an online service of video tutorials to solve doubts easily and give the opportunity to learn new capabilities of our laser machines. We want to offer the fastest and most efficient solution possible.



By using a laser cleaning machine you can remove dirt, oxides, coatings, paints, oils and many more. This technology is fast and environmentally friendly. Laser cleaning technology works in such a way that a beam generated by a laser source communicates through a fiber optic cable to a system of mirrors that transmit the laser in the desired shape and configuration. In the head there is a Galvo system which is the instrument that conducts the laser beam in one direction or another.

Setting up a laser cleaner is very simple, although you must have some prior knowledge about the thickness,

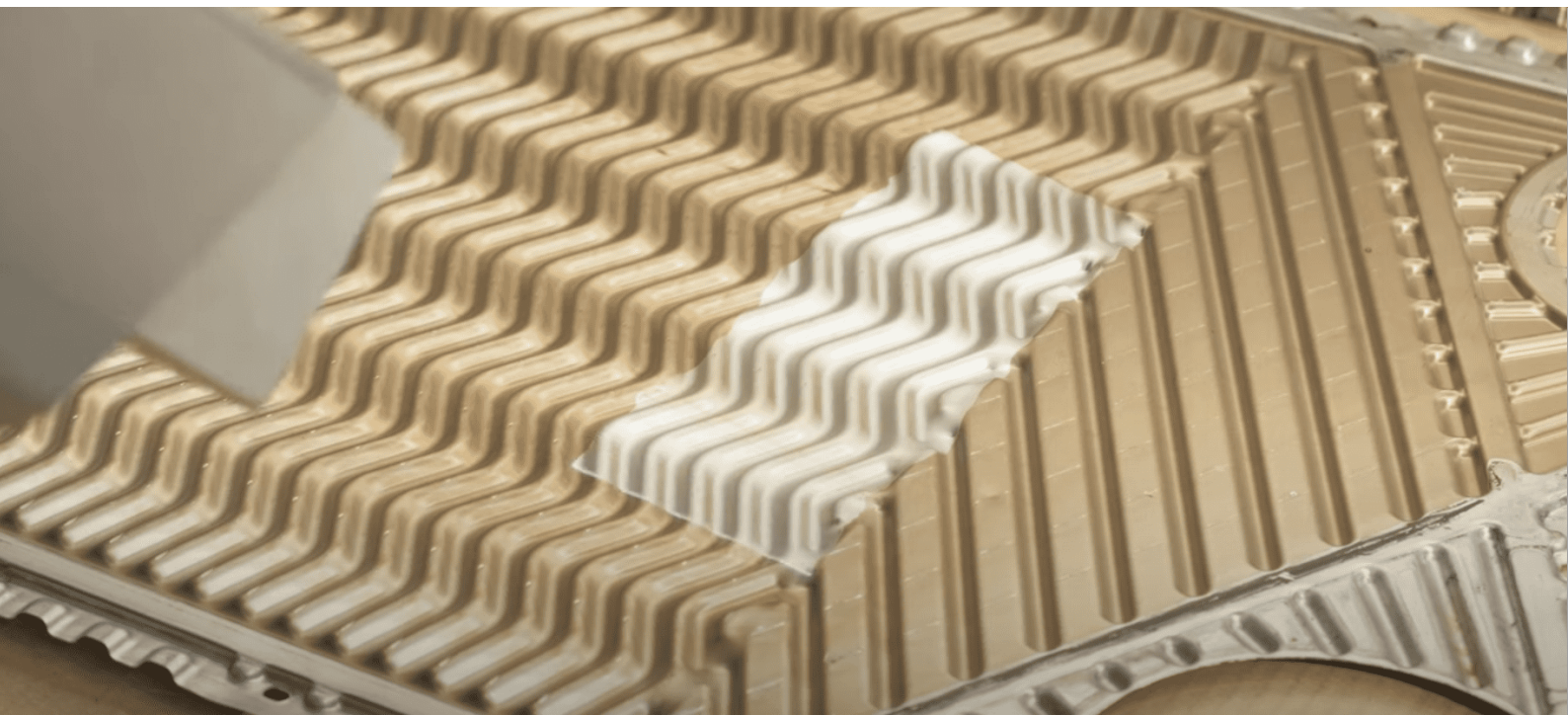
width or frequency of the wave.

Using a fiber, laser cleaning machine has life-working span life of up to 100,000 hours which makes them perfect for cleaning during long periods without having to add any replacement and with practically no maintenance.

To clean with a laser, all you need is safety equipment and a laser machine.

## Laser type and technology

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## 1 Ecofriendly

Laser cleaning is the process of removing unwanted material from a solid surface by irradiating it with a laser beam. By absorbing the energy of the laser beam, the material heats up very quickly, so the impurities evaporate or sublimate. It is relevant to note that if the surface below does not absorb energy, it remains intact.

Laser cleaning machines are also the newest development in the area of rust cleaning. They quickly clean all types of metals and other types of surfaces with incredible speed. Laser cleaning does not use chemical agents, abrasives or other types of materials that are harmful to the environment.

## 2 Great profitability

By manipulating the laser flux, its wavelength and the length of its pulse, the amount of material that is removed by a single laser pulse can be controlled with extreme precision. Make laser cleaning equally suitable for fast and deep rust removal as it is for removing only a thin layer of paint, without damaging the base coat.

Laser cleaning uses a fiber laser material that can last up to 100,000 hours, which allows us to make our investment profitable in a safe way. They are reliable systems that are guaranteed to last for many years.

## 3 Flexible



# Fiber laser cleaning machine

Cleaning LASER GAMMA® designed and manufactured by LC. Laser cleaning equipment is the new generation of high-tech surface cleaning products. It is easy to install, control and work with.

With a simple operation, cleaning can be achieved without chemical reactives or other contaminating products. Perfect for cleaning welding debris, resin, grease, stains, dirt, rust, coating, paints ...



## Touch screen



Touch control screen, no need for a computer.

## Key opening system



It has a key to turn on the laser cleaning machine.

## Wheels with brakes

Easy to move around.

## DUAL push system

System for a comfortable movement of the machine.

## Control buttons



It controls all the machine systems independently.

## Emergency button



Safety system in case of emergency stop.

# General characteristics

## Compact design

Smaller and more compact design than other machines.

## Own production

Manufactured exclusively by LC. Easy to move

## Long durability

The cleaning equipment has a durability of up to 100,000 hours.

## Scan width

Scan between 5-110mm.

## Great versatility

This machine can clean a wide variety of materials such as paint, rust, resin, stains, dirt, coatings, etc.



# LC-CLEAN

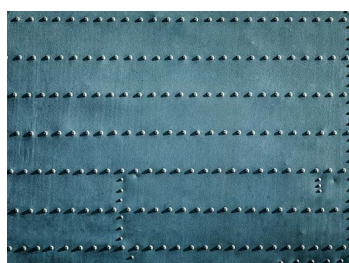
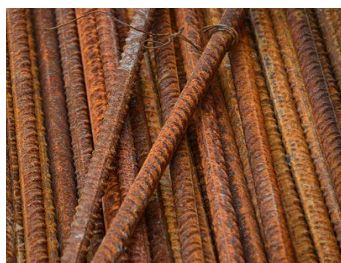


## LC-CLEAN

- Powers: 100W | 200W | 500W
- Scan Width: 10-160mm (Configurable)



## Materials



## Table of Materials

	CLEANING
Oxide	✓
Resin	✓
Stains	✓
Dirt	✓
Coatings	✓
Painting	✓

**1**  
High Tech

**2**  
Quick payback

**3**  
Easy and intuitive



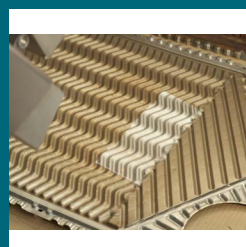


# Comparative table in laser technology

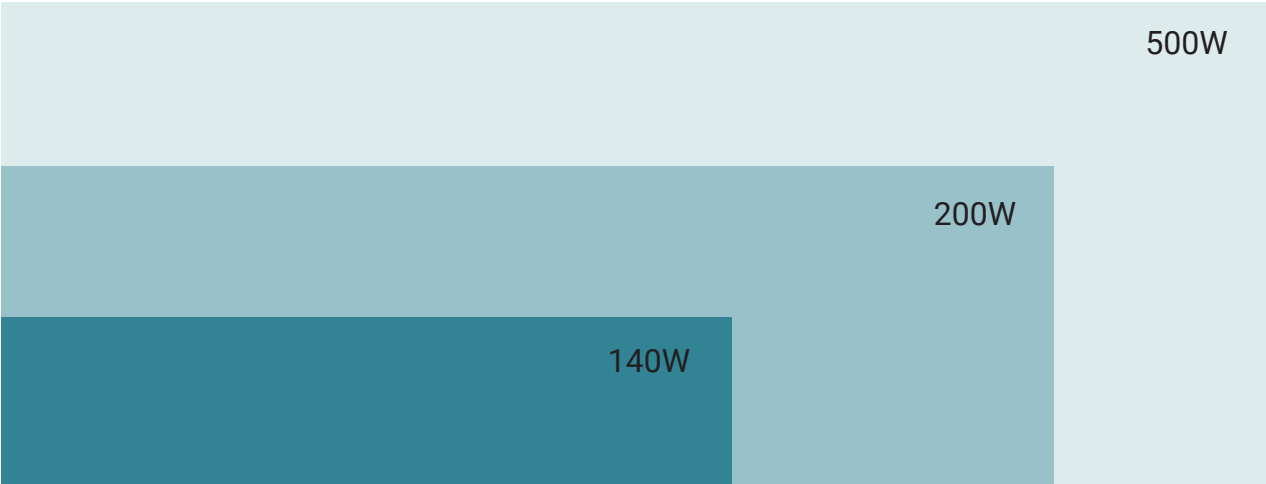
	Laser cleaning	Chemical cleaning	Mechanical cleaning	Dry ice	Ultrasonic cleaning
<b>Cleaning method</b>	No contact	Chemical Contact	Mechanical Abrasion	No contact	With Contact
<b>Damage to the part</b>	No harm	With damage	With damage	No harm	No harm
<b>Efficiency</b>	High	Short	Short	Medium	Medium
<b>Consumables</b>	Electricity	Chemical Agent	Abrasion	Dry ice	Special Cleaning Agent
<b>Effectiveness</b>	Excellent	Medium	Medium	Excellent	Excellent
<b>Precision</b>	High control	Low Control	Low Control	Low Control	Medium Control
<b>Environment</b>	Without pollution	Contamination	Contamination	Without pollution	Without pollution
<b>Operational</b>	Easy	Complex	Complex	Easy	Easy

## Applications and Industry

- **RUST AND CORROSION REMOVAL**  
Used to remove rust from small machines or materials kept outdoors for a long time.
- **PAINT CLEANING**  
It allows to remove paint of all kinds on steel surfaces.
- **RESTORATION**  
In the restoration process, laser cleaning has been used with satisfactory results in, for example, stone preservation.
- **WELDING CLEANING**  
Preparing the material for welding processing in the steel industry is vital. Laser cleaning systems can be integrated into production lines.



# Options available



## Technical information

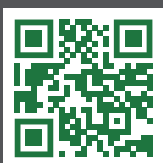
<b>Power</b>	<b>140W</b>	<b>200W</b>	<b>500W</b>
<b>Laser type</b>	Fibre Q-Switched pulsated		
<b>Scanning width</b>	10-100mm		
<b>Cooling system</b>	Air	Water	
<b>Head weight</b>	1,8kg	2,5kg	3,5kg
<b>Working temperature</b>	5-35°C		
<b>Storage temperature</b>	0-40°C		
<b>Humidity</b>	10-90%		
<b>Voltage</b>	230VAC 50Hz		
<b>Current</b>	10A	14 A	23 A
<b>Laser lifetime</b>	Up to 100 000 hours		
<b>Laser class</b>	Class 4		
<b>Wavelength</b>	1064nm		
<b>Size</b>	70×115×140cm		
<b>Weight</b>	240kg		



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