

# LASERFLUX

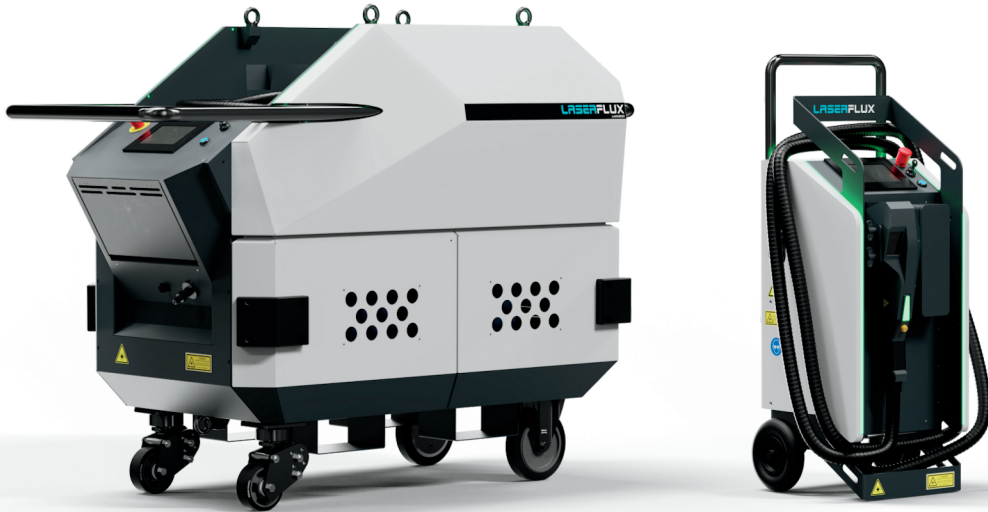
Laser cleaning solutions



# LASER FLUX

Laser cleaning solutions





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At Laserflux, we transcend conventional cleaning methods by introducing a new era of efficiency and precision through cutting-edge laser cleaning and laser profiling solutions. We take pride in redefining the meaning of the concept 'clean', offering solutions that not only meet but exceed the evolving demands of our clients.

**Our Core Values: Innovation, Sustainability, & Excellence**

We are driven by a commitment to innovation, sustainability, and delivering outstanding results. Our laser cleaning and laser profiling systems not only represent a technological leap but empower businesses with streamlined processes and reduced environmental impact.

**Applications of Our Solutions:**

Whether it's industrial cleaning, restoration of historical heritage, or optimizing manufacturing processes, our laser cleaning and laser profiling solutions offer versatile applications that redefine industry standards.

Explore our brochure to discover more about our product line and how our laser cleaning and laser profiling solutions can elevate your business to new heights.

Thank you for considering Laserflux. We look forward to partnering with you to create a cleaner, more innovative future.

Best regards,

Tom van Cappellen  
CEO Laserflux

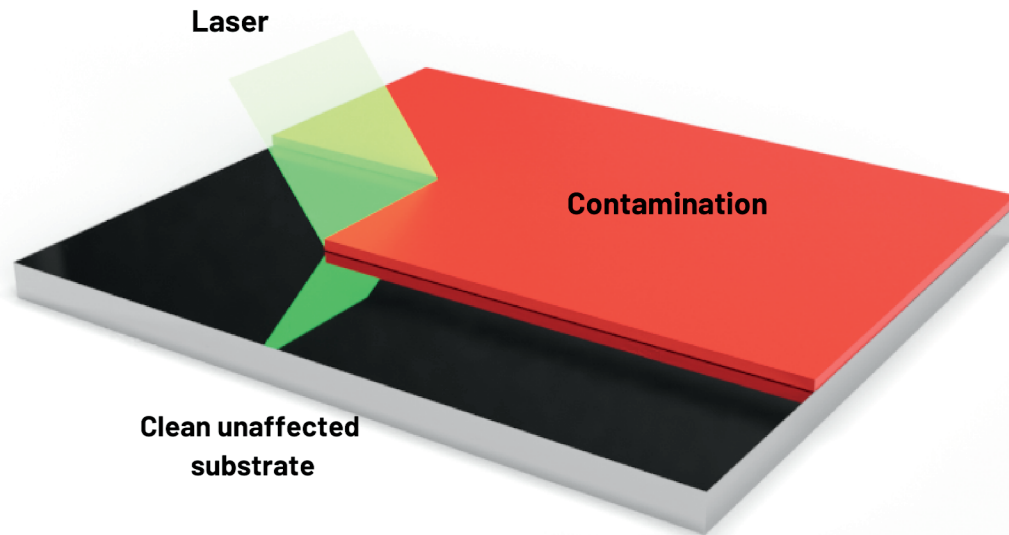
Dear  
Customer

## How does laser cleaning work?

In laser cleaning, a pulsed laser source emits short pulses of intense laser light. These pulses are precisely controlled in duration and energy output.

The laser pulses are directed onto the surface to be cleaned. When the laser light hits the surface, it interacts with the contaminants or undesired material present on the surface.

The contaminants absorb the energy from the laser pulses. This absorption causes rapid heating of the contaminants, leading to their vaporization or sublimation.



# Laser Cleaning

## Laser Cleaning inspiration

### Contaminations

- Oxidation layers (rust)
- Paint and coatings
- Food remains
- Teflon and other anti stick coatings
- Glue
- Grease and oil
- Plastic remains (PE, rubber, PVC, ...)
- Ink
- Weld slag
- ...

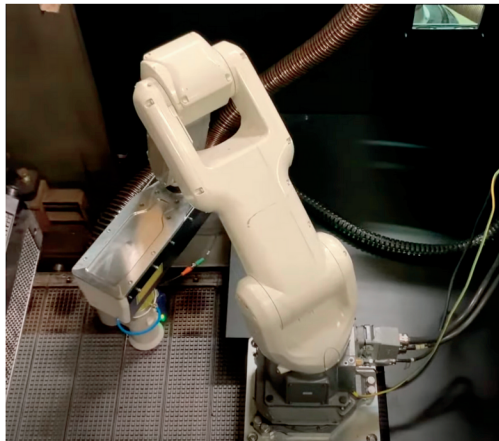
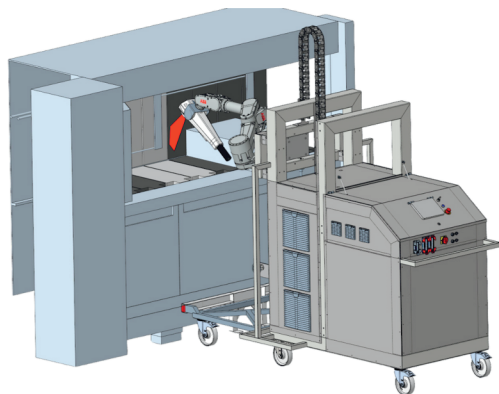
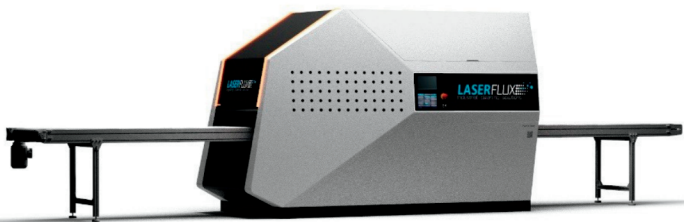
### Materials

- Steel (also chrome coated)
- Stainless steel
- Cast iron
- Aluminum
- Titanium
- Copper
- Woods
- Composites
- Stone (non-porous)
- Types of glass
- ...

### Applications

- Molds
- Baking trays and industrial ovens
- De-rusting of tubes and construction elements
- Tank cleaning
- Cleaning of reactor vessels
- Paint stripping
- Pre and post weld cleaning
- Turbine cleaning
- Surface preparation and profiling
- Restoration of monuments, statues and buildings
- Glass decoating
- ...

Introducing our in-line Laser cleaning solution for seamless integration into your production line. This cutting-edge solution combines the precision of laser cleaning technology with the versatility of robotic automation, ensuring optimal performance and efficiency throughout your manufacturing operations. With our custom automated in-line laser cleaning solution, you can optimize your manufacturing process by incorporating efficient and reliable laser cleaning capabilities directly into your production line. Increase throughput, improve quality, and reduce costs with a customized solution designed to meet your specific needs.



# In-line Cleaning Solutions



SCAN ME



The **LMX-C Pushcart** is designed to work on large surfaces in an industrial environment, but with ease of transportation in mind. It can move through a door opening and through narrow spaces between industrial equipment. The fiber cable can be up to 50 meters long so often the machine doesn't even need to be moved at all. The pushcarts are equipped with a water-cooled laser source. Our laser cleaning pushcarts are one of the most powerful laser cleaning machines in the world.

<b>Laser Power options</b>	300W - 500W - 1000W - 2000W - 3000W
<b>Dimensions</b>	1255 x 804 x 1702 mm / 49.11 x 31.65 x 67 inch
<b>Weight laser unit</b>	350 - 650 kg / 770 - 1450 lbs
<b>Weight laser head</b>	2 - 3 kg / 4.5 - 6.5 lbs
<b>Fiber cable length</b>	Up to 50 meters / 164 ft
<b>Pulse frequency</b>	10 - 100 kHz
<b>Pulse type</b>	Top hat
<b>Pulse duration</b>	25 - 100 ns
<b>Power supply</b>	3x 400V or 3x 480V

*\*Dimensions of 2000W & 3000W on request*



# LMX-C Pushcart

300W/500W/1000W/2000W/3000W





The **LMX-C Trolley** is a compact mobile laser cleaning machine. The Trolley has an air cooled fiber laser source requires very little power, which can easily be supplied by a small generator on site. The device itself can easily be moved or lifted onto scaffolds.

This compact machine reaches cleaning speeds up to 5 m<sup>2</sup> per hour, which is more than sufficient for many applications.

<b>Laser Power options</b>	100W - 200W
<b>Dimensions</b>	400 x 500 x 1181 mm / 15.75 x 19.69 x 46.5 inch
<b>Weight laser unit</b>	40 - 60 kg / 85 - 130 lbs
<b>Weight laser head</b>	1,5 - 2 kg / 3 - 4.5 lbs
<b>Fiber cable length</b>	Up to 5 meters / 16.4 ft
<b>Pulse frequency</b>	15 - 200 kHz
<b>Pulse type</b>	Top hat/Gaussian
<b>Pulse duration</b>	Up to 200 ns
<b>Power supply</b>	110V or 230V



# LMX-C Trolley

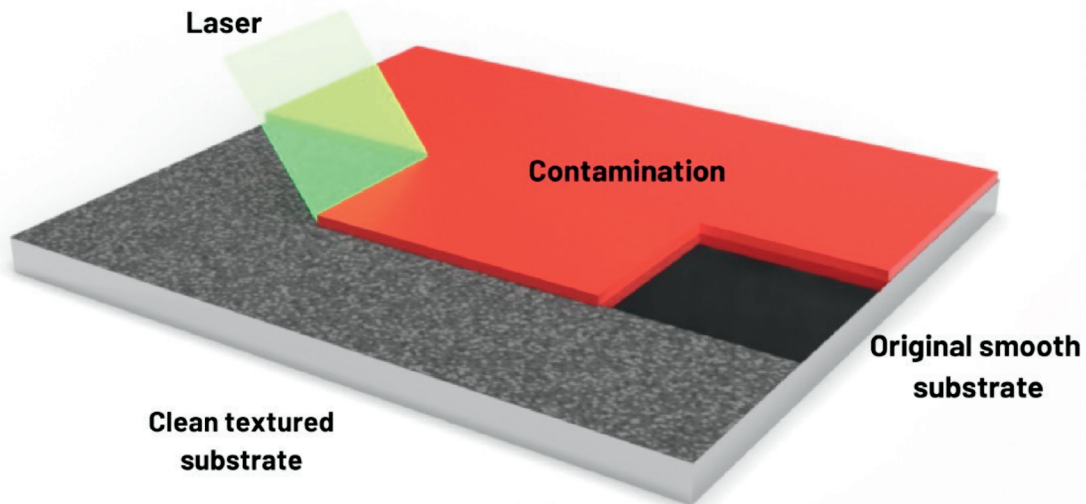
100W / 200W





## What is laser profiling?

Laser profiling, also known as laser surface texturing or structuring, is a process that involves using laser technology to create specific patterns, textures, or microstructures on the surface of a material. This surface modification technique enables precise control over surface characteristics, allowing for customization of properties such as friction, adhesion, wettability, optical properties, and more. For laser profiling laser source has the ability to clean and create a profile in 1 movement.

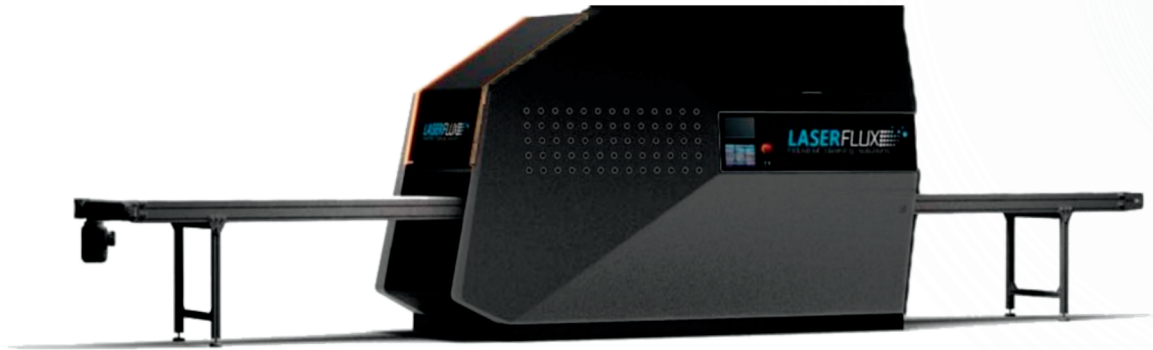


# Laser Profiling

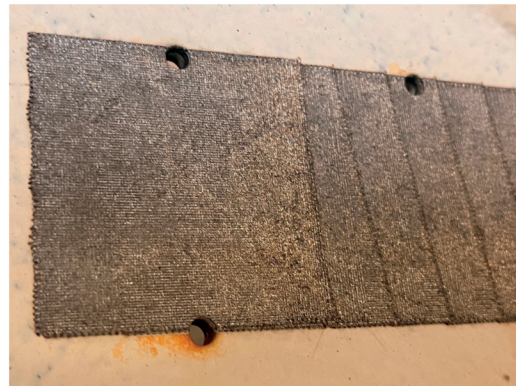
### Laser profiling applications:

- Functional requirements
- Aesthetic Enhancement
- Surface modification
- Prototyping and Rapid Manufacturing
- Repair and Restoration
- Research & Development

An integrated automatic laser profiling solution combines laser technology with automated systems to create textured surfaces on various materials. It offers a solution for several industries to take the step to surface texturing, combining precision, efficiency, versatility, and cost-effectiveness to meet the demands of modern manufacturing environments.



# In-Line Profiling Solutions





The **LMX-T Pushcart** is a mobile laser profiling machine. At first glance this machine appears quite similar to his laser cleaning twin-brother. However, its purpose is entirely different, allowing enhancing the aesthetics and functionality of surfaces through laser-induced profiling and removing contaminants in the same movement.

<b>Laser Power options</b>	500W - 1000W - 2000W - 3000W
<b>Dimensions</b>	1255 x 804 x 1702 mm / 49.11 x 31.65 x 67 inch
<b>Weight laser unit</b>	300 - 550 kg / 650 - 1200 lbs
<b>Weight laser head</b>	2 - 3 kg / 4.5 - 6.5 lbs
<b>Fiber cable length</b>	Up to 50 meters / 164 ft
<b>Pulse frequency</b>	10 - 100 kHz
<b>Pulse type</b>	Gaussian
<b>Pulse duration</b>	20 - 500 ns
<b>Power supply</b>	3x 400V or 3x 480V

*\*Dimensions and laser head weight of 2000W & 3000W on request*

# LMX-T Pushcart

500W/1000W/2000W/3000W





The **LMX-T Trolley** is a compact mobile laser profiling machine. This machine is easy to transport from one location to another, allowing for on-site laser profiling operations. The machine can access tight spaces and areas that might be challenging to reach with larger equipment.

<b>Laser Power options</b>	50W - 100W - 200W - 300W - 500W
<b>Dimensions</b>	400 x 500 x 1181 mm / 15.75 x 19.69 x 46.5 inch
<b>Weight laser unit</b>	40 - 60 kg / 85 - 130 lbs
<b>Weight laser head</b>	1,5 - 3 kg / 3 - 6.5 lbs
<b>Fiber cable length</b>	Up to 5 meters / 16.4 ft
<b>Pulse frequency</b>	2 - 4000 kHz
<b>Pulse type</b>	Gaussian
<b>Pulse duration</b>	20 - 500 ns
<b>Power supply</b>	110V or 230V

# LMX-T Trolley

50W/100W/200W/300W/500W

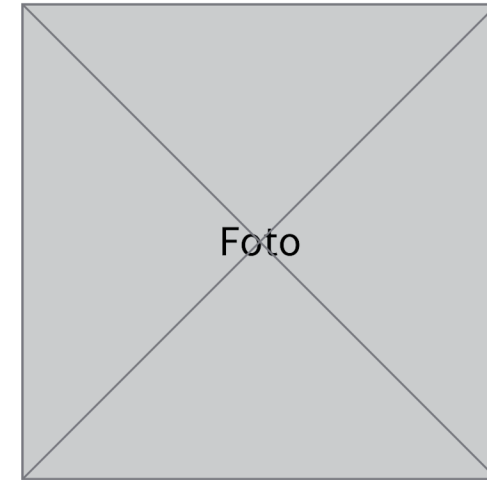
Laserflux introduces the cutting edge of In-line and on the fly Laser Engraving, a technology designed to redefine precision and efficiency in surface marking. Our laser engraving solutions are engineered for industries demanding the highest standards of accuracy and detail, offering unmatched customization and quality.

The application of our In-line Laser Engraving extends across various sectors, including electronics, automotive, jewelry, food and tooling. By offering a non-contact, chemical-free process, we ensure that your products are not only marked but also preserved in their pristine condition throughout the engraving process.



# In-Line Engraving Solutions

1. **Precision and control:** Laser engraving allows for precise targeting of specific areas on a surface, making it ideal for making marks without affecting the surrounding material.
2. **Environmentally friendly:** Laser engraving does not require the use of consumables. This eliminates the generation of secondary waste. The lack of debris allows you to work in delicate environments.
3. **Versatility:** Laser engraving can be used on a wide range of materials, including metals, stone, wood, ceramics, composites, and more.
4. **Customization:** Each project is unique, and our Inline Laser engraving solutions are designed to meet your specific requirements. With the ability to adjust texture depth and pattern on the fly, our technology ensures that your surfaces are not just engraved but tailored to perfection.



4 reasons to choose for laser engraving

Our mobile laser cleaning and laser profiling machines are designed to provide operators with a familiar and intuitive experience, allowing them to focus on their tasks, and with a very limited training required. Our machines come with a range of unique features tailored to each laser:

- Ergonomic Handle (Options available)
- Integrated Proces LED
- Integrated arm/disarm button
- Integrated display on laser head (optional)
- Unique cassette system designed for effortless swapping of protective windows and lenses.
- 4 mounting brackets
- Suction nozzle for air extraction system
- Touchscreen display with Laserflux software and Intuitive control buttons

They are also fully equipped for lifting, ensuring easy transportability, and are built to withstand challenging environments.



# Unique Features

1. **Non-contact method:** Laser cleaning is a non-abrasive and non-contact process. This helps in preventing damage to delicate surfaces, such as historical artifacts, electronic components, or precision machinery.
2. **Precision and control:** Laser cleaning allows for precise targeting of specific areas on a surface, making it ideal for removing contaminants without affecting the surrounding material.
3. **Environmentally friendly:** Laser cleaning does not require the use of consumables. This eliminates the generation of secondary waste. The lack of debris allows you to work in delicate environments, i.e. above and around waterways.
4. **Safety:** Laser cleaning is safer for operators requires limited PPE. The use of lasers reduces the risk of accidents or injuries.
5. **Cost-effective:** The rather high investment cost of laser cleaning is compensated by a long life time of limited maintenance, no need for consumables, and reduced downtime. Providing a high long term ROI.
6. **No surface damage:** Laser cleaning can remove contaminants from surfaces without causing damage such as scratching, etching, or warping, which typically occur with some traditional cleaning methods.
7. **Versatility:** Laser cleaning can be used on a wide range of materials, including metals, stone, wood, ceramics, composites, and more. It is effective for removing various types of contaminants, such as rust, grease, paint, oxide layers, and organic residues, making it a versatile solution for diverse cleaning applications.

# The 7 Benefits of Laser Machines



## R&D

Our team of skilled engineers work with you to provide tailored solutions. With a wealth of expertise, we offer comprehensive assistance in concept development, prototype testing, and optimization. From the inception of your idea to the final implementation, our R&D support ensures that you stay at the forefront of laser technology. Partner with us to transform your vision into reality, as we pave the way for the next wave of breakthroughs in laser applications.



## Service Cleaning

You don't have a permanent need for a laser cleaning machine? Or you want to evaluate if laser cleaning is the right solution for your application?

Our Cleaning Squad is perfect for you. We come to your project or company and perform the cleaning on site at a fixed hourly rate.

You prefer to have us collect the parts and do the cleaning on our premises? No problem! Within days, or even 24 hours, the parts can be back at your doorstep.

## Rental

Do you prefer to do the cleaning work by yourself or do you have a team of technicians who are comfortable working with machines?

Then you might consider just renting one of our devices. Rentals are possible from 1 day. World wide shipment available.



# Additional Services

**1. Quality Products & Services:** We offer top-quality products & services that meet or exceed industry standards.

**2. Customer Satisfaction:** We prioritize customer satisfaction above all else. From the initial inquiry to after-sales support, we strive to provide exceptional service, promptly addressing any concerns or queries customers may have.

**3. Innovation and Technology:** Our company is at the forefront of innovation, continuously researching and adopting cutting-edge technologies to improve our products & services.

**4. In House automation and robotization team:** We understand that every customer's needs are unique. That's why we offer customization and robotization options, allowing customers to tailor our products & services to their specific requirements, ensuring a perfect fit for their needs.

**5. Reliability and Trustworthiness:** Our company has built a reputation for reliability and trustworthiness. Customers can rely on us to deliver on our promises, meet deadlines, and provide consistent performance, fostering long-term relationships built on trust.

**6. Exceptional Support:** We provide comprehensive support throughout the customer journey. Whether it's technical assistance, product training, or troubleshooting, our dedicated support team is always available to assist customers, ensuring a smooth and hassle-free experience. The remote access service allows us to service you wherever you are.

**7. Environmental Responsibility:** We are committed to environmental sustainability and incorporate eco-friendly practices into our operations. Customers can feel good about choosing a company that prioritizes environmental responsibility and contributes to a greener future.

**8. Proven Track Record:** With a proven track record of success and satisfied customers, our company stands as a reliable and reputable choice in the industry. Customers can trust our expertise and experience to deliver results that exceed their expectations.

Why  
Choose  
Us?

Unlock the power of precision with our state-of-the-art laser cleaning solutions. Whether you're in manufacturing, food, automotive, aerospace, or any industry that demands pristine surfaces, we have the expertise to elevate your standards.

Take the first step towards unparalleled cleanliness and surface perfection. Contact our team now for a consultation, demonstration, or to discuss how our laser cleaning technology can benefit your business.



+32 289 774 89



[www.laserflux.com](http://www.laserflux.com)



[contact@laserflux.com](mailto:contact@laserflux.com)



Benedestraat 175, 1851 Humbeek (Belgium)

# Let's redefine laser cleaning

**LASERFLUX**

Laser cleaning solutions