

LIGHT
YEARS
AHEAD





TABLE OF CONTENTS

INTRODUCTION	4
APPLICATIONS	6
TECHNOLOGY	8
PRODUCTS	12
SERVICES	20

IT'S ALL ABOUT FOCUS

P-Laser focusses on the development and production of the world's most advanced industrial laser cleaning equipment for manual and automated use.

The number of laser cleaning applications is growing exponentially. Every day new possibilities are discovered and explored. From the classical rust removal to the restoration of natural stone building facades.

With a range of systems varying from 20 to 1000 watt of extremely accurate power, P-Laser solves your industrial cleaning needs with the highest precision and very cost effective.

As laser cleaning only irradiates the material you want to remove, leaving your base material untouched, it is simply the cleanest technique to clean a wide range of substrates.

"Laser cleaning is safe for the user and has the lowest possible impact on the environment."



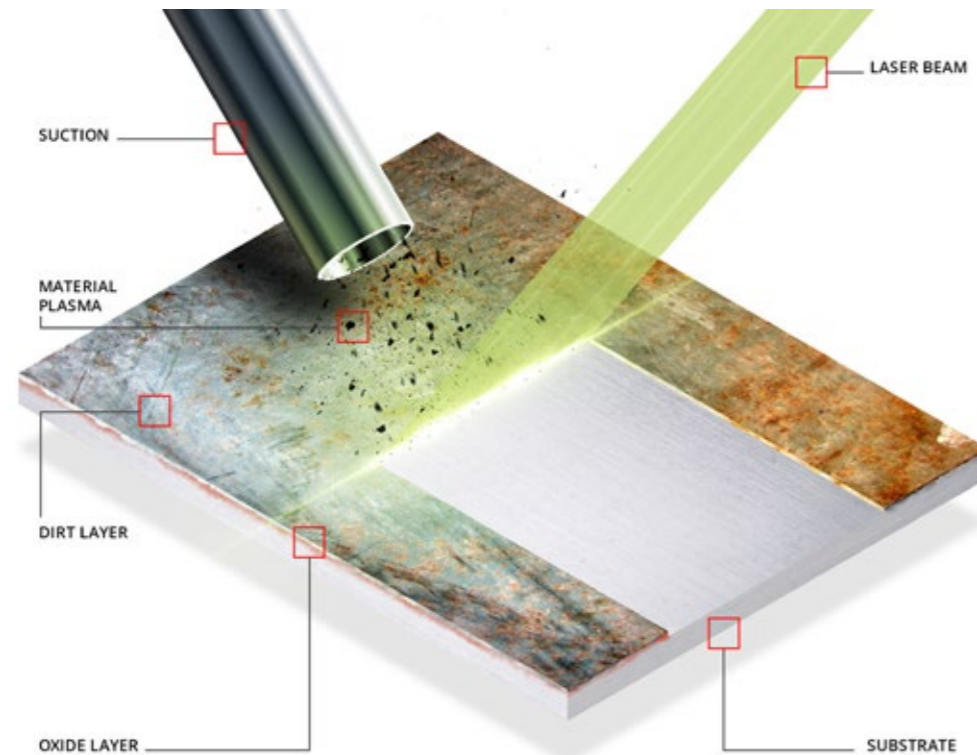
Our experienced, highly motivated engineers find joy in creating the world's best laser cleaning technology.

LASER CLEANING TECHNOLOGY

"The science of today is the technology of tomorrow"
- Edward Teller

Industrial laser cleaning - or ablation - is the process of clearing away undesired material from a solid surface by irradiating it with a laser beam. By absorbing the energy of the laser beam, the targeted material is heated very quickly, making it evaporate or sublimate. As the surface below does not absorb any energy, it stays untouched.

By adjusting the pulse power, scanning speed and cleaning pattern, the amount of material that is being removed by a single laser pulse can be controlled with extreme precision.



ADVANTAGES

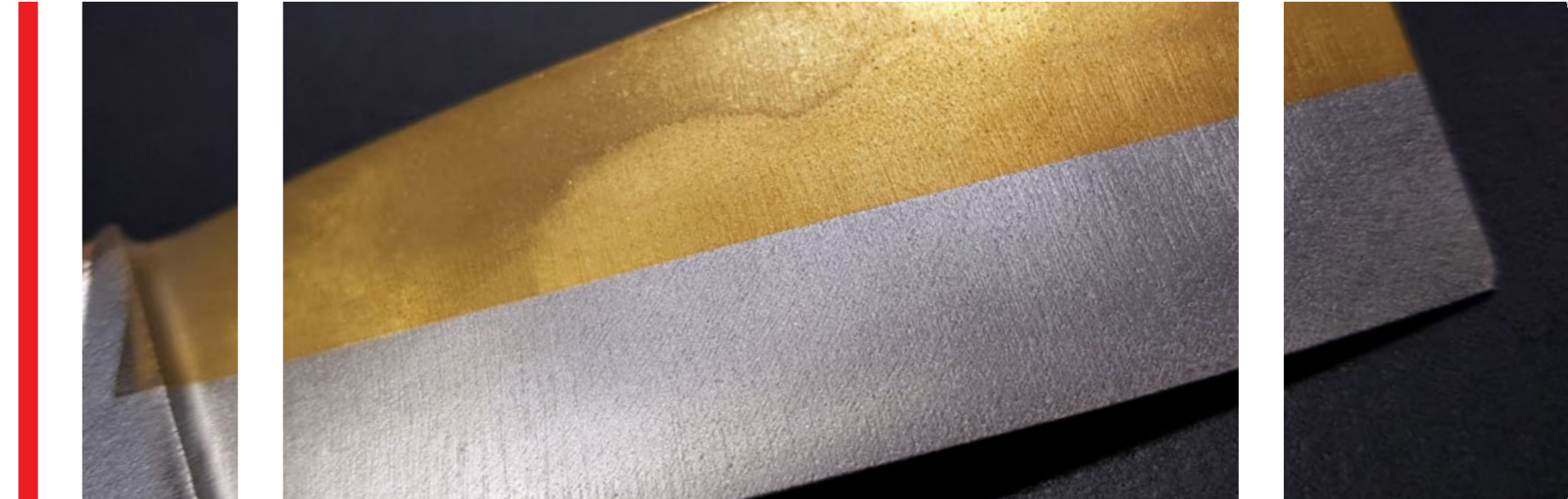
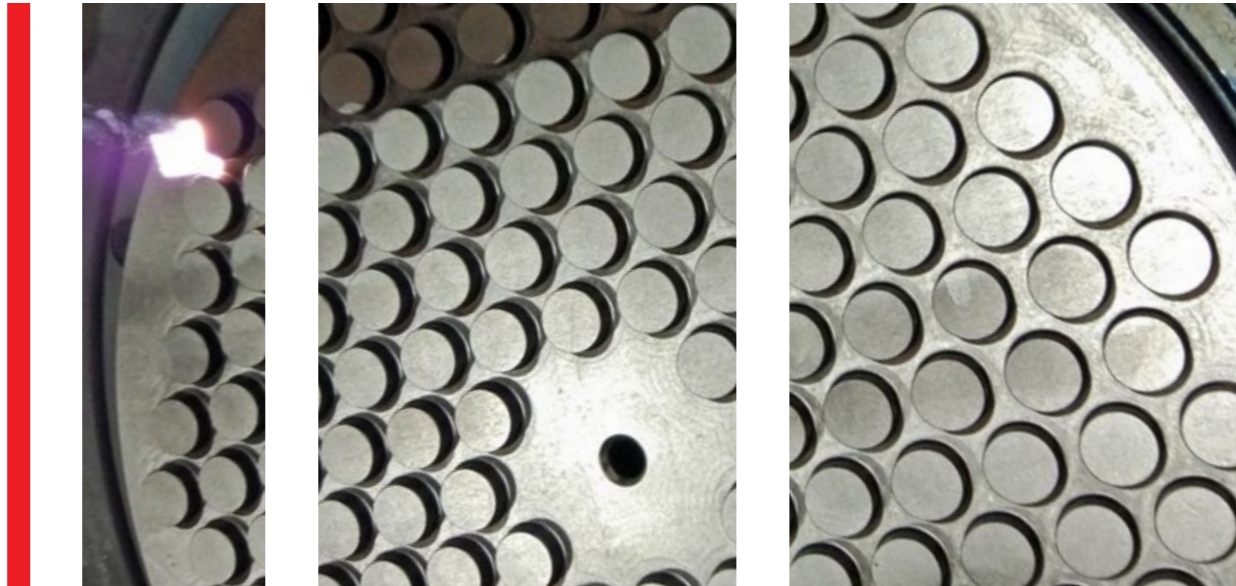
As laser cleaning does not use any chemical solvents or other kind of consumables, it is environmentally friendly and safe to operate.

Other advantages:

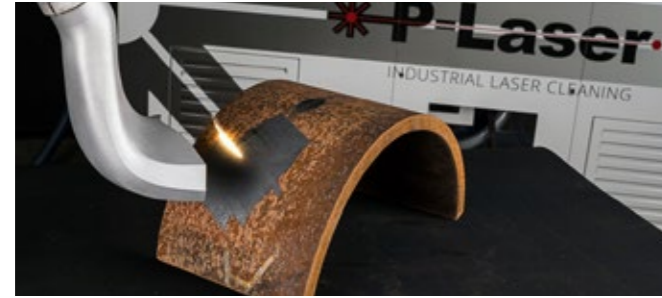
- dry and clean
- highly accurate
- low noise
- non-contact technology
- easy to use
- easy to automate
- safe for any kind of substrate, even very delicate surfaces
- unrivaled level of control
- no unwanted side effects
- not abrasive or potentially hazardous
- suitable for hard-to-reach areas or surfaces
- suitable for use in hazardous or dangerous environments
- lower operational costs than most other cleaning techniques
- absolute minimum of residue, mostly dust
- minimal maintenance
- quick installation and setup time

LASER CLEANING APPLICATIONS

The number of laser cleaning applications is growing exponentially. Every day new possibilities are discovered and explored. From the classical rust removal to the restoration of natural stone building facades. And everything in between: paint removal, decoating, mold cleaning, degreasing, special surface treatment and even labeling and marking. The industrial applications P-Laser products are used for vary from the most inaccessible tiny area to vast surfaces of public or private infrastructure. Always delivering results above expectations.



"P-Laser is a top notch company to deal with. Their sales team was informative and helped us choose the right machine. Once we were set up, their team came in and trained us how to tune and operate everything to make sure we were comfortable. The equipment is portable and top of the line. Couldn't have asked for a better experience."
 - North West Rubber (customer)

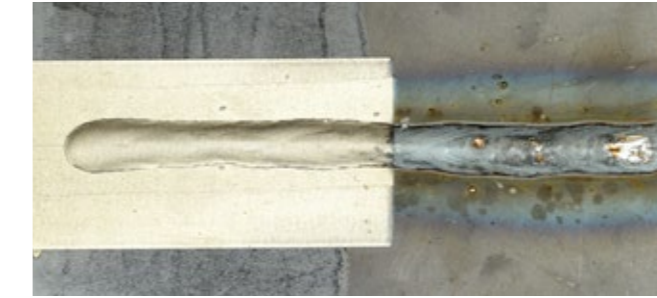


SURFACE CLEANING

Industrial surface cleaning is probably the best known laser treatment application. Rust and paint removal, degreasing, activation, restoration, etc. are all considered as surface cleaning applications.

MOULD CLEANING

As they leave no blast media residue or disposal, both our Low and High Power laser equipment are the optimal solution for cleaning moulds used for rubber, plastic, glass and composite products. The laser beam does not damage the surface of the moulds, leaving the often critical dimensions untouched. In addition, the laser won't have a negative effect on surface finish and high-gloss properties of the mould.



WELD CLEANING

Weld cleaning is definitely one of those classic applications of industrial laser cleaning. Laser cleaning will drastically reduce or even completely eliminate the use of chemicals.

It can be applied on steel, stainless steel (rust resistance is not affected by laser cleaning) and aluminium materials without damaging the substrate. Laser cleaning can be used prior to the welding process as a preparation method, or following the welding process to clean the weld. It can be easily introduced in any production process.

MARKING

Did you know that the working principle of marking or labeling is exactly the same as for laser cleaning?

P-Laser's Low Power systems are ideal for all your marking applications.

'Laser marking' is the technique of marking products, materials or workpieces using laser technology. Marking is a very delicate task: it has to be very precise and the results highly depend on the base material and the top layer that has to be removed.

PRODUCTS

P-Laser offers you industrial laser cleaning systems, ranging from 20 to 1000 watt. This equipment enables you to effortlessly remove rust, dust, oxides, oil and other contaminations from metal, plastic, ceramics, glass, stone or concrete.

As this cleaning technique leaves the surface beneath untouched, our laser systems offer unexpected possibilities for a constantly growing number of industrial applications, ranging from marking or labeling to surface preparation for non-destructive testing.



QF-20-50-100

LOW POWER LASER CLEANING

The 19" control unit of the Low Power devices (20W to 100W) can be best described as the heart of our machines. It makes sure the user experience is as smooth as possible.

The laser emission is controlled by industry grade electronics to ensure maximum security. This control makes sure the operator is always working in a safe environment, and is informed about possible errors or faults.

Different laser programs can be created in our dedicated software Cleansweep©, guaranteeing optimal process settings, smooth surface finish and prevention of surface damage. After uploading the various programs on the system, these programs can be selected immediately from the display menu so there is no need for a PC to operate the machine.

The high quality laser source ensures a very long lifetime, with up to 50.000 hours of emission.



STAND-ALONE OR MOUNTED IN FLIGHT CASE

P-Laser's Low Power products come as standalone units or mounted in a robust flight case.

STAND-ALONE UNIT

As it is light, compact and has a couple of handles, you can easily mount your P-Laser Low Power equipment into a standard 19" rack to integrate it in a production or assembly line.

Measurements:
56cm x 48cm x 22cm (L x W x H)

ROBUST FLIGHT CASE

Our MTR-02 flight case optimally protects your laser cleaning device, fits in the back of your car and can be loaded by one person.

Flight case measurements:
53cm x 43cm x 84cm (L x W x H)

MOBILE OPTIC

The mobile optic can be used for manual cleaning and is ideal for narrow spaces that can not be reached with traditional tools. Spot repair or weld cleaning inside large vessels is no problem for this setup.

If the laser is used in different locations, or if you're moving it around a lot, this is the best option for your problem.

The optic produces 2-dimensional laser beams so not only can you create cleaning lines, but also different shapes such as circles or rectangles.

MACHINE OPTIC

The machine optic is, in contrast to the mobile optic, ideal for in-line applications. You can put it in a fixed position on a production or assembly line, but installation on a robot is no problem either.

The design of the optic is very robust, to make sure the laser isn't damaged when it's involved in a crash.

The machine optic is also equipped with a 2D-scanner, giving it the same versatility as a mobile optic.

COMPACT SERIES

THE MOST COMPACT LASER CLEANING SYSTEM. EVER.

After months of extensive research and development, P-Laser is proud to announce our newest addition to the family: The QF Compact.

With its lightweight and jaw-dropping design, the QF Compact will re-invent the laser cleaning industry. Delivering the same quality, speed and convenience of our Low Power systems, but in a much smaller package. You can take the system everywhere you go, and now even the most unreachable spots can be cleaned. We believe the QF Compact will be a complete game changer.



SIZE DOES MATTER

While the smartphone in your pocket keeps getting larger and larger, the laser cleaning industry needed our systems to become smaller and smaller. We accepted the challenge and built the smallest laser cleaning system the world has ever seen.

Coming in at 13 kg and measuring 485x225x330mm, it will be a solid competitor for years to come.

TAKING EASE-OF-USE TO THE NEXT LEVEL

With its interactive, state-of-the-art touch encoder, job selection has never been easier. As with every P-Laser system, 8 custom jobs can be selected with the rotative wheel on the encoder.

If you want to edit one of these jobs with our own software Cleansweep®, a wireless connectivity and a tablet will be at your disposal. No more need for cables, we like to make your lives easier.

Other key features of the QF-Compact include a quick startup cycle of around 10s and very low maintenance requirements. You will only need to replace the dust filter once in a while.

QF-200-300

MID POWER LASER CLEANING

The design of a Mid power system (200W or 300W) is more advanced than the Low Power unit's design.

Not only does the standard configuration exist of a control unit and a laser source, but also a cooling unit. This cooling unit makes sure the source remains cool during operation.

Our unique industrial grade control system ensures fluent operation of both chiller and laser source, and provides the customer with all the information he needs!

Off course, multiple laser programs can also be created in Cleansweep®, which can be stored to the control unit later on.



STAND-ALONE OR MOBILE

P-Laser's Mid Power series come in a fixed cabinet or a rugged trolley.

STAND-ALONE UNIT

When used as stand-alone unit or integrated in a production or assembly line, the P-Laser metal cabinet effectively protects your Mid Power laser cleaning system.

Measurements:
103cm x 80cm x 121cm (L x W x H)

TROLLEY

As the MTR-03 trolley fits into a small van, it can be transported and manoeuvred very easily. The brakes on the caster wheels prevent the system from moving around unintentionally.

Flight case measurements:
105cm x 65cm x 112cm (L x W x H)

MOBILE OR MACHINE OPTIC

P-Laser's Mid Power units can be delivered with a mobile or machine optic.

The mobile optic finds its application in constantly changing working areas. The laser can be operated by hand, so even the most difficult spots can be reached.

The machine optic can be installed on an assembly or production line, without the need for large modifications.

Both optics are delivered with 2D-scanners, which ensures an extremely versatile package of operation modes.

QF-500-1000

HIGH POWER LASER CLEANING

P-Laser's High Power systems are truly state-of-the-art machines that combine high pulse power with large surface coverage. The laser is controlled by a 19" control unit. To cool the optical components during operation, water cooling is integrated.

The High Power series can be delivered in two configurations: a 500W or a 1000W laser source. They both work at the same pulse power, but the 1000W delivers double the amount of energy to speed up the process.

An air treatment unit is integrated to cool down the optic and avoid dust onto the lens.



CABINET OR SELF CONTAINED

P-Laser's High Power series come in a stylish cabinet or self contained and fully mobile on a robust set of caster wheels.

FIXED CABINET

When standing independently or integrated in a production or assembly line, the P-Laser metal cabinet effectively protects your High Power laser cleaning system.

Cabinet measurements:
103cm x 80cm x 121cm (L x W x H)

SELF CONTAINED AND FULLY MOBILE

The mobile version of our High Power systems is mounted on a robust set of wheels, making it very easy to transport and manoeuvre it anywhere you like. The brakes on the caster wheels prevent the system from moving around unintentionally.

Measurements: 182cm x 77cm x 140cm (L x W x H)

MOBILE OR MACHINE OPTIC

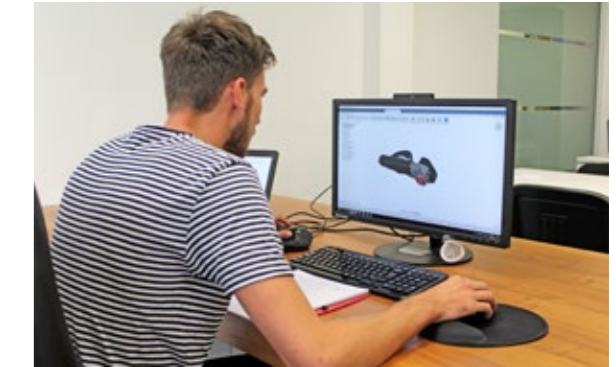
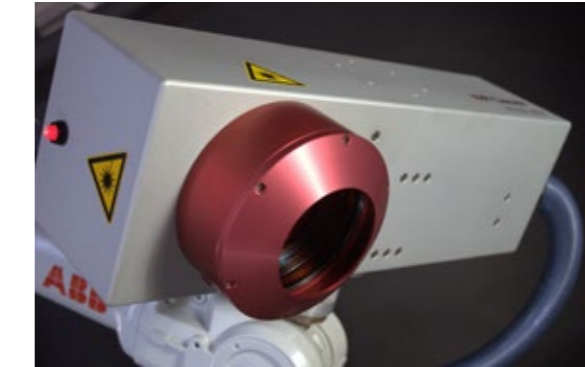
The mobile optic, as you can see, gives you the freedom to operate the laser anywhere you want. An external vacuum system can be added to the mobile optic, to ensure good suction of harmful dust or fumes.

The machine optic can be integrated in any production or assembly line. It is a robust and durable unit, but flexible enough to be installed on a robot.

The optics can be delivered with a cable length varying from 16m to 50m.



SERVICES



RENTING LASER CLEANING EQUIPMENT

If you have a typical laser cleaning job, but you don't want to invest immediately in a complete laser cleaning system, why not rent it?

Same thing if you would like to test if our laser equipment can answer your specific cleaning issues.

Depending on your wants and needs, we rent you the ideal laser cleaning equipment, just for the time you need it.

IN-HOUSE PROCESS DEVELOPMENT

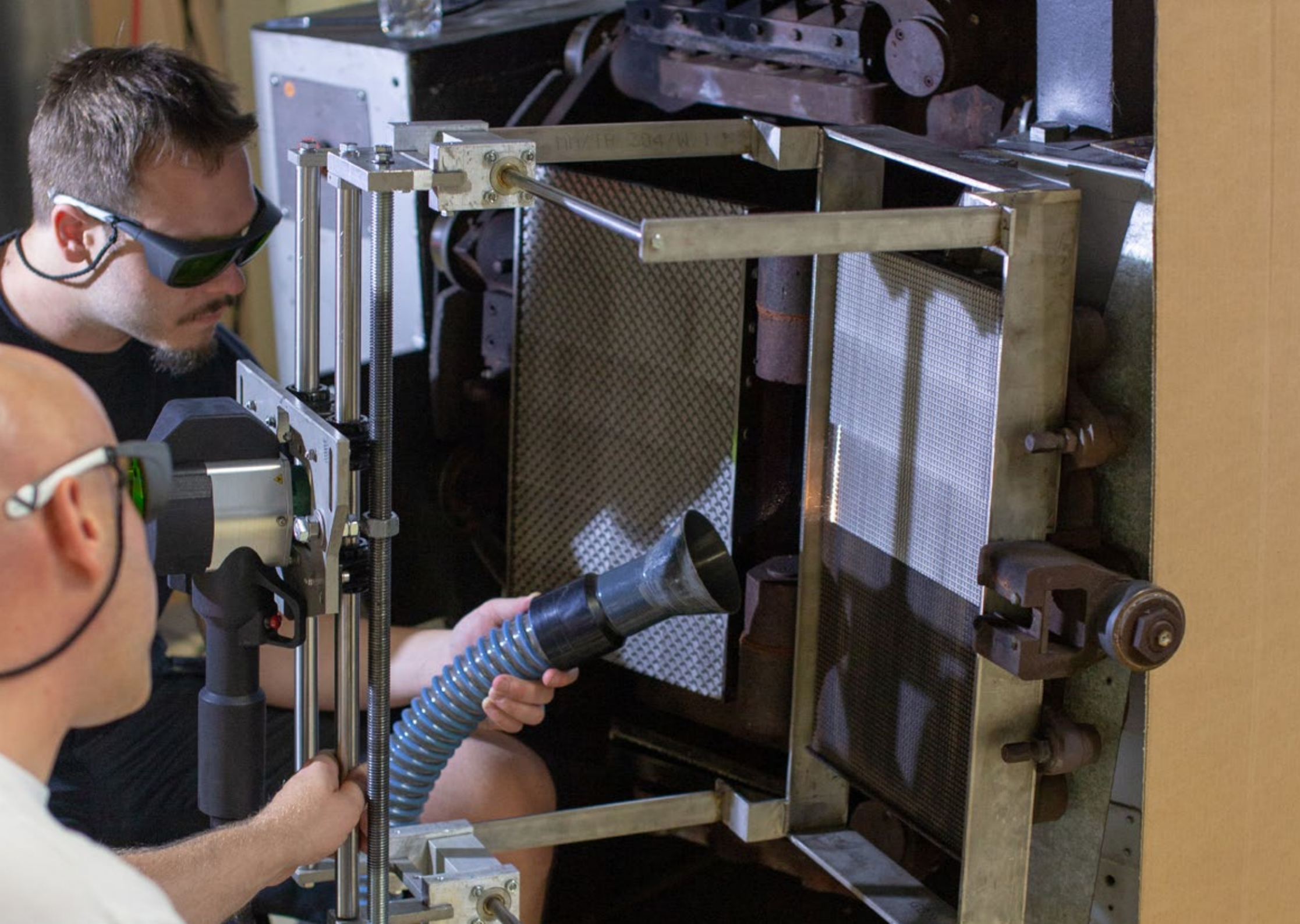
P-Laser offers assistance to companies who want to implement our lasers in their processes or production lines. We take a look at all the information and factors which are needed to build a succesful process around the laser.

If necessary, we work together with experienced partners to make sure the transition is as smooth as possible.

FEASIBILITY STUDY

In the P-Laser laboratory, our researchers daily run laser cleaning tests on demand of our customers. Or to examine for ourselves if laser technology is suited for new materials or applications we encounter.

So if you doubt whether laser technology can answer your cleaning concerns, do not hesitate to contact us. We will be happy to put your case to the test.





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