



eurolaser
Partner for your success.

The Laser Magazine by eurolaser
9th edition / June 2010

LASERPOINT

A passion for success

More than 16 years experience in laser technology



Service training

**better prepared for
serving the customer**

24-month warranty

What makes eurolaser technology so reliable?

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Individual design in fine veneers

Successful eurolaser customers

Live the economy

Dear readers,

Apart from economic questions, we also place great importance on stating and honouring the human aspects in our company. We are convinced that an atmosphere of cooperation with customers and suppliers as well as employees and families in every respect is the only way to guarantee successful further growth.

In this spirit we would like to thank all those involved for their commitment and their willingness to cooperate, all customers for their interesting suggestions and all suppliers for their active support. Together we generate added value and perspectives for our common good.



A lot of success wish M. Kluczinski & H. Hasse

A passion for success

More than 16 years experience in laser technology

A virtue, which is known to be passed on to us from grand masters in art and handicraft. If one becomes sufficiently involved with a material or a subject, and this provides a basis for a whole landscape of ideas - then it is time to set the right priorities and success will take care of itself. eurolaser decided to stay hard on the heels of the phenomenon of „light“ 16 years ago. Nothing new at first glance - but still a treasure chest full of surprises and innovations.

As an important element, light - an electromagnetic wave - originally assumed a special role in the history of man. Groundbreaking successes, such as those accompanying the introduction of the electric light, are indispensable for our civilisation. But we not only make profitable use of light in its visible form. Invisible light beams are used in all kinds of helpful and familiar tasks. For example in medicine, where X-ray and magnetic resonance tomographs are used. And also in all kinds of imaging technology, photography, copiers, scanners and in distance, speed and temperature measuring equipment. Today, these electromagnetic



waves not only enable us to exactly determine the surface temperatures of remote planets, but also produce an energy performance certificate for a residential building. The list is almost endless.

LASER means nothing other than Light Amplification by Stimulated Emission of Radiation. This too involves a special form of light. The founders of eurolaser GmbH realised that this cha-

racteristic of light had the particular ability to perform a number of demanding applications in industrial use. Several applications had already been introduced industrially some 30 years earlier. However, it needed a passionate interest and significant development work to become convinced of further advantages and to substantially improve the boundary conditions.



The development of useful applications and economic system configurations has always been the focus of the company objectives. We have not deployed any laser purely for the sake of prestige or because of one-sided sales and marketing activities, says founding engineer and shareholder Matthias Kluczinski. But as soon as laser technology shows convincing advantages compared with conventional manufacturing methods, the company is at the ready to assist its exceedingly multi-faceted customer base. eurolaser provides suitable solutions from a modular system - not least to avoid using a sledgehammer to crack a nut.

Every inquiry from the markets is individually checked. Feasibility is tested, studied and recorded. From the very beginning, we have referred to this as „an application“. Meticulous records are kept of the behaviour of every material and its cutting, engraving or marking parameters. Only in this way can we make reliable statements which can be used as a basis for justifying or even enabling years of production in the first place.

Product families for CO₂ laser processing came into being with the diversification of manufacturing problems and their solutions. With a wavelength in the



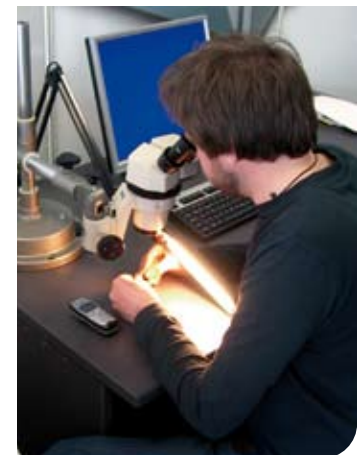
infrared range, a number of materials can be processed under these reliable radiation sources. The advantages of laser material processing are self-evident:

- ★ **Non-contact and zero-force cutting**
- ★ **Consistent cut quality with no tool wear**
- ★ **Excellent precision and reproducibility**
- ★ **Flexibility of geometry and contour selection**
- ★ **Large choice of materials**

eurolaser products are known as quality products around the world, and are in high demand for the following reasons:

- ★ **Clear system structure and system philosophy**
- ★ **Basic, key advice and samples in advance**
- ★ **Very good price/performance ratio**
- ★ **Independent company policy - no obligation to use certain products**
- ★ **Laser beam sources from leading manufacturers only**
- ★ **Continuous, successive development**
- ★ **Flexible technology**
- ★ **Can be updated and upgraded at any time**
- ★ **Complete solutions including comprehensive service packages**

Success for our customers is also success for eurolaser GmbH. It is no accident that more than 30% of system customers come back to the company after just a short time to invest in further system technology. The Work Horse is one of the terms used in English-speaking regions for euro laser cutting systems, which in some cases have been reliably performing their daily duty for more than 12 years. Sustainability, including in customer service, is as much part of our passion as the development of leading technologies, explains Holger Hasse, managing partner and personally responsible for finally accepting every system before it leaves the manufacturing facility in Lüneburg.



Just relax,

because eurolaser offers you a standard

24-month warranty*

**for your laser system. And that applies
for any industrial use!**



We have been doing this for a good while now!

For some years now eurolaser has set an example on the mechanical engineering market with its 24-month warranty on laser processing systems. Our corporate philosophy ensures lasting confidence in innovative laser technology. Play it safe.

What makes eurolaser technology so reliable?

► Making a selective choice of components and assemblies means we can guarantee the long life and reliability of our system technology.


► Involvement of well qualified experts from the development phase right through to the service department enables us to offer a top quality product and professional service.

► We trust in a lasting modular concept that has already proved itself 10,000-times over in practice.

► We offer an economical immediate replacement program for spare parts in the case of essential components. This ensures you always remain operational.

► Availability anywhere in the world thanks to over 28 service support partners and distributor networks.

► We keep in touch: service hotline software and application support - all from a central knowledge source.

Your commitment from the manufacturer that derives from our many years of experience on the world market. 

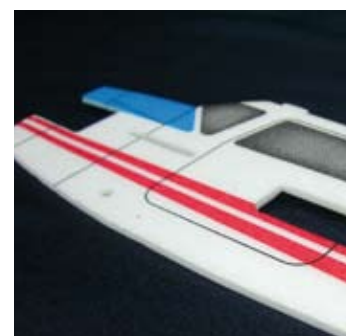
*) We reduce your investment risk to a minimum by including all essential components apart from wear and consuming parts in the warranty. The eurolaser General Terms and Conditions are applicable



Fine details in model making



Clear, smooth cutting edges in acrylic



Polystyrene construction kit



Model aircraft in balsa wood

Miniatures made of different materials



Model railway with laser-cut real wood latticework

Miniature models just do not have the right effect unless they give a convincing image of the real world. The models must be made as realistically as possible in order to bring the miniature world to life and this is where accuracy in detail plays a vital role. The timber framework front of the small riding stable (see picture on the left) is made of plywood, giving the model railway a particularly realistic appearance.

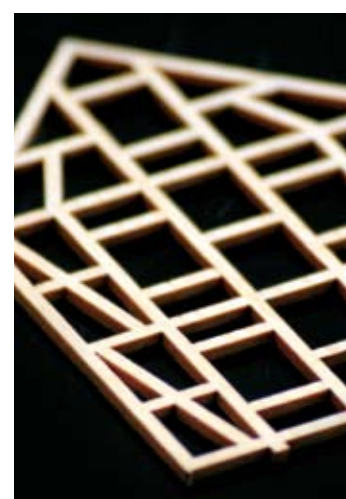
Both extremely fine contours can be cut as well as delicate filigree details and surface structures engraved with the laser cutting and engraving systems from eurolaser. It is exactly these properties of laser technology that are later reflected in the various materials rendering

walls, roofs or paths attractive and realistic.

This versatility, both in the choice of materials and the wide range of applications, is what makes the laser systems from eurolaser such an all-round alternative for the model making branch. ■



Extremely fine filigree cuts in cardboard



Life-like plywood parts

Successful eurolaser customers

Individual design in fine veneers

What could be better than to come home, close the door behind you and simply settle down and relax? This feeling of well-being can be further increased however if the everyday world remains behind a high-quality door made by GRAUTHOFF Türengruppe. For these doors meet even the highest individual expectations. Both in design and in the choice of materials, they are an eye-catcher in any personal living space.

As a family-run business and manufacturer of HGM real wood and varnished doors, ASTRA plastic doors and Light and Harmony all-glass doors, GRAUTHOFF Türengruppe represents high quality, traditional craftsmanship and contemporary design, and has done so for more than 50 years. The company

produces creative solutions for exclusive interior and exterior doors using high-quality veneers from all over the world. As well as impressive design, special features such as noise suppression, smoke and fire protection, and burglar-resistant construction are of course included in the range.

It goes without saying that high-quality materials combined with dynamic zeitgeist and the latest manufacturing processes feature in the production of these units. For some years, a eurolaser XL-1200 system has also contributed to production, enabling high

productivity, master craftsmanship and the love of wood to be combined. This allows market requirements and customers' wishes to be satisfied to an even greater extent, and there are no longer any limits on design.





Individual design by means of veneer marquetry



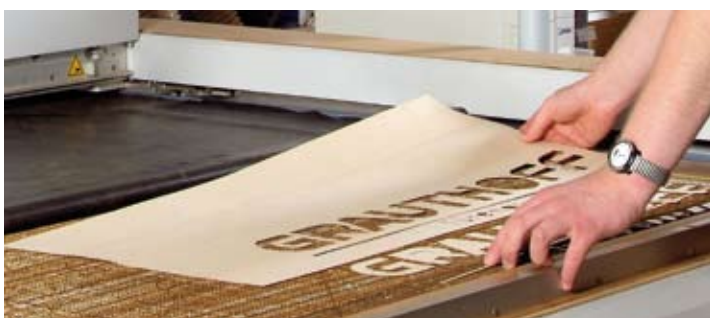
Orchard Collection motif

General Manager Wolfgang Grauthoff:

„Since we have been using the eurolaser system, it is extraordinary how we have been able to design doors even more individually. Depending on the artwork, we put anything on the door that the customer wants, whether it be a signature, logo, room name or whatever.“



GRAUTHOFF Türenggruppe GmbH veneer store



Cut veneer on the eurolaser system

The idea of lasering arose from the development of the extraordinary Feng Shui collection, which came about with the help of qualified Feng Shui partners. This energy design developed along Feng Shui guidelines can be lasered into the veneer in many ways.

For this special innovation, GRAUTHOFF Türenggruppe has already received the Innovation Prize for Wood as well as a TOP 100 distinction for being one of the most innovative companies in Germany.

Another very successful product is the Orchard Collection, where visually beautiful but restrained motifs in the form of veneer inlays applied by laser technology give every door a special appearance. These relate to the customers' longing for enchanted gardens and magical landscapes, and set new standards in veneer processing.

The Orchard Collection has already been awarded the German Timber Trade Federation's Woody Award. An example of how investment in new technologies can enhance a company's international competitiveness and therefore also its sustainability.

Welcome to the individual world of veneer processing.

**Grauthoff
Türenggruppe GmbH
Brandstraße 71-79
33397 Rietberg-Mastholte
Germany
www.grauthoff.com**



Precise cutting of membrane keyboards

Above all, the membrane keyboard is used in places where resistance to dirt and water as well as insensitivity to environmental influences is required. It is easy to clean and, with its compact design, it offers a large scope for the most varied of applications.

So it is in charge of automobile and vehicle manufacture, electronics, medical and military technology and many more. The laser cuts even mounted foil on a table concept especially developed for this purpose with a configuration of integrated exhaust technology and cutting nozzles.

- up to 10 composite layers
- circa 2 x faster than conventional laser systems
- with exact dimensional accuracy, without wear
- without changing tools
- filigree contours up to 1/10 mm
- clean surface
- force-free effect due to contact-free cut
- kiss-cut effect for individual layers possible
- fusing / sealing of the outer edges possible
- entry of moisture is reduced
- foil cables can be bridged



Precise contours and sealed cutting edges

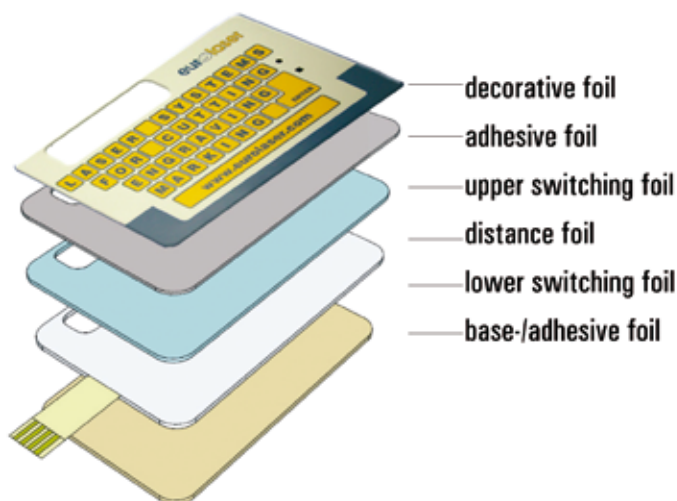
Above all, the production of the membrane keyboard should be economical. On the other hand, the products must display very specific properties and fulfill special functions.

A few functional examples of complex foil assembly:

- flexible labeling options
- tactile snap discs
- electrical connections by flexible foil cables
- protective filter (e.g. against electrostatic charges)
- ergonomic surfaces
- integration of an LED layer
- IP protection classes

Using camera recognition registration marks can be accurately read by the laser system and the position of the foil layers to be processed can be determined with precision. The intelligent analysis of the register marks also makes a compensation of the dimensions possible. This serves to optimize or align to the necessary dimensional accuracy.






















As a composite, most membrane keyboards can be e.g. contoured outwards, also after assembly.

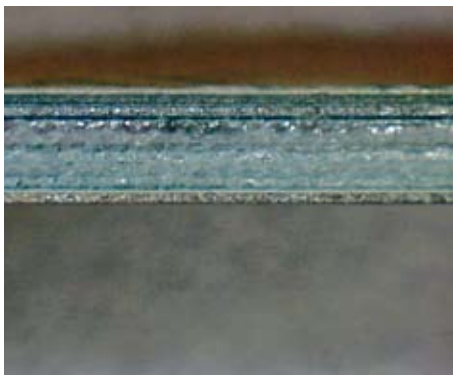


Optical recognition system

Laser cutting of foils compared to conventional methods

Your advantages at a glance

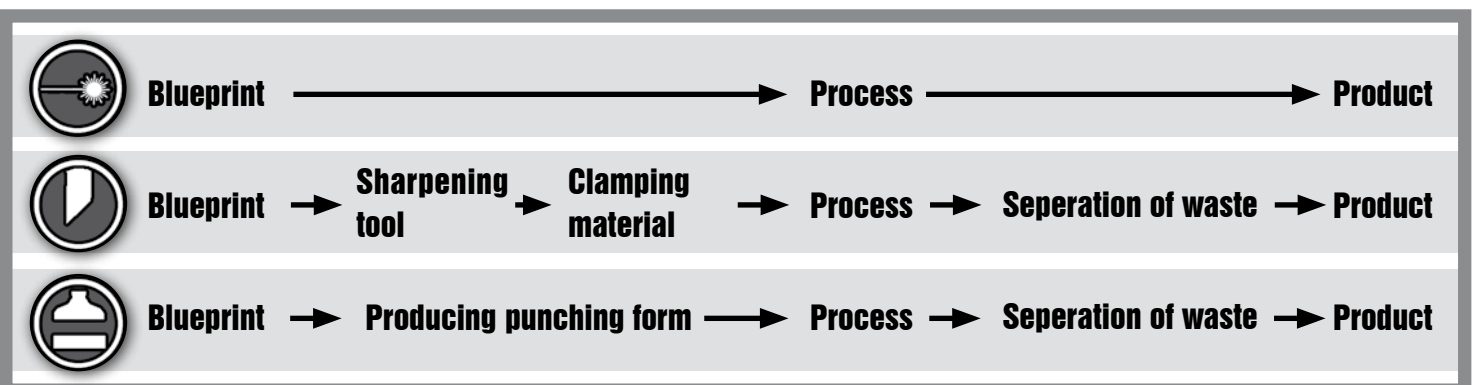
	Laser Cutting	Knife Cutting	Punching
Cutting quality	 constant quality	 decreasing quality over time	 decreasing quality over time
Foil separation			
Cutting width	 $\pm 0,05$ mm	 $\pm 0,05$ mm	 $\pm 0,10$ mm
Sealing of cutting edges	 heat-sealed	 no sealing	 no sealing
Fine structures	 yes	 limited	 no
Costs for tool storage	 no storage needed	 low costs for storage	 high costs for storage
Wear costs	 no wear	 easy exchange when worn	 expensive when worn



Detailed view of cutting edge



Front film in the automotive industry



Service training

better prepared for serving the customer

A specialist recognises a company philosophy which is lived without compromise from the quality of the service support. But this does not come about by chance.

Sending engineers „to the front“ requires ongoing and comprehensive technical training, says Björn Engler - a valued and successful eurolaser GmbH engineer. The actual professional training for mechatronics engineers provides a very good starting point for this. Since the company was founded, eurolaser has always endeavoured to provide excellent customer ser-

vice. But it is not always easy to find the right personnel who are able to fulfil the customer's every wish on site with above-average motivation and for long years - sometimes at the expense of their private social life. Personal commitment, maximum flexibility and wide technical knowledge are just as essential as an open ear and a particular empathy with the questions of

the user, operator and maintenance personnel. In the meantime, we can also refer to them as best-solution-angels, as it is not unusual for our engineers to restore or even increase productivity in a very short time, so that possible failures are not accompanied by negative consequences for the user.





Training of international service partners

This is the one, important requirement on the travelling troubleshooters. In addition, continuous communication in the form of practical training courses for sustained and qualified service is indispensable. From the very beginning, eurolaser provides a comprehensive training programme for all staff and corporate partners. **Staff training** guarantees safety - both in operation and in the fulfilment of numerous tasks, e.g. in the handling of hazardous substances, laser radiation and operating instructions. Internal training measures such as **college training** also guarantee a uniform state of knowledge of products, development tasks and problem solutions in all areas. Sales, Service, Marketing and Production all benefit from enlightenment, justification and clarification of the company objectives. Innovation ultimately thrives on enthusiasm, and there can never be enough of this.

In **service training**, all - and in particular the international service partners - are brought technically up to date at least every 2 years. Training events are held regularly twice a year and last 10 days in each case. „Basic“ and „Advanced“ categories also give newcomers a good opportunity of getting to know the material, while professionals can supplement their

knowledge. The exchange of ideas likewise enables important feedback from the markets to be assimilated in the company. A workshop rounds off the programme and enables particular problems to be addressed and solutions found by purely practical work.

A particular highlight for the participants is the routine final test which always extends the service authorisation of corporate partners. But as well as intensive training, visits and evening events are also held in the Lüneburg-Hamburg region. These activities particularly underline the important communal spirit and strengthen mutual trust.

This year, the training team in the field of technical support is led by Service Engineer Björn Engler as the successor to founding member Holger Hasse. „Engler is our best man in this area, as with a calm, convincing voice, absolutely perfect know-how and comprehensive experience in his portfolio, he is the ideal mentor for our engineers of today and tomorrow“ says Hasse in a clear statement. With more than eight years of practical experience worldwide, Engler will now sometimes be able to enjoy the odd evening with friends at home.



Founder member H. Hasse and service engineer B. Engler

Advice and support on all aspects of eurolaser technology



Robin Urbach has joined the eurolaser sales team. Since March 2010, he has taken over the North German region and will be providing full support to customers and potential customers with questions on all aspects of eurolaser technology. The skilled graduate fashion designer has

gained many years experience in widely differing positions within the textile industry, particularly in sales. As well as expanding the filial network, his responsibilities included the introduction to the markets, establishing of various own brands, purchase and sale in Germany and abroad.

„I am looking forward to my future work at eurolaser and I can't wait to see what challenges await me. My particular concern is to develop close and personal contact with our customers in order to help substantially shape the success of our customers through a continual exchange of information and eurolaser expertise.“

eurolaser personnel

New recruitments

Name	Profession	Date of appointment
Robin Urbach	Area Sales Manager	08.03.2010

Trainees

Name	Department	Start of employment
Sebastian Schrick	Warehouse logistics	15.03.2010
Dawid Kobylka	Production	14.04.2010

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Important dates

LASYS
International trade fair for system solutions in laser material processing
08 – 10 June 2010

Lasys in Stuttgart (DE) 8th - 10th June

Lasys is the trade fair for system solutions in various laser material processing covering all materials and industries. We will be presenting the whole eurolaser spectrum from cutting and engraving to marking at this exhibition. We will also address the subject of automation in laser cutting and present useful optional additions to the system for further increasing the efficiency of laser technology. You will find eurolaser in Hall 1 on Stand C20.



FESPA in Munich (DE) 22nd - 26th June

We will be putting forward our solutions for the processing of printed materials such as foils on Stand 400 in Hall B3. Our innovative shuttle table system will also be exhibited as well as the optical recognition system.