eurolaser

Partner for your success.

Innovative laser system engineering

Product overview

Discover the fascinating world of laser technology.

Specialists in laser systems for cutting, engraving and marking

eurolaser designs, develops and produces innovative laser systems for material machining in industry and craftwork. With a multiplicity of potential uses, the Lüneburg-based company has established a position showing the way ahead for new and established laser applications in many sectors of industry.

Efficient systems

A completely modular concept underpins our laser systems, so that we can always take a flexible approach to our customers' needs. High-quality components ensure reliability, a long working life and guarantee a positive price-performance ratio for the investment.

Successful customers - worldwide

Anybody who wants to remain competitive in today's markets is switching from conventional production processes to superior laser technology. Economical production and additional growth guarantee success for many users. It is far from unusual for them to consider purchasing another laser system after a short time, which reflects a high degree of customer satisfaction.

Many years of expertise

To establish which laser system is best suited to their applications, potential and existing customers are encouraged by eurolaser to carry out comprehensive material tests. The experts in the use of lasers from our Application Center have experience of over 10,000 successful prototypes. Know-how which results in a payoff for you.

High-Tech made in Germany. Our aim is your success!

YOUR REQUIREMENT

ACRYLIC Page 6

In many fields, laser technology is displacing conventional machining processes for the machining of acrylic glass or Plexiglas® as if it had been created for the task.

WOOD Page 10

This is a favorite natural material that has been used for numerous purposes for a very long time. Contactless laser machining protects the material, is capable of very fine detailing and opens up new opportunities.

TEXTILES Page 14

The requirement for laser machining of woven, non-woven and synthetic materials is growing all the time. Intelligent material handling units and detection systems can automate the production process completely.

FOILS Page 18

A laser's high precision and flexibility makes it the ideal tool for film applications, with obvious potential compared with conventional production processes.

ADDITIONAL POTENTIAL APPLICATIONS Page 22

The benefits of laser technology are increasingly used in a growing number of sectors of industry and it is the production technology for the future.

OUR SOLUTION

LASER CUTTING SYSTEMS Page 24

Our powerful laser systems are designed for use in both craftwork and industry. The modular construction with high-quality components guarantees quality for the most demanding applications.

AUTOMATED SYSTEMS AND OPTIONS Page 28

Customized automated systems improve the efficiency and commercial viability of laser cutting systems. A multitude of options extend the applications and simplify everyday jobs.

QUICKMARK LASER MARKING SYSTEM Page 35

The high performance laser marker allows extraordinarily quick marking with impressive results. Precision, reliability and speed characterize this laser scanner. A safe and compact solution for contactless marking.

LASER ENGRAVING SYSTEMS Page 36

Professional expertise is encapsulated and integrated into our compact laser systems. Due to the very flexible application options and innovative system additions our laser engraving systems are all-rounders.

WORLDWIDE SERVICE Page 38

We work side by side with you over the entire life cycle of our products with a wide range of services, so that your investment achieves a maximum return both now and in the future.

ACRYLIC

An overview of the advantages of laser machining:

- Crystal clear, smooth cut edges in a single process
- No need to clamp or fix the acrylic
- No chips - less contamination and reduced overheads
- Attractive engraving results in a matt silk finish
- Practically radius-free cutting of inner contours
- Machining with protective film possible - no damage to the material

What can laser technology do better?

Laser cutting of acrylic compared with milling and sawing

Laser technology is becoming more established in manual and industrial acrylic machining. Of course there are reasons for this. But what exactly are the advantages of this technology and how is it different from alternative machining methods. This comparison gives you an overview of the key issues:

Matt silken engravings

Clear, smooth cut edge in a single operation

No contamination as with milling

We recommend the laser systems

XL-**1200**, XL-**1600** und XL-**3200**

for processing acrylics.

ACRYLIC MACHINING - A COMPARISON

	LASER CUTTING	MILLING	SAWING
Cutting edge quality	smooth / clear	matt	rough
Cut quality in the cycle	constant	decreasing	decreasing
Cutting accuracy	good	good	poor
Fine details / radius-free inner contours	yes	conditional	no
Flexibility / Individuality	high	conditional	slight
Labeling / Engraving	yes	conditional	no
Contamination	no chips	chippings	chippings / dust
Material damage / breakage	contactless	mechanical stress	mechanical stress
Tool wear	no wear	easy exchange, if worn	easy exchange, if worn
Material waste	very little	high	average

COMPARISON OF THE WORK PROCESSES

Laser:	**Design**	▶			**Process**	▶		**Product**
Mill:	**Design**	▶	Fixing	▶ Tool selection ▶	**Process**	▶	Slacken fixing ▶ Cleaning/Polishing ▶	**Product**
Saw:	**Design**	▶	Fixing	▶ Tool selection ▶	**Process**	▶	Slacken fixing ▶ Cleaning/Polishing ▶	**Product**

What options do we offer you?

Acrylic machining with laser systems by eurolaser

The requirement-focused modular design enables eurolaser laser systems to be specially configured to suit every requirement and at the same time provides the necessary flexibility. The system design is focused mainly on requirements that are generated from later use.

Table concept "Raster plate"

For machining acrylic, laser systems are provided with a special table concept, the raster plate. Its absorption area reduces surplus laser energy to a minimum and in this way prevents reflections and damage to the material. Laser power, machining area and optional automation techniques are selected according to your needs. This customer-focused system specification is based on the experiences of successful users the world over and can be demonstrated by means of more than 10,000 different application results in our Application Center.

Automated processes for your laser system

Higher productivity, more economical working - save time and money

Shuttle Table System

This enables loading and unloading of the machining table during laser machining and demonstrably delivers an increase in efficiency of up to 75% when using a laser system.

... more on page 28

Remote Operation

The software-controlled division of the work area allows laser system operation on alternate sides. This enables production to be continued on the opposite side while removing and reloading material.

... more on page 29

Optional extras

Customized options simplify everyday tasks and increase your possibilities

Optical Recognition System

Automatic camera detection enables printed materials to be cut out precisely along the printed outline. Even copying tolerances in the printed format can be compensated by software control.

... more on page 32

Mechanical Machining

Mechanical tools, such as milling cutters or knives, can be used on the laser system. Mechanical tools can be installed parallel to the laser on many systems offering a surprisingly large number of options on a single system.

... more on page 33

Raster Engraving Unit

This optional equipment allows machining of image files and production of both 2D-images and 3D-reliefs. Engraving is possible with a resolution of up to 1200 dpi and in 256 shades of grey.

... more on page 34

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Displays

Sprue removal

Modeling

Signing

Point of Sale

Labeling

Trophies

Shopfitting

Furniture

Medical systems

WOOD

An overview of the advantages of laser machining:

- No chips - less contamination and reduced efforts
- Precision details and radius-free inner contours possible
- Contactless machining - minimum waste, no breakages
- Burr-free cut edges - no rework needed
- No need to clamp or fix the workpiece
- Comprehensive range of machining options for producing dieboards

What can laser systems do better?

Laser cutting of wood in comparison with milling and sawing

Wood is used in a very wide range of sectors and has always been a much loved material because of its versatility in use. Efficient laser technology is increasingly being used for machining, because it provides a multitude of options compared with conventional machining methods and offers particular advantages through contactless material machining. This is illustrated by a comparative overview:

Filigree cuts without damaging the material

Exact inlays from veneer

High quality relief engravings

We recommend the laser systems

M-**800**, M-**1600** and XL-**1600**

for processing wood.

A COMPARISON OF WOOD AND VENEER MACHINING

	LASER CUTTING	MILLING	SAWING
Cutting edge quality	smooth, chip & burr-free	unmachined / matt	unmachined / matt
Cut quality in the cycle	constant	decreasing	decreasing
Cutting accuracy	good	good	average
Fine details / radius-free inner contours	yes	conditional	no
Flexibility / Individuality	high	conditional	slight
Labeling / Engraving	yes	yes	no
Contamination	no chips	chippings	chippings / dust
Material damage / breakage	contactless	mechanical stress	mechanical stress
Tool wear	no wear	easy exchange, if worn	easy exchange, if worn
Material waste	very little	high	average

COMPARISON OF THE WORK PROCESSES

Laser:	**Design**	▶		▶	**Process**	▶	**Product**	
Mill:	**Design**	▶ Fixing	▶ Tool selection	▶	**Process**	▶ Slacken fixing	▶ Deburring/Grinding	▶ **Product**
Sawing:	**Design**	▶ Fixing	▶ Tool selection	▶	**Process**	▶ Slacken fixing	▶ Deburring/Grinding	▶ **Product**

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What options do we offer you?

Woodworking with laser systems by eurolaser

The modular design enables eurolaser systems to be specially configured to suit every requirement. We analyze your requirements and configure the laser system individually for you.

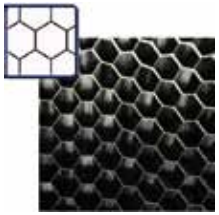

Table concept "Honeycomb"

Table concept "PIN-Concept"

Special table concepts are needed for ideal wood machining. Thin wooden materials, such as veneers, MDF and plywood < 10 mm thick are cut on an aluminum frame similar to honeycomb. For cutting stamped outlines or solid timber > 10 mm in thickness, it is preferable to use the PIN concept. This comprises stable brass or PMMA locating pins and provides for perfect machining with increased smoke emissions.

We select laser power, machining surface and optional automation systems to suit your requirements. To do this, we refer to our test results with your material and our experience from more than 10,000 application samples.

Automated processes and options for your laser system

Higher productivity, more economical working - save time and money

Shuttle Table System
Increase the productivity of your laser system by up to 75% by avoiding down times.
... more on page 28

Remote Operation
Loading and unloading during the cutting process allows you to produce more quickly.
... more on page 29

Optional extras

Optical Recognition System
You use the camera system to detect cutting marks on printed material.
... more on page 32

Mechanical Machining
Using different toolheads, such as milling cutters or knives, opens up even more machining options to you - without purchasing a second machine.
... more on page 33

Raster Engraving Unit
Engrave with a resolution of up to 1200 dpi and produce 3D-reliefs.
... more on page 34

Dieboards for the packaging industry

One system - all applications

Laser Dieboards
Cut with constantly high accuracy from 1 pt to 6 pts. Focus your cutting with the box cut process. At the same time, less material vaporizes, which means fewer emissions and therefore more cost-effective extraction and filter systems.

Cutting of ejection rubbers
With one operation, the eurolaser system can be converted to an efficient ejection rubber cutter. You do not need a drying process, as with water jet cutting systems. Oblique cuts at an angle of up to 15° are also possible.

Production of packaging templates
Samples for design, material and functional alternatives can be produced simply, quickly and inexpensively with the Samplemaker tool set.

Marking of material surfaces
Mark ejection rubbers simply with the pen module, mark multiplex dieboards using precise laser engraving or mark cardboard boxes in rich contrast with our Ink Marker - all on a single system.

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Shop /
exhibition construction

Floor coverings

Modeling

Toys

Engravings

Woodwork

Dieboards

Furniture

Musical instruments

Veneer / Inlays

TEXTILES

An overview of the advantages of laser machining:

- No fabric distortion by using contactless machining
- Precise and filigree cuts
- Machining very large formats by means of seamless cutting transition
- Sealing of the cut edges - hence no fraying
- Machining in all directions - regardless of the fabric structure
- Fully automatic machining from the roll

What can laser systems do better?

Laser cutting of textiles compared with punching and knife cutting

Every day, more application possibilities arise for the use of laser technology in the textile market. Our laser systems for cutting, engraving and marking are meanwhile being used efficiently across all sectors of industry, both for short runs and for industrial mass production runs. Because the reasons for introducing laser technology into this branch of commerce are numerous, this comparison shows you what the advantages are compared with alternative methods of machining:

Precise cuts in spacer fabrics

Refinements by engraving

Smooth, lint-free cut edges

We recommend the laser systems

L-**3200**, XL-**3200** and 2XL-**3200**

for processing textiles.

A COMPARISON OF TEXTILE MACHINING

	LASER CUTTING	KNIFE CUTTING	PUNCHING
Cutting edge quality	smooth	frayed	frayed
Cut quality in the cycle	constant	decreasing	decreasing
Fine details / radius-free inner contours	yes	conditional	conditional
Cut edge sealing (Synthetic / natural materials / mixtures)	yes / no / yes	no / no / no	no / no / no
Flexibility / Individuality	high	high	slight
Labeling / Engraving	yes	no	no
Material distortion when cutting	no, because contactless	yes	conditional
Multi-layer cutting	conditional	yes	yes
Tool wear	no wear	easy exchange, if worn	expensive exchange, if worn
Tool storage costs	no tool store	low storage costs	average storage costs

COMPARISON OF THE WORK PROCESSES

Laser:	**Design** ▶		**Process** ▶		**Product**
Knife:	**Design** ▶	Clamp knife ▶	**Process**	▶ Separate residual material from product ▶	**Product**
Die:	**Design** ▶	Produce dieboard ▶ Clamp ▶	**Process**	▶Separate residual material from product ▶	**Product**

What options do we offer you?

Textile machining with laser technology by eurolaser

We can customize the technology exactly to the needs of your application through the modular design of our laser systems. You will receive from us a laser system specially configured for your requirements and designed to meet your needs which will arise in later use.

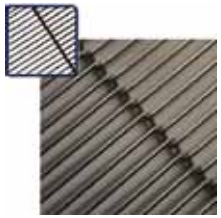

Table concept "Conveyor"

A special table concept is used for textile machining. This comprises a stainless steel wire mesh and is particularly suitable for thin and flexible materials. On the one hand, this is used as the material support for the machining process and, on the other, the transport element for the Conveyor System. To put together the ideal laser system for your needs, we test your material in advance and then recommend the laser power, machining area and optional automation systems. You benefit from our expertise, acquired from over 10,000 successful application samples.

Automated processes for your laser system

Higher productivity, more economical working - save time and money

Conveyor System

By using this automatic material feed, textiles can be fed for laser cutting directly from the roll and routed after laser cutting directly to a table extension. With a high degree of connecting accuracy after a material feed cycle, sections, which for all practical purposes are endless, can be produced. The bale material is fed via an automatic feeding unit. An feeding system edge controller ensures accurate positioning of the material. There is even an option to add a winding unit to the Conveyor System. This is used for the even winding of previously processed textiles and this accordingly results in a completely automated cutting process.

... more beginning on page 30

Optional extras

Customized options simplify everyday tasks and increase your possibilities

Ink Marker

The compressed air controlled jet system applies ink markings to the material.

... more on page 31

Optical Recognition System

The camera detection system uses reference points which enable you to cut printed textiles exactly along the printed outline. Material edges and patterns are also detected. Software control compensates for pressure differences.

... more on page 32

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Clothing

Textiles for use
in the home

Filters / technical textiles

Leather goods

Vehicle construction

Upholstery

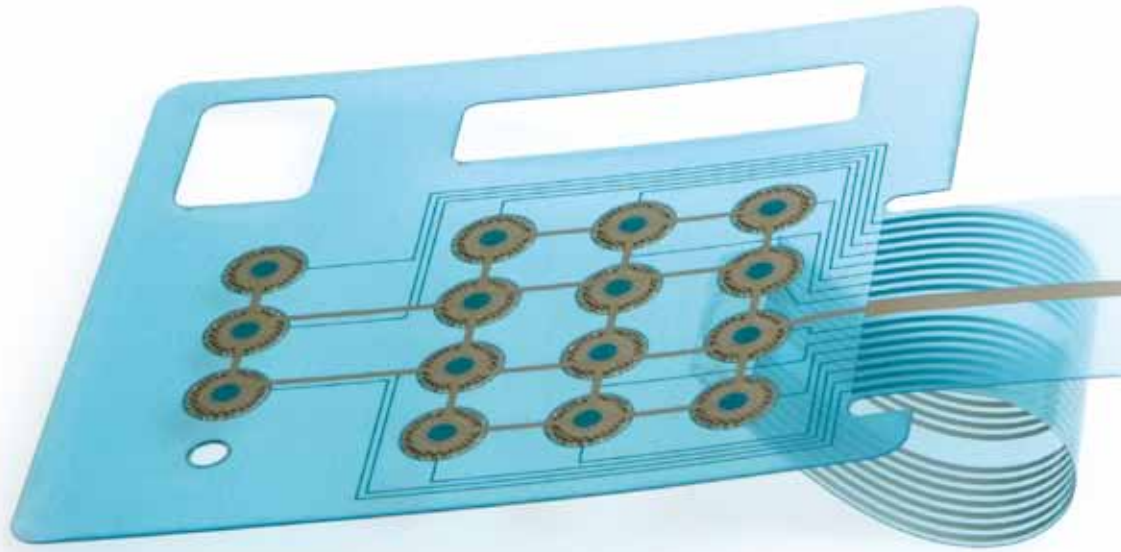
Parachutes / sails

Flags / pennants

Protective fabric

Medical systems /
orthopaedics

FOILS



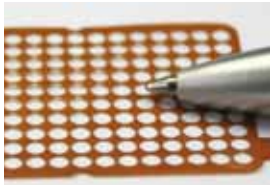
An overview of the advantages of laser machining:

- High precision - the most minute cutouts are possible
- No sticking of residues to the tool
- Cut edge sealing
- No mechanical stressing of the material
- High flexibility
- No upfront costs for tool construction

What can laser technology do better?

Laser cutting of foils compared with punching and knife cutting

Both the enormous variety of materials for synthetic films and increasingly demanding customer requirements are causing the market to look for flexible and efficient production methods. Innovative laser technology is becoming increasingly significant for these applications. High precision is opening up new opportunities, whereas alternative processes are already up against their limits. As in industrial film machining, the advances in laser systems are very much in demand, so that, meanwhile, laser systems are frequently integrated into fully automatic production lines. A comparison of laser cutting with punching and knife cutting shows the following basic advantages:



Filigree details

Cut edges of multi-layer film in detail

Kiss cut and laser labeling for thin films

We recommend the laser systems
M-**800** and M-**1600** for processing foils.

A COMPARISON OF FOIL MACHINING

	LASER CUTTING	KNIFE CUTTING	PUNCHING
Cutting edge quality	no exfoliation	exfoliation	exfoliation
Cut quality in the cycle	constant	decreasing	decreasing
Cutting accuracy	good	good	average
Fine details / small holes	yes	conditional	no
Cut edge sealing	heat-sealed	no sealing	no sealing
Flexibility / Individuality	high	conditional	slight
Tool storage costs	no tool store	low storage costs	average storage costs
Speed	high speed	average speed	very high Speed
Tool wear	no wear	easy exchange, if worn	expensive exchange, if worn

COMPARISON OF THE WORK PROCESSES

Laser:	**Design**	▶		**Process**	▶	**Product**
Knife:	**Design**	▶ Clamp knife ▶		**Process**	▶ Separate residual material from product ▶	**Product**
Die:	**Design**	▶ Produce dieboard ▶ Clamp ▶		**Process**	▶Separate residual material from product ▶	**Product**

What options do we offer you?

Foil machining with laser systems by eurolaser

The machining of technical foils and films always means a production engineering challenge. A high degree of material diversity with concurrently high demands for product precision, long life and diverse areas of application demand maximum flexibility from production methods. It is precisely in this environment that the advantages of eurolaser's modular system design and the universal application of laser technology become particularly significant. In order to guarantee that your system is ideally suited for your application, we concentrate during system design on the requirements that will arise from later use.

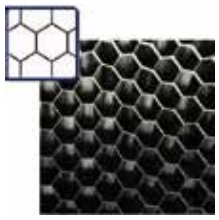


Table concept "Honeycomb"

For foil machining, laser systems are provided with a special table concept, the honeycomb. The beeswax-like structure, from a thin aluminum foil, is very stable and allows a particularly good vacuum to form under the material. This very level tabletop is therefore used for materials with an unstable surface. Laser power, machining area and optional automation techniques are selected according to your needs.

Automated processes for your laser system

Higher productivity, more economical working - save time and money

Shuttle Table System

The machining table can be exchanged in a few seconds, so that loading and unloading can take place during laser machining. Your productivity will be almost doubled and your laser system used even more effectively.

... more on page 28

Remote Operation

The software-controlled division of the working area means that laser machining of the foils can take place on the laser system on alternate sides. This enables production to be continued on the opposite side while removing and reloading material.

... more on page 29

Optional extras

Customized options simplify everyday tasks and increase your possibilities

Pilot Laser

With this option, you can simplify the alignment operation for a multitude of tasks with a clearly visible red light beam.

Optical Recognition System

The material position is determined using reference marks and camera detection. This allows you to follow a printed outline precisely while cutting. Even copying tolerances in the printing can be compensated for by software control.

... more on page 32

Mechanical Machining

Mechanical tool heads can be installed parallel to the laser, giving you the option to use tools such as milling cutters or knives. A valuable extension to your machining options with just one system technology.

... more on page 33

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Protective display films

Membrane keyboards

Front films

Flexible PCBs

Adhesive films

Hightech / Ito films

Fittings

Labels

Spacers

Labeling films

ADDITIONAL POTENTIAL APPLICATIONS

An overview of the advantages of laser machining:

- High precision and repeatability
- No tool wear - no reduction in quality
- No material fixing needed
- Very good cutting efficiency through excellent laser beam preparation
- No mechanical stressing of the material
- High flexibility

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Stone / granite / marble

Coated /
painted metals

Composite materials

Glass

Laser rubber

Foams

Paper / card /
cardboard

Plastics

Stainless steel

and many others

LASER CUTTING SYSTEMS

L-**3200**

Our modular design guarantees you ideal system configuration

Properties which will convince you:

- With a sealed-off CO_2 laser, you are using a „tool“ that is almost zero maintenance
- The movement system from the world market leaders Zünd has proved itself 10,000 times in the market place and provides you with maximum reliability
- You work software-independently and need no license, because the laser system is controlled with your normal PC (no machine software needed)
- Always keep up with the latest state of the art and save cash with our modular design and expandable modules
- An intelligent and at the same time practical safety concept combines maximum machine and operating safety with more effective use
- The freely accessible machining area allows you to load and unload quickly

You benefit from:

- Depending on the requirement, laser power between 60 and 600 watts
- Very good repetition accuracies through the excellent DC servo drive
- High-quality beam control and beam formation components to optimize cutting and engraving quality
- A variety of focal lengths which are tailored to your requirements
- Compressed air and purge gas supply units for optimum cutting results

Different automated systems and options for even more economical working

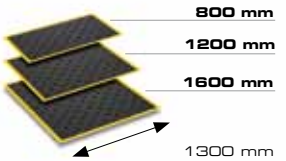
... more about this on pages 28-34

A variety of processing areas tailored to your applications

S-Line

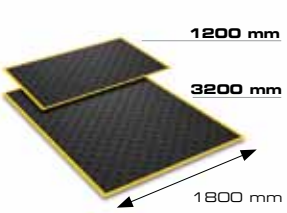
- S-**800**
  Processing area: 31.5“ x 31.5“
  Laser power: 60 to 400 W

M-Line



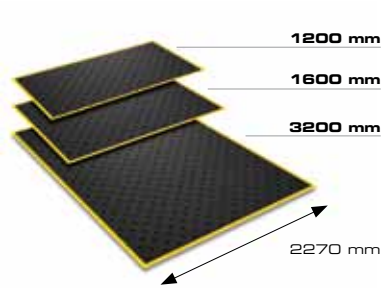
- M-**800**
  Processing area: 51.2“ x 31.5“
  Laser power: 60 to 400 W
- M-**1200**
  Processing area: 51.2“ x 47.2“
  Laser power: 60 to 400 W
- M-**1600**
  Processing area: 51.2“ x 63“
  Laser power: 60 to 600 W

L-Line



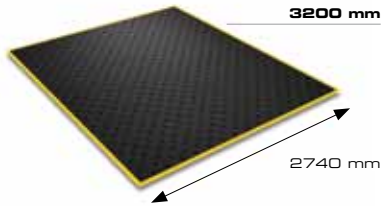
- L-**1200**
  Processing area: 70.9“ x 47.2“
  Laser power: 60 to 400 W
- L-**3200**
  Processing area: 70,9“ x 126“
  Laser power: 60 to 600 W

XL-Line



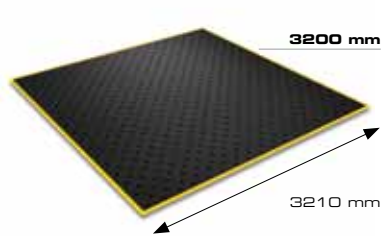
- XL-**1200**
  Processing area: 86.6“ x 47.2“
  Laser power: 60 to 600 W
- XL-**1600**
  Processing area: 89.4“ x 63“
  Laser power: 60 to 600 W
- XL-**3200**
  Processing area: 89.4“ x 126“
  Laser power: 60 to 600 W

2XL-Line



- 2XL-**3200** *
  Processing area: 107.9“ x 126“
  Laser power: 60 to 400 W

3XL-Line



- 3XL-**3200** *
  Processing area: 126.4“ x 126“
  Laser power: 60 to 400 W

* only available with Conveyor System

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Versatile system solutions

S-**800**

M-**800**

M-**1200**

M-**1600**

L-**1200**

L-**3200**

XL-**1200**

XL-**1600**

XL-**3200**

2XL-**3200**

3XL-**3200**

Laser Cutting
Center Evolution

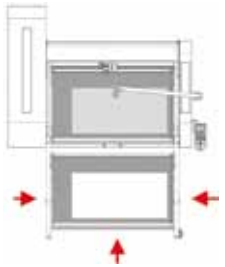
SHUTTLE TABLE SYSTEM

Increase the productivity of your laser system

- Ensure better system utilization by loading and unloading during the cutting process
- The moving material supports enable you to access the produced parts more easily
- You minimize down times and increase the viability of your laser system
- The Shuttle Table System impresses with its simple operation
- The set-up time for a table change is only some 4 seconds

The innovative Shuttle Table System developed by eurolaser is currently available with the

M-**800** and M-**1600** models.



Free access to the material

Simple material support exchange

REMOTE OPERATION

optional Remote

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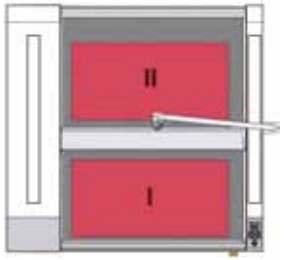
Alternate operation allows you to make more use of the system

- Load and unload your laser system during the cutting process
- The integrated safety concept makes material removal and loading absolutely risk-free
- Make full use of your laser system's capability by reducing breaks in production



View of the laser system with split processing area

A software-controlled partition of the processing area allows you to machine your material with the laser on one side of the system and to reload the other side at the same time. The laser machining changes over automatically at your discretion between both areas, so that your system is in almost 100%-use.

The RO function is available for the following basic models:
M-**1600**, L-**3200**, XL-**1600**, XL-**3200**.

CONVEYOR SYSTEM

Automate the material feed for continuous textile machining

- You will work more economically by using automatic material unwinding and feeding
- Remove workpieces during the cutting process
- There will be no fabric distortion, because the material feed is stressfree
- Your material will be positioned precisely on the machining table and fixed during the cutting
- Machine very large formats by means of seamless cutting transition

The Conveyor System is available for the following basic system sizes:
S-**800**, M-**1200**, L-**1200**, L-**3200**,
XL-**1600**, XL-**3200**, 2XL-**3200**, 3XL-**3200**.

eurolaser has developed a special, removable Conveyor System for the compact laser system XS-610. ... more on Page 37.

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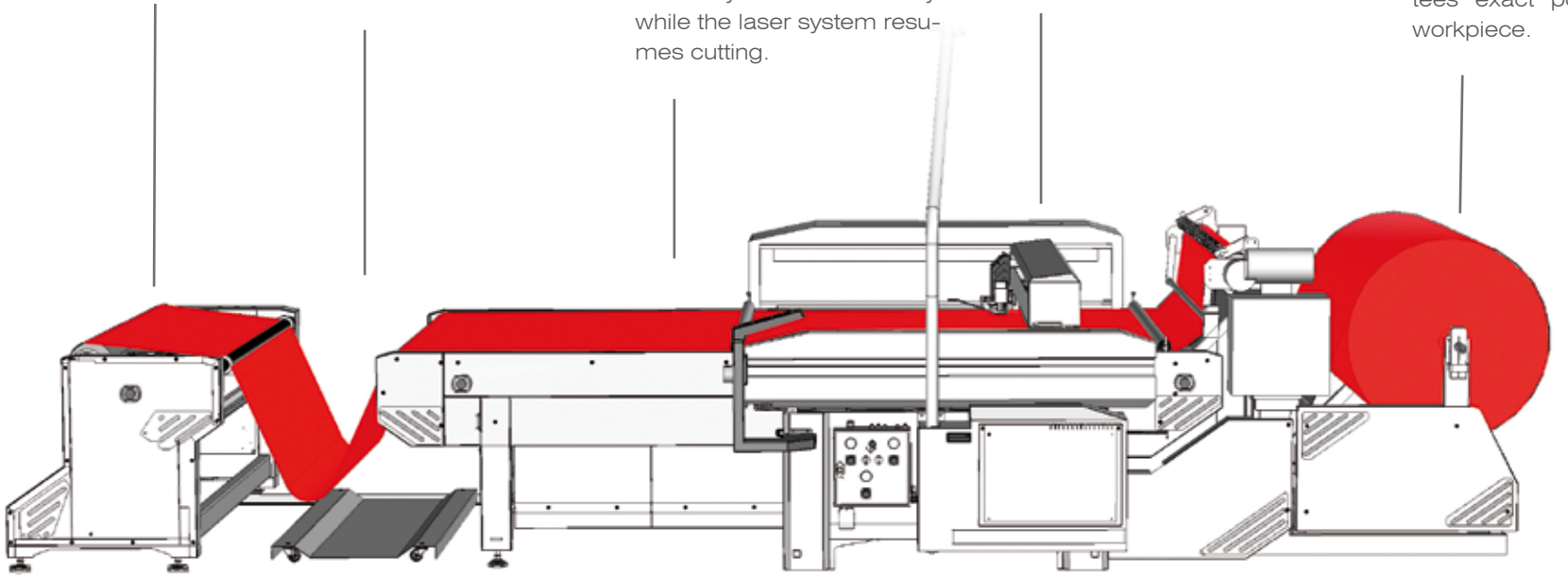
Winding unit:
Allows you to rewind your material directly on to a roll after laser machining.

Container:
Collect left-over material directly in a moving catchment device at the end of the table extension.

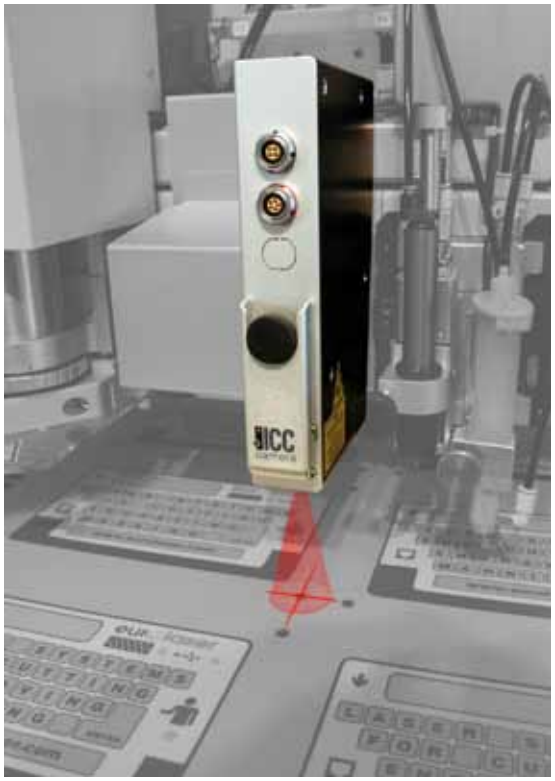
Table extension:
The material is transported to this table extension automatically after machining. You remove your material safely while the laser system resumes cutting.

Ink Marker:
Use the contactless marking system for indelible ink markings.

Feeding unit:
Feed your material for laser machining directly from the roll. The edge control also guarantees exact positioning of the workpiece.



OPTICAL RECOGNITION SYSTEM



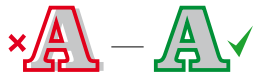
The Optical Recognition System guarantees precise cutting of printed materials

- Achieve high cycle times with a high degree of process safety and minimal machine setup times
- The workflow manager ensures extensive automation of the work process
- You will optimize the exploitation of your area and minimize your material consumption with the powerful nesting feature
- Improve your cutting results by using software-controlled compensation of say shrinkage, expansion and twists in the material

BEFORE
The cutting contour is varying - no adjustment to the printing

AFTERWARDS
The cutting contour is adjusted to the printing

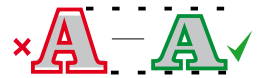
Normal offset



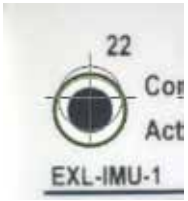
Non-linear compensation

Rotation

Linear compensation



The CCD camera is installed directly on the machining head and searches the workpiece for the defined fiducial marks at the beginning of the machining process. In this way, woven or embroidered fiducial marks, as well as other contrasting outlines, can be recorded visually. Both the actual location and the dimensions of the workpiece are detected exactly in this manner and will be considered automatically for further machining.



An intelligent analysis of the fiducial marks now also allows the dimensions to be compensated by a Nominal-Actual comparison of the printed data. Naturally, this takes place entirely in accordance with the user's wishes and requirements. The quoted properties are used to optimize or adjust to the required dimensions. A real plus for quality assurance.

MECHANICAL MACHINING

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Many options on a single system are open to you - they are almost infinite

- Combine your laser system with the efficient mechanical Zünd tool
- Knife cutting, grooving, milling, labeling, kiss cutting, scribing, drilling and much more will open up new production horizons for you
- The high performance tools are ideally suited to industrial applications (24 hours a day / 7 days a week) and are easy to use
- With a minimum investment, you will receive maximum possible flexibility
- Tools can be retrofitted at any time as needed

ZÜND
swiss cutting systems

You can install up to two mechanical tools parallel to the laser.

Depending on your requirements, choose between the laser and proven precision tools from the Swiss company Zünd Systemtechnik AG. There are a variety of tool-inserts available:

- Tangentially controlled knives
- An assortment of milling tools
- Pneumatic and electrical oscillating tools
- Kiss cutting knives
- Rotating knives
- Various marker tips
- Grooving wheels

The right tool for every application!

RASTER ENGRAVING UNIT

The principle is similar to that of an inkjet printer. The bundled light beam is responsible for a contrast change or material wear on the surface. Depending on the material for machining, a contrast can arise through burning, color change, layer wear or deep engraving. This option can be retrofitted by our service engineers without any problems on nearly all systems built from 01.03.2001 onwards.

Engrave razor-sharp images

- Produce 2D-images and 3D-reliefs in photographic quality
- You can produce vector engravings, raster engravings and vector cuts in a single work process
- Engrave with up to 256 shades of grey and a resolution of up to 1200 dpi
- No chips are produced while engraving and the material does not need to be clamped
- No tool change is necessary for this option

QUICKMARK LASER MARKING SYSTEM

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The high speed labeler for product markings

Facts for your advancement:

- Mark your workpieces at very high speed
- The precisely detailed permanent markings are outstandingly suitable for barcodes, serial numbers, nameplates and many other applications
- Cost-effective operation and almost zero maintenance CO_2 laser technology ensure economical working
- Set up the laser system easily, quickly and precisely with the integrated positioning aid
- Benefit from the user-friendly operation and the high application flexibility

QuickMark

Labeling areas:	2“ x 2“ (50 × 50 mm) / 3,5“ x 3,5“ (90 × 90 mm) / 5,9“ x 5,9“ (150 × 150 mm)
Feature:	Different table workstations, rotation unit and other options available
Laser output:	30 W (air cooled)

LASER ENGRAVING SYSTEMS

Technology that will make you more profitable in the long term

Your added value at a glance:

- With engraving speeds of up to 3800 mm/s, you will engrave more quickly than your equivalent competitors
- Produce brilliant images with a resolution of up to 1200 dpi over the complete working area
- The modern colour touchscreen simplifies operations for you with a comprehensible menu guide. Network compatibility allows full system and job control, as well as diagnostic features
- Very compact construction, with maximum possible processing area
- You will always machine your material with the best possible setting with the autofocus feature
- Also, use the outstanding cutting qualities of the XS-**610** and XS-**330** laser systems
- Engrave cylindrical workpieces with the optional Rotary Cylindrical Attachment

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See our compact laser systems for yourself

XS-300 diamondPLUS
Processing area: 12“ x 18“ (457 × 304 mm)
Feature: Combination of laser engraver and diamond engraver
Laser power: 30 W (air cooled)

XS-330
Processing area: 25“ x 12,9“ (635 × 327 mm)
Laser power: 40W or 60 W (air-cooled)

XS-610
Processing area: 35,8“ x 23,7“ (910 × 602 mm)
Feature: Optional Optical Recognition System for exact machining of printed or embroidered materials, add-on Conveyor System for fully automatic feed of material on a roll
Laser power: 40W or 60 W (air-cooled), 100 W (water-cooled)

Exclusively for the XS-610 laser system

Optical Recognition System
The high-quality CCD camera determines the positioning of the printed material by using markers. The laser beam is positioned exactly and the machining follows the printed outlines precisely.

Conveyor System
The add-on Conveyor System, developed by eurolaser (patent pending), makes the **XS-610** compact laser engraving system into an automated production line. It can be used or retrofitted as required.

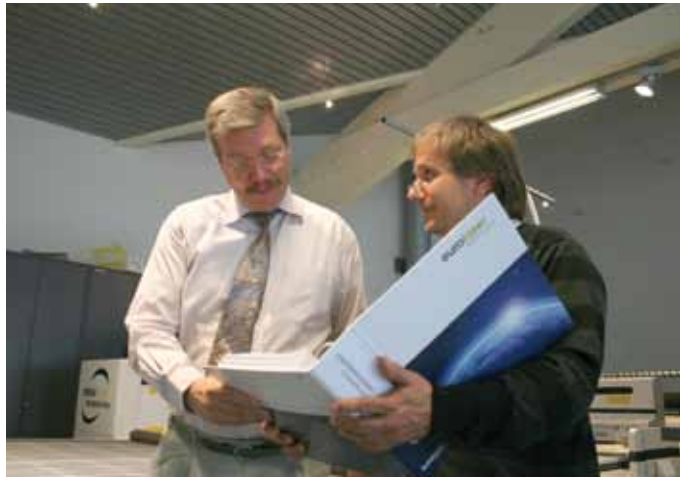
The Conveyor System (patent pending) can be installed and removed in next to no time

Benefit from further technical advantages*:

- Through-loading feature for large workpieces
- Anti-crash protection (patent pending) thanks to magnetic optic system
- Vacuum table for optimum suction during cutting applications and for material fixing
- High-performance servo motors for precise travel

* applies to **XS-330** and **XS-610** laser systems

WORLDWIDE SERVICE



Our comprehensive service package to guarantee you security of production

24 hours a day / 7 days a week support hotline
If necessary, you can reach our skilled contacts in person on the telephone around the clock.

Application optimization for maximal productivity
Our experts will work out an ideal system configuration with you and calculate the best possible machining parameters for your application for maximal output.

Warranty up to 24 month
We offer you customized service agreements with a term of up to 24 month. In this way, you can increase your production engineering and financial security.

System and application training courses
Profit from customized training of your employees for effective programming and operation, as well as maximum safety while operating the machines.

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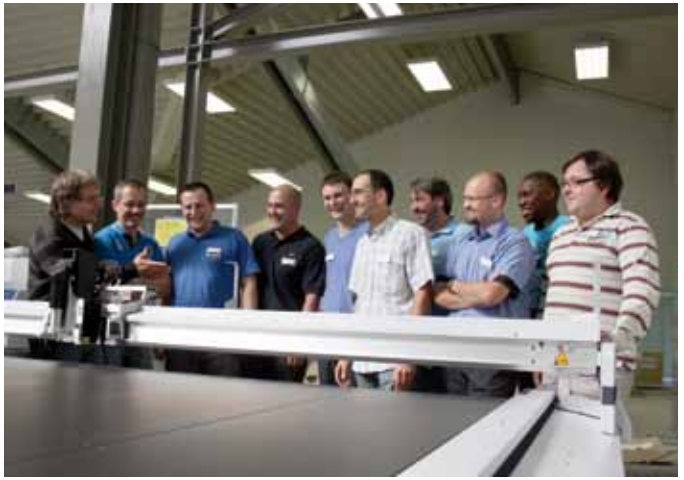
Customer Relationship Management
Use our free, individual on-site consultancy concerning your system to use your existing resources to best effect and to discover unused potential.

Maintenance and System Upgrades
Our outstandingly trained technicians will ensure your laser system stays in perfect condition and will be pleased to advise you should your needs have changed over time.

Spare Parts Supply
With very good spare part availability, we will minimize unscheduled downtimes and keep your system serviceable at all times. We guarantee that we will use only high quality components.

Leasing & Financing
In co-operation with our finance partners, we will be pleased to produce individual leasing or financing alternatives for you.



SUPPLEMENTARY EQUIPMENT

Cooling - Exhaust - Filtering

We will make every effort to ensure that your laser systems exceed all statutory requirements and are safe and reliable. This also includes the peripheral units for powering the laser systems and for exhausting and filtering cutting emissions. We will of course also be delighted to advise you on the effective and safe use of your laser system.
Our many years of experience and co-operation with a variety of specialist partners guarantee application-oriented solutions precisely matched to each other which will be compatible with your individual needs. Safety through quality is our maxim.

Cooling units
The high-quality energy efficient cooling units are fitted with electronic temperature controllers and monitoring systems, so that they always control ideal conditions for laser beam sources, in order to guarantee constant performance.

Exhaust units
Suction devices are selected to match your application and the table concept of your laser system. This guarantees complete emission extraction above and below the material. To protect the machine controller and the employee, we also ensure that the machines stay safely below the AGW (Maximum Admissible Workplace Concentration) and TRK (Occupational Exposure Limits) guidelines.

Filtering units
Depending on needs and criteria, we provide different filter designs for coarse, fine and gaseous materials. Our range extends up to industrial solutions which are also suitable for ecologically certified businesses.

safe & green

Energy Efficiency
eurolaser uses only the latest, energy-saving laser technologies and selected power supply systems in order to protect natural resources.

Individual, efficient, powerful - Invest in your future!

made
in
Germany

eurolaser

Partner for your success.

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