Laser systems

And this is what our customers say about **imes-icore** laser systems:

FEHA LaserTec GmbH

*"We were looking for a precise and above all rapid cutting table for our application laboratory and opted for **imes-icore** thanks to their many years of experience."*

Dr. Ingomar Krahl, Sales & Business Development

The range of **imes-icore** laser systems goes from simple engraving of plastics, wood or metal right through to cutting foils and flat materials. Unique systems such as the economical **ilas diode laser** enable plastics and foams to be engraved. The **ilas PLATINUM laser** is based on the **imes-icore** PLATINUM concept. High quality materials are used here, in order to achieve maximum accuracy. Thanks to a fibre laser of up to 4000 Watt, the ilas PLATINUM also enables metals with larger thicknesses to be cut.

imark eco II

Amazing, simple and extremely fast!

Application examples
- Surface marking
- Surface engraving

Typical materials
- Metals
- Wood, paper, card
- Ceramic
- Leather
- Plastics

Highlights

- Clamping area of 400 x 400 mm
- Working area of up to 150 x 150 mm
- Machine with complete protective laser enclosure
- Marking speed of up to 8 m/s with galvo scanner head
- No rework necessary
- Suction unit
- Electrically adjustable Z-axes
- Connection to a conventional PC via USB cable
- Including marking software

Options

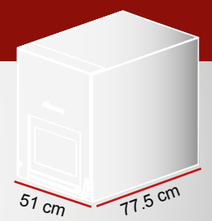
- Visible pilot laser for exact positioning
- Camera for adjustment and display
- Various laser sources
- Different galvo scanner lenses
- controlled rotating axis to engrave round parts

The **imark eco II galvo laser scanner** enables serial parts to be marked, labelled and engraved economically with marking ranges of up to 150 x 150 mm. The galvo scanner head is designed for very high marking speeds. The **imark eco II** is at home anywhere thanks to the very compact table machine dimensions. The machine is controlled via a conventional PC that is connected directly to the machine via a USB cable.

Technical data	imark eco II
Machine dimensions (W x H x D) in mm	510 x 660 x 775
Machine weight in kg	approx. 40
Travel range (Z) in mm	235
Marking speed in m/min	480
Gantry clearance in mm	approx. 100
Repetition accuracy in µrad	12
Processing area (W x D) in mm	110 x 110 (optional 150 x 150)
Table clamping area (W x H) in mm	400 x 400
Connection voltage	16 A / 230 V
Laser type	Ytterbium fibre laser
Laser power (max.) in W	10 to 100
Wavelength in mm	1070
Laser cooling	Air-cooled

Machine dimensions without notebook or additional accessories.
The laser source and power depend on the individual application.

Small dimensions – just 51 x 77.5 cm!

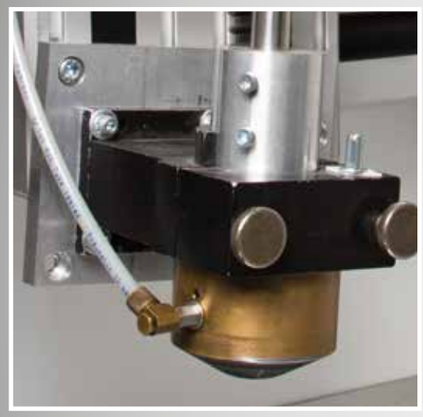


ilas desk

The modular or complete solution!

Application examples
- Cutting foils and veneers
- Cutting thin plastic panels
- Marking glass and ceramic surfaces
- Marking steel

Typical materials
- Thin metal sheets
- Wood and veneer
- Paper and card
- Plastics
- Glass and ceramic surfaces with pre-treatment



Highlights

- Line thicknesses of up to 0.05 mm
- Low-maintenance, modern laser diode technology
- Machine with complete protective laser enclosure
- Connection to a conventional PC via USB cable

Options

- Protective laser enclosure
- Suction unit
- Rotating axis for cylindrical workpieces
- Camera for adjustment and display
- Visible pilot laser for exact positioning
- Flexible post processors
- Micro laser cutting with increased accuracy
- Fibre laser up to 400 Watt
- Suitable for retrofitting to milling machines

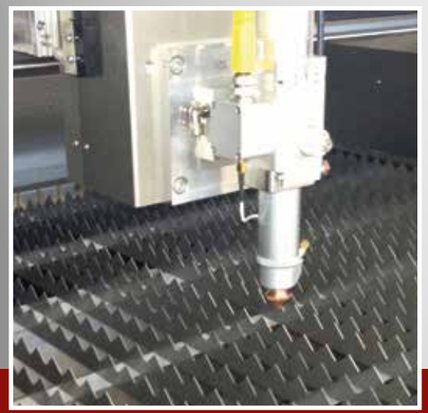
The ilas des**k** is the larger version of the **ilas eco**. The servo motors that are used enable higher speeds and greater accuracy when processing. With the powerful 200 Watt or 400 Watt laser, cutting thin steel sheets is also possible in addition to marking. The **ilas desk** is also a compact table machine, which is equipped with a complete protective laser enclosure. The machine is controlled via a conventional PC that is connected directly to the machine via a USB cable.

Technical data	ilas desk
Machine dimensions (W x H x D) in mm	747 x 821 x 851
Machine weight in kg	146
Travel range (X / Y / Z) in mm	320 / 230 / 72
Marking/cutting speed in m/min	6
Repetition accuracy in mm	± 0.02
Connection voltage	16 A / 110-240 V
Laser type	Ytterbium fibre laser
Laser power (max.) in W	200 (optionally 400)
Wavelength in mm	1070
Modulation frequency in kHz	up to 500
Focal distance in mm	100, 125 or 200
Laser cooling	Air-cooled

Machine dimensions without notebook or additional accessories.
The laser source and power depend on the individual application.

ilas flat

Entry-level laser processing that is outstanding value for money!



Highlights

- Working area: 1000 x 600 mm
- Travel speed of up to 9 m/min
- Repetition accuracy ± 0.02 mm
- Complete enclosure with laser protection window
- Operated via modern Windows® control software on the swivelling terminal
- Software to generate and import texts and graphics quickly and easily

Options

- Extraction system
- Rotating axis for cylindrical workpieces
- Camera for adjustment and display
- Visible pilot laser for exact positioning
- Various laser sources
- Flexible post processors

Application examples
- Marking and engraving surfaces
- Micro/fine cutting of thin panels
- Removal of coatings
- Cutting thin steel/stainless steel sheets

Typical materials
- Plastics, paper, card, ceramic, metals, e.g. steel, stainless steel
- Composite materials and other materials upon request

The ilas Flat is a professional machine for entry-level metal laser cutting. With the 400 Watt fibre laser installed as standard, it is possible to cut arbitrary contours from thin steel and stainless steel sheets over the large working area of 650 x 1050 mm. The small installation space of just 2 x 2 m is due to integrating all accessories, including the laser source, in the machine.

Technical data	ilas flat
Machine dimensions (W x H x D) in mm	2490 x 1964 x 1750
Machine weight in kg	approx. 650
Travel range (X / Y / Z) in mm	1050 / 650 / 100
Marking/cutting speed in m/min	9
Repetition accuracy in mm	± 0.02
Processing area (W x D) in mm	1000 x 600
Table clamping area (W x H) in mm	1010 x 610
Connection voltage	16 A / 400 V
Laser type	Ytterbium fibre laser
Laser power (max.) in W	150 to 3000
Wavelength in mm	1070
Focal distance in mm	100, 125 or 200
Laser cooling	Air or water cooled

Machine dimensions without operating panel or additional accessories.
The laser source and power depend on the individual application.

ilas PLATINUM

Granite base for maximum accuracy!

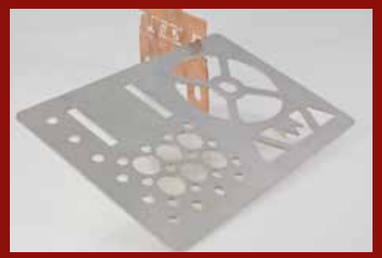
Highlights

- Rapid and economical processing of sheet thicknesses up to 5 mm
- Travel speed: 15 m/min maximum
- Low-maintenance, modern fibre laser technology
- Machine with complete protective enclosure and laser protection window
- Steel/granite sandwich construction
- Integrated device for optional extraction system
- **imes-icore** laser cutting systems enable "piercing" at any arbitrary position

Options

- Varying laser power of 500 W / 1000 W
- Linear motors with speeds of up to 30 m/min
- Rotating axis for cylindrical workpieces
- Camera for adjustment and display
- Visible pilot laser for exact positioning
- Extraction system
- Nesting software
- Hand-held operating unit

The il**as PLATINUM** is our answer for complex cutting tasks in the thin sheet area. As the base model we use an aligned version of our proven PLATINUM X3 machine range, the unique steel/granite sandwich construction of which delivers largely temperature-independent precision, which is outstanding even for laser systems. Combined with our economical and low-maintenance fibre laser source, we are therefore able to achieve exceptional value for money ratio in the field of precise laser jet cutting.



Application examples

- Cutting thin sheets up to 5 mm thick

Typical materials

- Sheets and thin metal panels
- Other materials depending on composition

Technical data	ilas PLATINUM 1010	ilas PLATINUM 1510	ilas PLATINUM 2010
Machine dimensions (W x H x D) in mm	2310 x 2585 x 2035	2815 x 2585 x 2035	3315 x 2585 x 2035
Machine weight in kg	approx. 2500 to 4500		
Processing area (W x D) in mm	1000 x 1000	1500 x 1000	2000 x 1000
Marking/cutting speed in m/min	15 (optionally with 30 linear motors)		
Repetition accuracy in mm	± 0.01 (optionally ± 0.005 with linear motors)		
Connection voltage	16 A / 400 V		
Laser type	Ytterbium fibre laser		
Laser power (max.) in W	500 to 4000		
Wavelength in mm	1070		
Focal distance in mm	100, 125 or 200		
Laser cooling	Air or water cooled		
Focal distance in mm	100, 125 or 200		

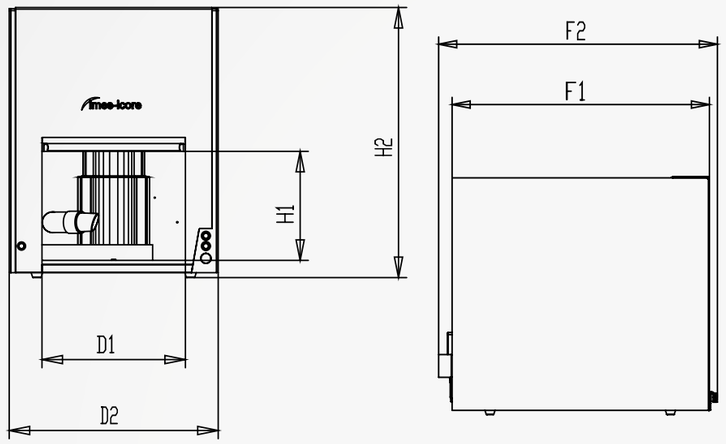
Machine dimensions without operating panel or additional accessories. The laser source and power depend on the individual application.

imes-icore
Qualität
Made in Germany

The laser systems
with detailed dimensions

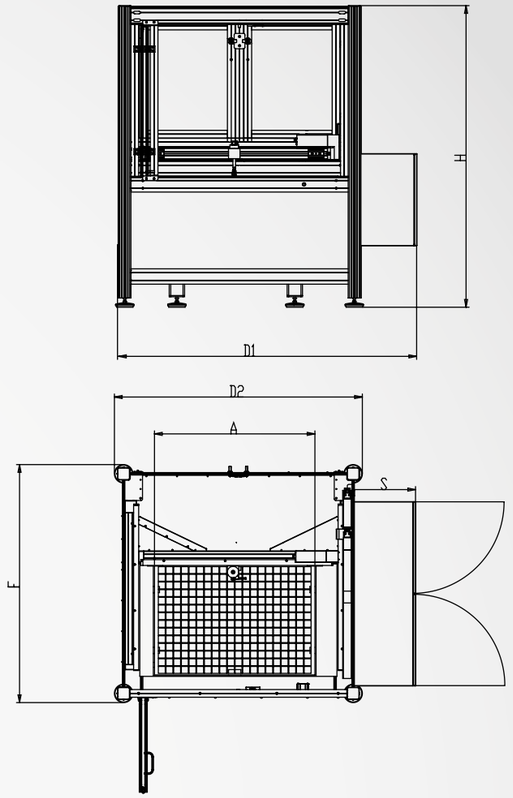
imark eco II

Dimensions in mm	imark eco II
Width D1	350
Width D2	510
Depth F1	775
Depth F2	775
Height H1	260
Height H2	660



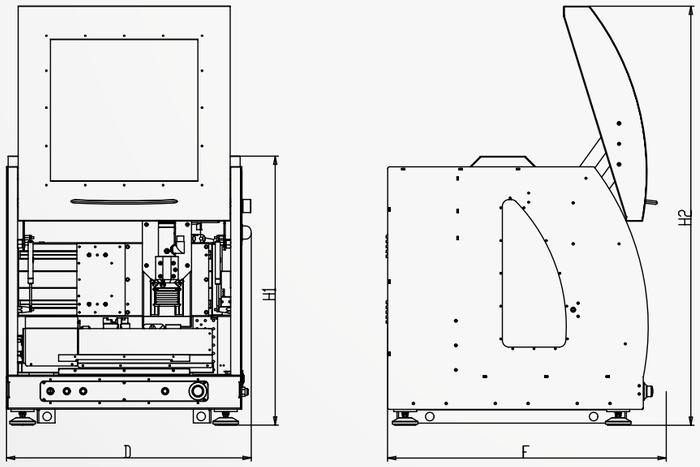
ilas flat

Dimensions in mm	ilas flat
Width A	1045
Depth B	718
Width D1	2490
Width D2	2150
Depth F	1550
Height H	1964
Width S	400

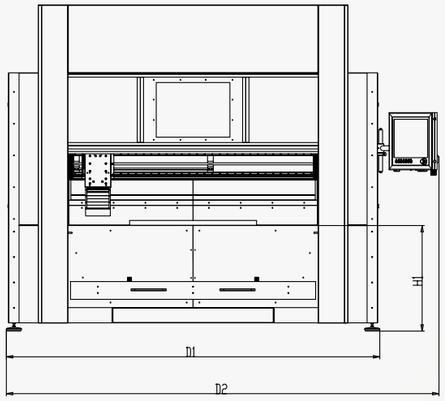


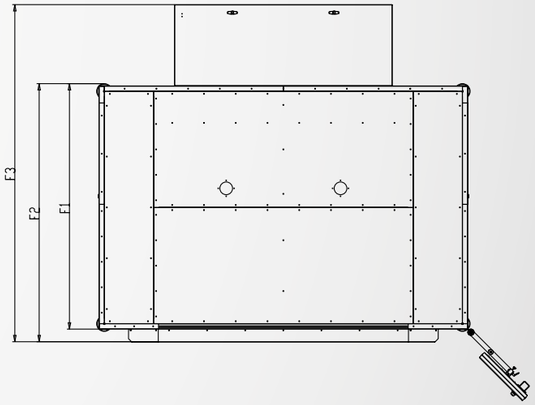
ilas desk

Dimensions in mm	ilas desk
Width D	747
Depth F	851
Height H1	821
Height H2	1279

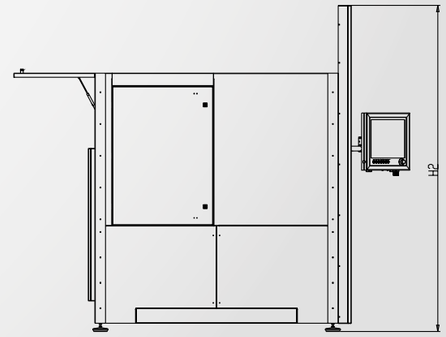


ilas PLATINUM





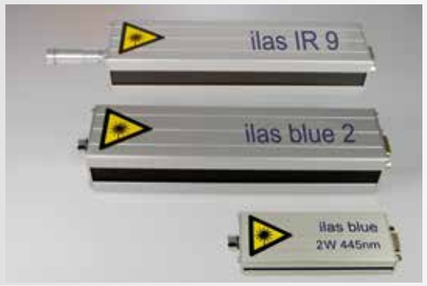
Dimensions in mm	ilas PLATINUM 1010	ilas PLATINUM 1510	ilas PLATINUM 2010
Width D1	2310	2815	3315
Width D2	2850	3350	3850
Depth F1	1915	1915	1915
Depth F2	2035	2035	2035
Depth F3	2550	2550	2550
Height H1	865	865	865
Height H2	2585	2585	2585



Laser system accessories

Laser sources

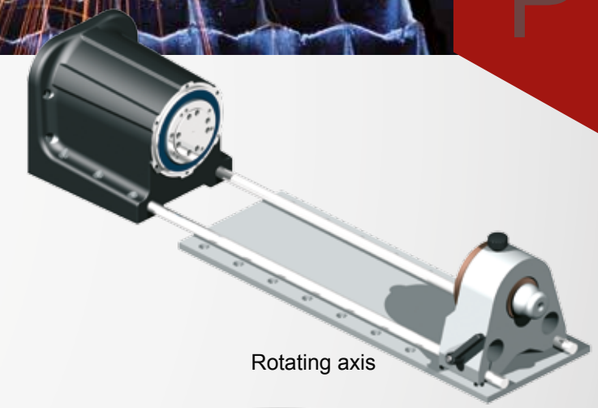
The fundamental core piece of a laser system is the laser. The customer's planned application normally determines the selection of the laser source. In order to enable our customers to obtain the ideal combination of machine and laser source, we work with leading manufacturers of laser sources such as FEHA, SPI and IPG.



imes-icore ilas diode laser 2 to 9 Watt

Fibre laser for marking up to 20 Watt

Fibre laser for cutting up to 4000 Watt



Rotating axis

Modern laser protection glasses

Extraction systems

The iCompVAC combines a powerful extraction system with brushless turbines and an oil-free compressor that enables the laser cutting systems to be operated directly. It is triggered automatically when the program starts and ends.

We offer the iVAC extraction system for laser marking. This is an economical option for safely removing vapours that are harmful to health from the machine. The large integrated carbon filter enables fine dust to be filtered and rarely requires replacement.

Do you want to find out
more about the laser system options?

Visit us at our factory in Eiterfeld!