50 Years of cab – Open House
XENO Laser Marking Systems
November 20, 2025

Products

Product Marking
Laser Marking Systems

Marking lasers
XENO 4

Laser marking systems
XENO 1

Laser safety housings
LSG+100E

Laser label markers
LM+

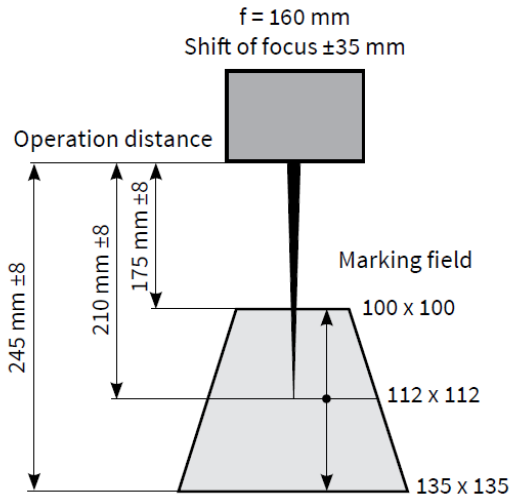
Laser marking systems
XENO 3

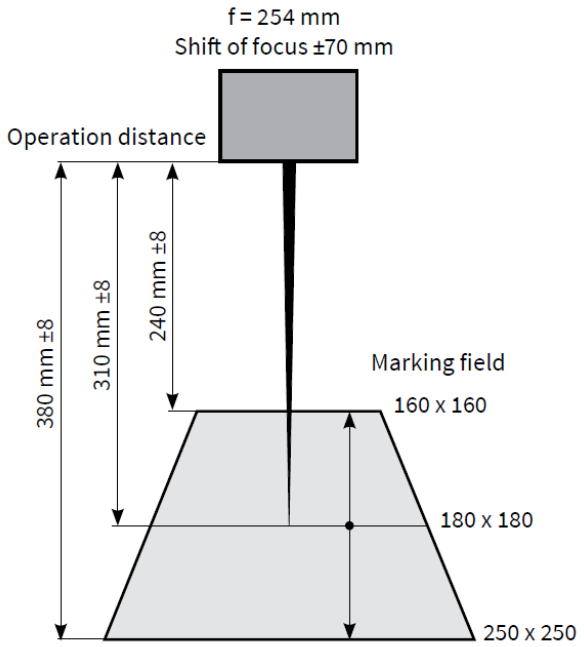
Marking software
cabLase

Laser Marking System
XENO 4 XENO 4S

- Based on Ytterbium Fiber Laser Source
- For almost all common materials used in industry
- Wavelength Laser: 1064 nm / Pilot Laser: 650 nm
- Power: 20, 30 and 50 Watt
- F-Theta Lens: 100, 160, 254, 420
- Compact design of laser source and scanning head
- Digital I/O and E-Stop interface for the integration
- TCP/IP data interface
- RS232C interface to connect peripherals (axis, scanner, automation modules)
- Integrated red light focus finder
- 19 inch 4 HE rack technology
- Low noise emission
- Laser safety class 4 according to DIN EN60825-1
- According to CE, FCC, FDA standards
- Performance level „d“ for integration

Laser Marking System
XENO 4 XENO 4S





Laser Marking System
XENO 1

- Turn-key delivery
- Working area: 500x375 mm
- Z-Axis for automated focusing of the laser
- Workpiece height up to 200 mm
- Extendable with X-and turning axis
- Clamping devices for T-groove base plate available
- Integrated focus finder to measure focus distance
- Electric driven operation door
- LED illumination of working area
- All-In-One, Laser and Controller are integrated in one common housing
- Low noise emission
- Laser safety class 1 according to DIN EN60825-1
- According to CE, FCC, FDA standards
- Integrated connector for extraction and filter device

Laser Marking System
LSG+100E

- Turn-key delivery
- Working area: 980x460 mm
- Z-Axis with 400 mm stroke for focusing the laser
- Extendable with X-/Y- and turning axis
- Clamping devices for T-groove base plate available
- Integrated focus finder to measure focus distance
- Electric driven operation door
- LED illumination of working area
- PC, laser and control unit are integrated in base
- Low noise emission
- Laser safety class 1 according to DIN EN60825-1
- According to CE, FCC, FDA standards
- Integrated connector for extraction and filter device

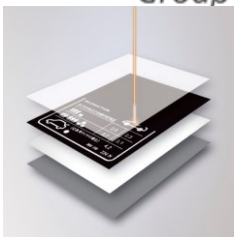
Laser Marking System
XENO 3

- Turn-key delivery
- For marking of type- and rating plates out of metal and plastics
- Automatic separation after marking
- Magazine up to 100 plates at a thickness of 0,5 mm
- Plate size from 40x20 to 120x100 mm
- Fast exchangeable magazines
- All-In-One, laser and controller are integrated in one common housing
- LED-illumination of working area
- Low noise emission
- Laser safety class 1 according to DIN EN60825-1
- According to CE, FCC, FDA standards
- Integrated connector for extraction and filter device

Laser Marking System LM+

Laser Marking System
LM +

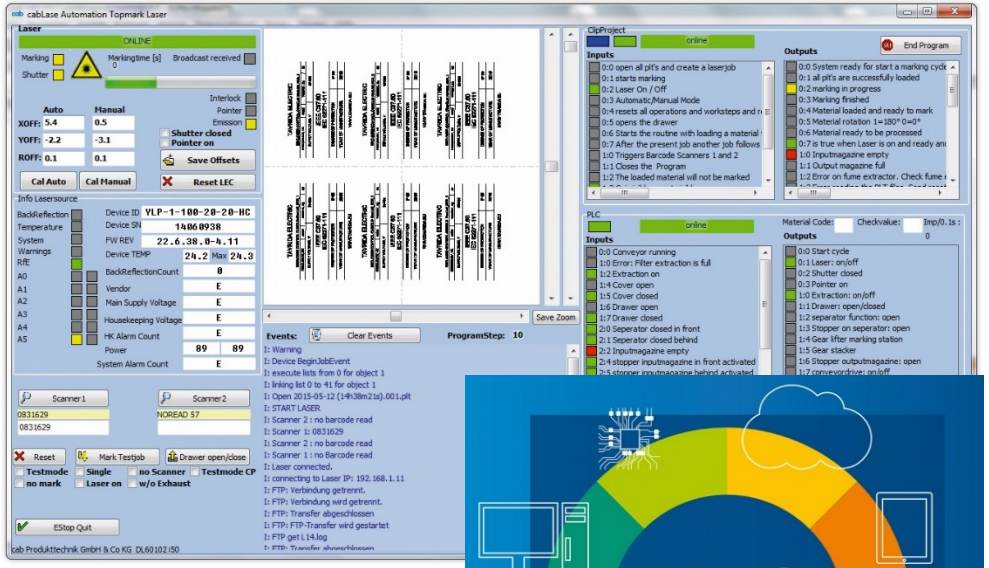
- Turn-key delivery
- For marking and cutting of laser label material
- For 300 mm label rolls, roll width 120 mm
- Separation of labels via cutter
- Free label format via laser cut
- Continuous- or die cut label material
- Option: Rewinding of labels
- Data import via text- or csv-files
- Laser protection window to monitor process
- Extraction- and filter device integrated in cart
- Laser safety class 1 according to DIN EN60825-1
- According to CE, FCC, FDA standards
- Performance level „d“ for integration



cabLase Editor 5

Soft- and Hardware form one unit

- Graphic design of layouts
  - Scalable and arbitrarily align able Windows and laser fonts
  - Import of all common graphic formats
  - 1D and 2D codes
  - Serial numbers, time and date function
  - Variable fields
- Control of the marking application
  - Programmable laser parameter library
  - Control of digital inputs and outputs
  - Control and monitoring of optional linear and turning axis
  - Networkable
  - Monitoring of marking process
  - Control and monitoring of extraction and filter device



cabLase Automation

Intelligent Middleware for the integration

- Stand-Alone-Mode
  - To support marking applications without using a PC
  - RS232 Remote Host-Mode
  - Remote Control via serial, Ethernet or Profibus interface to choose layouts, manipulate marking data, control and monitoring of the marking process
  - Remote API interface
  - For complex manufacturing processes
  - Generating objects, setting parameters, administrate and process existing layouts from a PC/PLC
- Integration in MES- and ERP systems
  - Program modules for the integration
  - SAP *Printer Vendor Program*

Use Case

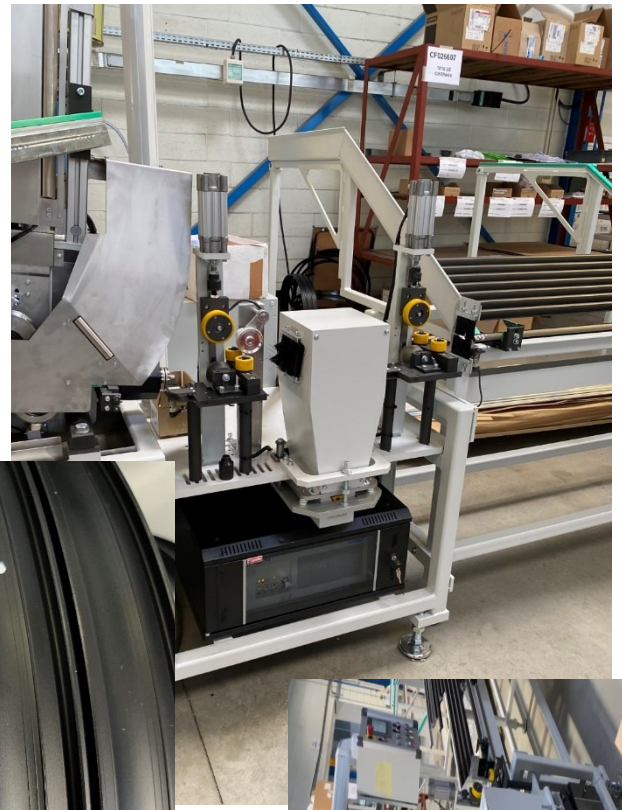
Marking of Outdoor Labels

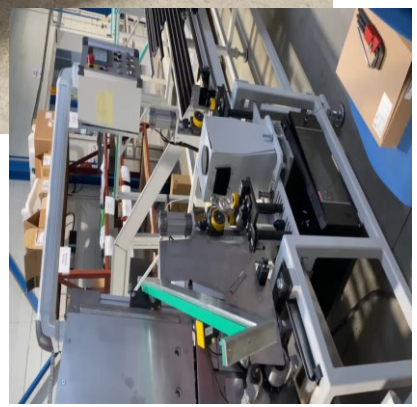
Leica Geosystems

- ***Task:*** Labeling geo-scanners for outdoor use
- ***Challenge:*** Labels must be UV-resistant and suitable for use in harsh construction site environments and harsh environmental conditions
- Thermal transfer labels fade or become illegible and pose a risk to operational safety and traceability
- ***Solution:*** XENO 4 / LM+ laser marking system labels
- ***Advantages:***
  - High resistance to UV, heat, and abrasion
  - Labeling quality with maximum resolution
  - Customized type plates directly from the roll

- ***Result:*** Permanently legible labeling, improved safety + traceability

Use Case



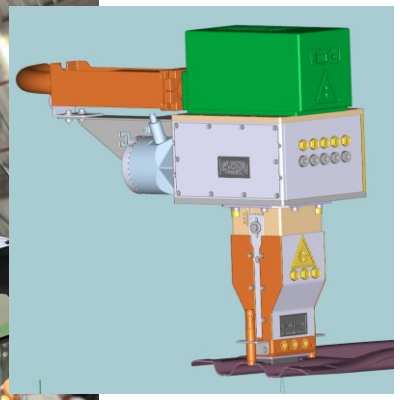


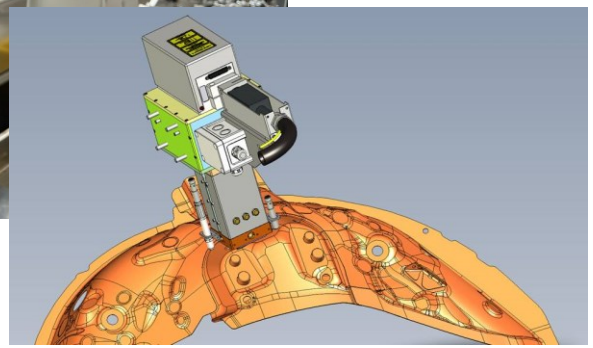
Inline Marking

DT Swiss – Marking of Bicycle Rims

- Marking is carried out on the moving profile between the profile saw and the forming process at speeds of up to 15 m/min.
- Marking is carried out on the inside of the rim
- The material is anodized aluminum in natural or black
- A data matrix code and plain text are marked for traceability

Use Case





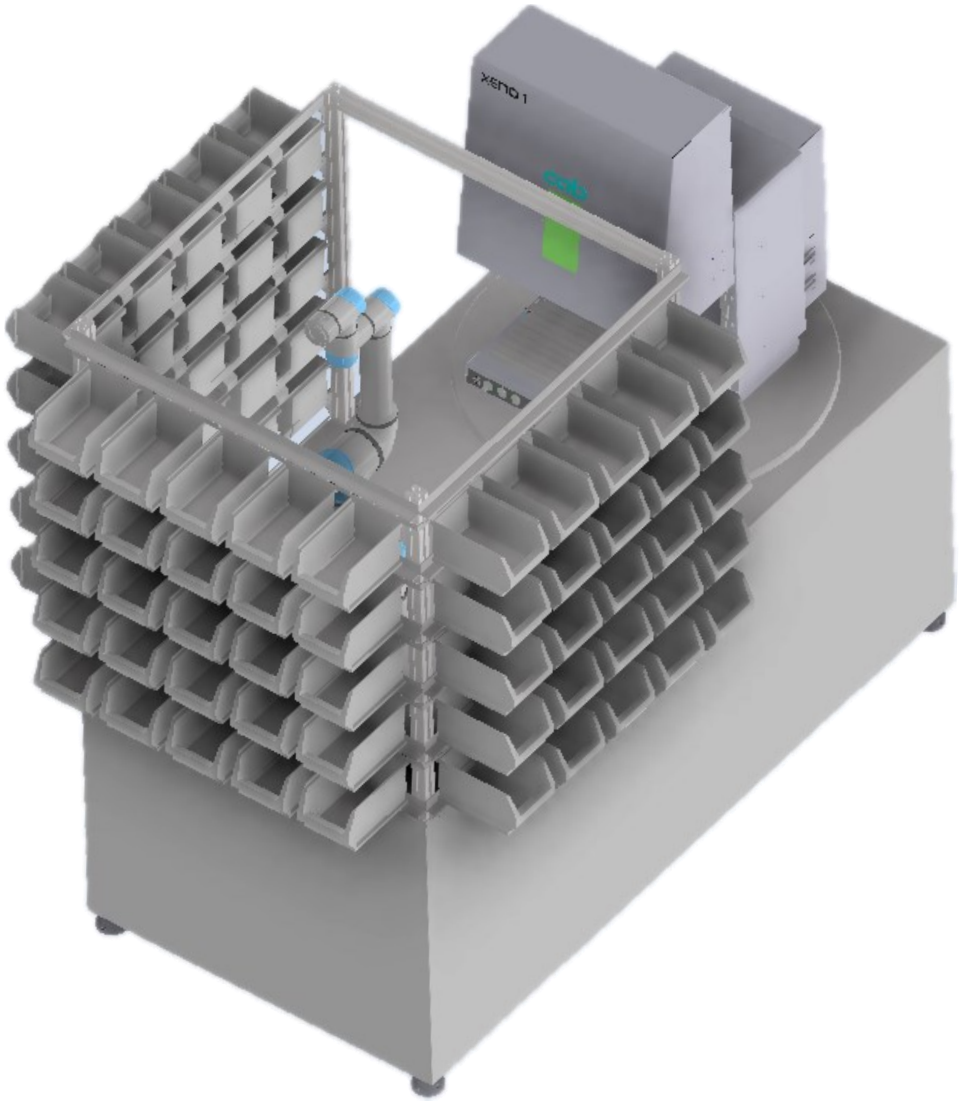
Flexible Marking of large flat metal parts

MAGNA – Marking in Laser Class 1

- ***Task:*** Laser marking of large free-form sheet metal bent parts in conjunction with robots
- ***Challenge:*** Laser safety for machine operators in the working environment and flexible, independent application
- ***Solution:***
  - Expansion of the cab XENO 4 laser marking system with a funnel
  - Evaluation of workpiece contact via sensors (2 or 4 times)
  - Evaluation of the negative pressure in the laser chamber to check for openings in the workpiece
  - Integrated fume extraction with NW 50 mm

- ***Advantages:***
  - Virtually independent of size thanks to the robot's travel range
  - Flexible positioning of the marking
  - No residue on the workpiece thanks to extraction
  - Laser safety class 1 according to EN60825-1

Use Case



Type Plate Marking

Robot and XENO 1 in Kiosk-Mode

- Type plates of various sizes are stored in magazines upstream
- Machine operators record the removal of plates via barcodes on the dispensing containers. Pick by code!
- The type plates are separated and transported using a robot and vacuum suction gripper
- Marking takes place independently of time and without operating personnel
- Laser marking is automated with XENO 1
- The robot fills the dispensing containers as required
- The laser marking system can be rotated 180 degrees for various applications and is available for other marking tasks

Use Case

Marking of VIN Labels

Combination of LM+ P and Robot

This presentation is available under the following code

www.cab.de