LASER MARKING SYSTEMS

WORKSTATIONS

LASER

Laser RANGE

L-Box
XL-Box

SIC MARKING

LASER TECHNOLOGY: FAST AND HIGH QUALITY MARKING ON ALMOST ANY MATERIAL!

Component traceability is an essential aspect of compliance with ISO quality standards. Choosing laser marking technology provides manufacturers with a reliable method for automating marking operations, and ensures a high level of control over part traceability.

Laser technology consists of a high frequency beam generated from a laser source. This beam is then amplified and directed towards a part to be marked via a series of rotating mirrors. The energy delievered is so highly concentrated that it point alters the surface of the material under the focal point. It may generate enough heat to vaporize, and thus remove, the surface material. This is how an engraving is created using laser technology.

SIC Marking has chosen the innovative Ytterbium-doped fiber laser for its powerful reliability and low operating costs. This technology is used for Direct Part Marking (DPM) or label marking on almost any material regardless of hardness or surface textures. Laser is recommended for high-volume production, where speed and accuracy are essential.

LASER WORKSTATIONS

SIC Marking's powerfully precise laser technology is the secret behind our laser marking workstations. They can be integrated directly into production lines, or operated as stand-alone, autonomous workstations. Versatile and user friendly, these machines are suited to both low and high rates of production, and can be customized with additional features and tooling. Changing the body dimensions, manufacturing a dedicated tool system, and the addition of axes are just a few of the adjustments we can make!

HIGHLIGHTS

Robust Reliability

- Extended component life expectancy ≥ 100 000 h
- Maintenance free
- Warranty up to 5 years

High Performance

- Marks any material
- Surface or hollow marking
- Standard 1D (bar codes) and 2D (DataMatrix) code capability
- Marks high definition logos and images
- Fast and efficient
- Deep marking

Security

- Class 1 security laser (EN 60825-1 standard)

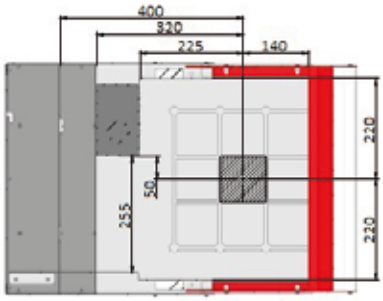
User-friendly

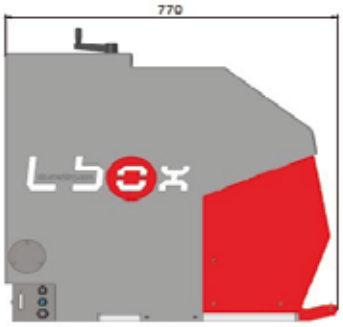
- Ergonomic door: soft opening
- Access the marking zone from 3 sides; height of 200mm / 7.9 inches
- Large viewing window
- Reduced width for improved ease of use

Fiber laser

- Doped Ytterbium fiber laser source, diode pumped
- Fast and high quality marking

L-Box

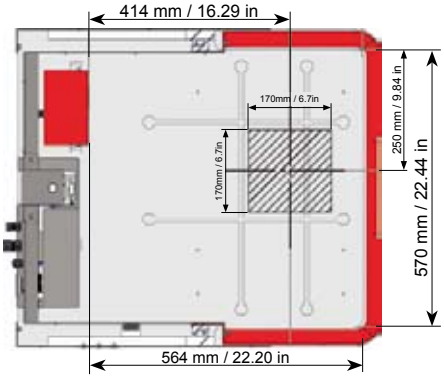


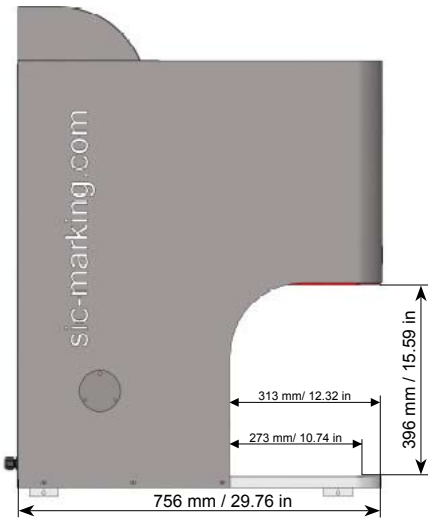


ADVANTAGES OF THE L-Box

- **USER- FRIENDLY**
- Ergonomic design
- Opens on all 3 sides
- LED lighting
- Working area 370 x 450 mm / 14.5 x 17.7 in

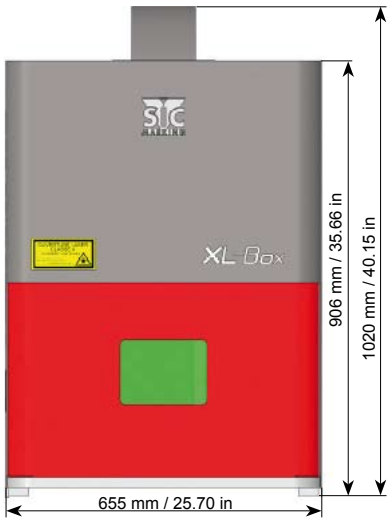
XL-Box





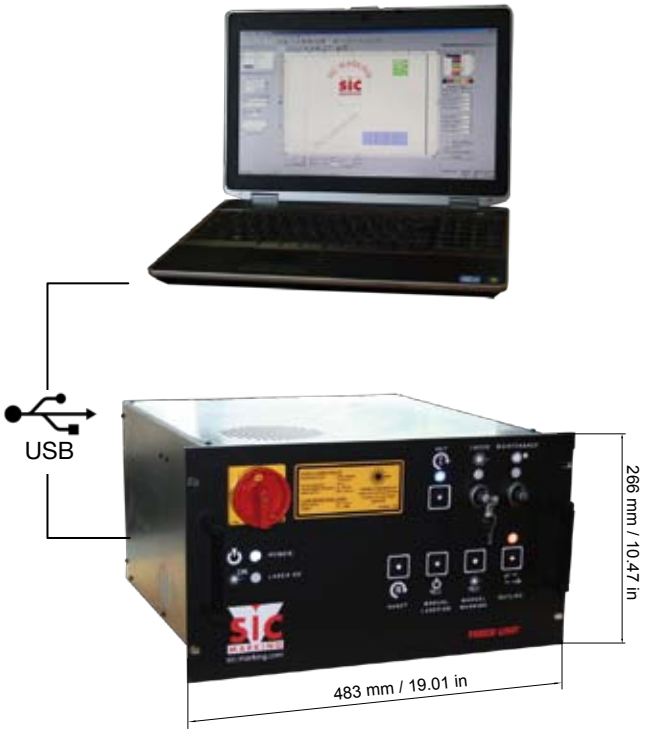
ADVANTAGES OF THE XL-Box

- **HIGH VOLUME, HIGH EFFICIENCY**
- Automatic door and motorized Z column
- Wide opening on all 3 sides
- LED lighting
- Working area 570 x 564 mm / 22.4 x 22.2 in



TECHNICAL FEATURES

	L-BOX	XL-BOX
Marking Window	100 x 100 mm (optional 170 x 170 mm) 3.9 x 3.9 inches (optional 6.2 x 6.2 inches)	170 x 170 mm or 100 x 100 mm (6.2 x 6.2 inches or 3.9 x 3.9 inches)
External Dimensions	505 x 770 x 765 mm / 19.9 x 30.3 x 30.1 inches	655 x 756 x 1020 mm (25.7 x 29.7 x 40.15 inches)
Dimensions of Parts to Mark	Maximum Height: 230 mm / 9 inches Maximum Length: 440 mm / 17.3 inches	Maximum Height: 370 mm / 14.5 inches Maximum Length: 570 mm / 22.44 inches
Focal Distance Settings	Manual column with counter (motorized optional) and built-in laser focus	Motorized Column (optional software direct setting) and built-in laser focus



ADVANTAGES OF A FIBER UNIT

Reliability and Performance

- Doped Ytterbium fiber laser source, diode pumped
- 3 axis control (4 axis in option)

Security

- Integrated safety loop (class 1)

Control

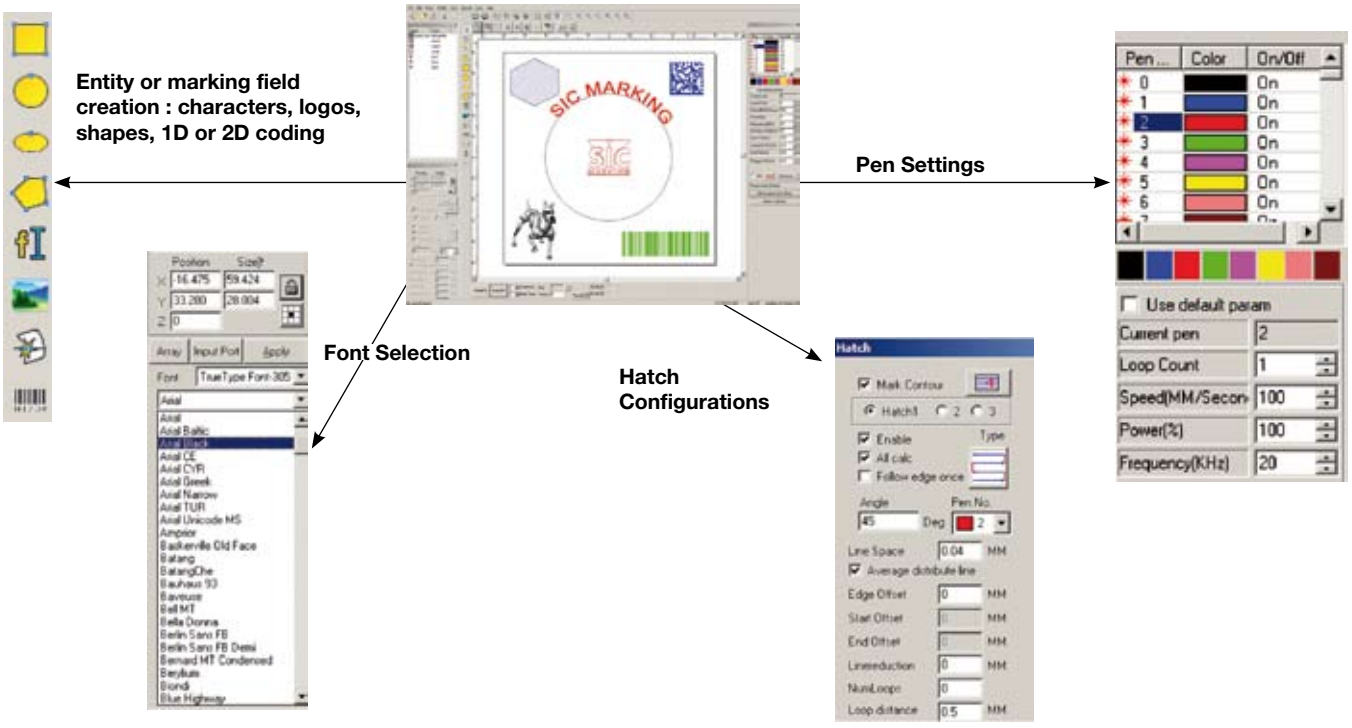
- Controlled with «SIC LASER PC SOFT»
- USB Interface, Windows environment

CHARACTERISTICS

- Operation Mode: Pulsed (20 to 500 KHz)
- Wavelength: 1,064 nm
- Average Power: 10W, 20W or 50W
- Peak power: 10kW
- Laser Tuning: Edge viewing of marking
- Cooling: By air only
- Warranty: 24 months (except for optics)
  Warranty extension up to 5 years (optional)

SOFT TECHNICAL FEATURES

CONTROL WITH SIC LASER PC SOFTWARE	
Functions	Creation and editing of marking files (drawing, text, bar code, data matrix, ...)
Laser Tuning	Several pen settings (speed, power, frequency, ...)
Fonts	TrueType, 1D bar code and 2D code (data matrix)
Import Function	Pictures (.bmp, .jpg), and vectorial files (.plt, .dxf, .ai)
Data Base	Link with external files (.txt, .xls)
Cylindrical Parts	Rotary axis (optional)
Input/Output	Integrated

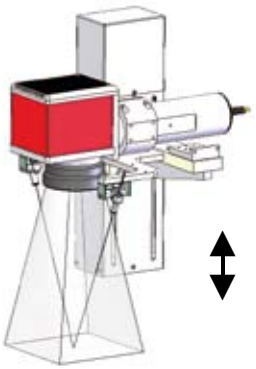


OPTIONS

Chassis dedicated to L-Box laser

Swing plate

Parts loading drawer



Motorized Z-Axis

Rotary Axis (D)

Barcode and Data Matrix Reader

Fume Extraction System

Laser Safety Glass

APPLICATIONS

4 axis laser station

Fully automated laser workstation

Tag-feeder laser station

MARKING

Mark today
Identify tomorrow

SIC MARKING, THE MARKING SOLUTIONS LEADER

SIC Marking is an international company dedicated to the development of permanent marking solutions & automated identification for complete traceability of industrial components.

SIC Marking has developed a full range of exclusive marking machines - dot-peen, scribing & laser technologies - and services.

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INDUSTRIAL VISION
- INDUSTRIAL VISION

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Intertek

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