LASER MARKING SYSTEMS

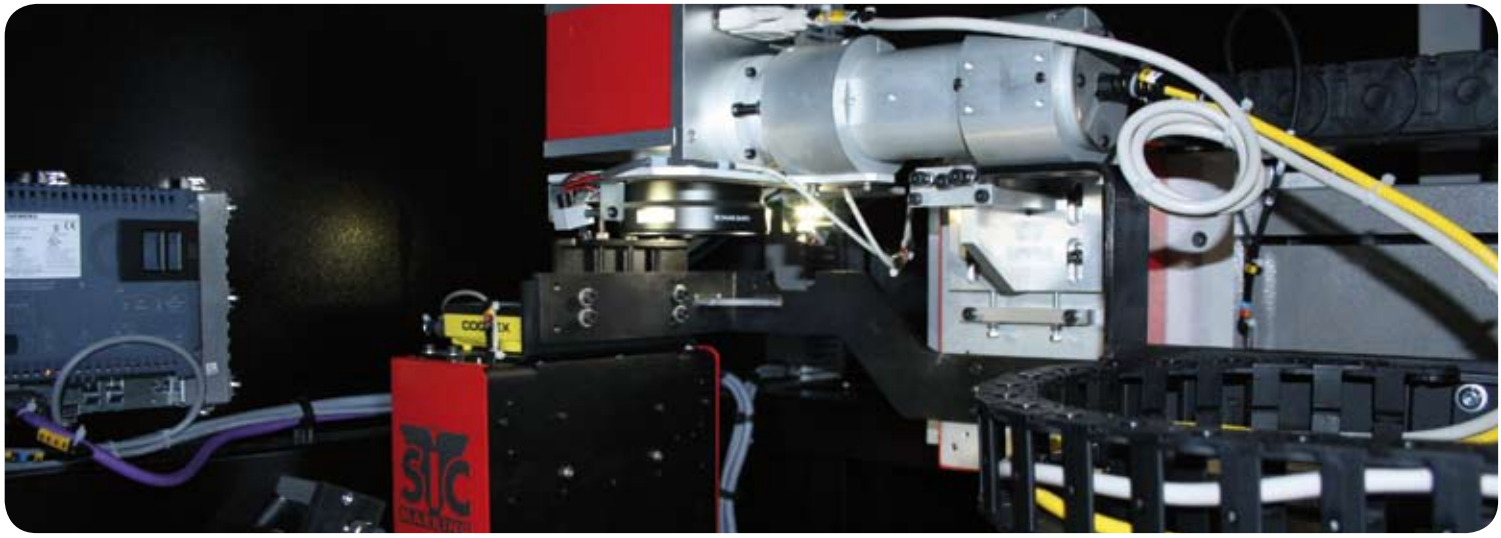
Integrated heads

LASER

Laser RANGE

i103 L-G
- 10W
- 20W
- 50W

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.

INTEGRATED SYSTEMS: NO PC REQUIRED

Our integrated laser systems have been engineered for intensive use in any industrial working environment. They can be integrated into production lines or used as a stand-alone marking station. They are suited for both low and high rates of production, and can be fully customized with additional features and tools. Changing the body dimensions, manufacturing dedicated tooling systems, and addition more axes (e.g. Z and rotary) are just a few examples of customizable features.

HIGHLIGHTS

Robust Reliability
- Extended component life expectancy > 100 000 h
- Reduced maintenance
- Warranty up to 5 years

High Performance
- Marking on all types of materials
- Surface or hollow marking
- Standard 1D (bar codes) and 2D (DataMatrix) code capability
- Marking high definition logos and images
- Fast and precise
- Deep marking

Security
- Class 4 laser (EN 60825-1 standard)

User-friendly
- Easy to integrate with compact size

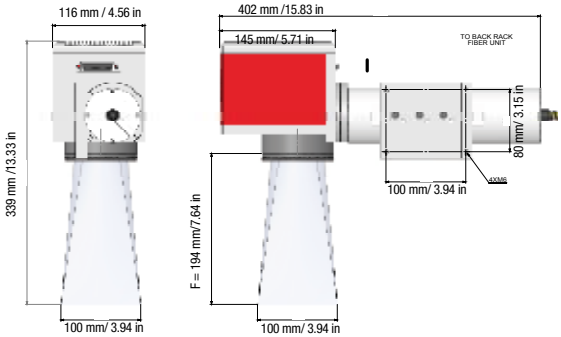
Fiber laser
- Doped Ytterbium fiber laser source of 10, 20, 50 W
- Fast and high quality marking

i103 L-G 10W 20W 50W

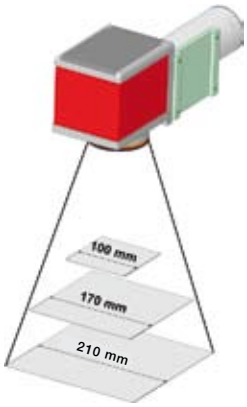
■ ADVANTAGES OF THE i103 L-G .....

- **HIGH SPEED & HIGH CONTRAST MARKING**
- Easy integration
- Sources of 10W, 20W, or 50W
- Marking field of 100 x 100 mm / 3.9 x 3.9 inches
  option 170 x 170 mm / 6.7 x 6.7 inches
  option 210 x 210 mm / 8.3 x 8.3 inches
- No PC required

i103 L-G Marking Head Integration drawings



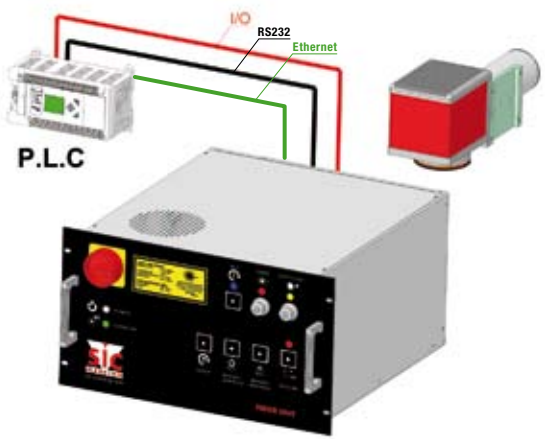
Marking Window

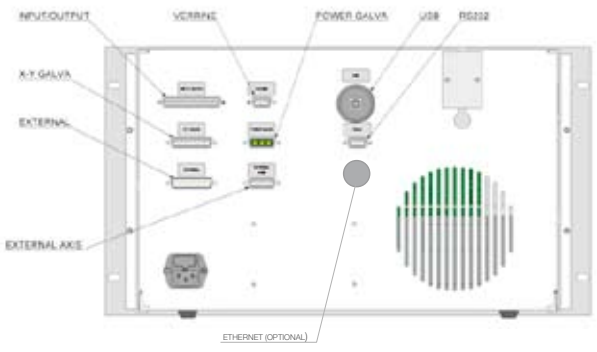


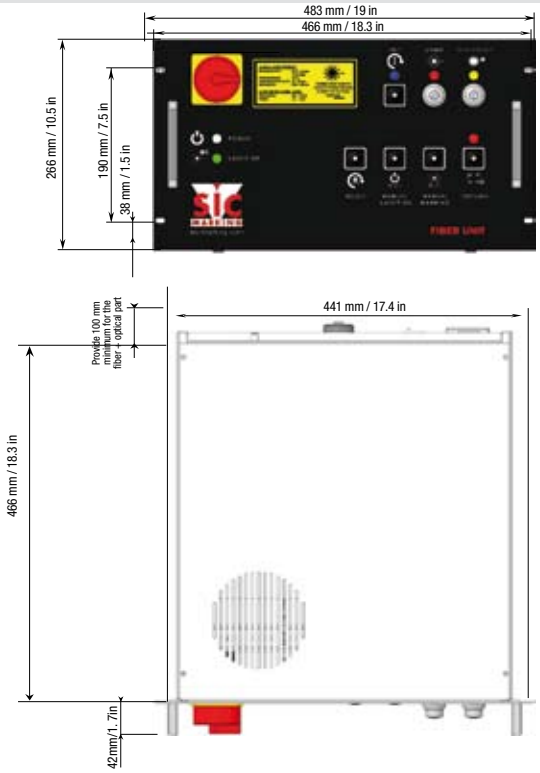
Marking Fields Pyramid

TECHNICAL FEATURES

	i103 L-G
Marking Field	100 x 100 mm / 3.9 x 3.9 inches (up to 210 x 210 mm / 8.3 x 8.3 inches available)
Weight	Fiber Unit : 19 kg / 42 lbs - Head : 5kg / 11 lbs
Power	750 Watt
Security	Class 4 laser (EN60825-1 standard) to secure
Control	SIC Laser ADVANCED







Characteristics

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

ADVANTAGES OF FIBER UNIT

Reliability and Performance

- Doped Ytterbium fiber laser source, diode pumped
- 3 axis control

Security

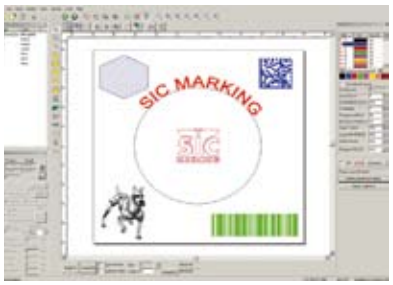
- Integrated safety loop, for class 1 integration

Communication

- RS 232 / Ethernet interface: INIT function, file selection, variable assignment, Start/Stop function
- Input / Output cycle management
- Test COMMUNICATION software

FILE CREATION MODE / SOFT TECHNICAL FEATURES

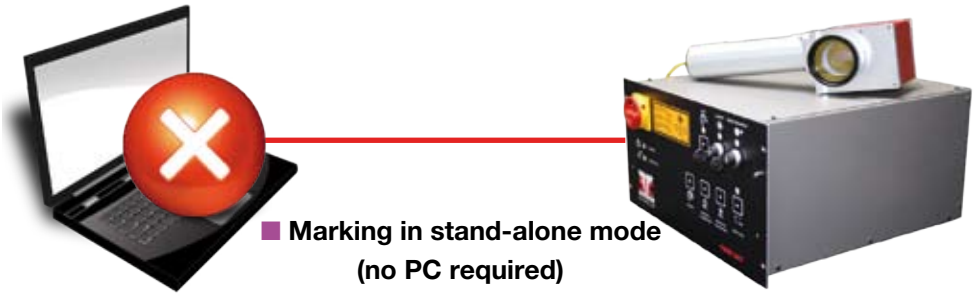
	CONTROL WITH SIC LASER ADVANCED SOFTWARE
Functions	Creation and editing of marking files (drawing, text, bar code, Datamatrix, ...)
Laser Tuning	Several pen settings (speed, power, frequency, ...)
Fonts	TrueType, 1D bar code and 2D code (Datamatrix)
Import Function	Pictures (.bmp, .jpg), and vector files (.plt, .dxf, .ai)
Database	Link with external files (.txt, .xls)
Cylindrical Parts	Rotary axis (optional)
In/Out	Integrated



File creation on PC

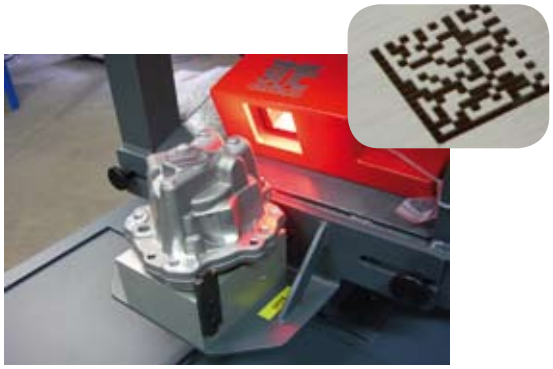
Entity or marking field creation : characters, logos, shapes, 1D or 2D coding
Font selection
Hatch configuration
Pen settings

File transfer from PC to Fiber Unit



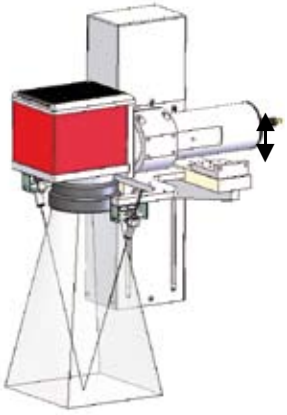
Marking in stand-alone mode (no PC required)

MACHINES



Integrated Vision System (mark verification)

Fume Extraction System

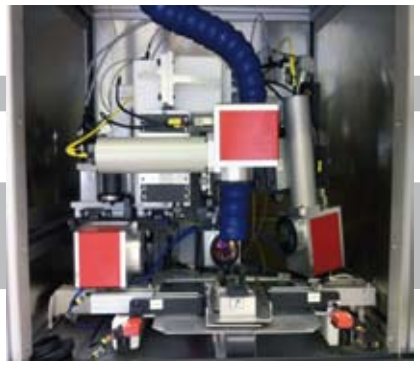


Motorized Z Axis Option

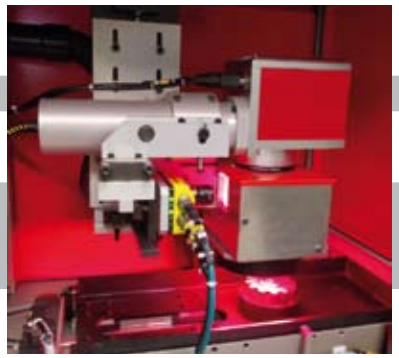
Barcode and Data Matrix Reader

Training / Certified Training Center

APPLICATIONS



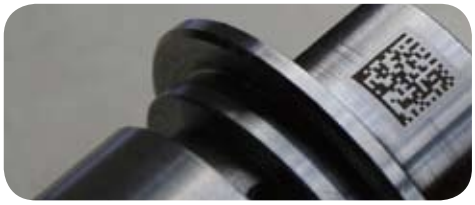
Four simultaneous marks on connecting rod by 4 galvano-heads



Drawer for part loading and camera reading

Laser Tunnel Protection

MARKING SAMPLES



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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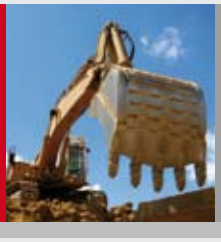
TURNKEY SOLUTIONS
- TURNKEY SOLUTIONS



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