berma®
MARKING SYSTEMS
www.berma.com

SUPREME

MULTI-AXIS FIBER LASER MARKING SYSTEM

- ***Versatility, high speed and high quality marking***
- ***Marking on all kind of materials (also on high hardness metals)***
- ***Surface marking or deep marking***
- ***Marking of alphanumeric text, logos and images***
- ***Marking of codes 1D (Code 39, 2/5 Interleaved, Code 128, EAN 13)***
- ***Marking of codes 2D (Data Matrix, QR Code)***
- ***User interface with keyboard and display, stand-alone operation (PC non necessary)***
- ***Marking data acquiring from barcode reader or external device via ASCII protocol***
- ***Reduced maintenance***

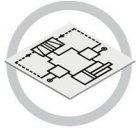
The laser system **SUPREME** is distinguished by the wide working area (up to 680 x 300 mm) generated by the controlled movement of the scanning head on the axes X and Z. The compliance with safety regulations is guaranteed by the protective enclosure in Class 1 (EN ISO 60825-1).
It is equipped with fiber laser sources 20W, 30W or 50W, that allow to have the most suitable configuration for the different customer needs.
The fiber laser marking is the most flexible type of direct marking from those available. The ability to adjust various parameters of the laser, it enables the highest levels of control, marking quality and speed and can perform three different types of marking:

- **incision** that creates a direct marking, durable, long lasting and forgery-proof
- **tempering** that creates a permanent marking induced by heat, without removing or compromising the material of the workpiece
- **ablation** that removes the paint or surface coatings to create a contrast without damage the material.

Such systems are suitable to work on every metal, including carbides, aluminium and titanium alloys and the hardened steel.
It can be used in the same way even on different materials such as plastic.
It also has the predisposition for the installation of the fume extraction system and for the connection of the optional AR1 rotary axis device for the marking of cylindrical parts and of the automatic loader of plates AF3.

SECTORS

Automotive
Engine blocks and cylinder heads, valves, filters, fuel injection plants



Hydraulic & Pneumatic
Valves, cylinders, tanks, control valves

Household appliance
Washing machines, water heaters, cookers, coffee machines

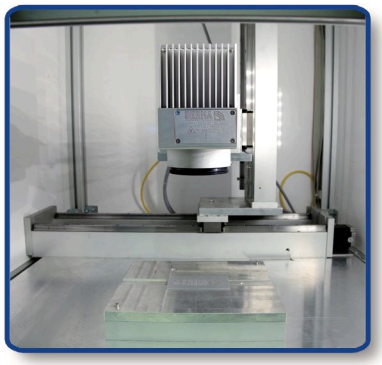
Agriculture Machinery
Control valves, blocks, cylinders

Power Transmission
Gearmotors, Gearboxes

Aerospace
Turbines, tanks, components

MULTI-AXIS FIBER LASER MARKING SYSTEM

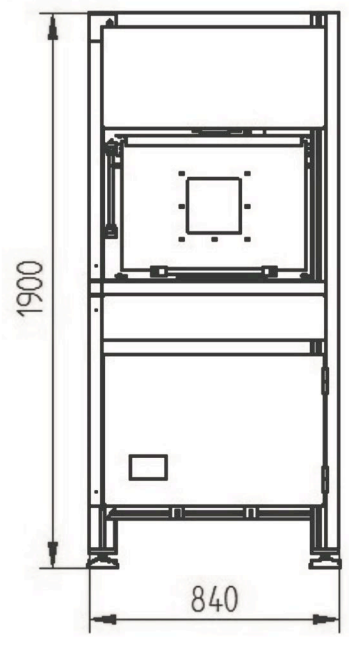
Fiber Laser Advantages



- ***Reduced maintenance and long lifetime of the laser source***
- ***High performance optics elements, low electrical consumption***
- ***High energy density that allows to obtain a high quality marking in a short time***
- ***Integrated red-pointer diode that allows to position the piece easily***
- ***Direct and durable marking, without the use of solvents, paintings or labels***

Technical Features:

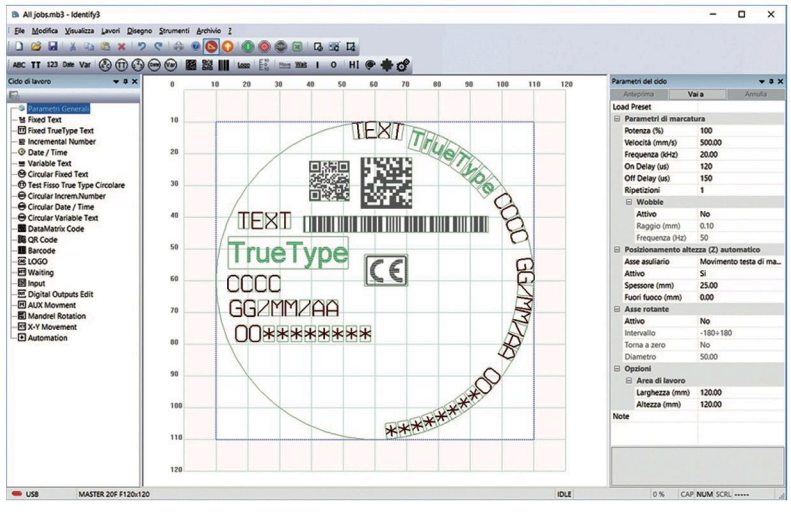
- Laser safety CLASS 1 cabin (CEI EN 60825-1)
- Balanced sliding door for an easy access to the working area
- Useful mechanical opening for workpiece max. 660 x 420 mm
- Lateral access window
- Motorized and controlled X axis
- Motorized and controlled Z axis
- Possibility of marking on different levels for the same workpiece
- Fiber laser source
- Wavelength 1064 nm
- Laser power **20W (SUPREME-20FX)**
  30W (SUPREME-30FX)
  50W (SUPREME-50FX)
- Integrated red pointer / preview 635 nm, 5mW
- Marking speed up to 3750 mm/s
- USB, RS-232, TCP/IP (optional) connections
- Led illumination integrated
- Fume extraction arrangement
- Power supply 100-240 Vac, 50/60 Hz
- Absorption 2,135 kW (20-30W), 2,879 kW (60W)
- External dimensions 840 x 855 x 1900 mm



F-163 focal lens, working area 592 x 112 mm, spot 32 µm, working distance 190 mm
F-254 focal lens, working area 615 x 170 mm, spot 31 µm, working distance 298,5 mm

Identify^3 *Marking Software*

This powerful and user-friendly software (included) allows to set up and to save marking cycles containing alphanumerical texts, dates, incremental counters and company logos.
Logos can be imported from BMP/DXF/PLT files.
It is possible, upon request, to customize the user interface and the data acquisition from management software.



BERMA Macchine S.r.l. – Via San Vitale 33 – 40054 Budrio (BO) Italy
Tel. +39 051 802437 www.berma.com e-mail: info@berma.com