

## 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 A/B/C, EAN 13)**
- **Marking of codes 2D (Data Matrix ECC-200)**
- **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.

Fully designed and developed in our factory, it is the ideal solution for companies that are looking for quality and reliability for the marking processing of their materials, in any sector.

## SECTORS



### Automotive

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



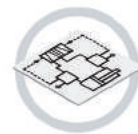
### Household appliance

Washing machines, water heaters, cookers, coffee machines



### Power Transmission

Gearmotors, Gearboxes



### Hydraulic & Pneumatic

Valves, cylinders, tanks, control valves



### Agriculture Machinery

Control valves, blocks, cylinders

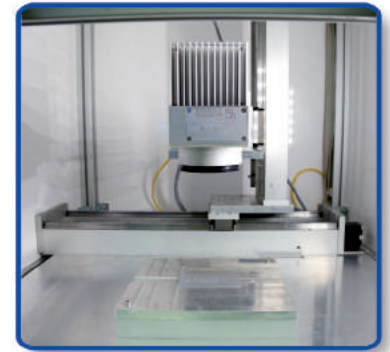


### Aerospace

Turbines, tanks, components

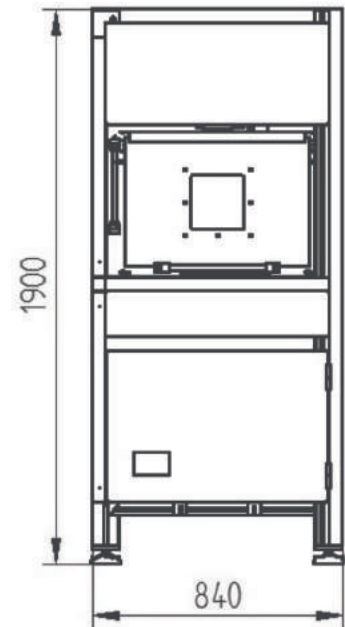
**Fiber Laser Advantages**

- *Reduced maintenance and long lifetime of the laser source*
- *High performance optics elements, low electrical consumption (<500 W)*
- *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-20F)**  
**30W (SUPREME-30F)**  
**50W (SUPREME-50F)**
- Integrated red pointer (preview)
- Marking speed up to 1500 mm/s
- USB & RS-232 connections
- Led illumination integrated
- Fume extraction arrangement
- Power supply 100-240 Vac, 50/60 Hz
- Absorption <500W
- External dimensions 840 x 855 x 1900 mm



F-160 focal lens, working area 580 x 100 mm, spot 26 µm, workpiece max. height 427 mm  
 F-254 focal lens, working area 615 x 170 mm, spot 31 µm, workpiece max. height 317 mm  
 F-290 focal lens, working area 630 x 200 mm, spot 36 µm, workpiece max. height 278 mm  
 F-420 focal lens, working area 680 x 300 mm, spot 50 µm, workpiece max. height 128 mm

**Option:** Rotary axis (**AR1**), automatic plates feeder (**AF3**)

**Identify Marking Software**

This powerful and user-friendly software (included) allows to set up and to save marking cycles containing alphanumeric 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.

