

## Desktop Fiber laser marking machine

It is applicable to all metal materials like steel, iron, copper, aluminum, gold, silver, and some non-metallic materials including PC, ABS. It is mainly applied in areas requiring high smoothness and refinement, such as electronic products, hardware ware, watches, jewelry, etc.

### Characteristics

1. Ultra-high configuration: optional domestic or imported laser and high-speed vibrator.
2. No maintenance: The laser requires no maintenance, or adjusting or cleaning lenses with an average working hours of 100,000 hours.
3. No consumables: No consumables, non-toxic, no environmental pollution, high environmental protection.
4. Red light positioning: using the red light positioning system, convenient positioning and high positioning accuracy.
5. Extension capabilities: Scalable additional features. Such as circular marking, X Y electric workbench, automatic feeding flight marking, etc.
6. Depth marking: high speed scanning vibrator, can work, white, black, deepen.
7. Computer programming: printing automatically, printing in English, numbers, Chinese characters, graphics, printing content can be changed arbitrarily.
8. Multiple fonts: common 1 D barcode and Datamatrix PDF417barcode



450 \* 330 \* 570 mm Weight: 20KG

Package size: 620\*450\*500mm

Package weight(Wooden box): 40KG

### Technical parameter

|  |
|--|
| Working power:20W/30W/50W/100W   |
| Laser wavelength:1064nm  |
| Beam mass:<2 (M2)  |
| Laser type:Pulse or continuous   |
| Service life:The laser runs > for 100,000 hours  |
| Cooling mode: Air cooling  |
| Power : 220V 50HZ AC and complete machine power : 500W                                   |
| Temperature: -20 °C — 45 °C, relative humidity of 80%;                                   |
| Overall dimension:450 mm X 330 mm X 570 mm L W H   |
| Total weight:All-in-One Cabinet <20kg  |
| Marking depth≤ 0.5mm depends on the material   |
| Marking speed≤ 7000mm/s  |
| Marking range:Standard110X110mmCustomize   |
| Minimum character:0.15mm   |
| Minimum linewidth:0.012mm  |
| Repeat accuracy:±0.002   |
| Print content:Digital, Chinese characters, English letters, patterns, QR , barcode, etc. |

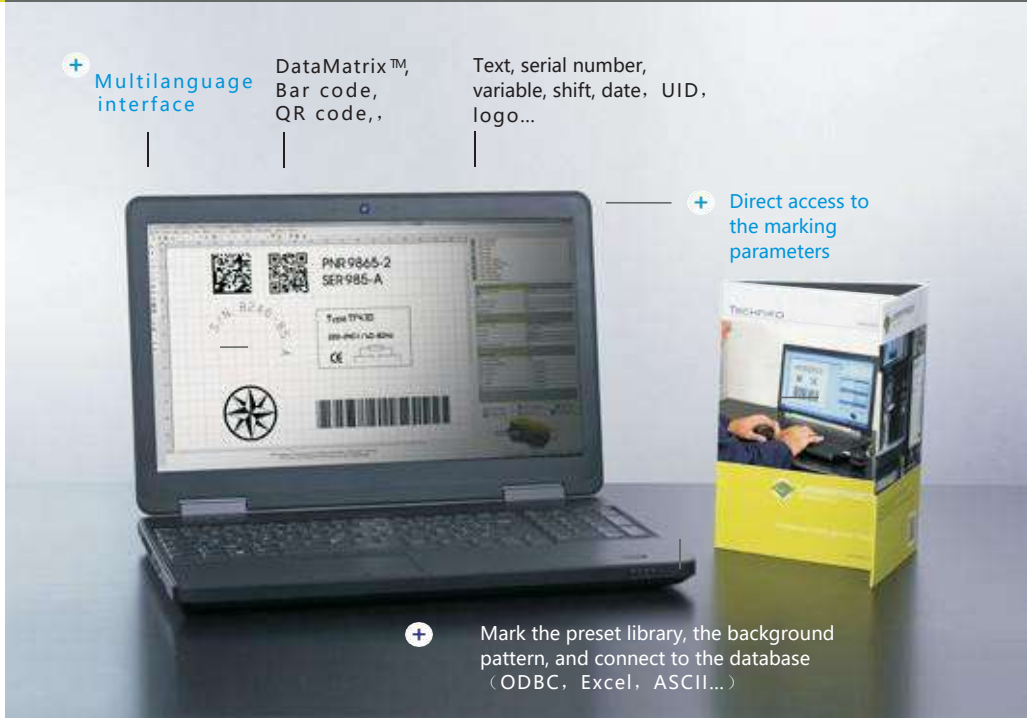
### Sample



# Software introduction

## Software

- Training with on-to-door tutorials or instructions
- Line, slash, arc marking
- Font library, maximize production
- Mark the preview
- Multiple frequencies, the work piece can be made white and black
- Adjustable power



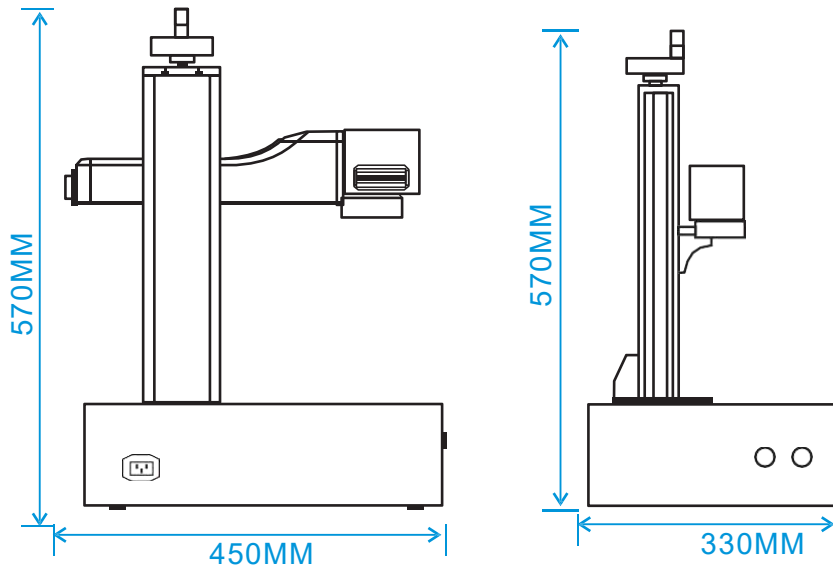
Red light preview  
The printed content can be displayed on the workpiece in advance through the red light preview function.

- Manage your marking process, from the workshop to the automated production lines
- Lets you easily accomplish multiple tasks: repeated checks, historical files, and manager login Get data from an existing system or a code gun...
- Inner software
  - support PLT、PCX、DXF、BMP documents, SHX、TTF word stock.
  - Software extends flight markings.
  - Automatic serial number, date and time can be set according to the production requirements.
  - Open and multilingual, it can easily support the languages around the world
  - Powerful filling function, support for ring filling

# Preparation

## Preparation introduction

- Top grade fiber laser
- Digital high-speed scanning vibrator mirror
- Ezcad2.99Mark the control card
- Singapore wavelength field mirror
- Independent power supply control box
- Hf Industrial DC switch power supply
- Industrial-grade computer and LCD display
- Optional rotary clamp and 2 D workbench
- Siemens Switch with thickened sheet metal cabinet



| Hardware name               | key technical indexes  | manufacturer  |
|-----------------------------|--|---|
| Fiber laser                 | Laser Type: Pulsed ultra-short pulse modulation Typical value: 2-350ns beam mass M2: $\leq 1.5$ Single-point pulse energy: 0.5mJ Long-term operating stability: $\leq 3\%$ | Laser source: MAX<br>service life: 100,000 hours warranty of 2 years  |
| Digital vibrator mirror     | Wavelength range : 1030-1085nm<br>repeatability precision : 22 $\mu$ rad<br>Marking speed: 7500mm/s<br>Typical scan angle: + 0.35rad<br>Gain error: <5mrad                 | Brand: SINO-GALVO<br>service life :50,000 hours warranty of 2 years   |
| Filed lens                  | SILL f-theta lens :1064 wavelength<br>scanning Angle: + 25 °<br>incident light diameter: $\leq 12$ mm<br>dispersion light diameter: 10 $\mu$ m                             | Brand: Ronar-Smith<br>service life : 50,000 hours warranty of 2 years |
| Control board card          | LMCV4-FIBER-M<br>Support system: WIN7-WIN10<br>multi-national languages and operating interface  | Brand: EZCAD<br>service life :50,000 hours warranty of 2 years        |
| Industrial control computer | CPU: Intel Dual-Core G2030.3.0Ghz<br>Memory: 4G-1600<br>hard drive: Solid-state 128G<br>display: 19-inch LCD display   | Brand: EVOC<br>service life :50,000 hours warranty of 2 years         |
| Power switch                | LRS-350-24 LRS-75-15 LRS-25-5  | Brand: Meanwell<br>warranty of 2 years                                |

## The relevant technical information provided

| Number | File name   | Quantity | remarks                                    |
|--------|---|----------|--|
| 1      | Equipment operation user manual                     | 1        | Random equipped                            |
| 2      | Equipment specification                             | 1        | Random equipped                            |
| 3      | Factory acceptance standards and inspection records | 1        | In accordance with the contract provisions |
| 4      | Mechanical and electrical drawings                  | 1        | Random equipped                            |
| 5      | Outchased specification and certificate             | 1        | Random equipped                            |
| 6      | Marking software                                    | 1        | Random equipped                            |
| 7      | Equipment commissioning tools                       | 1        | Random equipped                            |



## I. Safety Information

Before using this product, please read and understand this product profile and be familiar with the information we provide for you.

This product profile provides important product operation, security, and other information for you and all future users of IV grade laser products. Before turning on the total power supply, make sure that the correct AC220V power supply is connected, mistakenly connecting the power supply, which will damage the device.

- This device emits laser radiation of more than 20 W (in the 1064nm wavelength range). Avoid radiation that the eyes and skin contact directly or scatter from the light output.
- Do not open the core laser because there are no product parts or accessories available to the user. All maintenance or repairs can only be performed in Flying Jet.
- Do not directly view the output and wear laser safety glasses. Laser warning signs and laser operation precautions. Warning: Laser radiation hazard, avoid direct sight.
- Laser beam will burn out clothes, paper and other flammable items and light to avoid flammable items.
- Laser is easy to ignite and detonate flammable and explosive substances (such as alcohol, gasoline, hydrogen, gunpowder, etc., and avoid flammable and explosive substances).