DIFFERENCES BETWEEN CO2 LASER MARKING MACHINES AND FIBER LASER MARKING MACHINES

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Laser marking machines are also known as laser marking machines, laser engraving machines, and other names, but most people do not understand the difference between CO2 laser marking machines and fiber laser marking machines. Next, the technicians from the laser marking machine manufacturer Shanghai Hanting Laser will explain and analyze for you.

CO2 laser marking machine

Performance characteristics of CO2 laser marking machine

1. High marking accuracy, fast speed, and free control of engraving depth

2. High laser power, suitable for carving and cutting various non-metallic products

No consumables, low processing cost, and laser service life of up to 20000-30000 hours

4. Clear marks, not easy to wear, high carving and cutting efficiency, environmental protection and energy conservation

5. Use a 10.64um laser beam to expand, focus, and ultimately control the deflection of the galvanometer

6. Acting on the workpiece surface according to a predetermined trajectory to vaporize the working surface, thereby achieving a printing effect

7. Good beam pattern, stable system performance, maintenance free, suitable for industrial processing sites with large batch, multiple varieties, high-speed, high-precision continuous production

8. The most advanced optical path optimization design and unique graphics path optimization technology, coupled with the unique superpulse function of the laser, enable faster cutting speed.

New desktop optical fiber laser marking machine

Fiber laser marking machine

Performance characteristics of optical fiber laser marking machine

1. The marking software is powerful and compatible with Coreldraw, AutoCAD, Photoshop, and other software files. It supports PLT, PCX, DXF, BMP, and can directly use SHX and TTF fonts. Support for printing automatic codes, serial numbers, batch numbers, dates, etc. Barcode, QR code, automatic skip number, etc

2. Adopt an integrated overall structure and automatic focusing system, making the operation process user-friendly.

3. Use an original imported isolator to protect the optical fiber laser window to improve stability and laser life.

4. No maintenance required, long service life, small size, suitable for working in harsh environments.

5. The processing speed is 2-3 times that of traditional marking machines.

6. High electro-optical conversion efficiency, and the overall power consumption is less than 500W, which is 1/10 of that of the lamp pumped solid-state laser marking machine, saving a lot of energy consumption.

7. The beam quality is much better than traditional solid-state laser marking machines. This is the output in basic mode (TEM00) with a focal length of less than 20 um. The divergence angle is 1/4 of the divergence angle of a semiconductor pumped laser. Particularly suitable for fine and accurate marking.