

WHAT IS THE DIFFERENCE BETWEEN FIBER, CO2 AND YAG LASER CUTTING MACHINES?

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In recent years, optical fiber laser cutting machines have been rapidly glowing in this hot land of China, bringing technological innovation to industrial manufacturing. What makes people abandon the old processing methods and gradually withdraw the former CO2 and YAG laser cutting machines from the stage of history? This is related to their respective strengths and weaknesses and the requirements of the development of the times.



CO2 Laser Cutting Machine

Optical fiber, CO2 and YAG laser cutting machines, which are good?

In terms of beam quality, power consumption, service life, processing intelligence and equipment maintenance:

1. The beam quality of fiber laser cutting machine is good, followed by CO2, and finally YAG;
2. Power consumption fiber laser cutting machine is the first, YAG is average, and CO2 is poor;
3. The service life of optical fiber laser cutting machine is long, and other service life is low; 4 Optical fiber laser cutting machine still dominates in terms of operation intelligence and maintenance cost;

1 Fiber laser cutting machine VS CO2 laser cutting machine

Compared with fiber laser cutting machine, CO2 laser cutting machine has advantages and disadvantages.

The advantages are that CO2 can process metal and non-metal materials at the same time, while the optical fiber laser cutting machine is only suitable for processing metal materials; In terms of purchase cost, CO2 laser cutting machine is much cheaper than fiber laser cutting machine.

The disadvantage is that the CO2 laser cutting machine is relatively slow, 2-3 times slower than the fiber laser cutting machine in sheet cutting, and is not suitable for large-format laser cutting. At the same time, the high processing cost of CO2 laser cutting machine is mainly reflected in the high power consumption, gas consumption and consumption of consumables. Turbine bearing replacement is a high maintenance cost. The maintenance of fiber laser cutting machine is relatively

easy and almost free of cost.

2 Fiber laser cutting machine VS YAG laser cutting machine

YGA is a low-power laser cutting machine suitable for cutting thin plates.

Compared with optical fiber laser cutting machine, YGA has the following advantages: low purchase cost and can cut high reflective materials;

The disadvantages are: the cutting speed is slow, which is not suitable for thick plate cutting; High power consumption and high maintenance cost; It is far less convenient and intelligent than fiber laser cutting machine.

Optical fiber, CO₂ and YAG laser cutting machines have their own advantages and disadvantages, but in comparison, optical fiber laser cutting machines occupy a greater advantage and meet the needs of the development of the times. However, it is a wise choice to choose a suitable laser cutting machine according to your cutting material and cutting requirements.