

# WHAT DO YOU KNOW ABOUT LASER CUTTING MACHINES

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Do you know about [laser cutting machines](#)? With the development of laser cutting technology, laser cutting is used in more and more fields, and more and more materials are applicable. But how much do you know about the problems that laser cutting machines often encounter? Let's take a look.

## **What is the working principle of laser cutting machine**

Laser cutting is to irradiate the workpiece with a focused high-power-density laser beam, so that the material at the irradiated place melts, vaporizes, ablates or reaches the ignition point rapidly. A thermal cutting method that cuts the workpiece by irradiating the position.

## **Is the operation of the laser cutting machine dangerous?**

Laser cutting is a very environmentally friendly cutting method, generally speaking, there is no harm to the body. Compared with ion cutting and oxygen cutting, laser cutting produces less dust, weak light and low noise. However, if you do not follow the correct operation method, it is easy to accidentally injure others.

## **Factors Affecting the Precision of Laser Cutting Machine**

There are many factors that affect the accuracy of laser cutting, some are determined by the equipment itself, such as the precision of the mechanical system, the degree of vibration of the table, the quality of the laser beam, the influence of auxiliary gas and nozzles, etc.; some are inherent factors of the material, such as the physical and chemical properties of the material, material reflectivity, etc.; there are some factors that are selected according to the specific processing objects and user quality requirements, and corresponding adjustments are made to determine relevant parameters, such as output power, focus position, cutting speed and auxiliary gas. wait.

## **What are the types of lasers and what are the differences?**

The lasers currently used in laser processing and manufacturing mainly include CO2 lasers, YAG

lasers, and fiber lasers. Among them, high-power CO<sub>2</sub> lasers and YAG lasers are widely used in confidential processing; fiber lasers based on fiber optics have obvious advantages in reducing the threshold, oscillation wavelength range, and wavelength tunable performance, and have become an emerging technology in the laser field. .

## **What is the cutting thickness of the laser cutting machine?**

At present, the cutting thickness of laser cutting machine generally does not exceed 50mm. Compared with other cutting methods, it has obvious advantages for cutting materials below 20mm that require precise dimensions.

## **Application scope of laser cutting machine**

Laser cutting machine is widely used in automobile manufacturing, kitchenware industry, sheet metal processing, advertising industry, machinery manufacturing, chassis and cabinets, elevator manufacturing, fitness equipment and other industries due to its cutting range.

However, general laser cutting machines are mainly divided into metal cutting and non-metal cutting. Different types of laser cutting machines produced by different laser cutting machine manufacturers are also different, and the focus is also different.