

CHOOSE A PLASMA CUTTER OR A LASER CUTTER?

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How to choose to use plasma cutting machine or [laser cutting machine](#) in production depends on the following points:

1. The cutting precision of the laser cutting machine is higher, the plasma cutting function can reach within 1mm, and the laser cutting function can reach within 0.2mm;
2. Production cost control, plasma cutting machine is much cheaper than laser cutting machine;
3. In terms of processing accuracy, the plasma cutting machine belongs to rough processing, and the laser cutting machine belongs to fine processing.

The following are the performance parameters of plasma cutting machine and laser cutting machine.

First of all, the plasma cutting machine is a new type of thermal cutting equipment. Its working principle is to use the heat of the high-temperature plasma arc to locally melt the metal at the incision of the workpiece, and use the momentum of the high-speed plasma to remove the molten metal to form a cut. method. The working gas that can be used has a significant impact on the cutting characteristics, cutting quality and speed of the plasma arc. Plasma cutting machines are widely used in various industries such as automobiles, locomotives, pressure vessels, chemical machinery, nuclear industry, general machinery, construction machinery, and steel structures.

Laser cutting is to scan the surface of the material with a high-power-density laser beam, heat the material to thousands to tens of thousands of degrees Celsius in a short period of time, melt or vaporize the material, and then use high-pressure gas to melt or vaporize the material from the cutting seam Blow away to achieve the purpose of cutting materials. Laser cutting, because the traditional mechanical knife is replaced by an invisible beam, the mechanical part of the laser cutter head has no contact with the work, and will not scratch the work surface during work; the laser cutting speed is fast, the incision is smooth and flat, generally no need Subsequent processing; cutting heat-affected zone is small, plate deformation is small, and the slit is narrow (0.1mm ~ 0.3mm); the incision has no stress and no shear burrs; the processing accuracy is high, the repeatability is good, and the surface of the material is not damaged; CNC programming, can be It can process any plan, and can cut the entire board with a large format, without opening molds, which is economical and time-saving.

How to choose to use a plasma cutting machine or a laser cutting machine needs to be decided according to production purposes, cost considerations, processing accuracy requirements, etc.