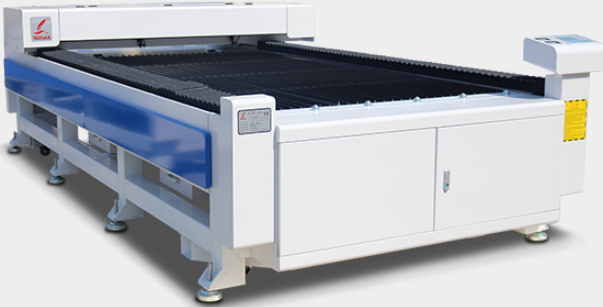


INTRODUCTION TO LASER CUTTING MACHINE AND APPLICABLE CUTTING MATERIALS

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Category: [Laser Cutter News](#)



Laser cutting is a CNC cutting process in which a high powered laser is used to cut material.

In this process, a high-density beam is produced by exciting the laser material with an electrical discharge inside a closed container. Optics are used to focus the generated laser beam onto the workpiece to effectively cut the workpiece by melting, vaporizing or burning through it. The movement of the laser beam is controlled using CNC technology.

Types of Laser Cutters

There are three main types of lasers used in [laser cutters](#). These are CO₂, Nd and Nd:Yag lasers.

Laser cutting can be used to cut many kinds of materials like paper, wood, metal, rock, etc. but it is widely used in material removal, materials used for sheet metal fabrication, such as: aluminum, steel, stainless steel, copper and other metals

In general, laser cutters are ideal for cutting relatively thin sheet metal, up to 15mm thick for aluminum and 6mm for steel. They typically have a tolerance of 0.2 to 0.1 mm.

Advantages and Limitations of Laser Cutting

Due to the high precision of laser cutting, the finishing requirements for laser cut parts are extremely low. Laser systems create a small heat-affected zone, reducing the need for post-processing heat treatments.

Compared to other cutting processes, laser cutting is more precise and versatile (in terms of materials) than plasma cutting, but not as good as waterjet cutting.

Laser cutting is the most widely used because of its material versatility, precision, and ability to cut and engrave simultaneously (a process that cannot be done with a waterjet). It's also less expensive than waterjet cutting.

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laser cutting cost

The cost of laser cutting can vary widely depending on the type of laser and the material chosen. The easiest way to understand the price of a laser cutting project is to consult a number of quotations, and determine the final cooperative laser cutting manufacturer after proofing.