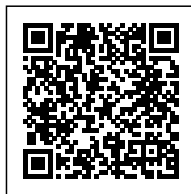


WHAT ARE THE TYPES OF LASER CUTTING MACHINES

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Due to different lasers, [laser cutting machines](#) currently on the market can be divided into three types. The first CO2 laser cutting machine, the second YAG laser cutting machine, and the third fiber laser cutting machine.

At present, the CO2 laser cutting machine can stably cut carbon steel within 20mm, stainless steel within 10mm, and aluminum alloy below 8mm. The wavelength of CO2 laser is 10.6um, which is easily absorbed by non-metals, and can cut acrylic, PP, wood, plexiglass and other materials, but the photoelectric conversion rate of CO2 laser is only about 10%.

Main advantages of CO2: high power, generally between 2000-4000W, capable of cutting full-size stainless steel and carbon steel within 25mm.

YAG solid-state laser cutting machine has the characteristics of low price and high stability. Its green laser beam can be applied in pulsed or continuous conditions. It has short wavelength and good light concentrating. It is suitable for precision machining, especially for hole processing under pulsed conditions. Most effective for cutting, welding and photolithography. The wavelength of the YAG solid laser cutting machine laser is not easily absorbed by non-metal, so it cannot cut non-metal materials.

Main advantages: It can cut aluminum plates, copper plates and most non-ferrous metal materials that cannot be cut by other laser cutting machines. The machine is cheap, low maintenance cost, easy to operate, and does not require high quality workers.

The fiber laser cutting machine can be transmitted through optical fiber, the degree of flexibility is improved, the fault is less, the maintenance is convenient, and the speed is fast, so it has great advantages when cutting thin plates within 4mm. The short wavelength of fiber laser is very harmful to human eyes, which belongs to the most harmful level. For safety reasons, fiber laser processing requires a fully enclosed environment. The advantages are high photoelectric conversion rate, low power consumption, can cut stainless steel plate and carbon steel plate within 12MM, fast cutting speed, small kerf, high spot quality, and can be used for fine cutting.