

# DIFFERENT MATERIALS ARE SUITABLE FOR DIFFERENT LASER CUTTING MACHINES

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## REDSAIL CM1390E LASER ENGRAVING/CUTTING MACHINE

2-Way Pass-Through  
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As of today, laser cutting machines are still the most common cutting method in the industry. Among them, laser cutting machines are divided into fiber laser cutting machines and [CO2 laser cutting machines](#). According to different materials and products, the selected laser cutting machines are also different.

The laser wavelengths produced by fiber laser and CO2 laser are 1.06 micron and 10.6 micron respectively, both of which are infrared light and can be absorbed by materials, so they are only used for industrial material processing. Fiber lasers cannot cut non-metals, including wood, plastic, leather, cotton and linen fabrics, etc. If the material to be processed is exactly non-metallic, the fiber laser can only be rejected, and the CO2 laser cannot be used. Including brass, copper, etc., CO2 laser cannot be cut. Because for the CO2 laser, copper is a highly reflective material, the laser is basically reflected without being absorbed, and the light is reflected back to the laser, causing harm.

At the same time, we can comprehensively evaluate lasers and equipment in terms of cutting speed, cutting efficiency, and section quality.

Fiber laser cutting thin plate has its advantages, especially the advantages of thickness less than 3mm. Compared with CO2 laser, the maximum cutting speed ratio can reach 4:1; and 6mm is the critical thickness for the exchange of advantages of the two lasers. Fiber laser has no advantage in cutting plates with a thickness greater than 6mm. CO2 gradually appears as the thickness increases, but it is not significant. In general, fiber laser still has advantages in cutting speed.