

PRECAUTIONS FOR LASER CUTTING MACHINES WHEN CUTTING DIFFERENT MATERIALS

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The use of laser cutting machines is becoming increasingly widespread, with more and more materials available for use. However, different materials have different characteristics, so different precautions need to be taken when using laser cutting machines. The following is a brief analysis of the main materials used in laser cutting:

1. Structural steel:

Good results were obtained when cutting materials with oxygen. When oxygen is used as a processing gas, the cutting edge is slightly oxidized. For plates up to 4 mm thick, nitrogen can be used as the cutting process gas.

2. Stainless steel:

Oxygen is required to cut stainless steel, and nitrogen is used in cases where edge oxidation is not tight to obtain an edge free of oxidation burrs without further treatment.

3. Aluminum

Despite its high reflectivity and heat transfer conductivity, aluminum with a thickness of less than 6mm can be cut depending on the type of alloy and the ability of the laser.

4. Titanium

Cutting titanium plates using argon and nitrogen as processing gases. synthetic material

5. Organic matter

All organic cutting poses a risk of ignition (using nitrogen as an auxiliary gas or compressed air as an auxiliary gas). Wood, leather, cardboard, and paper can all be cut with lasers, but the cutting edges can burn out.