

# WHAT YOU NEED TO KNOW WHEN BUYING A CO2 LASER CUTTING MACHINE

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[CO2 laser cutting machines](#) have been continuously improved and upgraded since they were first used in the 1970s. Now it has become an important laser cutting equipment. CO2 laser cutting machines are widely used in cutting and engraving of non-metallic materials. Depending on the laser power, the laser cutting machine can cut different types and thickness of materials. What do you need to know before buying a CO2 laser cutter? Do you know how to choose a CO2 laser engraving and cutting machine? This article gives a comprehensive introduction to the CO2 laser cutting machine, including its definition, application, price and how to choose. I hope this article clears all your doubts about CO2 laser cutting machines.



CO2 laser cutting machine

## What is a CO2 laser cutting machine

A CO2 laser cutting machine is a CNC laser device that uses CO2 laser technology to cut and engrave materials. Since CO2 laser cutting machines can also engrave, CO2 laser cutting machines are also called CO2 laser engraving machines. In addition, some people call it a wood laser cutting machine or an acrylic laser cutting machine. CO2 laser cutting uses a focusing lens to focus the CO2

laser beam onto the surface of the material to melt it. At the same time, the coaxial compressed gas blows away the molten material. The laser beam moves along a certain path to form a slit of a certain shape, and then the cutting process is completed.

## **Application of CO2 laser cutting machine**

Generally speaking, although CO2 laser cutting machines can process low-carbon steel, aluminum, titanium and other alloys, their cutting efficiency is low. However, it is very good at cutting and engraving non-metallic materials. The materials that CO2 laser engraving machine can cut and engrave include: mild steel, aluminum titanium alloy, wood, acrylic, paper, fabric, epoxy resin, plastic, rubber, crystal, leather, stone, etc.

CO2 laser cutting is widely used in clothing, leather, fabric toys, embroidery cutting, architectural models, handicrafts, advertising decoration, packaging and printing, paper products and other industries.

## **What are the factors that affect the price of CO2 laser cutting machine?**

When you are planning to buy a CO2 laser cutting machine, you may want to know the price of the CO2 laser cutting machine. Prices for CO2 laser cutters range from \$3,000 to \$20,000, depending on size and configuration. If you want to buy from abroad, you need to pay additional freight, taxes, customs clearance and other expenses. Different specifications and configurations lead to different prices for CO2 laser cutting machines. Therefore, it is necessary to communicate with the CO2 laser machine manufacturer to obtain a specific and detailed price list. So, what factors will affect the price of CO2 laser cutting machine?

1. Brand. The brand influence of CO2 laser engraving machine is reflected in the quality, operation and service of the machine. Big brand CO2 laser machines usually use high quality parts to ensure stable and reliable operation. As the main device for generating laser beam, CO2 laser tube is the most important core component of CO2 laser cutting machine. In addition, there are other main components such as optical lenses, guide rails, racks, stepping motors, and chillers. The components of big brands have good quality, stable performance, long

service life, and correspondingly high prices.

2. CO2 laser tube power supply. The thickness of the laser cut material varies according to the power of the CO2 laser. The higher the CO2 laser power, the thicker the CO2 laser cutting machine can cut. For CO2 laser tubes of the same brand, the higher the power, the higher the price.
3. The size of the countertop. CO2 CNC laser cutting machines are usually not equipped with a large-sized workbench. The commonly used dimensions of the workbench are *600900mm*, *1300900mm*, *14001200mm*, *13002500mm*. The larger the table size, the higher the price of the CO2 laser cutting machine.
4. Service. Pre-sales and after-sales service is also an important factor. Full service provides customers with machine safety and timely maintenance of CO2 laser engraving machines. Reliable CO2 laser machine manufacturers can provide complete and consistent service, so their CO2 laser machines are high quality and low price.

## **What to Consider Before Buying a CO2 Laser Cutting Machine**

Overall, finding the best CO2 laser cutter for your needs requires careful consideration of many issues. For example, what you will be using it for, the materials you plan to use, the ease of use you need, and your price range. So before buying a CO2 laser engraving machine, you need to do the following preparations.

1. Identify your processing requirements. This includes the materials you plan to cut or engrave, the size and thickness of those materials. It can help you determine the machine size and power of the CO2 laser cutting machine you need. CO laser engraving machine is good at cutting and engraving non-metallic materials with thickness in the range of 0-25mm. If you want to engrave or cut any surface other than ordinary sheet metal, such as glass, you may need a rotary unit.
2. Choose the right CNC laser cutting machine manufacturer. There are many manufacturers of CO2 laser machines on the market. It is necessary to take the time to do some research and choose the right one. The survey content includes the professionalism, production capacity, delivery capacity and service level of CNC laser cutting machine manufacturers.

3. Consider the machine price. When you get the quotation, you need to pay attention to the specific configuration of the CO2 laser engraving machine. Don't be blindly tempted by the low price as it may have some poor quality parts. In short, I do not recommend choosing a CO2 laser cutter based solely on its price. Because I believe that you get what you pay for. Low-cost laser machines are likely to use inferior parts, resulting in high maintenance costs in later use. Remember to sign a contract with the manufacturer. After reaching an agreement with the manufacturer, please remember to sign the purchase contract before paying the advance payment. Agreeing on the rights and obligations of both parties is conducive to safeguarding the rights and interests of both parties.

CO2 laser cutters are popular in workshops that cut and engrave non-metallic materials. A qualified CO2 laser cutting machine has high efficiency, good precision and wide application, and is a profitable tool. We can customize the machine (size, color, specification) according to your needs, if you are interested in our laser cutting machine, please leave us a message, we will reply you as soon as possible!