

HOW TO SELECT THE FOCUS MODE OF LASER CUTTING MACHINE

Posted on 2023-03-16 by redsail



Category: [Laser Cutter News](#)



When laser cutting different workpieces, different focus modes are required. Only by selecting appropriate focus cutting mode can the performance advantages of laser cutting machine be maximized. What are the focus positions of laser cutting machine? What's the difference?

Do you know how to choose the focus mode of laser cutting?

1. The laser focus is above the cutting workpiece surface

It is the most common focus position, also known as 0 focal length. When using, make the focus of the laser cutting machine close to the workpiece surface. In this focus position, because the smoothness of the upper and lower surfaces of the workpiece will vary slightly, the cutting surface on the side close to the focus will tend to be smoother. On the contrary, the cutting surface on the side away from the focus will be rough. In actual use, it will often be determined according to the different process requirements of the upper and lower surfaces.

2. The focus of laser cutting machine is in the workpiece

The focus position is called positive focus in the workpiece, and the focus mode is generally used when cutting stainless steel or aluminum steel plate and other materials, so that the cutting focus is located in the workpiece. Select when cutting stainless steel or aluminum and other materials with high hardness.

3. The focus of the laser cutting machine is on the workpiece

The focus position on the workpiece is called negative focus, because the position of the cutting point is neither on the surface of the workpiece nor on the inside of the workpiece, but on the top of the cutting material. When the focus position is used on the workpiece, it is due to the relatively high thickness of the plate. If the focus is not positioned in this way, the cutting focus is placed on the cutting material, mainly because the thick plate needs a large cutting range, otherwise the oxygen delivered by the nozzle is very likely to be insufficient, resulting in the reduction of the cutting temperature and the inability to cut the material. When cutting stainless steel with air and nitrogen, the negative focus is generally selected, and the laser focus is below the surface of the cutting

workpiece. This mode is mainly used for cutting thick materials