ANALYSIS OF LASER ENGRAVING AND CUTTING TECHNOLOGY

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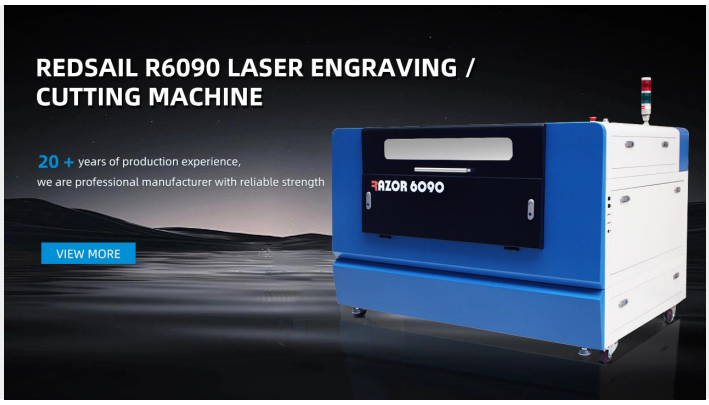

Category: Laser Engraver News

With a laser engraver and laser cutter, the process is as easy as printing on paper with a computer and printer. You can use a variety of graphics processing software such as CorelDraw to design in the environment of Wing8/Win2000/WinXP/Win7/Win10. Scanned graphics, vectorized graphics and various CAD files can be easily "printed" to engraving in the plane. The only difference is that printing applies toner to paper, while laser engraving machines shoot laser light onto almost any material such as wood, acrylic, plastic sheet, metal sheet, stone, etc.

Laser engraving can be divided into dot matrix engraving and vector cutting according to different engraving methods: dot matrix engraving resembles high-definition dot matrix printing. The laser head swings left and right, engraving a line composed of a series of dots each time, and then the laser head moves up and down at the same time to engrave multiple lines, finally forming a full-page image or text. Dot matrix engraving can be used for scanned graphics, text and vector graphics. Vector cutting Different from dot matrix engraving, vector cutting is carried out on the outer contour of the graphic. We usually use this mode for penetrating cutting on wood, acrylic, paper and other materials, as well as marking operations on the surface of various materials.

The performance of a laser engraving machine is mainly determined by the engraving speed, engraving intensity and spot size. The engraving speed refers to the speed at which the laser head moves, usually expressed in IPS (inches per second), high speed brings high production efficiency . Speed is also used to control the depth of the cut, the slower the speed, the greater the depth of the cut or engrave for a given laser intensity. You can use the panel of the engraving machine to adjust the speed, or you can use the computer's print driver to adjust. In the range of 1% to 100%, the adjustment step is 1%. The engraving intensity refers to the intensity of the laser on the surface of the material. For a given engraving speed, the greater the intensity, the greater the depth of the cut or engrave. You can adjust the intensity with the panel of the laser engraving machine, or with the print driver of the computer. In the range of 1% to 100%, the adjustment step is 1%. The greater the intensity, the greater the speed. The deeper the cutting depth is, the spot size can be adjusted with lenses of different focal lengths. Small-spot lenses are used for high-resolution engraving. A large spot lens is used for lower resolution engraving, but for vector cutting it is the best choice.

General laser engraving machine can engrave the following materials: wood products, plexiglass, metal plate, glass, stone, crystal, Corian, paper, two-color plate, alumina, leather, resin, sprayed metal