

IS THE HIGHER THE POWER OF THE UV LASER CUTTING MACHINE, THE BETTER?

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UV laser cutting machine is an important tool in the field of micro-precision laser processing. Commonly used languages are PCB circuit board cutting, ultra-thin metal cutting, thin film cutting, thin film material etching, etc. We all know that the higher the power of the UV laser cutting machine, the higher the efficiency. Is the higher the real power the better?

Increasing power can certainly improve efficiency, but the effect does not necessarily achieve the effect of low power.

Take the FPC circuit board as an example. The higher the power of UV laser cutting for FPC circuit boards, the higher the efficiency, which can increase the scanning speed of processing, reduce the working time of FPC and laser, and significantly reduce carbonization. This is why the market generally abandons the early 10W UV laser cutting machines and uses 15W. , In this field, the higher the processing efficiency of the 18W UV laser cutting machine, the better the processing effect and efficiency.

However, the processing of conductive film materials is in the opposite direction. The higher the power, the greater the impact on heat and beam quality, which will cause damage to the substrate and cannot meet the requirements of ultra-fine line width.

The greater the power of the UV laser cutting machine, the processing effect and efficiency in some fields have been significantly improved, such as the processing of FPC circuit boards, but in some fields, the effect of low power is better, such as the etching of thin film materials. And with the higher the power of the UV laser cutting machine, the higher the price cost. Therefore, in the process of selecting a UV laser cutting machine, comprehensive consideration is required. Combining various factors, you cannot choose from a single perspective. If power, effect, efficiency, pulse energy, beam quality, pulse width, repetition frequency and other factors need to be considered, manufacturers need to guide each other to idealize.