

WHAT ARE THE APPLICATIONS OF PICOSECOND LASER CUTTING MACHINE?

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REDSAIL CM1390E LASER ENGRAVING/CUTTING MACHINE

2-Way Pass-Through
Professional Laser Machine Manufacturer

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Picosecond [laser cutting machine](#) is mainly composed of picosecond laser, light guide, focusing system, displacement platform, computer control system and other auxiliary systems. Picosecond laser is a high peak ultrashort pulse laser. The principle is that the laser beam is focused and irradiated on the workpiece, and the material is heated with high energy instantaneously to melt or evaporate it.

It has many advantages, mainly as follows:

1. Really cold processing, basically no carbonization;
2. Ultra-short pulse, the energy is released at the picosecond level, the heat-affected zone is small, negligible, and there is no micro-crack;
3. The speed is fast, the picosecond repetition rate is very high, and the galvanometer speed is fast;
4. The cutting effect is fine, picosecond processing adopts small single pulse energy, high frequency processing, and the processing surface is finer;
5. There are many processing materials, suitable for processing various materials.

Ultra-thin metal materials (copper, gold, silver, aluminum, titanium, nickel, stainless steel, molybdenum, etc.), flexible materials (PET, PI, PP, PVC, Teflon, electromagnetic film, adhesive film, etc.), graphene, carbon fiber, Cutting, drilling, surface microstructure (bionic structure), scribing, and groove processing of silicon wafers, ceramics, FPC and other materials, as well as micromachining of polymer materials and composite materials, etc.