

What is laser routing with ablation?

To clarify the difference between the two techniques, laser ablation is the process of removing material from a solid surface by irradiating it with a laser beam. The material is heated by the absorbed laser energy and evaporates or sublimates.

So, in essence, it is still melting but due to the speed at which the beam is applied to the material while concentrating the high energy of the beam at those spots.

The melting happens so fast it's almost like mini explosions are occurring on the surface of the material.

[Have questions on laser routing? Speak with our experts.](#)

This results in ripping the material bonds apart; turning it into a gas that can easily be removed without going into the liquefaction stage, and during which the material has a chance to redeposit and cool down after mixing with any contaminants present at the cut location at that time.

The through cut contouring process used to create parts for a [wide variety of industries](#) is at the core of our laser cutting services. We work with metals in thicknesses between .001"- .025" and non-metals between .001" and .060".

We minimize heat effect and material deformation in ultra-thin materials. We also power up to work with thicker materials while still minimizing taper. The power density, repetition rates, and high collimation achieved in the laser systems set our UV laser routing process at a next level.

How does laser routing work for your materials?

Materials that have gone through [UV laser](#) routing lack the carbon residue left over from processes introducing significant heat in larger areas for greater amounts of time.

Our ability to put 11 watts of power into a laser beam that is less than 20 microns at a 355-nanometer wavelength, means incredible levels of quality for our most demanding customers.

Laser routing continues to expand as a means for part production due to many factors.

[Laser Ablation Routing - A-Laser Precision Laser Cutting](#)

[A-Laser Precision Laser Cutting - Laser Ablation, UV and IR Lasers](#)