

# CNC Laser Cut Parts

Repeatability and precision are absolute requirements of any modern production process. Early designs of production and fabrication machines had some form of a control system to automate the process and ensure repeatability and precision. While most of those systems were mechanically automated using cams, belts and gears, machining equipment that can manufacture custom parts like Routers, mills, and lathes had to be controlled and operated by a human operator which was not as accurate, efficient or repeatable.

With the rise of computer technology and just as soon as computers were powerful enough and compact enough, it seemed only logical to mate the two together, giving birth to Computer Numerical Control (CNC). It's essentially controlling the production machines with computers. This enables manufacturing houses to follow the customer's designs accurately and reliably with minimal human interaction.

This type of laser cutting uses pre-programming and machine controlled automated commands as opposed to those operated manually. A pattern is keyed in, and the laser beam is directed onto the material for cutting. The beam will make precision cuts via melting, burning, or vaporizing away the excess material, leaving clean edges, sharper details, and a superior finish.

High precision CNC lasers deliver functionality and versatility and are capable to cut through the thickest of materials in a way that cannot be achieved manually. Computer controlled laser cutters can get reliable and repeatable machining results that can be within a  $\pm.0005$ " dimensional tolerance

Because of restrictions inherent to the mechanical construction of these machines, the natural next step was to replace the moving parts with lasers, increasing the precision and solving a lot of other problems specifically for the electronic boards, stencil, and medical industries.

Examples of CNC laser cutters can be [UV Lasers that ablate](#) and structure materials, [IR Lasers](#) that specialize in cutting thin metal sheets and fiber laser lasers that have more power to cut through thicker gauges of metallic alloys.

[CNC Laser Cut - Delivers Extreme Versatility & Functionality \(a-laser.com\)](#)

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