

Laser, Flame and Plasma Cutting – What Technique is the Best for Your Metal Part?

Metal cutting entails the use of different techniques. Laser, flame, and plasma are the most common metal cutting techniques for larger and more demanding projects. Your choice will depend on your budget, the type of metal, levels of precision, and the use of the fabricated part.

Laser cutting involves the use of high-powered, computerized laser machines to cut through metal. Alongside laser technology, these machines use nitrogen and oxygen or compressed air to cut metal with thorough precision. Laser machines are also used to engrave, scribe, weld, and trim metals.



Plasma cutting

technique was developed as a more efficient alternative to flame cutting. This method uses compressed oxygen and other gases, at high speeds, through a CNC machine. The high speed, pressure, and combination of gases produce a type of gas known as plasma. The heated electrical ions of plasma gas aid in cutting large and thick metal pieces.

Flame cutting is the process of using a combination of pure oxygen and a source of high heat to cut metal. First, the metal is preheated to very high temperatures, and then

the cutting machine emits oxygen onto the heated surface. This oxidization process burns the metal to the desired shapes and sizes.

While these three methods of metal cutting have some differences, all are still used today for different applications. Flame cutting is mostly suitable for cutting thicker metals. Thin metals that require high precision, high-velocity techniques are most suitable plasma and laser cutting.



A lot goes into selecting the most suitable metal cutting technique. GK's Laser and Plasma Cutting services will partner with you and determine a clear understanding of your part needs. Our friendly staff will help you determine the best technique that delivers the most value! See what we can do for you at www.GKLaserandPlasma.com.

