Plasma- The Cutting-Edge Technology

Irrespective of the scale of the project, having tools that slice through tough metal can go a long way in increasing efficiency and saving time. You will find that this is true if you are a die-hard DIY fan who loves working metal or you are at the helm of a massive shipbuilding project that incorporates tons of steel. The machinery you use must provide you with one basic thing - precision.

Traditional Steel Cutting Techniques

Traditional steel cutting techniques incorporate the metal-on-metal approach and rotating blades that spew fire and fine shrapnel of metal go to create a high-danger workspace. In addition to this, the edges of the sheets that have been cut will need additional filing. This has a negative effect on accuracy in dimensions and the various pieces that go into making the final product just don’t fit as snugly as they should.

Enter Modern Laser Cutting Technology

Modern laser-cutting technology is more energy efficient and affords greater precision when used on sheet metal. However, it doesn’t work as effectively on thicker metal sheets. The power efficiency to productivity ratio is very poor. Apart from this, the process needs human supervision and any deviation from set parameters can change the final product.

And Finally ... Plasma Cutting For Superior Efficiency

Cut to plasma cutting. This proven technology makes the cut, literally as well and with precision that can put laser-technology to shame. It can slice through any kind of conductive material and handle thicknesses of up to 50 mm. The question that arises here is, exactly how does something that is intangible as plasma metamorphose into a tool that can slice through a solid element as easily as a hot knife slices through butter. This seemingly simple technology blasts inert gas at super-speed through a nozzle (the diameter of which might vary).

The electrical arc that runs through it connects to the target object. The resultant extreme heat cuts right through the metal. The high-speed action literally blows-away all molten metal off the edges that have been sliced. The result is precisely and smooth-cut edges that need no finishing whatsoever. Plasma-cutting tools are now easily available in a range of sizes. This means that technology that was otherwise only available for commercial and industrial use is now within easy reach of the DIY enthusiast.
Safety Precautions When Using Plasma Tools

As with any other high-power tool, strict safety precautions have to be followed while using plasma tools. Wearing ear-protection gear and leather gloves is a must. It is important to wear eye-goggles that will protect the eyes from debris. These also reduce the risk of “arc eye” which can result from over-exposure to UV rays and is similar to snow-blindness. When using plasma equipment, proceeding carefully with proper precautionary measures in place will result in a job well done with zero injuries.