Waterjet vs. Plasma Cutting - Which is Best for your Project?

When it comes to metal cutting, two of the most popular options are waterjet and plasma cutting. Both of these methods have their own unique advantages, making them ideal for certain projects.

Waterjet cutting utilizes a highly pressurized stream of water, mixed with an abrasive material, to cut through metal with extreme precision and accuracy. Waterjets have the ability to cut through thick sections of metal at a quick pace, while producing intricate shapes and designs with little cleanup required afterwards. The speed of this process is what makes water jetting the preferred method for many industries that require tight tolerances and fine detail in their products. However, the cost associated with waterjet cutting is significantly higher than other methods due to the amount of energy used to generate the high pressure needed for operation.

Plasma cutting is a much quicker process than waterjetting which uses a combination of gas and electricity to create a very hot arc that melts away metal in its path. This method is great for quickly slicing through thick sections of metals without sacrificing accuracy or precision. It also produces minimal heat affected zones (HAZ), meaning less cleanup after the fact. Despite its speed, plasma cutting machines can still be costly – especially when compared to other solutions like saws or grinders – but they offer great value for time spent on projects where precision and detail are key.

The best method of cutting metal will depend on the needs of your project. If you need intricate detail and tight tolerances, then waterjetting is likely the preferred option. However if speed and cost are primary factors, plasma cutting may be a better fit. Ultimately both of these methods offer great value in different scenarios, so it’s up to you to decide which one is best for your project.