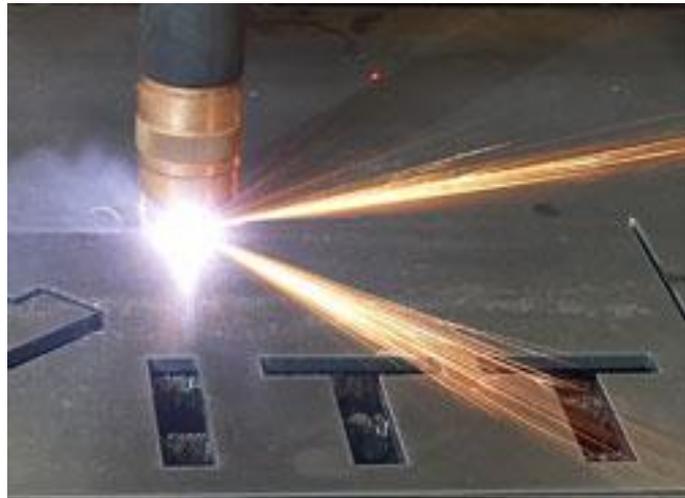


# Precision Plasma Cutting

Plasma cutting is a way to cut metal using an inert gas blown at high speeds out of a nozzle. An electric arc is formed through this high speed gas from the nozzle to the surface it is cutting. The combination of these two forces causes the inert gas being blown through the nozzle to transform to its plasma state thus melting the cutting surface and allowing it to be easily cut away.



Precision Plasma cutting is done using CNC machinery and allows for very precise cuts with complex geometry that would prove difficult using a hand held torch. There is a relatively low cost associated with this method as well.

## Advantages:

- Relatively low cost roughly around \$0.80 - \$0.85 a pound however this is constantly changing. (However quotes are easy to get from companies)
- Very complex shapes can be cut to within 1/16"
- This is a relatively quick process that removes material very quickly
- The metal is fully machinable after this process is performed on it
- The metal comes to you fully clean and slag free after the cutting has been performed
- Very good for metal with small thickness up to 2.5"

## Disadvantages:

- All of the cuts go all the way through the metal so cuts to certain depths can't be performed.
- Can only cut metal up to 2.5" anything larger another method must be used
- There is a slight bevel in the holes cut into the metal due to the higher heat at the top of the cut
- Some hardening of the metal occurs due to the heat increase of the metal
- Not as precise as other cutting methods (Laser, Water Jet, EDM)

**Local options:**

**Forest Steel**

7448 Aqua Circle  
Dalton Gardens ID 83815

**PH: (208)-762-4766**

**FX: (208)-762-5210**

**Web:** <http://www.foreststeel.com>

**Plasma Capabilities:**

- 1/16" accuracy
- Can cut up to 2.5"
- Clean pieces shipped to you
- Machinable after process is performed