We’ve posted several pictures over the past couple of months which have stirred some interest. Some are finding that, perhaps, they have not met the full capabilities of their Arcpro CNC plasma table. Over the next few weeks we will post several ‘How to’ procedures to get you, and your table, dialed in. As always, if you have questions pertaining to the operation of your tables please do not hesitate to call. Our goal is to empower you with the knowledge to make the best products possible. Efficiency through Automation. It is what we do.

Lead-ins can be an art form. Manipulating them can be the difference between a good cut and an excellent cut. Looking at the above photos it may look as if two different plasma tables made these cuts. In reality the only difference in the above two cuts is the lead-in. The first cut, showing the dimple, used a .20” Arc lead-in with no lead-out. The second cut used a .20” perpendicular lead-in with a .10” arc lead-out. Below we have included pictures of what your lead-in and lead-outs will look like in SheetCam when camming out your parts. The actual end result of your lead-in/lead-out play will vary on material and material thickness.

Our recommendation is to experiment with the different type lead-in and lead-outs, as there isn’t a rule of thumb. A perpendicular lead-in and an Arc lead-out may not be the right combination for your particular cut. Where a longer lead in may be beneficial in thin gauge materials; keeping the pierce delays away from your part. The same lead in may not be necessary in a thick gauge material.

How To: please refer to picture below of ‘Jet Cutting Operation Window.’

When creating a Jet Cutting/Plasma Cutting operation look to the bottom center of the Jet cutting Window. There you will find the Lead-in and Lead-out options. The different types of lead-ins/outs are None, Arc, Tangent, and Perpendicular. An operator has the option to designate the length of the selected lead-in and lead-out. A lead-in is the path the torch will take after the initial pierce. A lead-out is the path the torch will take at the very end of a cut. When selecting a lead-out we suggest making the length half of that of the lead in.
Jet Cutting Operation Window

Jet Cutting Window Enlarged
Types of Lead-Ins and Lead-Outs

Arc Lead-In

Arc Lead-In with Arc Lead-Out
Tangent Lead-In

Tangent Lead-In with Arc Lead-Out
Perpendicular Lead-In

Perpendicular Lead-In with Arc Lead-Out