



## Getting the Best Cut Quality in Vectric Cut2D

*Version 8.27*

Congratulations on the purchase of your plasma table! You've purchased the best, and we're here to help. This article is meant to give you a quick overview of how to how to get the best cut quality in Vectric Cut2D.

Vectric Cut2D is capable of designing parts using several different drawing formats. They are Circular Arcs, Bezier Curves, and Straight Lines. While the CC-M4D plasma controller in the ArcStar plasma table can understand all three formats, outputting your part design using Circular Arcs will yield (by far) the best cut results, and reduce your table wear. Keep in mind that outputting your part using the Circular Arcs format doesn't mean that your part has to have curves - it will retain sharp edges if that's what you've designed. We're only concerned about the format 'type' that is best read by the controller.

Saving a part in Vectric using Circular Arcs is easy. After you're done designing a part, group all the lines together as you normally would (Ctrl + A, then Ctrl + G).

On the Drawing tab, select 'Curve Fit' (looks like a sort of sideways S, it's under Edit Objects, third row down, third item over).

Under Fitting Type, select 'Circular Arcs'.

Set tolerance as low as you need - typically .2 for mm, or .01 for inches works well.

We recommend checking the box titled 'Keep Sharp Corners'.

Select Preview and see if it works for you. Adjust the 'Tolerance Value' as needed.

When you're done, make sure 'Replace selected vectors' is checked, then click OK.

Remember, you can always manipulate your design in the circular arcs format, but if you wanted to convert it back to bezier curves for formatting purposes, you can do that. But just remember, the final design (before you create your toolpath) should always use the 'Circular Arcs' drawing format.

Also, make sure to use the simulate mode before you cut a new part so you can listen to your table as the torch transitions between cuts and reverses directions. This allows you to fine tune the parameters which control acceleration, deceleration, etc. The art of cutting is balancing the speed we want to cut at, against the wear and tear of your machine as it reverses directions in tight corners, runs through transitions, etc.

Perhaps the most important thing we can stress is this - if you get stuck and can't figure it out - call us and let us help you. Finally, we truly value your opinion. If you notice something we've missed or have a suggestion, please email us at [arcstar@mail.com](mailto:arcstar@mail.com). Thank you!

