

# TECHNICAL BULLETIN – CUTTING THIN GAUGE: How To Guide

**Introduction:** The purpose of this guide is to explain the best practices when cutting 18 gauge material and thinner. When cutting thin material with a CNC machine, there is a minimum threshold on how thin of material can be cut successfully. The minimum threshold is effected by the plasma function Ok to Move. Ok to Move is an output signal from the plasma cutter that indicates the machine's readiness to cut after piercing the work material. When cutting material thinner than 18 gauge, the initial spark from the plasma cutter eliminates enough material that the cutting arc is no longer able to ground to the work material.



## **Please Note:**

- The following instructions are not a permanent work around for Ok to Move.
- Ok to Move is always recommended when plasma cutting.
- It may take a few practice cuts in order to time the pierce delay correctly so that the torch ignites the arc prior to the machine continuing to move through the G-code.

Updated on: 09/28/21

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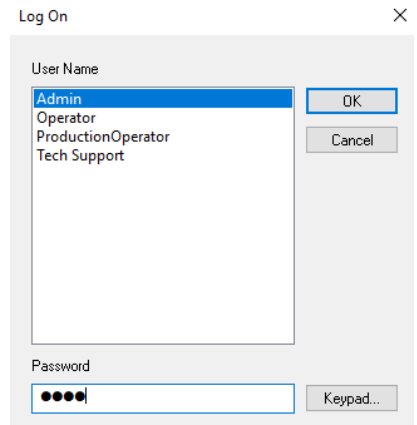
**Cutting  
Systems**

**Step 1:**

Select the Log On button from the VMD software screen and select the Admin profile (password: 1234).

This will populate the configuration.wap window to appear in software builds SP1 and newer.

If the VMD software uses yellow jogging buttons, select the Machine Settings button next to Job Setup.



**Step 2:**

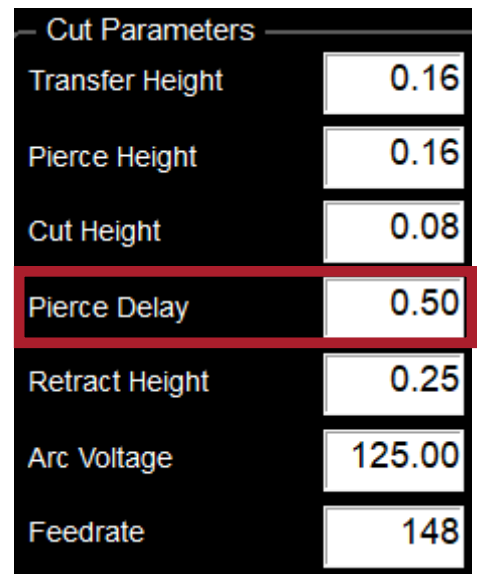
The configuration.wap window hosts a series of tabs to make settings changes in. In the Basic Tab, find the option Ok to Move within the Misc Settings group.

By default, this will be set to On. Select the button that says On to toggle the Ok to Move Off. Then select the Ok button at the bottom right corner of the configuration.wap window.



**Step 3:**

Since Ok to Move is disabled the machine will not wait until the torch has ignited before counting down the pierce delay and moving through the g-code. This will now need to be compensated for by increasing the pierce delay higher. Set the pierce delay 2.5 seconds higher than the recommended plasma cut charts.



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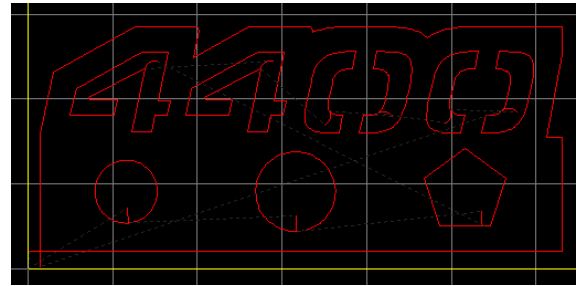
Cutting Systems

**Step 4:**

Run the job. If the torch moves before the plasma cutter pierces through the material, increase the pierce delay another 0.5 seconds.

Keep adjusting as needed until the torch ignites and pierces through the material prior to the machine continuing the G-code.

Watch the second cut sequence closely. It may take more time for the plasma cutter to pierce through the material on the second cut because of the time spent purging gas between cuts.



Cut Height	0.08
Pierce Delay	2.00
Retract Height	0.25

**Step 5:**

Ensure that the ok move signal gets enabled again before cutting thicker than 16 gauge material. Reset the pierce delay value back to the cut chart recommendation.

