

How to Prepare Your File for Laser Cutting

Acceptable Formats

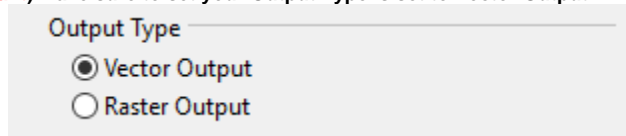
The Epilog Fusion Pro 48 has a bed size of 48" x 36" and can accommodate a full sheet of chip board from the Co-Op.

The laser cutter can cut vector lines from Rhino 3D, AutoCAD, or Adobe Illustrator. With any option, the main purpose in file preparation is to separate your line work based on the different power levels and order in which you want to cut your material. The specific power-parameters and order of the cuts are handled from within the Epilog Dashboard.

All linework must be on the same 0 Z plane.

Rhino Guide

1. Prepare your line work at full-scale, then scale down to your desired scale-cut size within your file
 - a. This must be done within Rhino *before* you send the file to the Laser Cutter
2. Separate your line work in to distinct layers according to the desired power levels and order of cuts. In the **Layers** tab, assign each of these new layers their own unique color from this list of options:
 - Black
 - Red
 - Orange
 - Yellow
 - Green
 - Cyan
 - Blue
 - Magenta
3. Drag-select all of the line work, and navigate to the **Properties** tab. Make sure that Display Color, Linetype, Print Color, and Print Width are all set to **By Layer**.
4. Lastly, with all of the line work selected, type in the command "**SetPt**" – in the pop-up, uncheck the boxes next to **Set X** and **Set Y**, and make sure that **Align to World** is selected. After hitting OK, type in **0** to move all of your linework to Z = 0.
5. When printing to the Epilog Dashboard, use the **Window** option under **View and Output Scale** in the print dialog.
6. **(Important) Make sure to set your Output Type is set to Vector Output**



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7. You can now follow the steps from the [How to Prepare the Laser Cutter](#) page.

AutoCAD Guide

The pre-configured template file has labeled cut order layers and a no-print boundary representing the space of the laser cutter bed. It is located on the desktop and is attached below.

[AutoCAD Template - Epilog](#)

[Material Test for AutoCAD - Epilog](#)

Instructions

1. Prepare your linework at full-scale, then scale down to your desired scale-cut size.
2. Separate your linework into distinct layers according to the different power levels for the cuts. In the **Layers** tab, assign each of these new layers their own unique color from this list of options:
 - Black
 - Red
 - Orange
 - Yellow
 - Green
 - Cyan
 - Blue
 - Magenta
3. Ensure all geometries are set to "By Layer" in the color, line type, line weight, and transparency drop-down menus.
4. Run the **overkill** command to ensure there are no overlapping lines (to prevent the laser cutter from cutting over lines twice or cutting slower)
5. You can now follow the steps from the [How to Prepare the Laser Cutter](#) page.

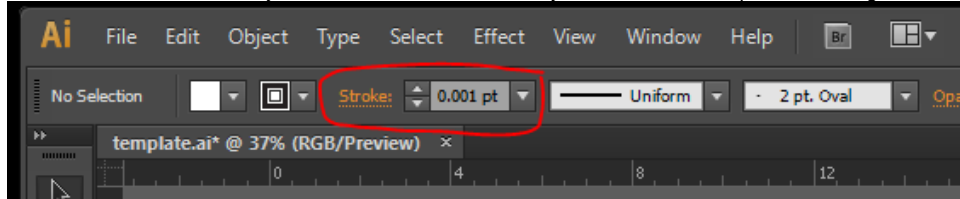
Illustrator Guide

[Material Test for Ai - Epilog](#)

Instructions

1. All **vector** lines and shapes (even if filled) must have a line weight of **0.001** in order to be recognized by the laser cutter. The lines you intend to **engrave** can be either **1.0** or **0.1**.

Note: This does make the lines very difficult to see, so this is usually done as the last step before cutting.



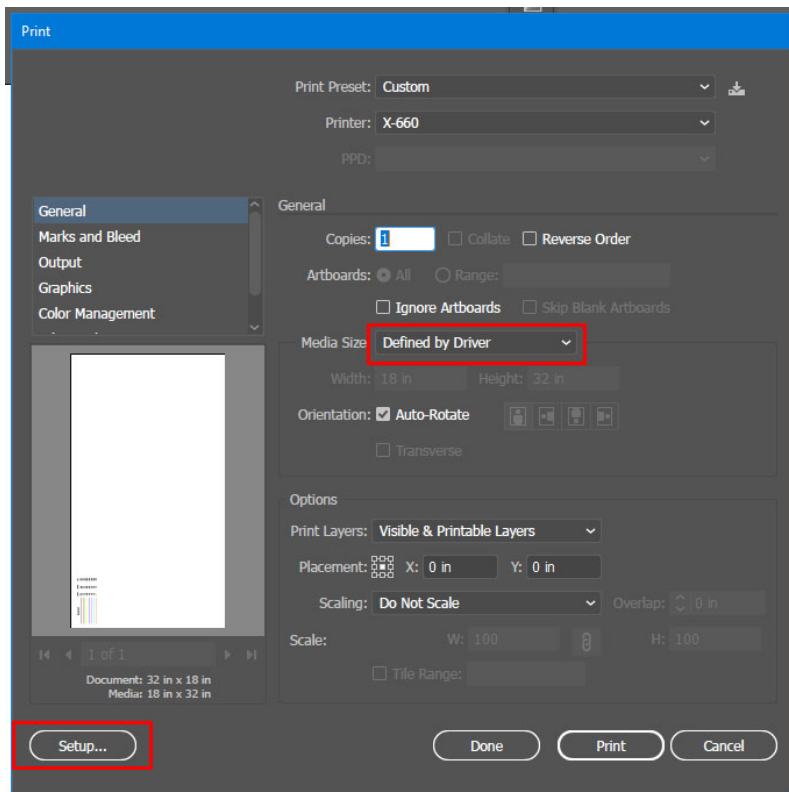
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2. Line and fill colors must be assigned using **RGB** values and must conform to the following, or else they will not be recognized. Again, this is to set the order and type (cut or etch) of line

| Color Name | R | G | B |
|------------|-----|-----|-----|
| Black | 0 | 0 | 0 |
| Red | 255 | 0 | 0 |
| Green | 0 | 255 | 0 |
| Yellow | 255 | 255 | 0 |
| Blue | 0 | 0 | 255 |
| Magenta | 255 | 0 | 255 |
| Cyan | 0 | 255 | 255 |
| Orange | 255 | 102 | 0 |

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3. When you first open the file, go to **File>Document Color Mode>RGB**. You can create swatches of the **RGB** colors above.
4. When defining the settings, leave the **Media: Size as "Defined by Driver."**
5. When your file is ready to cut, go to **File>Print**. To select cut/etch settings click the **"Setup..."** button (bottom left corner of the dialog box).



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6. You can now follow the steps from the [How to Prepare the Laser Cutter](#) page.