

Instructions for creating a laser file for CAD programs

If you cannot work with one of the file templates from our downloads, you should create the following layer structure yourself.

Machine table / RGB cyan

Cutting / RGB green

Vector engraving / RGB red

Raster engraving / RGB white or black, depending on background color

Customer text / RGB same

* Set the line type to 'Continuous' and to line width 0.0mm.

In some programs the lines are then not visible. In this case, please increase the decimal place slowly until you can see the lines (e.g.: 0.1mm; 0.2mm; ...).

* Start by drawing the machine table as a rectangle of size 960mm x 500mm (color **RGB Cyan 0 , 255, 255**).

Please do not create only one working area, because this may not be displayed by us. not displayed.

Since we do not cut exactly to the edge of the material, please indent your components by 5mm when arranging them.

* All components must fit on the table, if you have larger parts you will need to separate them.

Make sure in advance that your material is also available in at least the table size or component size. Larger materials can be cut to table size.

For materials that have a surface texture or grain, remember to arrange your parts accordingly and indicate which direction the texture should run.

* Create 2D contours only.

* If you are working with fonts, convert them to curves (Corel Draw) or convert them to paths (Adobe Illustrator).

After that, the font will no longer have text attributes and will be understood as graphics by other programs.

* Avoid double lines or lines that overlap several times, because the laser recognizes these and scans them accordingly many times. This will otherwise result in unnecessary costs and a different and unclean cut or engraving image.

* If you need **several machine tables of the same material** and the same thickness, copy the table contour (**RGB Cyan 0 , 255, 255**) correspondingly often **among each other**.

* If you have **different materials or material thicknesses**, copy the table contour **next to each other** a corresponding number of times and label it with the appropriate material and thickness. (**RGB Magenta 255 , 0, 255**)

Cutting:

Anything that needs to be cut, please draw in **RGB Green 0, 255, 0**.

No matter if inside or outside contours.

We will take care of the cutting order.

For very precise parts, please keep in mind that the laser will travel centrally on the line you have drawn, vaporizing the material in the process. This results in a cutting width of approx. 0.15mm. Here you would have to offset the cutting contours accordingly if necessary. For outside contours by 0.075mm to the outside or for inside contours by 0.075mm to the inside.

Vector engraving:

With vector engraving, the laser moves centrally on the drawn line, just as with cutting, and leaves an engraving 0.1mm wide.

Please create in the color **RGB Red 255, 0, 0**.

Example vector engraving:

shortcut

Raster engraving:

In raster engraving, the laser operates in a similar way to an inkjet printer. It lines the graphic to be engraved over an area with a beam width of 0.1mm from top to bottom. For large-area graphics, this process can lead to considerable costs, since due to the thin laser beam, the laser must travel back and forth correspondingly often.

Please use the color **RGB black or white 255, 255, 255**, depending on the background color of your screen.

Example raster engraving:

shortcut

Your comments:

* Explanations about material and material thickness, as well as the possible grain direction please put on the layer 'customer text'.

* At the end save the file with the machine table as a drawn rectangle (960mm x 500mm) in the following format:

DWG 2000 / or older.

You can find more explanations about laser processing as well as file templates in our tutorials.

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