

# Preparing Files for Laser Cutting

Preparing parts for laser cutting is quite a straightforward process.

We can cut from all popular CAD file types, including **.dwg and .dxf** files. In addition, we are able to use files from **Coreldraw (.cdr files)** and also **Illustrator files (.ai files)**. Files can be produced on either PC or MAC, as we use both platforms.



When producing components in 3D, please remember to save the file you send us as a 2D version and delete all 3D projections or data.

As the laser can cut and engrave in one operation, we need to distinguish between these two operations. Here is how we do it:

**CUT Lines:** Assign a linewidth of 0.1mm or Hairline to all lines you wish to have cut. In addition, when creating parts in Autocad, create a polyline for each component, rather than leave the component as individual elements. NB: This is not the same as grouping.

**RASTER or Engraving:** For any line that need engraving assign a width of 0.2mm or the width you require the detail to be. Text for part numbers, should be in Arial 10pt Bold with no line width. Graphics requiring engraving, also need a line width of 0.2mm or above.

## Sheet Planning

All files for cutting should be planned to the size of the wood being cut. Balsa sheet sizes are 94mm x 900mm and plywood is 900mm x 600mm for short run work up to 100 sheets.

Parts that are being cut on balsa up to 1/4" (6.5mm) or plywood up to 6mm can be nested very closely to allow the most economical use of the sheet. Nest your components as close as 1/16 or 1.5mm and remember you can nest parts inside the waste of other parts to save even more wood.

When cutting parts on balsa sheets, please retain the part on the sheet by adding a small 1/16" line break somewhere on the part. Only one break is required per part.

We hope this brief guide is helpful, but if you need more information please call +44 (0) 1362 668658 or email: [sales@belairkits.com](mailto:sales@belairkits.com) to discuss any issues. Remember, we also offer a free sample service to help prove a part or idea.

Laser cutting is a very flexible process, if you can imagine it and draw it, then we can almost always cut it. Intricate, detailed components are the laser cutter's forté.

Enjoy the creative process, from Belair Kits