

## Preparing Your CAD file

We use custom designed software to read your drawings, produce a quotation within minutes and then program the machine. This means that you need to get your files set up in the right way for our software to read. See 'The Machine' section to understand the basics of what you could do and how to design for the machine.

### How to prepare your drawing:

**1. All files must be supplied as layered DWG files for AutoCAD 2000 or R12/R13**

**2. Draw the board you want to cut from (maximum size 2440x1220mm) with the bottom left corner defined as 0,0 co-ordinates. The board needs to be drawn landscape, not portrait.**

**3. Check your units: 1 unit should = 1 mm**

#### **4. Offsets:**

To create an offset, the lines on the drawing must be a closed continuous shape otherwise the machine can't determine the inside or outside of the shape.

Some CAD programs have ways of checking if a shape is closed or not. One simple check we use is to extrude the shape in 3D with a cap as most programs can't cap the extrusion unless it is a closed shape.

If you are drawing in Adobe Illustrator use the path/join command and this should close any gaps.

**5. You can cut to different depths and use different cutters within the same drawing, but you need to tell us what you want. To do this put the different types of cut onto different named drawings layers exactly like the example below:**

**0\_BOARD\_12mm\_birch ply**

**1\_3mmTool\_2mmDeep\_Inside**

**2\_8mmTool\_2mmDeep\_None**

**3\_6mmTool\_9mmDeep\_Fill**

**4\_8mmTool\_12mmDeep\_Outside**

#### **To explain:**

The first number in the layer name defines the order of cutting, with layer "0\_BOARD" defining the work area, the thickness and type of material.

The second part of the layer name defines the diameter of the cutter. For example "8mmTool" is an 8mm diameter cutter.

The third part of the layer name defines the dept of cut. This can be the full depth of the material or any depth in between.

The fourth part defines the type of cut, whether it is on the line, offset inside, offset outside or a fill

It is really important that you set your levels up correctly as these will be read directly for pricing and cutting.

You can use up to 10 layers per drawing. If you need more please give us a call.

#### **Drawing Software:**

We recommend Rhino 4 as a good all round package to prepare your drawings in.

From 3ds Max – export as an .ai Illustrator format to Rhino (this avoids issues with faceting of curves) then save as DWG

From Rhino – save as AC2000 DWG

Microstation – save as AC2000 DWG

Form Z – save as AC 2000 (or older R12/13) DWG

Adobe Illustrator – save as DWG

Once you have exported your DWG re-import it to check that it still looks like the drawing you exported. It is worth checking if your curves are fragmented (faceted) as this can be a common problem.