



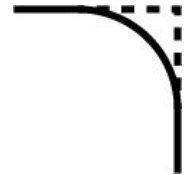
YOKE CNC

Drawing Considerations
& Guides

Drawing Considerations

Internal Corners

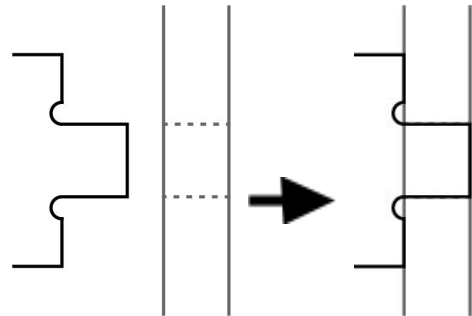
CNC cutting bits are circular. This means a radius equal to the cutting bit will be left on any internal corner. Any internal corners that require a sharp corner have to be manually finished.



T-Bone Fillets

A way to overcome this without lots of manual finishing is the use of T-Bone fillets. You just need to add a semicircle, to the internal corner with a radius equal to that of the cutting bit.

See the diagram to the right, where we have a tenon with T-Bone Fillets that can slot fully into the mortise on the right.



We can add these in easily to your design if you indicate to us that they are needed.

Cutting Depth/Speed

The deeper the cut, the more passes the CNC router has to take and therefore more time. This can be countered by using a larger cutting bit to complete deeper passes. A 6mm bit is a good all-round compromise between speed and size.

However, by using a larger diameter bit you can speed up your cutting times and save yourself money.

Part Spacing & Nesting

We want to make sure we use the material as efficiently as possible. To do this we want to nest your parts as closely as possible to each other. However, there needs to be some material between each part.

We can easily nest your parts for you, however you are still welcome to nest your parts yourself and provide the file to us.

Please leave:

10mm between sheet edge and any part

12mm between large parts

20mm between small parts (less than 100mm in any one direction)

Machine Cutting Area

We have an 8x4 foot machine which gives a cutting area of 2440x1220mm. In certain circumstances we can cut longer than 2440mm in the Y direction. Call to discuss the options.

Types of Cutters

There are countless cutting bits for countless situations. Standard cutters run from 3mm - 12mm diameter. However, there are many types of Form Tools, V-Bits, Engraving Tools etc.

Please consult us if you need advice on what cutting bits to choose, we are always happy to help.

See next page for **Drawing Guide...**

Drawing Guide

General Info

CAD Drawing Files need to be in vector format, made in a program such as Adobe Illustrator.

These guides are to help you prepare your own file for us. However, we would be happy to create any files for you if you are unsure how. There is an applicable fee for this service.

All units must be 1:1 scale in mm

File Formats

Preferred: DWG/DXF

Also accepted: IGES, AI, STL, STEP, 3DM etc

We also may support others that are not listed. Please get in touch.

Types of Cut

Please colour code your cutting file to assist with your job processing. Our colour code is as follows, however you may use your own as long as you indicate the coding.

The main types of cut for 2D cutting:

■ Outline

The CNC machine around the outside of the outer shape. Any internal outlines (inside other shapes) will be cut inside the line.

■ Rebates

The whole area within these lines will be machined away to any specified depth.

■ Holes

Any holes to be drilled should be shown as circles with the same circumference.

■ On-Line

Use this if you want the cutter to follow exactly on a line (good for V-Bit cutting etc).

■ Engrave

Use this for any vector engraving on material surfaces.