

# Plyco CNC services

## What our CNC machinery can do

We can cut full sheets of material such as our 2400 x 1200mm sheets or our 1200 x 600 Quadro panels.

We are able to cut shapes such as curves (with regular consistent radius), triangles, squares and rectangles with cutouts at edges of panels, or within the panel. We can also cut irregular shapes, but the way this information must be provided to us is different.

## There are two ways to submit your order

### Option 1

#### Scanned hand drawing or digital drawing (PDF, PNG or JPEG).

By this method, we are able to cut all regular shapes – examples are below.



For **Option 1**, we will have a programming fee charged to reflect the time taken to convert this into DXF format for the CNC machinery to cut. This will vary by size and complexity of the project.



To order standard cutting or edging, submit a cut to size request via [our website \(plyco.com.au/cts\)](http://our website (plyco.com.au/cts)).

## Company Benefits



### Knowledge Base

Combined with expert advice, we offer Legnply customers a growing online platform for sharing information on applications and project inspiration.



### Custom Quantities

Both a manufacturer and supplier, Plyco offers department leaders the flexibility to purchase either single, loose sheets or large packed quantities.



### National Shipping

Whether you're in Scarborough or Sydney, Plyco's full range of Legnply panel products are available for courier shipping Australia wide.



### Responsibly Sourced

All products are either from FSC Certified sources or are sourced from sustainably managed forests, as recognised by the international Forest Stewardship Council.

## Option 2

### DXF file.

This file format is available as an export option from most digital drawing, illustration or CAD software. It should be a 2D DXF.

This will allow us to cut irregular shapes for you, such as all the shapes above, and additional shapes listed to the right.

For **Option 2**, will only have a CNC charge for the toolpathing (instructions for the machine to cut your DXF file) and time the machine is running.

### Types of cuts available

We can cut edge detail at standard 90 degrees, or we can cut a 45 degree cut into the face OR back of the board at any depth you specify.

**WE ARE UNABLE TO CUT ANY ANGLES OTHER THAN THIS ON THE EDGE OF THE BOARD.**

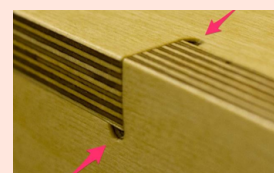
The tooling used during the CNC machining process is a cylindrical router bit, this means that all internal corners will have a radius, left behind by the bit. With a board under **25mm**, this will be a **6.5mm** diameter or **3.25mm** radius. With a board over **25mm**, this will be an **8mm** diameter or **4mm** radius.

### Preparing your file

There are two ways to deal with this In your file, one is to manually square out the corners with a file yourself, if you are looking for a seamless fit with no traces of a machining process.

Another is to include CNC dogbone fillets in your file, example below – again, these must reflect the diameter of the bit used for your thickness of board as mentioned above.

## Cutting Illustrations



## What results to expect

### ■ Tolerances

CNC machining offers a very accurate cut, and our tolerances are as follows.

We guarantee linear machining accuracy to within +/-0.2mm at the point of machining

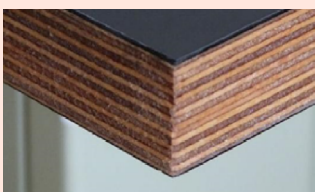
Tolerance for depth work (i.e pockets or rebates) is +/- 1.0mm. This is higher due to the variances in board thickness, potential slight bow in cheaper materials etc. Most orders will be much closer to the specified number, but we ask that customers allow for that potential tolerance in their expectations.

### ■ Edge quality

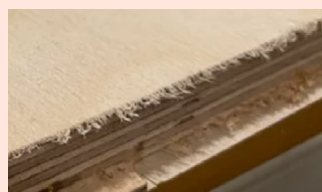
Edge finish quality on the CNC machine is often higher quality than cuts with saw machinery, and you can expect a smooth finish that should only need a light sand to product a high quality finish. For many applications, it may be acceptable for immediate use without any further refinement by yourself.

Veneered or harder plywood materials may produce some slight burring of an edge, however this should not extend more than 1mm into the board, and will be able to be cleaned up with a light sand.

Below is an example of an edge finish you MAY encounter with some materials, the fibres of which can be knocked off with a sanding block.



Standard edge finish



Some materials

## CNC Requirements



### Spacing

All panels will need 20mm of spacing around them, including at the sheet edge – so bear that in mind when measuring a project, estimating material usage, or preparing DXF file.

Eg: for a 2400 x 1200mm sheet of material, the largest two panels you will be able to get out are 2 @ 2360 x 570mm, to allow for 20mm spacing around all panels and sheet edge.



### Radius

Your internal radius will have the radius of the tooling, as noted earlier in this document.



### Thickness

We cannot machine small components from material thinner than 12mm, as the material is too light and once cut free from the sheet, is unable to be held in place by the suction – however, if you are unsure, feel free to email our staff at [info@plyco.com.au](mailto:info@plyco.com.au).