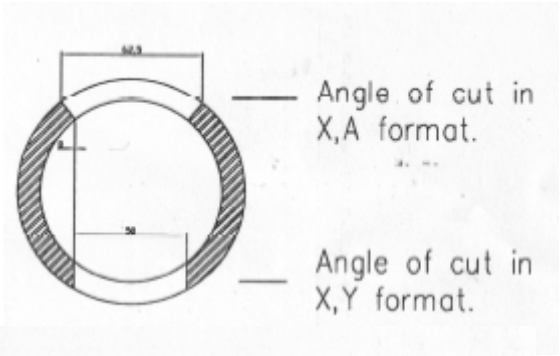
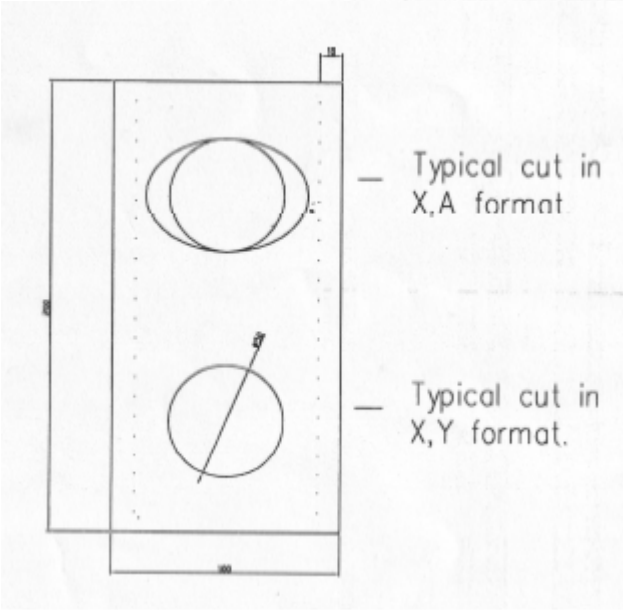
Important Differences / Finishes Using Tube Lasers

When putting holes in tubes we cut in XA format as detailed below.

If you require XY cut you must let us know prior to order placement or if you are tapping or threading the hole you will need XY type cut. Limit to XY cutting is the hole diameter must not exceed more than 2/3 of the o/d of the tube.





Below is the standard cut into tube or box section when creating mitre cuts or scalloping / cod mouthing tubes.

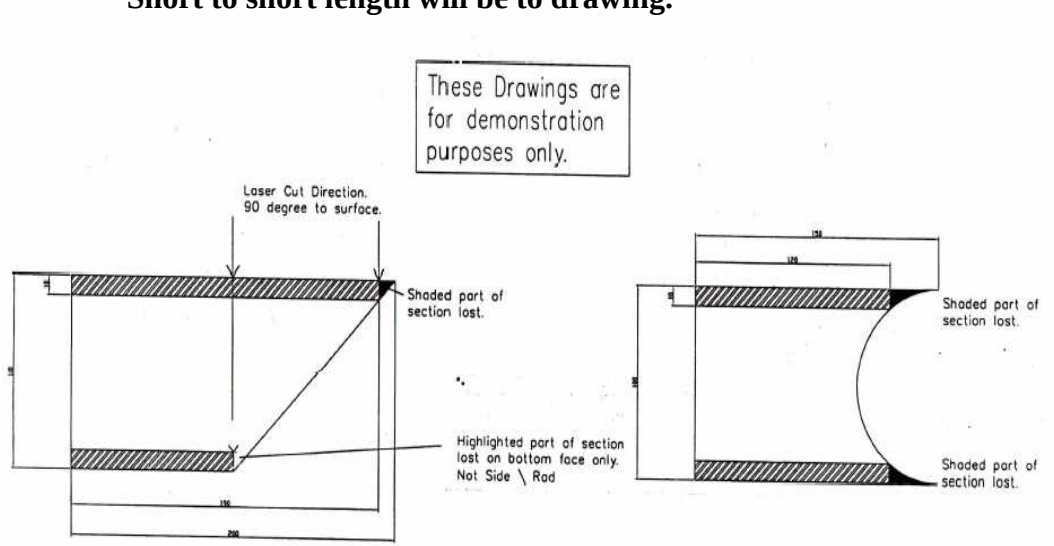
The laser cannot cut to a point like a conventional saw cut.

It will cut square to the material produce the angle required then cut square again i.e to a snub nose effect.

If you are putting the mitres together to create a picture frame type effect it gives you a weld prep gap .

Long to long length will be short depending on the angle .

Short to short length will be to drawing.



Typical example of Laser cut through squares and circles. 90° to surface cut.

Typical example of Laser cut through squares and circles. Mixed profiled end. (Cod Mouth)

LASERTUBE CUTTING

Importing of Files & Other Notes

File Formats We Can Import

The software for our lasers is bespoke , but we can import the following file types……

Step / XT / IGS/ IGES files again these would be on a trial basis to ensure they successfully import prior to production.

We can also accept DXF / DWG files but these cannot be imported but are suitable for us to use to re-draw the component.

The following software producers files have been succesfully imported ….

Solidworks & Solidworks Inventor

Unigraphics & Pro-Engineer.

But we ask as above that we trial import the file from the above to make sure the format required is correct.

Strucad – AceCAD

When profiling tubes using Strucad it creates three types of wrap around templates (inner-outer-hybrid) we use the hybrid template.

We then require the templates saved in DXF/DWG Autocad release 12 and forwarded to us with the relevant piece part 2D drawing.

TEKLA Structures

When profiling tubes using TEKLA it creates two types of template (inner & outer) we need both templates saved in DXF/DWG Autocad release 12 forwarded to us with the relevant piece part 2D drawing. We then have to manually create the cutting path as the machine cuts from inner to outer template to create the profile.

LASERTUBE CUTTING

Tube cut with laser head at 90 degrees to material standard cut.

WELD PREPS ON APPLICATION

Disclaimer

On stainless steel steel and other polished tubes etc we cannot guarantee that finished items will be free from scratches due the handling process on the lasers.

If you have any queries regarding these please state prior to order placement.