



## Metal Laser Cutter

1. Start a new sheet (FILE tab select NEW).
2. Check coordinate at bottom right hand side of screen. Make sure it is on "Floating".
3. Select **NEST** tab.
4. Select **PART** button -select **IMPORT PARTS** if downloading from a USB stick or **STANDARD**.

**PARTS** if you want a standard shape and don't have a DXF file.

- You can select all the DXF files you want to cut in one operation then select open.

5. Select **HOME TAB**.
6. If you single click on the part on left of screen you can specify the quantity you want to cut.
7. Double click on the part and it will be opened in the main window.
8. Create a window around the whole object (it should go to dotted lines) and then select the **COMPENSATE** button. (The Outer width and Inside width should be 0.1mm, Corner style RECT selected and Inner mould shrink, outer mould expand should be selected) Then select OK.
9. While the objected is still selected (dotted lines) select **LEAD**. Select lead in type (ARC, length 3mm angle 60 deg is default). Make sure Automatic lead Position is selected. Then select OK.
10. Unselect the part now (click anywhere on the screen. The part will go to solid lines again).
11. *Method 1:-* Select **MICRO JOINT** button. Zoom in to the end of the lead in and select the part just behind where the lead in joins the part. You will get a dialog box appear where you can select the length (1.5-2mm is fine for most materials).  
*Method 2:-* If you select the drop down arrow beside the **MICRO JOINT** button you can select **AUTO MICRO JOINT** but you need to select the outside of the part first (outside will become a dotted line) otherwise the micro joins will be placed on all lines (inside as well as outside). Again you will get a dialogue box where you can select the number of Micro joins you want and the length. NOTE this method may not put the Micro joint at the end of the cut. If you use more than 1 there is no pierce point so machine will be piercing and cutting at the same time so more than 1 micro joint is only suitable for thin material. If the auto function puts the micro join somewhere other than at the end of the cut, you will have to remove the micro joins and use the first method to insert it at the end of the cut.
12. If you want to remove compensation, lead or micro join select the line of the part and then select the **CLEAR** button (beside the LEAD button). You can then select which you want to clear.
13. If you have more than 1 part, you will have to repeat steps 7-12 for each part.
14. If you only have one part and you only want to cut it once you can now skip to step 20.
15. Once all the parts have got offsets, lead ins and micro joins and quantities you can then select the **NEST** button (2<sup>nd</sup> last button just above the 1<sup>st</sup> part).
16. You will get another dialogue box that asks for the size of material, (The length is the dimension going toward the back of the machine. The width is from side to side of machine). Don't worry about the thickness or Plate Material. Select **OK**.
17. Now the **NEST PLATE** tab will be active. (The tab is at the bottom of the column where all your parts were previously).
18. If you want to modify any of your parts, click on the **PARTS** tab and you will go back to the parts. Double click the part to activate it. If you change a part, you will have to re nest all your parts.
19. If your nest sheet is too small or you want to change the size of your sheet you will have to select the **PLATE** tab at the bottom and select the plate and delete it. Then when you re nest you will get the option to put a new plate size in.
20. At this stage you will need to get a staff member to activate your student card. (Don't put your card in until the staff member is there.)
21. The staff member will select the cutting material and set up the nozzle and calibrate it.



22. Once that has been done activate the **AIMING** button on the screen and move the laser head to the bottom left corner of your material using the arrow buttons on the hand piece on via the screen.
23. Press the **FRAME** button and watch the laser. (It will make a box around the parts being cut NOT the plate size.)
24. Move the laser to a new position if you don't like the position and press **FRAME** again to check if the new position is right.
25. When you are happy with the position press the **EXTRACTION** button on the front of the machine.
26. Then press the **EMISSION** button on the screen and then press **START** button on the hand piece.
27. When cutting is complete press the **EMISSION** button again to turn it off and then turn off the **EXTRACTION** (wait a bit for all the fumes to be extracted before turning the extraction off and opening the door.
28. **WARNING** The material may be **HOT** after cutting.
29. When you are finished remove your material from the machine.
30. Press the **FILE** tab on the software and select **NEW**.