

GUIDE FOR THE CORRECT PREPARATION OF THE FILE FOR LASER CUTTING

Where do I find the material??

The preset file for the work is found in the "**FILE DWG BASE DWG**" folder; they are in **.dwg** format and once downloaded they can be opened and edited with Autocad.

Which file should I use?

The file to be used for any machining is the same "**MNLab_Layout_MATERIAL.dwg**" whether machining on materials derived from wood or on plastic materials. The unit of measurement of the file is in mm.

What should I do?

Once you have downloaded the file:

1. Rename the file using the format "**polimi personal code_MATERIAL_thickness**" modifying it according to your data and the material you want to cut.
2. Open the file and modify the text at the top, outside the work area, inserting again material and thickness.
3. In the file "**MNLab_Layout_MATERIAL.dwg**" there are the standard working area and the one optimized to 51,5x36cm, if you do not want to use the smaller area you can easily delete it being careful not to delete the standard one.
4. For convenience the 10mm of space from the outline of the working area has already been drawn.
5. Delete the colored circumference of the layers test.
6. Now you can start drawing using polylines on one of the preset layers.

NAME	COLOR	Description
0_Area di Lavoro	White	Contains the geometry of the working area and the block of the optimized area. DO NOT USE EDIT OR MOVE.
1_TAGLIO	Red	Use for all outer and inner contours of the geometry to be cut.
2_MARCATURA	Yellow	Use to mark the material without cutting it with a sharp stroke.
3_Marcatura Leggera	Green	Use to mark the material without cutting it with a lighter stroke.

Caution!

- The unit of measure of both layouts is in **mm** and **MUST NOT be changed.**
- Layers are preset and **should NOT be changed or renamed.**
- **DO NOT** move the geometry of the standard work area.
- Use **only polylines** for drawing.
- If there is a need to insert some text, contact the laboratory staff and remind them during the processing; at the moment every font is converted to Arial by default.
- In the case of importing geometries from another file, **correct the name of the layer beforehand** and **scale** the drawing correctly.
- The minimum distance between two cuts or engravings is 1 millimeter.

Before delivery

- Once the drawing is finished it is necessary to explode BLOCKS, HATCHES, AND TEXTS, these entities are not visible to the software that manages the laser cutting machine.
- Check that your drawing is two-dimensional by rotating the view, if the file has shifts in Z you can use the FLATTEN command (Autocad) to correct it.
- Check that there are no overlapping lines, using the OVERKILL command (Autocad) to eliminate them.
- Check that you have renamed the file correctly and filled in the text inside.

How do I save the file for delivery?

The file must be saved in **.dxf** format using the **AutoCAD 2000/LT2000 version** (*.dxf) and keeping the .dwg file name.