

## laser plotter

The laboratory has two measures of plotter for laser cutting

|             |                                 |
|-------------|---------------------------------|
| Jupiter 70  | with cutting area 725 x 435 mm  |
| Jupiter 100 | with cutting area 1025 x 630 mm |

With both plotters it is possible to cut:

- paper and cardboards up to 360 gr/sqm;
- gray cardboards or ivory wood-pulp board, up to a thickness of 4 mm;
- rigid plastic sheets (extruded and cast methacrylate, PMMA, Perspex, Plexiglas) up to a thickness of 5 mm with Jupiter 70, up to a thickness of 15 mm with Jupiter 100.

While it is not possible to cut:

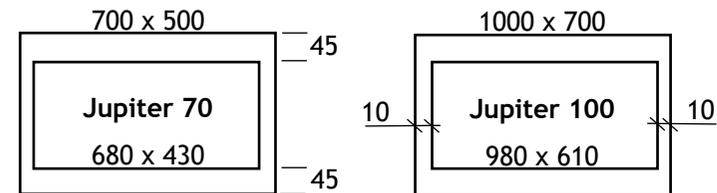
- plastic coated cardboards and varnished or glued surfaces;
- metals;
- polycarbonate and pvc (such as vinyl and forex - the fumes release dioxin);
- HDPE (thermoplastic polymer - catches fire);
- polystyrene (polystyrene - catches fire);
- soft plastic sheets such as polypropylene or acetate.

Vector files must be transformed into the **.dxf 2000** format to be imported into the plotter's management program.

In order to draw the pieces correctly, you should proceed as if you had to produced them manually.

It is necessary to draw the geometries to be cut with the real **measures** already reduced to the **model scale** and in **millimeters unit of measure**.

The pieces to be cut with the plotter must be positioned inside a double frame with the longer side placed horizontally and with the following requirements:



These rectangles, which will not be cut, must be drawn in a specific layer of blue color.

If the material to be cut is smaller than the cutting area can be added a third interior frame of the size of the material in your possession, always in the same layer.

The material to be inserted in the machine mustn't be bigger than the cutting area.

The shapes of the pieces to be cut (or the frame that delimits the material) must be arranged within the squaring rectangles starting from the **upper right corner**.

In order to avoid errors, the file used for cutting must contain only the pieces to be cut and engraved with their own frames.

Assign the following colors according to the required operations:

**blu** for the frames

**red** for the elements to be cut

**green** for the elements to be engraved

**cyan** for the elements to be rasterized

In case you use Autocad to produce the vectorial file, we suggest using the **\_overkill** command, which, inside a selection window, eliminates all possible overlapping lines keeping only the longest ones.

In order to avoid producing fragile or unusable pieces, it is necessary to check that in the drawing there are **no elements** to be cut or engraved **with relative dimensions or distances less than 0.7 mm**, for example, window frames, porches, or decorative elements.