

# Instructions Illustrator



Download the template for Illustrator on [www.laserbeest.nl/instructies/](http://www.laserbeest.nl/instructies/)

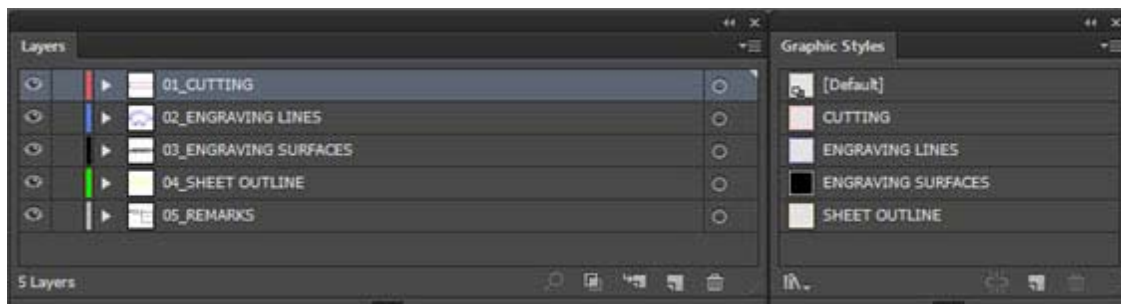


## 1. [Download](#) and use the Illustrator template

Layers and available sheet sizes are already preset in the template.

## 2. Use layers

There are 3 kinds of processes possible with the laser cutting machine: cutting, engraving lines and engraving surfaces (rastering). On the material page you can check how the results look like on different materials. The difference of the processes is being made by assigning the lines to the appropriate layer and by choosing the right Graphic Style (colour and stroke). Assign all objects in your drawing to one of the layers below and assign the corresponding Graphic Style. Open Layers with F7, Graphic Styles with SHIFT+F5.



- **01\_CUTTING:** Make sure you keep 1mm in between cutting lines, if the material between the lines needs to be kept. A cutting line will be about 0.2mm thick, depending on material and thickness. Pick for all cutting lines the Graphic Style CUTTING (red line R:255,G:0,B:0, Stroke 0,05mm).
- **02\_ENGRAVING LINES:** Make sure you keep 0.7mm in between engraving lines, for a nice result. An engraving line will be about 0.1-0.2mm thick. Pick for all engraving lines the Graphic Style ENGRAVING LINES (blue line R:0,G:0,B:255, Stroke 0,05mm).
- **03\_ENGRAVING SURFACES:** If you draw a black filled shape and assign it to this layer, the shape will be engraved (rastered). If there are areas within the shape that should be left out, use "Compound Paths", don't use "Clipping Masks" or white shapes on top. Also make sure there are no overlaps of the shapes. Use Pathfinder>Unite to merge several shapes to one. Note: To make an engraved surface the laser has to pass the material line by line. Large surfaces can therefore be time consuming. Pick for all engraving surfaces the Graphic Style ENGRAVING SURFACES (black fill R:0,G:0,B:0, No Stroke).
- **04\_SHEET OUTLINE:** Use this layer to indicate the sheet outline or the object you want to engrave. For our standard sizes this has already been done in the template. An Artboard can be the same size as your sheet (as in the template) or bigger. Pick for all sheet outlines lines the Graphic Style SHEET OUTLINE (yellow line R:0,G:255,B:0, Stroke 0,05mm).
- **05\_REMARKS:** Use this layer for additional comments next to the sheets. Mention the desired material and thickness, any special wishes and number the sheets.

To get an idea of how thick a cutting or engraving line will be and also to improve visibility of the lines on the screen, you could temporarily work with the Default Graphic Style (black line 0,2mm thick). When the drawing is finished, you can assign the correct Graphic Style to all objects in each layer at once.

NOTE: Ungroup all objects (Ctrl+A and repeatedly Shift+Ctrl+G) before you apply a Graphic Style to a selection, to prevent styles from combining.

### 3. Draw your sheet outline

There are four standard sheet sizes in stock: 900x600mm, 600x450mm, 450x300mm and 300x200mm. The smallest fits in a parcel suited for your mail box. The standard sizes are drawn in the template. Take into account a margin of 5mm (dotted line) at all sides, making the area to be processed by the laser slightly smaller. [Click here](#) for requirements regarding sizes of materials or objects that you want to provide yourself. Sheet sizes up to 1300x900mm on request, we have bigger machines for large size projects.

### 4. Number your sheets

Put all sheets in one file. You can copy the Artboards including the sheet outlines of the template (SHIFT+O and drag holding ALT) and deleting the ones you don't need. Mention next to all sheets the desired material, thickness and number the sheets. Preferably, put sheets of the same material and thickness next to each other.

### 5. Draw scale 1:1

Your drawing will be laser cut scale 1:1. Draw in mm, 1 mm in your drawing is 1mm in reality.

### 6. Text: make outlines of text or use a line font

Text needs to be submitted as outline in the layer engraving surfaces, or use a line font (such as `romans.shx`) in the engraving lines layer. You can make a text outline by right clicking the text and choose for "Create Outline".

### 7. Images/ Patterns: convert to vector

Images or Patterns such as brick or striped line patterns have to be converted to engraving lines or engraving surfaces, according to your wish and the situation. To convert images (pixel-based) to vector Illustrator has the Live Trace function with many options.

### 8. Draw continuous lines. Double lines means double cutting

For the best result draw continuous lines as much as you can. You should join lines by using the Join command (Object>Path>Join or CTRL+J). Be careful the command doesn't join lines that should not be connected, resulting in undesired cutting or engraving lines. Delete all lines that are (partly) overlapping each other, they will be cut or engraved twice too. That gives a bad result and costs more laser time and money.

### 9. Check your drawing

- Make all layers visible and check if only the sheets remain meant for laser cutting. Delete everything else.
- Delete all layers other than those from the template.
- Check (with the eye-icon in the Layer window) if all objects are placed in the right layer and if everything has the right Graphic Style (colour, fill, stroke).
- Check if there are no white shapes or shapes without fill and stroke.
- Ungroup all objects by toggling Ctrl+A and repeatedly Shift+Ctrl+G
- If you used Clipping masks or Live paint groups you have to "release" them. If you used Image trace you have to "expand" your trace.
- If your drawing consists out of very small line segments, you could use Object>Path>Simplify to reduce the amount of anchor points. This results in a faster and often better result. Make sure you keep the level of detail you desire, by playing with the settings.
- Save your file as \*.ai version CS6 or earlier. Option comes in the save menu after you specified the file name.

### 10. Upload: on the website

If your drawing is finished, you can request a price or put an order through the button [Nieuwe opdracht / offerteaanvraag](#), at the right top of the website. Although it is in Dutch, we want to ask you to submit your drawing in this way instead of sending it by mail.