

A P P L E

Artwork

Artwork for the Rayjet laser can be created in any software package, Corel, Adobe Illustrator, CAD, Vectorworx, even MS Word.

The important thing to keep in mind is the you are working in RGB colour mode.

Page Size: it is important to have your page size (artboard for Illustrator users) the size of the Rayjet bed size i.e: 457mm x 305mm for the Rayjet 50
726mm x 432mm for the Rayjet EDU
This will ensure the engraving lines up on the bed, as it is on your screen.

Engraving: anything that is not solid black will be treated as grayscale and half toned, creating a shading effect - this is great particularly when engraving photos. Engraving is rasterised, meaning the laser head will move from left to right, starting at the top and working it's way down until it's covered the area to be engraved, much like a desktop printer would do.

Cutting: for the laser to recognise that a line needs to be treated as a cut line (vector) you will need to make sure the thickness of the line is as thin as possible, in Corel select "Hairline", Illustrator 0.01pt etc. Anything thicker will be treated as an engraving. Vector cutting is interpreted as a path that the laser head will follow.

The different processes (cut/engrave/score) are all differentiated by using a different colour for each process. There are 8 RGB colours that are used by the MiniManager software which can be used, and will be processed in a set order, all engravings first, then all vectors.

	Red	Green	Blue
Black	0	0	0
Red	255	0	0
Blue	0	0	255
Desert Blue	51	102	153
Cyan	0	255	255
Green	0	255	0
Grass Green	0	153	51
Forest Green	0	102	51

Print Preferences

Any graphics program that a print option can send a job through to the Job Control printer driver. Again, the option vary from one particular software package to another. Once your artwork is ready click Print (File, Print), select the Rayjet printer from the list of printers and then select the "Preferences" button.

At this point you can choose to run through the process via the "Step by Step" screens, or through the

If this is a rotary job, select the rotary option, enter the height of the job and the diameter of the object and the circumference will be calculated.

Material Settings: Select the Material Group and Material from the 2 drop-down boxes. The settings for Red and Black are shown for information purposes, they can be edited later, or via the button which will take you into the materials database, and you will be able to create a new material or change settings.

Process Options: For most jobs a standard set of options will not need to be changed, and more detailed explanation can be found in the Job Control Manual.

Process Mode: Select between Standard, Stamp, Relief, Layer or Photo Optimized. The most common option would be Standard, then Stamp.

Resolution: This is the number of horizontal line that will be engraved in an inch. The options are 1000, 600, 500, 250 and 125 dpi. Most jobs 500dpi is more than adequate.

Cutline: Automatic cut lines of different kinds can be inserted, Rectangular, Circular, Optimized or None. This is mainly used in rubber stamps, but otherwise select "None".

Once all options have been selected click the left hand "JC" button (OK) or the "X" to cancel.
Give the job a name and click Apply.



Laser Engraving

Turn the laser engraver on and allow it to register (it will travel all the way down and to the back left corner. Open the Job Control software and click the Connect button to establish communication between the computer and the laser. The connect icon changes from a USB plug to a play symbol.

Engraving any object, even the most oddly shaped item, can be easily achieved by following the following 6 steps...

(At the laser)

Step 1: Place the object in a firm, repeatable position on the bed of the laser. This ensures that the object can be placed in the same position again to either re-engage, or for engraving multiple items the same.

Step 2: Focus the laser using the focus tool, raise the bed until the focus tool touches the object and falls off.

Step 3: Place the red dot at a point of reference. This does not have to be the top left corner, it is any point of reference on the object, be it one of the corners, an edge, the centre or any point you'd like to line it up with.

(At the computer)

Step 4: Select the job from the job queue and place it on the plate with respect to the point of reference (the crosshair on the screen is the position of the laser head).

Step 5: Check the settings. Make sure that the Job Control settings reflect in reality what is in the laser. make sure the material type selected is the same as the object to be engraved, that the colours to be engraved and cut are selected correctly, the correct lens is selected, the honeycomb table option is selected if it's installed and the auto focus hasn't been selected.

Step 6: You are ready to go, either click the Start button or the Repeat button on the laser keypad. It is always a good idea to use the button on the keypad because you will be at the laser and able to watch the process begin and make sure nothing unexpected happens (something from the previous step is incorrect).

Happy Lasering!