

Laser Cutter – Fabric Etching

Step 1: Understand the process

- The goal of laser-etching fabric is to vaporize the dye in the fabric without burning the fabric itself.
- Each dye and piece of fabric is different, so the power settings will be different for each project.
- This tutorial will only cover the ways that fabric etching is different than standard rastering. See the Technique Tutorial “Laser Cutter – Raster Engraving” for the basic steps of the laser rastering process.



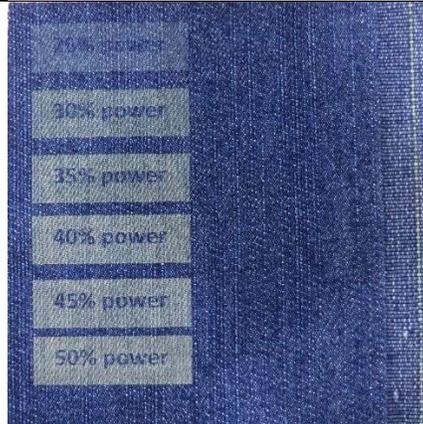
Step 2: Select a good image

- Plain black-and-white images etch the most clearly.
- Greyscale images work best if they have high contrast, as subtle shading does not always etch that clearly.
- When in doubt, test-etch the image on a piece of scrap to see how it will turn out.



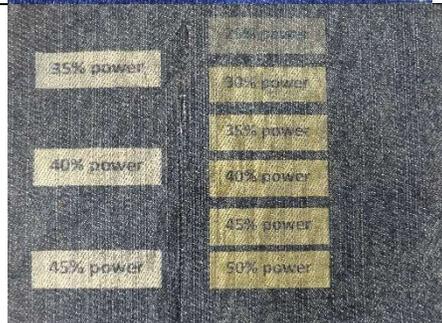
Step 3: Test a scrap piece of the fabric to find best power settings

- On either a scrap piece of the fabric or an inconspicuous place (such as the inside fold of a hem on a garment), raster a small test design (such as a small black square) at different power settings until you find the optimal settings.
- For most fabric etching, leave speed at 100%. As a starting place, most fabric etches well with power settings somewhere between 25% - 50%.
- Use the lowest power setting that gives a good etch – higher power starts to weaken the fabric without enhancing the image-quality.



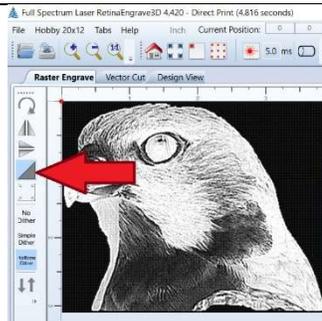
Step 8: Ideally, wash the test piece

- By removing the burnt film, washing brightens the piece and shows the final look. Washing first will help you select the best power setting for that fabric



Step 4: Invert the image

- On the left-hand toolbar, click on the “Invert Image” icon
- Since the laser is removing color as it burns, rather than adding color, the image must be inverted to come across properly
- However, if the image is a solid black design on a solid white background, it often looks better not inverted. Experimentation is recommended.



Step 5: Insert material into laser

- Inset material as usual.
- If etching a garment or larger piece of fabric, it may be necessary to fold or roll up the piece to fit it into the laser. Be sure that the laser head can travel without bumping into anything, and that the area being etched is flat and smooth.

**Step 6: Position the laser head**

- When trying to locate the laser's red positioning dot on dark fabric it is often helpful to place a piece of white paper on top of the fabric to make the dot more visible. Remove the paper before beginning the raster.

**Step 7: Etch the piece!**

- Follow the standard steps for laser rastering.

