



**Creating a Stencil
for Your Logo**
Gil Fuchs

**It All Depends on What You
Model...**



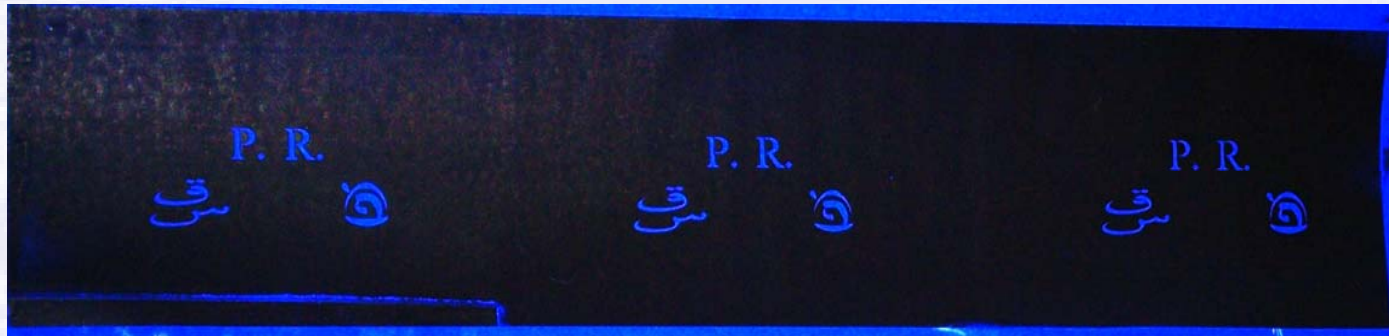
Creating a Stencil

- Create the logo or image you would like to use in a computer graphics editing program (example: Corel Draw)
- Invert the image so that the background is black and foreground is white
- Wherever you have isolated black areas, connect them with “bridges” of at least .3 mm width.

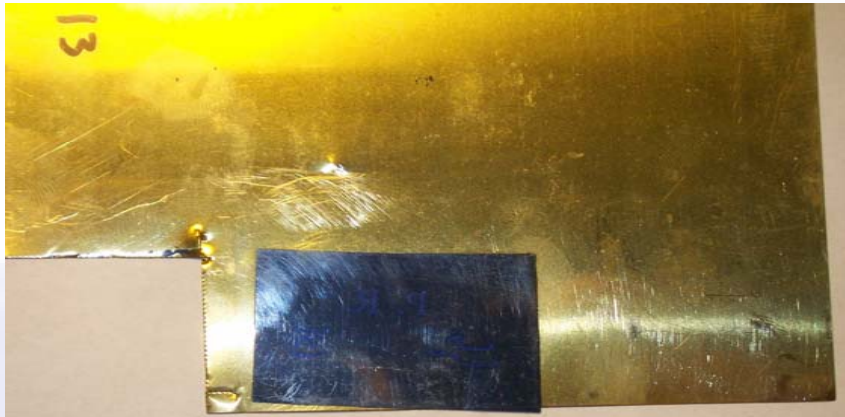


Creating a Stencil (2)

- Print the image using a LASER printer on Press-n-Peel paper, on the opaque side. Prior to that you can print it on regular paper for verification.
- If a LASER printer is not available you can use an Inkjet printer and then Xerox the image.



Creating a Stencil (3)



- Transfer the printed image to a brass clad cut to size (a bit larger than the image), 0.005" thick, using a house iron set to medium heat (cotton). This may require some practice.
- After the clad cools down completely, peel the blue transparency material off, the image should now be on the clad.
- Spray the other side of the brass sheet with plain gloss lacquer, and let dry. This prevents the etchant from reaching the back of the clad.

Creating a Stencil (4)



- Glue small bits of styrene to the 4 corners of the brass clad, on the printed side, not interfering with the image. This serves to create some space under the sheet and improves the etching process. Punch 2 holes near the edge and thread a string through (helps agitate the sheet and pull it out).
- Place the sheet, printed side down, in a flat plastic or glass container, cover with etchant (FeCl_3) and etch for approx. 25 minutes. Agitate frequently. If after 25 minutes the etched areas still do not show through the clad, keep etching and checking in 5 minutes intervals until done.

Creating a Stencil - final

- Etching is done when the etched image is completely etched out of the clad.
- Rinse clad in water. Remove the printed mask and the back lacquer cover from the clad using Acetone.



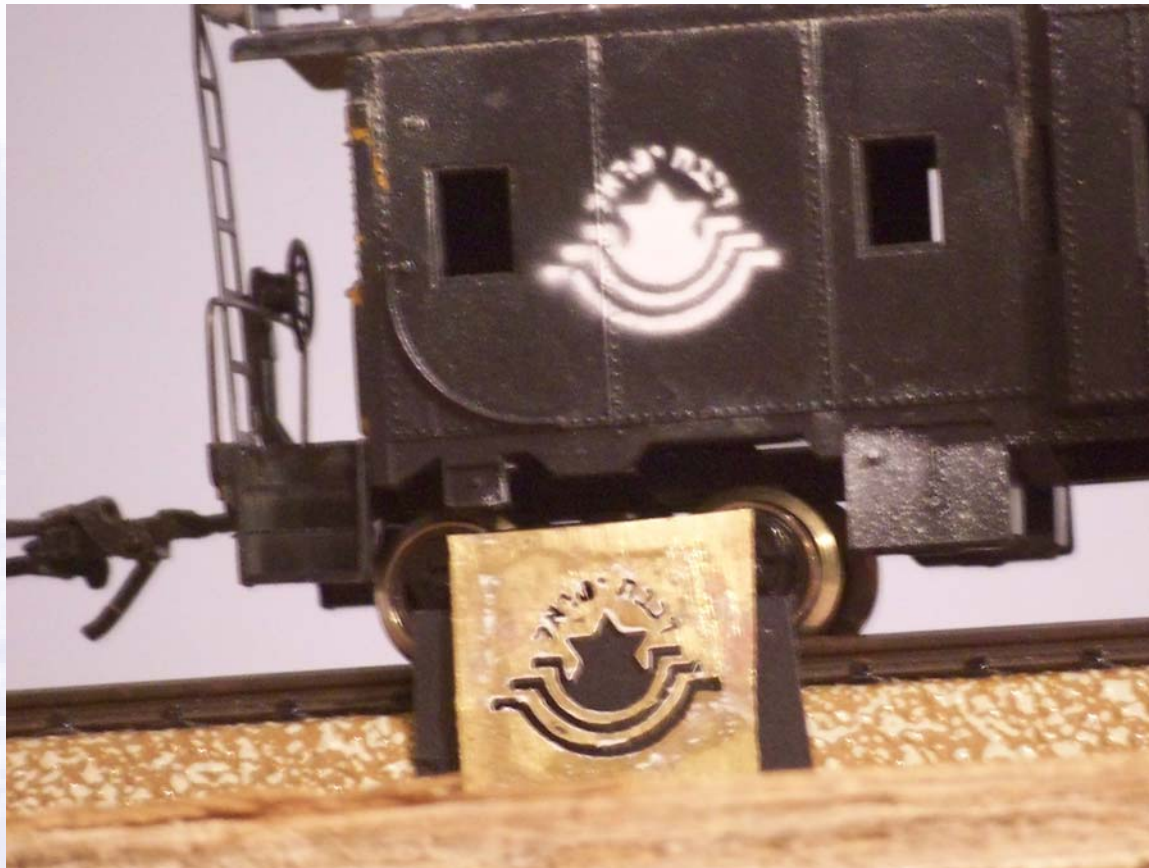
Using the Stencil

- **Tape the edges of the stencil to the object you are marking.**
- **Spray paint over the stencil, using a fine airbrush, and a relatively dry mixture of acrylic or oil paint. Wet paint would get under the stencil and destroy the image.**

Using the Stencil (2)

- If the face of the object is not smooth (such as a ribbed hopper side, for example) you would get some fuzz effect where the sprayed paint somewhat fades into the background. This is sometimes desirable – it happens with the prototype as well. You can even deliberately create this effect by taping the stencil slightly off the surface.
- Let dry completely and remove the stencil.
- Clean the stencil in the appropriate solvent – its ready for reuse.

And Here is the Result!



What you will need

- A bottle of FeCl_3 Acid used for printed circuit boards (available at your local Radio Shack)
- A LASER printer or copier
- Graphics editing software for creating the image in inverted form
- Press-n-Peel paper sheets (PnP Blue, Techniks Inc) available from several sources including: http://www.elexp.com/pro_npb5.htm
- A fine permanent pen (sharpie) for correcting transfer errors.

What You Will Need (Cont.)

- **A flat plastic container**
- **0.005" brass sheet**
- **Scissors**
- **A lacquer spray can**
- **A few bits of styrene scrap and some glue**
- **A timer**
- **Airbrush**
- **Your imagination!!!**