## TECH I

## LASER ENGRAVING STENCILS

Stencils are rigid cut outs of text, logos or shapes used for blocking off areas during painting. Stencils have a variety of decorative and industrial applications and are re-useable. The key to laser cutting a stencil is using the correct material. Stencils have traditionally been made from an oil board material which is an impregnated paper product and not very laser friendly. A thin polyester material is recommended as it is rigid enough for the task and laser friendly. Beware that some non-laser friendly materials are made from plastics that outgas hazardous fumes.



The polyester stencil material should lay flat on the laser bed to create crisp edges. Keeping thin plastics flat is best done with the MultiMat or using some double stick tape.

- Open a new file in CorelDRAW Go to File>Import to bring in the vector graphic or to Text>Insert Symbol to use a symbol from the DRAW library. Add text if desired. This example utilizes a symbol from the Webdings font in CorelDRAW. Go to Text>Insert Symbol Character and select the Webdings font.
  - Remember when modifying vector graphics, it is important to remove the fill and turn the outlines to red hairlines.
- Now add a hairline border around the graphic so when the stencil is engraved it is cut out from the larger piece of polyester material.
- Place the polyester material on the MultiMat inside your laser. The tiny pieces of material that are being cut away from the sheet can fly up into the exhaust. This has the potential to cause a fire and render the laser inoperable. Do not let this happen!
- For best results keep air assist ON. The settings for a 35-watt laser are 20 speed and 20 power. You may need to adjust the power settings for your laser to achieve the best results.







