

Sign Making With Rotary Engraving Systems

By Natalie Whitehouse



Step 1



Step 2

Are you looking for a way to expand your business without making a major investment in new equipment? If your shop is not already creating signs, you may want to consider adding this option to your services. In addition to attracting

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new individual customers, many sign companies will outsource engraving work, which can provide your business with thousands of dollars in additional income.

A rotary engraver is perfect for creating signs in metal, plastic, and wood, and is capable of creating ADA-compliant signs and 2.5D and 3D effects which are not possible with a laser. While signs can be created on any size engraving table, sizes of 16" x 12" and larger provide the option of not only creating bigger signs, but also creating multiple sign layouts and using time-saving

tools such as an Automatic Raster Braille inserter.

For this article, we'll show examples of an ADA sign and a 2.5D sign that can be made easily with a rotary engraver.

ADA-COMPLIANT SIGNS

Rotary engravers are the perfect choice for creating ADA signs because they provide the beveled cut required for the raised elements within the sign. Since public buildings are now required by law to have ADA signs (including raised lettering and Braille), supplying them to customers can be highly lucrative. Some shops stay away from creating ADA signs because they are unfamiliar with the government rules and regulations

and fear that these signs are difficult to create.

However, ADA signs are really not hard to make, especially with an Automatic Raster Braille attachment and Vision's new ADA Assistant Software, which assists with all spacing, fonts, and pictograms used in these signs. The software automatically alerts the user if there are errors in letter height, sizing, spacing, or place-



Step 3



Final



ment of any of the elements so that there is no guesswork in whether or not the sign is compliant.

Using Vision's ADA Assistant, available with Vision Pro software, making an ADA sign is fast and easy. Users can open a job in the software, which includes many standard sign templates, or create their own custom designs. All raised elements, templates, and pictograms in the software are compliant with state and federal regulations. For this example (Step 1), we used a standard restroom sign template available in the ADA Assistant Software and used a 16"x24" table to engrave the job.

The first step is to create a tool path for the raised elements—in this case, the letters and pictogram. The ADA Assistant automatically creates the tool path for these, and the job is sent over to the controller to cut the raised elements.

In this example, we used a piece of white appliqué (this can be purchased with an adhesive backing) on top of solid blue engraver's plastic. We used a MultiMat to hold down the material to the table (clamps or double-stick tape could also be used). The white appliqué became the raised element—in this case, the white layer appliqué was placed on top of the blue plastic, and the letters and pictogram were cut out of the white material.

For the first round of cuts, we used a .010" profile cutter (another small cutter, such as a .015" or .020", would also work), as well as a nose cone to set the depth of the cutter to match the thickness of the appliqué material. (As with any plastic engraving, it is always a good idea to use a vacuum chip removal system to removed excess material from the engraving.)

TIP: For best results, once the raised elements are cut, you can use a stiff-bristled brush to remove any remaining chips and debris from the letters *before* removing the remaining white appliqué. This is faster and easier than using the brush after the excess material has been removed.

Next, we went back to

the software and used the Assistant again to cut the Braille text. We sent the Braille text job to the controller, and the profile cutter was removed and replaced with a Braille cutter (Step 2). (Be sure to use the specified Braille cutter, as the hole size is designed to hold the exact size of the Raster Braille bead.)

After starting the job, the cutter drills the holes for the Braille beads. In this case, if your machine is equipped with an Automatic Raster Braille bead inserter (see Step 3), the beads are automatically inserted into the holes using the spring-loaded Braille inserter pen. (This process can also be done by hand.) The result is an ADA sign that is fully compliant with all state and federal laws (Final sign).

2.5 D SEAFOOD SIGN

For this example of a wooden 2.5D sign (Red Seafood sign), we used a 9.5" x 14" piece of maple. Artwork was created in

Vision Pro, adding clip art imported from the software's clip art library and editing it in Vision Pro (many types of art files, such as .jpg, .tif, .plt, .cdr, and .ai files can be imported). Here, the wood was painted red on all sides, then engraved to reveal the plain wood beneath, creating a multi-colored sign. By using vinyl, paint, and other techniques, possibilities for multi-colored signs are endless.

To hold the material to the table, we used our standard push-down clamps. The 2.5 dimensional look was achieved using tool path (2.5D chisel). The 2.5D chisel tool path tool allows the operator to specify two different cutters—a large cutter for removing large sections of material, and a smaller cutter for fine detail areas. In this example, the large cutter used was a .030" flex cutter and the small cutter was a .015" flex cutter. We again used a vacuum to remove chips and debris while the job was in progress.

Using the Cut-by-Color feature in the software, you can specify one color for the .030" cutter and one for the .015", allowing you to vary the depth and detail. This gives you the ability to send one color to the controller at a time, making it easy to use the right cutter for the right areas.

CONCLUSION

A rotary engraver—combined with the tools and effects available in the latest engraving software—can provide you with countless options when engraving signs. Exploring these possibilities can provide you with new and profitable opportunities for your business.

Natalie Whitehouse is the marketing manager for Vision Engraving Systems, located in Phoenix, Arizona, www.visionengravers.com.

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