



GRAVOGRAPH NEW HERMES

Slider Signs

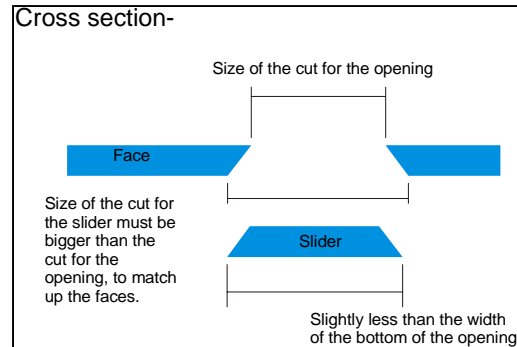
Adding a “slider” to a sign is a great way to make an “Open/Closed” or “Ring Bell/ Come Back Later” type of sign, and it’s simple to make. We use the bevel of the cutter to our advantage to make interlocking pieces that move freely. You’ll need the following materials and tools:

- One piece of 1/16” Gravo-Tac for the face, sized for your frame
- One scrap piece of the same material (big enough to make the sliding piece)
- One piece of 1/16” Gravoply or 2-Plex for the back piece (Match the “cap” color of this piece to your face piece, and the “core” color to the color you’re using for tactile lettering.)
- A scrap piece for a cutting bed
- Your .010 Profile cutter
- A wider cutter to engrave the back plate lettering (between 0.020 and 0.060 depending on the letter size and font you use)
- Raster kit & cutter, if you plan to add Braille

1. To design a slider, you need to do a little math. The slider piece (the part that actually moves) has to be slightly larger than the opening. The reason for this is that the tip of the cutter follows the dimensions on the screen, but at the surface of the material, the dimensions will be different, because of the angle of the cutter. If you cut a piece out of material, the piece you cut will be smaller at the surface than at the base. If you cut a hole in a piece of material,



the hole will be larger at the surface than at the base. So, to make a slider, we cut the hole for the slider from the *backside* of the material, and cut the slider from the *front side* of another piece of material, slightly “larger” than the hole. If it’s sized right, the surfaces of the two pieces of material will match up perfectly, and the bevel of the face will capture the bevel of the slider, but allow it to move freely. Since we’re using 1/16” material, the amount of “oversize” needed for the slider is about 0.070”. For example, to make a 1” high slider on an 8” wide sign (which, remember, is actually 7.92” wide), the hole would be 1” by 6.92” (to retain a 1/2” margin), and the slider would be 1.070” by 3.4” (Always make the slider slightly less than half the length of the slot.)



2. Once you have everything laid out, put your cutting bed material on the table, and place the face piece on it, *face down*. Cut out the slot using your .010 Profile cutter, set about 0.065” deep. (Remember: Whenever you are cutting all the way through 1/16” or thicker material, slow down the X/Y speed of your engraver. The exact speed will vary by machine, but give the cutter time to do its job; it’s removing a lot of material.)
3. Remove the face from the table, and discard the piece you cut out.
4. Place the matching scrap piece on the cutting bed face up, and cut out the slider using the same cutter and depth.
5. Test-fit the slider in the slot. It should fit with just a “tick” of free-play, and move smoothly back and forth. Because material can vary in thickness, you might have to adjust the size of the slider slightly to make it fit correctly. If you do, make small changes, a little at a time, and keep everything else the same. Once you’re happy with the fit, discard all the pieces that did not fit to avoid confusion.
6. To make the back plate, cut the Gravoply or 2-Plex piece to the same size as the face. At the computer, enter the text you want, and center it on either half of the slot. Draw guidelines to help you align the text properly. There may be text on one or both sides. Engrave the text on the back plate with an appropriate cutter (you might have to experiment a little to get the look you want. For the 1”X7” slot described above, 3/8” high letters, in a “one line” font, engraved with a 0.040” cutter would look good.)

7. If you plan to add tactile lettering or Braille to the face, do it now. Remember to leave enough space between the Braille and the slider.
8. To assemble the sign, use very thin, strong double-sided tape. Place a strip directly above and below the slot, but be very careful not to get too close to the edges of the slot. You don't want any adhesive interfering with the operation of the slider. Place more strips of tape as needed to hold the rest of the sign together. Place the slider on the back plate, and attach the face to the back plate, trapping the slider in between. Make sure everything is square along the edges, and press the pieces together. Once the sign is assembled, check the slider for fit and smooth operation.

