

MAKING A SEAL

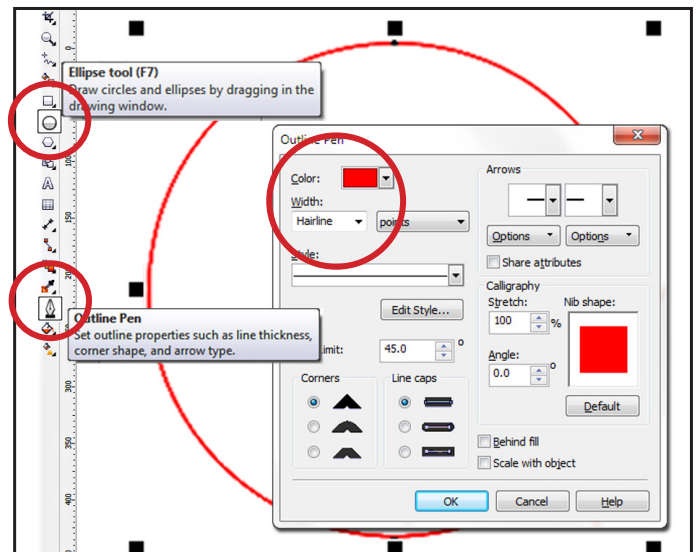
Delrin® is a lightweight, high stiffness, low-friction and wear-resistant thermoplastic that is used to produce dies on a laser. It supports a finer detailed engraving. The seals consist of two die plates, the positive or female and the negative or male:

- The positive die plate displays in the program as black text or graphic on a white background. These black elements are engraved into the Delrin material.
- The negative die plate displays in the program as white text or graphic on black background. The black background surface is ablated by the laser and the part that is white is raised on the die plate.
- The two die plates will need to fit perfectly into each other for good relief print quality. This is why the positive plate needs to be slightly larger than the negative plate. Some laser software creates this automatically for you.

The examples used were created in CorelDRAW X6.

1. Create the cutting line

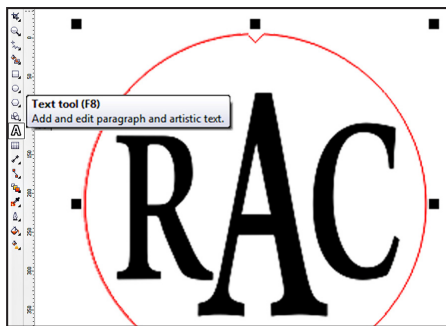
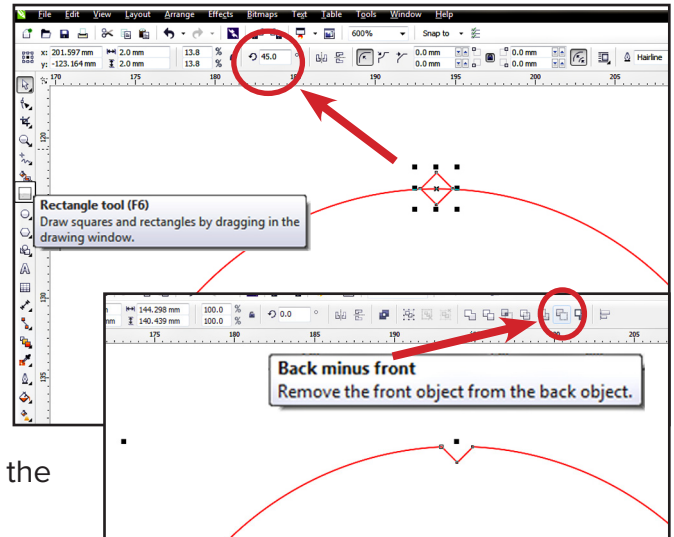
Create a circular shape by selecting the ellipse tool while holding down the CTRL key to create a perfect circle. Make this circle the same size as the embosser. Color the line red with a hairline width. Because this is the cutting line it needs to be the same size as the seal press.



2. Triangular recess

This triangular recess (“nose”) is added to the cutting line of both negative and positive dies in order to help align the 2 together when assembling the seal press.

1. Create a square 2 mm and rotate 45 degrees.
2. Position the square at the center top of the cutting circle so that the arc of the circle lies across both corners of the square.
3. Select both the circle and the square and select “Back Minus Front” symbol. This will cut the square out of the circle.

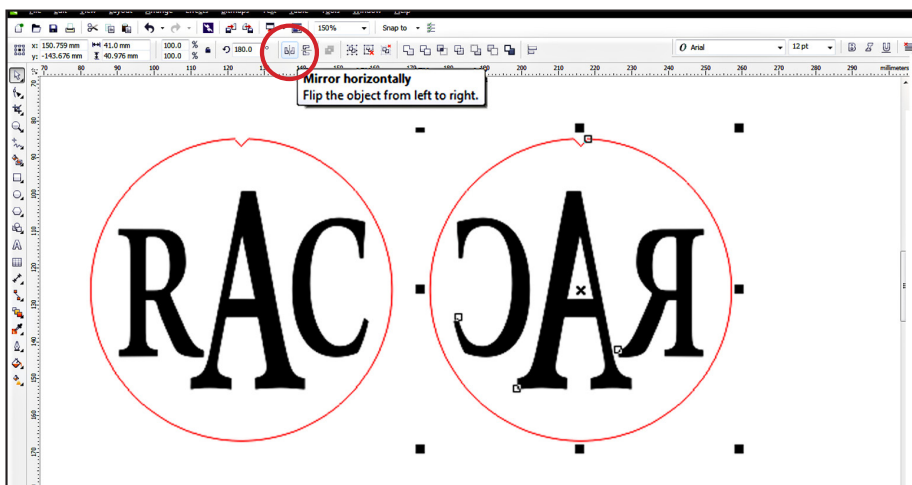


3. Create the text or art

Add the desired art or text inside this circle. These items need to be vector only graphics. Raster graphics will not do will for embossing, such as .bmp, .jpg, .tiff, etc. When using type, make sure it is at least a height of 3 mm or 12 points so that it is readable.

4. Create the positive (female)

To create the positive (female), copy the negative (male), pull to the right and then mirror this element.



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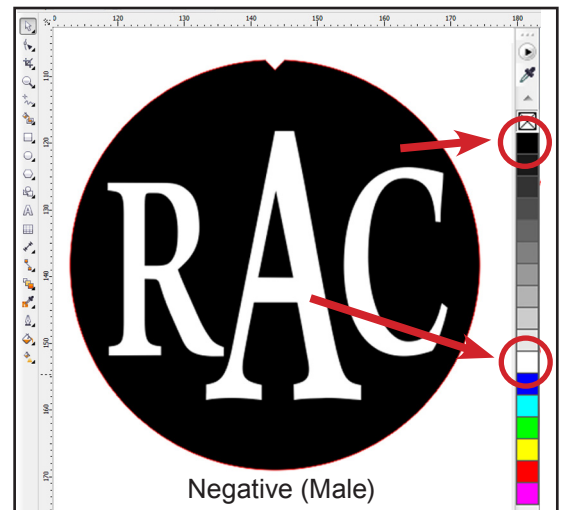
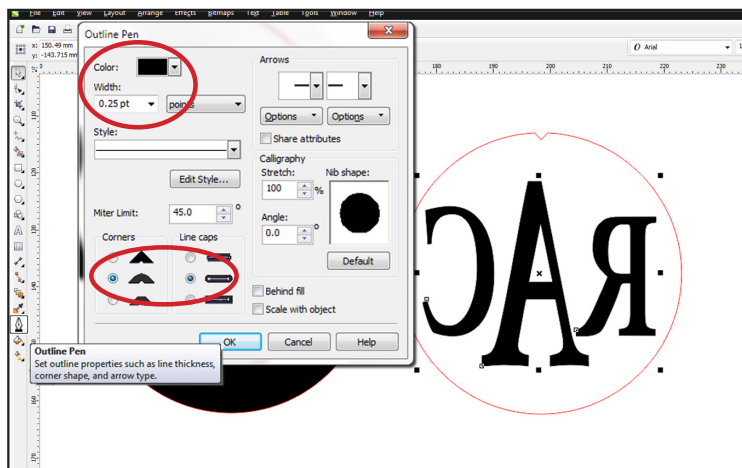
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5. Color the original negative (male)

Select all the graphic elements but not the circle. Color them white. Select just the cutting circle and fill it with black, leaving the rule of the circle a hairline red.

6. Enlarge the text/graphics in the mirrored die plate

Select the graphic elements, not the circle, and with the Outline tool give them a black width of 0.25 mm. This will ensure that the negative plate fits nicely into the positive plate.



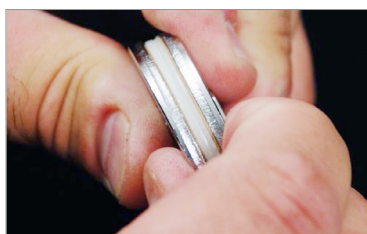
7. Engrave, clean and assemble the die plates

1. Engrave the plates to an engraving depth of .015 to .020.

2. Clean the plates by washing with water and a little soap or citrus-based cleaner and scrub brush to remove debris and dust.

3. Assemble the engraved die plates onto the Seal Die Holder. Paste the positive, (recessed female plate), onto the top and the negative, (raised male plate), onto the bottom of the Die Holder. The 'nose' pointed to the front of this Holder. Press together firmly to set the dies into the holder.

* Be sure to clean the optics of your laser before using again as the rubber dust may impede proper engraving.



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