Center Engraving

Fusion 1003 Properties			$\overline{\boldsymbol{i}}$ $\boldsymbol{\otimes}$
	General	Advanced Color Mapping	
Resolution: - 1200 - 600 - 400 - 300 - 200 - 150	Laser Type © CO2 © Fiber Job Type © Raster © Vector	Raster Setting Speed: Power: Freq.: Engrave Direction: Top-Down	
600 DPI - 75 Options Auto Focus Vector Grid Thickness: 0.000	© Vector © Combined Rotary Options © 3-Jaw Chuck Diameter: 0.100	Image Dithering: Standard Vector Setting Speed:	
Center-Engraving	Piece Size (inches) Horizontal: 8.50 Vertical: 11.00	Freq.: Optimize	
		ОК	Cancel

The Center Engraving Option allows you to define the center of your artwork as the primary reference point (Home position) of your engraving or cutting. The Center Engraving Option has been designed to be used in conjunction with the Jog feature on the Fusion Keypad. Center engraving differs from standard printing where the upper left corner of the page and the upper left corner of the laser table define your primary reference point. There are four options for centering your artwork:





4. Page-Center

Center-Center

It's important to think about setting up your artwork for Center-Center differently than you think about most jobs. Setup for most jobs that do not use the Center-Center feature begin with a determination of page size with the idea that the page size in your graphics package will match the actual size of your work piece. Additionally, the upper–left corner of the laser table is referenced to the upper-left corner of the page size you have set up in your graphics package. This makes it easy to visualize how your artwork will look on the work piece when it is finished. Think of this method as the "Upper-left justified" method.

When using Center-Center, the overall size of your work piece and the upper-left corner reference point are not important. With Center-Center engraving the important starting points are the size of your artwork and the available space for it on your work piece. With Center-Center you're interested in positioning the center of your artwork to a specific point on your work piece, no matter where your work piece is on the laser table. When using Center-Center you can place your artwork on almost any size of page and almost anywhere on that page. The detailed examples on the next few pages show how easy it is to think differently about Center-Center jobs.

As you read these instructions, you will find that there are four easy steps to using Center-Center.

- 1. Measure the size of the area that you have available on your work piece.
- 2. In your software package, size your artwork so that it will fit into that available space.
- 3. Use the Jog mode on the Fusion keypad to move your carriage (using the red dot pointer as your visual indicator) to locate the center of your work piece.
- 4. Set a temporary Home position by either single-clicking on the Joystick or by double-center-clicking to access the sub-menu and then tilt the Joystick to the left to Set 0. (To restore your Fusion to its standard upper left corner position after you are finished, double center-click the Joystick and tilt the Joystick to the right to Restore Home).
- 5. Print using the Center-Center option in the Dashboard.



Words of caution:

Whatever size page you use in your graphics package should also be used when setting the Page Size in the Dashboard driver.

There are some limits to the maximum size page you can use and the placement of your artwork on the page. If you have a mismatch with your artwork placement and your page size you will see a "*Position Error*" on the keyboard at the laser. You will need to adjust your page size and/or artwork placement and print the job over again if this happens.

- 1. If your page size in your graphics program is gigantic in relation to your artwork size, you may need to reduce the size of your page. There is no formula for what page size will not work, but normally the only time a job will not print is if the page size is way out of proportion to your image size.
- Also, don't place your artwork too close to the edges of your graphics page. If your artwork is too close to the edge of your page and the page size is too big you may need to adjust where you place your artwork.

The Center-Center concept is best illustrated with an example:

Example #1: Let's say a customer brings you an odd shaped piece that already has artwork on it and he wants to have a name engraved to finish the piece. Because of the shape of the piece, the location of the engraved name is not easily defined by using traditional X-Y coordinates.



1. To make engraving the name simple, use the Center-Center feature in the Dashboard driver to quickly and accurately place a name



- To set up your artwork, first measure how much engraving space is available on the work piece.
 - a) Measure the area (defined by the Land Lubber Award box) so you know Fewest Fish Caught! how much area is available for engraving. In our Why Me??!!!! example the box measures 2 inches x .4 inches (51 mm x 10 mm). b) Don't worry about the size of the whole piece. It's not as important for
- Open a page in Corel. The page size is not very important for using the Center-Center feature, so the page can be almost any size.



Note: If you are using a large page size, place your artwork towards the upper left corner of the page.



In this example we're going to use a small page that is 4" x 4" (102)Х 102 mm). Create your artwork so that it is sized to fit into the available engraving area. In this example, we sized the text to fit within the available engraving area. 18 point text fits nicely into our box. Notice that the exact location of where you place the artwork is not important.

At this point your artwork is ready.

Center-Center

work.

<u>Hint:</u> Remove the box you created in Corel, or print *Selected Only* when you print to the laser. The box is used only to define the available engraving area and you do not want to print it with the text.

After your artwork is ready, the next step is to set up the laser before printing.

Place the work piece in the machine and activate the Red Dot Pointer. We want to set a new Home position by using the Jog mode to move the carriage so the Red Dot Pointer is at the center of where you want to engrave. To move the carriage, go to Jog mode and use the Joystick to move the carriage. Set a new Home position by either single-clicking on the Joystick or by doublecenter-clicking to access the sub-menu and then tilting the Joystick to the left to Set 0. (To restore your Fusion to its standard upper left corner position after you are finished, double center-click the Joystick and tilt the Joystick to the right to Restore Home).

From CorelDraw select **File** | **Print** to prepare the job for printing.

Select *Preferences* to establish the laser parameters.

Click on the *Center-Center* selection and then set all other laser parameters as you normally would.

Make sure to set the page size in the driver to match the page size in Corel. Print the job to the laser.

Additional information about using the Center-Center feature:

When a Center-Center job has been sent to the laser, the Keyboard will indicate that it is a Center-Center job by displaying an asterisk (*) at the end of the job name as it is displayed on the LCD.



Where you place your work piece in the machine is not very important when using the Center-Center feature. Your new Home position defines where the engraving will take place, but you can get a "Position Error" if your artwork is going to go outside of your available work space.

Where you place your artwork on the Corel page is not too important. The size of your graphic just has to be sized so that it fits within the area available for engraving on your work piece. Your artwork can be placed almost anywhere on your page as long as it's not close to the page edge.