

Using Roland Registration Marker System

The Registration Marker System ensures precise contour cutting when fitted to the Roland cutters. This is delivered by registering black markers that are printed along the outside of the graphic. A sensor that is mounted at the bottom of the cutter's head carries out marker registration. Because of this registration process, the system can determine the exact position of the printed graphic.

The system can automatically compensate for the following errors:

- **Misaligned Media** - will rotate the cut contour to match the graphic's contour in the event the media is not loaded evenly into the cutter. Crop marks cannot be read if the media is tilted more than 5 degrees or shifted more than 15mm in the feeding direction
- **Skew** - If the X and Y Axes of the printed graphic are not perpendicular, the cut contour can be skewed to fit the printed graphic
- **Scale** - If the printed graphic differs in size from the graphic as it appears in the software due to media expansion, media shrinkage, or printing inaccuracies, the cut contour can be scaled to fit the printed graphic.

Preparing the Cutter

Ensure the cutter is configured to Rotate 0 (zero) mode. This is the default mode of the machine.

Create the graphic

1. Use your software to create the graphic you wish to contour cut. Always design the graphic at the same size you want to print it.



2. Create a cutting contour around the graphic. Use the **Print and Cut** tool (Tools menu) to generate the cutting contour. See the Help topics for more information.



Insert the registration markers

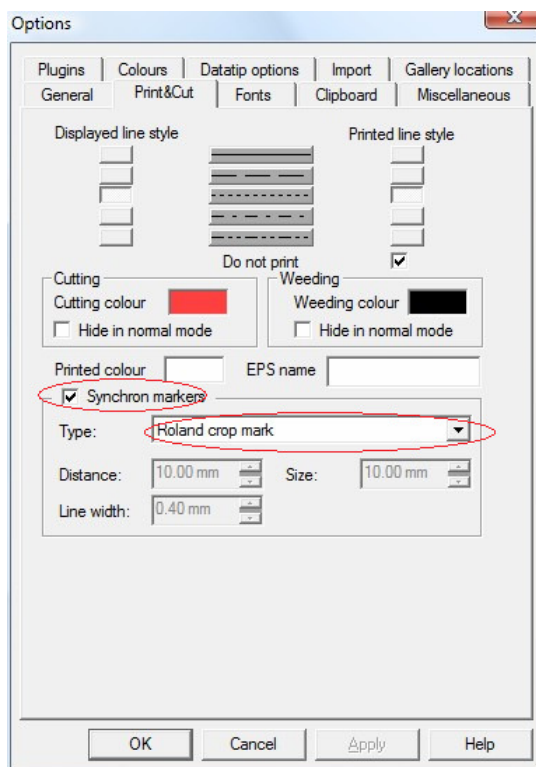
The marker must be a black circle with a 10mm diameter.

To do this you must:

- Enable the Roland cropmark system.

Enabling the Roland cropmark system

1. From the View menu choose *Options*. The Options dialog appears.
2. Click the Print & Cut tab. The Print & Cut options are now visible.



3. Enable Synchron markers by clicking the checkbox, then enable *Roland cropmark* by choosing from the list.

Print the graphic

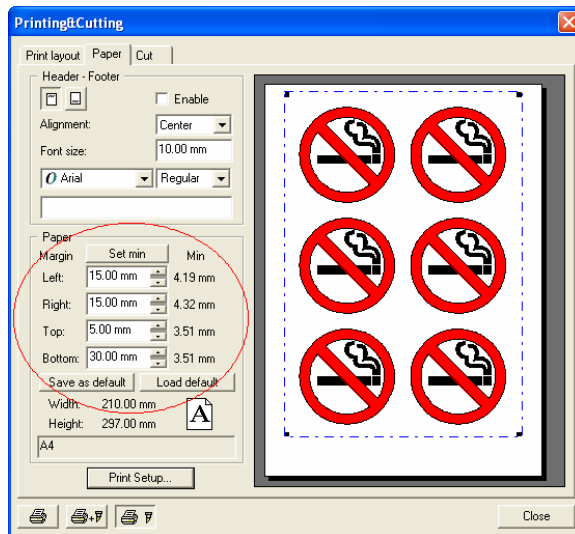
Before printing you should check the page margins.

Setting the page margins

Most cutting plotters cannot cut to the edge of the loaded sheet. Typically a cutting plotter cannot cut closer to the edge than about 15mm at the sides, 25mm at the front and 50mm at the rear. For this reason you should ensure that you leave a sufficient margin around your print job to allow for the cutting margin. Roland recommends margins are set as Bottom=20mm, left and right sides=15mm and Top=57mm.

To set the page margins

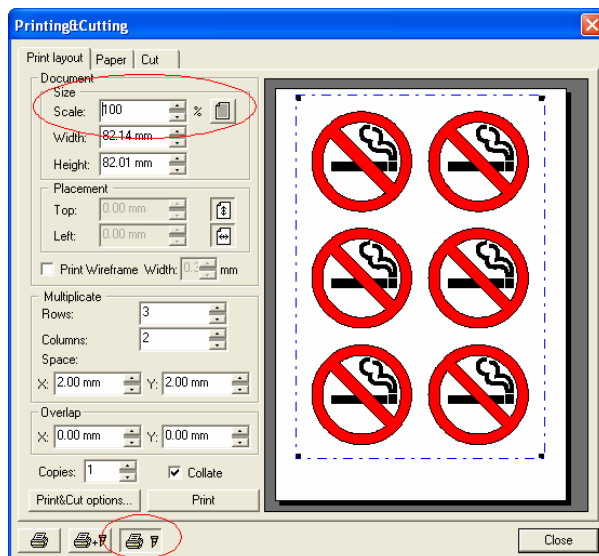
1. From the File menu choose *Print*. The Print dialog appears.
2. Click the *Paper* tab.




3. Define the Left, Right, Top and Bottom margins according to your cutters requirements (L=15mm, R=15mm, T=57mm, B=20mm).

To print the graphic

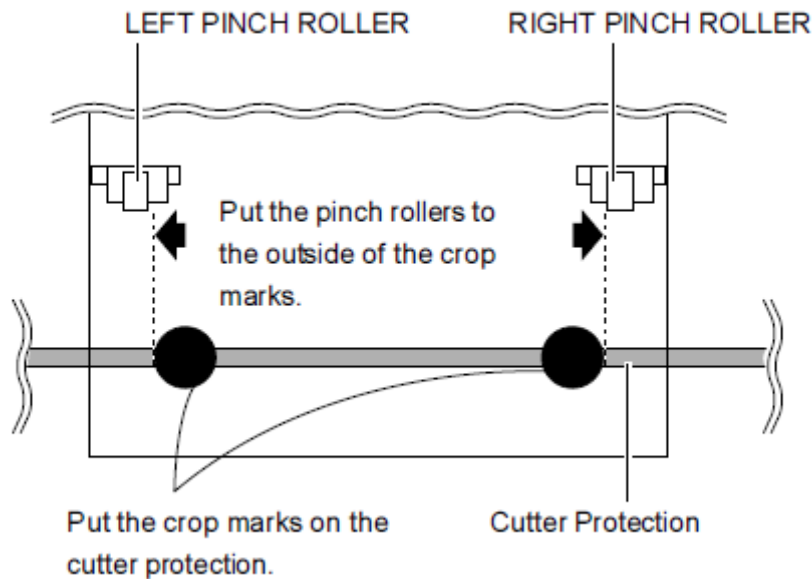
1. From the File menu choose *Print*. The Print dialog appears.




2. Ensure the scale is set to 100%.
3. Select the 3rd button at the bottom of the Print dialog 
4. Click *Print*.

Loading the media into the cutter

Load the printout into the cutter as described in the users guide. You should choose the option “PIECE” when loading the sheet and then move the sheet to put the crop marks directly over the cutter protection strip. If you use a bottom margin of 20mm there is no need to move the sheet.



Cutting the contours

1. If the Print dialog is not visible, choose *Print* from the File menu.
2. Select the 3rd button at the bottom of the Printing dialog 
3. Ensure the option *Use auto synchronisation* is enabled.
4. Click the Cut tab.
5. Click the *Cut* button. The necessary registration commands will be sent, then all the markers will be sensed automatically and the contours will be cut.