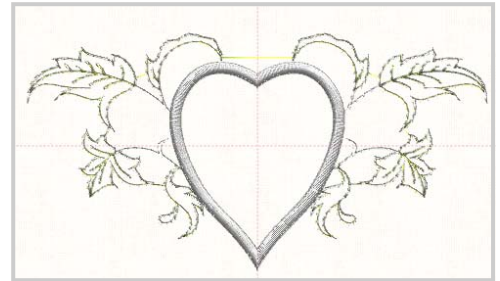


## Traditional Cutwork

Notes:

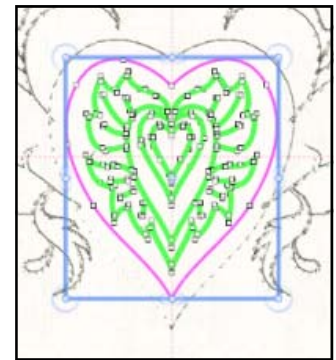
### Method 1: Adding Cutwork to a Vector

- Open *BERNINA CutWork Software*.
- Make sure that *Create New* is selected in the wizard.
- Click *Next*.
- Place a dot in front of *From File*.
- Click on *Browse*.
- Navigate to the *Bernina Cutwork Samples* folder.
- Select *ASC 00058.cmx*.
- Click on *Open*.
- Click on *Next*.
- In the Fabric dialog box, open the *Embroidery Normal* category by clicking on the +.
- Select *Linen 3* from the *Fabric Type* and choose a background color.
- Click *Next*.
- In the Color Reduction dialog box, click *Finish*.



### Adding Cutwork

- Click on the Zoom In icon and draw a bounding box around the design.
- Select the heart, right click, and select *Break Apart* from the menu.
- Select the outer heart again, right click, and select *Break Apart*.
- Draw a bounding box, excluding the larger heart, but including all lines of the next largest heart.
- Right click and select *Delete* from the menu.
- Select the heart; click on the *Cutwork* icon.
- In *Object Properties*, place a check mark in front of *Running Before*. Change the *Offset* to 1 and *Passes* to two.
- Place a check mark in front of *Net Fill*. Change the *Offset* to 1.5 mm, the *Cell Size* to 2 mm, and the angle to 0°.
- Place a check mark in front of *Satin Serial*. Change the *Offset* to 1.
- In *Tool Options*, change the *Outline* value to 3 mm. Hit *Enter*.
- Select *Edit> Select All*.
- Left click on the upper left hand corner of a color chip in the Thread Palette to convert to a one-color design.
- Select *File> Save As*. Navigate to the location to save the file. Name the file, *Cutwork from Vector*.
- Click on *Save*.
- *Export* the design to the machine of your choice.



You may also delete parts of the design by selecting *Delete* on your keyboard.

If the colors revert, select *Ctrl A* and click on the upper left hand corner of a color chip in the Thread Palette.

If *Object Properties* is not open, go to *View> Toolbars> Object Properties*.

To open *Tool Options*, go to *View> Toolbars*. Place a check mark in front of *Tool Options*.

### Method 2: CutWork from Embroidery Design

- Open *BERNINA Embroidery Software*.
- Click on *File> Open*.
- Navigate to the *Florals* folder and select *FQ037*. Click on *Open*.



- Select the design.
- Click on *Ungroup*.
- Open *Color Film* and select the light grey stitching.
- Hit *Delete* on the keyboard.
- Select *File> Save As*.
- Navigate to the desired location to save the file.
- In *Save As Type*, select *BERNINA USB Stick (\*.exp)* or *Melco (\*.exp)*. Click *Save*.
- Open *BERNINA CutWork* software. Select *File> New* if the wizard is not open.
- Make sure that *Create New* is selected in the wizard.
- Click *Next*.
- Place a dot in front of *From Embroidery*. Click on *Browse*.
- Navigate to the location of the saved file and select it.
- Click on *Open*. Click on *Next*.
- In the Fabric dialog box, open the *Embroidery Normal* category by clicking on the +.
- Select *Linen 3* from the *Fabric Type* and choose a background color.
- Click *Next*. Click *Finish*.



## Adding CutWork



- Select the *Zoom In* icon and draw a bounding box around the rose.
- Select the *Create Freehand Shapes* icon. (Or *Bezier*; or *Outline*)
- Draw around the outermost edge of the rose, making sure that the last drawn point meets the first drawn point to enclose the shape. Place this line close to the inside edge of the satin stitch around the rose.
- Hit the space bar to select the drawn line.
- Select the *Edit Node* icon.
- Edit the drawn line as needed. (see information to right)
- Hit the space bar.
- Click on the *Cutwork* icon.
- In *Sequence Manager*, select the cutwork layer and move into first position by dragging into place.
- Place a check mark in front of *Running Before* and change the *Offset* to 1; the *Passes*, to 2.
- Place a check mark in front of *Net Fill*. Change the *Cell size* to 1, *Offset* to 1, and the *Angle* to 45°. Hit *Enter*.
- Select *File> Save As*. Navigate to the location to save the file.
- Name the file, *Adding Cutwork to Embroidery Design*.
- Click on *Save*. *Export* to the machine of your choice.

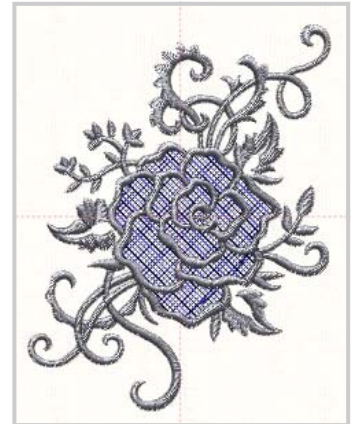


## Method 3: Creating a Cutwork Design

- Select *File> New*. Make sure *Create New* is selected.
- Click on *Next* in the wizard.
- Select *New Graphic* and select a hoop size. Click *Next*.

## Notes:

If you have other cutwork designs, you can import directly into CutWork software by selecting *From Embroidery* in the Wizard. CutWork software will open many types of embroidery formats.



## EDITING NODES

Select a node by clicking on it. It turns blue.

### To add a node:

Right click on the line where you wish to add the node and select *Add node* or simply double click on the position. A smooth node is always added.

### To delete a node:

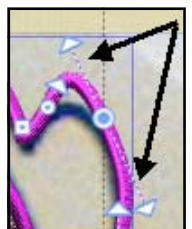
Right click on the node and select *Delete node* or select the node and press delete.

### To change a node:

Select the node you wish to change, right click and select the opposite type from the menu. A smooth node creates curves; a cusp node creates points and straight lines.

**To move a node:** Select the node and drag it into a new location.

**To reshape the outline,** you may also change the direction or shorten/lengthen the control handles.



- Select the type of fabric and the color of the background.
- Click *Finish*.

## Intersect Tool



- Select the *Create Ellipse* tool.
- Draw a circle while holding the *Ctrl* key.
- Hit the space bar to select the object.
- Make sure *Proportional* is checked in Tool Options.
- In *Tool Options*, change the height to 55 mm. Hit *Enter*.
- Select *Edit> Copy*. Select *Edit> Paste*.
- Use the right arrow key to move the copy to the right of the first object.
- Select *Edit> Select All*.
- Click on the *Intersect* icon.
- Move the created shape away from the intersecting circles. Select the intersecting circles and delete.



## Apply Circular Array

- Add guidelines to the design by clicking on the horizontal and vertical rulers and dragging the guidelines to the horizontal center and vertical center of the design screen.
- Select the created shape and move the design so that the lower point of the design is placed at 0,0. Zoom in for accuracy.
- Select the *Create Circular Array* icon.
- In *Tool Options*, change the *Start Angle* to 90°, the *End Angle* to 90°, and the *Step Count* to 6.
- While holding the *Shift* key, move the object at 90° position away from the 0,0 point.
- Click *Apply Circular Array* bar in the dialog box when pleased with the arrangement of the array. Make sure it is within the hoop.
- While the shapes are all selected, click on the *Cutwork* icon to add cutwork to the shapes.
- Place a check mark in front of *Running Before* and change the *Offset* to 1 mm.
- Place a check mark in front of *Satin Serial*. Change the *Outline* value in *Tool Options* to 3 mm.
- Hit *Enter* to activate the changes.



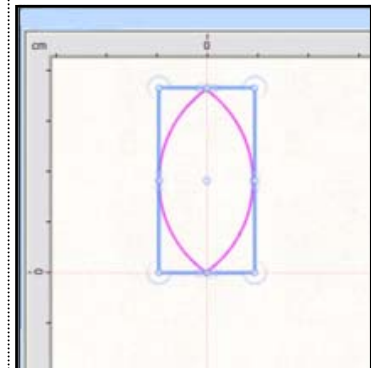
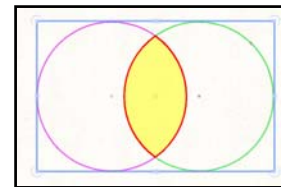
## Weld Tool

- Select the *Create Polygon Tool*.
- In *Tool Options*, change the *Number of Sides* to 3.
- Make sure the *Start Angle* is 90° in *Tool Options*.



Click on the black triangle in the lower right hand corner if the *Create Ellipse* icon is not visible on the *Toolbar*.

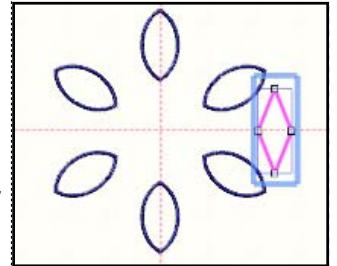
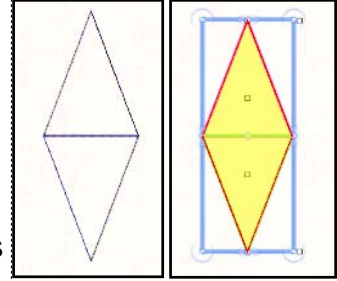
*Holding the Ctrl key while drawing a shape snaps the shape on diagonal guidelines.*



*Holding the Shift key while moving the original object will keep the object from rotating off the axis as it is being moved. Click on the center control handle of the object to move it.*

*To display hoop, select *View* and make sure there is a check mark in front of *Hoop*.*

- Draw a triangle by clicking and dragging your mouse down.
- Hit the space bar to select the triangle.
- Make sure *Proportional* is unchecked in Tool Options. Change the width to 24 and the height to 30. Hit *Enter*.
- Select *Edit> Copy*, then *Edit> Paste*.
- Select *Mirror Y*.
- Move the copy so that the edges of the triangle just meet as pictured to the right. Zoom in for accuracy.
- While holding the *Ctrl* key, select each triangle.
- Select the *Weld* icon.
- Resize the diamond shape if necessary by clicking and dragging on a corner handle to resize proportionately.
- Move the diamond object so that the left center point is at 0 on Y axis and is positioned between the objects of the array as desired.

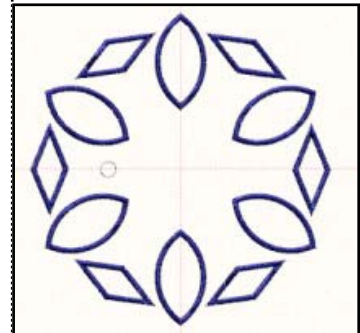


## Apply Circular Array

- Click on *Create Circular Array*.
- Change the values in *Tool Options* to *Start Angle 0*, *End Angle 360*, leave the *Step Count* at 6.
- If you wish to move the diamond array in relation to the first array, hold the Shift key down and move the diamond at the 0° position.
- When pleased with the arrangement, click *Apply Circular Array*.
- Select the *CutWork* icon to add cutwork to this array.
- Place a check mark in front of *Running Before* and change the *Offset* to 1 mm.
- Place a check mark in front of *Satin Serial*. Change the *Out-line* value in Tool Options to 3 mm. Hit *Enter*.

## Adding Eyelets

- To create an eyelet, select the *Create Ellipse* icon.
- Hold the *Ctrl* key down and draw a small circle.
- Hit the space bar to select the circle.
- In *Tool Options*, change the height and width to 8 mm.
- Hit *Enter* to activate.
- Move the eyelet to the Y axis at 180° position.
- Select *Create Circular Array*; changing the *Start Angle* and *End Angle* at 180° and keeping the *Step Count* at 6.
- Apply the array.
- Add Cutwork, Running Before with an Offset of 1, and add Satin Serial, changing the width to 3 mm.
- *Edit> Select All*.
- Right click and select *Combine*.



*By combining these cut-work shapes, the cutting function will be done more efficiently.*



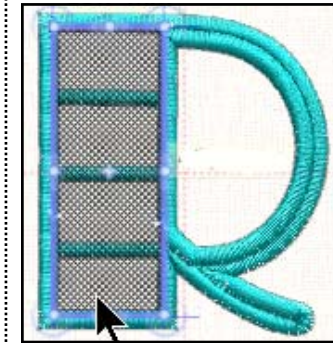
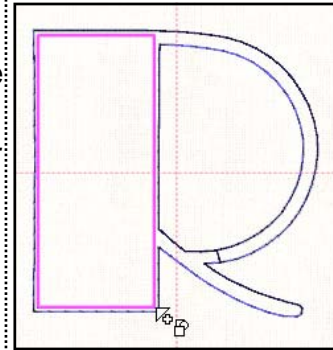
## Adding an Initial.



- Select the *Edit Text* icon.
- Select *Broadway* from the Font Choices.
- Click in the center of the circle and type your desired initial.
- Select the *Rectangle Selection* icon to select the letter.
- Change the size of the letter as desired.
- Select the initial and while holding the *Ctrl* key, select the surrounding cutwork shapes.
- Click on *Align Vertical Centers* and *Align Horizontal Centers*.
- To add cutwork to part of the letter, select the *Create Rectangle* icon and draw a rectangle shape within the wider part of the letter. Hit the space bar to select.
- Click on the *CutWork* icon and add a *Running Before* stitch with 2 passes and a 1.5 mm offset. Do not add a *Satin Serial* to the cutwork rectangle.
- Select the letter, click on *Satin Serial* and change the *Outline* value in *Tool Options* to 2.5 mm. Hit *Enter*.
- Change the color of the letter to create a color stop by left clicking on the upper left hand corner of a color chip in the *Thread Palette*.
- Select *Edit> Select All*, right click, and select *Group*.
- Select *File> Save As*.
- Navigate to the location to save the file.
- Name the file, *Created CutWork* and click on *Save*.



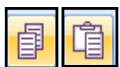
You can change the shape proportionately by clicking and dragging on the corner of the selection box around the object.



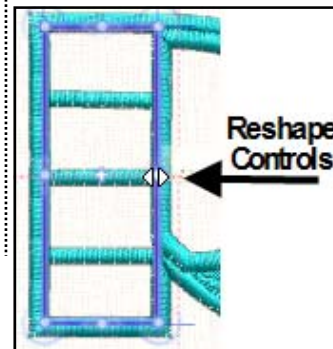
## Add a Border



- Select the *Create Polygon* tool.
- Change the number of sides to 6 and draw a hexagon large enough to surround the design.
- Hit the space bar to select the hexagon.
- Change the color of the hexagon to a different color by clicking on the upper left hand corner of a color chip in the *Thread Palette*.
- Select *Edit> Select All*.
- Click on *Align Centers Horizontally* and *Align Centers vertically*.
- Select the hexagon and click on *Copy*; then *Paste*.
- Select the original hexagon in *Sequence Manager* and apply *CutWork*. Add a *Running Before*, *Offset* of 2.
- Select the copy of the hexagon and click on *Satin Serial*. Place a check in front of *Offset* with a values of -3mm.
- Change the width of the *Outline* value to 8 mm.
- Select the *Zigzag* option for the satin stitch in *Object Properties*. Click on *Save*.



After adding the *CutWork*, make sure that the cutting lines will be to the inside of the satin stitch of the letter. You can reshape the *CutWork* area if needed.



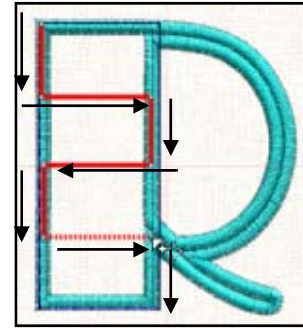
## Adding Richelieu Bars in CutWork



- Make sure everything is deselected. Zoom In.
- To add Richelieu bars to the cutwork letter, first choose another color that hasn't been used by clicking on the upper left hand corner of a color chip in the Thread Palette.
- In the dialog box that opens, make sure that "Make that color default for new graphic objects" is checked and that "For that design only" is also checked. Click OK.



- Select the *Create Bezier Shapes* icon.
- Beginning in the upper left corner of the rectangle, toward the outside edge of the satin stitch of the lettering, left click while holding the Ctrl key and work your way down and across the letter with a series of left clicks. (See first diagram at right; place a click at the beginning and end of each arrow).
- Right click to activate.
- Repeat the path back up the letter, staggering the outline stitches so they are not directly on top of one another across the letter. Once again, hold the Ctrl key as you are left clicking. Place the lines toward the outside edge of the satin stitch.
- Right click to activate.
- For the last path, select another color, repeat the order of the first diagram, but right click two times at the end of each left click segment to create separate objects. This will allow you to create different object properties for the segments. (see diagram)
- Click on the *Rectangle Selection* tool and select the segments that go across the letter while holding the Ctrl key.
- Click on *Satin Serial* and change the value of the Outline in Tool Options to 2 mm. Hit *Enter*.
- While they are selected, place a check mark in front of *Underlay* in *Object Properties* and select *Zigzag+* for the underlay type in the drop down selection.
- In *Sequence Manager*, select the Richelieu Bar segments (as they were drawn from beginning to the end) while holding down the Ctrl key. Drag them to stitch before the initial.
- While they are all selected, click on the upper left corner of the color chip that was used for the initial.
- Drag the cutwork rectangle to the second layer (the layer after the combined cutwork objects).
- Save the file.



Selecting the Backspace key will erase one click at a time.

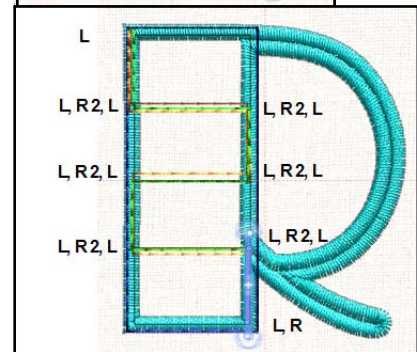
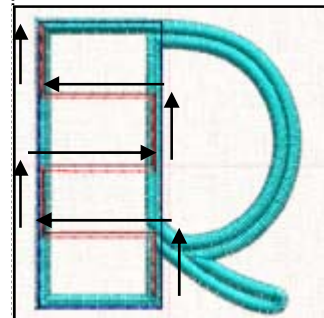
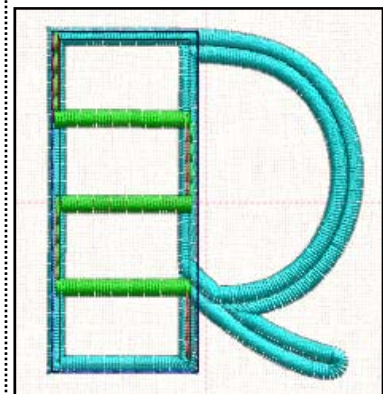


Diagram indicates mouse clicks.



The segments that are buried in the satin stitch of the lettering will be running stitches between the satin stitches and will prevent jump stitches.