



# Rotary Blade

GUIDE 

## Rotary Blade Guide

The Rotary Blade for Cameo 4 allows you to cut materials like fabric, felt, and leather without any special stabilizer. While this opens up additional cutting options, there are a few recommendations you'll need to follow in order to get the best cutting results with your Rotary Blade.

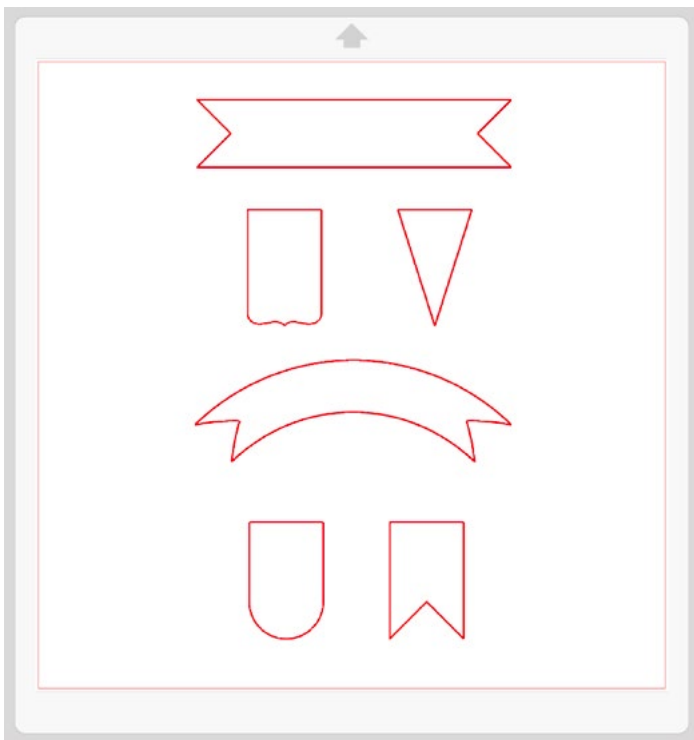
Because of the way the Rotary Blade moves within the blade housing and the way the cutting machine must orient the blade before it starts making a cut, there are some designs that are not recommended, particularly designs with lots of detail. The Rotary Blade is not recommended for applique cutting; it is best used to cut designs that are large and have no intricate details. In addition, the Rotary Blade is most effective when cutting long, straight lines and designs that are large and simple.

### HOW DOES CUTTING WITH A ROTARY BLADE WORK?

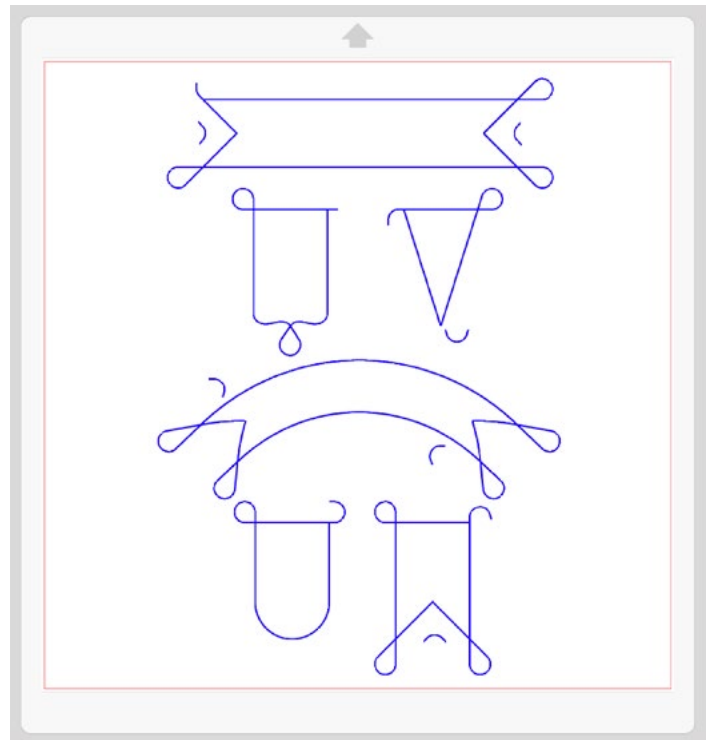
In order to maneuver the Rotary Blade for specific types of curves or cuts, the Silhouette Studio® software inserts curves—often referred to as loops and hooks—on the cutting surface (that don't cut all the way through the material). The loops and hooks are placed away from the design, and the Rotary Blade will lift and move to these marked areas and press down to swivel to move the direction of the blade. The Rotary Blade will then move over to the design and proceed to cut. These actions are necessary to help reorient the Rotary Blade when it needs to move in a different direction to complete the cut.

When you are preparing to send your design to be cut and you set up the design for a Rotary Cut, this is what you'll see in Silhouette Studio®:

#### STANDARD CUT LINES



#### CUT LINES WITH LOOPS & HOOKS



When a design is intricate or small and round, Silhouette Studio® will put in the appropriate loops and hooks to orient the Rotary Blade, but that may not be enough to orient the blade correctly. That is why we have created the following guidelines.

Please be aware of the following when cutting designs with the Rotary Blade:

**1. Design Size**

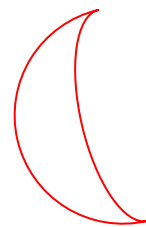
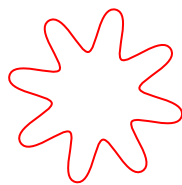
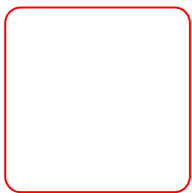
If the design is smaller than 1.5 inches (about 38 mm), the Rotary Blade may cut an offset that is bigger and less accurate than the intended design created in Silhouette Studio®.

	Cut line in Silhouette Studio®	Rotary Blade cut	Difference between digital cut line and actual cut line
Circle that is smaller than 1.5 inches			
Circle that is bigger than 1.5 inches			

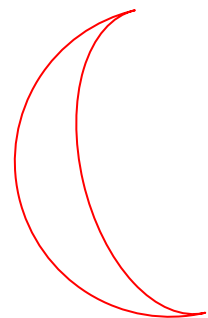
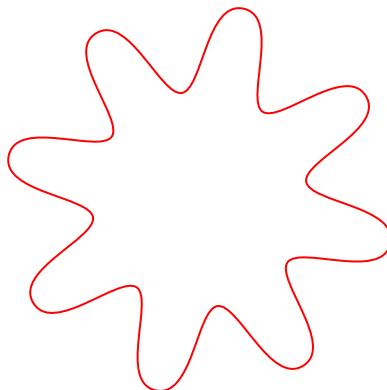
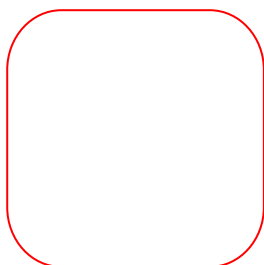
**2. Material Thickness**

The thicker the material, the more drag there will be in the cutting action, making the cuts less accurate. For more precise cuts in thicker material, make sure the designs are large and don't have sharp curves.

**NOT RECOMMENDED**



**RECOMMENDED**

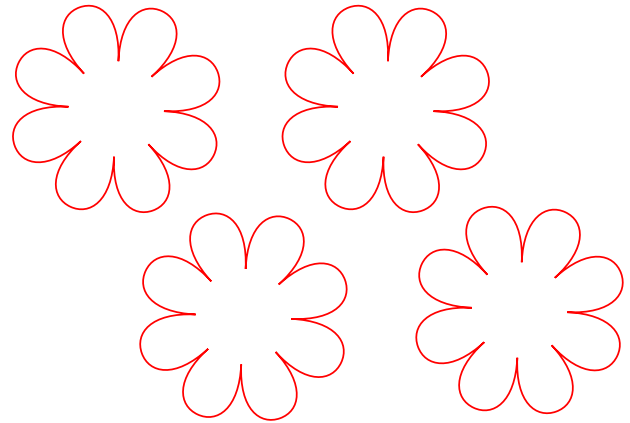
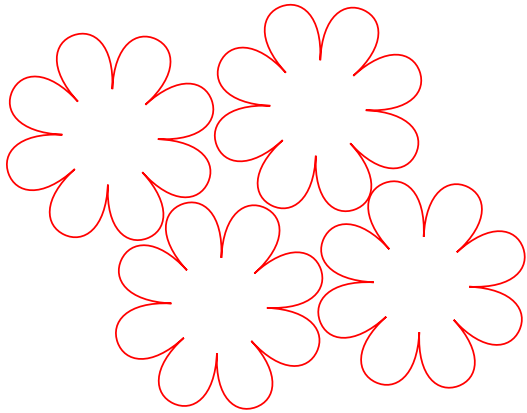


### 3. Spacing Between Designs

Keep a minimum of 0.1 inches (2 mm) of space between designs when cutting. This spacing is critical in order to prevent any accidental crossover of the blade cutting into adjacent designs. If the designs are smaller than 1.5 inches, it's a good idea to increase the space in between designs to prevent any overlapping cuts.

#### NOT RECOMMENDED

#### RECOMMENDED



### 4. Shape of Designs

Rounded parts of designs should have a radius of at least 0.25 inches. If the material is more dense (thicker fabric, leather, etc.) then rounded parts should have a radius of at least 0.5 inches.

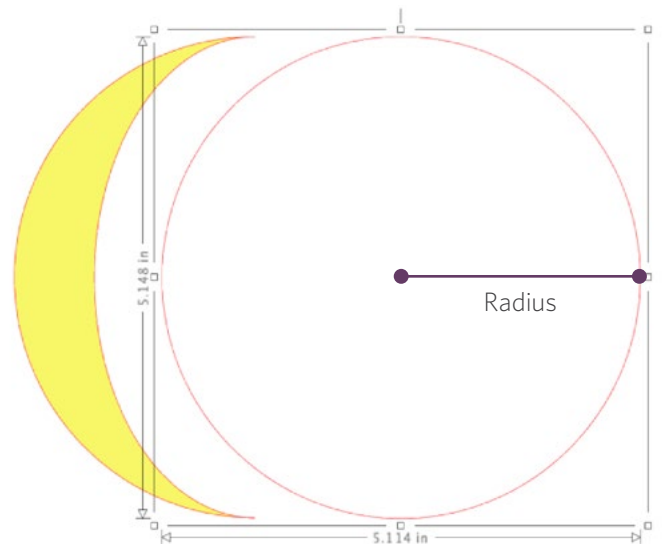
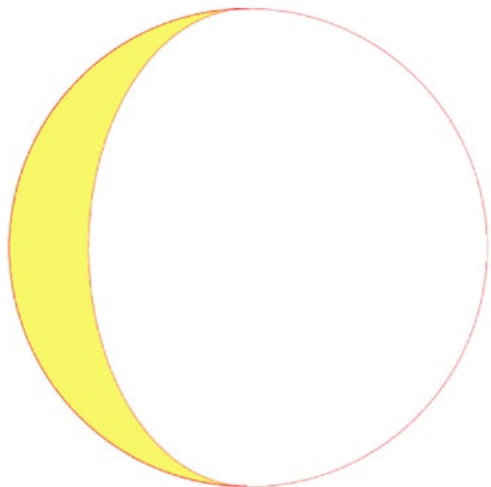
One way you can measure the radius of a rounded design is to use the Line tool to draw a line from the peak of a curve to where the center of the complete design would be—this is called the radius of the curvature.

#### How to find the radius

If you are using software that doesn't measure the radius curvature automatically and if you are having a hard time visualizing where the center of a rounded shape would be, use the Circle tool to complete the symmetry of the rounded design. Then select the circle you've just created to view the width. Divide the width in half—this is your radius.

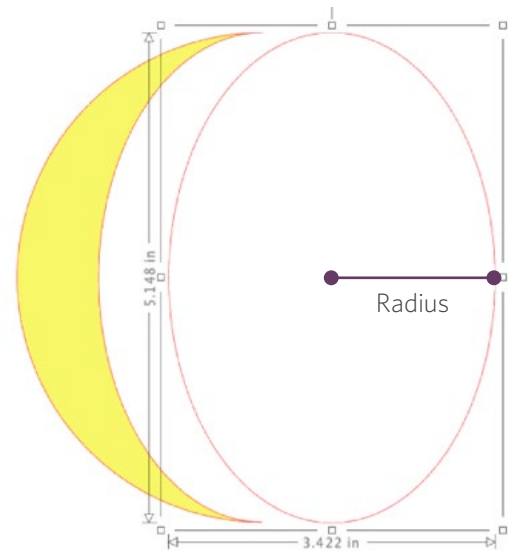
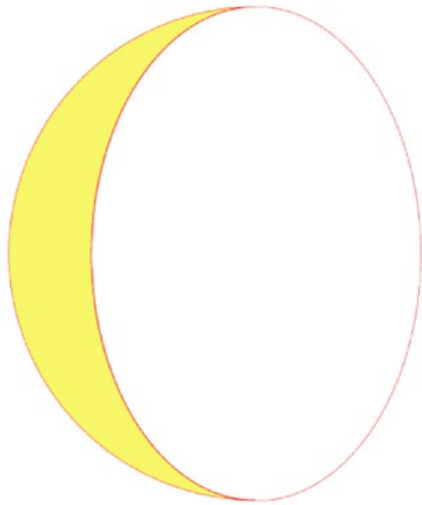
Take this crescent, for example. There are two different radii we need to find because there are two different curves. Let's start with the outer curve first—this will be Radius A. Draw a circle with the shape tool. You can check the size by placing the circle over the crescent shape and make adjustments from there. Make sure you have the circle selected. You'll see at the bottom of the selection box that there is a measurement of the width of the circle. To find the radius of a circle, you divide the width in half. This circle is 5.114 inches wide, so Radius A would be 2.557 inches.

#### RADIUS A



Repeat the same process for the other curve. This circle is going to be more like an oval. The height of the circle will remain the same, so change the shape of the circle by taking one of the side adjustment handles and moving it toward the middle of the circle until the curve of the circle matches the remaining curve of the crescent. Select the oval shape, view the width measurement, and divide the width in half to find your radius—this will be Radius B.

## RADIUS B



The radii of this crescent design measure 2.557 inches (Radius A) and 1.711 inches (Radius B). Those measurements fit within our recommended parameters, so this cut will most likely turn out as expected.

## MORE INFORMATION

For more information and inspiration on using this tool, be sure to check out [www.silhouette101.com](http://www.silhouette101.com) and follow Silhouette on our social media pages. If you have any questions or concerns, please visit [www.silhouetteamerica.com/contact](http://www.silhouetteamerica.com/contact).