Density

Density is determined by the distance between stitches. The lower the number, the more stitches in an area or the closer together the stitches are.

Select Density from 2 to 80 for Satin and Pattern Fill, or 2 to 15 for Satin Border.

Satin Density 5 is recommended when converting to an Output Size of 8mm or less, and Density 4 when converting to an Output Size of 9mm or more.

To embroider on heavy knitwear or towelling, select more stitch coverage than on lighter weight fabric such as twill. For embroidery with light colored thread on a dark fabric select a lower density value for better coverage.

Examples use Fill Pattern 36 at Angle 0.
Fill Angle

Examples use Fill Pattern 56 at Density 2.

Vary the angle of stitching in Pattern Fill to any degree. Changing the angle of the stitch creates different textures and changes the way light reflects off the stitch for a different look. This is a different effect from the patterns in Satin Fill, which follow the contours of the shape.

See the Premier+™ Fill Patterns Guide for examples of all the patterns available for Satin and Fill.
Satin Border Width

Select border width between 1mm and 12mm. Select density of 2 to 15. Select Underlay to automatically add edge walk underlay for border widths of 2mm or more.

When used as Pattern Fill + Satin Border, the Satin Border is initially red.

Examples use Fill Pattern 139 at Density 2 and Angle 0.
Appliqué

Select border width between 1mm and 12mm. Select density of 2 to 15.

Appliqué uses double stitch to hold down the Appliqué fabric, followed by a Stop command to allow trimming. An alternative method also places a running stitch outline on the base fabric first, followed by a Stop command. This stabilizes the base fabric and guides placement of the appliqué fabric.

Independently set the Running and Double Stitch length between 1 and 6mm.
## Recommended Sizes

<table>
<thead>
<tr>
<th>Stitch Type</th>
<th>Output Size Range</th>
<th>Recommended Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satin</td>
<td>7mm to 50mm</td>
<td>12mm to 30mm</td>
</tr>
<tr>
<td>Pattern Fill</td>
<td>10mm to 200mm</td>
<td>20mm to 120mm</td>
</tr>
<tr>
<td>Pattern Fill + Satin Border</td>
<td>50mm to 200mm</td>
<td>80mm to 120mm</td>
</tr>
<tr>
<td>Satin Border</td>
<td>50mm to 200mm</td>
<td>80mm to 120mm</td>
</tr>
<tr>
<td>Appliqué</td>
<td>50mm to 200mm</td>
<td>80mm to 120mm</td>
</tr>
<tr>
<td>Outline</td>
<td>25mm to 200mm</td>
<td>50mm to 120mm</td>
</tr>
</tbody>
</table>

- **Satin at 25mm**
- **Pattern Fill at 50mm**
- **Satin Border at 50mm**
- **Appliqué at 50mm**
- **Pattern Fill + Satin Border at 50mm**
Examples

12345
Once I caught a fish alive
Hickory Dickory Dock
Polly put the kettle on!

STOP
GO
ball game
One Two Buckle my shoe
Three four COME IN