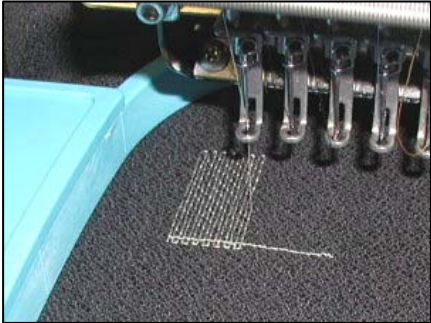





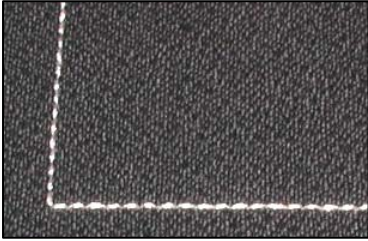
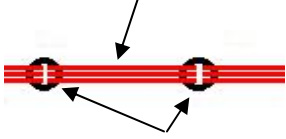


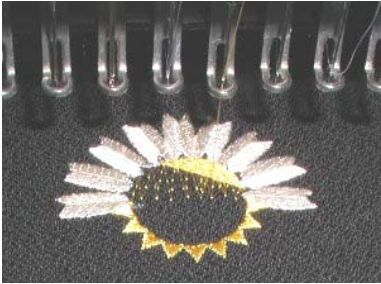
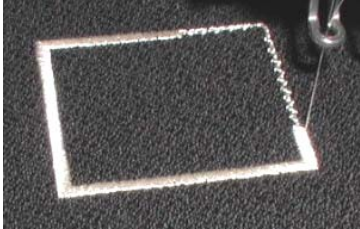
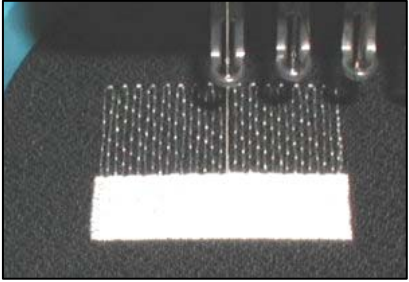

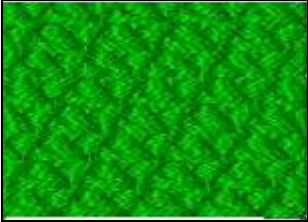






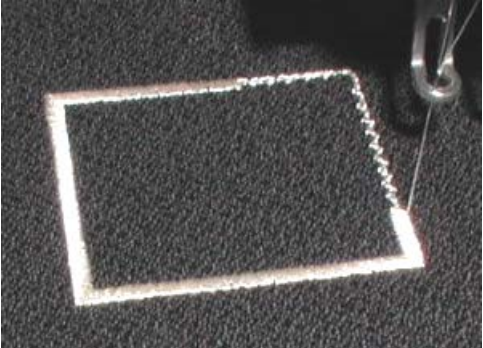


## COMMON EMBROIDERY STITCH MATRIX

SEAM UNQUALITY PHOTO OR DRAWING	DESCRIPTION	EXAMPLES	STITCH ESTIMATING GUIDE
 <p style="text-align: center;"><b>RUNNING OR WALKING STITCHES</b></p>	<p><b>“Running” or “Walking” stitches</b> consist of a single line of stitching primarily used for outlining and detail work. They are also used as the foundation of most “underlays” and “Fill” stitches. Areas that are under 1mm in width are usually done with a running stitch.</p>		<p>Single running line = 12 per inches  </p> <p>Double running line = 25 per inches (Normal Outlining Stitching)  </p> <p>Triple running line (Bean Stitch) = 37 per inch  </p> <p>4 ply running line = 48 per inch. Would be alternative to a thin satin stitch.  </p>
 <p style="text-align: center;"><b>BEAN STITCH</b></p>	<p><b>“Bean” stitches</b> - consists of forming three stitches between two points primarily used for outlining work. “Bean” stitches are more pronounced than Running Stitches.</p> 		<p>Triple running line (Bean Stitch) = 37 per inch  </p>
 <p style="text-align: center;"><b>UNDERLAY STITCHES</b></p>	<p><b>“Underlay” stitches</b> - are used as a foundation of most embroidery patterns. Stitches in a design that are put down before the design stitches, used to stabilize the fabric or raise the design so that the fine detailing is not lost.</p>	<p>Underlay stitches being put down before Satin Stitches.</p> 	<p>Underlay stitches should be calculated either using the Running Stitch or the Satin Stitch information.</p>

## COMMON EMBROIDERY STITCH MATRIX

 <p style="text-align: center;"><b>FILL STITCHES</b></p>	<p><b>"Fill" or "Tatami" stitches</b> - are used to cover large areas. There are many different "Fill" stitch patterns and they can differ in direction, angle, and pattern. "Fill" stitches are used to cover large areas.</p>		<p><b>1 square inch of "Fill" stitches at a normal density with a stitch of 6mm = 1000 stitches.</b></p> <p>This would be a basic "Fill" to cover an area with no stitching on top.</p>
 <p style="text-align: center;"><b>FILL STITCHES</b></p>	<p><b>"Fill" or "Tatami" stitches</b> – With today's modern digitizing programs, there are many "Fill" stitch patterns that can be selected to give varying design appearance.</p> 	<p>Some "Fill" patterns are very complex, while other patterns are relatively simple. On certain fabrics, it is sometimes desirable to run the "Fill" on an angle so that the thread does not lay down in the weave of the fabric.</p> 	<p><b>1 square inch of "Fill" stitches at a normal density with a stitch of 4 mm = 1500 stitches.</b></p> <p>This is normally used as a basic "Fill" to cover an area that would then have lettering or other stitching on top. The stitch length is shortened to prevent the stitches from pulling apart when the additional stitching is put on top.</p>
 <p style="text-align: center;"><b>FILL STITCHES - CURVED FILL</b></p>	<p><b>"Fill" or "Tatami" stitches</b> - Curved "Fills" are also becoming more popular in the industry. Using a "Fill" stitch in a curve can add more dimension to a design. This type of stitch is very useful for hair and water.</p>		

## COMMON EMBROIDERY STITCH MATRIX

 <p style="text-align: center;"><b>SATIN STITCHES</b></p>	<p><b>"Satin" stitches or "Column" stitches</b> - consists of zigzag stitches laid down very close together at any angle and with varying stitch lengths. Common-ly used for lettering and outlining. Satin stitches can range in width from 1.5 mm to 8 mm, however, the wider the satin stitch, the more susceptible they are to snagging and abrasion.</p>	<p>Wider "Satin" stitches are more susceptible to snagging and abrasion and are not generally recommended for childrenswear.</p> 	<p>6 – 8 mm in width = 175 stitches per running inch. 200 stitches with underlay.</p> <p>4 – 6 mm in width = 150 stitches per running inch. 180 stitches with underlay.</p> <p>3 – 4 mm in width = 138 stitches per running inch. 165 stitches with underlay.</p> <p>2 – 3 mm in width = 125 stitches per running inch. 150 stitches with underlay</p> <p>1 mm satins = 100 stitches per running inch. 115 with underlay.</p>
 <p style="text-align: center;"><b>SATIN STITCHES</b></p>	<p><b>"Satin" stitch lettering-</b> stitch width and stitch density are very important in giving quality lettering. Corners should be sharp and crisp and not bulging. "Short" stitches can be digitized to minimize bulging corners.</p>		<p>5 mm letter in Height = 100 stitches.</p>
			<p><b>CONVERSION INFO.</b></p> <p>3.2 mm = 1/8"</p> <p>6.4 mm = 1/4"</p> <p>9.5 mm = 3/8"</p> <p>12.7 mm = 1/2"</p> <p>19.1 mm = 3/4"</p> <p>25.4 mm = 1"</p>