

Design Density - Learn the Number of Stitches Per Inch

Learn to calculate the number of stitches per inch in your embroidery designs to gain a new perspective on how dense they are. Every design will have a number and you can use the stitches per inch as one of your guides on building your stabilizer recipe. Designs with 2-400 stitches per inch are quite lite and average design will be from 500 to 1000 stitches per inch. However you may encounter designs with a much as 20000 stitches per inch and the general idea is the higher the density the more stabilizer you may need to use.

How to learn the design density

Step 1

Calculate number of
Square Inches

Length

\times

Width

= Square area

How to learn the design density

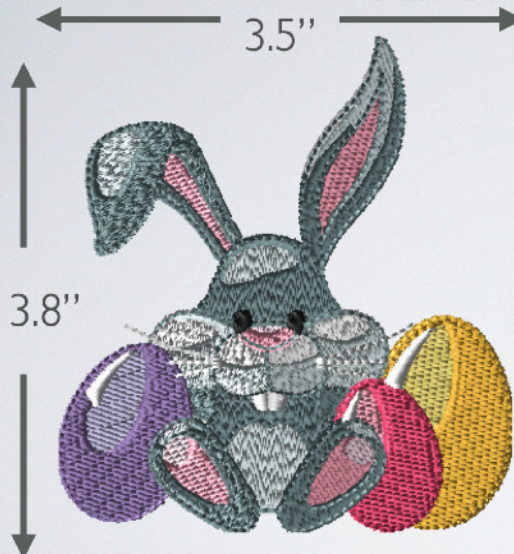
Step 2

Divide # of Stitches
by Square Inches

10,000sts

*divide by 10 square inches
= 1000 stitches per inch*

How to learn the design density



Step 1

Calculate number of
Square Inches

$3.5 \times 3.8 = 13.3$
square inches

Step 2

Divide # of Stitches
by Square Inches

$14,513 \text{ divide by } 13.3$
 $= 1090 \text{ sts per inch}$

$14,513 = \text{Actual number of stitches}$

Stitch Count Estimate - Learn to estimate how many

How to Estimate Stitches

Step 1

Calculate number of
Square Inches

$$\begin{array}{l} \text{Lenth} \\ \times \\ \text{Width} \\ \hline = \text{Square area} \end{array}$$

This is an old fashion method of estimating the number of stitches from the original artwork before you create the embroidery.

Knowing the stitch count before doing the job is helpful in knowing the cost and time needed to sew a job. The trick is to get good at estimating the percentage of coverage. This formula can used by sales staff working in the field and they don't need to have a lot of embroidery knowledge. Give it a try with designs you already own and see how close you get to the actual stitches.

How to Estimate Stitches

Step 3

estimate the
% of coverage

$$\begin{array}{l} 80\% \text{ of } 15,000 \text{ stitches} \\ = 12,000 \text{ sts} \end{array}$$

$$\begin{array}{l} 120\% \text{ of } 15,000 \text{ stitches} \\ = 18,000 \text{ sts} \end{array}$$

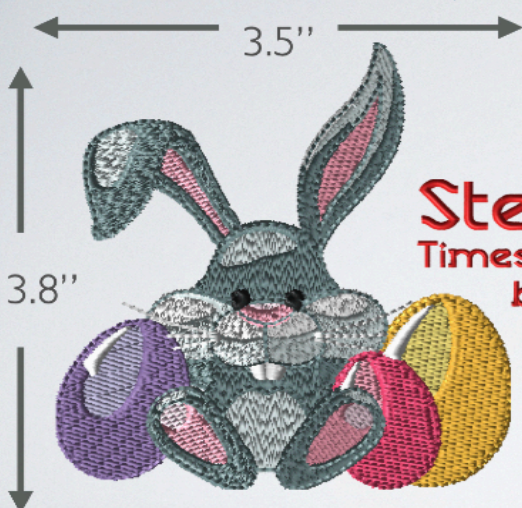
How to Estimate Stitches

Step 2

Times # of Square Inches
by 1500 per inch

$$\begin{array}{l} 10 \text{ square inches} \\ \text{times } 1500 \text{ stitches per inch} \\ = 15,000 \text{ stitches} \end{array}$$

How to Estimate Stitches



Step 1

Calculate number of
Square Inches

$$\begin{array}{l} 3.5 \times 3.8 = 13.3 \\ \text{square inches} \end{array}$$

Step 2

Times # of Square Inches
by 1500 per inch

$$\begin{array}{l} 13.3 \text{ square inches} \\ \times 1500 \text{ sts per inch} \\ = 19,950 \text{ sts} \end{array}$$

Step 3

estimate the
% of coverage

$$\begin{array}{l} 19,950 \text{ stitches times } 75\% \\ \text{coverage} = 14,962 \text{ sts} \\ \text{Estimated stitch count} \end{array}$$

14,513 = Actual number of stitches