

# APPLICATION INSTRUCTIONS FOR Materials by the yard

Available width: 51" (129.5cm)



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## Poly-TWILL™

Use Stahls' Poly-TWILL™ to create a traditional and high quality look for team and fashion wear. 100% polyester twill material with a thermal adhesive backing, for custom appliqué and sewn lettering look. Used by Pro teams and major manufacturers. (PVC, 402 micron [+/-10%])



### PREHEAT LOWER PLATEN

Before application, Stahls' recommends lowering the upper platen for 60 seconds. This helps the adhesive to melt more evenly during application.



### PREHEAT & POSITION

It is pertinent to preheat garment before application. Press garment for 5 -10 seconds to remove moisture, chemical treatment and wrinkles from the application area.

Position weeded design onto garment and press firmly until all edges are smooth. Cover with Kraft Paper or Reusable Cover Sheet to protect garment and design.



### HEAT APPLY

Temperature: 330°F; 165°C  
Time: 8-10 seconds  
Pressure: medium (#4 on Hotronix®)

NOTE: Tacking for 2-3 seconds will allow you to re-align letters if any shifting has occurred.

Use a Heat Printing Pillow inside garment to prevent marks on lettering.



### SEW DESIGN

Must be sewn to prevent fraying.

NOTE: please refer to page two for sewing instructions.

### Recommended Fabrics

100% cotton  
100% polyester  
Poly/cotton blends  
Woven nylon  
Poly/Foam Caps  
Wool Fabric

*Due to the combination of fabrics, weaves, coatings and dyes used in the textile industry, Stahls' recommends and provides samples of our materials and medias for testing.*

### Accessories Required

Kraft Paper or Reusable Cover Sheet

### Cutting Notes

You should always test cut prior to any production run. Remember cutter settings will need to be adjusted as your blade ages. For optimal cutting and weeding, maintain a line thickness of at least 3/16" (5mm) for lettering and logos.

### Care Instructions

Machine wash warm using mild detergent. Do not use bleach. Dry at a normal dryer setting on household machines.

Poly-TWILL™ can be dry cleaned.

### Storage

Store in a cool, dry area. Avoid direct heat, sunlight and humidity.

All technical information and recommendations are based on tests we believe to be reliable. However, we cannot guarantee performance for conditions not under manufacturer's control. Before using, please determine the suitability of product for its intended use. The user assumes all risk and liability whatsoever in connection with the use of this product. Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective by manufacturer.

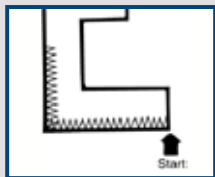
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# How to sew Poly-TWILL™

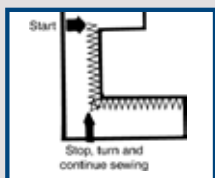
## CORNERS, CURVES & POINTS

Knowing your needle position is key to getting professional results on corners, curves and points. When a zig-zag stitch is formed, the needle swings back and forth from right to left. This is referred to as the right or left swing of the needle. The needle must be down, in the fabric before the presser foot is raised to pivot or turn. If possible, set your machine to stop stitching with the needle in the down position. If not, use the hand wheel to manually position your needle down before turning.



### OUTSIDE CORNERS

Stitch to the corner, ending with the needle in the down position on the right swing. Lift the presser foot, pivot and continue sewing.



### INSIDE CORNERS

Sew 2-3 stitches past the end of the letter. Stop with needle in down position on the left swing. Lift presser foot, pivot and continue sewing, interlocking the extra stitches with the new row.

### INSIDE CURVES

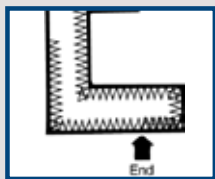
Start with needle in the right swing. Guide garment gently as needle travels contour of curve. For slight curves, do not pull. When you reach the inside curve, stop with needle down in left swing, and pivot slightly. Stitches will overlap slightly on the right side of the zig-zag, but be evenly spaced on the left.

### OUTSIDE CURVES

Same as inside, but make sure needle is down and in left swing before pivoting.

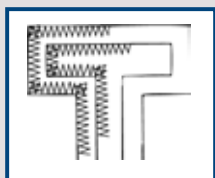
### POINTS AND ANGLES

Stitch to within 1/4" of the point. Begin angling the stitches toward the point until the needle is at the point in the right swing. Lift presser foot, pivot and slightly angle stitches for about 1/4". Slowly straighten stitches until they form right angles to the letter edge.



### ENDING YOUR LETTER

Sew 4-8 stitches past your starting point for improved durability. Without cutting thread, move on to next letter. Clip thread after sewing is complete on all letters.



### MULTI-COLOR LETTETRING

Tack foreground to background with heat press or iron between two sheets of Kraft Paper. Sew foreground to background before tacking to garment. Pre-press garment and tack your pre-sewn two-color lettering in place for final sewing.

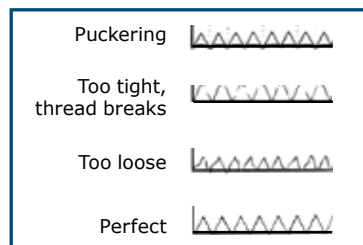
### SPECIAL CONSIDERATIONS

If you run out of bobbin thread in the middle of a letter or word, start the new stitching 1/4" into the previous stitching to prevent unraveling. When sewing on sleeves or jackets with linings, pin lining in place to keep them in position during sewing.

## Tips before you SEW

- The best way to learn is to practice.
- Practice correct tension on a piece of scrap material (see figure below).
- A tight, zig-zag stitch or satin stitch is recommended for sewing Poly-TWILL™.
- Sew outside and inside edges of lettering, using one continuous thread per garment.
- To achieve a professional touch, the most important thing to remember is needle position, specifically whether the needle is up or down and to the right or left of the appliqué.
- The needle must be down and in the fabric before the presser foot is raised to pivot or curve.
- The area to be sewn should always be to the left of the needle—for ease of sewing.

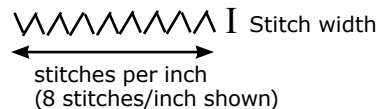
## Thread tension using household sewing machine



## Stitch Guidelines

- Increase number of stitches per inch for larger letters, to reduce sewing time.
- Start sewing at the bottom of the letter if it has a straight edge, such as "E", or on any straight edge if the letter has a curved bottom, such as "J".
- Keep stitches uniform and evenly spaced.
- Lift the presser foot, pivot and continue sewing.

Letter/ number / Logo Size (height)	Stitch Width	Stitches per inch
1"-3"	2 mm	15
4"-9"	3 mm	15
10" and up	4 mm	15



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