



MERROW®

SEWING MACHINE COMPANY

THE BUTTED SEAM

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The Merrow Butted Seam

Processors of many types of fabrics use the Merrow Butted Seam to facilitate processing operations and save costs on materials and labor. How can the Merrow Butted Seam benefit your company?

Why we make it

The value of the Merrow Butted Seam is evident to processors of piece goods, who use it to facilitate operations and save costs on materials and labor. The purpose of this book is to define and illustrate the Butted Seam and to describe the advantages it offers for the finishing of many fabrics: woolens and worsteds of all weights, cottons, silks and rayons. The Merrow Butted Seam is appropriate for materials of all weights, from the lightest silk to the heaviest woolen and beyond. It has even been used on such varied materials as leather, rubber, Kevlar, canvas and paper.

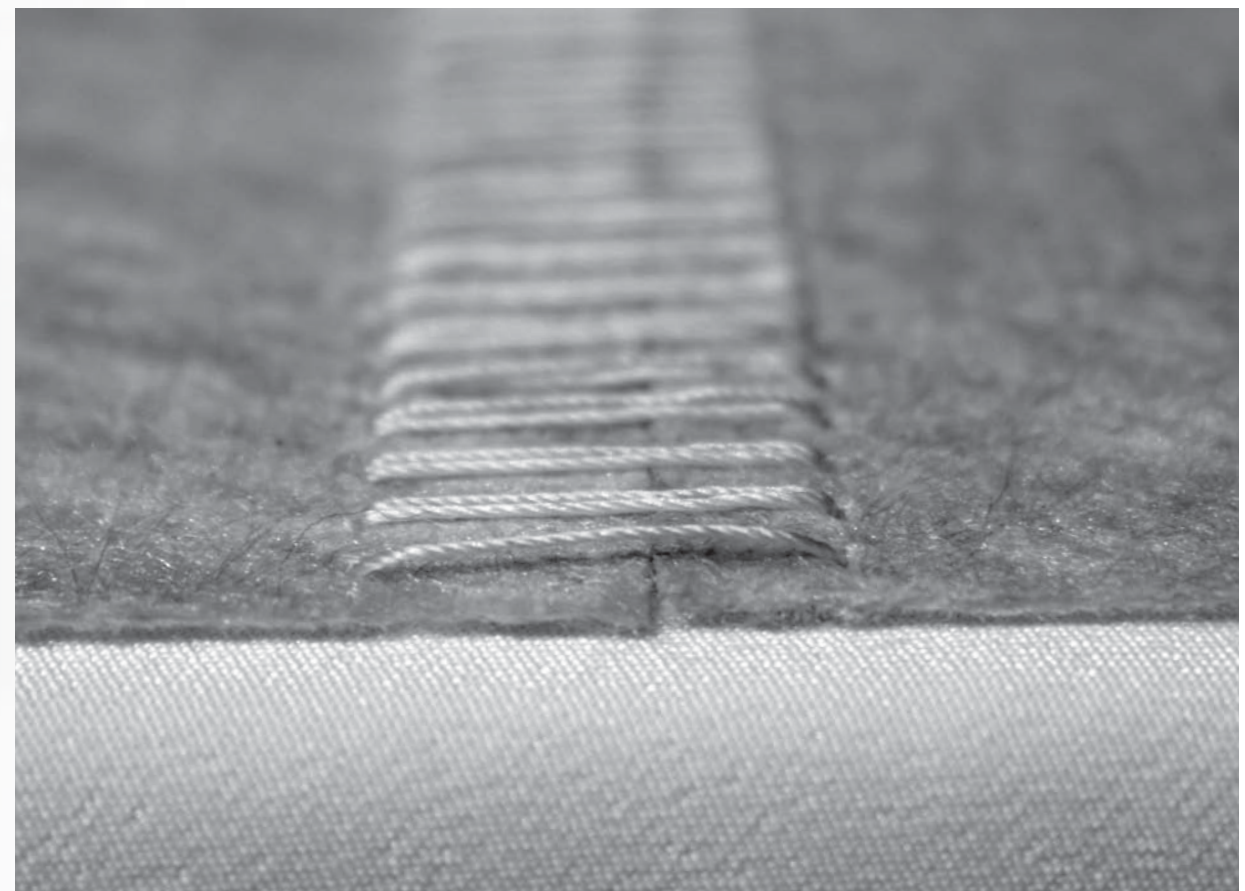
What it does

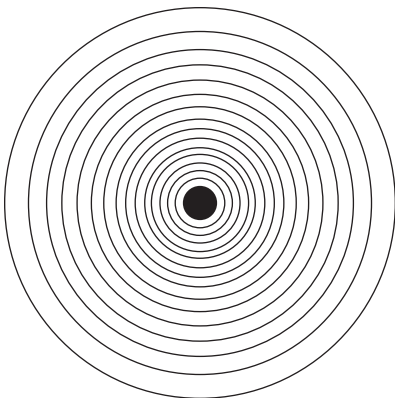
In the processing of piece goods, it is often beneficial to join one or more "cuts" or pieces end to end. The overedge seam, or "Butted Seam" has been adapted to this work, as it attaches pieces end to end so that they may lie flat through processing. The following illustrations show each side of the seams as produced by the Merrow Sewing Machines.

How it works

In making the Merrow Butted Seam, two ends of piece goods are placed face-to-face and their ends fed through the Merrow machine. The Merrow machine stitches a seam as it cuts off superfluous material, so that the fabric can open out flat for subsequent processing. The ends of the material are confined within the seam to reduce bulk, producing a flat butted seam appropriate for many types of processing.

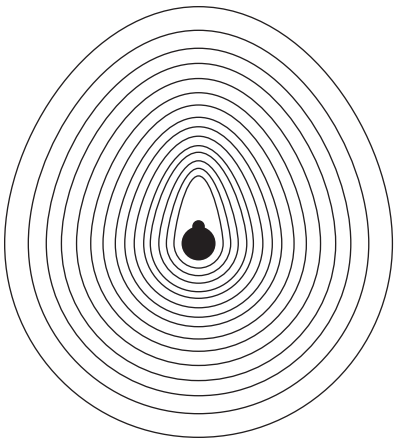
The sample above is Merrow's most common Butted Seam, made on the 70-D3B-2 machine



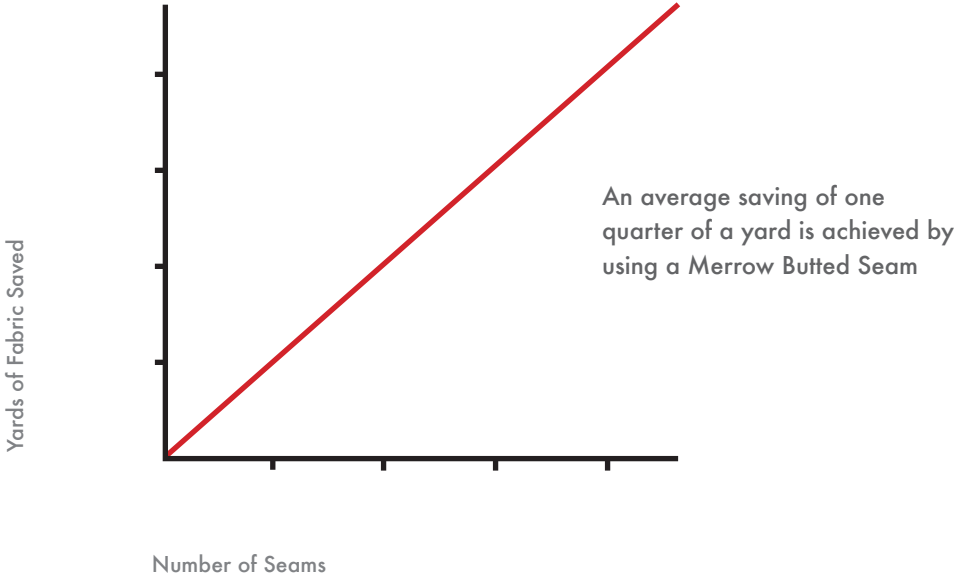


With the Merrow Butted Seam, fabric remains flat no matter how large the roll becomes.

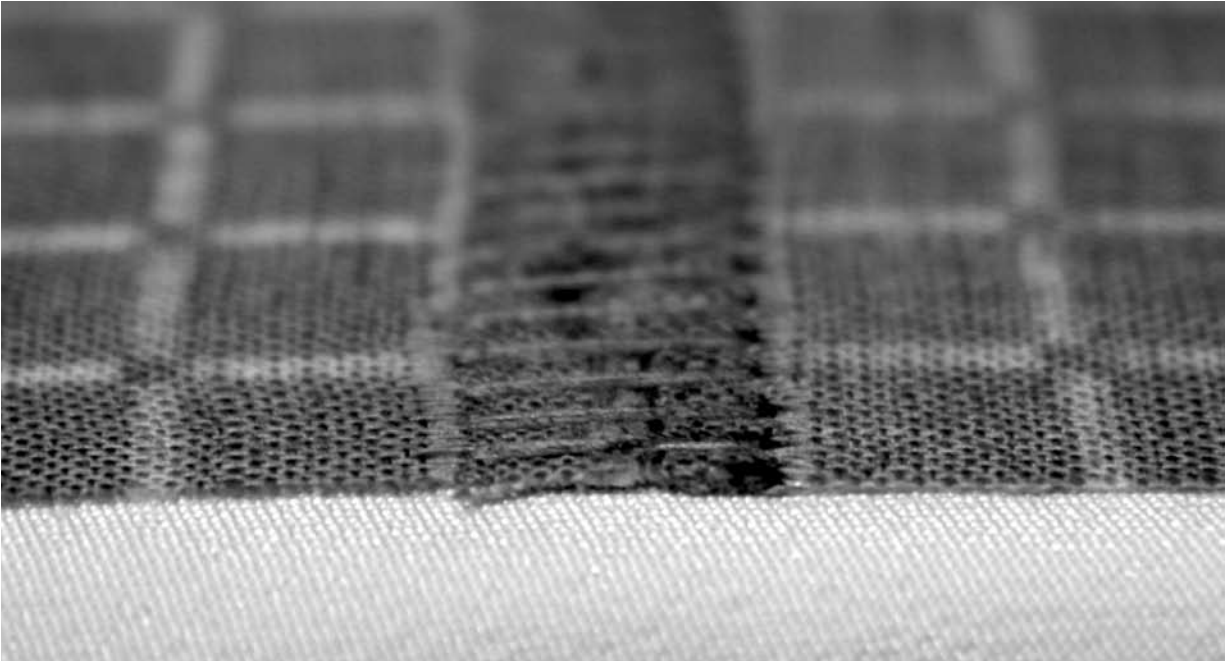
Competiton



Other butted seams produce a raised edge, which takes on a "snowball" effect when fabric is rolled.



The formation of the stitch is such that the seam is elastic and may be stretched laterally without breaking. The seams will thoroughly dry in the same time as the goods.

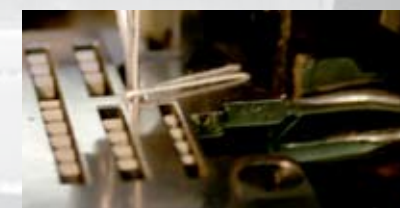


This type of processing seam has many beneficial properties, which include the following:

1. The seam is scarcely thicker than the fabric itself.
2. Because of the direction of the stitch, the seam resists shrinking.
3. The seam is elastic and will not break if stretched laterally.
4. The seams dry in the same drying time as the fabric.
5. Various widths of seams are available, suited to most fabrics and types of processing
6. The one-thread seam may be unraveled after processing.
7. The width of the seam is comparatively small so that little material is wasted.

Merrow has developed a unique mechanical process to efficiently join fabric

1. The needle passes through both the fabric and needle plate in a downward motion.
2. As the needle back-tracks through the fabric, the lower looper grabs the thread.
3. The upper looper places the thread back above the needle plate; in position to complete the stitch.
4. As the upper looper places the thread, the needle pushes down through the fabric to complete the stitch
5. All preceding steps are repeated at high-speed to create a strong and effective end-to-end seam.



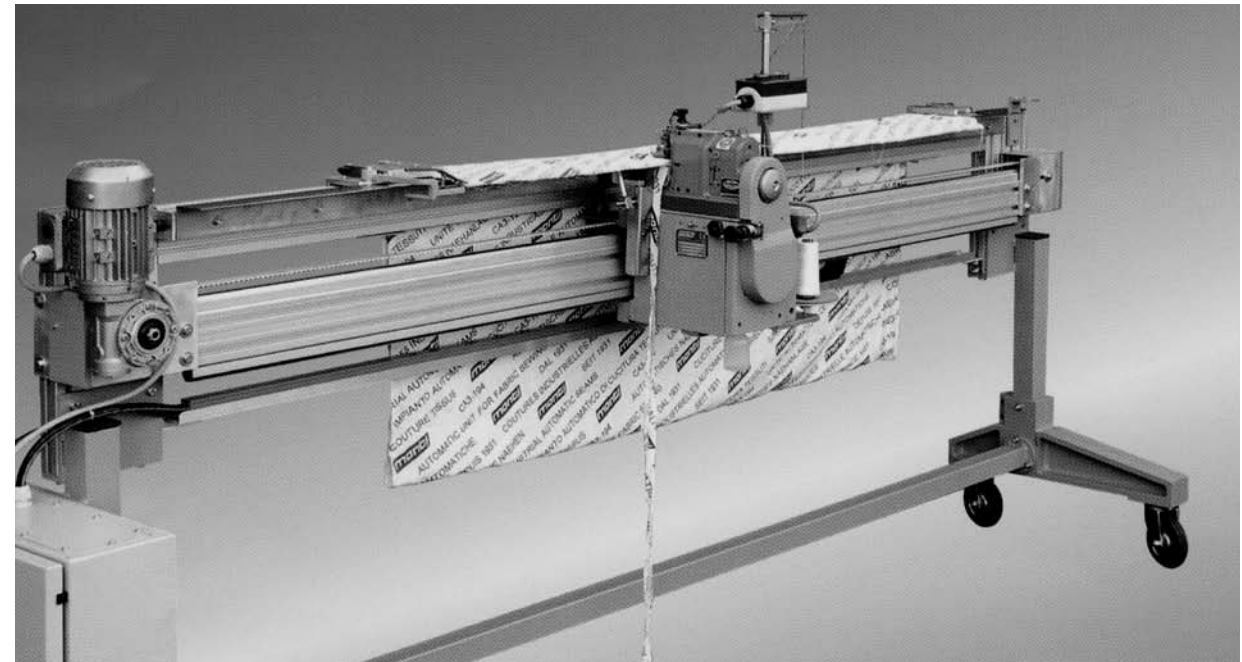
Workflow Applications

Because of the unique processes companies employ, Merrow manufactures over twenty different Butted Seaming machines.

Enhanced Workflow

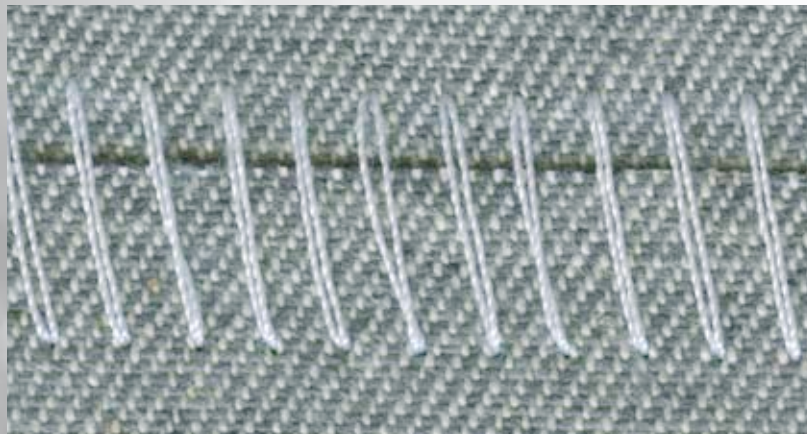


Fully Automated Workflow



Choose Your Stitch

Merrow offers a variety of Butted Seams to suit every need. Important factors to consider when choosing your stitch include fabric type and weight, processing needs, and whether the stitch will be part of the finished product or used only in processing.



The Wide Butted Seam

The Wide Butted Seam is very versatile, good for medium-weight fabrics that may need some extra reinforcement. This seam is appropriate for materials to be coated. The stitch can be unraveled after processing.



The Gap Seam

The Gap Seam is especially good for use with automatic seam detectors, or if seams are to be unraveled after processing. This seam is not appropriate for materials to be coated.



The Narrow Butted Seam

The Narrow Butted Seam is useful for strong knits and other fabrics that will not unravel easily. The narrow foot on these machines is useful for fabrics that roll at the edges. The narrow butted seam is our most polished-looking stitch, for a seam that will be a part of your final product. This seam is appropriate for materials to be coated.



The Rolled Seam

The Rolled Seam is useful for loose or low-thread-count fabrics which require extra reinforcement. Unlike our other seams, the rolled seam will not lie flat.



Additional feature: The Stitch Multiplier

For any processing that involves heavy pressure, such as tentering or printing, the stitch multiplying feature provides extra strength at the fabric selvages to prevent unraveling or wrinkling.

Your Fabric Type

Merrow Butted Seaming machines join all types of fabric weight

Rayon/Silk Finishing

The uniform drying qualities and the elasticity of the Merrow Butted Seam are of particular value in the processing of rayon fabrics through drying and tentering operations. The Butted Seam is used for the processes of printing and calendaring, with advantages similar to those described for cottons and silks.

The Merrow Butted Seam is valuable in the processing of silks during finishing. The flatness of the seam helps in the subsequent washing and drying processes. The seam will dry in the same length of time and under the same conditions as the rest of the goods. Advantages in the printing and shearing of silks are similar to those described in the section on cotton. These advantages also apply to the processing of silk velvets and other pile fabrics.

Woolens and Worsteds

The Merrow Butted Seam is useful in many applications for the processing of woolens and worsteds. The seam allows processes such as dyeing, scouring, drying, shearing and pressing to be made continuous by joining bolts of fabric with a thin, unobtrusive seam. The final product is uniform, with no shading or wrinkling at the seams.

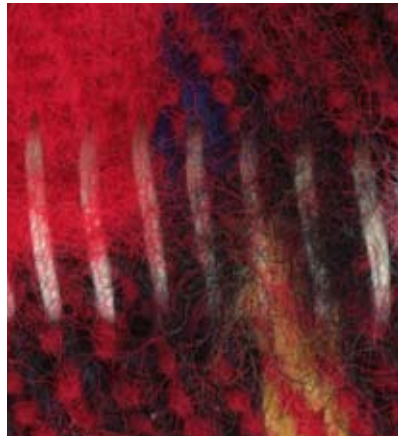
Cotton Finishing

The use of the Merrow Butted Seam in the processing of cotton fabrics eliminates damage of the fabrics due to wrinkling, shading of the goods by slow-drying seams and "marking off" on the goods, which frequently occurs when bulky seams are processed through printing machines or calendars. The Butted Seam is valuable for such processes as bleaching, printing, napping, shearing, or singeing.

Specialty/Synthetics

Merrow has been building Butted Seam machines for all types of fabric for over a century. However, new fabrics have been developed and Merrow has adapted to the demand for more versatile machines, capable of sewing through almost every type of fabric available on the market. Recently, Merrow has developed machines that are capable of sewing through extremely heavy and coated material such as leather, fur, airbag cloth and ballistic Kevlar.

Woolens And Worsteds



Stitch: Rolled
Frequency: 9 spi
Width: 3/8"
Stitch Number: 500028



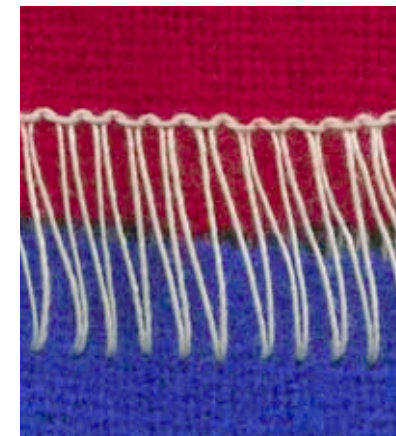
Stitch: Gap
Frequency: 9 spi
Width: 11/16"
Stitch Number: 500025



Stitch: Rolled
Frequency: 7 spi
Width: 5/16"
Stitch Number: 500013



Stitch: Gap
Frequency: 11 spi
Width: 5/8"
Stitch Number: 500038



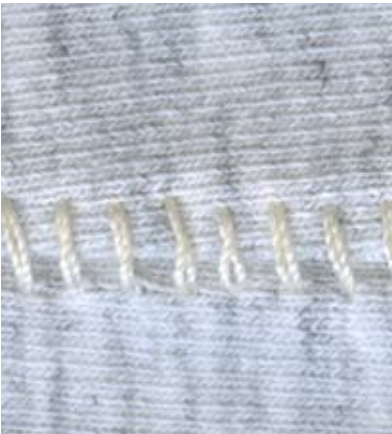
Stitch: Rolled
Frequency: 4 spi
Width: 1/4"
Stitch Number: 500027



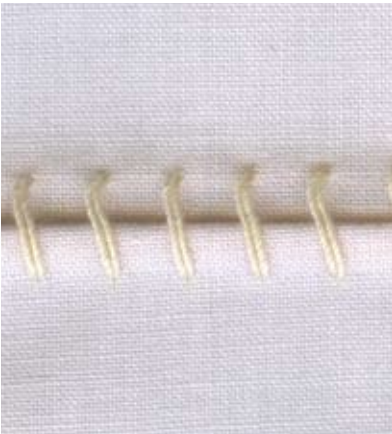
Stitch: Wide
Frequency: 7 spi
Width: 5/8"
Stitch Number: 500012



Cotton Finishing



Stitch: Rolled
Frequency: 11 spi
Width: 5/16"
Stitch Number: 500031



Stitch: Rolled
Frequency: 6 spi
Width: 5/16"
Stitch Number: 500017



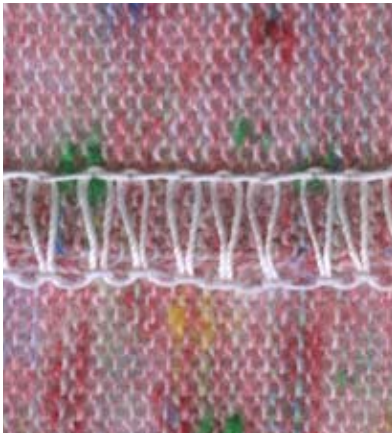
Stitch: Rolled
Frequency: 5 spi
Width: 1/4"
Stitch Number: 500029



Stitch: Wide
Frequency: 9 spi
Width: 5/8"
Stitch Number: 500055



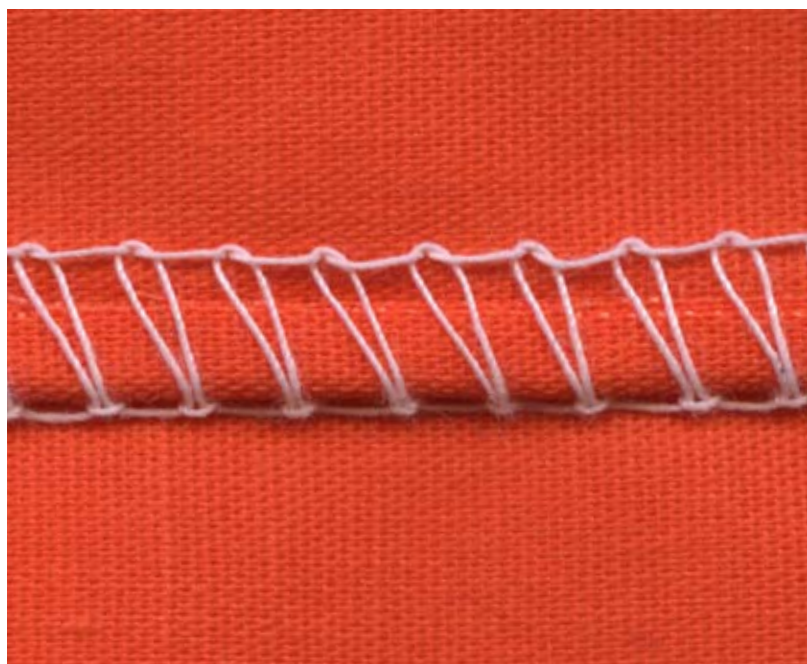
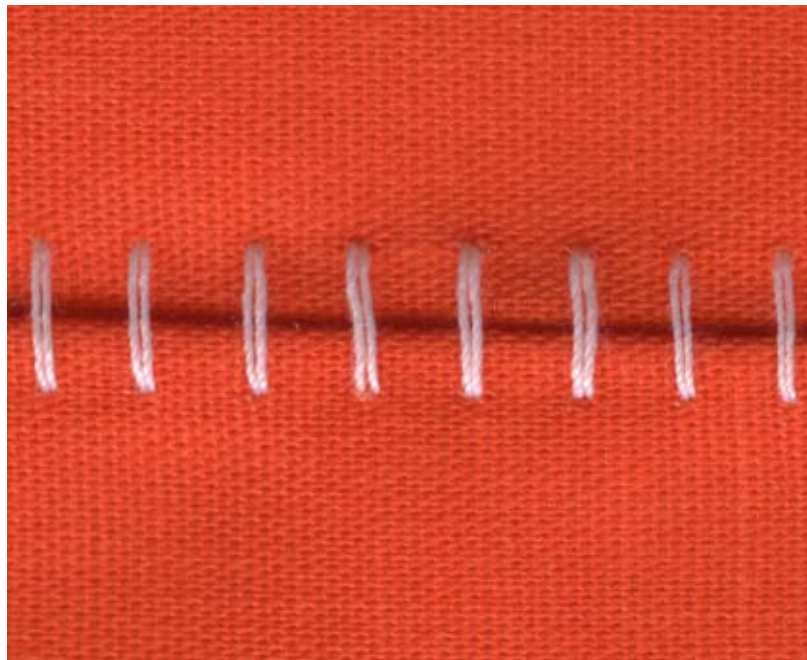
Stitch: Rolled
Frequency: 12 spi
Width: 1/4"
Stitch Number: 500023



Stitch: Wide
Frequency: 6 spi
Width: 5/8"
Stitch Number: 500018



Rayon/Silk Finishing



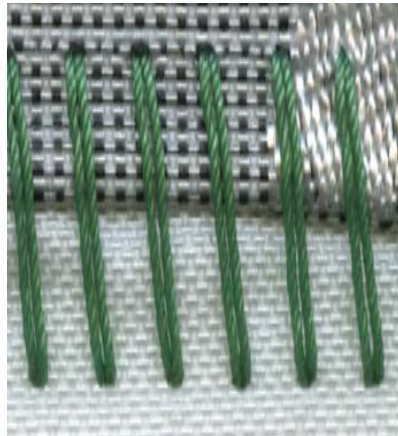
Stitch: Rolled
Frequency: 6 spi
Width: 5/16"
Machine: M-2DR-2

Specialty/Synthetic/Non-Woven

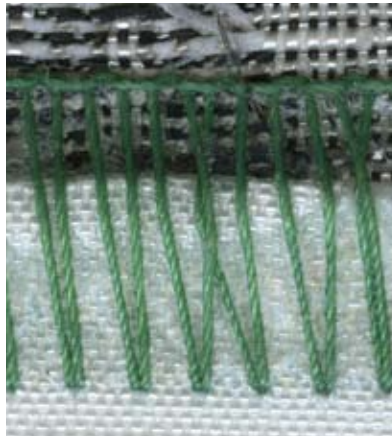


Fabric: Polyester
Stitch: Narrow/Multiplier
Frequency: 8,15 spi
Width: 3/8"
Stitch Number: 500047

Specialty/Synthetic/Non-Woven



Fabric: Airbag
Stitch: Wide
Frequency: 9 spi
Width: 5/8"
Stitch Number: 500042



Fabric: Vinyl
Stitch: Wide
Frequency: 9 spi
Width: 5/8"
Stitch Number: 500044



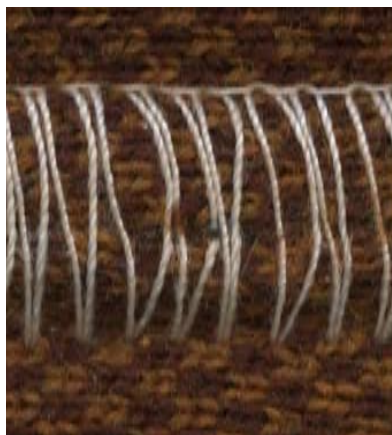
Fabric: Napped/
Worsted Wool
Stitch: Narrow
Frequency: 11 spi
Width: 5/8"
Stitch Number: 500016



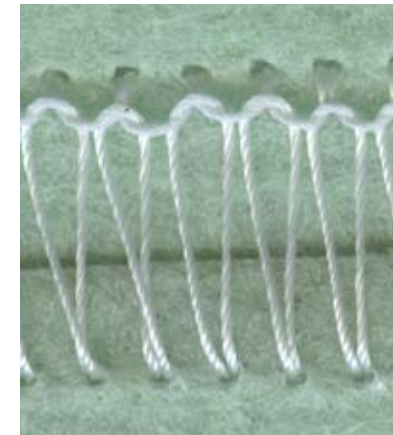
Fabric: PVC
Stitch: Wide
Frequency: 6 spi
Width: 1/2"
Stitch Number: 500050



Fabric: Fur
Stitch: Rolled
Frequency: 9 spi
Width: 5/8"
Stitch Number: 500030



Fabric: Polypropylene
Stitch: Wide
Frequency: 8 spi
Width: 5/8"
Stitch Number: 500052



Recommended Machines

All models may be configured to mount on rails, tables, floating stands, or fixed.

70-D3B-2

The 70-D3B-2 is the industry standard Butted-Seaming sewing machine. It produces a one-thread stitch specifically designed to lay flat, allowing continuous feed in textile processing. The machine is engineered not to skip stitches and will perform in an industrial environment for many years (up to 60) without needing significant service. As with all Merrow Machines, the 70-D3B-2 is hand-built and inspected for any imperfection through a rigorous QC process before it ships. Often Merrow will ship this model with the customers sample fabric 'sewn-off' and included in the box. This flat stitch also affords the even rolling of fabric without imprint and reduces the total amount of waste. SPEED: 2250 SPM, STITCH WIDTH: 5/8" wide at 7-13 stitches per inch.



Narrow Seam

70-1D-2 CNP, Speed: 4000 SPM, Stitch Width: from .6 - .9 cm. at 10.2 - 30.5 stitches per centimeter

70-2D-7 CNP, Speed: 4000 SPM, Stitch Width: from .6 - .9 cm. at 33 - 48.3 stitches per centimeter

70-ABB-1, Speed: 3000 SPM, Stitch Width: .6 - 1.6 at 17.8 - 27.9 stitches per centimeter

70-ABB-SST, Speed: 3000 SPM, Stitch Width: 1 cm at 22.9 - 38.1 stitches per centimeter

M-1, Speed: 5500 SPM, Stitch Width: .6 - 1 cm. at 25.4 - 40.6 stitches per centimeter

M-3D-3, Speed: 5500 SPM, Stitch Width: .8 cm. at 17.8 - 33 stitches per centimeter

MG-1D, Speed: 5500 SPM, Stitch Width: .6 cm. at 15.2 - 30.5 stitches per centimeter

M-1-4E BT, Speed: 5500 SPM, Stitch Width: .6 - 1.4 at 17.8 - 33 stitches per centimeter

M-2D, Speed: 5500 SPM, Stitch Width: .6 cm. at 12.7 - 28 stitches per centimeter

M-2D-7, Speed: 5500 SPM, Stitch Width: .6 - 1.6 cm. at 17.8 - 33 stitches per centimeter

Wide Seam

70-D3B-2 (models CNP, RAIL, HP), Speed: 2250 SPM, Stitch Width: 1.6 cm. at 17.8 - 33 stitches per centimeter

70-Y3B-2 CNP, Speed: 2250 SPM, Stitch Width: 1.6 cm. at 17.8 - 38.1 stitches per centimeter

72-D3B, Speed: 2250 SPM, Stitch Width: 1.6 cm. at 22.9 - 33 stitches per centimeter

70-ABB-Y, Speed: 3000 SPM, Stitch Width: 1.6 cm. at 20.3 - 38.1 stitches per centimeter

Gap Seam

70-D3B2 GAP, Speed: 2250 SPM, Stitch Width: 1.6 cm. at 17.8 - 35.6 stitches per centimeter

Rolled Seam

72-D3BR, Speed: 2250 SPM, Stitch Width: 1.6 cm. at 17.8 - 30.5 stitches per centimeter

70-ABB-4, Speed: 4000 SPM, Stitch Width: 1.6 cm. at 20.3 - 30.5 stitches per centimeter

70-ADN-1, Speed: 2500 SPM, Stitch Width: 1 cm. at 10.2 - 25.4 stitches per centimeter

MG-2DR-2, Speed: 5500 SPM, Stitch Width: 1.6 cm. at 17.8 - 33 stitches per centimeter

M-2DR-2, Speed: 5500 SPM, Stitch Width: .64 cm. at 12.7 - 28 stitches per centimeter

Stitch Multiplying

70-Y3B CNP, Speed: 2250 SPM, Stitch Width: 1.6 cm. at 17.8 - 38.1 stitches per centimeter

70-ABB-Y, Speed: 3000 SPM, Stitch Width: 1.6 cm. at 20.3 - 38.1 stitches per centimeter



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