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ANALYSIS OF MEN'S POLO T-SHIRT ASSORTMENTS

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Abstract

The majority of T-shirts are made of 100% cotton, polyester**,** or a cotton/polyester blend. Environmentally conscious manufacturers may use organically grown cotton and natural dyes. Stretchable T-shirts are made of knit fabrics, especially jerseys, rib knits, and interlock rib knits, which consist of two ribbed fabrics that are joined together. Jerseys are most frequently used since they are versatile, comfortable, and relatively inexpensive. They also are a popular material for applying screen prints and heat transfers. Some jerseys come in tubular form, simplifying the production process by reducing the number of seams. Rib knit fabrics are often used when a snugger fit is desired. Many higher quality T-shirts are made of durable interlock rib knit fabrics.

Keywords: T-shirts**,** Styling, Cutting, Assembling the front and back, Assembling the sleeves, Stitching the shoulder seams, Label.

Introduction

T-shirts are durable, versatile garments with mass appeal that may be worn as outerwear or underwear. Since their creation in 1920, T-shirts have evolved into a two-billion-dollar market. T-shirts are available in a variety of colors, patterns, and styles, such as the standard crew neck and V-neck, as well as tank tops and scoop necks. T-shirt sleeves may be short or long, capped, yoked, or raglan. Additional features include pockets and decorative trim. T-shirts are also popular garments on which to display one's interests, tastes, and affiliations using customized screen prints or heat transfers. Printed shirts may feature political slogans, humor, art, sports, as well as famous people and places. T-shirts are also inexpensive promotional vehicles for products and special events.

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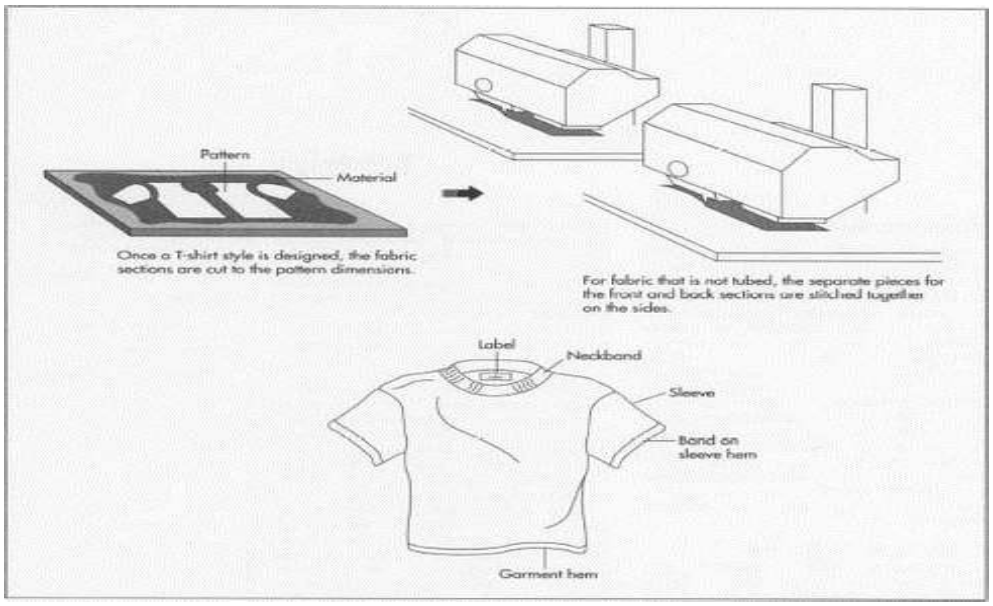
T-shirts fit just about anyone in any size, from infants to seniors. Adult sizes are generally small, medium, large, and extra-large, while sizes for toddlers are detennined by month and weight. In addition, to compensate for the larger heads of infants relative to their bodies, shirts are specially designed with shoulder openings that may be fastened with buttons or snaps.

Neckbands add support to the garment and give the neckline of the T-shirt a more finished look. Neckbands are generally one-by-one-inch rib knits, although heavier fabrics or higher quality T-shirts may require two-by-two rib knits. Neckband fabrics may be tubed rib knits of specific widths, or flat fabric that must be seamed. Additional T-shirt materials include tape or seam binding, made of a twill or another stiff fabric. Binding reinforces the neckline and shoulder seams and by covering the seams, it protects them from ripping apart under tension. Alternatively, elastic may be used at the shoulder seams so they remain flexible.



Thread is of course an essential element in sewing any garment. Several types and colors of thread may be used to make a single T-shirt. Some manufacturers use white thread for seams on all their shirts, regardless of color, thus eliminating the extra labor involved in changing the thread. Visible topstitching is done with a color of thread that blends with the fabric. Colorless, or monofilament, thread could be used for hems of any color fabric, again eliminating the need to change thread often, though

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monofilament thread may irritate the skin somewhat. Finally, optional decorative features may include trim, such as braiding,

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The most commonly used seams for T-shirts are narrow, superimposed seams, which are usually made by placing one piece of fabric onto another and lining up the seam edges. These seams are frequently stitched with an overedge stitch, which requires one needle thread from above and two looper threads from below. This particular seam and stitch combination results in a flexible finished seam.

Another type of seam that may be used for T-shirts are bound seams, in which a narrow piece of fabric is folded around a seam, as at the neckline. These seams may be stitched together using a lockstitch, chainstitch, or overedge stitch. Depending on the style of the T-shirt, the order in which the garment is assembled may vary slightly.

Styling

1 The T-shirt style is designed and the dimensions are transferred to patterns. Adjustments are made for size differences and stylistic preferences.

Cutting

2 The T-shirt sections are cut to the dimensions of the patterns. The pieces consist of a tubed body, or separate front and back sections, sleeves, perhaps pockets, and trim.

Assembling the Front and Back

3 For fabric that is not tubed, the separate pieces for the front and back sections must be stitched together at the sides. They are joined at the seam lines to form a simple, narrow, superimposed seam and stitched together using an overedge stitch. Care must be taken to avoid a needle cutting the yarn of the fabric, which can lead to tears in the garment.

Assembling the Sleeves

4 The hems of sleeves are generally finished before they are fitted into the garment, since it is easier to hem the fabric while it is flat. An automated system moves the

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sleeves to the sewing head by conveyor. The edge may be finished by folding it over, forming the hem and stitching, or by applying a band. The band may be attached as a superimposed seam or folded over the edge as binding.

5 If the T-shirt body is tubular, the sleeve material is first sewn together, and then set into the garment. Alternatively, if the T-shirt is "cut and sewn," the unseamed sleeve is set into place. Later during the final stage of sewing the shirt, the sleeve and side seams are sewn in one action.

Stitching the hem

6 The garment hem is commonly sewn with an overedge stitch, resulting in a flexible hem. The tension of the stitch should be loose enough to allow stretching the garment without tearing the fabric. Alternative hem styles include a combination of edge finishing stitches.

Adding Pockets

7 Pockets may be sewn onto T-shirts intended for casual wear. Higher quality T-shirts will insert an interlining into the pocket so that it maintains its shape. The interlining is inserted into the pocket as it is sewn onto the T-shirt front. Pockets may be attached to the garment with automated setters, so the operator only has to arrange the fabric pieces, and the mechanical setter positions the pocket and stitches the seam.

Stitching the Shoulder Seams

8 Generally, shoulder seams require a simple superimposed seam. Higher quality T-shirt manufacturers may reinforce seams with tape or elastic. Depending on the style of the T-shirt, the seams at the shoulder may be completed before or after the neckband is attached. For instance, if a tubular neckband is to be applied, the shoulder seams must first be closed.

Attaching the Neckband

9 For crew neck shirts, the neck edge should be slightly shorter in circumference than the outer edge where it is attached to the garment. Thus, the neckband must be stretched just the right amount to prevent bulging. Tubular neckbands are applied manually. The bands are folded, wrong sides together, stretched slightly, and aligned with the neckline. The superimposed seam is stitched with an overedge stitch.

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Bound seams are finished with a cover stitch and are easy to achieve. Bound seams may be used on a variety of neckline styles. The process entails feeding ribbed fabric through machines which fold the fabric and apply tension to it.

Some neckbands on lower-priced shirts are attached separately to the front and back necklines of the garment. Thus when the shoulder seams are stitched, seams are visible on the neckband.

V-necks require the extra step of either lapping or mitering the neckband. In the former process, one side is folded over the other. A mitered seam is more complex, requiring an operator to overlap the band accurately and stitch the band at center front. An easier method for a V-neck look is to attach the band to the neckline and then sew a tuck to form a V.

Finishing the Neckline

10 Necklines with superimposed seams may be taped, so that the shirt is stronger and more comfortable. Tape may be extended across the back and over the shoulder seams to reinforce this area as well and to flatten the seam. The seam is then cover stitched or top stitched.

Label Setting

11 One or more labels are usually attached at the back of the neckline. Labels provide information about the manufacturer, size, fabric content, and washing instructions.

Optional Features

12 Some T-shirts will have trim or screen prints added for decorative purposes. Special T-shirts for infants have larger openings at the head. The shoulder seams are left open near the neck, and buttons or other fasteners are attached.

Finishing Operations

13 T-shirts are inspected for flaws in the fabric, stitching, and thread.

14 High-quality T-shirts may be pressed through steam tunnels before they are packaged. Packaging depends on the type of T-shirt and the intended distribution outlet. For underwear, the shirts are folded and packaged in pre-printed bags, usually of clear plastic, that list information about the product. Shirts may be boarded, or

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folded around a piece of cardboard, so that they maintain their shape during shipping and on the shelf. Finally, they are placed into boxes by the dozen or half-dozen.

Exposure to sun's harmful rays has become a concern to many people who enjoy outdoor activities. In addition to sunscreen and sun glasses, sun-blocking T-shirts are now available. Founded by Harvey Schakowsky, SPF Wear company has introduced a line of clothing, including T-shirts, that blocks out 93-99% of ultraviolet rays. A typical T-shirt blocks out only 50% of the rays. Using a fabric called Solarweave, these new T-shirts are made out of synthetically woven nylon treated with a special chemical substance.

Most of the operations in manufacturing clothing are regulated by federal and international guidelines. Manufacturers may also set guidelines for the company. There are standards that apply specifically to the T-shirt industry, which include proper sizing and fit, appropriate needles and seams, types of stitches, and the number of stitches per inch. Stitches must be loose enough to allow the garment to stretch without breaking the seam. Hems must be flat and wide enough to prevent curling. T-shirts must also be inspected for proper application of neck-lines, which should rest flat against the body. The neckline should also recover properly after being slightly stretched.

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