

# Seamless (Fully fashioned) clothing their Advantages, Disadvantages, Applications and Design Possibilities

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**Abstract**— This paper represents a perspective view on seamless clothing, which is generally created in a single and continuous knitting process that eliminates the side seams of the garment gives more comfort and better fitting. There are some problems with seam. Seamless garments have more advantages. These are those garments does not have to cut and sewn.

**Index Terms**— comfort, cut and sew, fitting, knitting, ready to wear, seamless garment, stitch free, tubular, versatile nature.

## 1 INTRODUCTION

The cutting and sewing processes takes the maximum time to produce a garment, but in the seamless garment technology, cutting and sewing process are done in the single continuous process. The demands from consumers of these seamless garments are more due to comfort, better fit, because of no seam in its structure even in sleeves and neckline of the garment. There are different methods to produce the seamless garments. The seamless knits are in tubular form, which are produce by high elongation yarns. Circular knitting machines are mostly used to make seamless cloths. This leads to saving the production cost and manufacturing time, as compared to the cut and sew method.

## 2. ADVANTAGES OF SEAMLESS GARMENTS

The new technology always has the unique advantages both commercial as well as economical, this seamless technology also have the following advantages as compared to the conventional garment manufacturing technique.

### 2.1 Improve aesthetic value and comfort

As we know that there is no seam in the garment, so no chances of seam puckering, mismatching of the pattern and there is no fitting problems. The seamless garments are very comfortable, smooth and sleek fit.

### 2.2 Freedom of body movement

Generally the seam portion of any garment is not having the same elasticity of the body fabric, so the difference in elasticity will affect the body movement. Since the seamless garment does not have any seam in the garment structure this problem has been eliminated.

### 2.3 Inherent softness

In the seamless garments no bulky stitches at the underarm points, shoulders and the necklines, which may cause irrita-

tion to the wearer. The garment having seam free structure and it provides the soft feel.

### 2.4 Cost saving

The seamless garments are the cost saving products just because of the elimination of the processes like fabric inspection, storing, spreading, cutting, stitching etc.

### 2.5 Waste reduction

In the seamless garment the fabric waste is less than the cut and sew method produced garment. It eliminates the spreading, cut and sew operation. So there is saving of the yarn and fabric.

### 2.6 Fewer product failures

Most of the garment failures are due to seam failure but in the seamless garment doesn't have the seam, so that garment failures are very less.

### 2.7 Design possibilities

The seamless technology is not only to create several types of tubular formed knitting but also to build the design structure on the tubular knitted garments simultaneously.

### 2.8 Just in time production

Just in time production is possible for the seamless technology. And also the seamless technologies have the rapid design changes.

### 2.9 Ventilation

Due to the seamless technology engineered features like comfort, fit and ventilation are obtain.

### 3. DISADVANTAGE OF SEAMLESS GARMENTS

There are some technical limitations in seamless technique to manufacture or knit every garment shape those are produced by cutting and sewing method. The main problem occurs with the seamless garment is to take-down in keeping equal tension of each loop/stitch. As we know that, the main problem occurs mainly in the welt or the cuff area. The machines those are used for manufacturing the seamless garments are vary costlier and the skilled operators are required. So the seamless garments are costlier as compared to seamed garments.

### 4 APPLICATIONS OF SEAMLESS GARMENTS

Seamless garments or fully fashioned garments are normally used for apparel. There is some new three-dimensional knitting techniques are used to extend the areas such as fashion, upholstery, industrial, automotives and medical textiles.

**Undergarments** these are the first and essential article. **Undergarments are the two piece tunic.** These are generally used for the functional purpose mostly.

**Apparel** A seamless garment does not have the single seam over the garment body, they are constructed without seam. These seamless garment looks like the continuous, uninterrupted fabric. For example of seamless garments are the seamless stockings, hand gloves, hats, socks, sweaters, skirts, and sportswear.

**Upholstery** seamless technique is also used for the upholstery purpose. This is generally used in the office chairs.

It is also use in the automotives (seat covers), in medical textile also (orthopedic supports, bandages and medical stockings), there is more opportunities for the seamless products in healthcare applications i.e. incorporation of high performances fibres and additional sensors.

### 5 DESIGN POSSIBILITIES OF SEAMLESS GARMENTS

There is continuous development and new innovation in seamless techniques, to develop the new styles to meet customer's demand. The new advancements coming from fibre producers and yarn manufacturer will continue provide innovation from the suppliers. Based on the knitting structure, these knit patterns and construction of the garment cannot be matched with other non-seamless garments. For the seamless garments there are endless design possibilities for coloured

patterns, variety of different stitches that can be achieved in a single garment, jacquards, ribbing and detailing. This is impossible to for the other knitting process. The seamless technology features are also beneficial for the retailers and the customer. The versatile nature of seamless goods leads to the concept applied to underwear, swimwear, leisurewear, and sleepwear, ready to wear and also in active wear.

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