The effect of Fullness level of automatic embroidery stitches on the appearance of “fully-fashioned” products

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Abstract:
There are several methods of producing the knitted garments including the “fully fashioned” method in which knitted wear are produced in separate parts adopting the method of traditional cutting. This method is followed in the production of all knitwear. However, the fully fashioned style is made in two stages only: the production of the separate clothing parts (front - back - sleeve) which come out of the knitting machine in the shape of rectangles formulating the neck grooves and arm openings. This means that they do not need to be cut, and this is done in a manner known as (supply and reduction) by controlling the number of knitting rings in the machine. The production in this method is characterized with the edges of the parts of clothing that are closed and do not need the process of finishing the edges and thus saves a stage in production, and therefore this method gives the least ratio of the loss of fabrics. Recently, automatic embroidery has become a stand-alone industry in keeping abreast with the development of the garment industry as the machines used in the embroidery and the method of its operation and its high production capabilities have dramatically developed. Recently, specialists have been able to utilize the computer capabilities to benefit wherefrom in the field of automatic embroidery, where it is possible to produce specialized embroidery machines that perform many embroidered designs. The problem can be defined in the following questions: 1. What are the methods of forming the fully fashioned products? 2. What are the shapes and specifications of the three automatic embroidery stitches (Arrowhead – Wave – Tick) for the fully fashioned products which are dealt with in this research? 3. What is the effect of embroidery using the three types of stitches on the appearance of the interlock knitwear? Objectives: 1. Identifying the forming of the fully fashioned products. 2. Determining the automatic embroidery stitches suitable for the three fully fashioned products dealt with in this research and that are most commonly used in the industry of ready-made garments. 3. Measuring the effect of the type of the three stitches on the appearance of the three fully fashioned products dealt with in this research. 4. Measuring the effect of the three stitches fullnesses on the fully fashioned products. Methodology: This research adopted the descriptive methodology due to its suitability to accomplish its goals. Results: Results showed that the Arrowhead embroidery stitch was the best embroidery stitch of jersey material, followed by the Wave embroidery stitch, and finally the Tick embroidery stitch.

Keywords:
Fullness , Automated Embroidery , Stitches , Fully fashioned

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