

## **The Effect of Different Sizes and Widths of Markers on the Nesting Efficiency when using Some Software "Case study of a Model of Children's Clothing"**

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### **Abstract:**

Efficient fabric use or reduction in fabric consumption has a direct impact on the economy and the environment. Efficient material use can lower the production cost per garment and reduce the need for fabric consumption, thus easing pressure on natural resources. Marker production is a critical process in garment manufacturing before fabrics are cut for production, ensuring maximum utilization of the fabrics used. Any reduction in the amount of fabric used per garment results in greater savings and increased profit margins. With technological advancements, marker efficiency can now be automatically calculated using specialized marker planning software, increasing the accuracy and speed of the process. The aim of this research is to study how to achieve the best nesting efficiency in ready-made garment factories through the effect of different sizes and widths of the marker when using more than one ready-made pattern program and the effect of different sizes and widths of the marker using different programs on the nesting efficiency of each of them. A model of a children's overalls was designed and prepared from single jersey material, then grading and nesting were done for 6 consecutive sizes (0\3 months - 3\6 months - 6\9 months - 9\12 months - 12\18 months - 18\24 months) to make the marker for each program using three different widths of the marker (85-150-170) cm. The application was carried out on three ready-made programs, which are: (Gemini X8) program, (10 Gerber) program, and (7.3 CLO-3D) program.

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Marker, Nesting Efficiency, Ready made pattern Software.

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