IMPROVING A PLASTICS INJECTION PROCESS BY USING AN EFFICIENT PRODUCTION MANAGEMENT SYSTEM

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Rezumat. *In contextul actual, dominat de schimbările bruște și oscilațiile comenzilor, nesiguranța în procesul de aprovizionare a componentelor și materiei prime, toate companiile sunt în permanentă căutare de soluții și instrumente care să ajute la creșterea productivității și eficientizarea procesului de producție. Lucrarea descrie modul de eficientizare a unui proces de injecție mase plastice prin implementarea unui Sistem de Gestionare Eficientă a Producției (MES), care folosește informații on-line pentru a gestiona resursele curente de producție: oameni, echipamente și timp. Sistemele MES oferă o serie de beneficii pe termen lung și scurt, precum și beneficii strategice și tactice, inclusiv timp redus, volume de producție mai mari, randamente îmbunătățite, costuri de operare mai mici, conformitate sporită.*

Abstract. *In the actual context, with sudden changes and fluctuations in orders, insecurity in the supply of components and raw materials, all companies are constantly looking for solutions and tools to help increase productivity and improve the production process. The paper describes how to streamline a plastics injection process by implementing the MES (Manufacturing Execution System) which uses online information to manage the current application of production resources: people, equipment and time. MES Systems offer a number of long-term and short-term benefits, as well as strategic and tactical benefits, including reduced time, higher production volumes, improved yields, lower operating costs, increased compliance.*

Keywords: Plastic products, Injection process improvement; MES, ERP.

1. Introduction

The paper describes the concept of optimizing a plastic injection process by implementing an efficient production management and control system [1]. Starting from the injection process and the need for optimization to adapt to current market requirements, I have identified several management and control systems that can be implemented to achieve a productive process. The paper details the implementation of the production execution system (MES-Manufacturing Execution System) for the described process and the contribution for the process improvement [2], [3], [4], [5].

From the stock of raw materials to the management of delivery times for products, all companies are constantly looking for solutions and tools to help increase productivity and improving the production process. This implies the

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