

MODEL OF SELECTION PROCESSES ON MACHINE TOOLS MANUFACTURING IN CORRELATION WITH THE BATCH SIZE OF PIECES MADE

Miron ZAPCIU¹, Dumitru CATRINA², Marius Costin V. MANEA³

Rezumat. *Una din principalele tendințe, care caracterizează viața economică contemporană, impusă de înseși mecanismele pieței concurențiale, dar și de caracterul limitat al resurselor, o reprezintă reducerea costurilor. Dată fiind această realitate, fiecare agent economic trebuie să înțeleagă că procesul complex al reducerii costului și sporirii competitivității este condiția esențială, de care depinde asigurarea profitabilității, dezvoltarea și activitatea sa pe piață. Lucrarea dezvoltă noțiunea de proces de fabricare, a pieselor realizate pe mașini unelte explicându-se modul cum trebuie să se facă identificarea și planificarea proceselor de fabricație în funcție de mărimea lotului de piese.*

Abstract. *One of the main trends that characterize contemporary economic life, itself necessitated by competitive market mechanisms, but also the limited resources, is to cut costs. Given this reality, each trader must understand the complex process of reducing costs and enhancing competitiveness is the key, which depends on ensuring profitability development and marketing activities. The paper develops the concept of production process for pieces made on machine tools, explaining how it should be the identification and planning of production processes based on batch size pieces.*

Keywords: process of manufacture, cost of production, batch, piece

1. Introduction

The analysis below is based on its expertise in manufacturing metallic materials, but can be adapted to other production areas studied any mechanical product from multiple components can establish the following elements:

- mechanical parts that can be completely manufactured by removing material from a solid block;
- elements which could be based on finished castings or forgings, the primary process of casting or forging to obtain approximate geometric shape of the finished piece;
- pieces which can be assembled by welding or riveting, from standardized pieces.

¹Prof. Ph.D. Eng. Miron Zapciu, Senior Researcher, Faculty of Engineering and Management of Technological Systems, University "Politehnica" of Bucharest, (zapcium@yahoo.com).

²Prof. Ph.D. Eng. Dumitru Catrina, Senior Researcher, Faculty of Engineering and Management of Technological Systems, University "Politehnica" of Bucharest.

³Marius Costin V. Manea, Eng. Junior Researcher, Faculty of Engineering and Management of Technological Systems, University "Politehnica" of Bucharest (marius_manea86@yahoo.com).