

DESIGN, MANUFACTURE AND IMPROVEMENT OF DIE FOR THE AUTOMOTIVE INDUSTRY

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Rezumat. Pentru îmbunătățirea performanței proceselor de presare la rece se introduc permanent noi metode de optimizare a acestui proces, a activităților de proiectare, a procesului de fabricarea sculelor etc. Procedul de prelucrare mecanică prin presare la rece dobândește, pe zi ce trece, o tot mai largă aplicabilitate, ca urmare a avantajelor pe care le prezintă: productivitate ridicată, precizie mare a pieselor și cost scăzut. Pentru optimizarea procesului de proiectare, la ora actuală se utilizează pe scară largă instrumentele asistate de calculator (CAD/CAE), ce contribuie la scurtarea ciclului de proiectare a produselor. Astfel se pot utiliza programe ca Cadceus sau Catia V5 pentru proiectare, dar și alte programe pentru lucrul cu element finit (Autoform).

Abstract. To improve the performance of cold pressing processes, new methods are introduced to optimize this process, design activities, tool manufacturing process, etc. The cold-pressing mechanical machining process gains an ever wider applicability as a result of its benefits: high productivity, high workpiece precision and low cost. To optimize the design process, computer aided tools (CAD / CAE) are currently widely used to help shorten the product design cycle. This is how programs like Cadceus or Catia V5 can be used for design, but also other programs for working with finite element (Autoform).

Keywords: Quality, Molding process, Die

1. Introduction

This research is highlighting the work done by first author in S.C. Armcomp S.R.L., being employed as Operator on Numerical Control Machines, focusing on improving activities over time.

The purpose of this paper is to analyze the quality of a sheet from the point of view of the geometry of the piece and to develop solutions for the improvement of its quality level.

The following objectives have been set for the purpose of the paper, set out above:

a) Study of the cold deformation principles encountered;

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