

ABSTRACTS “INNOVATIVE TECHNOLOGY” 1 - 2 / 2005

DESCRIPTION OF INDUSTRIAL, USED FOR OBTAINING THE NEW INDUSTRIAL OBJECTS

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This work present some aspects regarding the industrial design, used for obtaining the new industrial objects.

A STUDY REGARDING THE GRAPHIC REPRESENTATION OF THE SHAPE OF MECHANICAL PARTS USED IN MACHINE BUILDING

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The paper presents some researches into the graphic representation of the parts shape in machine building.

ON THE CUTTING FORCES VARIATION WITH RESPECT TO THE DRILLING CUTTING REGIME PARAMETERS OF STAINLESS STEEL 4NiCr180 TYPE

O. Blăjină, A. Vlase, I. Vlase

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The paper presents a series of experimentally found data concerning the drilling of the 4NiCr180 type stainless steel and the ways and means to determine the cutting forces with respect to the specific working conditions. The results obtained can be implemented in further reserch and used in productin activity.

ON THE CUTTING MOMENTS VARIATION WITH RESPECT TO THE DRILLING CUTTING REGIME PARAMETERS OF STAINLESS STEEL 4NiCr180 TYPE

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A RESEARCH REGARDING PRISM DEVELOPMENT

Eugenia Călin

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The paper presents a method of representation of a prism development, excluding the construction of the normal setion.

STUDIES REGARDING THE AXONOMETRIC PROJECTION USED IN DESCRIPTIVE GEOMETRY

Eugenia Călin, G. Oprea

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The paper presents some solving methods of descriptive geometry problems using the axonometric projection.

A COMPARATIVE RESEARCH INTO THE METHODS OF GRAPHIC REPRESENTATION OF MECHANICAL PARTS

Eugenia Călin

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The paper presents a comparison between some types of graphic representation used in mechanical design.

ASPECTS REGARDING THE REPRESENTATION METHODS OF THE OBJECTS

G. Oprea, Eugenia Călin

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The paper presents the theoretical basis for the plane graphical representation of the object.

EXPERIMENTAL RESEARCH ABOUT PROCESSING WITH SHOCKS

Mihaela-Liana Bogdan

Mechanical Faculty, University of Craiova,
ROMANIA

It is presented some diagrams obtained at the processing with shocks at shaping- machine. These diagrams show the variation law (in time) of the some kinematical parameters and force. To analyze the influence of these factors on the process in the case of shocks it is made many experiments. Each experiment has the different parameters of the processing regime.

**STUDY OF THE SHOCKS INFLUENCE
ABOUT SPLINT DIMENSIONS AND FORMS
AND AT THE PROCESSING AT SHAPING-
MACHINE**

Mihaela-Liana Bogdan
Mechanical Faculty, University of Craiova,
ROMANIA

It is experimentally studied the shock influence about the plint dimensions and forms at the processing at shaping- machine. It is given tables with coefficients about the splints deformability.

**SOME ASPECTS REGARDING THE DESIGN
OF RECONFIGURABLE MACHINE TOOLS**

D. Popescu
University of Craiova, ROMANIA

The design of reconfigurable machine tools is based solely on the experience of the designers, due to the lack of a systematic reconfiguration method. MRT synthesis can generate a cinematically viable solution that could reduce the failure rate of future expansion attempts.

**USE OF RECONFIGURABLE MACHINE
TOOLS WITH MODULAR COMMAND
IN RECONFIGURABLE MANUFACTURING
SYSTEMS**

D. Popescu
University of Craiova, ROMANIA

It is performed a study of the main characteristics of network command systems, as well as of the implementation of the networked machine tool. It is established a hierarchical architecture model of RMS network based on industrial network applications.

**MODEL FOR DYNAMIC ANALYSIS OF
VIBRATIONS AT MILLING OPERATIONS.
ESTABLISHMENT OF THE MOVEMENT
EQUATIONS**

Șt. Buzatu, D. Popescu
University of Craiova, ROMANIA

Fore this purpose is employed finite element analysis. The elementary mass and the rigidity matrices include the breaking deformations and inertial rotation effects. All these elementary matrices are assembled in terms of global mass M and rigidity matrix K , by means of wich can be written the differential equation of the movement.

**RESEARCH ON EXPERIMENTAL OBJECTS
ABOUT THE ELASTIC DEFORMATIONS
FOR THE MACHINE TOOLS**

Șt. Buzatu, D. Popescu
University of Craiova, ROMANIA

In order to reduce the elastic deformaions for the machine tools, one can use supplementary compensation structures. This allows an increase of the rigidity of structures and an important decrease of the total mass.

In this paper we annalize a like projecting beam experimental model. We observe there is a concordance between the theoretical results obtained by the finite element method and the experimental results. Result allows us to extend this research method at the complex structures of the large dimensions machine tools, too.

**CONSIDERATIONS ON THE QUALITY
OF THE CUTTING MILL PROCESSED
SURFACES**

Doina Iacomi, E. L. Nitu, A. Rizea
University of Pitesti, ROMANIA

The industrial practice highlights the today tendency by wich the cut finishing technologies be realized with finite geometry ustensils.

Among, the most frequentl used cutting procedures, the milling has an significant place.

The present work wants to determine on the basis of some theoretical and experimental studies the manner in wich the milling method as well as the cutting conditions influence some quality parameters of the processed surfaces.

**ASSEMBLING DEVICES OF MODULATING
ELEMENTS**

M. Drăgnei
University of Craiova, ROMANIA

The paper presents the possibility of designing and constructing a set of assembling devices of modulating elements, the type template used for assembling basic subassemblies in aeronautics industry.

**MODULATED ELEMENTS SPECIFIC
FOR THE ASSEMBLING DEVICES**

M. Drăgnei
University of Craiova, ROMANIA

The paper presents the principal building element of the structure of an assembling device made up of modulated elements of the type template specific to aeronautics industry.

**A STUDY CONCERNING THE GRAPHIC
REPRESENTATION OF THE TECHNICAL
CURVES**

Eugenia Calin
POLITEHNICA University of Bucharest, ROMANIA

The paper presents some researches into the graphic representation of the technical curves.