

Quality management in the engineering practice

Marek Tadeusz Roszak

Institute of Engineering Materials and Biomaterials, Silesian University of Technology,

ul. Konarskiego 18a, 44-100 Gliwice, Poland

Corresponding author e-mail address: marek.roszak@polsl.pl

Abstract

Purpose of the book: *The purpose of this book is to present a general knowledge of quality management in productive material processes, with particular emphasis on the weight of the subject in the area of its practical use by engineering staff in realization of productive processes. The book was based on the review of literature and is the result of author's long teaching experience in this subject. The motive for publication is to present the methodology used for years in teaching in the broadest sense of quality and quality management, and the presentation of selected examples of the results of research conducted by the Institute of Material Processing Technology, Management and Computer Techniques in Materials Institute of Engineering Materials and Biomaterials, Silesian University of Technology for many years, and experience gained during the implementation of project and research work.*

The content and scope of the book: *The book begins with the chapter defining the contemporary application of the quality management in relation to broadly defined engineering activities, in particular in the manufacturing processes of products. Particularly the problem of the role of engineering in creating the quality of manufacturing processes was distinguished. In further chapters of the book there were presented the basic information relating to the issues of quality management in manufacturing processes in all stages of the process: planning, control and improvement.*

Range of design/array exercises: *In this part of the book there are provided instructions for cycle of design/array exercises implemented for the subjects: "Quality Management", "Quality", "Quality Engineering" and the specialized classes covered by several successive subjects. The implementation of the purposes of exercises described in the instructions enabling detailed analysis of students with the most important – due to the implementation of*

manufacturing processes – practical aspects of the quality management concerning: understanding and building of awareness of quality in manufacturing processes, basic methods and tools of quality management, basic statistics in the quality management, interaction of the quality management system on manufacturing processes, the use of value analysis in manufacturing processes and the idea of improving manufacturing processes.

This work is created with the aim of raising awareness and orientation of technical students at the Faculty of Mechanical Engineering of the Silesian University of Technology in the field of contemporary relevance and practical application of quality management in manufacturing processes.

Reference to this paper should be given in the following way:

M.T. Roszak, Quality management in the engineering practice, Open Access Library, Volume 1 (31) (2014) 1-150 (in Polish).