

CONCEPT OF ECODESIGN APPLIED TO THE DESIGN AND PROCESSES EQUIPMENT MANUFACTURING

Andra-Raluca DABIJA

Rezumat. Conceptul de Ecodesign presupune integrarea în activitatea de concepție a produsului a componentei de protecție a mediului, care este integrată alături de alte componente ca: gestiunea costurilor, performanța tehnică, cerințele clientilor. Condițiile de protecție a mediului trebuie aplicate pe ansamblul tuturor fazelor ciclului de viață a produsului (concepție, proiectare, fabricație, transport, utilizare și eliminare), pe produs sau pe serviciu, pe ambalaj. Lucrarea de față tratează problematica aplicării conceptului de Ecodesign la concepția și proiectarea proceselor și echipamentelor tehnologice de fabricație din domeniul construcției de mașini.

Abstract. The Ecodesign concept involves the integration of product design in the work of the environmental component that is integrated with other components such as: management costs, technical performance, customer requirements. Environmental conditions must be applied throughout all phases of product life cycle (conception, design, manufacturing, transportation, use and disposal), the product or service on the packaging. This paper deals with the issue of applying the concept of Ecodesign in the design process and equipment design and manufacturing technology in the field of machine building.

1. Introduction

According to the principles of sustainable development, the environment must be protected so that, in conditions in which the renewable resources are increasingly scarce, the rate of natural resources-consumption does not lead for long-term to their decrease and to permit their saving in order to satisfy the aspirations of the present and next generations. But any industrial product do not go through it's life cycle without eating (consumption of natural resources and energy) or polluting (every product is at the origin of freeing various substances in the atmosphere, water or soil, respectively: waste water, exhaust, emissions of gas or vapour). All these are actually sources of impact on environment which, through the attention accorded in the design phase of products, can be considerably improved. The concept integrates in the product design activity the following new component: the environmental protection, component that is integrated with others such as: management costs, technical performance, customer requirements.

The environmental protection conditions must be applied throughout all phases of the product life cycle (conception, design, manufacturing, transportation, use and disposal), on product or service, on packs, etc.