

This document is a preview generated by EVS

Ergonomic principles in the design of work systems

Ergonomic principles in the design of work systems

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 6385:2004 sisaldab Euroopa standardi EN ISO 6385:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.05.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 6385:2004 consists of the English text of the European standard EN ISO 6385:2004.</p> <p>This document is endorsed on 18.05.2004 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p>Käsitlusala: This International Standard establishes the fundamental principles of ergonomics as basic guidelines for the design of work systems and defines relevant basic terms. It describes an integrated approach to the design of work systems, where ergonomists will cooperate with others involved in the design, with attention to the human, the social and the technical requirements in a balanced manner during the design process.</p>	<p>Scope: This International Standard establishes the fundamental principles of ergonomics as basic guidelines for the design of work systems and defines relevant basic terms. It describes an integrated approach to the design of work systems, where ergonomists will cooperate with others involved in the design, with attention to the human, the social and the technical requirements in a balanced manner during the design process.</p>
---	---

ICS 13.180

Võtmesõnad:

English version

**Ergonomic principles in the design of work systems
(ISO 6385 : 2004)**

Principes ergonomiques de la conception des systèmes de travail
(ISO 6385 : 2004)

Grundsätze der Ergonomie für die Gestaltung von Arbeitssystemen
(ISO 6385 : 2004)

This European Standard was approved by CEN on 2004-01-16.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Management Centre: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 6385 : 2004 Ergonomic principles in the design of work systems, which was prepared by ISO/TC 159 'Ergonomics' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 122 'Ergonomics', the Secretariat of which is held by DIN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by August 2004 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 6385 : 2004 was approved by CEN as a European Standard without any modification.

Contents

	Page
Foreword	2
Introduction	2
1 Scope	3
2 Terms and definitions	3
3 Designing work systems	5
3.1 General principles	5
3.2 Work system design process	6
3.3 Formulation of goals (requirements analysis)	6
3.4 Analysis and allocation of functions	6
3.5 Design concept	7
3.6 Detailed design	7
3.7 Realization, implementation and validation	11
4 Evaluation	11
Bibliography	12

Introduction

Technological, economic, organizational and human factors affect the work behaviour and well-being of people as part of a work system. Applying ergonomic knowledge in the light of practical experience in the design of a work system is intended to satisfy human requirements.

This International Standard provides a basic ergonomic framework for professionals and other people who deal with the issues of ergonomics, work systems and working situations. The provisions of this International Standard will also apply to the design of products, e.g. consumer products.

In the design of work systems in accordance with this International Standard, the body of knowledge in the field of ergonomics is taken into account. Ergonomic evaluations of existing or new work systems will show the need for, and encourage attention to, the role of the worker within those systems.

1 Scope

This International Standard establishes the fundamental principles of ergonomics as basic guidelines for the design of work systems and defines relevant basic terms. It describes an integrated approach to the design of work systems, where ergonomists will cooperate with others involved in the design, with attention to the human, the social and the technical requirements in a balanced manner during the design process.

Users of this International Standard will include managers; workers (or their representatives); and professionals such as ergonomists, project managers and designers who are involved in the design or redesign of work systems. Those who use this International Standard may find a general knowledge of ergonomics (human factors), engineering, design, quality and project management helpful.

The term "work system" in this International Standard is used to indicate a large variety of working situations. The intention is to improve, (re)design or change work systems. A work system involves a combination of people and equipment, within a given space and environment, and the interactions between these components within a work organization. Work systems vary in complexity and characteristics. Some examples of work systems are: a machine with a single person; a process plant including its operating and maintenance personnel; an airfield with users and personnel; an office with its workers; and computer-based interactive systems. The observance of ergonomic principles applies also to the installation, adjustment, maintenance, cleaning, repair, removal and transport of work systems.

The systems approach in this International Standard gives guidance to the users of this standard in existing and new situations.

The definitions and ergonomic guiding principles specified in this International Standard apply to the design of optimal working conditions with regard to human well-being, safety and health, including the development of existing skills and the acquisition of new ones, whilst taking into account technological and economic effectiveness and efficiency.

While the principles in this International Standard are oriented to the design of work systems, they are applicable to any field of human activity, e.g. in the design of products for domestic and leisure activities.

NOTE This International Standard is considered to be the core ergonomic standard from which many others on specific issues are derived.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1

allocation of functions

process of deciding how system functions shall be implemented, by humans, by equipment and/or hardware and/or software

2.2

design population

designated group of workers delimited as a percentile range of the general population, defined according to relevant characteristics, e.g. gender, age, skill level, etc.