

ICS 13.180
CCS A 25



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 16251-2023

Replacing GB/T 16251-2008

Ergonomics principles in the design of work systems

Issued on: May 23, 2023

Implemented on: December 1, 2023

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules for Standardization Documents" drafting:

This document replaces GB/T 16251-2008 "Ergonomic principles for the design of work systems" and is consistent with GB/T 16251-2008

In addition to structural adjustments and editorial changes, the main technical changes are as follows:

--- Added "well-being", "usability", "human-centered design", "accessible" and "target population" in "terms and definitions", and deleted

"Design target population" (see Chapter 3, Chapter 2 of the:2008 edition);

--- Increased the content related to "working system life cycle" (see 4:2);

--- Added the "adjustment" principle, "verification and confirmation" replaced "confirmation" (see 4:7, 3:7 of the:2008 edition);

--- Added "consistency" related content (see 5:7):

This document is equivalent to ISO 6385:2016 "Ergonomic principles for the design of work systems":

Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents:

Introduction

Technical, economic, organizational and human factors influence work behavior and well-being of people in work systems: In the design of the work system, according to the practice

The practice of applying ergonomics knowledge is to meet human needs:

This document provides basic information for professionals and others working with ergonomics, work systems and the work environment:

Ergonomic framework: This document also applies to the design of products used in working systems:

Following the principles and requirements set out in this document will help management make better decisions, such as working with sustainable investment systems

innovation-related decisions:

According to the work system designed in this document, the body of knowledge of ergonomics has been taken into account: For existing or new work systems

Workers in the system need to be involved when doing ergonomics, and attention to the role of workers in the work system is encouraged:

ISO 26800 puts forward the basic starting point of human ergonomics thought and determines the basic general principles and concepts: This document is under construction

These contents are described in the relevant chapters on the design and evaluation of the operating system:

This document is also of value in management system standards such as ISO 45001, where, in addition to providing process guidance, it also provides guidance for achieving good human

performance guidance:

Ergonomic principles for work system design

1 Scope

This document specifies the basic principles of ergonomics in the design of work systems, defines related basic terms, and describes the principles of work system design:

comprehensive method of counting: This approach requires ergonomics professionals to work collaboratively with others involved in system design, paying attention to

The balance between human needs, social needs and technical needs:

Users of this document include managers, workers (or their representatives), and corresponding professionals involved in the design or redesign of work systems

professionals, such as ergonomics, project managers, designers, etc: Learn about ergonomics (human factors), engineering, design, quality, and project management aspects

A general knowledge of this document will help to make better use of this document:

This document is intended to provide assistance and guidance for the improvement, design (or redesign) or replacement of working systems: In this document, the "Work Department

"System" involves the combination of people and equipment in a specific space and environment, as well as the interaction between them, and generally refers to various working conditions, including different

Changing and variable workplaces, etc: The complexity and characteristics of different job systems vary, such as the use of temporary job systems: No

The working system in the same field is shown below:

- Production, such as machine operators and machines, workers and assembly lines;
- Transportation, such as drivers and cars or trucks, airport personnel;
- Support, such as maintenance technicians and working equipment;
- Business, such as office workers and workstations, mobile workers and tablets, chefs in restaurant kitchens;
- Other fields, such as medical care, teaching and training:

The adherence to ergonomic principles applies to all phases of the life cycle of a work system, from conception to development, realization and implementation, use,

Maintenance and support until end of life:

The systematic approach in this document provides guidance to current and future users of this document:

The definitions and ergonomic criteria set out in this document apply to the design of optimal working conditions, which focus on human well-being, safety, and health (including the development of existing skills as well as the learning of new skills), taking into account technical and economic benefits and efficiencies:

The guidelines in this document apply not only to the design of working systems, but also to any other design related to human activities (e.g., using product design for home use and leisure activities): A more general description of the criteria in this document is found in ISO 26800:

Note 1: This document is the core ergonomics standard of the work system, and many other documents for specific issues are derived from this document:

Note 2: Although the factors in the system have the same possibility, but this document is not intended to be applied to systems in non-working environments (such as vehicles for private purposes):

2 Normative references

This document has no normative references:

3 Terms and Definitions

The following terms and definitions apply to this document:

3:1

well-beingwel-being

< work system> sustainable internal state resulting from the satisfaction of the physical and cognitive needs of the worker (3:4) during work: