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Ergonomic principles related to mental work-load — General terms and definitions

Principes ergonomiques concernant la charge de travail mental — Termes généraux et leurs définitions



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Foreword

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nternational Standard ISO 10075 was prepared by Te-SO/TC 159, Ergonomics, Sub-Committee SC 1, Ergonome, so ciples.
Annex A forms an integral part of this International Standard, Annex A forms an integral part of this International Standard, Annex A forms an integral part of this International Standard, Annex A forms an integral part of this International Standard, Annex A forms an integral part of this International Standard, Annex A forms, Sub-Committee SC 1, Ergonome, so ciples.

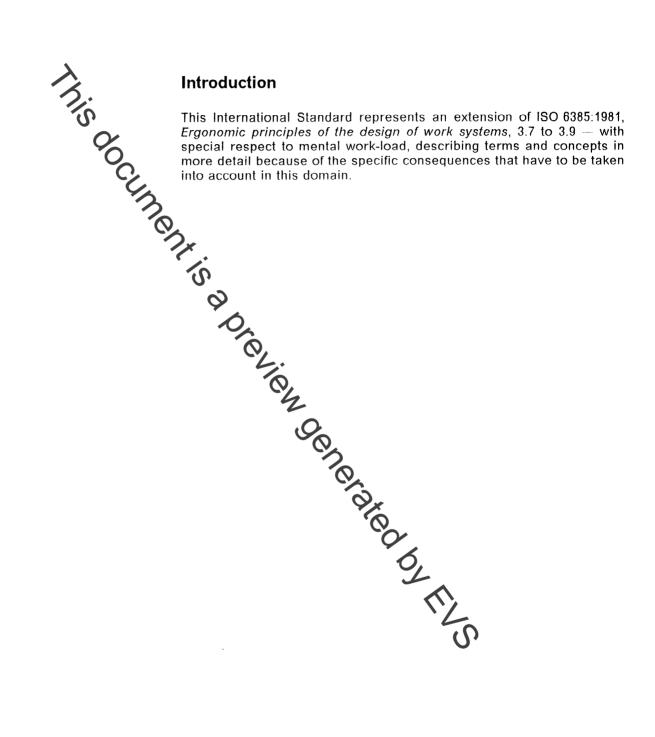
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Ergonomic principles related to mental work-load — General terms and definitions

1 Scope

This International Standard defines terms in the field of mental work-load, covering mental stress and mental strain, and specifies the rotations between the concepts involved.

It applies to the design of working conditions with respect to mental work-load and is intended to promote a common usage of terminology between experts and practitioners in the field of ergonomics as well as in general.

It does not address methods of measurement and principles of task design, which are or will be dealt with in other International Standards.

2 General concepts

Any activity — even a predominantly physical one — can impose mental stress¹. "Mental stress" in this case is a term employed to designate any external influence impinging upon human beings and affecting them mentally. Mental stress induces processes of increasing or decreasing mental strain within human beings. The immediate consequences of mental strain are facilitating effects on the one hand, and mental fatigue and/or fatigue-like states on the other. As an indirect consequence of mental strain there may be practice and training effects. The consequences of mental strain mentioned here may differ in form and intensity, depending on individual and situational preconditions. In this International Standard the expression "mental" is used wherever processes of human experience and behaviour are referred to. "Mental" in this sense refers to cognitive, informational, and emotional processes in the human being. The term mental is used because these aspects occur interrelatedly and can and should not be dealt with separately in practice.

Definitions

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mental stress: The total of all assessable influress impinging upon a human being from external ources and affecting it mentally²⁾.

3.2 mental strain: The immediate effect of mental stress within the individual (not the long-term effect) depending whis/her individual habitual and actual preconditions piccluding individual coping styles.

- 3.3 consequences of mental strain³⁾
- 3.3.1 facilitating effects

3.3.1.1 warming-up effect: A frequent consequence of mental strain which soon after the activity has started results in a reduction of the effort required to perform that activity relative to the effort required initially.

¹⁾ See annex A, clause A.4.

²⁾ See annex A.

³⁾ The order of defining the following terms does not imply any functional relationship.