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Office furniture - Office work chair - Part 1: Dimensions - Determination of dimensions

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

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## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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#### **English Version**

# Office furniture - Office work chair - Part 1: Dimensions - Determination of dimensions

Mobilier de bureau - Sièges de travail de bureau - Partie 1 : Dimensions - Détermination des dimensions

Büromöbel - Büro-Arbeitsstuhl - Teil 1: Maße -Bestimmung der Maße

This European Standard was approved by CEN on 27 January 2020 and includes Amendment 1 approved by CEN on 9 October 2022.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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#### **European foreword**

This document (EN 1335-1:2020+A1:2022) has been prepared by Technical Committee CEN/TC 207 "Furniture", the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1 approved by CEN on 9 October 2022.

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A] (A1).

A) This document supersedes EN 1335-1:2020 (A)

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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#### Introduction

#### 0.1 General working condition

The working conditions and the protection of office workers with respect to safety and health necessitates that these standards take ergonomic principles and minimum requirements into account. This applies in particular to the design of Visual Display Equipment (VDU) workstations where EU Directive (90/270/EEC) has been implemented. These workstations should be designed to allow different users to carry out a variety of work tasks.

#### 0.2 Basis of dimensions and chair types

The dimensions in this document are based on anthropometric measurements, mechanical design subjective preference and other factors.

The aim of this document is to provide dimensions for the office work chairs which can accommodate a larger part of the European population. Due to the wide variation in population heights and other body dimensions, there will be a variation of the office population between each country, which the dimensions will accommodate. People with body dimensions outside this range may need furniture of different dimensions or adaptations to existing workstations e.g. a footrest.

In this document, office work chairs are categorized into types of chairs based on dimensional requirements.

Type Ax and Type A chairs have more adjustability with a greater range of adjustments than Type B and Type C chairs.

Annex A (Rationale) of this document gives the rationale for chair dimensions and information regarding the importance of good fit between the user and the chair.

#### 0.3 Design reference seating posture

In order to articulate acceptable requirements for comfort and performance with respect to body dimensions, it is important to specify a design reference posture for purposes of specifying anthropometric data. While empirical evidence has indicated that the posture so specified could be comfortable for users carrying out certain tasks over short periods, it does not represent the optimum posture or the posture to strive for.

The reference seating posture is as follows:

- The sole of the foot is placed on the floor;
- The foot forms an angle of approximately 90° with the lower leg;
- The lower leg is approximately vertical;
- The lower leg forms an angle of approximately 90° with the thigh;
- The thigh is almost horizontal;
- The thigh forms an angle of approximately 90° with the trunk;
- The trunk is erect.

#### 0.4 Seating postures

The purpose of well-designed seating is to provide stable support which allows movement, comfort, and task accomplishment. Together with job content and the design of other furniture elements, seating design plays an important role in encouraging movement. Thus, seat design should allow frequent postural variation by the user in order to avoid muscle stress and circulatory problems.

#### 1 Scope

This document specifies the dimensions of four types of office work chairs as well as test methods for their determination.

It does not apply to seating for children for which a European Standard exists.

Annex A (informative) contains a rationale for office chair dimensions.

Annex B (informative) contains an example to clarify the use of Table 2.

Annex C (informative) contains proposals for dimensions for headrests.

Annex D (informative) contains the measurement uncertainty.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

[A] ISO 24496:2021, Office furniture — Office chairs — Methods for the determination of dimensions [A]

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