
**Office furniture — Office chairs —
Methods for the determination of
dimensions**

*Mobilier de bureau — Sièges de travail pour bureau — Méthodes
pour déterminer les dimensions*



This document is a preview generated by EBS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 General measurement conditions	23
4.1 General	23
4.2 Preliminary preparation	23
4.3 Tolerances	23
4.4 Measurement uncertainty	24
5 Test equipment	24
5.1 Floor surface	24
5.2 CMD placement fixture	24
5.3 Chair measuring device (CMD)	26
5.4 High friction material	26
6 Measurement methods and procedures	26
6.1 General	26
6.2 Chair set-up and placement of CMD	26
6.2.1 Chair set-up	26
6.2.2 Initial placement of CMD on chair	27
6.2.3 Final placement of CMD on chair	29
6.3 Measuring procedures	29
6.3.1 Initial chair measurements	29
6.3.2 Measurements with the chair components adjusted to their minimum positions	39
6.3.3 Measurements with the chair components in their maximum positions	45
6.3.4 Measurements without the CMD in the chair	45
7 Test report	48
Annex A (normative) Drawings and specifications, PDF files for CMD with 18 stacked segment lumbar support measurement method	49
Annex B (informative) Anthropometric equivalents of terms and definitions	53
Annex C (informative) Development history and rationale	60
Bibliography	65

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This first edition cancels and replaces ISO/TR 24496:2012, which has been technically revised.

The committee responsible for this document is ISO/TC 136, *Furniture*.

Introduction

The test methods in this document are based on the manner in which anthropometric measurements are measured.

Therefore, in order to be able to relate the dimensions of office seating to the anthropometric dimensions, a theoretical reference seating posture has been adopted. This posture does, however, not automatically correspond to the ideal or optimum seating posture.

The reference seating posture is as follows:

- the sole of the foot 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.

Further information on the anthropometric dimensions can be found in ISO 7250-1, ISO 20685 and ISO 14738.

This document is meant to be used in conjunction with requirements documents. Such documents will specify which of the dimensions are to be measured. It is possible that not all of the measurements that can be taken by this document will be specified by the individual requirements document.

For the background and rationale for the provisions contained in this document, see [Annex C](#).

Office furniture — Office chairs — Methods for the determination of dimensions

1 Scope

This document specifies methods for the determination of the dimensions of office chairs.

This document does not contain dimensional specifications or requirements.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

NOTE For the anthropometric equivalents of the terms and definitions, see [Annex B](#).

3.1

angle between backrest and seat

γ

angle between the loaded backrest and the loaded seat

Note 1 to entry: See [Figure 1](#).