ISO 24496:2021 (E)

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

Contents

Foreword

Introduction

1 Scope

2 Normative references

3 Terms and definitions

4 General measurement conditions

4.1 General
4.2 Preliminary preparation
4.3 Tolerances
4.4 Measurement uncertainty
4.5 Angle — Origin and sign convention

5 Test equipment

6 Measurement methods and procedures

6.1 General
6.2 Chair set-up and placement of CMD
6.2.1 Chair set-up
6.2.2 Initial placement of CMD on chair
6.2.3 Final placement of CMD on chair
6.3 Measuring procedures
6.3.1 Initial chair measurements
6.3.1.1 Lumbar support protrusion and height
6.3.1.2 Inclination of seat, and backrest and angle between seat and backrest
6.3.1.3 Backrest to seat movement ratio
6.3.2 Measurements with the chair components adjusted to their minimum positions
6.3.2.1 General
6.3.2.2 Seat height and sitting height
6.3.2.3 Seat depth
6.3.2.4 Backrest height
6.3.2.5 Front of armrest position
6.3.2.6 Armrest set back
6.3.2.7 Armrest height
6.3.2.8 Neck/head rest height and protrusion
6.3.3 Measurements with the chair components in their maximum positions
6.3.3.1 General
6.3.3.2 Seat height and sitting height
6.3.3.3 Seat depth
6.3.3.4 Backrest height
6.3.3.5 Front of armrest position
6.3.3.6 Armrest height
6.3.3.7 Neck/head rest height and protrusion
6.3.4 Measurements without the CMD in the chair
6.3.4.1 General
6.3.4.2 Seat surface width
6.3.4.3 Seat surface depth
6.3.4.4 Backrest width
6.3.4.5 Backrest horizontal radius

6.3.4.6 Armrest length
6.3.4.7 Width of armrests
6.3.4.8 Hip breadth clearance
6.3.4.9 Distance between armrests
6.3.4.10 Maximum off-set of the underframe

7 Test report

Annex A (normative) Drawings and specifications, PDF files for CMD with 18 stacked segment lumbar support measurement method

Annex B (informative) Anthropometric equivalents of terms and definitions

B.1 General
B.2 Angle between backrest and seat
B.3 Armrest height
B.4 Armrest length
B.5 Distance between armrests
B.6 Front of armrest position
B.7 Armrest width
B.8 Backrest angle to vertical
B.9 Backrest width
B.10 Backrest height
B.11 Backrest inclination — range
B.12 Backrest radius — horizontal
B.13 CMD (chair measuring device)
B.14 Hip breadth clearance
B.15 Lumbar support — height
B.16 Lumbar support — protrusion
B.17 Lumbar zone
B.18 Median plane
B.19 Neck/head rest protrusion
B.20 Neck/head rest height
B.21 Seat depth
B.22 Seat height
B.23 Sitting height
B.24 Seat inclination
B.25 Seat surface depth
B.26 Seat surface width
B.27 Seat surface width zone
B.28 Underframe — maximum off-set

Annex C (informative) Rationale

C.1 Rationale for measurement method
C.2 Rationale for CMD design
C.3 Rationale for measurement zones
C.3.1 The front of armrest position
C.3.2 Seat depth
C.3.3 Seat width
C.4 Areas of caution
C.5 Uncertainty measurement

Page count: 62