

MÖÖBEL. HARIDUSASUTUSTE TOOLID JA LAUAD. OSA 1:  
FUNKTSIONAALMÕÕTMED

Furniture - Chairs and tables for educational  
institutions - Part 1: Functional dimensions

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 1729-1:2015 sisaldab Euroopa standardi EN 1729-1:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 1729-1:2015 consists of the English text of the European standard EN 1729-1:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 02.12.2015.	Date of Availability of the European standard is 02.12.2015.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 97.140

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:

Aru 10, 10317 Tallinn, Eesti; koduleht [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Aru 10, 10317 Tallinn, Estonia; homepage [www.evs.ee](http://www.evs.ee); phone +372 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

EUROPEAN STANDARD

**EN 1729-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2015

ICS 97.140

Supersedes EN 1729-1:2006

English Version

## Furniture - Chairs and tables for educational institutions - Part 1: Functional dimensions

Ameublement - Sièges et tables pour établissements  
d'enseignement - Partie 1 : Dimensions fonctionnelles

Möbel - Stühle und Tische für Bildungseinrichtungen -  
Teil 1: Funktionsmaße

This European Standard was approved by CEN on 3 October 2015.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

<b>Contents</b>	<b>Page</b>
<b>European foreword</b> .....	<b>3</b>
<b>Introduction</b> .....	<b>4</b>
<b>1 Scope</b> .....	<b>5</b>
<b>2 Normative references</b> .....	<b>5</b>
<b>3 Terms and definitions</b> .....	<b>5</b>
<b>4 Functional dimensions for chairs and tables</b> .....	<b>9</b>
<b>5 Marking</b> .....	<b>10</b>
<b>6 Instructions</b> .....	<b>10</b>
<b>7 Approval of range</b> .....	<b>11</b>
<b>Annex A (normative) Functional dimensions for chairs with slopes between <math>-5^{\circ}</math> and <math>+7^{\circ}</math> and associated tables</b> .....	<b>12</b>
<b>A.1 Functional dimensions and size marks for chairs</b> .....	<b>12</b>
<b>A.2 Functional dimensions and size marks for tables</b> .....	<b>19</b>
<b>A.3 Legroom</b> .....	<b>20</b>
<b>A.4 Requirements for adjustable chairs and tables</b> .....	<b>20</b>
<b>Annex B (normative) Functional dimensions for high chairs with double-sloped seats and associated tables</b> .....	<b>22</b>
<b>B.1 Functional dimensions and size marks for chairs</b> .....	<b>22</b>
<b>B.2 Functional dimensions and size marks for tables</b> .....	<b>28</b>
<b>B.3 Legroom</b> .....	<b>29</b>
<b>B.4 Requirements for adjustable high chairs with double-sloped seats and tables</b> .....	<b>30</b>
<b>Annex C (normative) Functional dimensions for standing-height tables</b> .....	<b>31</b>
<b>Annex D (normative) Functional dimensions for tall chairs with slopes between <math>-5^{\circ}</math> and <math>+7^{\circ}</math> and associated tables</b> .....	<b>33</b>
<b>D.1 Functional dimensions and size marks for chairs</b> .....	<b>33</b>
<b>D.2 Functional dimensions and size marks for tables</b> .....	<b>39</b>
<b>D.3 Legroom</b> .....	<b>41</b>
<b>D.4 Requirements for adjustable tall chairs</b> .....	<b>42</b>
<b>Annex E (normative) Functional dimensions for stools and associated worksurfaces</b> .....	<b>43</b>
<b>E.1 Functional dimensions for stools</b> .....	<b>43</b>
<b>E.2 Functional dimensions for corresponding worksurface height</b> .....	<b>45</b>
<b>Annex F (normative) Determination of Point S, buttock zone, seat height, seat angles, seat depth and armrest height</b> .....	<b>47</b>
<b>F.1 The school chair measuring device (SCMD)</b> .....	<b>47</b>
<b>F.2 Using the SCMD</b> .....	<b>49</b>
<b>Annex G (informative) Guidance for the calculation of the height of adjustable chairs and tables in Annex A, Annex B and Annex D</b> .....	<b>56</b>
<b>Annex H (informative) Guidance for the calculation of the height of chairs and tables in Annex B</b> .....	<b>57</b>
<b>Annex I (informative) Rationale</b> .....	<b>59</b>
<b>Bibliography</b> .....	<b>70</b>

## European foreword

This document (EN 1729-1:2015) 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 June 2016 and conflicting national standards shall be withdrawn at the latest by June 2016.

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

This document supersedes EN 1729-1:2006.

Compared to EN 1729-1:2006, the following modifications have been made:

- a) addition of an annex for functional dimensions of tall chairs (Annex D);
- b) addition of an annex for functional dimensions of stools and associated worksurfaces (Annex E);
- c) key dimensions of chairs in Annexes A and D are measured using the school chair measuring device (see Annex F), some of them when the chair is loaded with specified loads;
- d) a rationale for the functional dimensions of chairs and tables is provided (Annex I).

EN 1729 is composed of the following parts:

- *Part 1: Functional dimensions* [the present document];
- *Part 2: Safety requirements and test methods*.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

This part of EN 1729 is based on the principle that chairs and tables, intended for use in educational institutions for general-purpose education, should be designed to encourage good postures.

This part of EN 1729 takes selected national standards into consideration.

It does not specify design, but only those dimensions which promote good posture for either fixed or adjustable furniture. The dimensional requirements of this European Standard permit various interpretations of design; hence customs, educational practices, technical and financial circumstances of individual countries can be satisfied. It includes a rationale for the determination of functional dimensions.

The minimum dimensions specified are considered as the absolute minimum. They can be exceeded. The maximum dimensions specified are considered as the absolute maximum; smaller dimensions can be used.

EN 1729-2 specifies safety requirements and test methods.

## 1 Scope

This European Standard specifies functional dimensions and markings for all chairs, stools and tables, for educational institutions, including fixed and adjustable chairs and tables.

It applies to both un-upholstered and upholstered chairs and stools as well as to both non-swivel and swivel chairs. It applies to furniture for use with laptop computers or portable devices.

It does not apply to ranked seating or special purpose workstations.

It does not apply to furniture used by teaching personnel.

Annex A (normative) includes single-sloped chairs and associated tables.

Annex B (normative) includes double-sloped high chairs and associated tables.

Annex C (normative) includes standing-height tables.

Annex D (normative) includes tall chairs and associated tables.

Annex E (normative) includes stools and associated worksurfaces.

Annex F (normative) includes measurement methods.

Annex G (informative) includes guidance on size marks for adjustable chairs and tables.

Annex H (informative) includes guidance on calculating heights of double-sloped chairs and associated tables.

Annex I (informative) includes a rationale for functional dimensions.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1729-2, *Furniture - Chairs and tables for educational institutions - Part 2: Safety requirements and test methods*

## 3 Terms and definitions

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

### 3.1

#### **median plane**

vertical plane running from front to rear through the centre of the seat, dividing the chair into two equal parts

Note 1 to entry: See Figure 1.

### 3.2

#### **transverse plane**

vertical plane perpendicular to the median plane passing through the centre of the seat

Note 1 to entry: See Figure 1.