

**Masinate ohutus. Inimkeha mõõtmised. Osa 3:  
Antropomeetrilised andmed KONSOLIDEERITUD  
TEKST**

Safety of machinery - Human body measurements -  
Part 3: Anthropometric data CONSOLIDATED TEXT

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 547-3:1999+A1:2008 sisaldab Euroopa standardi EN 547-3:1996+A1:2008 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 27.10.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 24.09.2008.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 547-3:1999+A1:2008 consists of the English text of the European standard EN 547-3:1996+A1:2008.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 27.10.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 24.09.2008.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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**Võtmesõnad:** antropomeetrilised omadused, arvutamine, avad, avaused, ergonoomiline masinaehitus, inimkeha, mõõtmed, pordid, seadmeohutus, õnnetuste vältimine

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English Version

## Safety of machinery - Human body measurements - Part 3: Anthropometric data

Sécurité des machines - Mesures du corps humain - Partie  
3: Données anthropométriques

Sicherheit von Maschinen - Körpermaße des Menschen -  
Teil 3: Körpermaßdaten

This European Standard was approved by CEN on 15 November 1996 and includes Amendment 1 approved by CEN on 14 August 2008.

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## Foreword

This document (EN 547-3:1996+A1:2008) has been prepared by Technical Committee CEN/TC 122 "Ergonomics", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by March 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2008-08-14.

This document supersedes EN 547-3:1996.

The start and finish of text introduced or altered by amendment is indicated in the text by tags  $\boxed{A_1}$  and  $\langle A_1 \rangle$ .

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

$\boxed{A_1}$  For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document.  $\langle A_1 \rangle$

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

## Introduction

This European Standard is one of several ergonomics standards for the safety of machinery. EN 614-1 describes the principles designers should adopt in order to take account of ergonomic factors.

This standard has been prepared to be a harmonized standard in the sense of the Machinery Directive and associated EFTA regulations.

## 1 Scope

This European Standard specifies current requirements for human body measurements (anthropometric data) that are required by EN 547-1 and EN 547-2 for the calculation of access opening dimensions as applied to machinery.

The anthropometric data originate from static measurements of nude persons and do not take into account body movements, clothing, equipment, machinery operating conditions or environmental conditions.

The data are based on information from anthropometric surveys representative of population groups within Europe comprising at least three million people. Both men and women are taken into account.

Measurements are given, as required by EN 547-1 and EN 547-2, for the 5<sup>th</sup>, 95<sup>th</sup> and 99<sup>th</sup> percentiles of the relevant population group within Europe.

## 2 Normative references

This European standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 547-1, *Safety of Machinery – Human body measurements – Part 1: Principles for determining the dimensions required for openings for whole body access into machinery.*

EN 547-2, *Safety of Machinery - Human body measurements – Part 2: Principles for determining the dimensions required for access openings.*

prEN 979, *Basic list of definitions of human body measurements for technical design.*

EN 614-1, *Safety of Machinery - Ergonomic design principles – Part 1: Terminology and general principles.*

## 3 General requirements

Anthropometric measurements form the basis upon which minimum dimensions of access openings can be calculated. Where machinery requires access openings, then the provisions of EN 547-1 (for whole body access) and EN 547-2 (for access of parts of the body) shall be complied with.

Table 1 gives the human body measurements necessary to calculate the size of access openings taking account of the known range of body sizes within Europe.