

**Masinate ohutus.  
Püsijuurdepääsuvahendid masinatele.  
Osa 3: Trepid, treppredelid ja  
kaitsepiirded**

Safety of machinery - Permanent means of access  
to machinery - Part 3: Stairs, stepladders and guard-  
rails

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 14122-3:2003 sisaldab Euroopa standardi EN ISO 14122-3:2001 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.02.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 14122-3:2003 consists of the English text of the European standard EN ISO 14122-3:2001.</p> <p>This document is endorsed on 18.02.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p><b>Käsitlusala:</b> EN ISO 14122 defines the general requirements for safe access to machines mentioned in EN 292-2. Part 1 of EN ISO 14122 gives advice about the correct choice of access means when the necessary access to the machine is not possible directly from the ground level or from a floor. This part of EN ISO 14122 applies to stairs, step ladders and guard-rails which are a part of a machine.</p>	<p><b>Scope:</b> EN ISO 14122 defines the general requirements for safe access to machines mentioned in EN 292-2. Part 1 of EN ISO 14122 gives advice about the correct choice of access means when the necessary access to the machine is not possible directly from the ground level or from a floor. This part of EN ISO 14122 applies to stairs, step ladders and guard-rails which are a part of a machine.</p>
--	--

**ICS 13.110**

**Võtmesõnad:** examination, examination (quality, industrial facilities, machines, mechanical engineering, occupational safety, plant, railings, safety, safety engineering, safety requirements, specification (approval), specifications, stair railings, staircase ladders, stairs

ICS 13.110

English version

**Safety of machinery - Permanent means of access to machinery  
- Part 3: Stairs, stepladders and guard-rails (ISO 14122-3:2001)**

Sécurité des machines - Moyens d'accès permanents aux machines - Partie 3: Escaliers, échelles à marches et garde-corps (ISO 14122-3:2001)

Sicherheit von Maschinen - Ortsfeste Zugänge zu maschinellen Anlagen - Teil 3: Treppen, Treppenleitern und Geländer (ISO 14122-3:2001)

This European Standard was approved by CEN on 14 February 2000.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

## Contents

Foreword.....	3
Introduction .....	4
1 Scope .....	5
2 Normative references .....	5
3 Terms and definitions.....	6
4 General safety requirements concerning materials and dimensions .....	9
5 Safety requirements applicable to stairs.....	9
6 Safety requirements applicable to step ladders.....	10
7 Safety requirements applicable to guard-rails.....	11
7.1 Horizontal guard-rails.....	11
7.2 Guard-rails of stairs and step ladders .....	13
7.3 Structural requirements .....	15
8 Verification of safety requirements.....	15
8.1 General.....	15
8.2 Testing of guard-rails .....	16
8.2.1 Preloading.....	16
8.2.2 Stanchion measurement .....	16
8.2.3 Handrail measurement .....	17
9 Assembly instructions .....	18
10 Information for use – Instruction handbook .....	18
Annex ZA (informative) Relationship of this European standard with EU directives .....	19
Bibliography .....	20

## Foreword

The text of EN ISO 14122-3:2001 has been prepared by Technical Committee CEN/TC 114 "Safety of machinery", the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 199 "Safety of machinery".

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 November 2001, and conflicting national standards shall be withdrawn at the latest by November 2001.

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).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## Introduction

EN ISO 14122 consists of the following parts, under the general title "Safety of machinery - Permanent means of access to machinery" :

Part 1: Choice of a fixed means of access between two levels

Part 2: Working platforms and walkways

Part 3: Stairs, step ladders and guard-rails

Part 4: Fixed ladders.

This part of EN ISO 14122 is a type B standard as stated in EN 1070.

This document is to be read in conjunction with clause 1.6.2 "Access to operating position and servicing points" and 1.5.15 "Risk of slipping, tripping or falling" of the essential safety requirements expressed in annex A of EN 292-2:1991/A1:1995. See also 6.2.4 "Provision for safe access to machinery" of EN 292-2:1991.

For the significant hazards covered by this part of EN ISO 14122, see clause 4 of EN ISO 14122 -1.

The provisions of this part of EN ISO 14122 may be supplemented or modified by a type C standard.

**NOTE 1** For machines which are covered by the scope of a type C standard and which have been designed and built according to the provisions of that standard, the provisions of that type C standard take precedence over the provisions of this type B standard.

The dimensions specified are consistent with established ergonomic data given in EN 547-3 "Safety of machinery - Human body dimensions – Part 3 : Anthropometric data".

**NOTE 2** The use of materials other than metals (composite materials, so-called "advanced" materials, etc.) does not alter the application of the present standard.

Annex ZA is for information only.

This part of EN ISO 14122 contains a Bibliography.

## 1 Scope

EN ISO 14122 defines the general requirements for safe access to machines mentioned in EN 292-2. Part 1 of EN ISO 14122 gives advice about the correct choice of access means when the necessary access to the machine is not possible directly from the ground level or from a floor.

This part of EN ISO 14122 applies to all machinery (stationary and mobile) where fixed means of access are necessary.

This part of EN ISO 14122 applies to stairs, step ladders and guard-rails which are a part of a machine.

This part of EN ISO 14122 may also apply to stairs, step ladders and guard-rails to that part of the building where the machine is installed, providing the main function of that part of the building is to provide a means of access to the machine.

**NOTE** This part of EN ISO 14122 may be used also for means of access which are outside the scope of this standard. In those cases the possible relevant national or other regulations should be taken into account.

This part of EN ISO 14122 applies also to stairs, step ladders and guard-rails specific to the machine which are not permanently fixed to the machine and which may be removed or moved to the side for some operations of the machine (e.g. changing tools in a large press).

## 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 (including amendments).

EN 292—1 (ISO/TR 12100-1), *Safety of machinery — Basic concepts, general principles for design — Part 1 : Basic terminology, methodology*

EN 292-2:1991 + A1 (ISO/TR 12100-2), *Safety of machinery — Basic concepts, general principles for design — Part 2 : Technical principles and specifications*

EN 1070, *Safety of machinery — Terminology*

EN ISO 14122-1:2001, *Safety of machinery — Permanent means of access to machinery — Part 1 : Choice of fixed means of access between two levels*