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KONSOLIDEERITUD TEKST**

Aircraft ground support equipment - Specific requirements -  
Part 4: Passenger boarding bridges CONSOLIDATED TEXT

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12312-4:2003+A1:2009 sisaldab Euroopa standardi EN 12312-4:2003+A1:2009 ingliskeelset teksti.

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Standard on kättesaadav Eesti standardiorganisatsioonist.

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English Version

**Aircraft ground support equipment - Specific requirements - Part  
4: Passenger boarding bridges**

Matériel au sol pour aéronefs - Exigences particulières -  
Partie 4: Passerelles passagers

Luftfahrt-Bodengeräte - Besondere Anforderungen - Teil 4:  
Fluggastbrücken

This European Standard was approved by CEN on 17 January 2003 and includes Amendment 1 approved by CEN on 1 March 2009.

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 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 Management Centre has the same status as the official versions.

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# Contents

page

Foreword.....	3
Introduction.....	4
1 Scope.....	4
2 Normative references.....	4
3 Terms and definitions.....	5
4 List of hazards.....	7
5 Safety requirements and/or measures.....	7
5.1 General requirements.....	7
5.2 Controls, monitoring and warning devices.....	7
5.3 Vertical drive systems.....	8
5.4 Horizontal drive systems.....	8
5.5 Bridgehead rotation system.....	9
5.6 Operating speeds.....	9
5.7 Passenger accommodation.....	9
5.8 Operator's workplace.....	10
5.9 Service stairs and landings.....	10
5.10 Lighting.....	11
5.11 Fire protection.....	11
5.12 Electrical equipment.....	12
6 Information for use.....	12
6.1 Marking of data.....	12
6.2 Additional marking.....	12
6.3 Warnings.....	12
6.4 Instructions.....	12
7 Verification of requirements.....	13
Annex A (informative) Example of a typical boarding bridge.....	14
Annex B (normative) List of hazards.....	15
Annex C (informative) Sloping gradients.....	18
Annex ZA (informative) <b>Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC</b> .....	19
Annex ZB (informative) <b>Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC</b> .....	20
Bibliography.....	21

## Foreword

This document (EN 12312-4:2003+A1:2009) has been prepared by Technical Committee CEN/TC 274 "Aircraft ground support equipment" 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 October 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2009-03-01.

This document supersedes EN 12312-4:2003.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**.

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

**A1** For relationship with EC Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. **A1**

The Parts of EN 12312 — Aircraft ground support equipment — Specific requirements — are:

- Part 1: Passenger stairs
- Part 2: Catering vehicles
- Part 3: Conveyor belt vehicles
- Part 4: Passenger boarding bridges
- Part 5: Aircraft fuelling equipment
- Part 6: Deicers and deicing/antiicing equipment
- Part 7: Aircraft movement equipment
- Part 8: Maintenance stairs and platforms
- Part 9: Container/Pallet loaders
- Part 10: Container/Pallet transfer transporters
- Part 11: Container/Pallet dollies and loose load trailers
- Part 12: Potable water service equipment
- Part 13: Lavatory service equipment
- Part 14: Disabled/Incapacitated passenger boarding equipment
- Part 15: Baggage and equipment tractors
- Part 16: Air start equipment
- Part 17: Air conditioning equipment
- Part 18: Nitrogen or Oxygen units
- Part 19: Aircraft jacks, axle jacks and hydraulic tail stanchions
- Part 20: Ground power equipment

Annexes A and C are informative. Annex B is normative.

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 specifies health and safety requirements, as well as some functional and performance requirements, for passenger boarding bridges (PBB) intended for passenger embarking/disembarking of all aircraft types commonly in service in civil air transport.

The minimum essential criteria are considered to be of primary importance in providing safe, serviceable, economical and practical PBB. Deviations from the recommended criteria should occur only after careful consideration, extensive testing, risk assessment and thorough service evaluation have shown alternative methods or conditions to be satisfactory.

This European Standard is a Type C standard as stated in **EN ISO 12100 A1**.

## 1 Scope

This European Standard specifies the technical requirements to minimise the hazards listed in clause 4 which can arise during the commissioning, operation and maintenance of PBB's when carried out in accordance with the specifications given by the manufacturer or his authorised representative. It also takes into account some requirements recognised as essential by authorities, aircraft and ground support equipment (GSE) manufacturers as well as airlines and handling agencies.

This standard applies to:

- apron-drive bridges;
- fixed-head bridges (also referred to as nose-loaders) or pedestal bridges;
- suspended bridges,

for embarking/disembarking of passengers. It is applicable from the interface of the building to the connection with the aircraft. An example of a typical PBB is shown in annex A.

This standard does not apply to:

- elevating lounges;
- passenger stairs;
- other forms of aircraft access equipment

or to the fixed building structure to which the PBB interfaces.

This standard does not establish requirements for hazards caused by noise and vibration.

This Part of EN 12312 is not applicable to PBB's which are manufactured before the date of publication of this standard by CEN.

**EN ISO 12100 A1** This part of EN 12312 is intended to be used in conjunction with EN 1915-1, EN 1915-2, EN 1915-3 (for vehicles) and EN 1915-4. **EN ISO 12100 A1**

## 2 Normative references

**EN ISO 12100 A1** The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. **EN ISO 12100 A1**

**EN ISO 12100 A1** *deleted text* **EN ISO 12100 A1**

EN 954-1:1996, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design*

EN 1050:1996, *Safety of machinery — Principles for risk assessment*

Ⓐ<sub>1</sub> deleted text Ⓐ<sub>1</sub>

Ⓐ<sub>1</sub> EN 1386 Ⓐ<sub>1</sub>, *Aluminium and aluminium alloys — Tread plate — Specification*

EN 1915-1:2001, *Aircraft ground support equipment — General requirements — Part 1: Basic safety requirements*

Ⓐ<sub>1</sub> EN 1915-2 Ⓐ<sub>1</sub>, *Aircraft ground support equipment — General requirements — Part 2: Stability and strength requirements, calculations and test methods*

Ⓐ<sub>1</sub> EN 1915-3, *Aircraft ground support equipment — General requirements — Part 3: Vibration measurement methods and reduction* Ⓐ<sub>1</sub>

Ⓐ<sub>1</sub> EN 1915-4, *Aircraft ground support equipment — General requirements — Part 4: Noise measurement methods and reduction* Ⓐ<sub>1</sub>

Ⓐ<sub>1</sub> EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)* Ⓐ<sub>1</sub>

Ⓐ<sub>1</sub> EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)* Ⓐ<sub>1</sub>

Ⓐ<sub>1</sub> EN ISO 13850:2008, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)* Ⓐ<sub>1</sub>

IEC 60332, (CENELEC HD 405), *Tests on electric cables under fire conditions*<sup>1)</sup>

Ⓐ<sub>1</sub> ISO 3795 Ⓐ<sub>1</sub>, *Road vehicles, and tractors and machinery for agriculture and forestry — Determination of burning behaviour of interior materials*

Ⓐ<sub>1</sub> ISO 7718, *Aircraft — Main-deck passenger doors — Interface requirements for connection with passenger-boarding bridge or transfer vehicle* Ⓐ<sub>1</sub>

Ⓐ<sub>1</sub> ISO 16004, *Aircraft ground equipment — Passenger boarding bridge or transfer vehicle — Requirements for interface with aircraft doors* Ⓐ<sub>1</sub>

### 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in Ⓐ<sub>1</sub> EN ISO 12100-1:2003, EN ISO 12100-2:2003 Ⓐ<sub>1</sub> and EN 1915-1:2001 together with the following apply.

#### 3.1

##### **passenger boarding bridge (PBB)**

enclosed adjustable passenger walkway connecting the terminal building to the aircraft

#### 3.2

##### **apron-drive bridge**

PBB with a drive unit, that can be driven across the apron within its operating range

#### 3.3

##### **pedestal bridge**

PBB without an apron drive unit

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1) And all relevant parts.