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KONSOLIDEERITUD TEKST**

Aircraft ground support equipment - Specific requirements -  
Part 13: Lavatory service equipment CONSOLIDATED  
TEXT

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12312-13:2002+A1:2009 sisaldab Euroopa standardi EN 12312-13:2002+A1:2009 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 30.06.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 29.04.2009.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12312-13:2002+A1:2009 consists of the English text of the European standard EN 12312-13:2002+A1:2009.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 30.06.2009 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 29.04.2009.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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**Võtmesõnad:** ae, aerospace transport, air transport, aircraft ground support equipments, definition, definitions, health protection, safety requirements, services, sewage disposal, specification (approval), specifications, toilet facilities, wc compartments, workplace safety

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English Version

## Aircraft ground support equipment - Specific requirements - Part 13: Lavatory service equipment

Matériel au sol pour aéronefs - Exigences particulières -  
Partie 13: Vide-toilettes

Luftfahrt-Bodengeräte - Besondere Anforderungen - Teil  
13: Toiletten-Servicegeräte

This European Standard was approved by CEN on 29 May 2002 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.

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## Foreword

This document (EN 12312-13:2002+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 12312-13:2002.

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

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 EU Directive(s).

$\boxed{A_1}$  For relationship with EU Directives, see informative Annexes ZA and ZB, which are integral parts of this document.  $\boxed{A_1}$

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

Annex A is informative and 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 lavatory service equipment intended for servicing 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 lavatory service equipment. 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 <sup>A1</sup> EN ISO 12100 <sup>A1</sup>.

## 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 lavatory service equipment 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:

- self-propelled lavatory vehicles;
- towable lavatory vehicles;
- moveable parts of ramp integrated systems,

designed for servicing aircraft and intended to be used under the conditions given in clause 1 of EN 1915-1:2001 (examples see annex A).

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

This Part of EN 12312 is not applicable to lavatory service equipment which is manufactured before the date of publication of this standard by CEN.

<sup>A1</sup> 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. <sup>A1</sup>

## 2 Normative references

<sup>A1</sup> 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. <sup>A1</sup>

<sup>A1</sup> *deleted text* <sup>A1</sup>

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*

<sup>A1</sup> *deleted text* <sup>A1</sup>

<sup>A1</sup> EN 1837 <sup>A1</sup>, *Safety of machinery — Integral lighting of machines*

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

EN 1915-2, *Aircraft ground support equipment — General requirements — Part 2: Stability and strength requirements, calculations and test methods*

EN 1915-3, *Aircraft ground support equipment — General requirements — Part 3: Vibration measurement methods and reduction*

EN 1915-4, *Aircraft ground support equipment — General requirements — Part 4: Noise measurement methods and reduction*

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

EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)*

ISO 17775, *Aircraft — Ground-service connections — Potable water, toilet-flush water and toilet drain*

### 3 Terms and definitions

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

#### 3.1

##### **lavatory service equipment**

ground support equipment (GSE) for aircraft toilet servicing

#### 3.2

##### **lavatory vehicle**

self-propelled or towable lavatory service equipment

#### 3.3

##### **waste system**

part of the lavatory service equipment to collect the waste from toilet systems on aircraft

#### 3.4

##### **rinsing system**

part of the lavatory service equipment for flushing and refilling aircraft toilet systems

#### 3.5

##### **open work material**

flooring material for standing areas with openings to allow self-draining and cleaning

### 4 List of hazards

The list of risks and hazards (see annex B) is based on EN 1050:1996 and contains the hazards and hazardous situations, as far as they are dealt with in this European Standard, identified by risk assessment as significant for lavatory service equipment and which require action to eliminate or reduce risks. Not covered are risks and hazards due to a standard automotive chassis, the traffic, repair and general misuse.