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KONSOLIDEERITUD TEKST

Tunnelling machines - Air locks - Safety requirements
CONSOLIDATED TEXT

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12110:2002+A1:2008 sisaldab Euroopa standardi EN 12110:2002+A1 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 25.09.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 27.08.2008.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12110:2002+A1:2008 consists of the English text of the European standard EN 12110:2002+A1.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 25.09.2008 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 27.08.2008.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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Võtmesõnad: bulkhe, canal locks, compressed-air systems, definitions, equipment, hazards, locks, marking, mechanical engineering, pneumatic equipment, safety, safety requirements, site equipment, specification (approval), specifications, testing, tunnelling, tunnelling equipment

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English Version

Tunnelling machines - Air locks - Safety requirements

Machines pour la construction de tunnels - Sas de transfert
- Prescriptions de sécurité

Tunnelbaumaschinen - Druckluftschleusen -
Sicherheitstechnische Anforderungen

This European Standard was approved by CEN on 2 September 2002 and includes Amendment 1 approved by CEN on 9 July 2008.

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





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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 12110:2002+A1:2008) has been prepared by Technical Committee CEN/TC 151 "Construction equipment and building material machines - Safety", 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 February 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2008-07-09.

This document supersedes EN 12110:2002.

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

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 document is a type C standard as stated in EN 1070:1998.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

1 Scope

1.1 Description of the machine(s)

This European Standard applies for the design, construction, equipping, marking and testing of air locks and pressure bulkheads, which are to be used in tunnelling work.

The oxygen breathing installation used to provide the breathing supply necessary to conduct a safe decompression is also covered by this standard.

1.2 This standard deals with all significant hazards, hazardous situations and events relevant to air locks and pressure bulkheads, when they are used as intended and under the conditions foreseen by the manufacturer (see clause 4). This standard specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards.

1.3 This document is not applicable to machinery which is manufactured before the date of publication of this document by CEN.

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 140:1998, *Respiratory protective devices - Half masks and quarter masks - Requirements, testing, marking*.

EN 292-2:1991, *Safety of machinery - Basic concepts, general principles for design – Part 2: Technical principles* (identical with ISO/DIS 12100 –2:2000) Revision of EN 292-2:1991 and EN 292-2:1991/A1:1995).

EN 1070:1998, *Safety of machinery – Terminology*.

EN 60204-1:1997, *Safety of machinery - Electrical equipment of machines – Part 1: General requirements* (IEC 60204-1:1997).

EN 60529:1991, *Degrees of protection provided by enclosures (IP Code)* (IEC 60529:1989).

EN 61310-1:1995, *Safety of machinery - Indication, marking and actuation – Part 1: Requirements for visual, auditory and tactile signals* (IEC 61310-1:1995).

EN ISO 11202:1995, *Acoustics – Noise emitted by machinery and equipment – Measurement of emission sound pressure levels at a work station and at other specific positions – Survey method in situ (ISO 11202:1995)*.

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 1070:1998 together with the following apply.

3.1

compressed air

air with a pressure of more than 0,1 bar, above atmospheric. All pressures to be measured above atmospheric pressure

3.2

pressure chamber

pressure vessel which is intended for accommodating persons above atmospheric pressure

3.3

working chamber

space in which work in compressed air is carried out

3.4

air lock

pressure vessel with one or more chambers with access doors, which can be sealed and pressurised with compressed air

3.5

material lock

air lock through which only material or equipment goes into or out of the working chamber

3.6

personnel lock

air lock through which only persons go into or out of the working chamber

3.7

combined lock

air lock through which persons, material or equipment go into or out of the working chamber

3.8

pressure bulkhead

equipment which separates spaces with different pressure levels

3.9

maximum working pressure

highest pressure to which a pressure chamber may be subjected in normal use

3.10

design pressure

pressure used for calculation not including the safety-factor

3.11

oxygen breathing installation

plant and ancillary equipment used to provide oxygen supply necessary for a safe decompression procedure