Hingamisteede kaitsevahendid. Autonoomne avatud süsteemiga poolmaskiga väliskeskkonnast isoleeritud, avatud tsükliga hingamisaparaat enesepäästmiseks

Respiratory protective devices - Self-contained open-circuit compressed air breathing apparatus with half mask designed to include a positive pressure lung governed demand valve for escape purposes only



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 14529:2005 sisaldab Euroopa standardi EN 14529:2005 ingliskeelset teksti.

Käesolev dokument on jõustatud 25.11.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 14529:2005 consists of the English text of the European standard EN 14529:2005.

This document is endorsed on 25.11.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

Käsitlusala:

This European Standard specifies minimum requirements for self-contained open-circuit compressed air breathing apparatus with half mask designed to include a positive pressure lung governed demand valve for escape purposes only.

Scope:

This European Standard specifies minimum requirements for self-contained open-circuit compressed air breathing apparatus with half mask designed to include a positive pressure lung governed demand valve for escape purposes only.

ICS 13.340.30

Võtmesõnad:

EUROPEAN STANDARD NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

Respiratory protective devices - Self-contained open-circuit compressed air breathing apparatus with half mask designed to include a positive pressure lung governed demand valve for escape purposes only

Appareils de protection respiratoire - Appareils de protection respiratoire autonomes à circuit ouvert, à air comprimé avec demi-masque et soupape à la demande à commande à la première inspiration, à pression positive, pour l'évacuation uniquement

Atemschutzgeräte - Behältergeräte mit Druckluft (Pressluftatmer) mit Halbmaske in der Ausführung mit einem Überdrucklungenautomaten nur für Fluchtzwecke

This European Standard was approved by CEN on 1 July 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

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Foreword

This European Standard (EN 14529:2005) has been prepared by Technical Committee CEN/TC 79 "Respiratory protective devices", 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 April 2006, and conflicting national standards shall be withdrawn at the latest by April 2006.

This European Standard has been prepared under a mandate given to CEN/CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) 89/686/EEC and 97/23/EEC.

For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this European 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, Cyprus, Czech Republic, A Coland, P Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

A given respiratory protective device can only be approved when the individual components satisfy the requirements of the test specification which may be a complete European Standard or part of a European Standard and practical performance tests have been carried out successfully on complete apparatus where is per lete appa. specified in the appropriate European Standard. If for any reason a complete apparatus is not tested then simulation of the apparatus is permitted provided the respiratory characteristics and weight distribution are similar to those of the complete apparatus.

1 Scope

This European Standard specifies minimum requirements for self-contained open-circuit compressed air breathing apparatus with half mask designed to include a positive pressure lung governed demand valve for escape purposes only.

Such equipment is intended for use in work situations where the risk on overpressurisation of the pressure vessels with their valves due to hot environmental conditions is low.

This European Standard does not apply to apparatus for work and rescue or to diving apparatus.

Laboratory and practical performance tests are included for the assessment of compliance with the requirements.

2 Normative references

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

EN 132:1998, Respiratory protective devices – Definitions of terms and pictograms

EN 134:1998, Respiratory protective devices - Nomenclature of components

EN 140:1998, Respiratory protective devices – Half mask and quarter masks – Requirements, testing, marking

EN 148-1, Respiratory protective devices - Threads for facepieces - Part 1: Standard thread connection

EN 148-2, Respiratory protective devices - Threads for facepieces - Part 2: Centre thread connection

EN 148-3, Respiratory protective devices - Threads for facepieces - Part 3: Thread connection for M 45 x 3

EN 1964-1, Transportable gas cylinders — Specification for the design and construction of refillable transportable seamless steel gas cylinders of water capacities from 0,5 litre up to and including 150 litres — Part 1: Cylinders made of seamless steel with an $R_{\rm m}$ value of less than 1100 MPa

EN 1964-2, Transportable gas cylinders — Specification for the design and construction of refillable transportable seamless steel gas cylinders of water capacities from 0,5 litre up to and including 150 litres — Part 2: Cylinders made of seamless steel with an $R_{\rm m}$ value of 1100 MPa and above

EN 1964-3, Transportable gas cylinders — Specification for the design and construction of refillable transportable seamless steel gas cylinders of water capacity from 0,5 litre up to and including 150 litres — Part 3: Cylinders made of seamless stainless steel with an $R_{\rm m}$ value of less than 1100 MPa

EN 1975, Transportable gas cylinders - Specification for the design and construction of refillable transportable seamless aluminium and aluminium alloy gas cylinders of capacity from 0, 5 litre up to 150 litre

EN 12021, Respiratory protective devices - Compressed air for breathing apparatus

EN 12245, Transportable gas cylinders - Fully wrapped composite cylinders

EN 13274-2:2001, Respiratory protective devices - Methods of test - Part 2: Practical performance tests

EN 13274-3:2001, Respiratory protective devices - Methods of test - Part 3: Determination of breathing resistance

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EN 13274-4:2001, Respiratory protective devices - Methods of test - Part 4: Flame tests

EN 13274-5, Respiratory protective devices - Methods of test - Part 5: Climatic conditions

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 132:1998 and the nomenclature given in EN 134:1998 apply.

4 Description

Lung governed demand compressed air escape apparatus are designed and constructed to enable the wearer to breathe air on demand from a pressure vessel(s) either via a pressure reducer and a lung governed demand valve or a lung governed demand valve connected to the half mask. The exhaled air passes without re-circulation from the half mask via the exhalation valve to the ambient atmosphere.

This apparatus typically comprises pressure vessel(s), body harness, lung governed demand valve, pressure indicator(s), warning device (optional), connecting hoses and tubes and a half mask.

5 Classification

Lung governed demand compressed air escape apparatus are classified according to the rated working duration (see 6.23.1) which is defined by performing a breathing machine test in accordance with 7.6.4 with a minute volume of 35 l/min (20 cycles/min, 1,75 l/stroke).

Rated working duration is defined in steps of 5 minutes, starting with 5 minutes as a minimum, up to a maximum of 30 min rated working duration, since the necessary escape time is considered to be the classification.

NOTE It should be recognised that the effective duration may vary according to the breathing rate.

6 Requirements

6.1 General

In all tests all test samples shall meet the requirements.

Wherever a test clause is referenced, all sub-clauses of the test clause shall apply, unless otherwise stated.

6.2 Ergonomics

The requirements of this European Standard are intended to take account of the interaction between the wearer, the apparatus, and where possible the working environment in which the apparatus is likely to be used. The device shall satisfy 6.3, 6.8 and 6.9.

6.3 Design

The diameter of pressurised parts downstream of the shut-off valve(s) shall not exceed 32 mm.

The apparatus shall be designed so as not to interfere with work activities when carried in accordance with the manufacturers instructions.

The apparatus shall be so designed that there are no protruding parts or sharp edges likely to be caught on projections in narrow passages or that may hurt the wearer.