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Respiratory protective devices – Compressed air line breathing devices with demand valve – Part 1: Devices with a full face mask – Requirements, testing and marking

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Denna standard ersätter SS-EN 14593-1:2005, utgåva 1 och SS-EN 14593-2:2005, utgåva 1.

The European Standard EN 14593-1:2018 has the status of a Swedish Standard. This document contains the official version of EN 14593-1:2018.

This standard supersedes the Swedish Standard SS-EN 14593-1:2005, edition 1 and SS-EN 14593-2:2005, edition 1.

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Denna standard är framtagen av kommittén för Andningsskydd, SIS/TK 400.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 14593-1

May 2018

ICS 13.340.30

Supersedes EN 14593-1:2005

English Version

Respiratory protective devices - Compressed air line breathing devices with demand valve - Part 1: Devices with a full face mask - Requirements, testing and marking

Appareils de protection respiratoire - Appareils de protection respiratoire isolants à adduction d'air comprimé avec soupape à la demande - Partie 1: Appareil avec masque complet - Exigences, essais et marquage

Atemschutzgeräte - Druckluft-Schlauchgeräte mit Lungenautomat - Teil 1: Geräte mit einer Vollmaske - Anforderungen, Prüfung und Kennzeichnung

This European Standard was approved by CEN on 16 March 2018.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 14593-1:2018) 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of an identical text or by endorsement, at the latest by November 2018, and conflicting national standards shall be withdrawn at the latest by November 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN not be held responsible for identifying any or all such patent rights.

This document supersedes EN 14593-1:2005.

This document has been prepared under a standardization request given to CEN by the European Commission and the European Free Trade Association, and supports essential health and safety requirements of EU Regulation(s).

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

The following main technical changes have been made compared to EN 14593-1:2005:

a) requirements for cleaning and disinfection deleted;

b) visual inspection changed to inspection and detailed list inserted;

c) test for leaktightness added;

d) test for noise level adapted to the test procedure specified in ISO 16900-14;

e) Annex B deleted;

f) figures adapted to the changes made in the test procedures, where appropriate.

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document specifies minimum requirements for compressed air line breathing devices with demand valve for use with a full face mask as a respiratory protective device (RPD).

Diving RPD are not covered by this document.

RPD used in abrasive blasting operations without additional protective features are not covered by this document.

Escape RPD, although certain requirements addressing the use in conjunction with escape RPD and escape conditions are given, are not covered by this document.

Laboratory and practical performance tests are included for the assessment of conformance to the requirements.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 132:1998, *Respiratory protective devices — Definitions of terms and pictograms*

EN 134:1998, *Respiratory protective devices — Nomenclature of components*

EN 136:1998, *Respiratory protective devices — Full face masks — Requirements, testing, marking*

EN 137:2006, *Respiratory protective devices — Self-contained open-circuit compressed air breathing apparatus with full face mask — 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: Tread connection M 45 x 3*

EN 402:2003, *Respiratory protective devices — Lung governed demand self-contained open-circuit compressed air breathing apparatus with full face mask or mouthpiece assembly for escape — Requirements, testing, marking*

EN 12021, *Respiratory equipment — Compressed gases for breathing apparatus*

EN 13274-1:2001, *Respiratory protective devices — Methods of test — Part 1: Determination of inward leakage and total inward leakage*

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*

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

EN 13274-6, *Respiratory protective devices — Methods of test — Part 6: Determination of carbon dioxide content of the inhalation air*

EN ISO 8031, *Rubber and plastics hoses and hose assemblies — Determination of electrical resistance and conductivity (ISO 8031)*

ISO 16900-14, *Respiratory protective devices — Methods of test and test equipment — Part 14: Measurement of sound level*

3 Terms, description and symbols

For the purposes of this document, the terms, definitions and symbols given in EN 132:1998, EN 134:1998 and the following apply.

3.1 Terms

3.1.1
as received
not pre-conditioned or modified to carry out a test

3.1.2
facepiece
[Respiratory Interface (RI)]
full face mask conforming to EN 136 (Class 2 or Class 3)

3.1.3
mobile high pressure air supply system
supply system that can include a compressor, filters, compressed air cylinders, for use as a mobile source of breathable air

3.1.4
switch over device
device that ensures that in the event of a malfunction or disconnection of the airline, the air supply, when airline is used in conjunction with self-contained breathing devices, automatically switches over to the self contained air supply, without interruption of supplied air to the wearer

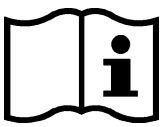
3.2 Description

This RPD supplies the wearer with breathable air in accordance with EN 12021, which on inhalation, flows through a lung governed demand valve. The latter can operate at negative pressure or at positive pressure and is connected to a suitable full face mask, possibly via a breathing hose. A compressed air supply tube connects the wearer to a supply of compressed air. Exhaled air flows into the ambient atmosphere via an exhalation valve.

NOTE Conformance to EN 12021 can be ensured by a breathable air supply system or an additional device such as a compressed air filter system.

3.3 Symbols

3.3.1



See information supplied by the RPD manufacturer