

საქართველოს სტანდარტი

რესპირატორული დამცავი ხელსაწყოები-დაწნეხილი ჰაერის ხელსაწყოები-
მოთხოვნები, გამოცდისირება და მარკირება , ამოქმედება მოთხოვნისთანავე-
ნაწილი 1: ხელსაწყოები ანფასის ნიღბით-მოთხოვნები, გამოცდისირება და
მარკირება

საქართველოს სტანდარტებისა და მეტროლოგიის
ეროვნული სააგენტო
თბილისი

სსტ ენ 14593-1:2018/2018

საინფორმაციო მონაცემები

1 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს 2018 წლის 25 დეკემბრის № 137 და 2018 წლის 06 ივლისის № 75 განკარგულებებით

2 მიღებულია თავფურცლის თარგმნის მეთოდით სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ 14593-1:2018 „რესპირატორული დამცავი ხელსაწყოები- დაწნეხილი ჰაერის ხელსაწყოები-მოთხოვნები, გამოცდისირება და მარკირება , ამოქმედება მოთხოვნისთანავე-ნაწილი 1: ხელსაწყოები ანფასის ნიღბით-მოთხოვნები, გამოცდისირება და მარკირება”

3 პირველად

4 რეგისტრირებულია საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2018 წლის 25 დეკემბერი №268-1.3-014714

აკრძალულია ამ სტანდარტის გადაცემა მესამე პირებისათვის ან/და მისი სხვა ფორმით გავრცელება

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.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

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

Contents

Page

European foreword..... 5

1 Scope 6

2 Normative references 6

3 Terms, description and symbols 7

3.1 Terms..... 7

3.2 Description 7

3.3 Symbols..... 7

4 Requirements 8

4.1 General..... 8

4.2 Nominal values and tolerances 8

4.3 Ergonomics 8

4.4 Materials..... 8

4.5 Practical performance 9

4.6 Connections 9

4.6.1 General..... 9

4.6.2 Couplings..... 9

4.6.3 Strength of connections to full face mask, demand valve, medium pressure connecting tube and breathing hose 9

4.6.4 Connection between RPD and full face mask 9

4.6.5 Unacceptable connections 10

4.7 Compressed air line breathing device used with self-contained breathing device - switch over device 10

4.7.1 General..... 10

4.7.2 Switch over warning device..... 10

4.8 Body harness or belt 11

4.9 Pre-conditioning..... 11

4.10 Flammability..... 11

4.11 Resistance to pressure 11

4.12 RPD with mobile high pressure air supply systems 12

4.12.1 General..... 12

4.12.2 Pressure reducer..... 12

4.12.3 Pressure reducer relief valve 12

4.13 Warning devices for mobile high pressure air supply systems..... 12

4.13.1 General..... 12

4.13.2 Audible warning device 12

4.14 Compressed air supply tube..... 13

4.14.1 Resistance to kinking..... 13

4.14.2 Resistance to collapse..... 13

4.14.3 Strength 13

4.14.4 Flexibility 13

4.14.5 Heat resistance..... 13

4.14.6 Electrostatic properties 13

4.14.7 Couplings..... 14

4.15 Breathing hose 14

4.15.1 Resistance to kinking..... 14

4.15.2 Resistance to collapse..... 14

საინფორმაციო ნაწილი. სრული ტექსტის სახსრად შეიძინეთ სტანდარტი.

4.16	Lung governed demand valve	14
4.16.1	Without positive pressure.....	14
4.16.2	With positive pressure	14
4.16.3	Supplementary air supply	14
4.16.4	Couplings	14
4.17	Adjustable parts.....	15
4.18	Full face masks.....	15
4.19	Total inward leakage.....	15
4.20	Breathing resistance.....	15
4.20.1	General	15
4.20.2	Inhalation resistance.....	15
4.20.3	Exhalation resistance.....	15
4.21	Carbon dioxide content of inhalation air	16
4.22	Leaktightness	16
5	Testing.....	16
5.1	General	16
5.2	Inspection.....	17
5.3	Practical performance	18
5.3.1	General	18
5.3.2	Preparation of RPD to be tested.....	18
5.3.3	Test conditions	18
5.3.4	Work simulation test.....	19
5.3.5	Information to be recorded	19
5.3.6	Practical performance tests at low temperature	19
5.4	Strength of connections to facepiece, demand valve, medium pressure connecting tube and breathing hose	19
5.5	Resistance to collapse of breathing hose	20
5.5.1	Principle.....	20
5.5.2	Apparatus.....	20
5.5.3	Procedure	20
5.6	Strength of compressed air supply tube, body harness and couplings.....	21
5.7	Pre-conditioning.....	22
5.8	Flammability	22
5.9	Pressure relief valve.....	22
5.10	Resistance to kinking of compressed air supply tube.....	22
5.11	Resistance to collapse of compressed air supply tube.....	25
5.11.1	Principle.....	25
5.11.2	Apparatus	25
5.11.3	Procedure.....	25
5.12	Heat resistance of compressed air supply tube.....	25
5.13	Tests for lung-governed demand valve	26
5.13.1	Without positive pressure.....	26
5.13.2	With positive pressure	26
5.13.3	Supplementary air supply	26
5.14	Determination of carbon dioxide content of the inhalation air.....	27
5.15	Testing of audible warning device	27
5.16	Switch over device.....	28
5.17	Leaktightness	28
5.18	Sound level measurement.....	28
6	Marking	29
7	Information supplied by the manufacturer	29

Annex ZA (informative) Relationship between this European Standard and the essential health and safety requirements of Regulation 2016/425/EU [2016 OJ L81] aimed to be covered..... 32

Bibliography..... 34

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

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.