



SLOVENSKI STANDARD SIST EN ISO 17510-1:2009

01-julij-2009

BUXca Yý U
SIST EN ISO 17510-1:2008

Zdravljenje dihanja pri prenehanju dihanja v spanju - 1. del: Oprema za zdravljenje prenehanja dihanja v spanju (ISO 17510-1:2007)

Sleep apnoea breathing therapy - Part 1: Sleep apnoea breathing therapy equipment (ISO 17510-1:2007)

Schlafapnoe-Atemtherapie - Teil 1: Schlafapnoe-Atemtherapiegeräte (ISO 17510-1:2007)

Thérapie respiratoire de l'apnée du sommeil - Partie 1: Équipement de thérapie respiratoire de l'apnée du sommeil (ISO 17510-1:2007)

Ta slovenski standard je istoveten z: EN ISO 17510-1:2009

ICS:

11.040.10	Anestezijska, respiratorna in reanimacijska oprema	Anaesthetic, respiratory and reanimation equipment
-----------	--	--

SIST EN ISO 17510-1:2009

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 17510-1:2009

<https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-4ff4-49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 17510-1

March 2009

ICS 11.040.10

Supersedes EN ISO 17510-1:2007

English Version

Sleep apnoea breathing therapy - Part 1: Sleep apnoea breathing therapy equipment (ISO 17510-1:2007)

Thérapie respiratoire de l'apnée du sommeil - Partie 1:
Équipement de thérapie respiratoire de l'apnée du sommeil
(ISO 17510-1:2007)

Schlafapnoe-Atemtherapie - Teil 1: Schlafapnoe-
Atemtherapiegeräte (ISO 17510-1:2007)

This European Standard was approved by CEN on 24 February 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.

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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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.

[SIST EN ISO 17510-1:2009](https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-46f49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009)

<https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-46f49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009>



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
Foreword.....	3
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 93/42/EEC.....	4

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 17510-1:2009](https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-4f6f-49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009)
<https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-4f6f-49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009>

Foreword

The text of ISO 17510-1:2007 has been prepared by Technical Committee ISO/TC 121 "Anaesthetic and respiratory equipment" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 17510-1:2009 by Technical Committee CEN/TC 215 "Respiratory and anaesthetic equipment" the secretariat of which is held by BSI.

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 September 2009, and conflicting national standards shall be withdrawn at the latest by March 2010.

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

This document supersedes EN ISO 17510-1:2007.

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.

For relationship with EC Directive, see informative Annex ZA, which is an integral part of this document.

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 the United Kingdom.

<https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-46f-49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009>

Endorsement notice

The text of ISO 17510-1:2007 has been approved by CEN as a EN ISO 17510-1:2009 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 93/42/EEC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 93/42/EEC on medical devices.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 - Relationship between this European Standard and the Essential Requirements of EU Directive 93/42/EEC

Clause(s)/sub-clause(s) of this EN	Essential Requirements (ERs) of Directive 93/42/EEC	Qualifying remarks/Notes
All	1, 2, 3	
4	6, 12.6	
-	6a	This relevant Essential Requirement is not addressed in this European Standard
6	13	
6	13.6 (h)(2nd paragraph)	This relevant Essential Requirement is not fully addressed in this European Standard
-	13.6 (q)	This relevant Essential Requirement is not addressed in this European Standard
6.1	2, 13.3 a)	
6.1 aa) to cc)	13.6 c), d)	
6.1 dd)	8.7, 9.1, 13.3, 13.4, 13.5	
6.1 dd) 7th dash	13.3 (f)	This relevant Essential Requirement is not fully addressed in this European Standard
6.1 e)	13.3 (a):	This relevant Essential Requirement is not fully addressed in this European Standard
6.3	10.2, 10.3, 12.9	

6.8.2	13.6 b), c), h), i), l)	
6.8.3	13.6 c), d), p), n)	
10.1	8.3	
10.101, 10.102	4	
13, 15, 17, 18,19, 20	12.6	
21	5, 9.2, 12.7.1	
23	4, 9.2	
24	4, 12.7.1	
26	12.7.2, 12.7.3	
36	4, 9.2, 11.3.1, 12.5	
38	13.2, 13.4	
39, 40, 41	9.3	
42	9.2, 12.7.5	
43	7.1, 7.2, 9.3	
43.101	7.1, 9.3	
44	4, 7.2, 7.3, 7.5, 7.6, 8.1, 8.6	
44.6	7.6	
44.7	8.3, 8.5	
46	9.2, 10.2, 12.8.2, 12.9	
48	7.2, 7.5	
49	4	
49.101	12.8.1, 12.8.2	
51	12.8.1, 12.8.2	
51.5	2, 12.8.2, 12.9	
51.101	12.8.2	
51.102	10.1, 10.2, 12.8.2	
51.103	10.1, 10.2, 12.8.2	
51.104	4, 12.8.1, 12.8.2	
51.105	4, 12.8.2	
52	12.1	

EN ISO 17510-1:2009 (E)

54	7.5 (1st paragraph)	This relevant Essential Requirement is not fully addressed in this European Standard
54	7.5 (2nd paragraph)	This relevant Essential Requirement is not fully addressed in this European Standard
-	7.5 (3rd paragraph)	This relevant Essential Requirement is not fully addressed in this European Standard
-	12.1a)	This relevant Essential Requirement is not addressed in this European Standard.
54.1	12.1, 12.9	
54.101	7.5	
56.3	9.1, 12.7.4	
56.10	12.9	
56.101.1	7.3, 8.1, 8.4	
56.101.2	7.3, 8.1, 8.6	
56.102	9.1	

iTeH STANDARD PREVIEW
(standards.iteh.ai)

<https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-46f-49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009>

For devices which are also machinery within the meaning of Article 2(a) of Directive 2006/42/EC on Machinery, in accordance with Article 3 of Directive 93/42/EEC the following table ZA.2 details the relevant essential requirements of Directive 2006/42/EC on Machinery to the extent to which they are more specific than those of Directive 93/42/EEC along with the corresponding clauses of this European Standard. Table ZA.2, however, does not imply any citation in the OJEU under the machinery directive and thus does not provide presumption of conformity for the machinery directive.

Table ZA.2 – Relevant Essential Requirements from Directive 2006/42/EC on machinery that are addressed by this European Standard
(according to article 3 of amended Directive 93/42/EEC)

Clause(s)/sub-clause(s) of this EN	EHSR o 2006/42/EC	Qualifying remarks/Notes
-	1.1.4	This relevant EHSR is not addressed in this European Standard
6.8.2, 56	1.5.4	This relevant EHSR is not fully addressed in this European Standard
-	1.6.1	This relevant EHSR is not addressed in this European Standard
-	1.6.2	This relevant EHSR is not addressed in this European Standard
-	1.6.3	This relevant EHSR is not addressed in this European Standard
-	3.6.2	This relevant EHSR is not addressed in this European Standard

<https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-4f6f-49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009>

Warning – Other requirements and other EU Directives may be applicable to the products falling within the scope of this International standard.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 17510-1:2009

<https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-4ff4-49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009>

INTERNATIONAL
STANDARD

ISO
17510-1

Second edition
2007-10-01

Sleep apnoea breathing therapy —
Part 1:
Sleep apnoea breathing therapy
equipment

Thérapie respiratoire de l'apnée du sommeil —

Partie 1: Équipement de thérapie respiratoire de l'apnée du sommeil

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 17510-1:2009](https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-4f6f-49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009)

<https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-4f6f-49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009>



Reference number
ISO 17510-1:2007(E)

© ISO 2007

ISO 17510-1:2007(E)**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 17510-1:2009](https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-4f6f-49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009)

<https://standards.iteh.ai/catalog/standards/sist/9dfb6b88-4f6f-49c8-b75d-2f0c160db153/sist-en-iso-17510-1-2009>

**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword.....	v
Introduction	vi
1 * Scope.....	1
2 Normative references	1
3 Terms and definitions.....	3
4 Requirements	4
5 Classification and designation.....	4
6 Marking, labelling and packaging	4
7 Power input	8
8 Basic safety categories	8
9 Removable protective means	8
10 Environmental conditions.....	8
11 Not used.....	9
12 Not used.....	9
13 General.....	9
14 Requirements related to classification.....	9
15 Limitation of voltage and/or energy.....	9
16 Enclosures and protective covers	9
17 Separation	9
18 Protective earthing, functional earthing and potential equalization	9
19 Continuous leakage currents and patient auxiliary currents.....	9
20 Dielectric strength	10
21 Mechanical strength	10
22 Moving parts.....	10
23 Surfaces, corners and edges.....	10
24 Stability in normal use.....	10
25 Expelled parts	10
26 * Vibration and noise	10
27 Pneumatic and hydraulic power.....	11
28 Suspended masses	11
29 X-radiation	11
30 Alpha, beta, gamma, neutron radiation and other particle radiation	11
31 Microwave radiation	11
32 Light radiation (including lasers).....	12
33 Infra-red radiation	12

ISO 17510-1:2007(E)

34	Ultra-violet radiation	12
35	Acoustical energy (including ultra-sonics)	12
36	Electromagnetic compatibility	12
37	Locations and basic requirements	12
38	Marking, accompanying documents	12
39	Common requirements for Category AP and Category APG equipment	12
40	Requirements and tests for category AP equipment, parts and components thereof	12
41	Requirements and tests for category APG equipment, parts and components thereof	13
42	Excessive temperatures	13
43	Fire prevention	13
44	Overflow, spillage, leakage, humidity, ingress of liquids, cleaning, sterilization and disinfection	13
45	Pressure vessels and parts subject to pressure	14
46	Human errors	14
47	Electrostatic charges	14
48	Biocompatibility	15
49	Interruption of the power supply	15
50	Accuracy of operating data	15
51	Protection against hazardous output	15
52	Abnormal operation and fault conditions	16
53	Environmental tests	16
54	General	16
55	Enclosures and covers	17
56	Components and general assembly	17
57	Mains parts, components and layout	19
58	Protective earthing — Terminals and connections	19
59	Construction and layout	19
	Annex AA (informative) Rationale	20
	Annex BB (normative) * Pressure accuracy in normal use test methods	25
	Annex CC (normative) Maximum flowrate test method	27
	Annex DD (informative) Environmental aspects	28
	Annex EE (informative) Reference to the essential principles	30
	Annex FF (informative) Terminology – Alphabetized index of defined terms	32
	Bibliography	34

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 17510-1 was prepared by Technical Committee ISO/TC 121, *Anaesthetic and respiratory equipment*, Subcommittee SC 3, *Lung ventilators and related equipment*.

This second edition cancels and replaces the first edition (ISO 17510-1:2002) which has been technically revised.

ISO 17510 consists of the following parts, under the general title *Sleep apnoea breathing therapy*:

- *Part 1: Sleep apnoea breathing therapy equipment*
- *Part 2: Masks and application accessories*