

Tööstuspesumasinade ohutusnõuded. Osa 4: Õhkuivatid

Safety requirements for industrial laundry machinery -
Part 4: Air dryers

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 10472-4:2008 sisaldab Euroopa standardi EN ISO 10472-4:2008 ingliskeelset teksti.

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This Estonian standard EVS-EN ISO 10472-4:2008 consists of the English text of the European standard EN ISO 10472-4:2008.

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English Version

Safety requirements for industrial laundry machinery - Part 4: Air
dryers (ISO 10472-4:1997)

Exigences de sécurité pour les machines de blanchisserie
industrielle - Partie 4: Séchoirs à air (ISO 10472-4:1997)

Sicherheitsanforderungen für industrielle
Wäschereimaschinen - Teil 4: Trockner (ISO 10472-
4:1997)

This European Standard was approved by CEN on 12 October 2008.

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Foreword

The text of ISO 10472-4:1997 has been prepared by Technical Committee ISO/TC 72 "Textile machinery and machinery for dry-cleaning and industrial laundering" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 10472-4:2008 by Technical Committee CEN/TC 214 "Textile machinery and accessories" the secretariat of which is held by SNV.

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of an identical text or by endorsement, at the latest by April 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

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 10472-4:1997.

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 Directives.

For relationship with EC Directives, see informative Annexes ZA and ZB, which are integral parts of this document.

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Endorsement notice

The text of ISO 10472-4:1997 has been approved by CEN as a EN ISO 10472-4:2008 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC

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 Machinery 98/37/EC, amended by 98/79/EC.

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 normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements (except 1.7.4. (f)) of that Directive and associated EFTA regulations.

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

Annex ZB (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC

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 Machinery 2006/42/EC.

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 normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements (except 1.4.2.1 § 2, 1.7.3, 1.7.4.2 t) and u)) of that Directive and associated EFTA regulations.

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

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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.

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.

International Standard ISO 10472-4 was prepared by Technical Committee ISO/TC 72, *Textile machinery and machinery for dry-cleaning and industrial laundering*, Subcommittee SC 5, *Industrial laundry and dry-cleaning machinery*.

ISO 10472 consists of the following parts, under the general title *Safety requirements for industrial laundry machinery*:

- *Part 1: Common requirements*
- *Part 2: Washing machines and washer-extractors*
- *Part 3: Washing tunnel lines including component machines*
- *Part 4: Air dryers*
- *Part 5: Flatwork ironers, feeders and folders*
- *Part 6: Ironing and fusing presses*

Introduction

This part of ISO 10472 is intended to instruct the designer of industrial laundry machinery in a systematic manner, focusing on his particular type of machine, regarding the relevant essential safety requirements, and to suggest possible state-of-the-art safety solutions.

The extent to which hazards are covered is indicated in the scope of this part of ISO 10472. In addition, machinery should comply as appropriate with ISO/TR 12100-1 and ISO/TR 12100-2 for hazards which are not specifically referred to in this part of ISO 10472.

All examples given in this part of ISO 10472 represent the state of the art. Equivalent solutions are acceptable, provided they attain at least the same safety level.

The designer is presumed to have taken into account all the provisions of ISO 10472-1 before considering this part of ISO 10472.

Safety requirements for industrial laundry machinery —

Part 4: Air dryers

1 Scope

This part of ISO 10472 covers, together with ISO 10472-1, most significant hazards associated with air dryers, and in particular with tumble dryers having a net usable cage volume > 160 l and tunnel finishers including associated conveyors and cabinet dryers.

This part of ISO 10472 complements the basic requirements as laid down in ISO/TR 12100-1 and ISO/TR 12100-2. It also gives guidance to the designer on assessing the risks associated with the hazards (see EN 1050) and on selecting measures for attaining the required safety level.

This part of ISO 10472 does not apply to ancillary equipment.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 10472. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreement based on this part of ISO 10472 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6182-1:1993, *Fire protection — Automatic sprinkler systems — Part 1: Requirements and test methods for sprinklers*.

ISO 10472-1:1997, *Safety requirements for industrial laundry machinery — Part 1: Common requirements*.

ISO/TR 12100-1:1992, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology*.

ISO/TR 12100-2:1992, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles and specifications*.

ISO 13849-1:—¹⁾, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design*.

ISO 13853:—¹⁾, *Safety of machinery — Safety distances to prevent danger zones being reached by the lower limbs*.

ISO 14119:—¹⁾, *Safety of machinery — Interlocking devices associated with guards — Principles for design and selection*.

IEC 335-1:1991, *Safety of household and similar electrical appliances — Part 1: General requirements*.

1) To be published.

IEC 335-2-11:1993, *Safety of household and similar electrical appliances — Part 2: Particular requirements for tumble dryers.*

EN 746-2:1997, *Industrial thermoprocessing equipment — Part 2: Safety requirements for combustion and fuel handling systems.*

EN 953:1997, *Safety of machinery — General requirements for the design and construction of guards (fixed, movable).*

EN 982:1996, *Safety of machinery — Safety requirements for fluid power systems and components — Hydraulics.*

EN 983:1996, *Safety of machinery — Safety requirements for fluid power systems and components — Pneumatics.*

EN 1050:1996, *Safety of machinery — Risk assessment.*

EN 1760-1:1997, *Safety of machinery — Pressure sensitive protective devices — Part 1: General principles for the design and testing of pressure sensing mats and floors.*

EN 1760-2:—¹⁾, *Safety of machinery — Pressure sensitive protective devices — Part 2: General principles for the design and testing of pressure sensitive edges and pressure sensitive bars.*

EN 50100-1:—¹⁾, *Safety of machinery — Electro-sensitive protective devices — Part 1: General requirements and tests.*

EN 60204-1:1992, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements.* [IEC 204-1:1992, modified]

3 Definitions

For the purposes of this part of ISO 10472, the following definitions apply:

3.1

tumble dryer

Machine for moisture extraction from a load of damp textile material by tumbling in a rotating cage in an atmosphere of hot air produced by the tumble dryer.

NOTE — It may also be used to agitate the loads mechanically without hot air.

3.1.1

front-loaded tumble dryer

Tumble dryer in which the plane of the loading door is at a right angle to the axis of rotation of the cage.

3.1.2

pass-through tumble dryer

Tumble dryer having the loading and unloading doors on opposite sides.

3.1.3

tilting tumble dryer

Tumble dryer which tilts for loading and/or unloading.

3.1.4

automatic tilting tumble dryer

Tilting tumble dryer with the tilting motion to load and unload, and opening and closing doors, under automatic (not manual) control.

1) To be published.