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**Tööstuspesumasinate ohutusnõuded.  
Osa 5: Lametriikraud, etteandurid ja  
voltimisseadmed**

Safety requirements for industrial laundry machinery  
- Part 5: Flatwork ironers, feeders and folders

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 10472-5:1999 sisaldab Euroopa standardi EN ISO 10472-5:1997 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 10472-5:1999 consists of the English text of the European standard EN ISO 10472-5:1997.</p> <p>This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> Standardi EN ISO 10472 see osa ja EN ISO 10472-1 määravad kindlaks olulisemad ohud, mis seostuvad selliste lametriikraudade, etteandurite ja voltimisseadmetega, nagu tasapinnaliseks viimistlemiseks mõeldud silinder- ja lametriikraudad, mille kontaktpind (lametriikraudadel surve all) on üle 0,25 m<sup>2</sup>, pesuetteandeseadmed pesu automaatseks etteandeks lame- või silindriikraudadele või otse voltimisseadmetele, lame- ja silindriikraudadega seotud pesuvoltimisseadmed pesu automaatseks voltimiseks; voltimisseadmed väikeste pesuesemete automaatvoltimiseks (v.a lintkäterätid), polüfunktsionaalsed seadmed.</p>	<p><b>Scope:</b></p>
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ICS 97.060

**Võtmesõnad:** juhised, kontrollimine, märgistamine, ohud, ohutusabinõud, ohutusnõuded, pesumajad, pesupesemisseadmed, seadmete ohutus, tehnilised andmed, tekstiilitööstusseadmed, triikimisseadmed, tööstusseadmed, õnnetusjuhtumite vältimine

ICS 97.060

Descriptors: Laundry machinery, safety requirements.

**English version**

**Safety requirements for industrial laundry machinery**

Part 5: Flatwork ironers, feeders and folders  
(ISO 10472-5 : 1997)

Exigences de sécurité pour les machines de blanchisserie industrielle –  
Partie 5: Sécheuses-repasseuses,  
engageuses et plieuses  
(ISO 10472-5 : 1997)

Sicherheitsanforderungen für industrielle Wäschereimaschinen – Teil 5:  
Mangeln, Eingabe- und Faltmaschinen  
(ISO 10472-5 : 1997)

This European Standard was approved by CEN on 1997-12-21.

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**

## Foreword

International Standard

ISO 10472-5 : 1997 Safety requirements for industrial laundry machinery – Part 5: Flatwork ironers, feeders and folders,

which was prepared by ISO/TC 72 'Textile machinery and machinery for dry-cleaning and industrial laundering' of the International Organization for Standardization, has been adopted by CEN/TC 214 as a European Standard.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of the relevant EU Directives.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by June 1998 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 10472-5 : 1997 was approved by CEN as a European Standard without any modification.

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## 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.

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## 1 Scope

This part of ISO 10472 covers, together with ISO 10472-1, most significant hazards associated with flatwork ironers, feeders and folders, such as:

- cylinder and bed ironers for flatwork finishing having a contact area (for bed ironers under pressure)  $> 0,25 \text{ m}^2$ ;
- flatwork feeding machines for the automatic feeding of flatwork into bed or cylinder ironers, or directly to folders;
- flatwork folding machines for the automatic folding of flatwork in association with cylinder and bed ironers;
- folding machines for the automatic folding of small pieces (excluding endless towels);
- multi-function machines.

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, e. g chemical supply pumps, steam valves and supply pipe work, vent systems, work feed systems and discharge systems and ducting to the atmosphere.

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

ISO 11111:1995, *Safety requirements for textile machinery.*

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:—<sup>1)</sup>, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design.*

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1) To be published.

ISO 13852:1996, *Safety of machinery — Safety distances to prevent danger zones being reached by the upper limbs.*

ISO 14119:—<sup>1)</sup>, *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.*

IEC 335-2-44:1987, *Safety of household and similar electrical appliances — Part 2: Particular requirements for electric ironers.*

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

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

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

##### **flatwork**

Textile article (e.g. a bed sheet) which can be satisfactorily dried and smoothed by being passed through a flatwork ironing machine.

#### 3.2

##### **bed ironer**

Machine for the ironing of flatwork generally providing a heated bed against which the work is pressed by one or several fabric-covered roller(s).

#### 3.3

##### **cylinder ironer**

Machine for the ironing of flatwork in which the work to be treated is drawn against one or more heated cylinder(s) where it is held by means of an appropriate system, for example by bands.

#### 3.4

##### **flatwork feeding machine**

Machine, into which operator(s) load damp unfinished flatwork items, that presents the items, tensioned and spread to the feed-bands of an ironer or to a folding machine.

NOTE — This machine is also used for feeding blankets, polyester sheets and similar items to folding machines.

#### 3.5

##### **spreader carrier**

Mechanism consisting of clamp(s) for take-up and spreading of flatwork to prepare it for the feeding operation.

#### 3.6

##### **flatwork folding machine**

Machine generally fitted in conjunction with an ironer which will automatically fold flatwork items.

NOTE — This machine is also used for folding blankets, polyester sheets and similar items.

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1) To be published.