

**Masinate ohutus. Ohutusnõuded
paberivalmistamis- ja
viimistlusmasinate kavandamisele ja
valmistamisele. Osa 4: Raamatute
kõitmise, paberi ümbertöötlemise ja
viimistlusseadmed**

Safety of machinery - Safety requirements for the
design and construction of printing and paper
converting machines - Part 4: Bookbinding, paper
converting and finishing machines

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1010-4:2004 sisaldab Euroopa standardi EN 1010-4:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.05.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1010-4:2004 consists of the English text of the European standard EN 1010-4:2004.</p> <p>This document is endorsed on 18.05.2004 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>Käsitlusala:</p> <p>This document applies to - bookbinding machines: - stitching, riveting, eyeletting and attaching machines;- gang stitchers;- gathering machines;- perfect binders;- paper drills;- book signature presses;- book presses;- sheet folding machines;- book production lines for the production of books with hard covers;- back rounding and pressing machines.</p>	<p>Scope:</p> <p>This document applies to - bookbinding machines: - stitching, riveting, eyeletting and attaching machines;- gang stitchers;- gathering machines;- perfect binders;- paper drills;- book signature presses;- book presses;- sheet folding machines;- book production lines for the production of books with hard covers;- back rounding and pressing machines.</p>
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ICS 37.100.10, 85.100

Võtmesõnad:

ICS 37.100.10; 85.100

English version

**Safety of machinery - Safety requirements for the design and
construction of printing and paper converting machines - Part 4:
Bookbinding, paper converting and finishing machines**

Sécurité des machines - Exigences de sécurité pour la
conception et la construction de machines d'impressions et
de transformation du papier - Partie 4: Machines à relier les
livres machines de transformation et de finition du papier

Sicherheit von Maschinen - Sicherheitsanforderungen an
Konstruktion und Bau von Druck- und
Papierverarbeitungsmaschinen - Teil 4: Buchbinderei,
Papierverarbeitungs- und Papierveredelungsmaschinen

This European Standard was approved by CEN on 21 November 2003.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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Foreword

This document EN 1010-4:2004 has been prepared by Technical Committee CEN/TC 198 "Printing and paper machinery - Safety", 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 July 2004, and conflicting national standards shall be withdrawn at the latest by July 2004.

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 EU Directive(s).

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

Annex A of this standard is normative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This document is a type C standard as stated in EN 1070. It defines additional safety requirements and/or deviations from the stipulations in prEN 1010-1:2003.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards for machines that have been designed and built according to the provisions of this C standard.

The EN 1010 series of standards consists of the following parts:

- Part 1 Common requirements
- Part 2 Printing and varnishing machines including pre-press machinery
- Part 3 Cutting machines
- Part 4 Bookbinding, paper converting and finishing machines
- Part 5 Machines for the production of corrugated board and machines for the conversion of flat and corrugated board

1 Scope

This document applies to

- bookbinding machines:
 - stitching, riveting, eyeletting and attaching machines;
 - gang stitchers;
 - gathering machines;
 - perfect binders;
 - paper drills;
 - book signature presses;
 - book presses;
 - sheet folding machines;
 - book production lines for the production of books with hard covers;
 - back rounding and pressing machines;

- backlining and head banding machines;
- casing-in machines;
- book cover crease forming machines.
- paper converting machines:
 - machines for the production of envelopes;
 - machines for the production of sanitary items;
 - inserting machines;
 - counter-stackers;
 - paper embossing machines.
- paper finishing machines:
 - coaters;
 - laminators.

This document shall be used together with prEN 1010-1:2003. Both parts together identify all significant hazards relevant to bookbinding, paper converting and paper finishing machines when they are used as intended and under the conditions foreseen by the manufacturer (see clause 4). The specific requirements in EN 1010-4 take precedence over respective requirements in prEN 1010-1:2003.

This document does not deal with risks generated by noise emitted from the machines. These issues are covered basically in prEN 1010-1:2002. However, for machines like sheet folding machines and machines for the production of envelopes and sanitary items, some specific proposals for noise reduction measures are given.

This document is not applicable to bookbinding, paper converting and finishing machines manufactured before the date of publication of this document by CEN.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 292-1:1991, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology.*

EN 292-2:1991+A1:1995, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles and specifications.*

EN 294:1992, *Safety of machinery — Safety distances to prevent danger zones being reached by the upper limbs.*

EN 349:1993, *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body.*

EN 626-1:1994, *Safety of machinery — Reduction of risks to health from hazardous substances emitted by machinery — Part 1: Principles and specifications for machinery manufacturers.*

EN 626-2:1996, *Safety of machinery — Reduction of risks to health from hazardous substances emitted by machinery — Part 2: Methodology leading to verification procedures.*

EN 954-1:1996, *Safety of machinery — Safety related parts of control systems. Part 1: General principles for design.*

prEN 1010-1:2003, *Safety of machinery — Safety requirements for the design and construction of printing and paper converting machines — Part 1: Common requirements.*

prEN 1010-2:2003, *Safety of machinery — Safety requirements for the design and construction of printing and paper converting machines — Part 2: Printing and varnishing machines including pre-press machinery.*

EN 1010-3:2002, *Safety of machinery — Safety requirements for the design and construction of printing and paper converting machines — Part 3: Cutting machines.*

EN 1050:1996, *Safety of machinery — Principles for risk assessment.*

EN 1070:1998, *Safety of machinery — Terminology.*

EN 1539:2000, *Dryers and ovens in which flammable substances are released — Safety requirements.*

prEN 13023, *Noise measurement methods for printing, paper converting, paper making machines and auxiliary equipment — Accuracy categories 2 and 3.*

EN 61000-6-4:2002, *Electromagnetic compatibility (EMC) — Generic standards — Part 6-4: Emission standard for industrial environment (IEC 61000-6-4:1997).*

EN ISO 4871, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996).*

3 Terms and definitions

For the purposes of this European Standard, the definitions given in EN 1070:1998 and prEN 1010-1:2003 and the following apply.

3.1

stitching, riveting, eyeletting and attaching machines

powered machines using tools for

- connecting material by means of metallic items
- or
- positively fixing metallic items to material

3.2

gang stitchers

machines for stitching folded sheets of paper where individual folded sheets are removed by feeding grippers and the open sheets are stacked on top of each other on a transport chain for subsequent back stitching (see Figure 1)