

**Masinate ohutus. Ohutusnõuded paberivalmistamis- ja viimistlusmasinate kavandamisele ja valmistamisele.
Osa 2: Trüki- ja lakkimismasinad, kaasa arvatud trükieelsed pressimisseadmed KONSOLIDEERITUD TEKST**

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 CONSOLIDATED TEXT

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1010-2:2006+A1:2010 sisaldab Euroopa standardi EN 1010-2:2006+A1:2010 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 30.09.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 04.08.2010.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1010-2:2006+A1:2010 consists of the English text of the European standard EN 1010-2:2006+A1:2010.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 30.09.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 04.08.2010.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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English Version

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

Sécurité des machines - Prescriptions de sécurité pour la conception et la construction de machines d'impression et de transformation du papier - Partie 2: Machines d'impression et de vernissage y compris les équipements de pré-press

Sicherheit von Maschinen - Sicherheitsanforderungen an Konstruktion und Bau von Druck- und Papierverarbeitungsmaschinen - Teil 2: Druck- und Lackiermaschinen einschließlich Maschinen der Druckvorstufe

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Foreword

This document (EN 1010-2:2006+A1:2010) 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 February 2011, and conflicting national standards shall be withdrawn at the latest by February 2011.

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 includes Amendment 1, approved by CEN on 2010-06-18.

This document supersedes EN 1010-2:2006.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** and **A1**.

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 Directives.

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

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Introduction

This document is a type C standard as stated in EN ISO 12100-1:2003.

It defines additional safety requirements and/or deviations from the stipulations in **A1** EN 1010-1:2004+A1 **A1**.

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 type C standard.

The European Committee for Standardization (CEN) draws attention to the fact that it is claimed that compliance with this document may involve the use of one or more patents:

- German Patent DE 103 10 236 B3
- PCT patent application

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1 Scope

This document applies to:

- Pre-press machinery (machinery and devices for the production of master copies and printing forms):
 - exposure equipment for the production of films and printing forms;
 - equipment for developing films and printing forms;
 - washing machines for printing forms;
 - machines for bending printing forms;
 - punching machines for film and printing forms;
 - cutting machines for film and printing forms;
 - machines for the production of gravure printing forms;
 - scanners.
- Printing and varnishing machines:
 - proofing presses;
 - sheet-fed printing presses and varnishing machines including digital printing presses;
 - web-fed rotary presses and varnishing machines including digital printing presses;
 - screen printing presses.
- Auxiliary devices:
 - cylinder and roller washing devices;
 - continuous flow drying devices;
 - powder spraying devices;
 - auxiliary devices on inking and damping units;
 - automatic plate clamping devices;
 - washing equipment for printing forms, rollers and scrapers;
 - pile turners;
 - measuring and control devices.

This document shall be used together with [EN 1010-1:2004+A1](#). Both parts together identify all significant hazards relevant to printing and varnishing machines including pre-press machinery and auxiliary

devices, when they are used as intended and under the conditions foreseen by the manufacturer (see clause 4). The specific requirements specified in prEN 1010-2 take precedence over respective requirements in this standard.

This document does not deal with risks generated by noise emitted from the machines. These issues are fundamentally covered in A_1 EN 1010-1:2004+A1 A_1

This document does not apply to high-pressure cleaning devices and screen printing presses for textile substrates.

This document is not applicable to printing and varnishing machines including pre-press machinery which are manufactured before the date of publication of this document by CEN.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

A_1 *deleted text* A_1

A_1 EN 349:1993+A1:2008 A_1 , *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body*

A_1 EN 378-1:2008 A_1 , *Refrigerating systems and heat pumps — Safety and environmental requirements — Part 1: Basic requirements, definitions, classification and selection criteria*

A_1 *deleted text* A_1

A_1 EN 1088, *Safety of machinery — Interlocking devices associated with guards — Principles for design and selection* A_1

A_1 EN 1010-1:2004+A1 A_1 , *Safety of machinery — Safety requirements for the design and construction of printing and paper converting machines — Part 1: General requirements*

A_1 *deleted text* A_1

A_1 EN 1127-1:2007 A_1 , *Explosive atmospheres — Explosion prevention and protection — Part 1: Basic concepts and methodology*

A_1 EN 1539:2009 A_1 , *Dryers and ovens, in which flammable substances are released — Safety requirements*

A_1 EN 60204-1:2006, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005, modified)* A_1

EN 60529:1991, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

A_1 EN 60825-1:2007, *Safety of laser products — Part 1: Equipment classification and requirements (IEC 60825-1:2007)* A_1

A_1 EN 60950-1:2006, *Information technology equipment — Safety — Part 1: General requirements (IEC 60950-1:2005, modified)* A_1

A_1 EN 61496-1:2004, *Safety of machinery — Electro-sensitive protective equipment — Part 1: General requirements and tests (IEC 61496-1:2004, modified)* A_1

EN 62061:2005, *Safety of machinery — Functional safety of safety-related electrical, electronic and programmable electronic control systems (IEC 62061:2005)* ^{A1}

EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)*

EN ISO 13849-1:2008, *Safety of machinery — Safety related parts of control systems — General principles for design (ISO 13849-1:2006)* ^{A1}

EN ISO 13855:2010, *Safety of machinery — Positioning of safeguards with respect to the approach speeds of parts of the human body (ISO 13855:2010)* ^{A1}

EN ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)* ^{A1}

EN ISO 14121-1:2007, *Safety of machinery — Risk assessment — Part 1: Principles (ISO 14121-1:2007)* ^{A1}

EN ISO 14122-4:2004, *Safety of machinery — Permanent means of access to machinery — Part 4: Fixed ladders (ISO 14122-4:2004)*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN ISO 12100-1:2003, EN 1010-1:2004+A1 ^{A1} and the following apply.

- 3.1 alcohol dosing equipment**
equipment for dosing the amount of alcohol in the damping water of offset printing presses
- 3.2 proofing presses**
machines for printing a small number of copies, mostly used for assessing print quality before the printing form is mounted in the machine. Feeding and delivery is done manually
- 3.3 automatic plate clamping devices**
devices for automatic or semi-automatic changing of printing plates
- 3.4 exposing equipment**
machinery used for taking images by exposing photo-sensitive material, for example, as master copy or printing forms
- 3.5 sheet-fed printing presses and varnishing machines**
machines for printing, numbering and/or varnishing of sheet-size substrates (paper sheets, board, film, sheet metal or similar material) including proofing presses. Numbering and varnishing machines may be integrated into printing presses or they may be used as stand-alone machines. The sheets may be fed by feeders or from sheeters attached to unwinding units
- 3.6 powder spraying devices**
devices for spraying powder onto the printed material on the delivery side of sheet-fed printing presses