



Institut luxembourgeois de la normalisation  
de l'accréditation, de la sécurité et qualité  
des produits et services

## ILNAS-EN 1010-3:2002+A1:2009

### **Safety of machinery - Safety requirements for the design and construction of printing and paper converting machines - Part 3: Cutting**

Sécurité des machines - Prescriptions de  
sécurité pour la conception et la  
construction de machines d'impression  
et de transformation du papier - Partie 3:

Sicherheit von Maschinen -  
Sicherheitsanforderungen an  
Konstruktion und Bau von Druck- und  
Papierverarbeitungsmaschinen - Teil 3:

10/2009



## National Foreword

This European Standard EN 1010-3:2002+A1:2009 was adopted as Luxembourgish Standard ILNAS-EN 1010-3:2002+A1:2009.

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- Participate in the design of standards
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ILNAS-EN 1010-3:2002+A1:2009

EUROPEAN STANDARD **EN 1010-3:2002+A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

**Safety of machinery - Safety requirements for the design and  
construction of printing and paper converting machines - Part 3:  
Cutting machines**

Sécurité des machines - Prescriptions de sécurité pour la  
conception et la construction de machines d'impression et  
de transformation du papier - Partie 3: Coupeuses et  
massicots

Sicherheit von Maschinen - Sicherheitsanforderungen an  
Konstruktion und Bau von Druck- und  
Papierverarbeitungsmaschinen - Teil 3:  
Schneidemaschinen

This European Standard was approved by CEN on 4 March 2002 and includes Amendment 1 approved by CEN on 15 September 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.





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## Foreword

This document (EN 1010-3:2002+A1:2009) has been prepared by 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 April 2010, and conflicting national standards shall be withdrawn at the latest by April 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 includes Amendment 1 approved by CEN on 2009-09-15.

This document supersedes EN 1010-3:2002.

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

**A1** For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. **A1**



This European Standard 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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this document: 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.

## Introduction

This European Standard is a type C standard as specified in EN 1070.

It contains additional safety requirements and/or deviations from  EN 1010-1:2004+A1 .

The scope of this European Standard refers to the relevant machines and the hazards, hazardous situations and hazardous events covered. For machines designed and constructed in accordance with this type C standard, the following applies: if specifications in this type C standard deviate from the specifications in type A or type B standards, the specifications in this type C standard have priority over the specifications of the other standards.

# 1 Scope

## 1.1 This European Standard applies to cutting machines used in paper converting:

- guillotines;
- three-knife trimmers;
- index cutting machines;
- trimmers;
- rotary cutters;
- round cornering machines;
- label punching machines.

This European Standard is only applicable in conjunction with **EN 1010-1:2004+A1**. Both parts together identify all significant hazards relevant to the cutting machines when they are used as intended and under the conditions foreseen by the manufacturer (see Clause 4). The specific requirements of this European Standard take precedence over respective requirements of **EN 1010-1:2004+A1**.

This European Standard is not applicable to cutting machines manufactured before the publication of this European Standard by CEN.

## 1.2 This standard does not apply to winder-slitters or sheeters (see EN 1034-1, EN 1034-3, prEN 1034-5).

# 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, *Safety of machinery - Safety of machinery - Basic concepts, general principles for design. Part 1: Basic terminology, methodology.*

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

EN 953, *Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards.*

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

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

EN 1070, *Safety of machinery – Terminology.*

EN 1080, *Safety of machinery - Interlocking devices associated with guards - Principles for design and selection.*

# 3 Definitions, symbols and abbreviations

For the purposes of this European Standard, the terms and definitions in EN 1070, **EN 1010-1:2004+A1** and the following apply:

## 3.1

### knives

cutting tools with translational movement

## 3.2

**rotary knives**

circular knives with rotational movement

**3.3****dynamic forces**

maximum forces occurring measured by a spring constant as described in Clause 6

**3.4****guillotines**

machines using a knife for cutting stacks of paper sheets or similar substrates

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**3.5****feeding tables**

tables for feeding the material to be cut to the guillotine

**3.6****three-knife trimmers, trimmers**

cutting machines for cutting two or three sides of book blocks, stationery, magazines with the material fed manually or automatically

**3.7****rotary cutters**

machines using rotary knives for cutting book blocks, stationery, magazines with automatic feeding

**3.8****index cutting machines**

machines for making index cuts on book blocks and stationery and for printing indexes

**3.9****round cornering machines**

machines for cutting round corners on book blocks and stationery

**3.10****label punching machines**

machines for cutting out labels

**3.11****ESPD**

electro-sensitive protective device

**4 List of significant hazards**

**4.1** This clause contains all the significant hazards, as far as they are dealt with in this standard, identified by the risk assessment method as being significant for this type of machinery and which require action to eliminate or reduce the risk. When carrying out the risk assessment, the machine designer shall check whether the list of hazards in Table 1 is complete and applicable with respect to the particular machine.

**4.2** It is of great importance that the user of this standard, e.g. the designer, manufacturer or supplier, takes into account the following principal aspects in accordance with EN 1050:

- the intended use of the machine including setting-up (making ready), cleaning and maintenance, including foreseeable misuse;
- identification of the significant hazards.