
Varnost strojev – Varnostne zahteve za načrtovanje in konstrukcijo strojev in opreme za izdelavo papirja – 14. del: Stroji za rezanje zvitkov

Safety of machinery - Safety requirements for the design and construction of paper making and finishing machines - Part 14: Reel splitter

Sicherheit von Maschinen - Sicherheitstechnische Anforderungen an Konstruktion und Bau von Maschinen der Papierherstellung und Ausrüstung - Teil 14: Rollenspaltmaschinen

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Sécurité des machines - Prescriptions techniques de sécurité relatives a la conception et a la construction de machines de fabrication et de finition du papier - Partie 14: Cisailles a bobine

Ta slovenski standard je istoveten z: EN 1034-14:2005

ICS:

13.110	Varnost strojev	Safety of machinery
21.020	Značilnosti in načrtovanje strojev, aparatov, opreme	Characteristics and design of machines, apparatus, equipment
85.100	Oprema za papirno industrijo	Equipment for the paper industry

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1034-14

November 2005

ICS 85.100

English Version

**Safety of machinery - Safety requirements for the design and
construction of paper making and finishing machines - Part 14:
Reel splitter**

Sécurité des machines - Exigences techniques de sécurité
pour la conception et la construction de machines de
fabrication et de finition du papier - Partie 14: Cisailles à
bobine

Sicherheit von Maschinen - Sicherheitstechnische
Anforderungen an Konstruktion und Bau von Maschinen
der Papierherstellung und Ausrüstung - Teil 14:
Rollenspaltmaschinen

This European Standard was approved by CEN on 5 October 2005.

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.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This European Standard (EN 1034-14:2005) 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 May 2006, and conflicting national standards shall be withdrawn at the latest by May 2006.

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 **EU Directive(s)**.

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

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

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EN 1034-14:2005 (E)**Introduction**

This European Standard is a type C standard as stated in EN ISO 12100-1.

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

For machines that have been designed and built according to the provisions of this C standard, the following stipulation applies: When provisions of this type C standard are different from those which are stated in type B standards or from provisions made in EN 1034-1:2000, the provisions of this type C standard take precedence over the provisions of the other standards.

1 Scope

This European Standard applies to reel splitters intended for use in paper making and shall be used together with EN 1034-1:2000. It deals with all significant hazards, hazardous situations and hazardous events relevant to reel splitters when used as intended and under the conditions reasonably foreseen by the manufacturer as incorrect application (see clause 4).

This European Standard applies only to reel splitters with a movable knife and of the following designs:

- machines with a vertically moving knife pressed downwards from the top onto the reel, generally right to the core so that the layers of wound paper are separated one after the other and fall off;
- machines with a driven and movable circular knife that cuts the wound layers of the horizontal reel successively, beginning from the top down to the core, with the cut layers of wound paper falling off one after the other.

This European Standard also applies to the integrated conveyor belts and the integrated pivoting platform.

This European Standard also covers the guard rails at the interface of the reel splitter and a pulper that is charged with an integrated conveyor belt of the reel splitter.

NOTE Pulpers are dealt with in EN 1034-4.

This European Standard is not applicable to reel splitters which are manufactured before the date of publication of this EN.

2 Normative references

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

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 418:1992, *Safety of machinery — Emergency stop equipment — Functional aspects — Principles for design*

- EN 574:1996, *Safety of machinery — Two-hand controls, functional aspects, principles for design*
- EN 619:2002, *Continuous conveyors and systems — Safety and EMC requirements for mechanical conveying systems for packaged goods*
- EN 953:1997, *Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards.*
- EN 954.1:1997, *Safety of machinery — Safety related parts of control systems — Part 1: General principles for design.*
- EN 982:1996, *Safety of machinery — Safety requirements for fluid power systems and their components — Hydraulics*
- EN 983:1996, *Safety of machinery — Safety requirements for fluid power systems and their components — Pneumatics*
- EN 999:1998, *Safety of machinery — The positioning of protective equipment in respect of approach speeds of parts for the human body*
- EN 1034-1:2000, *Safety of machinery — Safety requirements for the design and construction of paper making and finishing machines — Part 1: Common requirements.*
- EN 1034-4:2005, *Safety of machinery — Safety requirements for the design and construction of paper making and finishing machines — Part 4: Pulpers and their loading facilities*
- EN 1088:1995, *Safety of machinery — Interlocking devices associated with guards — Principles for design and selection*
- EN 1760-1:1997, *Safety of machinery — Pressure-sensitive safety devices — Part 1: General principles for the design and testing of pressure-sensitive mats and pressure-sensitive floors*
- EN 1760-2:2001, *Safety of machinery — Pressure-sensitive safety devices — Part 2: General principles for the design and testing of pressure-sensitive edges and pressure-sensitive bars*
- EN 1837:1999, *Safety of machinery — Intergal lighting of machines*
- EN 13023:2003, *Noise measurement methods for printing, paper converting, paper making machines and auxiliary equipment — Accuracy categories 2 and 3*
- EN 60204-1:1997, *Safety of machinery — Electrical equipment — Part 1: General requirements (IEC 60204-1:1997)*
- EN 60529:1991, *Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)*
- EN 61000-6-2:2001, *Electromagnetic compatibility (EMC) — Part 6-2: Generic standard — Immunity — Part 2: Industrial environment (IEC 61000-6-2:1999, modified)*
- EN 61496-1:2004, *Safety of machinery — Electro-sensitive protective equipment — Part 1: General requirements and tests (IEC 61496-1:2004, modified)*
- prEN 61496-2:1997, *Safety of machinery — Electro-sensitive protective equipment — Part 2: Particular requirements for equipment using active opto-electronic protective devices (AOPDs) (IEC 61496-2:1997, modified)*
- EN ISO12100-1:2003, *Safety of machinery — Basic concepts — General principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

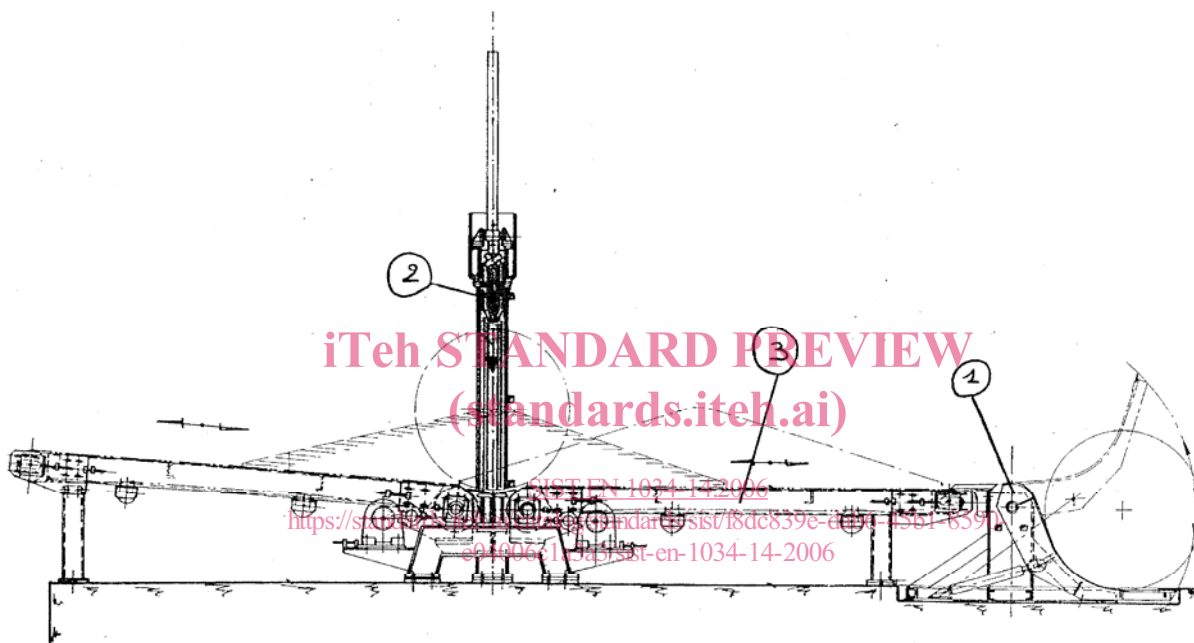
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EN ISO 12100-2:2003, *Safety of machinery — Basic concepts — General principles for design - Part 2: Technical principles and specifications (ISO 12100-2:2003)*

3 Terms and definitions

For the purpose of this European Standard, the definitions given in EN 1034-1:2000, EN ISO 12100-1:2003 and the following terms and definitions apply:

3.1 reel splitter
 machine used for splitting waste paper reels or reel cores with a power-driven knife in a plane running through the reel axis. Figure 1 illustrates an example of this



NOTE: Safety devices are not shown

Key

- 1 Pivoting platform
- 2 Splitting/cutting device
- 3 Conveyor belt

Figure 1 — Example of a reel splitter with conveyor belts and pivoting platform

3.2 knife bar
 moving bar in the machine frame that secures and guides the knife

3.3 reel bed
 part of the machine on which the reel lies for splitting/cutting

3.4**pivoting platform**

hydraulically or pneumatically driven device with which the reel is raised and guided to the integrated conveyor belt or reel bed

3.5**conveyor belt**

continuous conveyor by means of which the reels are fed to the splitting/cutting device and/or with which the cut paper is discharged from the machine

3.6**D**

maximum diameter of the reels that can be split with the reel splitter, given in m

4 List of significant hazards

This clause contains all the significant hazards, hazardous situations and hazardous events, as far as they are dealt with in this standard, which are identified by risk assessment as significant for this type of machinery and which require action to eliminate or reduce the risk.

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