Masinate ohutus. Ohutusnõuded paberivalmistamis- ja viimistlusmasinate kavandamisele ja valmistamisele. Osa 4: Purustusseadmed ja nende laadimissüsteemid

Safety of machinery - Safety requirements for the design and construction of paper making and finishing machines - Part 4: Pulpers and their loading facilities

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1034-4:2005+A1:2010 sisaldab Euroopa standardi EN 1034-4:2005+A1:2009 ingliskeelset teksti.	This Estonian standard EVS-EN 1034-4:2005+A1:2010 consists of the English text of the European standard EN 1034-4:2005+A1:2009.
Standard on kinnitatud Eesti Standardikeskuse 31.01.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.01.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 02.12.2009.	Date of Availability of the European standard text 02.12.2009.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 85.100

EUROPEAN STANDARD

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Supersedes EN 1034-4:2005

English Version

Safety of machinery - Safety requirements for the design and construction of paper making and finishing machines - Part 4: Pulpers and their loading facilities

Sécurité des machines - Prescriptions de sécurité pour la conception et la construction de machines de fabrication et de finition du papier - Partie 4: Triturateurs et leurs dispositifs d'alimentation

Sicherheit von Maschinen - Sicherheitstechnische Anforderungen an Konstruktion und Bau von Maschinen der Papierherstellung und Ausrüstung - Teil 4: Stofflöser und deren Beschickungseinrichtungen

This European Standard was approved by CEN on 20 October 2005 and includes Amendment 1 approved by CEN on 17 November 2009.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 1034-4:2005+A1:2009) has been prepared by Technical Committee CEN/TC 198 “Printing and paper machinery - Safety”, the secretariat of which is held by DIN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2010, and conflicting national standards shall be withdrawn at the latest by June 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 17 November 2009.

This document supersedes EN 1034-4:2005.

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 EU Directive(s).

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: 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 stated in EN ISO 12100-1.

The machinery concerned and the extent to which hazards, hazardous situations and 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 type C standard, the following stipulation applies: when provisions of this type C standard are different from those which are stated in type A or B standards or from provisions made in ⟨A1⟩ EN 1034-1:2000+A1:2010 ⟨A1⟩, the provisions of this type C standard take precedence over the provisions of the other standards.

1 Scope

This European Standard applies to pulpers and their loading facilities intended for use in paper making and shall be used together with ⟨A1⟩ EN 1034-1:2000+A1:2010 ⟨A1⟩. It deals with all significant hazards, hazardous situations and hazard events relevant to pulpers and their loading facilities, when they are used as intended and under the conditions foreseen by the manufacturer (see clause 4).

This European Standard is not applicable to pulpers and their loading facilities that have been manufactured before the date of publication of this standard.

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 547 (all Parts), *Safety of machinery — Human body measurements.*

EN 617:2001, *Continuous handling equipment and systems — Safety and EMC requirements for the storage of bulk goods in silos, bunkers, bins and hoppers.*

EN 618:2002, *Continuous handling equipment and systems — Safety and EMC requirements for equipment for mechanical handling of bulk materials except stationary belt conveyors.*

EN 619:2002, *Continuous handling equipment and systems — Safety and EMC requirements for equipment for mechanical handling of unit loads.*

EN 620:2002, *Continuous handling equipment and systems — Safety and EMC requirements for equipment for stationary belt conveyors for bulk materials.*

EN 626-1:1994, *Safety of machinery — Reduction of risk 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 risk to health from hazardous substances emitted by machinery — Part 2: Methodology leading to verification procedures.*

EN 741:2000, *Continuous handling equipment and systems — Safety requirements for equipment for equipment and their components for pneumatic handling of bulk materials.*

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

EN 954-1:1996, *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.*

[A1] EN 1034-1:2000+A1:2010 [A1], *Safety of machinery — Safety requirements for the design and construction of paper making and finishing machines — Part 1: Common requirements.*

EN 1037:1995, *Safety of machinery — Prevention of unexpected start-up.*

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

EN 1088:1995, *Safety of machinery — Interlocking devices associated with guards — Principles for design and selection.*

EN 1837:1999, *Safety of machinery — Integral 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 61000-6-2:2001, *Electromagnetic compatibility (EMC — Generic standard — Part 6-2: Emission standard for industrial environment (IEC 61000-6-2:1999, modified).*

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 and specifications (ISO 12100-2:2003).*

EN 14122-1:2001, *Safety of machinery — Permanent means of access to machines and industrial plants — Part 1: Choice of a fixed means of access between two levels (ISO 14122-1:2001).*

EN 14122-2:2001, *Safety of machinery — Permanent means of access to machines and industrial plants — Part 2: Working platforms and gangways (ISO 14122-2:2001).*

EN 14122-3:2001, *Safety of machinery — Permanent means of access to machines and industrial plants — Part 3: Stairways, stepladders and guard-rails (ISO 14122-3:2001).*