

**Masinate ohutus. Ohutusnõuded  
paberivalmistamis- ja  
viimistlusmasinate kavandamisele ja  
valmistamisele. Osa 7: Basseinid**

Safety of machinery - Safety requirements for the  
design and construction of paper making and  
finishing machines - Part 7: Chests

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1034-7:2005 sisaldab Euroopa standardi EN 1034-7:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 15.07.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1034-7:2005 consists of the English text of the European standard EN 1034-7:2005.</p> <p>This document is endorsed on 15.07.2005 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><b>Käsitlusala:</b></p> <p>This European Standard applies to chests used in paper making and shall be applied together with EN 1034-1:2000. It deals with all significant hazards, hazardous situations and hazard events relevant to chests when they are used as intended and under the conditions foreseen by the manufacturer (see clause 4).</p>	<p><b>Scope:</b></p> <p>This European Standard applies to chests used in paper making and shall be applied together with EN 1034-1:2000. It deals with all significant hazards, hazardous situations and hazard events relevant to chests when they are used as intended and under the conditions foreseen by the manufacturer (see clause 4).</p>
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**Võtmesõnad:** agitators, chests, constructions, design, hazards

ICS 85.100

English version

**Safety of machinery - Safety requirements for the design and  
construction of paper making and finishing machines - Part 7:  
Chests**

Sécurité des machines - Prescriptions de sécurité pour la  
conception et la construction de machines de fabrication et  
de finition du papier - Partie 7 : Cuviers

Sicherheit von Maschinen - Sicherheitstechnische  
Anforderungen an Konstruktion und Bau von Maschinen  
der Papierherstellung und Ausrüstung - Teil 7: Büten

This European Standard was approved by CEN on 21 April 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 1034-7:2005) 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 December 2005, and conflicting national standards shall be withdrawn at the latest by December 2005

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 the EU Directive

For relationship with the EU Directive, 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.

## Introduction

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

The extent to which hazards, hazardous situations and hazard results are covered is indicated in the scope of this standard.

For machines which have been designed and built in accordance with the stipulations of this C type standard, the following applies: where C type standard stipulations deviate from respective stipulations in A or B type standards, the stipulations made in this C type standard take precedence over stipulations in the other standards.

## 1 Scope

This European Standard applies to chests used in paper making and shall be applied together with EN 1034-1:2000. It deals with all significant hazards, hazardous situations and hazard events relevant to chests when they are used as intended and under the conditions foreseen by the manufacturer (see clause 4). This European Standard does not apply to tanks for chemicals, storage tanks for starch and other additives used in paper making or basins or vessels for waste water resulting from the paper making process.

This European Standard does not apply to chests manufactured before the publication date of this European 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*

EN 547-2:1996, *Safety of machinery — Human body measurement — Part 2: Principles for determining the dimensions required for access openings*

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 components — Hydraulics*

EN 983:1996, *Safety of machinery — Safety requirements for fluid power systems and components — Pneumatics*

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

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

EN 1127-1:1997, *Explosive atmospheres — Explosion prevention and protection — Part 1: Basic concepts and methodology*

EN 13023:2003, *Noise measurement methods for printing, paper converting, paper making machines and auxiliary equipment — Accuracy categories 2 and 3*

EN 50144-1:1998, *Safety of hand-held powered electrical devices — Part 1: General requirements*

EN 60204-1:1997, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:1997)*

EN 60974-1:1988, *Arc welding equipment - Part 1: Welding power sources (IEC 60974-1:1998)*

EN 61000-6-2:2001, *Electromagnetic compatibility (EMC) — Part 6-2: Generic standards; immunity 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 (ISO 12100-2:2003)*

EN ISO 14122:2001 (all parts), *Safety of machinery — Permanent means of access to machinery*

### 3 Terms and definitions

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

#### 3.1

##### **chest**

vessel usually made of special steel or concrete and equipped with a fixed agitating device, associated measuring and control devices and necessary shutoff devices intended for storing (stacking), collecting and mixing pulp

#### 3.2

##### **agitator**

part of the mixing device shaped as a propeller or agitating shaft for optimum distribution of the pulp components used and forming a suspension

#### 3.3

##### **pulp**

suspension of fibre, additives and inks for the production of paper and board

### 4 List of significant hazards

This clause contains all the significant hazards, as far as they are dealt with in this European Standard, which are identified by risk assessment in accordance with EN 1050 as significant for this type of machinery and which require action to eliminate or reduce the risk.