

**Toidutöötlemismasinad. Kausi tõstmise ja  
kallutamise masinad. Ohutus- ja  
hügieeninõuded**

Food processing machinery - Bowl lifting and tilting  
machines - Safety and hygiene requirements

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13288:2005 sisaldab Euroopa standardi EN 13288:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 28.12.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13288:2005 consists of the English text of the European standard EN 13288:2005.</p> <p>This document is endorsed on 28.12.2005 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 specifies safety and hygiene requirements for the design, installation, operation and maintenance of lifting and tilting machines used, in bakeries, for lifting and/or tilting a container or a machine with non removable bowl containing dough or pastry and for tipping the contents at the top end of the stroke.</p>	<p><b>Scope:</b></p> <p>This European Standard specifies safety and hygiene requirements for the design, installation, operation and maintenance of lifting and tilting machines used, in bakeries, for lifting and/or tilting a container or a machine with non removable bowl containing dough or pastry and for tipping the contents at the top end of the stroke.</p>
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English Version

Food processing machinery - Bowl lifting and tilting machines -  
Safety and hygiene requirements

Machines pour les produits alimentaires - Machines  
élévateurs/basculateurs de cuve - Prescriptions relatives à la  
sécurité et à l'hygiène

Nahrungsmittelmaschinen - Hub- und Kippeinrichtungen für  
Bottiche - Sicherheits- und Hygieneanforderungen

This European Standard was approved by CEN on 1 August 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.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

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## Foreword

This European Standard (EN 13288:2005) has been prepared by Technical Committee CEN/TC 153 “Food processing machinery — Safety and hygiene specifications”, 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 2006, and conflicting national standards shall be withdrawn at the latest by April 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 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.

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.

## 1 Scope

This European Standard specifies safety and hygiene requirements for the design, installation, operation and maintenance of lifting and tilting machines used, in bakeries, for lifting and/or tilting a container or a machine with non removable bowl containing dough or pastry and for tipping the contents at the top end of the stroke.

The lifting and tilting machines can be stationary or movable and are designed for semi-manufactured products (mixtures of flour, water and other ingredients) or raw material (flour, mixtures etc.). The direction of lifting can be vertical, inclined or combined and follows a track fixed by mechanical guides, or articulated arms.

This European Standard deals with the significant hazards, hazardous situations and events relevant to lifting and tilting machines, when used as intended and under the conditions foreseen by the manufacturer (see clause 4).

This European Standard does not deal with the hazards due to the mixing or other function of the bowl (for dough mixers see EN 453).

The following machines are excluded:

- experimental and testing machines under development by the manufacturer;
- domestic appliances;
- automatic mobile equipment, for example bucket trucks;
- lift trucks;
- automatic devices working in automatic production lines (where the initiation of the movement is not due to an human action).

Also excluded, are the hazards due to the powered movement of mobile machines.

When drafting this European Standard, it has been assumed that the machines are not intended to be cleaned with a water jet.

Noise is not considered to be a significant hazard by lifting and tilting machines for bakery. This does not mean that the manufacturer of the machine is absolved from reducing noise and making a noise declaration. A noise test code is therefore given in Annex A.

This European Standard is not applicable to lifting and tilting machines for bakery which are manufactured before the date of publication of this European Standard by CEN.

## 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 distance 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, *Safety of machinery — Emergency stop equipment, functional aspects — Principles for design.*

EN 574:1996, *Safety of machinery — Two-hand control devices — Functional aspects — Principles for design.*

EN 614-1:1995, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles.*

EN 953, *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, *Safety of machinery — Safety requirements for fluid power systems and their components — Hydraulics.*

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

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

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

EN 1672-2:2005, *Food processing machinery — Basic concepts — Part 2: Hygiene requirements.*

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

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

EN 61310-1, *Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, auditory and tactile signals (IEC 61310-1:1995).*

EN ISO 3744:1995, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering method in an essentially free field over a reflecting plane (ISO 3744:1994).*

EN ISO 4287, *Geometrical Product Specifications (GPS) — Surface texture: profile method — Terms, definitions and surface texture parameters (ISO 4287:1997).*

EN ISO 4871, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996).*

EN ISO 11201, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a workstation and at other specified positions — Engineering method in an essentially free field over a reflecting plane (ISO 11201:1995).*

EN ISO 12001:1996, *Acoustics — Noise emitted by machinery and equipment — Rules for the drafting and presentation of a noise test code (ISO 12001:1996).*

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).*