

**Toidutöötlemismasinad. Piruka- ja tordimasinad.
Ohutus- ja hügieeninõuded**

Food processing machinery - Pie and tart machines - Safety and hygiene requirements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13390:2002+A1:2010 sisaldab Euroopa standardi EN 13390:2002+A1:2009 ingliskeelset teksti.

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English Version

Food processing machinery - Pie and tart machines - Safety and hygiene requirements

Machines pour les produits alimentaires - Fonceuses à tartes - Prescriptions relatives à la sécurité et à l'hygiène

Nahrungsmittelmaschinen - Tortelettmaschinen - Sicherheits- und Hygieneanforderungen

This European Standard was approved by CEN on 11 November 2001 and includes Amendment 1 approved by CEN on 1 November 2009.

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Foreword

This document (EN 13390:2002+A1:2009) has been prepared by Technical Committee CEN/TC 153 "Machinery intended for use with foodstuffs and feed", 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of an identical text or by endorsement, at the latest by June 2010, and conflicting national standards shall be withdrawn at the latest by June 2010.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 1 November 2009.

This document supersedes EN 13390:2002.

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 A1 EU Directive(s) A1.

A1 For relationship with EU Directives, see informative Annexes ZA and ZB, which are integral parts of this document. A1

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Introduction

A1 This European Standard is a type C standard as stated in EN ISO 12100.

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. **A1**

1 Scope

This standard specifies safety and hygienic design requirements for the manufacture of machines used for the production of pies, tarts, pasties, en croute products and other similar items where the pastry cases are formed by the closing under pressure of one or more forming heads. The standard applies to the following three basic types of machine:

- machines where operators hands enter hazard zone 1 (see **A1** 4.2 **A1**) at each cycle;
- machines which are loaded outside hazard zone 1;
- automatic machines.

Figure 1, 2 and 3 illustrate examples of these.

Automatic loading devices are not covered by this standard.

This standard applies to electrically, pneumatically and hydraulically powered machines. Manually operated machines are excluded from the scope of this standard.

A1 *deleted text* **A1**

A1 This standard covers the technical safety requirements for the transport, installation, operation, cleaning and maintenance of these machines (see 5.2 and 5.3 of EN ISO 12100-1:2003).

This standard deals with all significant hazards, hazardous situations and events relevant to pie and tart machines, when they are used as intended and under the conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 4). **A1**

Flour dust is not a significant hazard at pie and tart machines.

A noise test code is included in annex B to assist manufacturers to measure noise level for the purpose of the noise emission declaration.

This document is not applicable to pie and tart machines which are manufactured before the date of publication of this document by CEN.

2 Normative references

[A1] The following referenced documents are indispensable for the application of this document. 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 614-1:2006, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

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

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 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 60204-1:2006, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204:2005, modified)*

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

EN ISO 3744:2009, *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 4287:1998, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters (ISO 4287:1997)*

EN ISO 4871:2009, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 11201:2009, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at the work station and at other specified positions — Engineering method in an essentially free field over a reflecting plane (ISO 11201:1995, including Cor 1:1997)*


EN ISO 11688-1:2009, *Acoustics — Recommended practice for the design of low noise machinery and equipment — Part 1: Planning (ISO/TR 11688-1:1995)*

EN ISO 12001:2009, *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)*

EN ISO 13849-1:2008, *Safety of machinery — Safety related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)*

EN ISO 13850:2008, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)* 

3 Terms and definitions

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

- 3.1**
platform
mould into which the die presses, which is mounted on a supporting surface (see Figure 2)
- 3.2**
platen
mould into which the die presses, which is integral with the supporting surface
- 3.3**
die
shaped tool for pressing the pastry into the desired shape with the corresponding platform or platen. It can be heated
- 3.4**
false table
device, shaped and dimensioned to fill the openings between the platforms on a rotating table machine through which access to hazard zone 1 may be gained (see Figure 6)
- 3.5**
table frame
series of radial webs, located between platforms, shaped and dimensioned to close the gap between the lower edge of the guard and the upper surface of the rotating table on which the platforms are located (see Figure 5)
- 3.6**
blocking
forming the pastry base
- 3.7**
sheeter
device for dispensing sheets of dough e.g. a hopper with a set of rollers at its base (see Figure 7)
- 3.8**
crimping
sealing the lid to the base
- 3.9**
docking
piercing the pastry with a spike
- 3.10**
tamping
levelling the filling