# Toidutöötlemismasinad. Vormimismasinad. Ohutus- ja hügieeninõuded KONSOLIDEERITUD TEKST

Food processing machinery - Moulders - Safety and hygiene IE AIDA. requirements CONSOLIDATED TEXT



#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 12041:2001+A1:2009 sisaldab Euroopa standardi EN 12041:2000+A1:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.09.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 12.08.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 12041:2001+A1:2009 consists of the English text of the European standard EN 12041:2000+A1:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.09.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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ICS 67.260

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### EUROPEAN STANDARD

## NORME EUROPÉENNE

### **EUROPÄISCHE NORM**

August 2009

EN 12041:2000+A1

ICS 67.260

Supersedes EN 12041:2000

#### **English Version**

# Food processing machinery - Moulders - Safety and hygiene requirements

Machines pour les produits alimentaires - Façonneuses -Prescriptions relatives à la sécurité et à l'hygiène Nahrungsmittelmaschinen - Langwirkmaschinen - Sicherheits- und Hygieneanforderungen

This European Standard was approved by CEN on 2 July 2000 and includes Amendment 1 approved by CEN on 16 July 2009.

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 CEN Management Centre 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 CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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.



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

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#### **Foreword**

This document (EN 12041:2000+A1:2009) has been prepared by the 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 February 2010, and conflicting national standards shall be withdrawn at the latest by February 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 2009-07-16.

This document supersedes EN 12041:2000.

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A].

This European Standard has been prepared under a Mandate given to CEN by the Commission of the European Commission and the European Free Trade Association, and supports essential requirements of EU Directives(s).

For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. (A)

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

The extent to which hazards are covered is indicated in the scope of this standard. In addition, machinery shall comply as appropriate with  $\boxed{\mathbb{A}}$  EN ISO 12100  $\boxed{\mathbb{A}}$  for hazards which are not covered by this standard.

#### 1 Scope

This standard applies to the design and manufacture of dough moulders of the types described in 3.1, 3.2 and 3.3 and illustrated in figures 3a, 3b and 3c. These moulders are used in the food industry and shops (bread making, pastry making, sweet industries, bakeries, confectioners, delicatessens, catering facilities, etc.) for flattening, rolling and elongating pieces of dough.

Other designs of moulder and type 1 moulders designed for other than hand crafted products using soft dough, e. g. French baguettes, are not covered by this standard.

The standard covers the technical safety and hygiene requirements for the design, manufacture, installation, adjustment, operation, cleaning and maintenance of these machines, as defined in  $\boxed{\mathbb{A}}$  3.22 of EN ISO 12100-1:2003  $\boxed{\mathbb{A}}$  and in the manufacturer's instruction handbook.

The significant hazards covered by this standard are mechanical (drawing in, trapping, entanglement, crushing, loss of stability), electrical, ergonomic and also those resulting from inhalation of flour dust and lack of hygiene.

Noise is not considered to be a significant hazard by moulders. This does not mean that the manufacturer of the machine is absolved from reducing noise and making a noise declaration. Therefore a noise test code is proposed in Annex B.

The following machines are excluded:

- experimental and testing machines under development by the manufacturer;
- domestic appliances;
- bagel machines.

This standard applies only to machines manufactured after the date of approval by CEN.

#### 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

A<sub>1</sub> deleted text (A<sub>1</sub>

EN 294:1992, Safety of machinery - Safety distances to prevent danger zones being reached by the upper limbs

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

EN 954-1:1996, Safety of machinery - Safety related parts of control systems – Part 1: General principles for design

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 1672-2:1997, Food processing machinery - Common requirements - Part 2: Hygiene requirements

EN 60204-1:1997, Safety of machinery - Electrical equipment of machines - Part 1: General requirements

EN 60529:1991, Degrees of protection provided by enclosures

EN 60651:1994, Sound level meters

EN 11201:1995, 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

EN ISO 4871:1997, Acoustics - Declaration and verification of noise emission values of machinery and equipment

EN ISO 11688-1:1997, Acoustics - Recommended practice for the design of low noise machinery and equipment – Part 1: Planning

EN ISO 12001:1996, Acoustics - Noise emitted by machinery and equipment - Rules for the drafting and presentation of a noise test code

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) [4]

ISO 468:1982, Surface roughness - Parameters values and general rules for specifying requirements

#### 3 Description

Machines may be manually or automatically fed (for example by discharge conveyor from the prover). Dough pieces are flattened between two cylinders, rolled between two surfaces (either two moving belts or one belt and a fixed plate), and elongated in the same way. Discharge may be manual or by conveyor.