TOIDUTÖÖTLEMISMASINAD. VORMIMISMASINAD. OHUTUS- JA HÜGIEENINÕUDED

Food processing machinery - Moulders - Safety and hygiene requirements

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 12041:2014 sisaldab Euroopa standardi EN 12041:2014 inglisekeelset teksti.	This Estonian standard EVS-EN 12041:2014 consists of the English text of the European standard EN 12041:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 26.11.2014.	Date of Availability of the European standard is 26.11.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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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 13 September 2014.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 12041:2014) 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of an identical text or by endorsement, at the latest by May 2015 and conflicting national standards shall be withdrawn at the latest by May 2015.

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 supersedes EN 12041:2000+A1:2009.

This document 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 Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

Significant changes:

The significant changes with respect to the previous edition EN 12041:2000+A1:2009 are listed below:

— normative references updated;

— addition of 3 new definitions: flattening, rolling and elongating;

— more detailed and clearer description of the moulders Type 2 and Type 3;

— increase of the safety distances;

— clauses/subclauses technically updated: 5.2.2 (zone 1 – feeding area), 5.2.4 (zone 4 – input and output devices), 5.3.2 (electromagnetic phenomena), 5.9 (ergonomic principles), Clause 6 (verifications), Clause 7 (information for use), Annex A (noise test code) and Annex B (principles of design);

— new subclauses: 5.2.5 (flour duster), 5.7 (protection against dust emission) and 7.1 (signals and warning);

— addition of the emergency stop: 5.5.

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This document 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.

1 Scope

1.1 This European Standard applies to the design and manufacture of moulders of the types described from 3.2.1 to 3.2.4 and illustrated in Figure 1 to Figure 3.

These moulders are used separately or in a line in the food industry and shops (pastry-making, bakeries, confectionery, etc.) for flattening, rolling and, but not necessarily, elongating pieces of dough. These machines can be fed by hand or mechanically.

This document deals with all significant hazards, hazardous situations and events relevant to the transport, installation, adjustment, operation, cleaning, maintenance, dismantling, disassembling and scrapping of moulders, when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 4).

1.2 This European Standard does not deal with:

— designs of moulder other than those described from 3.2.1 to 3.2.4;

— experimental and testing machines under development by the manufacturer;

— domestics appliances;

— bagel machines;

— additional hazards generated when the machine is used in a line;

— dough and pastry brakes (see EN 1674).

1.3 This document is not applicable to machines which are manufactured before its date of publication as a European standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 614-1:2006+A1:2009, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

EN 619:2002+A1:2010, *Continuous handling equipment and systems — Safety and EMC requirements for equipment for mechanical handling of unit loads*

EN 894-4:2010, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 4: Location and arrangement of displays and control actuators*

EN 1672-2:2005+A1:2009, *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 60204-1:2005, modified)*

EN 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*

EN 61000-6-1, *Electromagnetic compatibility (EMC) — Part 6-1: Generic standards — Immunity for residential, commercial and light-industrial environments (IEC 61000-6-1)*

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

EN ISO 3744:2010, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)*

EN ISO 4287, *Geometrical product specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters (ISO 4287)*

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

EN ISO 11201:2010, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections (ISO 11201:2010)*

EN ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)*

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

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

EN ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)*

EN ISO 14119:2013, *Safety of machinery — Interlocking devices associated with guards — Principles for design and selection (ISO 14119:2013)*

3 Term, definition and description

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and the following apply.

3.1.1
flattening
transformation of the lump of dough into a flat piece, the shape of which depends on the form of the lump; for instance a pre-rounded lump can be transformed into a round or oval shape disc

3.1.2
rolling
transformation of the flattened dough lump into a short cylindrical shape

3.1.3
elongating
transformation of a short cylindrical shape of dough into a long cylindrical shape