

**TOIDUTÖÖTLEMISMASINAD. TAIGNARULLIJAD.  
OHUTUS- JA HÜGIEENINÕUDED**

**Food processing machinery - Dough sheeters - Safety  
and hygiene requirements**

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

See Eesti standard EVS-EN 1674:2015 sisaldab Euroopa standardi EN 1674:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 1674:2015 consists of the English text of the European standard EN 1674:2015.
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.
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English Version

## Food processing machinery - Dough sheeters - Safety and hygiene requirements

Machines pour les produits alimentaires - Laminoirs à pâte - Prescriptions relative à la sécurité et à l'hygiène

Nahrungsmittelmaschinen - Teigausrollmaschinen - Sicherheits- und Hygieneanforderungen

This European Standard was approved by CEN on 1 August 2015.

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

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## European foreword

This document (EN 1674:2015) 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of an identical text or by endorsement, at the latest by March 2016, and conflicting national standards shall be withdrawn at the latest by March 2016.

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 1674:2000+A1:2009.

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 EU Directive 2006/42/EC.

For relationship with EU Directive 2006/42/EC, see informative Annex ZA, which is an integral part of this document.

### Significant changes:

The significant changes with respect to the previous edition EN 1674:2000+A1:2009 are listed below:

- normative references were updated;
- list of significant hazards and dangers zones for mechanical hazards were specified more detailed;
- new sub-clauses: 5.3.5 (Unexpected start-up) and 5.4 (flour duster).

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 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.

## 1 Scope

This European Standard specifies safety and hygiene requirements for the design and manufacture of dough sheeters, as described in Clause 3, used in the food industry and craft activities (bread-making, pastry-making, sweet industries, bakeries, confectioners, delicatessens, catering facilities, etc.) for reducing the thickness of a solid mass of dough or pastry by rolling it out.

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

This European Standard deals with all significant hazards, hazardous situations and events relevant to dough sheeters, when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 5).

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

The following machines are excluded:

- experimental and testing machines under development by the manufacturer;
- dough sheeters where the dough is fed to the rollers by gravity (e.g. pizzabase dough sheeters);
- domestic appliances<sup>1)</sup>.

This European Standard is not applicable to dough sheeters which are manufactured before the date of its publication as EN.

## 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 953, *Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards*

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 ISO 3743-1, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for small movable sources in reverberant fields — Part 1: Comparison method for a hard-walled test room (ISO 3743-1)*

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<sup>1)</sup> EN 60335-1 and EN 60335-2-64 are applicable



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

EN ISO 11201, *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)*

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

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

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 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 Terms, definitions 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

##### **manual operation**

the rollers and conveyor belts are driven by electric motor and the rollers' gap is adjusted by hand control

##### 3.1.2

##### **automatic operation**

the machine is normally automatically controlled and the rollers' gap is adjusted by an electric motor

#### 3.2 Description

A dough sheeter usually consists of a machine frame mounted on a mobile or fixed base or placed on a table or a support. The operation is carried out by passing the dough back and forth between the rollers whose distance apart is reduced progressively either by manual adjustment or automatically.

The frame supports the following components (see Figure 1):

- 1) the electric motor which drives the rollers;