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Food processing machinery - Vegetable cutting machines -
Safety and hygiene requirements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1678:1999+A1:2010 sisaldab Euroopa standardi EN 1678:1998+A1:2010 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 31.08.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 12.05.2010.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1678:1999+A1:2010 consists of the English text of the European standard EN 1678:1998+A1:2010.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 31.08.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 12.05.2010.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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English Version

Food processing machinery - Vegetable cutting machines - Safety and hygiene requirements

Machines pour les produits alimentaires - Coupe-légumes -
Prescriptions relatives à la sécurité et à l'hygiène

Nahrungsmittelmaschinen - Gemüseschneidemaschinen -
Sicherheits- und Hygieneanforderungen

This European Standard was approved by CEN on 28 February 1998 and includes Amendment 1 approved by CEN on 9 April 2010.

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Foreword

^{A1} This document (EN 1678:1999+A1:2010) 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. ^{A1}

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of an identical text or by endorsement, at the latest by November 2010, and conflicting national standards shall be withdrawn at the latest by November 2010.

This document includes Amendment 1, approved by CEN on 2010-04-09.

This document supersedes EN 1678:1998.

The start and finish of text introduced or altered by amendment is indicated in the text by tags ^{A1} ^{A1}.

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.

It is one of a series of standards on the design and construction of machines used in catering.

^{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 EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document. ^{A1}

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Introduction

The use of vegetable cutting machines involves various mechanical and other hazards.

Their extensive use justifies the need of a standard covering both safety and the hazards to food hygiene arising from machine design.

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

A1

1.1 This European Standard specifies the safety and hygiene requirements for the design and manufacture of vegetable cutting machines which are transportable and have a maximum rated power less than 3 kW.

This European Standard deals with machines intended for cutting, shredding, dicing, chipping and grating of food products in which the product passes through the machine.

As described in 3.2.1, the types of machines in the scope are machines with a fixed chamber and rotating blade or cutting disc, with a rotating drum and fixed blades or machines with horizontal reciprocating cutters (mainly used for potato chipping).

1.2 This European Standard specifies all significant hazards, hazardous situations and events relevant to vegetable cutting machines, when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 4).

This European Standard deals with the hazards which can arise during commissioning, operation, cleaning, removal of food blockages, feeding, changing the tools, maintenance and decommissioning of the machine.

1.3 This European Standard does not apply to:

- food processors (see EN 12852);
- vegetable peelers (see EN 13208);
- vegetable cutting attachments which are mounted onto machines having an auxiliary drive hub (see EN 12851);
- planetary mixers (see EN 454);
- domestic machines.

1.4 This European Standard is not applicable to vegetable cutting machines which are manufactured before the date of its publication as EN. **A1**

2 Normative references

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 614-1:2006, *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 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 60529:1991, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

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


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

EN ISO 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 (ISO 11201:1995)*

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

3 Terms and definitions – Description

3.1 Terms and definitions

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