

**Toidutöötlemismasinad. Pöörleva trumliga ahjud.
Ohutus- ja hügieeninõuded**

Food processing machinery - Rotary rack ovens - Safety and hygiene requirements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1673:2000+A1:2010 sisaldab Euroopa standardi EN 1673:2000+A1:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.04.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 02.12.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 1673:2000+A1:2010 consists of the English text of the European standard EN 1673:2000+A1:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.04.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 02.12.2009.

The standard is available from Estonian standardisation organisation.

ICS 67.260, 97.040.20

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English Version

**Food processing machinery - Rotary rack ovens - Safety and
hygiene requirements**

Machines pour les produits alimentaires - Fours à chariot
rotatif - Prescriptions relatives à la sécurité et l'hygiène

Nahrungsmittelmaschinen - Stikken-Backöfen -
Sicherheits- und Hygieneanforderungen

This European Standard was approved by CEN on 11 June 2000 and includes Amendment 1 approved by CEN on 24 October 2009.

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Foreword

This document (EN 1673:2000+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of an identical text or by endorsement, at the latest by June 2010, and conflicting national standards shall be withdrawn at the latest June 2010.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 24 October 2009.

This document supersedes EN 1673:2000.

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

This European Standard 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).

A1 For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. **A1**

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 the United Kingdom.

Introduction

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

The machinery concerned and the extend 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 hygiene requirements for the design and manufacture of rotary rack ovens with one or more rotary racks.

These ovens are used in the food industry and shops (bakeries, pastry-making, etc.) for the batch baking of foodstuffs containing flour, water and other additives. This standard applies to ovens used only for food products except for those containing volatile flammable ingredients.

The control of the humidity of the air in the baking chamber is by the production and introduction of steam around normal atmospheric pressure.

The following machines are excluded:

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

[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 12100-1:2003)."

This document deals with all significant hazards, hazardous situations and events relevant to rotary rack ovens, when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 4).

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. **[A1]**

The hazards from the use of gaseous fuel by gas appliances are not covered by this standard.

[A1] This standard is not applicable to rotary rack ovens which are manufactured before the date of its publication as EN. **[A1]**

2 **[A1]** 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 294:1992, *Safety of machinery — Safety distances to prevent danger zones being reached by the upper limbs*

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

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 3743-1:1995, *Acoustics — Determination of sound levels of noise sources — Engineering methods for small, movable sources in reverberant fields — Part 1: Comparison method for hard-walled test rooms* (ISO 3743-1:1994)

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 a work station and at other specified positions — Engineering method in an essentially free field over a reflecting plane* (ISO 11201:1995)

EN ISO 11688-1:1998, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 1: Planning* (ISO/TR 11688-1:1995)

EN ISO 12001:1996, *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 13732-1:2008, *Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces* (ISO 13732-1:2006)

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

3 Description

A rotary rack oven usually consists of the following parts (see figure 1):

- a) container built with insulated panels;
- b) baking chamber with access door;
- c) heat production unit;
- d) hot air circulation system;
- e) rack and trays;
- f) drive unit for rack rotation;
- g) steam generator;
- h) steam extractor;
- i) control panel;