

**Toidutöötlemismasinad. Fikseeritud
mehhanismiga praeahju täitmise seadmed.
Ohutus- ja hügieeninõuded**

Food processing machinery - Fixed deck oven
loaders - Safety and hygiene requirements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13591:2005 sisaldab Euroopa standardi EN 13591:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 28.12.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13591:2005 consists of the English text of the European standard EN 13591:2005.</p> <p>This document is endorsed on 28.12.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This European Standard applies to the design and manufacture of fixed deck oven loaders used in the food industry, bakeries, pastry-making, etc. These machines are used to place dough pieces on each deck of fixed deck ovens and to remove the baked products from each deck.</p>	<p>Scope: This European Standard applies to the design and manufacture of fixed deck oven loaders used in the food industry, bakeries, pastry-making, etc. These machines are used to place dough pieces on each deck of fixed deck ovens and to remove the baked products from each deck.</p>
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English Version

Food processing machinery - Fixed deck oven loaders - Safety and hygiene requirements

Machines pour les produits alimentaires - Elévateurs-enfourneurs - Prescriptions relatives à la sécurité et à l'hygiène

Nahrungsmittelmaschinen - Ofenbeschickungseinrichtungen - Sicherheits- und Hygieneanforderungen

This European Standard was approved by CEN on 1 August 2005.

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Foreword

This European Standard (EN 13591:2005) has been prepared by Technical Committee CEN/TC 153 "Food processing machinery — Safety and hygiene specifications", 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of an identical text or by endorsement, at the latest by April 2006, and conflicting national standards shall be withdrawn at the latest by April 2006.

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 EC Directive(s).

For relationship with EC Directives, see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This European Standard is a type C standard as stated in EN ISO 12100-1.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

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.

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1 Scope

This European Standard applies to the design and manufacture of fixed deck oven loaders used in the food industry, bakeries, pastry-making, etc. These machines are used to place dough pieces on each deck of fixed deck ovens and to remove the baked products from each deck.

This equipment may be:

- manual;
- semi-automatic (some movements powered, some movements requiring manual power).

The European Standard covers technical safety and hygiene requirements for the design, installation, adjustment, operating, cleaning and maintenance of this equipment.

This European Standard deals with the significant hazards, hazardous situations and events relevant to fixed oven deck loaders, when used as intended and under the conditions foreseen by the manufacturer.

Noise from fixed deck oven loaders is not considered to be a significant hazard. That 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 given in Annex A.

The following equipment are excluded:

- experimental equipment and equipment under development by the manufacturer;
- loaders for conveyor ovens;
- loaders integral to the oven;
- fully automated fixed deck oven loaders.

This European Standard is not applicable to fixed deck oven loaders that are manufactured before the date of publication of this European Standard by CEN.

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 574:1996, *Safety of machinery — Two-hand control devices — Functional aspects — Principles for design.*

EN 614-1:1995, *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 954-1, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design.*

EN 982, *Safety of machinery — Safety requirements for fluid power systems and their components — Hydraulics.*

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EN 983, *Safety of machinery — Safety requirements for fluid power systems and their components — Pneumatics.*

EN 1037, *Safety of machinery — Prevention of unexpected start-up.*

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 60204-1:1997, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:1997).*

EN 60529, *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, *Geometrical product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters (ISO 4287:1997).*

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

EN ISO 11201, *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 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).*

3 Description

3.1 Terms and definitions

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

NOTE Shifting, lifting, and loading in the oven are the three main functions of a fixed deck oven loader.

3.1.1 shifting

movement of the whole oven loader to the oven face

3.1.2 lifting

vertical movement up and down

3.1.3 loading

action of placing pieces of dough on the oven loader

3.1.4

loading in the oven

action of introducing and placing pieces of dough on the decks of the oven

3.1.5

unloading

action of removing loaves from the oven deck once baking has finished

3.1.6

nominal mass of dough

the mass the loader is intended for

3.2 General principle

A fixed deck oven loader generally consists of a frame mounted on castors supporting a lifting device and a supporting platform with the loading device (see Figure 1).

The frame is mounted on castors to enable the loader to be positioned in front of the oven for loading and unloading.

The lifting device (e. g. scissors lifting mechanism, lifting mast,...) allows the height of the oven loader to be varied for loading and unloading at different levels in the oven.

The loading device comprises a frame and a belt in order to place the pieces of dough in the oven and to take out the loaves when baking has finished.