

Irish Standard I.S. EN 15180:2014

Food processing machinery - Food depositors - Safety and hygiene requirements

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#### I.S. EN 15180:2014

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NSAI	T +353 1 807 3800		Sales:
1 Swift Square,	F +353 1 807 3838		T +353 1 857 6730
Northwood, Santry	E standards@nsai.ie		F +353 1 857 6729
Dublin 9	W NSAI.ie		W standards.ie

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# EUROPEAN STANDARD

## EN 15180

## NORME EUROPÉENNE

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**English Version** 

# Food processing machinery - Food depositors - Safety and hygiene requirements

Machines pour les produits alimentaires - Doseuses alimentaires - Prescriptions relatives à la sécurité et l'hygiène Nahrungsmittelmaschinen -Nahrungsmittelportioniermaschinen - 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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EN 15180:2014 (E)

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## Foreword

This document (EN 15180:2014) 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of an identical text or by endorsement, at the latest by May 2015 and conflicting national standards shall be withdrawn at the latest by May 2015.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 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.

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

Food depositors are used extensively in Europe, in commercial and industrial food preparation applications. They present some health and safety hazards that have the potential to cause serious injury.

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 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 General

This European Standard deals with all significant hazards, hazardous situations and events relevant to food depositors as defined in 1.2.2 to 1.2.6 and the equipment typically integrated into them, i.e. product pumps, product elevators, conveyors and indexing mechanisms, 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 significant hazards, hazardous situations and events during transport, assembly and installation, commissioning, use and decommissioning as defined in EN ISO 12100.

NOTE 1 According to the clause which is referred to, "use" includes "setting, teaching/programming or process changeover, operation, cleaning, fault finding and maintenance".

NOTE 2 Although this standard is intended to apply to depositors used in the food industry, many of its requirements can also be used for similar machines used in other industries.

This European Standard is not applicable to the following machines:

- auger depositors or auger fillers and gravimetric filling machines, safety requirements for these machines are contained in EN 415-3;
- automatic dough dividers, safety requirements for these machines are contained in EN 12042;
- filling machines for sausages, safety requirements for these machines are contained in EN 12463;
- mincing machines, safety requirements for these machines are contained in EN 12331;
- food depositors that are powered exclusively by manual effort.

This document does not deal with the hazards related to the use of food depositors in a potentially explosive atmosphere.

This European Standard is not applicable to food depositors that were manufactured before the date of its publication as a European Standard.

### **1.2 Types of food depositors**

#### 1.2.1 General

This European Standard deals with five different types of food depositors. These machines can be free standing machines or be assemblies incorporated into other machines e.g. pie and tart machines. Food depositors may work fully automatically integrated with a product conveyor or product indexing mechanism or semi-automatically discharging a deposit when required by an operator.

#### 1.2.2 Piston depositor

A piston depositor typically comprises a hopper, a rotary valve, a product measuring chamber in the form of a piston and a product dispensing valve. Some piston depositors incorporate several product measuring chambers and dispensing valves. Some designs dispense the product directly from the rotary valve without the use of a separate product dispensing valve. The volume of product dispensed is varied by altering the stroke of the product measuring chamber piston. Piston depositors are used to fill liquids, liquids containing solids in suspension and pastes. The product dispensing valve may be attached rigidly to the depositor or



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