

This is a preview of "BS EN 12043:2014". [Click here to purchase the full version from the ANSI store.](#)

BS EN 12043:2014



BSI Standards Publication

Food processing machinery — Intermediate provers — Safety and hygiene requirements

bsi.

...making excellence a habit.™

This is a preview of "BS EN 12043:2014". [Click here to purchase the full version from the ANSI store.](#)

This British Standard is the UK implementation of EN 12043:2014. It supersedes BS EN 12043:2000+A1:2010 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee MCE/3/5, Food industry machines.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2014. Published by BSI Standards Limited 2014

ISBN 978 0 580 78692 1

ICS 67.260

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 November 2014.

Amendments issued since publication

Date	Text affected
------	---------------

This is a preview of "BS EN 12043:2014". [Click here to purchase the full version from the ANSI store.](#)

EUROPÄISCHE NORM

November 2014

ICS 67.260

Supersedes EN 12043:2000+A1:2010

English Version

Food processing machinery - Intermediate provers - Safety and hygiene requirements

Machines pour les produits alimentaires - Chambres de repos - Prescriptions relatives à la sécurité et à l'hygiène

Nahrungsmittelmaschinen - Zwischengärschrank - Sicherheits- und Hygieneanforderungen

This European Standard was approved by CEN on 6 September 2014.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

This is a preview of "BS EN 12043:2014". [Click here to purchase the full version from the ANSI store.](#)

Contents

Page

Foreword.....	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms, definitions and description	7
3.1 Terms and definitions	7
3.2 Description	7
4 List of significant hazards	8
5 Safety and hygiene requirements and/or protective measures	11
5.1 General.....	11
5.2 Mechanical hazards	11
5.2.1 General.....	11
5.2.2 Zone 1 and zone 6 – Zone of loading and unloading of the dough portions.....	12
5.2.3 Zone 2 – Drive mechanisms	13
5.2.4 Zone 3 — Carrier transfer system	15
5.2.5 Zone 4 — Flour duster.....	15
5.2.6 Zone 5 – Fan with or without heating device	15
5.2.7 Loss of stability.....	15
5.3 Electrical hazards	15
5.3.1 General.....	15
5.3.2 Safety requirements related to electromagnetic phenomena	16
5.3.3 Protection against electric shock	16
5.3.4 Power circuits	16
5.3.5 Protection against earth faults in control circuits.....	16
5.4 Emergency stop	16
5.5 Motor enclosures	16
5.6 Protection against flour dust emission	16
5.7 Thermal hazard	17
5.7.1 General.....	17
5.7.2 Hot surfaces	17
5.7.3 Fire hazard	17
5.8 Lamps	17
5.9 Hygiene requirements	17
5.10 Hazards generated by neglecting ergonomic principles	19
5.11 Hazards generated by UV radiation	19
6 Verification of safety and hygiene requirements and/or protective measures	20
7 Information for use	21
7.1 General.....	21
7.2 Instruction handbook	21
7.3 Marking	23
Annex A (normative) Noise test code — Grade 2 of accuracy	24
Annex B (normative) Principles of design to ensure the cleanability of intermediate provers	27
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC	42

This is a preview of "BS EN 12043:2014". [Click here to purchase the full version from the ANSI store.](#)

Bibliography43

This is a preview of "BS EN 12043:2014". [Click here to purchase the full version from the ANSI store.](#)

Foreword

This document (EN 12043:2014) 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 supersedes EN 12043:2000+A1:2010.

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 12043:2000+A1:2010 are listed below:

- protective measures for the loading were modified;
- requirements for emergency stop were added;
- requirements for nip guards were stated more precisely;
- thermal hazards, lamps, and hazards generated by UV radiation were added;
- the table of verification of safety and hygiene requirements was completely revised.

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.

This is a preview of "BS EN 12043:2014". [Click here to purchase the full version from the ANSI store.](#)

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.

This is a preview of "BS EN 12043:2014". [Click here to purchase the full version from the ANSI store.](#)

1 Scope

1.1 This European Standard specifies safety and hygiene requirements for the design and manufacture of intermediate provers with powered moving pocket carriers as described in Clause 3 and used in the food industry, pastry-making, bakeries, etc. for giving a resting time to dough between different phases of the process.

This European Standard deals with all significant hazards, hazardous situations and events relevant to the installation, adjustment, operation, cleaning, maintenance, dismantling, disabling and scrapping of intermediate provers with moving pocket carriers 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 by intermediate provers. This 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 proposed in Annex A.

1.2 The following machines are excluded:

- independent automatic loading system not integrated with the machine;
- experimental and testing machines under development by the manufacturer;
- retarder and final proofer.

1.3 This European Standard is not applicable to intermediate provers with moving pocket carriers 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 61000-6-1, *Electromagnetic compatibility (EMC) — Part 6-1: Generic standards — Immunity for residential, commercial and light-industrial environments (IEC 61000-6-1)*

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)*