



BSI Standards Publication

Safety of packaging machines

Part 4: Palletizers and depalletizers and associated equipment

This is a preview of BS EN 415-4:2025. [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of EN 415-4:2025. It supersedes BS EN 415-4:1998, which is withdrawn.

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

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

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UK Government is responsible for legislation. For information on legislation and policies relating to that legislation, consult the relevant pages of www.gov.uk.

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Date

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EUROPÄISCHE NORM

December 2025

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English Version

Safety of packaging machines - Part 4: Palletizers and depalletizers and associated equipment

Sécurité des machines d'emballage - Partie 4 :
Palettiseurs et dépalettiseurs et équipement associé

Sicherheit von Verpackungsmaschinen - Teil 4:
Palettierer und Depalettierer und zugehörige
Ausrüstungen

This European Standard was approved by CEN on 4 November 2024.

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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.

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COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 415-4:2025) has been prepared by Technical Committee CEN/TC 146 “Packaging machines - Safety”, the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by June 2026, and conflicting national standards shall be withdrawn at the latest by June 2026.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 415-4:1997.

EN 415-4:2025 includes the following significant technical changes with respect to EN 415-4:1997:

- palletizers and depalletizers that incorporate industrial robots and multi-stations palletizing systems have been added to the scope;
- safety requirements have been rewritten so they are in line with EN 415-10:2014;
- normative references have been changed to reflect the current B1 and B2 standards;
- the performance level required PLr (specified by EN ISO 13849-1:2023) is specified for the safety-related parts of control systems

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

This document is part of the series EN 415, *Safety of packaging machines*, which consists of the following parts:

- *Part 1: Terminology and classification of packaging machines and associated equipment;*
- *Part 2: Pre-formed rigid container packaging machines;*
- *Part 3: Form, fill and seal machines; fill and seal machines;*
- *Part 5: wrapping machines;*
- *Part 6: Pallet wrapping machines;*
- *Part 7: Group and secondary packaging machines;*
- *Part 8: Strapping machines;*
- *Part 9: Noise measurement methods for packaging machines, packaging lines and associated equipment, grade of accuracy 2 and 3;*

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— *Part 10: General requirements.*

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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

Introduction

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regards to machine safety:

- machine manufacturers (small, medium and large enterprise);
- health and safety bodies (regulators, accident prevention organization, market surveillance, etc.).

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups.

- machine users/employers (small, medium and large enterprise);
- machine user/employees (e.g. trade unions, organization for people with special needs);
- service providers, e.g. for maintenance.

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

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

This document is a type-C standard as stated in EN ISO 12100:2010.

When requirements of this type-C standard are different from those which are stated in type-A or type-B standards, the requirements of this type-C standard take precedence over the requirements of the other standards for machines that have been designed and built according to the requirements of this type-C standard.

The full set of requirements for machines in the Scope of this document is composed by those given in this document in conjunction with the relevant requirements of EN 415-10:2014.

The Annex ZA of this document will not list the EHSR which are not relevant for this kind of machines or are not covered for any other reason.

NOTE EN 415-7:2006+A1:2008 is currently being revised with a new title: "Cartoning and Case-packing machines".

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1 Scope

This document is applicable to the following groups of machines, auxiliary equipment and their combinations:

- palletizers;
- depalletizers;
- auxiliary equipment incorporated in or linked to the operations of palletizers and depalletizers;
- conveying systems which are part of palletizers or depalletizers;
- palletizers combined with functions of machines which are covered by other parts of EN 415, but detailed requirements are only provided for palletizing functions.

The individual machines are described in 3.2. Auxiliary equipment is described in 3.3.

This document deals with safety requirements for machine design, transport, installation, commissioning, operation, adjustment, maintenance and cleaning of palletizers, depalletizers, auxiliary equipment and conveying systems which are part of palletizer or depalletizer. The extent to which hazards, hazardous situations and events are covered is indicated in Annex A.

Exclusions:

This document is not applicable to the following machines:

- machines that were manufactured before the date of publication of this document by CEN;
- conveyors that connect palletizers and depalletizers with machines that are not in the scope of this document.

Conveyors in the scope of this document also fall in the scope of EN 619:2022, however, this document describes the additional or specific hazards for conveyors fitted into palletizers and depalletizers and so the requirements of this document take precedence over the requirements of EN 619:2022.

This document does not consider the following hazards:

- the use of palletizers and depalletizers in a potentially explosive atmosphere;
- the health, safety or hygiene hazards associated with the products that are contained in the unit load handled by palletizers and depalletizers except for the spillage of hazardous substances caused by the malfunction of a machine.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 415-1:2014, *Safety of packaging machines — Part 1: Terminology and classification of packaging machines and associated equipment*

EN 415-7:2006+A1:2008, *Safety of packaging machines — Part 7: Group and secondary packaging machines*

EN 415-9:2009, *Safety of packaging machines — Part 9: Noise measurement methods for packaging machines, packaging lines and associated equipment, grade of accuracy 2 and 3*