



Safety of machinery

Part 3405: Safety of packaging machines—Wrapping machines

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Part 3405: Safety of packaging machines—Wrapping machines

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Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee SF-041, Safety of Machinery.

The objective of this Standard is to specify safety requirements for machine design, construction, installation, commissioning, operation, adjustment, maintenance and cleaning of wrapping machines.

This Standard applies to the following groups of machines:

- (a) Wrapping machines which partially wrap products
- (b) Wrapping machines which form a complete wrap without sealing.
- (c) Wrapping machines which form a complete wrap with sealing.
- (d) Shrinking equipment which is connected to wrapping machines covered by this Standard.

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- (i) In the source text 'this European Standard' should read 'this Australian Standard'.
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Foreword

This document (EN 415-5:2006+A1:2009) 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of an identical text or by endorsement, at the latest by May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.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 2009-09-29.

This document supersedes EN 415-5:2006.

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

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(s).

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

EN 415 Safety of packaging machines

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

Part 4: Palletisers and depalletisers

Part 6: Pallet wrapping machines

Part 7: Group and secondary packaging machines

Part 8: Strapping machines

A1 Part 9: Noise measurement methods for packaging machines, packaging lines and associated equipment, grade of accuracy 2 and 3 **A1**

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Introduction

Wrapping machines are used extensively in Europe, in an increasingly wide range of industries.

They contain several significant hazards and have the potential to cause serious injury.

This document is a type C standard as defined in EN ISO 12100-1:2003.

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.

1 Scope

This European Standard applies to the following groups of machines:

- wrapping machines which partially wrap products (see Figures 1-4)
- wrapping machines which form a complete wrap without sealing (see Figures 5-7)
- wrapping machines which form a complete wrap with sealing (see Figures 8-14)
- shrinking equipment which is connected to wrapping machines covered by this standard (see Figures 15-16)

The individual machines are described in 3.2 of this standard.

This European Standard deals with safety requirements for machine design, construction, installation, commissioning, operation, adjustment, maintenance and cleaning of wrapping machines.

The extent to which hazards, hazardous situations and events are covered are indicated in Clause 4 of this document.

Exclusions:

This standard is not applicable to larger examples of wrapping machines designed to handle products higher than 400 mm and wider than 400 mm. These machines are covered by EN 415-6.

This document is not applicable to wrapping machines which are manufactured before the date of publication of this document by CEN.

This standard does not consider the following hazards:

- Use of wrapping machines in potentially explosive atmospheres;
- Health, safety or hygiene hazards associated with the products that may be handled by the machines but does include general advice on this subject;
- Hazards that may be associated with electromagnetic emissions from wrapping machines;
- Hazards that may be associated with decommissioning wrapping machines.

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 294:1992, *Safety of machinery - Safety distance to prevent danger zones being reached by the upper limbs*

EN 415-1:2000, *Packaging machines safety – Part 1: Terminology and classification of packaging machines and associated equipment*

EN 418, *Safety of machinery - Emergency stop equipment, functional aspects - Principles for design*