



NSAI
Standards

Irish Standard
I.S. EN 415-6:2013

Safety of packaging machines - Part 6: Pallet wrapping machines

I.S. EN 415-6:2013

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English Version

Safety of packaging machines - Part 6: Pallet wrapping machines

Sécurité des machines d'emballage - Partie 6 : Machines d'emballage de palettes

Sicherheit von Verpackungsmaschinen - Teil 6: Paletteneinschlagmaschinen

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Contents

Page

Foreword.....	5
Introduction	6
1 Scope.....	7
2 Normative references.....	8
3 Terms and definitions	10
3.1 Definition of terms.....	10
3.2 Description of pallet wrapping machines	11
4 List of hazards on pallet wrapping machines	25
4.1 General	25
4.2 General pallet wrapping machine hazards.....	26
4.3 Specific hazards on pallet wrapping machines excluding shrinking systems and auxiliary machines	30
4.4 Specific hazards on pallet shrinking systems	34
4.5 Auxiliary machines.....	36
5 Safety requirements and measures for pallet wrapping machines.....	37
5.1 General	37
5.2 General requirements for pallet wrapping machines	37
5.3 Safety requirements for pallet wrapping machines.....	51
5.4 Safety requirements for shrinking systems.....	56
5.5 Auxiliary machines.....	61
6 Verification of safety requirements and measures.....	61
6.1 General	61
6.2 Visual inspections with the machine stopped	62
6.3 Measurements with the machine stopped	62
6.4 Visual inspections with the machine running.....	62
6.5 Measurements with the machine running.....	63
6.6 Verification procedures	63
7 Information for use.....	65
7.1 Marking.....	65
7.2 Signals and warning signs	66
7.3 Instruction handbook.....	66
Annex A (normative) Noise test code for pallet wrapping machines - grade of accuracy 2 and 3.....	68
Annex B (normative) Methods of safeguarding large apertures.....	69
B.1 Interlocked guards with guard locking.....	69
B.2 Fixed and interlocked guards with ESPE.....	69
B.3 Positioning of ESPE.....	72
Annex C (normative) ESPE-Muting	74
Annex D (informative) List of possibly helpful standards for gas equipment.....	76
Annex E (informative) Significant technical changes between this European Standard and the previous edition EN 415-6:2006+A1:2009.....	77
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC	78
Bibliography.....	79

Figures

Figure 1 — Principle of rotary table machine	12
Figure 2 — Manual rotary table machine	12
Figure 3 — Automatic rotary table machine	12
Figure 4 — Semiautomatic rotary arm machine	13
Figure 5 — Fully automatic rotary arm machine	14
Figure 6 — Ring machine – Principle of operation	15
Figure 7 — Semi automatic self driving pallet stretch wrapping machine	15
Figure 8 — Mobile pallet stretch wrapping machine	16
Figure 9 — Curtain stretching machine – Principle of operation	16
Figure 10 — Hood stretching machine	17
Figure 11 — Spiral pallet wrapping machine	19
Figure 12 — Vertical hood application machine	20
Figure 13 — Parachute hood application machine	20
Figure 14 — Shrinking frame	21
Figure 15 — Chamber shrinking oven with electric heating device	22
Figure 16 — Continuous shrinking oven using thermal combustion heating	23
Figure 17 — Shrinking column using thermal combustion	24
Figure 18 — Product centralizing machine	25
Figure 19 — Semiautomatic or manual rotary table machines: crushing, shearing and drawing-in hazard location	31
Figure 20 — Warning sign "Caution, hot surface"	44
Figure 21 — Semiautomatic or manual rotary table machines with apertures in the table	52
Figure 22 — Methods for safeguarding of film rollers	53
Figure B.1 — Interlocked guards with guard locking	69
Figure B.2 — Example of a combination of fixed and interlocked guards and ESPE	70
Figure B.3 — Dynamic cell positioning	72
Figure B.4 — Positioning of ESPE	73
Figure C.1 — Positioning of muting ESPE	75

Tables

Table 1 —Degree of protection for dusty environments	42
Table 2 — Degree of protection for different cleaning methods using water	42
Table 3 — Verification procedures for safety requirements identified in 5.2 and 5.3.....	64
Table 3 (<i>continued</i>).....	65

Foreword

This document (EN 415-6:2013) 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 November 2013, and conflicting national standards shall be withdrawn at the latest by November 2013.

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 415-6:2006+A1:2009.

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).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

Annex E provides details of significant technical changes between this European Standard and the previous edition: EN 415-6:2006+A1:2009.

EN 415 "Safety of packaging machines" 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*
- *Part 4: Palletisers and depalletisers*
- *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*

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

Pallet 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.

Pallet wrapping machines fulfil the following major tasks:

- securing of palletised or unpalletised loads to prevent them collapsing and displacing during transport, handling, storage;
- pooling of loads and parts to form loads suitable for transport;
- protection against external influences;
- conditional protection against theft.

This document is a type C standard as defined in the Introduction of EN ISO 12100:2010.

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:

- pallet banding machines;
- stretch film pallet wrapping machines;
- stretch film hood application machines;
- mobile stretch film wrapping machines;
- semi automatic self driving stretch film wrapping machines;
- shrink film pallet wrapping machines;
- shrink film hood application machines;
- film removing machines;
- shrinking systems;
- sleeve wrapping machines for product greater than 400 mm in one direction;
- product centralising machines.

The individual machines are described in 3.2.

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

The extents to which hazards, hazardous situations and events are covered are indicated in Clause 4.

Exclusions

This European Standard is not applicable to the following machines:

- machines that were manufactured before the date of publication of this document by CEN;
- pallet strapping machines and destrapping machines. These machines are within the scope of EN 415-8;
- conveying systems that connect packaging machines with each other, but includes conveying systems that are part of the machines.

This standard does not consider the following hazards:

- the use of pallet wrapping machines in potentially explosive atmospheres;
- the 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 pallet wrapping machines;
- hazards that may be associated with decommissioning pallet wrapping machines.

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 203-1:2005+A1:2008 *Gas heated catering equipment — Part 1: General safety rules*

EN 349:1993+A1:2008, *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body*

EN 415-1:2000+A1:2009, *Packaging machines safety — Part 1: Terminology and classification of packaging machines and associated equipment*

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*

EN 574:1996+A1:2008, *Safety of machinery — Two-hand control devices — Functional aspects — Principles for design*

EN 614-1, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

EN 614-2, *Safety of machinery — Ergonomic design principles — Part 2: Interactions between the design of machinery and work tasks*

EN 619, *Continuous handling equipment and systems — Safety and EMC requirements for equipment for mechanical handling of unit loads*

EN 626-1, *Safety of machinery — Reduction of risks to health from hazardous substances emitted by machinery — Part 1: Principles and specifications for machinery manufacturers*

EN 626-2, *Safety of machinery — Reduction of risk to health from hazardous substances emitted by machinery — Part 2: Methodology leading to verification procedures*

EN 894-1, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 1: General principles for human interactions with displays and control actuators*

EN 894-2, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 2: Displays*

EN 894-3, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 3: Control actuators*

EN 953:1997+A1:2009, *Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards*

EN 1005-3, *Safety of machinery — Human physical performance — Part 3: Recommended force limits for machinery operation*

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

EN 1088:1995+A2:2008, *Safety of machinery — Interlocking devices associated with guards — Principles for design and selection*

EN 1672-2:2005+A1:2009, *Food processing machinery — Basic concepts — Part 2: Hygiene requirements*

EN 1760-1, *Safety of machinery — Pressure sensitive protective devices — Part 1: General principles for the design and testing of pressure sensitive mats and pressure sensitive floors*

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