

**Kummi- ja plastitöötlusmasinad. Kilede või lehtede
kerimise masinad. Ohutusnõuded
KONSOLIDEERITUD TEKST**

Plastics and rubber machines - Winding machines for
film or sheet - Safety requirements CONSOLIDATED
TEXT

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13418:2004+A1:2008 sisaldab Euroopa standardi EN 13418:2004+A1:2008 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 10.11.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

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This Estonian standard EVS-EN 13418:2004+A1:2008 consists of the English text of the European standard EN 13418:2004+A1:2008.

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Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
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English Version

Plastics and rubber machines - Winding machines for film or sheet - Safety requirements

Machines pour les matières plastiques et le caoutchouc -
Bobineuses pour films ou feuilles - Prescriptions de
sécurité

Kunststoff- und Gummimaschinen - Wickelmaschinen für
flache Bahnen - Sicherheitsanforderungen

This European Standard was approved by CEN on 2 February 2004 and includes Amendment 1 approved by CEN on 15 June 2008.

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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 Management Centre has the same status as the official versions.

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


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Foreword

This document (EN 13418:2004+A1:2008) has been prepared by Technical Committee CEN/TC 145 “Plastics and rubber machines”, 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of an identical text or by endorsement, at the latest by April 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2008-06-15.

■^{A1} The main changes compared to the previous version are:

- modification of the main element of the title;
- editorial modification of Annex ZA;
- addition of Annex ZB;
- editorial changes of EN 292-1:1991 to EN ISO 12100-1:2003 and of EN 292-2:1991 and EN 292-2:1991/A1:1995 to EN ISO 12100-2:2003 in the following clauses/sub-clauses: 2, 5, 5.1.1, 5.1.10, Table 2, Supplement 3, 5.3.1, 5.3.2, Table 4, 7.1, 7.2;
- minor changes in the Foreword and in the following sub-clauses: 7.1, second and third indents and in 7.2 g). ■^{A1}

This document supersedes EN 13418:2004.

The start and finish of text introduced or altered by amendment is indicated in the text by tags ■^{A1} ■^{A1}.

This European Standard 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}

Annexes A and C are informative, annex B is normative.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This document is a type C standard as stated in EN 1070.

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

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

This European Standard specifies the safety requirements for the design and construction of winding, unwinding and rewinding machines for film or sheet manufactured from rubber, plastics and composite materials in respect of the significant hazards listed in clause 4.

A winding machine begins at the intake of the film or sheet into the winding machine and ends at the discharge position of the reel(s).

An unwinding machine begins at the take-up position of the reel(s) and ends at the film or sheet take-off point.

A rewinding machine begins at the take-up position of the reel(s) and ends at the discharge position of the reel(s).

In some machines the winding, unwinding and rewinding functions may be combined.

The following functional groups are covered by this European Standard:

- fixed point roll;
- film or sheet tension control;
- winding zone;
- reel change device;
- reel loading and unloading devices;

and the following additional equipment integrated into the winding machine:

- spreader roll device;
- longitudinal cutting unit;
- slitting device;
- film or sheet alignment device;
- static eliminator.

Technical safety requirements for the design and construction of aids for lifting and handling, e.g. of winding cores or reels, are not covered by this standard.

Technical safety requirements for the design and construction of thickness monitoring devices are not covered by this standard.

Hazards due to electro-magnetic radiation, e.g. from the use of thickness monitoring devices, are not covered by this standard.

Toxic or chemical hazards and hazards due to dusts, fumes or gases, which could occur from the materials being wound are not covered by this standard.

NOTE Directive 94/9/EC concerning equipment and protective systems intended for use in potentially explosive atmospheres can be applicable to the type of machine or equipment covered by this European Standard. The present standard is not intended to provide means of complying with the essential health and safety requirements of Directive 94/9/EC.

This standard applies to machines which are manufactured after the date of approval of the standard by CEN.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

[A1] deleted text [A1]

EN 294:1992, *Safety of machinery — Safety distances to prevent danger zones being reached by the upper limbs.*

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

EN 418:1992, *Safety of machinery — Emergency stop equipment, functional aspects — Principles for design.*

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

EN 614-1:1995, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles.*

EN 811:1996, *Safety of machinery — Safety distances to prevent danger zones being reached by the lower limbs.*

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

EN 954-1:1996, *Safety of machinery — Safety related parts of control systems — Part 1: General principles for design.*

EN 982:1996, *Safety of machinery — Safety requirements for fluid power systems and their components — Hydraulics.*

EN 983:1996, *Safety of machinery — Safety requirements for fluid power systems and their components — Pneumatics.*

EN 999:1998, *Safety of machinery — The positioning of protective equipment in respect of approach speeds of parts of the human body.*

EN 1037:1995, *Safety of machinery — Prevention of unexpected start-up.*

EN 1070:1998, *Safety of machinery — Terminology.*

EN 1088:1995, *Safety of machinery — Interlocking devices with and without guard locking — General principles and provisions for design.*

EN 1760-1:1997, *Safety of machinery — Pressure sensitive protective devices — Part 1: General principles for the design and testing of pressure sensitive mats and pressure sensitive floors.*

EN 60204-1:1997, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:1997).*

EN 60529:1991, *Degrees of protection provided by enclosures (IP-Code) (IEC 60529:1989).*

EN 61496-1:1997, *Safety of machinery — Electro-sensitive protective equipment — Part 1: General requirements and test (IEC 61496-1:1997).*

EN ISO 3743-1:1995, *Acoustics — Determination of sound power levels of noise sources - Engineering methods for small, movable sources in reverberant fields — Part 1: Comparison method for hard-walled test rooms (ISO 3743-1:1994).*

EN ISO 3743-2:1996, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering methods for small, movable sources in reverberant fields — Part 2: Methods for special reverberation test rooms (ISO 3743-2:1994).*

EN ISO 3744:1995, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering method in an essentially free field over a reflecting plane (ISO 3744:1994).*

EN ISO 3746:1995, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Survey method using an enveloping measurement surface over a reflecting plane (ISO 3746:1995).*

EN ISO 3747:2000, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Comparison method for use in situ (ISO 3747:2000).*

EN ISO 4871:1996, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996).*

EN ISO 9614-1:1995, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 1: Measurement at discrete points (ISO 9614-1:1993).*

EN ISO 9614-2:1996, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 1: Measurement by scanning (ISO 9614-2:1996).*

EN ISO 11201:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Engineering method in an essentially free field over a reflecting plane (ISO 11201:1995).*

EN ISO 11202:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Survey method in situ (ISO 11202:1995).*

EN ISO 11203:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions from the sound power level (ISO 11203:1995).*

EN ISO 11204:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Method requiring environmental corrections (ISO 11204:1995).*

EN ISO 11688-1:1998, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 1: Planning (ISO/TR 11688-1:1995).*

EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)* ^{A1}

3 Definitions

For the purposes of this document, the definitions given in EN 1070:1998 and the following definitions apply:

3.1

working zone

this zone includes any place where the operator of the machine stands or passes in order to carry out operations and includes catwalks, working pits and devices firmly mounted to the machine like stairs, platforms and pedestals of all kinds

3.2

winding machines

machines to wind up film or sheet material and/or to unwind and/or rewind it. The various kinds of machines are distinguished by their drives. A distinction is made between centre winder, surface winder and combinations of both

3.2.1

centre winder

winding machine with central drive to the winding core

3.2.2

surface winder

winding machine whose winding or reel drive relies on friction at the driven roll surface

3.3

winding core

element onto which film or sheet is wound or from which film or sheet is unwound. It may be a solid shaft or a hollow core, for example made of cardboard, or a combination of the two where the core is sleeved onto the shaft

3.4

winding

film or sheet in the process of being wound

3.5

reel

film or sheet material which is wound with or without a winding core