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NSAI Standards

Irish Standard
I.S. EN 1034-1:2021

Safety of machinery - Safety requirements for the design and construction of paper making and finishing machines - Part 1: Common requirements

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National Foreword

I.S. EN 1034-1:2021 is the adopted Irish version of the European Document EN 1034-1:2021, Safety of machinery - Safety requirements for the design and construction of paper making and finishing machines - Part 1: Common requirements

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 1034-1

May 2021

ICS 85.100; C

Supersedes EN 1034-1:2000+A1:2010

English Version

Safety of machinery - Safety requirements for the design and construction of paper making and finishing machines - Part 1: Common requirements

Sécurité des machines - Exigences de sécurité pour la conception et la construction de machines de fabrication et de finition du papier - Partie 1 : Exigences communes

Sicherheit von Maschinen - Sicherheitstechnische Anforderungen an Konstruktion und Bau von Maschinen der Papierherstellung und Ausrüstung - Teil 1: Gemeinsame Anforderungen

This European Standard was approved by CEN on 12 April 2021.

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Contents

Page

European foreword ... 4
Introduction ... 6
1 Scope ... 7
2 Normative references ... 7
3 Terms and definitions ... 10
4 List of significant hazards ... 14
5 Safety requirements and/or measures ... 14
5.1 General requirements and requirements for safety devices ... 14
5.2 Safety devices on power transmission elements ... 15
5.3 Crushing hazards ... 16
5.4 Drawing-in hazards on rollers, cylinders, rolls, felts and wires or trapping hazards at reel fronts ... 16
5.4.1 General requirements ... 16
5.4.2 Safety measures on inrunning nips ... 16
5.4.3 Safety measures on wrapping points ... 17
5.4.4 Safety measures at trapping points at reel fronts ... 20
5.5 Workplaces, access stairs, walkways, passageways ... 22
5.6 Start-up warning device ... 25
5.7 Emergency stop device ... 26
5.8 Isolation and energy dissipation, prevention of unexpected start-up ... 26
5.9 Equipment for make-ready and maintenance, lubrication points ... 28
5.10 Equipment for cleaning and removal of broke and waste ... 29
5.11 Circular knives ... 29
5.12 Stationary knives (severing knives, tail cutters, water-jet knives) ... 29
5.13 Explosion protection ... 29
5.14 Control systems and actuators ... 29
5.15 Noise ... 30
5.15.1 Noise reduction ... 30
5.15.2 Noise emission measurement and declaration ... 31
5.16 Emission of hazardous substances ... 31
5.17 Hot surfaces ... 32
5.18 Integrated lighting ... 32
5.19 Fire ... 32
5.20 Radiation caused by measuring devices ... 32
5.21 Laser equipment ... 32
5.22 Ergonomic principles ... 32
5.23 Electrical equipment ... 32
5.24 Hydraulic equipment ... 33
5.25 Pneumatic equipment ... 33
5.26 Pumps ... 33
6 Verification of compliance with safety requirements and/or measures ... 33
7 Information for use ... 35

This is a free page sample. Access the full version online.

7.1 General **35**
7.2 Marking **35**
7.3 Instruction handbook **35**
7.4 Sales literature **37**

Annex A (informative) Trilingual alphabetical list of paper making and paper finishing machines **38**

Annex B (informative) List of Significant Hazards **40**

Annex ZA (informative) Relationship between this European Standard and the essential requirements of EU Directive 2006/42/EC aimed to be covered **43**

Bibliography **46**

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European foreword

This document (EN 1034-1:2021) has been prepared by Technical Committee CEN/TC 198 “Printing and paper machinery - Safety”, 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 2021, and conflicting national standards shall be withdrawn at the latest by May 2021.

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 1034-1:2000+A1:2010.

In comparison with the previous edition, the following technical modifications have been made:

a) In Clause 3, the term “Paper converting machines” was defined;

b) In 3.4, a tolerance for crawl speed was specified;

c) In Clause 3, the term “running machine” has been deleted;

d) In 3.6.3, addition of a definition for trapping points;

e) In 5.1.2, clarification on the use of signal colours;

f) In 5.4.4, addition of safety requirements for trapping points at reel fronts;

g) In 5.5, requirements for means of access, walkways and guard-rails adapted to the revised EN ISO 14122 (all parts), sector-specific deviations will still to be taken into account;

h) In 7.3, the requirements for the instruction handbook have been extended: all requirements previously contained in Clause 5 in relation to the instruction handbook have been transferred to 7.3;

i) In 5.9.5, addition of requirements for crawl speed;

j) In 5.14.1, addition of requirements for positioning of control devices;

k) In 5.14.2, amendment of Table 5: Determination of approximate SIL or PL;

l) In 5.14.6, reference to EN ISO 13849-2:2012 for validation of safety functions added;

m) In 7.3, Addition of information regarding noise emission values and hearing protection equipment in the instruction handbook;

n) In 5.23, Deletion of the notice on standards for high-voltage equipment;

o) Review of Annex ZA.

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 Directives.

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

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This document is part 1 of a standard for the technical safety requirements for the design and construction of paper making and finishing machines which consists of the following parts:

— *Part 1: Common requirements*

— *Part 2: Barking drums*

— *Part 3: Rereelers and winders*

— *Part 4: Pulpers and their loading facilities*

— *Part 5: Sheeters*

— *Part 6: Calenders*

— *Part 7: Chests*

— *Part 8: Refining plants*

— *Part 13: Machines for de-wiring bales and units*

— *Part 14: Reel splitter*

— *Part 16: Paper and board making machines*

— *Part 17: Tissue making machines*

— *Part 21: Coating machines*

— *Part 22: Wood grinders*

— *Part 26: Roll packaging machines*

— *Part 27: Roll handling systems*

CEN/TC 198 intends to prepare further parts to cover the paper making and finishing machines listed in Annex A.

Requirements in this document with reference to ISO 14122-2, ISO 14122-3 and ISO 14122-4 are applicable in conjunction with ISO 14122-1.

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, Turkey and the United Kingdom.

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Introduction

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

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

— machine manufacturers (small, medium and large enterprises);

— health and safety bodies (regulators, accident prevention organizations, 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 enterprises);

— machine users/employees (e.g. trade unions, organizations for people with special needs);

— service providers, e.g. for maintenance (small, medium and large enterprises);

— consumers (in case of machinery intended for use by consumers).

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.

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.

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1 Scope

This document specifies safety requirements.

This document is applicable to paper making and paper finishing machines. It contains definitions and requirements that apply to all paper making and paper finishing machines listed in Annex A and is intended to be used in connection with the specific part applicable for the respective machine listed in Annex A. Specific parts can contain additional requirements or deviations from EN 1034-1 in which case the specific stipulations take precedence over the specification made in EN 1034-1. This document deals with the hazards listed in Annex B.

This document deals with all significant hazards, hazardous situations or hazardous events relevant to paper making and paper finishing machines, when they are used as intended and under conditions of misuse that are reasonably foreseeable by the manufacturer.

This document does not apply to machines used in paper converting. See EN 1010-1 to EN 1010-5.

This document is not applicable to paper making and paper finishing machines manufactured before the date of its publication.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitute 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 ISO 4413:2010, *Hydraulic fluid power - General rules and safety requirements for systems and their components (ISO 4413:2010)*

EN ISO 4414:2010, *Pneumatic fluid power - General rules and safety requirements for systems and their components (ISO 4414:2010)*

EN ISO 7731:2008, *Ergonomics - Danger signals for public and work areas - Auditory danger signals (ISO 7731:2003)*

EN ISO 11688-1:2009, *Acoustics - Recommended practice for the design of low-noise machinery and equipment - Part 1: Planning (ISO/TR 11688-1:1995)*

EN ISO 12100:2010, *Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 13732-1:2008, *Ergonomics of the thermal environment - Methods for the assessment of human responses to contact with surfaces - Part 1: Hot surfaces (ISO 13732-1:2006)*

EN ISO 13849-1:2015, *Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design (ISO 13849-1:2015)*

EN ISO 13849-2:2012, *Safety of machinery - Safety-related parts of control systems - Part 2: Validation (ISO 13849-2:2012)*

EN ISO 13850:2015, *Safety of machinery - Emergency stop function - Principles for design (ISO 13850:2015)*

EN ISO 13854:2019, *Safety of machinery - Minimum gaps to avoid crushing of parts of the human body (ISO 13854:2017)*

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