



NSAI
Standards

Irish Standard
I.S. EN 1009-5:2020

Machines for mechanical processing of minerals and similar solid materials - Safety - Part 5: Specific requirements for cleaning, recycling, sorting and mud treatment machinery

I.S. EN 1009-5:2020

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN 1009-5:2020

Published:

2020-05-27

*This document was published
under the authority of the NSAI
and comes into effect on:*

2020-06-14

ICS number:

73.120

91.220

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 1009-5:2020 is the adopted Irish version of the European Document EN 1009-5:2020, Machines for mechanical processing of minerals and similar solid materials - Safety - Part 5: Specific requirements for cleaning, recycling, sorting and mud treatment machinery

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

EUROPEAN STANDARD

EN 1009-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2020

ICS 73.120; 91.220

English Version

**Machines for mechanical processing of minerals and
similar solid materials - Safety - Part 5: Specific
requirements for cleaning, recycling, sorting and mud
treatment machinery**

Machines pour le traitement mécanique des minéraux
et des matières solides similaires - Sécurité - Partie 5 :
Prescriptions spécifiques pour machines de nettoyage,
de recyclage et de traitement des boues

Maschinen für die mechanische Aufbereitung von
Mineralien und ähnlichen festen Stoffen - Sicherheit -
Teil 5: Spezifische Anforderungen für Reinigungs-,
Recycling-, Sortier- und Schlamm-
Verarbeitungsmaschinen

This European Standard was approved by CEN on 13 April 2020.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of 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 United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN 1009-5:2020 (E)

Contents

Page

European foreword.....	3
Introduction	4
1 Scope	5
2 Normative references.....	5
3 Terms and definitions	6
4 Safety requirements and/or protective/risk reduction measures.....	9
4.1 General.....	9
4.2 Flotation machines	9
4.3 Vacuum filters	9
4.4 Press filters.....	10
4.5 Sand unit, fluidised bed separator, sieving equipment.....	10
4.6 Hydro-cyclone	10
4.7 Settling tank/clarifier/thickener	11
4.8 Dewatering and draining screen	11
4.9 Rotary scrubber	11
4.10 Centrifugal thickening.....	12
4.11 Attrition cell	12
4.12 Sand dryer.....	12
4.13 Tube presses.....	12
4.14 Magnetic separators.....	13
4.15 Dynamic air classifiers	13
4.16 Dewatering wheels and bucket wheels.....	13
4.17 Dewatering screws, log washers, screw classifiers and similar	14
4.18 Tanks (recycled water tank, mud storage tank, flocculant preparator, clear water tank, hydro separator tank and sand unit tank).....	14
4.19 Bulk material storage silo	15
5 Verification of the safety requirements and/or protective/risk reduction measures.....	15
6 Information for use	18
6.1 General.....	18
6.2 Signals and warning devices	18
6.3 Instruction handbook.....	18
Annex A (informative) Examples of cleaning, recycling, sorting and mud treatment machinery	20
Annex B (informative) Trilingual terminology of cleaning, recycling, mud treatment and sorting machinery	28
Annex C (informative) List of significant hazards	29
Bibliography.....	39

European foreword

This document (EN 1009-5:2020) has been prepared by Technical Committee CEN/TC 151 “Construction equipment and building material machines — 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 November 2020, and conflicting national standards shall be withdrawn at the latest by May 2022.

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 has been prepared under a standardization request 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.

This part of EN 1009 is intended to be used in conjunction with EN 1009-1:2020.

EN 1009 “Machines for mechanical processing of minerals and similar solid materials — Safety” comprises the following parts:

- *Part 1: Common requirements for machinery and processing plants*
- *Part 2: Specific requirements for feeding machinery and continuous handling equipment*
- *Part 3: Specific requirements for crushing and milling machinery*
- *Part 4: Specific requirements for screening machinery*
- *Part 5: Specific requirements for cleaning, recycling and mud treatment machinery*
- *Part 6: Specific requirements for mobile machinery (in preparation)*

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.

EN 1009-5:2020 (E)

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 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.

1 Scope

This document, to be used together with EN 1009-1, specifies the safety requirements and their verification for the design and construction of machinery for cleaning, water recycling, mud treatment and sorting (other than screens) for the mechanical processing in quarrying, recycling and processing mineral and by-products. In addition, it specifies the type of information on safe working practices (including residual risks) to be provided by the manufacturer.

When requirements of this part of EN 1009 are different from those which are stated in EN 1009-1:2020, the requirements of this part of EN 1009 take precedence over the requirements of EN 1009-1:2020 for machines that have been designed and built according to the provisions of this part of EN 1009.

This document, together with EN 1009-1:2020, deals with all the significant hazards, hazardous situations and events relevant to machinery for cleaning, recycling, mud treatment when they are used as intended and under the conditions of misuse which are reasonably foreseeable by the manufacturer associated with the whole lifetime of the machine (see Annex C).

This document does not cover:

- design relating to road traffic regulations;
- hazards arising from the use of the machines in potentially explosive atmospheres as well as from processing of explosive materials and risks related to electromagnetic compatibility;
- specific hazards related to mobile machinery.

NOTE 1 EN ISO 13766-1 and EN ISO 13766-2 specify test methods and acceptance criteria for evaluating the electromagnetic compatibility of all kinds of mobile construction machinery.

NOTE 2 prEN 1009-6 "Specific requirements for mobile and semi mobile equipment" is under preparation to cover specific requirements (e.g. mobility, braking, access, frequent transportation), including exceptions and additional requirements for mobile and semi mobile equipment. This means that mobile machines are not covered as long as EN 1009-6 is not published by CEN.

This document is not applicable to machinery for cleaning, recycling, mud treatment and sorting which are manufactured before the date of publication of this document by CEN.

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 617:2001+A1:2010, *Continuous handling equipment and systems — Safety and EMC requirements for the equipment for the storage of bulk materials in silos, bunkers, bins and hoppers*

EN 1009-1:2020, *Machines for mechanical processing of minerals and similar solid materials — Safety — Part 1: Common requirements for machinery and processing plants*

EN 1009-4:2020, *Machines for mechanical processing of minerals and similar solid — Safety — Part 4: Specific requirements for screening machinery*

EN 61496-1:2013, *Safety of machinery — Electro-sensitive protective equipment — Part 1: General requirements and tests (IEC 61496-1:2012)*

EN 61496-2:2013, *Safety of machinery — Electro-sensitive protective equipment — Part 2: Particular requirements for equipment using active opto-electronic protective devices (AOPDs) (IEC 61496-2:2013)*

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-