



NSAI
Standards

Irish Standard
I.S. EN 1009-1:2020

Machines for mechanical processing of minerals and similar solid materials - Safety - Part 1: Common requirements for machinery and processing plants

I.S. EN 1009-1:2020

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 1009-1:2020

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 1009-1:2020 is the adopted Irish version of the European Document EN 1009-1:2020, Machines for mechanical processing of minerals and similar solid materials - Safety - Part 1: Common requirements for machinery and processing plants

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 1009-1

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 1: Common requirements for machinery and processing plants

Machines pour le traitement mécanique des minéraux et des matières solides similaires - Sécurité - Partie 1 : Prescriptions communes pour les machines et installations pour le traitement des matériaux

Maschinen für die mechanische Aufbereitung von Mineralien und ähnlichen festen Stoffen - Sicherheit - Teil 1: Gemeinsame Anforderungen für unvollständige Maschinen, Aufbereitungsmaschinen und Aufbereitungsanlagen

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 1009-1:2020 (E)

Contents

Page

European foreword.....	4
Introduction	5
1 Scope	6
2 Normative references.....	7
3 Terms and definitions	10
4 Safety requirements and/or protective/risk reduction measures.....	12
4.1 General.....	12
4.2 Openings.....	12
4.3 Prevention of enclosing of persons	14
4.4 Permanent means of access	14
4.5 Operator's station	14
4.6 Manual sorting station	15
4.7 Storage equipment	15
4.8 Dust removal devices.....	16
4.9 Visibility.....	17
4.10 Control devices.....	17
4.11 Safeguarding	21
4.12 Access to the fixed enclosures by doors where parts are running (e.g. scrubber, ball mill).....	22
4.13 Safety related parts of control systems.....	22
4.14 Hydraulics and pneumatics.....	27
4.15 Supports for service and maintenance.....	27
4.16 Electrical equipment.....	28
4.17 Lifting, tying down and transport	28
4.18 Maintenance.....	30
4.19 Suspension units.....	30
4.20 Noise	30
4.21 Vibrations	31
5 Verification of the safety requirements and/or protective/risk reduction measures.....	32
6 Information for use	37
6.1 General.....	37
6.2 Signals and warning devices	37
6.3 Accompanying documents (in particular: instruction handbook)	37
6.4 Marking.....	40
6.5 Pictorials	41
6.6 Erection and transport instructions.....	41
Annex A (normative) Cableless controls.....	42
Annex B (informative) Minimum passage opening.....	45
Annex C (informative) Calculation of the dimensions of openings	46
Annex D (informative) Examples for mechanical processing machines and terminology	47
Annex E (normative) Noise test code	51
Annex F (informative) List of significant hazards	66

Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC aimed to be covered.....	86
Bibliography	89

EN 1009-1:2020 (E)

European foreword

This document (EN 1009-1:2020) 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 at least one specific part EN 1009-2 to prEN 1009-6.

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.

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 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.

EN 1009-1:2020 (E)

1 Scope

This document applies to machines for mechanical processing of minerals (cement, lime and gypsum, sand and gravel, industrial minerals, metalliferous ore and hard and soft rock aggregates, coal) and - products (slag and ashes, production and demolition waste) in construction and industry.

It deals with the following types of individual machines for the mechanical processing of minerals and similar solid materials:

- feeding machinery in accordance with EN 1009-2;
- crushing machinery in accordance with EN 1009-3;
- milling machinery in accordance with EN 1009-3;
- screening machinery in accordance with EN 1009-4;
- machinery for cleaning, water recycling, sorting (other than screens) and mud treatment in accordance with EN 1009-5;
- mobile machinery in accordance with prEN 1009-6.

This document gives the common safety requirements for mechanical processing machines used for quarrying, recycling and processing mineral and by-products (cement, lime and gypsum, sand and gravel, industrial minerals, metalliferous ore, production and demolition waste, slag handling, hard and soft rock aggregates, coal) in construction and surface mining and is intended to be used in conjunction with one of the parts EN 1009-2 to prEN 1009-6. These machine specific parts (EN 1009-2 to prEN 1009-6) do not repeat the requirements from this document, but add or replace the requirements for the machine type in question.

NOTE 1 The requirements specified in this part of EN 1009 are common to two or more types of machines for the mechanical processing of minerals and similar solid materials.

Specific requirements in EN 1009-2 to prEN 1009-6 take precedence over the respective requirements of this document.

This document also covers assemblies of two or more of the mentioned machines which function as an integrated whole. The machines included in the scope of this document can be fixed, semi-mobile or mobile.

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 covers transportation, erection, commissioning, use and maintenance of single machines or combination of single machines.

This document deals with significant hazards, common to the types of machines listed in this scope when they are used as intended and under conditions for misuse which are reasonably foreseeable by the manufacturer (see Annex F) and to the hazards due to the combination of these machines and specifies the appropriate measures to eliminate or reduce the risks arising from the significant hazards.

Design relating to road traffic regulations is not covered by this document.

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
-