



National Standards Authority of Ireland

IRISH STANDARD

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ICS 13.110

**SAFETY OF MACHINERY - GUIDANCE FOR
THE DRAFTING OF THE NOISE CLAUSES OF
SAFETY STANDARDS**

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English version

**Safety of machinery - Guidance for the drafting of the noise
clauses of safety standards**

Sécurité des machines - Guide relatif à la rédaction des
articles "bruit" des normes de sécurité

Sicherheit von Maschinen - Anleitung für die Abfassung der
Abschnitte über Geräusche in Sicherheitsnormen

This European Standard was approved by CEN on 21 December 1997.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 211 "Acoustics", the secretariat of which is held by DS.

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of an identical text or by endorsement, at the latest by March 1999 and conflicting national standards shall be withdrawn at the latest by March 1999.

This European Standard has been prepared by Technical Committee CEN/TC 211 "Acoustics", the Secretariat of which is held by Denmark, as a guidance document to be used by CEN machinery Technical Committees as the basis for the preparation of the clauses concerning noise in their type C-Standards. "Guidance" is used, because the document is a general one and therefore may not be applicable in all details for a specific type of machinery.

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).

Several documents concerning noise referred to in this European Standard are at the moment at the stages of draft. The latest reference document numbers are given which makes it possible to obtain these documents from a national member body.

This European Standard also contains two annexes which are informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

For many machines, noise is a significant hazard, i.e. a hazard which an assessment carried out in accordance with EN 1050 has lead to identify as being connected with one or more essential requirements decreed in annex I of the Machinery Directive and which requires a specific action on the part of the manufacturer or supplier (see 6.4.2 of EN 414:1992). The information contained in this European Standard is based on the following principles:

- a) noise reduction is an integral part of machinery safety, and
- b) machinery must be so designed and constructed that risks resulting from the emission of airborne noise are reduced to the lowest level taking account of technical progress and available means of reducing noise, in particular at source, and
- c) specific quantitative information on airborne noise emitted by machinery under specified operating and mounting conditions shall be given in accordance with the relevant noise test code, or, if no test code exists, under specified individual conditions.
- d) the noise clauses of type C-Standards shall deal with noise emission aspects including residual risk; but information on how the noise immission at the work station can be further reduced, including advice on personal protection equipment, may be helpful.

1 Scope

This European Standard gives guidance on how to deal with noise in type C-Standards where noise is identified as a significant hazard (see 4.5 of EN 292-1:1991). As such, this European Standard supplements the rules given in EN 414:1992.

The exact way that noise is dealt with for a particular type of machinery will depend on the structure of the type C-Standards and is the responsibility of the type C-Standard Technical Committees.

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.

EN 292-1:1991	Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology.
EN 292-2:1991/ A1:1995	Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles and specifications.
EN 414:1992	Safety of machinery - Rules for the drafting and presentation of safety standards.
prEN ISO 3740	Acoustics - Determination of sound power levels of noise sources – Guidelines for the use of basic standards (ISO/DIS 3740:1998)
prEN ISO 3741	Acoustics – Determination of sound power levels of noise sources using sound pressure – precision methods for reverberation chambers (ISO/DIS 3741.2:1998)
EN ISO 3743-1	Determination of sound power levels of noise sources - Engineering methods for small, movable sources in reverberant fields. Part 1: Comparison method in hard-walled test rooms (ISO 3743-1:1994)

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