Akustika. Mehhanismide ja seadmete müra. Helirõhutaseme mõõtmine töö- ja muudes piiritletud kohtades. Seiremeetod in situ

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 11202:2009 sisaldab Euroopa standardi EN ISO 11202:2009 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 11202:2009 consists of the English text of the European standard EN ISO 11202:2009.
Standard on kinnitatud Eesti Standardikeskuse 30.10.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 30.10.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 12.08.2009.	Date of Availability of the European standard text 12.08.2009.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 17.140.20

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 11202

August 2009

ICS 17.140.20

Supersedes EN ISO 11202:1995

English Version

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)

Acoustique - Bruit émis par les machines et équipements - Mesurage des niveaux de pression acoustique d'émission au poste de travail et en d'autres positions spécifiées - Méthode de contrôle in situ (ISO 11202:1995, Cor 1:1997 inclus)

Akustik - Geräuschabstrahlung von Maschinen und Geräten - Messung von Emissions-Schalldruckpegeln am Arbeitsplatz und an anderen festgelegten Orten - Verfahren der Genauigkeitsklasse 3 für Messungen unter Einsatzbedingungen (ISO 11202:1995)

This European Standard was approved by CEN on 27 July 2009.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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.

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

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Ref. No. EN ISO 11202:2009: E

Foreword

The text of ISO 11202:1995 has been prepared by Technical Committee ISO/TC 43 “Acoustics” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 11202:2009 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 February 2010, and conflicting national standards shall be withdrawn at the latest by February 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 11202:1995.

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 EC Directives.

For relationship with EC Directives, see informative Annexes ZA and ZB, which are integral parts of this document.

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 the United Kingdom.

Endorsement notice

The text of ISO 11202:1995 has been approved by CEN as a EN ISO 11202:2009 without any modification.

Annex ZA
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 98/37/EC, amended by 98/79/EC on machinery.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING - Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

Annex ZB
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 2006/42/EC on machinery.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

Introduction

0.1 This International Standard specifies a method for measuring the emission sound pressure levels at a work station and at other specified positions in the vicinity of a machine or piece of equipment. The method specified in this International Standard follows the method specified in ISO 11201 (engineering method), except for the following:

a) measurements are permitted *in situ*; and

b) a simplified method is specified for determining a local environmental correction which yields results approximating those obtained in a free field over a reflecting plane. This correction is used to derive the emission sound pressure levels at specified positions, including work stations. The results are limited to the survey grade of accuracy.

0.2 This International Standard is one of a series (ISO 11200 to ISO 11204) which specifies various methods for determining the noise emissions of a piece of machinery or equipment, or a sub-assembly of such equipment (machine under test). ISO 11200 gives guidance on the choice of the method to be used to determine the emission sound pressure levels of machinery and equipment. It also gives details of International Standards giving methods for the determination of sound power levels.

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*

1 Scope

1.1 General

This International Standard specifies a method for measuring the emission sound pressure levels of machinery and equipment, at a work station and at other specified positions nearby, in a semi-reverberant field. Emission sound pressure level are measured as A-weighted and, if required, C-weighted peak.

NOTE 1 The contents of this and related International Standards are summarized in table 1 of ISO 11200:1995.

A method is given for determining a local environment correction (subject to a specified limiting maximum value) to be applied to the measured sound pressure levels in order to exclude at least part of the effects of reflections from reflecting surfaces other than the plane on which the machinery or equipment is placed. This correction is based on the equivalent sound absorption area of the test room.

A work station is occupied by an operator. It may be located in open space in the room where the source operates, or in a cab fixed to the source, or in an enclosure remote from the source. One or more specified positions may be located in the vicinity of an attended or unattended machine. Such positions are sometimes referred to as bystander positions.

This International Standard specifies requirements for the survey grade of accuracy on the test environment and instrumentation. Instructions are given for the installation and operation of the machine under test and for the choice of microphone positions for the work station and for other specified positions. The purpose of the measurements is to permit comparison of the performance of different units of a given family of machinery or equipment, under defined environmental conditions and standardized mounting and operating conditions. The data obtained may also be used for the declaration and verification of emission sound pressure levels as specified in ISO 4871.

NOTE 2 At any given position in relation to a particular machine, and for given mounting and operating conditions, the emission sound pressure levels determined by the method of this International Standard will in general be lower than the directly measured sound pressure levels for the same machine in the typical workroom where it is used. This is due to reverberation and the contributions of other machines. A method of calculating the sound pressure levels in the vicinity of a machine operating alone in a workroom is given in ISO 11690-3. Commonly observed differences are 1 dB to 5 dB, but in extreme cases the difference may be even greater.

1.2 Types of noise and noise sources

The method specified in this International Standard is applicable to all types of machinery, both moving and stationary, for indoor or outdoor use.

The method is applicable to machines of all sizes, and to all types of noise as defined in ISO 2204 and ISO 12001.

1.3 Test environment

The method is applicable to an indoor or outdoor environment with one or more reflecting planes present, meeting specified requirements.