Mürakatsekoodid valumasinatele ja seadmetele

Noise test codes for foundry machines and equipment

EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 1265:2000 sisaldab Euroopa standardi EN 1265:1999 ingliskeelset teksti. Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 1265:2000 consists of the English text of the European standard EN 1265:1999. This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This noise test code specifies all the information necessary to carry out efficiently and under standardized conditions the determination, declaration and verification of noise emission characteristics of several groups of foundry machinery. It specifies noise measurement methods that are available and operating and mounting conditions that shall be used for for the test	**Scope:** This noise test code specifies all the information necessary to carry out efficiently and under standardized conditions the determination, declaration and verification of noise emission characteristics of several groups of foundry machinery. It specifies noise measurement methods that are available and operating and mounting conditions that shall be used for for the test

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Noise test code for foundry machines and equipment

Code d'essai acoustique pour machines et équipements de fonderie

Geräuschmessverfahren für Gießereimaschinen und -anlagen

This European Standard was approved by CEN on 1999-07-02.

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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.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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FOREWORD

This European Standard has been prepared by Technical Committee CEN/TC 202 "Foundry machinery", 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 February 2000, and conflicting national standards shall be withdrawn at the latest by February 2000.

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).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

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.

0 INTRODUCTION

This noise test code provides manufacturers and third parties with the means to carry out noise emission measurements, determine values for noise declaration purposes and provide the means for their verification. This document follows the rules of EN ISO 12001.

The complexity, variety and nature of foundry equipment makes the measurement of sound power level very complicated. This explains the approach taken in the body of the standard for the determination of the sound power level.

1 SCOPE

Based on EN 292-2:1991, Annex A 1.7.4 f, this noise test code specifies all the information necessary to carry out efficiently and under standardized conditions the determination, declaration and verification of the noise emission characteristics of several groups of foundry machinery. It specifies noise measurement methods that are available and operating and mounting conditions that shall be used for the test.

Noise emission characteristics include emission sound pressure levels at work stations and the sound power level. The determination of these quantities is necessary for:

- manufacturers to declare the noise emitted;
- comparing the noise emitted by machines in the group concerned;
- purposes of noise control at the source at the design stage.

The use of this standard ensures the reproducibility of the determination of the noise emission characteristics within specified limits determined by the grade of accuracy of the basic noise measurement method used. Noise measurement methods allowed by this standard are engineering methods (grade 2) and survey methods (grade 3).

This standard has a main body giving general requirements common to the foundry machines family. Six normative Annexes give requirements specific to the groups of foundry machinery listed below:

- core making machines (EN 710);
- moulding machines (EN 710);
- knock-out grids and knock-out trays (EN 710);
- dry abrasive blasting equipment (not restricted to foundry application) (prEN 1248);
- air blasting equipment (prEN 1248);
- diecasting machines (EN 869);

and six informative Annexes giving guidance for the definition of specific operating conditions.

The main body of this standard also gives guidance for the measurement of the noise emission of foundry machines not dealt with in the Annexes.
This standard does not cover the computation of personnel daily noise exposure.

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	Safety of machinery - Basic concepts, general principles for design Part 2: Technical principles and specifications
EN 710:1997	Safety requirements for foundry moulding and coremaking machinery and plant and associated equipment.
EN 869:1997	Safety requirements for high pressure metal diecasting units.
EN 1070:1998	Safety of machinery - Terminology
prEN 1248:1998	Foundry machinery - Safety requirements for abrasive blasting equipment
EN 60651/A1:1994	Sound level meters (IEC 60651:1979+A1:1993)
EN ISO 3743-1:1995	Acoustics - 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.
EN ISO 3744:1995	Acoustics - Determination of sound power levels of noise sources using sound pressure - Engineering method in an essentially free field over a reflecting plane.
EN ISO 3746:1995	Acoustics - Determination of sound power levels of noise sources using sound pressure - Survey method using an enveloping measurement surface over a reflecting plane.
EN ISO 4871:1996	Acoustics - Declaration and verification of noise emission values of machinery and equipment
EN ISO 9614-1:1995	Acoustics - Determination of sound power levels of noise sources using sound intensity - Part 1: Measurement at discrete points.
EN ISO 9614-2:1996	Acoustics - Determination of sound power levels of noise sources using sound intensity - Part 2: Measurement by scanning

EN ISO 11201:1995	Acoustics - Noise emitted by machinery and equipment - Measurement of emission sound pressure levels at a work station and at other specified positions - Engineering method in an essentially free field over a reflecting plane.
EN ISO 11202:1995	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.
EN ISO 11204:1995	Acoustics - Noise emitted by machinery and equipment - Measurement of emission sound pressure levels at a work station and at other specified positions - Method requiring environmental corrections.
EN ISO 12001/AC:1997	Acoustics - Noise emitted by machinery and equipment - Rules for the drafting and presentation of a noise test code

3 DEFINITIONS

For the purposes of this standard, the definitions given in EN 1070:1998 and the following apply.

3.1 Noise emission: The airborne sound radiated by a well-defined noise source (e.g. the machine under test).

3.2 Basic noise emission standard: A standard for determining the noise emission of machinery and equipment in such a way as to obtain reliable, reproducible results with a specified grade of accuracy.

3.3 Noise test code [see EN ISO 12001:1997]: A standard that is applicable to a particular class, family or type of machinery or equipment which specifies all the information necessary to carry out efficiently the determination, declaration and verification of the noise emission characteristics under standardized conditions.

3.4 Emission sound pressure, p, in pascals [see EN ISO 4871:1996]: The sound pressure, at a specified position near a noise source, when the source is in operation under specified operating and mounting conditions on a reflecting plane surface, in the absence of background noise and of reflections from room surfaces other than the plane on which the machine under test is placed.

3.5 Emission sound pressure level, L_p, in decibels [see EN ISO 4871:1996]: Ten times the logarithm to the base 10 of the ratio of the square of the emission sound pressure, $p^2(t)$ to the square of the reference sound pressure p_o^2, measured with a particular time weighting and a particular frequency weighting, selected from those defined in EN 60651/A1. The reference sound pressure is 20 μPa.

3.6 Sound power, W, in watts [see EN ISO 4871:1996]: The rate per unit time at which airborne sound energy is radiated by a source.