

**Akustika. Mürakatse kood
kinnitusdetailide sisselöömise
instrumentidele. Tehniline meetod**

Acoustics - Noise test code for fastener driving tools
- Engineering method

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12549:2000 sisaldab Euroopa standardi EN 12549:1999 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12549:2000 consists of the English text of the European standard EN 12549:1999.</p> <p>This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This standard applies to fastener driving tools. The noise created by fastener driving tools directly affecting the surrounding environment (noise emission) shall be calculated in a uniform procedure enabling comparison of the final results.</p>	<p>Scope:</p> <p>This standard applies to fastener driving tools. The noise created by fastener driving tools directly affecting the surrounding environment (noise emission) shall be calculated in a uniform procedure enabling comparison of the final results.</p>
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ICS 17.140.20, 25.140.99

Võtmesõnad:

ICS 17.140.20; 25.140.99

English version

Acoustics

Noise test code for fastener driving tools

Engineering method

Acoustique – Code d’essai acoustique
pour les machines à enfoncer les
fixations – Méthode d’expertise

Akustik – Geräuschmeßverfahren für
Eintreibgeräte – Verfahren der
Genauigkeitsklasse 2

This European Standard was approved by CEN on 1998-10-30.

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.

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CEN

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

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FOREWORD

This European Standard has been prepared by Technical Committee CEN/TC 255 "Hand-held, non-electric power tools - Safety", the secretariat of which is held by SIS.

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 January 2000, and conflicting national standards shall be withdrawn at the latest by January 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.

INTRODUCTION

This noise test code describes methods for determining and presenting the acoustical characteristics of fastener driving tools.

The EC Machinery Directive prescribes that noise emission values for the machines in a defined process shall be stated. The manufacturer of fastener driving tools must indicate the operating conditions during the noise measurement and what methods have been used for the measurement.

1 SCOPE

This standard applies to fastener driving tools. The noise created by fastener driving tools directly affecting the surrounding environment (noise emission) should be calculated in a uniform procedure enabling comparison of the final results. This standard contains provisions concerning the execution of the measurement of airborne noise in the vicinity of fastener driving tools and the measurement of emission sound pressure levels at the work station under defined operating conditions.

The determination of the noise emission levels of fastener driving tools in accordance with this standard is valid for all actuating systems in accordance with EN 792-13.

The results can be used to compare the noise emissions of different fastener driving tools.

NOTE: The special conditions at the work place (e.g. shape and foundation of the workpiece, quantity and frequency of the driving processes) can influence the noise emission to an important degree.

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 292-2	Safety of machinery - Basic concepts, general principles for design Part 2: Technical principles and specifications
EN 792-13	Handheld non-electric power tools - Safety requirements - Part 13: Fastener driving tools
EN 60651	Sound level meters
EN 60804	Integrating-averaging sound level meters
EN ISO 3744	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 4871	Acoustics - Declaration and verification of noise emission values of machinery and equipment
EN ISO 11201	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

3 DEFINITIONS

For the purposes of this standard, the following definitions apply:

3.1 A-weighted single-event emission sound pressure level, $L_{pA,1s}$ in dB:

A-weighted and time-integrated emission sound pressure level of an isolated single sound event of specified duration T (or specified measurement time T), related to $T_0 = 1$ s; it is given by the following equation:

$$L_{pA,1s} = 10 \lg \left[\frac{1}{T_0} \int_0^T \frac{p^2(t)}{p_0^2} dt \right] \text{ dB} = L_{pAeq,T} + 10 \lg \left(\frac{T}{T_0} \right) \text{ dB} \quad \dots(1)$$

The reference sound pressure is $p_0 = 20 \mu\text{Pa}$.

3.2 A-weighted single-event sound power level, $L_{WA,1s}$ in dB:

A-weighted sound power level determined from measurements of the single-event sound pressure level.

3.3 C-weighted peak emission sound pressure level, $L_{pC,peak}$ in dB:

The C-weighted peak emission sound pressure level of a test object, determined in accordance with EN ISO 11201 at the work station.