

**Mehaaniline võnkumine.  
Vibratsioonitugevuse avaldamine ja  
kontrollimine**

Mechanical vibration - Declaration and verification of  
vibration emission values

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12096:2000 sisaldab Euroopa standardi EN 12096:1997 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 12096:2000 consists of the English text of the European standard EN 12096:1997.</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><b>Käsitlusala:</b> See standard kehtestab vibratsioonitugevuse avaldamise ja kontrollimise nõuded.</p>	<p><b>Scope:</b></p>
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**ICS** 13.160, 17.160

**Võtmesõnad:** ergonoomika, inimkeha, kontrollimine, maksimaalväärtus, masinate ohutus, mõõtmine, statistiline analüüs, vibratsioon, vibratsioonitugevus

ICS 13.160; 17.160

Descriptors: Vibration, emission values.

**English version**

Mechanical vibration  
**Declaration and verification of vibration emission  
values**

Vibrations mécaniques – Déclaration  
et vérification des valeurs d'émission  
vibratoire

Mechanische Schwingungen –  
Angabe und Nachprüfung von  
Schwingungskennwerten

This European Standard was approved by CEN on 1997-07-03.

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.

The European Standards exist 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

**CEN**

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

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

## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 231 "Mechanical vibration and shock", 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 January 1998, and conflicting national standards shall be withdrawn at the latest by January 1998.

This European Standard contains five annexes A to E 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

Information on vibration emission of vibrating machinery is needed by users, planners, manufacturers and authorities, for example to comply with the obligations described in the EU Machinery Directives 89/392/EEC and 91/368/EEC. This information is required for comparing the vibration emissions from different products and for assessing the vibration against vibration requirements.

In order for vibration emission values to be useful, uniform methods are necessary for following purposes:

- measurement of the vibration values,
- determination of the declared vibration emission value,
- presentation of the declared vibration emission value,
- verification of the declared vibration emission value.

The statistical methods used for declaration and verification in this European Standard are equivalent to those used in acoustics (see EN 27574).

NOTE: This note concerns German words for "declaration" and "verification".

## 1 Scope

This European Standard establishes the requirements for declaration and verification of vibration emission values. It applies to hand-arm and whole-body vibration values achieved by measurements according to type-B and type-C standards. It

- gives guidance on the declaration of vibration emission values,
- describes vibration and product information to be given in technical documents supplied to users by the manufacturer,
- specifies the method for verifying the declared vibration emission values stated by the manufacturer.

The values to be used for the declaration of vibration emission are r.m.s. values of weighted acceleration measured preferably according to a vibration test code (see 3.1.5).

## 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.

- ENV 25349 Mechanical vibration — Guidelines for the measurement and the assessment of human exposure to hand-transmitted vibration (ISO 5349:1986)
- ENV 28041 Human response to vibration — Measuring instrumentation (ISO 8041:1990)
- ISO 2631-1 Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration — Part 1: General requirements

## 3 Definitions and symbols

For the purposes of this European Standard, the following definitions apply. They are grouped in two categories: general definitions and vibration-related definitions. Definitions of statistical terms are to be found in annex A.