Mehaaniline võnkumine ja löök. Seadmete vibroisoleerimine. Teave vibratsioonniallika isoleerimise kohta KONSOLIDEERITUD TEKST

Mechanical vibration and shock - Vibration isolation of machines - Information for the application of source isolation CONSOLIDATED TEXT

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1299:1999+A1:2009 sisaldab Euroopa standardi EN 1299:1997+A1:2008 ingliskeelset teksti.	This Estonian standard EVS-EN 1299:1999+A1:2009 consists of the English text of the European standard EN 1299:1997+A1:2008.
Standard on kinnitatud Eesti Standardikeskuse 29.01.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 29.01.2009 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 26.11.2008.	Date of Availability of the European standard text 26.11.2008.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 17.160

Võtmesõnad: andmed, isolatsioon, kasutusjuhend, klassid, masinad, mehaaniline löök, teave, tehnilised andmed, vibratsioon, vibroisolaatorid

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 1299:1997+A1

November 2008

ICS 17.160

Supersedes EN 1299:1997

English Version

Mechanical vibration and shock - Vibration isolation of machines - Information for the application of source isolation

Vibrations et chocs mécaniques - Isolation vibratoire des machines - Informations pour la mise en oeuvre de l'isolation des sources

Mechanische Schwingungen und Stöße - Schwingungsisolierung von Maschinen - Angaben für den Einsatz von Quellenisolierungen

This European Standard was approved by CEN on 30 December 1996 and includes Amendment 1 approved by CEN on 5 October 2008.

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.

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Ref. No. EN 1299:1997+A1:2008: E

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Foreword

This document (EN 1299:1997+A1:2008) 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 May 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2008-10-05.

This document supersedes EN 1299:1997.

The start and finish of text introduced or altered by amendment is indicated in the text by tags ⟨A1⟩ ⟨A1⟩.

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).

⟨A1⟩ For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. ⟨A1⟩

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 United Kingdom.

Introduction

Vibration isolation is a measure used to either reduce significantly any transmission of periodic, shock or random type forces from a machine into surrounding structures (source isolation, protection from emission) or to protect sensitive machines, instruments, buildings and people from vibration received by their surroundings (receiver isolation, protection from immission). In both cases, the use of vibration isolators creates a mass-spring system whose vibration response is critically influenced by the characteristics of the source of vibration, the dynamic characteristics of the machine, the structure to which the machine is mounted and the characteristics of the elastic and damping elements. Optimization of the system to satisfy protection criteria requires a full and detailed knowledge of all the factors which influence the design and effective application of vibration isolation to a particular machine or installation. The interchange of information between the machinery manufacturer, the isolation supplier and the user plays a key role in achieving this.

1 Scope

This European Standard gives guidelines to ensure that manufacturers of machines provide adequate information on application of vibration isolation to reduce the risks arising from vibration generated by their machines. Guidelines are also provided to ensure that users furnish sufficient information regarding their applications to suppliers of machines or, where applicable, to the supplier of the isolation system, to enable the optimum selection and design of vibration isolation.

This European Standard is restricted to source isolation.

Although this standard is primarily intended for the use of new machines, it may be applied to the installation of used machines, too.

This European Standard is addressed to manufacturers and installers of a machine, as a guide to define relevant parameters for the choice and installation of a vibration isolation system to be used with the machine.

NOTE This European Standard may also be applied by users of machines already installed, who use or wish to use vibration isolation to solve a vibration problem caused by the machine.

This European Standard shall not be considered as a manual for the design or installation of an isolation system. Examples of elements of vibration isolation are shown in Annex A only for information.

2 Normative references

[A1] The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. [A1]

ISO 2041:1990, *Vibration and shock*

ISO 7626-1:1986, *Vibration and shock – Experimental determination of mechanical mobility – Part 1: Basic definitions and transducers*