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**Kantavad käeshoitavad ajamiga
tööriistad. Vibratsiooni mõõtmine
käepidemel. Osa 13: Matriitskäiad**

Hand-held portable power tools - Measurement of
vibrations at the handle - Part 13: Die grinders

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 8662-13:1999 sisaldab Euroopa standardi EN ISO 8662-13:1997+AC:1998 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 8662-13:1999 consists of the English text of the European standard EN ISO 8662-13:1997+AC:1998.</p> <p>This document is endorsed on 23.11.1999 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: See standard esitab laborimeetodi vibratsiooni mõõtmiseks tsangi abil kinnitatava tööorganiga ajamatriitskäide käepidemel.</p>	<p>Scope:</p>
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ICS 13.160, 25.140.01, 25.140.10

Võtmesõnad: ajamiga tööriistad, käeshoitavad tööriistad, lihvseadmed, matriitskäiad, pneumoseadmed, teimid, teisaldatavad seadmed, tööriista käepidemed, tööriistad, vibratsioon, vibratsiooniteimid

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Descriptors: Power tools, die grinders, vibration, testing.

English version

Hand-held portable power tools

Measurement of vibrations at the handle

Part 13: Die grinders

(ISO 8662-13 : 1997)

Machines à moteur portatives –
Mesurage des vibrations au niveau
des poignées – Partie 13: Meuleuses
d'outillage (ISO 8662-13 : 1997)

Handgehaltene motorbetriebene
Maschinen – Messung mechanischer
Schwingungen am Handgriff – Teil 13:
Geradschleifer mit Spannzange
(ISO 8662-13 : 1997)

This European Standard was approved by CEN on 1997-06-01.

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.

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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

Foreword

International Standard

ISO 8662-13 : 1997 Hand-held portable power tools - Measurement of vibrations at the handle - Part 13: Die grinders,

which was prepared by ISO/TC 118 'Compressors, pneumatic tools and pneumatic machines' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 231 'Mechanical vibration and shock', the Secretariat of which is held by DIN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by January 1998 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

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.

Endorsement notice

The text of the International Standard ISO 8662-13 : 1997 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

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Introduction

This part of ISO 8662 specifies how a type test for the measurement of vibration at the handle of portable die grinders shall be performed. It supplements ISO 8662-1, which gives the general specifications for the measurement of vibration at the handles of hand-held power tools. It specifies the operation of the tool under type test and other requirements for the performance of the type test.

It has been found that vibrations generated by a die grinder grinding on a workpiece vary considerably. The variance is partly due to differences in the unbalance of the die grinder together with its burr or mounted point. The unbalance also changes when the mounted point is used for grinding. In order to provide a method which gives good measurement reproducibility, the procedure adopted in this part of ISO 8662 uses a test device of known unbalance, mounted in a power tool and running free. Although the values measured are not obtained by grinding, there is a good correlation between the values obtained when the die grinder is running free at nominal working speed with a test device mounted and those obtained when grinding.

The principle of the operation of a die grinder is that the driving medium causes an output spindle to rotate. The spindle is adapted to carry a cutting or an abrasive device for material removal.

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1 Scope

This part of ISO 8662 specifies a laboratory method for measuring the vibration at the handles of power-driven die grinders where the inserted tool is mounted in a collet. It is a type-test procedure for establishing the vibration value at the handles of the die grinder when fitted with a specified test device.

This part of ISO 8662 applies to die grinders which are pneumatically driven. A typical die grinder is shown in figure 1.

It is intended that the results be used to compare different models of the same power tool, i.e. those power tools intended to be used with the same burr or mounted point (same diameter and same maximum peripheral speed).

Dimensions in millimetres

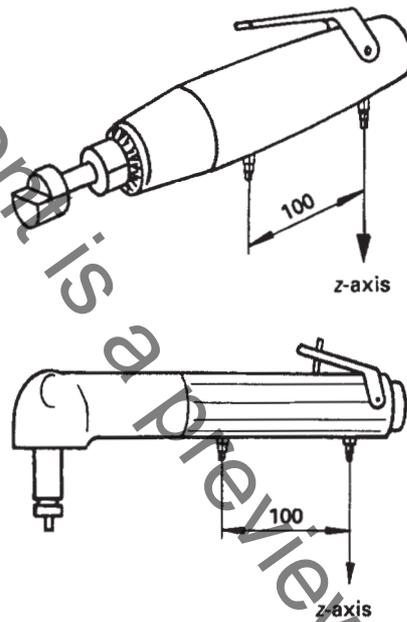


Figure 1 — Typical die grinders — Measurement direction and example of position of transducers

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2 Normative references

The following standards provide provisions which, through reference in this text, constitute provisions of this part of ISO 8662. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this part of ISO 8662 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2787:1984, *Rotary and percussive pneumatic tools — Performance tests*.

ISO 8662-1:1988, *Hand-held portable power tools — Measurement of vibrations at the handle — Part 1: General*.

3 Quantities to be measured

Quantities to be measured are as follows:

- a) the root-mean-square (r.m.s.) acceleration in accordance with ISO 8662-1:1988, 3.1, presented as a weighted acceleration in accordance with ISO 8662-1:1988, 3.3;
- b) the air pressure;
- c) the rotational frequency.

4 Instrumentation

4.1 General

The specifications for the instrumentation given in ISO 8662-1:1988, 4.1 to 4.6 apply.

4.2 Transducer

The specification for the transducers given in ISO 8662-1:1988, 4.1 applies.

4.3 Mechanical filters

It is normally not necessary to use a mechanical filter for measurements in accordance with this part of ISO 8662 (see ISO 8662-1:1988, 4.3).

4.4 Fastening of the transducer

Fastening of the transducers on the power tool handle shall be in accordance with ISO 8662-1:1988, 4.2. Small transducers may be affixed by using a suitable adhesive wax on a flat surface. In all cases the fastening of the transducers shall be in accordance with the transducer manufacturer's instructions (see figure 2).

If the handle has a soft resilient cover, a clamp, on which the transducer is mounted, shall be tightened securely around it. Alternatively a special adaptor may be used, see ISO 8662-1:1988, 4.2.

NOTE — The test report should state the action taken, i.e. solid clamping or use of an adaptor.