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**Električna ročna orodja - Varnost - 2-23. del: Posebne zahteve za brusilnike čipov in mala rotacijska orodja**

Hand-held motor-operated electric tools - Safety - Part 2-23: Particular requirements for die grinders and small rotary tools

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**iTeh STANDARD PREVIEW**

Outils électroportatifs à moteur (Sécurité - Partie 2-23: Exigences particulières relatives aux meuleuses d'outillage et aux petits outils rotatifs)

[SIST EN 60745-2-23:2013](https://standards.itih.ai/catalog/standards/sist/c4204a46-b486-438d-ad74-a1ad900db56a/sist-en-60745-2-23-2013)

**Ta slovenski standard je istoveten z: EN 60745-2-23:2013**

**ICS:**

25.080.50	Brusilni in polirni stroji	Grinding and polishing machines
25.140.20	Električna orodja	Electric tools

**SIST EN 60745-2-23:2013****en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60745-2-23**

May 2013

ICS 25.140; 25.140.30

English version

**Hand-held motor-operated electric tools -  
Safety -  
Part 2-23: Particular requirements for die grinders and small rotary tools  
(IEC 60745-2-23:2012, modified)**

Outils électroportatifs à moteur -  
Sécurité -  
Partie 2-23: Exigences particulières  
relatives aux meuleuses d'outillage et aux  
petits outils rotatifs  
(CEI 60745-2-23:2012, modifiée)

Handgeführte motorbetriebene  
Elektrowerkzeuge -  
Sicherheit -  
Teil 2-23: Besondere Anforderungen  
für Stabschleifer und rotierende  
Kleinwerkzeuge  
(IEC 60745-2-23:2012, modifiziert)

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This European Standard was approved by CENELEC on 2012-12-24. CENELEC 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-CENELEC Management Centre or to any CENELEC 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 CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**CENELEC**

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

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 116/111/FDIS, future edition 1 of IEC 60745-2-23, prepared by IEC/TC 116 "Safety of motor-operated electric tools" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60745-2-23:2013.

A draft amendment, which covers common modifications to IEC 60745-2-23 (116/111/FDIS), was prepared by CLC/TC 116 "Safety of motor-operated electric tools" and approved by CENELEC.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2013-11-03
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-12-24

This Part 2-23 is to be used in conjunction with EN 60745-1:2009 + A11:2010.

When this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

NOTE 1 When "Part 1" is mentioned in this standard, it refers to EN 60745-1.

This part 2 supplements or modifies the corresponding clauses in EN 60745-1, so as to convert that publication into the EN standard: Safety requirements for die grinders and small rotary tools.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

NOTE 2 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.

NOTE 3 In this standard, the following print types are used:

- requirements: in roman type;
- test specifications: in italic type;
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective, the adjective and the associated noun are also in bold.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60745-2-23:2012 are prefixed "Z".

This document is divided into two parts:

- Part 1: General requirements which are common to most hand-held electric motor operated tools (for the purpose of this standard referred to simply as tools) which could come within the scope of this standard;
- Part 2: Requirements for particular types of tools which either supplement or modify the requirements given in Part 1 to account for the particular hazards and characteristics of these specific tools.

This document follows the overall requirements of EN ISO 12100.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For the relationship with EU Directive see informative Annex ZZ, which is an integral part of this document.

**Endorsement notice**  
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The text of the International Standard IEC 60745-2-23:2012 was approved by CENELEC as a European Standard with agreed common modifications.

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**COMMON MODIFICATIONS**

**6 Void**

*Replace by:*

**6 Environmental requirements**

This clause of Part 1 is applicable except as follows:

**6.1.2.4 Modification:**

Die grinders and small rotary tools are suspended, the motor axis being horizontal.

**6.1.2.5 Modification:**

Die grinders and small rotary tools are tested at no-load.

**6.2.4.2 Location of measurement**

*Addition:*

Figures Z102 to Z103 show the positions for different types of tools.

### 6.2.6.3 Operating conditions

#### Modification:

The tools shall be tested under no-load equipped with an artificial wheel under the conditions described below in Table Z101.

**Table Z101 – Vibration test conditions**

Orientation	Tool to be held as in normal use, the motor axis being horizontal.
Tool bit	Artificial wheel as specified in Figure Z101 of a diameter equivalent to the rated capacity and dimensions in accordance with Table Z102.  When using the artificial wheel, start with a diameter ( $e -1$ mm) and increase the size at the hole in stages of 1/10 mm until the required unbalance is obtained.  The artificial wheel is mounted on a mandrel with a diameter suitable for the chuck or collet of the tool.
Feed force	No feed force to be applied. Excessive gripping force shall be avoided.
Test cycle	A test cycle is given by conducting a measurement for at least 10 s.  Three series of five consecutive tests shall be carried out using a different operator for each series.

**Table Z102 – Dimensions of the artificial wheel of Figure Z101**

Rated capacity mm	$\varnothing a$ mm	$\varnothing b$ mm	$c$ mm	$\varnothing d$ mm	$\varnothing e$ mm	Unbalance g mm
< 25	No wheel to be mounted					0
$\geq 25$ and < 50	25	4,0	$10 \pm 0,05$	$18 \pm 0,02$	4,3	3,6
$\geq 50$	50	4,0	$10 \pm 0,05$	$35 \pm 0,02$	6,2	14,5

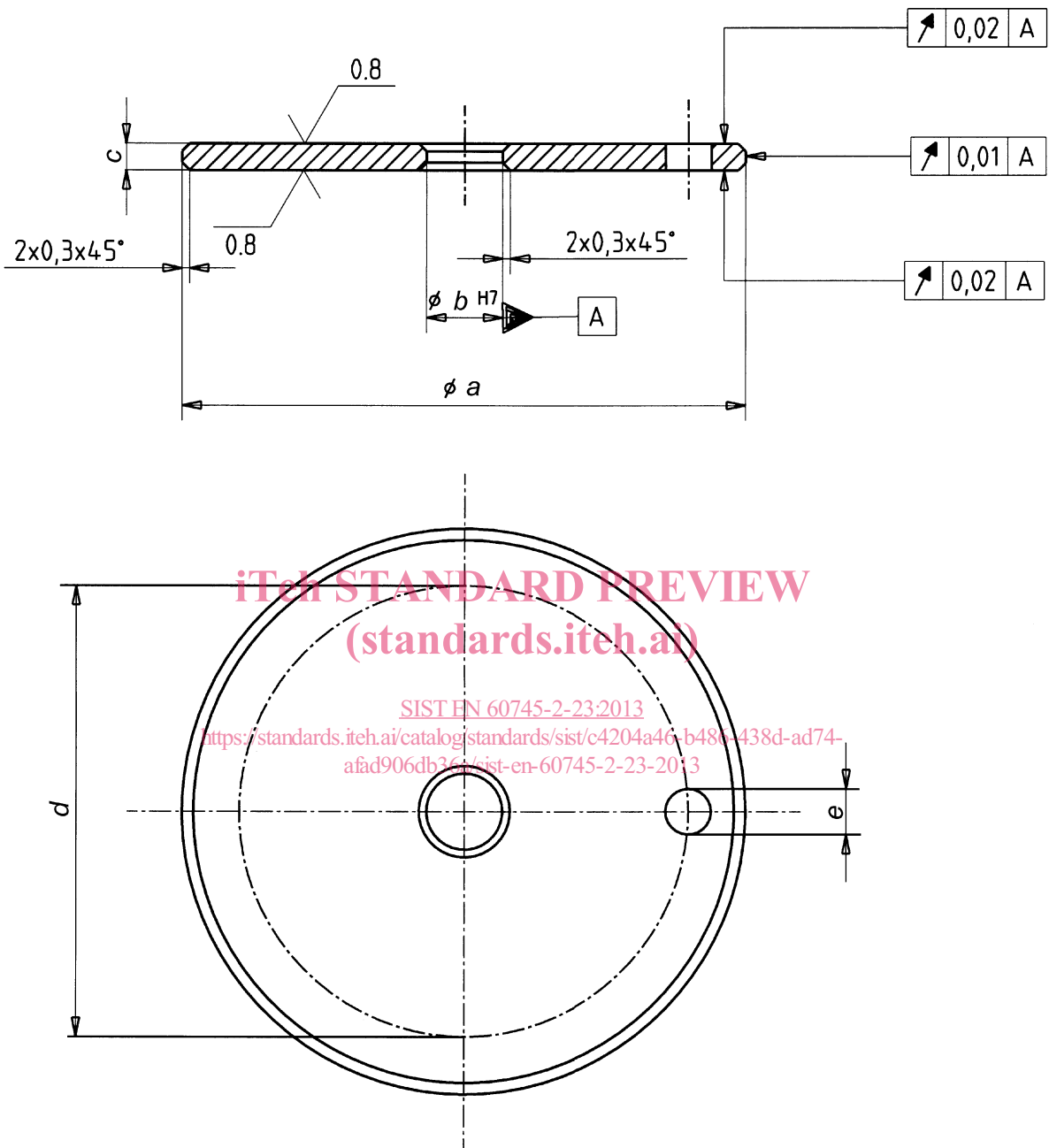
### 6.2.7.2 Declaration of the vibration total value

#### Addition:

The vibration total value  $a_h$  of the handle with the highest emission and the uncertainty  $K$  shall be declared.

Add the following figures:

Dimensions in millimetres



**Key**

Material: aluminium

**Figure Z101 – Artificial wheel**

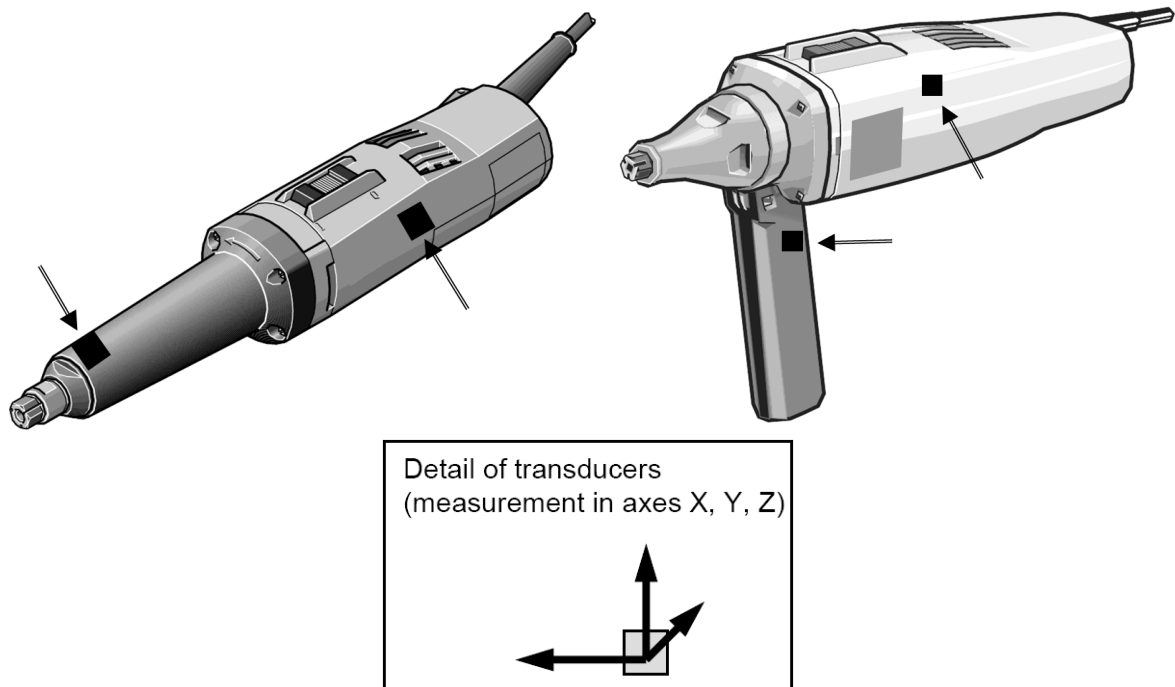


Figure Z102 – Positions of transducers for die grinders  
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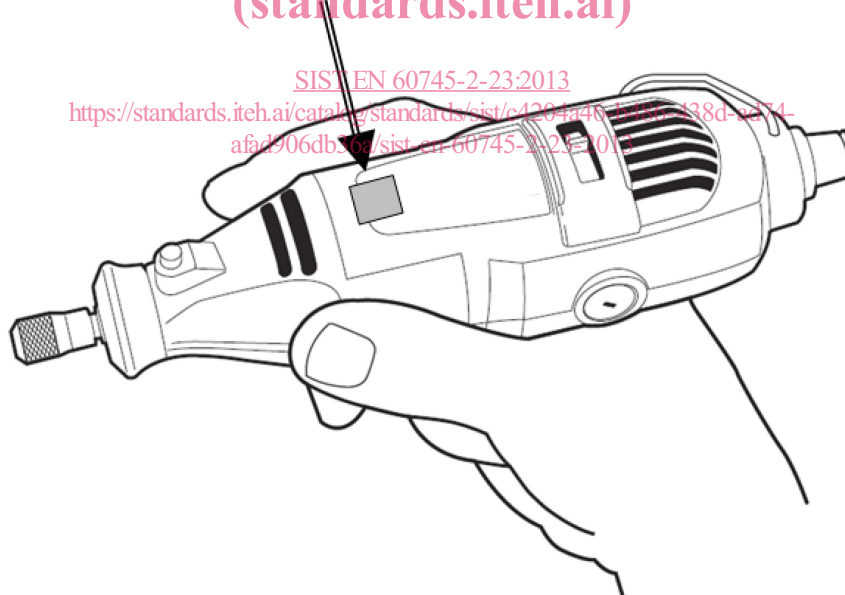


Figure Z103 – Positions of transducers for small rotary tools



*Add the following annex:*

**Annex ZZ**  
(informative)

**Coverage of Essential Requirements of Directive 2006/42/EC**

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant Essential Requirements as given in EU Directive 2006/42/EC (Machinery Directive).

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directives concerned.

WARNING: Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

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## Bibliography

**Add** the following note under IEC 60745-2-3:

NOTE 1 Harmonised as EN 60745-2-3.

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IEC 60745-2-23

Edition 1.0 2012-12

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Hand-held motor-operated electric tools – Safety –  
Part 2-23: Particular requirements for die grinders and small rotary tools**

**Outils électroportatifs à moteur – Sécurité –  
Partie 2-23: Exigences particulières relatives aux meuleuses d'outillage et aux  
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