



SLOVENSKI STANDARD
SIST EN 60745-2-22:2011/oprAC:2013
01-februar-2013

Električna ročna orodja - Varnost - 2-22. del: Posebne zahteve za rezalnike

Hand-held motor-operated electric tools - Safety - Part 2-22: Particular requirements for cut-off machines

Handgeführte motorbetriebene Elektrowerkzeuge - Sicherheit - Teil 2-22: Besondere Anforderungen für Trennschleifmaschinen

Outils électroportatifs à moteur - Sécurité - Partie 2-22: Règles particulières pour les tronçonneuses à disques

Ta slovenski standard je istoveten z: EN 60745-2-22:2011/prAC:2012

SIST EN 60745-2-22:2011/oprAC:2013 en

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
EN 60745-2-22
prAC

December 2012

ICS

English version

**Hand-held motor-operated electric tools -
Safety -
Part 2-22: Particular requirements for cut-off machines**

Outils électroportatifs à moteur -
Sécurité -
Partie 2-22: Règles particulières pour les
tronçonneuses à disques

Handgeführte motorbetriebene
Elektrowerkzeuge -
Sicherheit -
Teil 2-22: Besondere Anforderungen für
Trennschleifmaschinen

This draft amendment prAC, if approved, will modify the European Standard EN 60745-2-22:2011; it is submitted to CENELEC members for CENELEC enquiry.
Deadline for CENELEC: 2013-05-10.

It has been drawn up by CLC/TC 116.

If this draft becomes an amendment, CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

This draft amendment was established by CENELEC 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

1

Foreword

2 This document [EN 60745-2-22:2011/prAC:2012] has been prepared by CLC/TC 116 "Safety of motor-
3 operated electric tools".

4 This document is currently submitted to the Enquiry.

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

7 This amendment was developed to set out requirements for the measurement of the concentration for
8 inhalable and respirable dust emitted by cut-off machines and wall chasers.

9 Clauses, subclauses, notes, tables and figures which are additional to those in IEC 60745-2-22 are
10 prefixed "Z".

11 Subclauses, tables and figures which are additional to those in Part 1 are numbered starting from 101;
12 additional annexes are lettered AA, BB, etc.

13 **Text of prAC to EN 60745-2-22:2011**

14 **Annexes**

15 *Add the following new Annex:*

16 **Annex ZC**
17 (normative)

18 **Dust measurement**
19

20 **ZC.1 Scope**

21 This clause of Part 1 is applicable except as follows:

22 *Addition:*

23 Annex ZC applies to the measurement of the concentration for inhalable and respirable dust emitted by
24 cut-off machines and wall chasers.

25 **ZC.4 Test procedure**

26 This clause of Part 1 is applicable except as follows:

27 **ZC.4.3 Operating conditions**

28 *Addition:*

29 Cut-off machines intended to cut materials such as concrete, brick and masonry are tested under load
30 observing the conditions shown in Table ZC.101.

31

Table ZC.101 — Operating conditions for cut-off machines

Material and set-up	<p>Concrete slabs with minimum dimensions of 400 mm x 400 mm, maximum dimensions of 600 mm x 600 mm and a thickness of (50 ± 5) mm according to EN 1339. The concrete slabs shall be stored for at least six weeks with the last three weeks under dry conditions. During storing, the distance between the slabs shall be at least one slab thickness. The slabs shall have the following specifications in accordance with the following clauses of EN 1339:2003:</p> <p>Class 3 (5.3.3.2), Class 4 (5.3.4.2), Class 70 (5.3.6.2) for 400 mm x 400 mm, Class 45 (5.3.6.2) for 400 mm x 600 mm and 600 mm x 600 mm.</p> <p>NOTE Typical material are concrete slabs made by Lithonplus, Germany. 1)</p> <p>Concrete slabs are placed horizontally on a table with a suitable working height (approximately 900 mm). The slabs are arranged without any gaps as to achieve a total length of approximately 2,4 m.</p> <p>See Figure ZC.101.</p>
Orientation and operation	<p>Make slots in the concrete slab with a depth as follows:</p> <ul style="list-style-type: none"> – rated capacity ≤ 180 mm: 20 mm; – rated capacity > 180 mm: 40 mm. <p>The slots are made along the approximate 2,4 m length. The direction of the cut shall be from right to left.</p> <p>The distance between the slots shall be large enough so that the guard does not cover the previous cutting zone. For each slot, the tool shall enter the slabs from the side without plunging. The cut stops inside the material after 2,3 m. During cutting the entire surface of the guide plate or all guide rollers shall be in contact with the concrete slab.</p> <p>The tool shall be switched off at the end of the cut while it is in contact with the material.</p>
Tool bit/settings	<p>New or re-sharpened diamond wheel as specified by the manufacturer for cutting concrete at the beginning of each of the three tests.</p> <p>Speed setting devices, if any, shall be adjusted to the setting specified for cutting-off concrete.</p>
Feed force	<p>The forces applied to the tool shall be to achieve an average power consumption during the test of 70 % - 90 % of the rated input of the tool.</p>
Test	<p>During the entire, test, a minimum total length of 18,4 m of cutting (8 cuts) shall be performed for tools with a rated capacity ≤ 180 mm and a minimum total length of 13,8 m of cutting (6 cuts) shall be performed for tools with a rated capacity > 180 mm.</p> <p>The rest time of each test cycle may be used for re-sharpening the wheel, if necessary. This shall be done outside the test room.</p>

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33 Wall chasers are tested under load observing the conditions shown in Table ZC.102.

1) This information is given for the convenience of users of this European Standard and does not constitute an endorsement by CENELEC of the product named.

34

Table ZC.102 — Operating conditions for wall chasers

Material and set-up	<p>Blocks from calcium silicate with a density between 1 800 kg/m³ and 2 000 kg/m³ with a thickness of at least 100 mm and a compressive strength of at least 20 N/mm².</p> <p>NOTE Typical material are blocks from calcium silicate made by UNIKA Kalksandsteinwerk Nordbayern GmbH & Co. KG., Breitengüßbach, Germany. ²⁾</p> <p>The material shall be stored in a dry environment for at least 3 weeks prior to testing. During that time, the blocks shall be stored with a distance of at least one block thickness between each of them.</p> <p>Blocks are placed on a A-support, see Figure ZC.102, with 15° inclination with the lower workpiece support being (500 ± 50) mm above the floor. The blocks are arranged without gaps to achieve an area of approximately 4 m length and 1,3 m height, see Figure ZC.101.</p>
Orientation and operation	<p>Make slots in the blocks, the tool being set to 90 % of the maximum depth of cut. The distance between the two slots shall be either equal to the cutting depth of the slots or be the maximum possible distance, whichever is less.</p> <p>The distance between the slots shall be large enough so that the guard does not cover the previous cutting zone.</p> <p>For each slot, the tool shall enter the blocks from the side/top without plunging. The cut stops inside the material. 2/3 of the total length of cuts shall be done in horizontal direction from right to left (length of slot 2,4 m), 1/3 of the total length cuts in vertical direction downwards (length of channel 1,2 m), see Figure ZC.101.</p> <p>During cutting the entire surface of the guide plate or all guide rollers shall be in contact with the blocks.</p> <p>The tool shall be switched off at the end of the cut while it is in contact with the material.</p>
Tool bit/settings	<p>New or re-sharpened diamond wheel as specified by the manufacturer for cutting calcium silicate at the beginning of each of the three tests.</p> <p>Speed setting devices, if any, shall be adjusted to the setting specified for cutting calcium silicate.</p>
Feed force	<p>The forces applied to the tool shall be to archive an average power consumption during the test of 70 % - 90 % of the rated input of the tool.</p>
Test	<p>During the entire test, a total length of slots to be cut shall be 40 m for tools with a maximum depth of cut ≤ 30 mm, and a total length of slots to be cut shall be 35 m for tools with a maximum depth of cut > 30 mm.</p> <p>The rest time of the test cycles may be used for re-sharpening the wheel, if necessary. This shall be done outside the test room.</p>

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ZC.5 Test report

37 This clause of Part 1 is applicable except as follows:

38 j) *Modification:*

39 The mean value for the concentration of the respirable dust is also required.

ZC.6 Additional instructions

41 This clause of Part 1 is applicable except as follows:

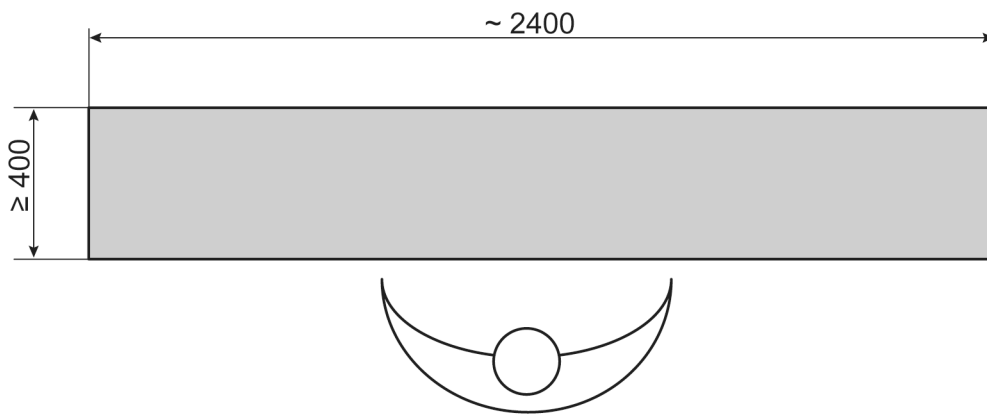
42 *Modification of the first dash:*

43 The mean value for the concentration of the respirable dust is also required.

2) This information is given for the convenience of users of this European Standard and does not constitute an endorsement by CENELEC of the product named.

44

Dimensions in millimetres



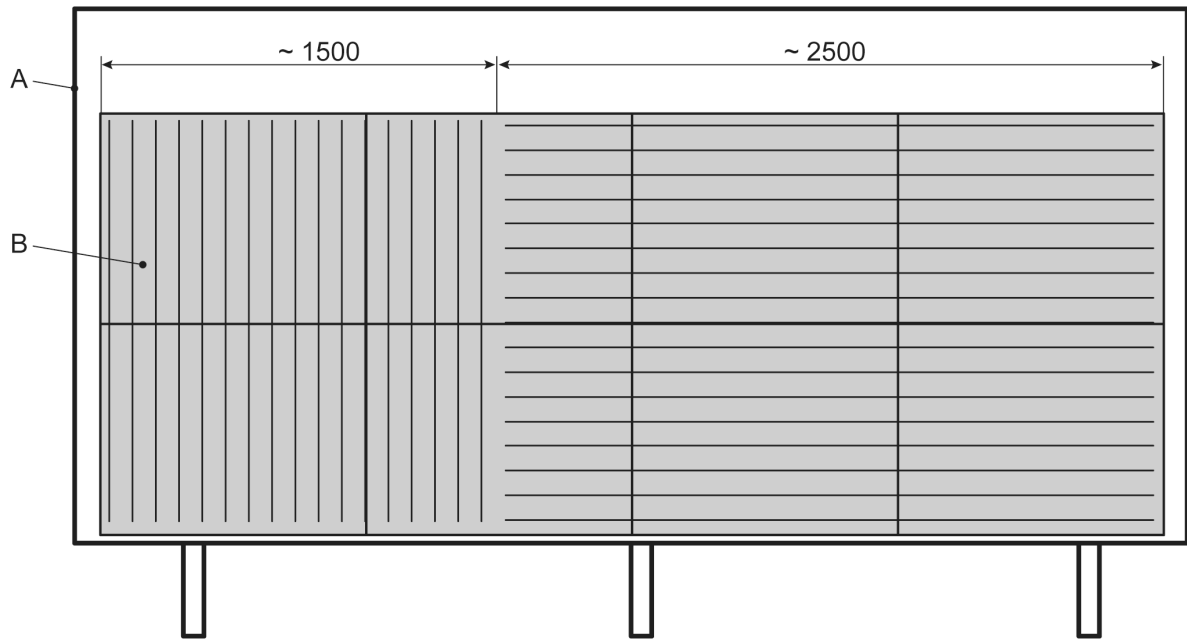
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Figure ZC.101 – Test set-up for cut-off machines

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Dimensions in millimetres



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49 **Key**

50 A A-support

51 B workpiece (calcium silicate blocks)

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Figure ZC.102 – Test set-up for wall chasers