
Varnost premičnih električnih orodij - 2-6. del: Posebne zahteve za diamantne vrtalnike z dovodom vode (IEC 61029-2-6:1993, spremenjen)

Safety of transportable motor-operated electric tools - Part 2-6: Particular requirements for diamond drills with water supply (IEC 61029-2-6:1993, modified)

Sicherheit transportabler motorbetriebener Elektrowerkzeuge - Teil 2-6: Besondere Anforderungen für Diamantbohrmaschinen mit Wasserversorgung (IEC 61029-2-6:1993, modifiziert)

Sécurité des machines-outils électriques semi-fixes - Partie 2-6: Règles particulières pour les foreuses à béton (CEI 61029-2-6:1993, modifiée)

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EUROPEAN STANDARD
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EN 61029-2-6

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English version

Safety of transportable motor-operated electric tools - Part 2-6: Particular requirements for diamond drills with water supply (IEC 61029-2-6:1993, modified)

Sécurité des machines-outils électriques
semi-fixes -
Partie 2-6: Règles particulières pour
les foreuses à béton
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Sicherheit transportabler motorbetriebener
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Teil 2-6: Besondere Anforderungen
für Diamantbohrmaschinen
mit Wasserversorgung
(IEC 61029-2-6:1993, modifiziert)

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This European Standard was approved by CENELEC on 2010-04-01. 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 Central Secretariat 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 Central Secretariat 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

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Foreword

The text of the International Standard IEC 61029-2-6:1993, SC 61F, Safety of hand-held motor-operated electric tools, of IEC TC 61, Safety of household and similar electrical appliances, together with the common modifications prepared by the Technical Committee CENELEC TC 116, former TC 61F, Hand-held electric motor-operated tools, was submitted to the CENELEC formal vote and was accepted as EN 61029-2-6 on 2010-04-01.

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

The following dates are proposed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2011-04-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2013-04-01

This European Standard is divided into two parts:

Part 1 General requirements, which are common to most transportable 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 tool which either supplement or modify the requirements given in Part 1 to account for the particular hazards and characteristics of these specific tools.

This European Standard has been prepared under a mandate given to CEN/CENELEC by the European Commission and the European Free Trade Association and supports the essential health and safety requirements of EC Directive 2006/42/EC. See Annex ZZ.

Compliance with the clauses of Part 1 together with this Part 2 provides one means of conforming with the essential health and safety requirements of the Directive.

For noise and vibration this standard covers the requirements for their measurement, the provision of information arising from these measurements and the provision of information about the Personal Protective Equipment required. Specific requirements for the reduction of the risk arising from noise and vibration through the design of the tool are not given as this reflects the current state of the art.

Warning: Other requirements and other EC Directives can be applicable to the products falling within the scope of this standard.

This standard follows the overall requirements of EN ISO 12100-1 and EN ISO 12100-2

CEN have prepared standards for industrial machines, which may extend to transportable machines.

Although CEN and CENELEC have where appropriate used common solutions to provide uniform levels of protection, persons using this standard should check the scope of both this and CEN standards to ensure that a correct standard is used.

EN 61029-2-6 is to be used in conjunction with EN 61029-1:2009

EN 61029-2-6 supplements or modifies the corresponding clauses of EN 61029-1, so as to convert it into the European Standard: Safety requirements for transportable diamond drills with water supply.

Where a particular subclause is not mentioned in this Part 2-6, that subclause applies as far as reasonable.

Where this Part 2-6 states “addition” “modification” or “replacement”, the relevant text of Part 1 is to be adapted accordingly.

Subclauses, tables and figures which are additional to those in Part 1 are numbered starting from 101.

Subclauses, table and figures which are additional to those in IEC 61029-2-6 are prefixed “Z”.

NOTE In this European Standard, the following print types are used:

- *Requirements proper;*
- *Test specifications;*
- Explanation matter.

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1 Scope

This clause of Part 1 is applicable except as follows:

1.1 Addition:

This standard applies to transportable diamond drills manually fed, intended to be connected to a water supply (water supply may include water source from a pipe or tank or vat).

2 Definitions

This clause of Part 1 is applicable except as follows:

2.101

diamond drill

tool with water supply designed to drill stone and concrete by means of diamond core-bits. The tool at least consists of a drill unit and a drill stand to which it is fixed. The drill stand is attached to the material to be drilled by means of dowels, vacuum or other suitable devices (see Figure Z101) or it is secured to an appropriate support (like e.g. scaffolding) that, under working forces transmitted by the drill stand, is not subjected to a displacement with reference to the base material

2.102

water-collecting ring

a device to collect water and stone-mud when drilling

2.103

drill unit

the drill unit at least consists of a motor, gear unit and a fitting for the drill bit

2.104

pillar

part of the drill stand to which the drill unit is fixed, and on which the drill unit slides during drilling

3 General requirement

This clause of Part 1 is applicable.

4 General notes on tests

This clause of Part 1 is applicable.

5 Rating

This clause of Part 1 is applicable.

6 Classification

This clause of Part 1 is applicable.

7 Marking

This clause of Part 1 is applicable except as follows:

7.1 Addition:

Diamond drills with water supply shall be marked with:

- Rated no-load speed in revolutions per minute
- Maximum diameter, in millimetres, of the bit for drilling
- Read instruction manual or relevant symbol

7.13 Addition:

The instruction handbook shall contain at least a repeat of the warnings affixed to the tool. Furthermore, it shall contain warnings against the following hazards and/or hazardous situations and related instructions for safe use:

c) Safety precautions

- Hazardous situation due to broken parts. Instruction shall be given to check core bits before using. Deformed or damaged drill core bits shall not be used;
- Use of non-recommended cutting tools, which can lead to injuries due to the loss of control. Instruction shall be given to use drill core bits designed for this machine only and concerning the minimum and maximum diameter and length of those core bits.
- Incorrect clamping and positioning of the drill core bit may lead to dangerous situations by broken and ejected parts of the drill core bit. Instruction shall be given how the drill core bits shall be assembled and adjusted and which fastening torque (if applicable) is recommended;
- The necessity to always wear suitable personal protective equipment (PPE). Instruction shall describe PPE means such as:
 - Hearing protection, to reduce the risk of induced hearing loss,
 - Gloves, when handling core bits or rough materials, to reduce injuries by sharp edges,
 - Safety glasses, to prevent injuries by flying particles,
 - Non-slipping footwear, to prevent injuries caused by slippery surfaces;
- Hazardous situation due to dust production when drilling without water supply. Instruction shall be given to use a dust extraction device, if any, and/or a dust mask.

e) Safe operation

- A wrongly assembled machine may cause a hazardous situation. Instruction shall be given how to fix the machine into the stand and fixing to the material to be drilled;
- Fixing with vacuum devices can lead to dangerous situations.
 - Instruction to check the surface where the drill stand shall be fixed. Surface such as irregular (rough) can significantly reduce the effectiveness of the suction system. Coated or laminated surface can be pulled off during work;
 - Instruction to additionally secure the drill stand in case of drilling horizontally or vertically up by using appropriate accessories or means. A description of the characteristics of these means and how to fit them to the drill system shall be given;
 - Information regarding the minimum vacuum level necessary for safe operation and how to control it during the drilling operation;
 - Information regarding the maximum core bit diameter suitable for use with vacuum fixing.

Za) 3, 4 and 5 *Replacement:*

Under consideration.

8 Protection against electric shock

This clause of Part 1 is applicable.

9 Starting

This clause of Part 1 is applicable.

10 Input and current

This clause of Part 1 is applicable.

11 Heating

This clause of Part 1 is applicable.

12 Leakage current

This clause of Part 1 is applicable.

13 Environmental requirements

This clause of Part 1 is applicable except as follows:

13.1 This subclause is not applicable.

13.2.1 *Addition:*

The most important sources of noise from diamond drills are:

- the drill core bit;
- the gear;
- the motor and fan.

NOTE For general information concerning the reduction of noise see EN ISO 11688-1.

13.2.4 Replacement

Drills with water supply are tested under load in accordance with Table Z101.

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