



SLOVENSKI STANDARD

SIST EN 60745-2-21:2008

01-januar-2008

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Hand-held motor-operated electric tools - Safety - Part 2-21: Particular requirements for
drain cleaners

Handgeführte motorbetriebene Elektrowerkzeuge - Sicherheit - Teil 2-21: Besondere
Anforderungen für Rohrreinigungsgeräte

Outils électroportatifs a moteur (Sécurité - Partie 2-21: Règles particulières pour les
curettes)

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Ta slovenski standard je istoveten z: EN 60745-2-21:2007

ICS:

| | | |
|-----------|-------------------|------------------------|
| 25.140.20 | Ò ^\dã} æ! [åæ | Electric tools |
| 91.140.70 | Sanitarne naprave | Sanitary installations |

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**Hand-held motor-operated electric tools -
Safety -
Part 2-21: Particular requirements for drain cleaners
(IEC 60745-2-21:2002, modified)**

Outils électroportatifs à moteur -
Sécurité -
Partie 2-21: Règles particulières
pour les curettes
(CEI 60745-2-21:2002, modifiée)

Handgeführte motorbetriebene
Elektrowerkzeuge -
Sicherheit -
Teil 2-21: Besondere Anforderungen
für Rohrreinigungsgeräte
(IEC 60745-2-21:2002, modifiziert)

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This European Standard was approved by CENELEC on 2007-05-01. 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, 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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of the International Standard IEC 60745-2-21:2002, prepared by 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 61F, Safety of hand-held and transportable motor-operated electric tools, was submitted to the Unique Acceptance Procedure and was approved as EN 60745-2-21 on 2007-05-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2008-05-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2010-05-01

This standard 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 European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential health and safety requirements of EC Directive 98/37/EC, amended by EC Directive 98/79/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 Directives concerned.

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.

This Part 2-21 is to be used in conjunction with EN 60745-1:2006. When this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

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

Subclauses, tables and figures which are additional to those in IEC 60745-2-21 are prefixed "Z".

Annex ZZ was added by CENELEC.

NOTE In this standard the following print types are used:

- requirements proper: in roman type;
- *test specifications: in italic type;*
- explanatory matter: in smaller roman type.

Endorsement notice

The text of the International Standard IEC 60745-2-21:2002 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

6 Void

Replace by:

6 Environmental requirements

This clause of Part 1 is applicable except as follows:

6.1.2.4 Modification:

Drain cleaners are suspended at an angle of 45° downwards from the horizontal.

6.1.2.5 Modification:

Drain cleaners are tested at no load in the forward direction. During the test, the drain cleaner cable is inside the drum.

6.2.4.2 Location of the measurement

Addition:

[SIST EN 60745-2-21:2008](https://standards.iteh.ai/catalog/standards/sist/8aa353e7-8074-4f1a-bef0-005485a18dac/sist-en-60745-2-21-2008)

Figure Z101 shows the positions for drain cleaners.

6.2.6.3 Operating conditions

Modification:

Table Z101 - Operating conditions for drain cleaners

| | |
|--------------------|---|
| Orientation | Drain cleaners are tested at no load in the forward direction. The drain cleaner is held at an angle of 45° downwards from the horizontal. |
| Tool bit | The drain cleaner cable is inside the drum. |
| Grip force | Hold the machine with normal gripping force, at the pistol handle and the drum hand grip surface, avoiding excessive gripping force. |
| Test cycle | One test cycle is given when the tool is switched on for no load at maximum speed for more than 10 s and then switched off again. The measurement is conducted during 10 s within this period. |

NOTE For drain cleaners, no load condition is the worst case for vibration. Typically these tools carry 8 m to 12 m of drain cleaner cable and a large portion of any vibration is due to the cable in the drum not running true. Also, the highest speed is at idle and therefore will cause the highest vibration. Little or no vibration is transmitted from the cable being in the drain since the drain cleaner cable is basically a large spring and acts as a dampener.

6.2.7.2 Declaration of the vibration emission value

Addition:

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

21 Construction

Add the following new subclause:

21.Z1 This clause of Part 1 is not applicable.

Add the following figure:

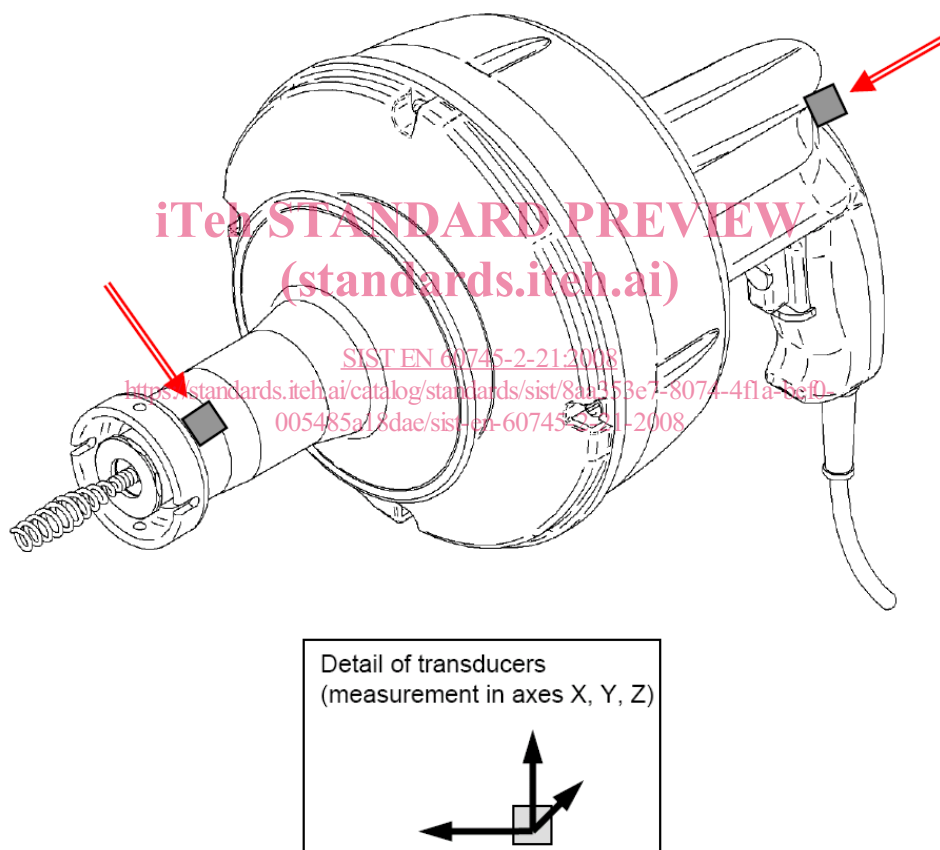


Figure Z101 - Positions of transducers for drain cleaners

Add the following annex:

Annex ZZ
(informative)

Coverage of Essential Requirements of EC Directives

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 Annex I of the Machinery Directive 98/37/EC, amended by Directive 98/79/EC.

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

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

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

60745-2-21

Première édition
First edition
2002-09

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Sécurité –

Partie 2-21:
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Part 2-21:
Particular requirements for drain cleaners

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CODE PRIX
PRICE CODE

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For price, see current catalogue