

BS EN 60745-2-18:2009



BSI Standards Publication

Hand-held motor-operated electric tools — Safety —

Part 2-18: Particular requirements for strapping tools

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National foreword

This British Standard is the UK implementation of EN 60745-2-18:2009. It was derived by CENELEC from IEC 60745-2-18:2003, incorporating amendment 1:2008. It supersedes BS EN 60745-2-18:2004+A1:2008, which will be withdrawn on 1 April 2011.

The CENELEC common modifications have been implemented at the appropriate places in the text and are indicated by tags (e.g. \boxed{C} $\langle C \rangle$).

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Text indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by $\boxed{A1}$ $\langle A1 \rangle$.

The UK participation in its preparation was entrusted to Technical Committee CPL/116, Portable motor-operated tools.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Amendments/corrigenda issued since publication

Amd. No.	Date	Text affected
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English version

**Hand-held motor-operated electric tools -
Safety -
Part 2-18: Particular requirements for strapping tools
(IEC 60745-2-18:2003, modified + A1:2008)**

Outils électroportatifs à moteur -
Sécurité -
Partie 2-18: Règles particulières
pour les outils de cerclage
(CEI 60745-2-18:2003, modifiée +
A1:2008)

Handgeführte motorbetriebene
Elektrowerkzeuge -
Sicherheit -
Teil 2-18: Besondere Anforderungen
für Umreifungswerkzeuge
(IEC 60745-2-18:2003, modifiziert +
A1:2008)

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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.

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CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of the International Standard IEC 60745-2-18:2003, prepared by SC 61F (transformed into IEC TC 116, Safety of hand-held motor-operated electric tools), together with the common modifications prepared by the Technical Committee CENELEC TC 61F (transformed into TC 116) was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 60745-2-18 on 2004-03-01.

A draft amendment (prAA) was prepared to align Subclause 6.2 with the new Subclause 6.2 in EN 60745-1. Moreover, vibration values determined with the new 6.2 are complying with the requirements of the Physical Agents Directive Vibration 2002/44/EC. The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A11 to EN 60745-2-18:2004 on 2007-06-01.

The text of document 61F/677/CDV, future amendment 1 to IEC 60745-2-18:2003 was submitted to the IEC-CENELEC parallel Unique Acceptance Procedure and was approved by CENELEC as amendment A1 to EN 60745-2-18:2004 on 2008-04-01.

A further draft amendment (prAB), extending Annex ZZ to include the new MD 2006/42/EC, was submitted to the formal vote.

The combined texts were approved by CENELEC as a new edition of EN 60745-2-18 on 2009-07-01.

This European Standard supersedes EN 60745-2-18:2004 + corrigendum December 2005 + A11:2007 + A1:2008.

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) 2010-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2011-04-01

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 supports the essential requirements of EC Directive 98/37/EC (Machinery Directive), amended by EC Directive 98/79/EC, and of EC Directive 2006/42/EC. See Annexes ZZA and ZZB.

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 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 2-18 is to be used in conjunction with EN 60745-1:2009. When this standard 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, tables and figures which are additional to those in IEC 60745-2-18 are prefixed "Z".

NOTE In this standard the following print types are used:

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

Endorsement notice

The text of the International Standard IEC 60745-2-18:2003 + A1:2008 was approved by CENELEC as a European Standard with agreed common modifications.

Annex ZZ
(informative)

Coverage of Essential Requirements of EC Directives

Annex ZZA
(informative)

Coverage of Essential Requirements of Directive 98/37/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 EC Directive 98/37/EC (Machinery Directive), 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.

Annex ZZB
(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 EC Directive 2006/42/EC (Machinery Directive).

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

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

HAND-HELD MOTOR-OPERATED ELECTRIC TOOLS – SAFETY –

Part 2-18: Particular requirements for strapping tools

1 Scope

A1 This clause of Part 1 is applicable, except as follows:

Addition:

This standard applies to strapping tools. **A1**

2 Normative references

This clause of Part 1 is applicable.

3 **A1** Terms and Definitions **A1**

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

Addition:

3.101

strapping tool

tool for clinching straps on boxes

4 General requirements

This clause of Part 1 is applicable.

5 General conditions for the tests

This clause of Part 1 is applicable.

C 6 Environmental requirements

This clause of Part 1 is applicable except as follows:

6.1.2.4 *Modification:*

Strapping tools are suspended with the motor axis horizontal.

6.1.2.5 *Modification:*

Strapping tools are tested at no-load. **C**

6.2 Vibration

6.2.6.3 Operating conditions

Modification:

Table Z101 – Operating conditions for strapping tools

Orientation	Clinching straps around a test package. The test package is a wooden box 1 m cubic with an internal bracing to prevent collapsing
Tool bit	Strapping material of medium width
Grip force	Hold the machine with normal gripping force, avoiding excessive gripping force
Test cycle	One test cycle is given by clinching one strap. Three series of five consecutive tests shall be carried out using a different operator for each series.

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. **6.1**

7 Classification

This clause of Part 1 is applicable.

8 Marking and instructions

This clause of Part 1 is applicable.

9 Protection against access to live parts

This clause of Part 1 is applicable.

10 Starting

This clause of Part 1 is applicable.

11 Input and current

This clause of Part 1 is applicable.

12 Heating

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

12.2 Replacement:

The tool is operated for 30 cycles, each cycle comprising of clinching four straps around a test package within 2 min then the tool switched off for a period of 1 min. The test package is a wooden box 1 m cubic with an internal bracing to prevent collapsing.

12.4 Replacement:

The temperature rises are measured at the end of the "on" period of the 30th cycle of 12.2 or, at the manufacturers option, the tool can be operated continuously until thermal stabilization.

13 Leakage current

This clause of Part 1 is applicable.

14 Moisture resistance

This clause of Part 1 is applicable.

15 Electric strength

This clause of Part 1 is applicable.

16 Overload protection of transformers and associated circuits

This clause of Part 1 is applicable.

17 Endurance

This clause of Part 1 is applicable.

18 Abnormal operation

This clause of Part 1 is applicable.

19 Mechanical hazards

This clause of Part 1 is applicable.

20 Mechanical strength

A1 This clause of Part 1 is applicable, except as follows:

20.5 This subclause is not applicable. **A1**

21 Construction

A1 This clause of Part 1 is applicable, except as follows:

21.32 This subclause is not applicable. **A1**

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

22 Internal wiring

This clause of Part 1 is applicable.

23 Components

This clause of Part 1 is applicable.

24 Supply connection and external flexible cords

This clause of Part 1 is applicable.

25 Terminals for external conductors

This clause of Part 1 is applicable.

26 Provision for earthing

This clause of Part 1 is applicable.

27 Screws and connections

This clause of Part 1 is applicable.

28 Creepage distances, clearances and distances through insulation

This clause of Part 1 is applicable.

29 Resistance to heat, fire and tracking

This clause of Part 1 is applicable.

30 Resistance to rusting

This clause of Part 1 is applicable.

31 Radiation, toxicity and similar hazards

This clause of Part 1 is applicable.

Annexes

The annexes of Part 1 are applicable except as follows.

A1 Annex K (normative)

Battery tools and battery packs

K.1 *Addition:*

All clauses of this Part 2 apply unless otherwise specified in this annex.

K.12.2 This subclause of Part 2 is not applicable.

K.12.4 This subclause of Part 2 is not applicable.

Annex L (normative)

Battery tools and battery packs provided with mains connection or non-isolated sources

L.1 *Addition:*

All clauses of this Part 2 apply unless otherwise specified in this annex. **A1**

Bibliography

The bibliography of Part 1 is applicable.

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