

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety –
Part 2-18: Particular requirements for hand-held strapping tools**

**Outils électroportatifs à moteur, outils portables et machines pour jardins et pelouses – Sécurité –
Partie 2-18: Exigences particulières pour les outils à cercler portatifs**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY –

Part 2-18: Particular requirements for hand-held strapping tools

FOREWORD

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IEC 62841-2-18 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
116/760/FDIS	116/790/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

This document is to be used in conjunction with IEC 62841-1:2014.

This document supplements or modifies the corresponding clauses in IEC 62841-1, so as to convert it into the IEC Standard: Particular requirements for hand-held strapping tools.

Where a particular subclause of IEC 62841-1 is not mentioned in this document, that subclause applies as far as reasonable. Where this document states "addition", "modification" or "replacement", the relevant text in IEC 62841-1 is to be adapted accordingly.

The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- **terms defined in Clause 3: in bold type;**
- notes: in small roman type.

Subclauses, notes, tables and figures which are additional to those in IEC 62841-1 are numbered starting from 101.

Subclauses, notes, tables and figures in Annex K and Annex L which are additional to those in the main body of this document are numbered starting from 301.

A list of all parts in the IEC 62841 series, published under the general title *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY –

Part 2-18: Particular requirements for hand-held strapping tools

1 Scope

IEC 62841-1:2014, Clause 1 is applicable, except as follows:

Addition:

This document applies to hand-held **strapping tools**.

2 Normative references

IEC 62841-1:2014, Clause 2 is applicable, except as follows:

Addition:

IEC 62841-1:2014, *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements*

3 Terms and definitions

IEC 62841-1:2014, Clause 3 is applicable, except as follows:

Addition:

3.101

strapping tool

hand-held tool for clinching straps on boxes

4 General requirements

IEC 62841-1:2014, Clause 4 is applicable.

5 General conditions for the tests

IEC 62841-1:2014, Clause 5 is applicable, except as follows:

5.17 *Addition:*

*The mass of a **strapping tool** does not include any additional **accessories**, equipment or **attachments**.*

6 Radiation, toxicity and similar hazards

IEC 62841-1:2014, Clause 6 is applicable.

7 Classification

IEC 62841-1:2014, Clause 7 is applicable.

8 Marking and instructions

IEC 62841-1:2014, Clause 8 is applicable, except as follows:

8.14.2 a) Addition:

101) Information on recommended straps to be used with the tool.

9 Protection against access to live parts

IEC 62841-1:2014, Clause 9 is applicable.

10 Starting

IEC 62841-1:2014, Clause 10 is applicable.

11 Input and current

IEC 62841-1:2014, Clause 11 is applicable.

12 Heating

IEC 62841-1:2014, Clause 12 is applicable, except as follows:

12.2 Replacement:

*For tools with one or more **rated voltages**, the tool is operated at each **rated voltage**, under the load conditions specified in 12.2.1.*

The temperatures are measured at the most unfavourable of the two voltage settings. The temperatures that are measured by means of thermocouples are taken while the tool is operating.

*For tools with a **rated voltage range**, the tool is operated*

- at the lower limit of the **rated voltage range**; and*
- at the upper limit of the **rated voltage range**.*

The temperatures are measured at the most unfavourable of the two voltage settings.

12.2.1 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 most unfavourable straps recommended by the manufacturer in accordance with 8.14.2 a) 101) are used for the test. The test package is a wooden box 1 m cubic with an internal bracing to prevent collapsing.

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

13 Resistance to heat and fire

IEC 62841-1:2014, Clause 13 is applicable.

14 Moisture resistance

IEC 62841-1:2014, Clause 14 is applicable.

15 Resistance to rusting

IEC 62841-1:2014, Clause 15 is applicable.

16 Overload protection of transformers and associated circuits

IEC 62841-1:2014, Clause 16 is applicable.

17 Endurance

IEC 62841-1:2014, Clause 17 is applicable.

18 Abnormal operation

IEC 62841-1:2014, Clause 18 is applicable, except as follows:

18.8 Replacement of Table 4:

Table 4 – Required performance levels

Type and purpose of SCF	Minimum performance level (PL)
Power switch – prevent unwanted switch-on	a
Power switch – provide desired switch-off	a
Any electronic control to pass the test of 18.3	a
Prevent exceeding thermal limits as in 18.4 and 18.5.3	a
Prevent self-resetting as required in 23.3	a

19 Mechanical hazards

IEC 62841-1:2014, Clause 19 is applicable, except as follows:

19.6 This subclause of IEC 62841-1:2014 is not applicable.

20 Mechanical strength

IEC 62841-1:2014, Clause 20 is applicable, except as follows:

20.5 This subclause of IEC 62841-1:2014 is not applicable.

21 Construction

IEC 62841-1:2014, Clause 21 is applicable, except as follows:

21.30 This subclause of IEC 62841-1:2014 is not applicable.

21.35 Dust collection

This subclause of IEC 62841-1:2014 is not applicable.

22 Internal wiring

IEC 62841-1:2014, Clause 22 is applicable.

23 Components

IEC 62841-1:2014, Clause 23 is applicable, except as follows:

23.3 *Replacement of the first paragraph:*

Protection devices or circuits shall be of the non-self-resetting type unless the tool is equipped with a **momentary power switch** with no provision for being locked in the "on" position.

24 Supply connection and external flexible cords

IEC 62841-1:2014, Clause 24 is applicable.

25 Terminals for external conductors

IEC 62841-1:2014, Clause 25 is applicable.

26 Provision for earthing

IEC 62841-1:2014, Clause 26 is applicable.

27 Screws and connections

IEC 62841-1:2014, Clause 27 is applicable.

28 Creepage distances, clearances and distances through insulation

IEC 62841-1:2014, Clause 28 is applicable.

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