IEC 62841-3-17

Edition 1.0 2026-06

INTERNATIONAL STANDARD

Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety -
Part 3-17: Particular requirements for transportable table masonry saws

ICS 25.140.20

ISBN 978-2-8327-1294-8

IEC 62841-3-17:2026-06(en)

THIS PUBLICATION IS COPYRIGHT PROTECTED
Copyright © 2026 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC
The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications
The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform
The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, …). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished
Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc
If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch
Discover our powerful search engine and read freely all the publications previews, graphical symbols and the glossary. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org
The world's leading online dictionary on electrotechnology, containing more than 22 500 terminological entries in English and French, with equivalent terms in 25 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD 3
1 Scope 5
2 Normative references 5
3 Terms and definitions 6
4 General requirements 9
5 General conditions for the tests 9
6 Radiation, toxicity and similar hazards 9
7 Classification 9
8 Marking and instructions 10
9 Protection against access to live parts 15
10 Starting 15
11 Input and current 15
12 Heating 15
13 Resistance to heat and fire 15
14 Moisture resistance 16
15 Resistance to rusting 17
16 Overload protection of transformers and associated circuits 17
17 Endurance 17
18 Abnormal operation 18
19 Mechanical hazards 18
20 Mechanical strength 22
21 Construction 23
22 Internal wiring 24
23 Components 25
24 Supply connection and external flexible cables and cords 25
25 Terminals for external conductors 26
26 Provision for earthing 26
27 Screws and connections 26
28 Creepage distances, clearances and distances through insulation 26
Annexes 27
Annex C (normative) Leakage current 28
Annex I (informative) Measurement of noise and vibration emissions 29
Annex K (normative) Battery tools and battery packs 31
Bibliography 32

Figure 101 – Example of a type 1 table masonry saw 7
Figure 102 – Example of a type 2 table masonry saw 8
Figure 103 – Example of a type 4 table masonry saw 8
Figure 104 – Product safety label illustrating "WARNING – Always wear eye protection" 10
Figure 105 – Product safety label illustrating – "Wear ear protection" 10

Figure 106 – Product safety label illustrating "WARNING – Use only continuous rim diamond cutting-off wheels" 11
Figure 107 – Examples of segmented diamond cutting wheel constructions 13
Figure 108 – Example of a drip loop 15
Figure 109 – Principal designs and dimensions of flanges 21

Table 4 – Required performance levels 18
Table 101 – Torques for testing flanges 22
Table 102 – Material properties and minimal thickness of the wheel guard 22
Table 8 – Minimum cross-sectional area and AWG sizes of supply cords 26
Table I.101 – Noise test conditions for table masonry saws 29

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 3-17: Particular requirements for transportable table masonry saws

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at https://patents.iec.ch. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 62841-3-17 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
116/953/FDIS	116/984/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 and IEC 62841-1:2014/AMD1:2025.

This document supplements or modifies the corresponding clauses in IEC 62841-1:2014, so as to convert it into the IEC Standard: Particular requirements for transportable table masonry saws.

Where a particular subclause of IEC 62841-1:2014 is not mentioned in this document, that subclause applies as far as relevant. Where this document states "addition", "modification" or "replacement", the relevant text in IEC 62841-1:2014 is to be adapted accordingly.

The following print types are used:

– requirements: in roman type;
– *test specifications: in italic type;*
– notes: in small roman type.

The terms defined in Clause 3 are printed in **bold typeface**.

Subclauses, notes, tables and figures which are additional to those in IEC 62841-1:2014, except as described for Annex K below, are numbered starting from 101.

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

NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations can need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 36 months from the date of publication.

A list of all parts of the IEC 62841 series, 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.

1 Scope

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

Replacement of the third paragraph:

The **rated voltage** is not more than 250 V for single-phase a.c. or d.c. tools, and 480 V for three-phase a.c. tools.

Addition:

This document applies to transportable **type 1 table masonry saws** and **type 2 table masonry saws** that are equipped with one or more **diamond cutting wheels** with peripheral gaps, if any, not exceeding 10 mm and having no positive rake angle, having a diameter not exceeding 600 mm and used for cutting tile, bricks, stone, concrete block or other similar material.

This document also applies to transportable **type 4 masonry saws** intended only for use with continuous rim **diamond cutting wheels** having a diameter not exceeding 260 mm and used for cutting tile, bricks, stone, concrete block or other similar material.

This document does not apply to tools equipped with bonded abrasive wheels.

This document does not apply to transportable cut-off machines.

NOTE 101 Transportable cut-off machines are covered by IEC 62841-3-10.

This document does not apply to type-3 cutting off machines in accordance with EN 12418:2021.

2 Normative references

IEC 62841-1:2014, Clause 2 and IEC 62841-1:2014/AMD1:2025, Clause 2 are applicable, except as follows.

Replacement

IEC 61540:2023, *Portable residual current devices (PRCDs) without integral overcurrent protection for household and similar use*

Addition:

IEC 60335-2-41:2024, *Household and similar electrical appliances - Safety - Part 2-41: Particular requirements for pumps*

IEC 61008-1:2024, *Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) - Part 1: General rules*

IEC 61008-2-1:2024*, Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) - Part 2-1: RCCBs according to classification 4.1.1*

IEC 62841-1:2014, *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 1: General requirements*
IEC 62841-1:2014/AMD1:2025

ISO 6603-1:2000, *Plastics - Determination of puncture impact behaviour of rigid plastics - Part 1: Non-instrumented impact testing*

3 Terms and definitions

IEC 62841-1:2014, Clause 3 and IEC 62841-1:2014/AMD1:2025, Clause 3 are applicable, except as follows.

Addition:

3.101
cutting head
part of the tool where the **diamond cutting wheel** is mounted

3.102
diamond cutting wheel
metal wheel with the abrasives located on the periphery of the wheel

3.103
flange
collar, disc or plate between or against which **diamond cutting wheels** are mounted

3.104
inner flange
flange which contacts and provides support to the back side of the **diamond cutting wheel** and is located on the spindle between the **diamond cutting wheel** and tool

3.105
outer flange
flange which supports the front side of the **diamond cutting wheel** and secures and clamps the **diamond cutting wheel** to the spindle and the **inner flange**

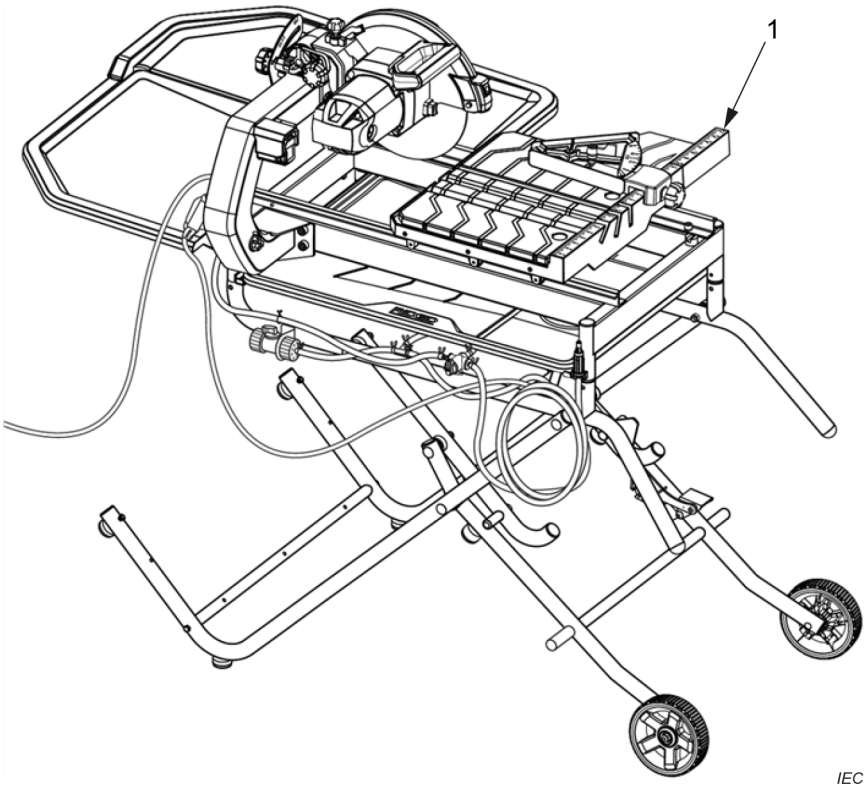
3.106
rated capacity
maximum intended diameter of the rotating **accessory** to be fitted on the tool as recommended by the manufacturer's instructions

3.107
table masonry saw
transportable tool equipped with a **diamond cutting wheel** for cutting masonry type material

3.108
dry table masonry saw
table masonry saw without a **liquid system**

3.109
type 1 table masonry saw
table masonry saw with a movable **work table** and a **cutting head** above the work table

Note 101 to entry: See Figure 101.

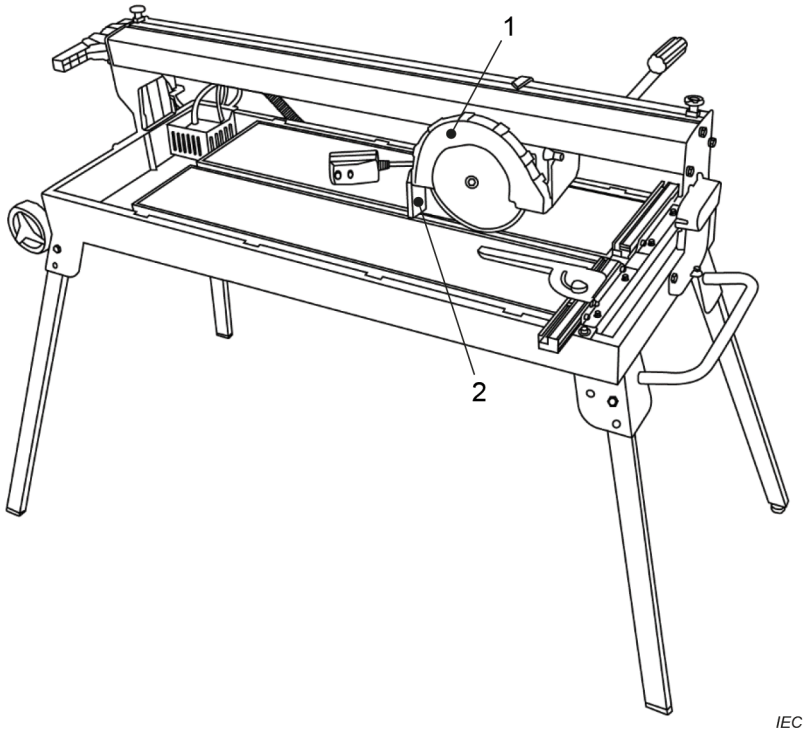


Key
1 material stop

Figure 101 – Example of a type 1 table masonry saw

3.110
type 2 table masonry saw
table masonry saw with a horizontally movable **cutting head** above a fixed **work table**

Note 101 to entry: See Figure 102.



Key

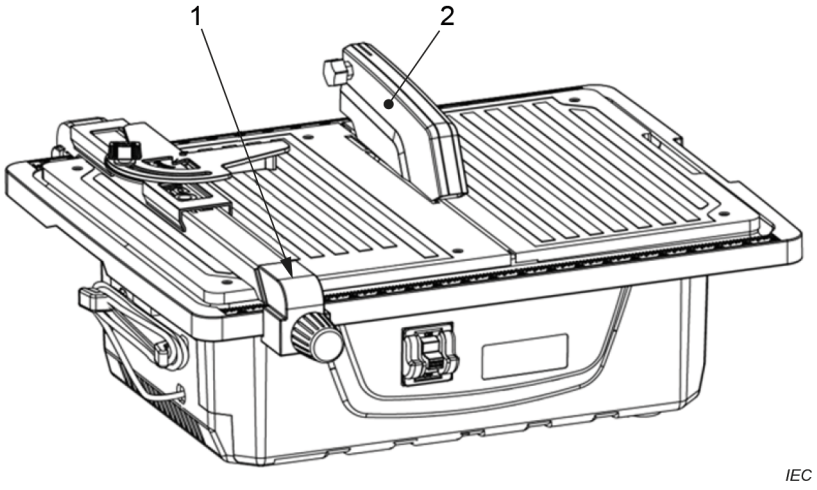
1 **wheel guard**

2 splash deflector

Figure 102 – Example of a type 2 table masonry saw

3.111
type 4 table masonry saw
table masonry saw with a fixed or movable **work table** and a fixed **cutting head** below the work table

Note 101 to entry: See Figure 103.



Key

1 fence

2 debris deflector

Figure 103 – Example of a type 4 table masonry saw

3.112
wet table masonry saw
table masonry saw with a **liquid system** to aid cutting

Note 101 to entry: The **liquid system** can be either a stream directed at the cutting area or the **diamond cutting wheel** running in a water bath.

3.113
wheel guard
device which partly encloses the **diamond cutting wheel** and gives protection to the operator

3.114
work table
surface or device intended to support or to guide the workpiece

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 the tool shall include

– *the **wheel guard** (type 1 or type 2) or debris deflector (type 4),*
– *the **work table**,*
– *the fence (if any),*
– *the mitre gauge (if any),*
– *any additional parts such as leg sets or transporting means (for example a detachable handle)*

that are required in accordance with 8.14.2 for the safe use of the tool.

6 Radiation, toxicity and similar hazards

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

7 Classification

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