



BSI Standards Publication

Electric motor-operated tools — Dust measurement procedure

Part 2-17: Particular requirements for
routers and trimmers

National foreword

This British Standard is the UK implementation of EN 50632-2-17:2016.

The UK participation in its preparation was entrusted to Technical Committee CPL/116, Safety of motor-operated electric 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.

© The British Standards Institution 2016.
Published by BSI Standards Limited 2016

ISBN 978 0 580 90194 2

ICS 13.040.40; 25.140.20; 65.060.80

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 August 2016.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

EUROPEAN STANDARD

EN 50632-2-17

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2016

ICS 13.040.40; 25.140.20; 65.060.80

English Version

**Electric motor-operated tools - Dust measurement procedure -
Part 2-17: Particular requirements for routers and trimmers**

Outils électriques à moteur - Procédure de mesure de la
poussière - Partie 2-17: Exigences particulières pour les
défonceuses

Motorbetriebene Elektrowerkzeuge - Staubmessverfahren -
Teil 2-17: Besondere Anforderungen für Oberfräsen und
Kantenfräsen

This European Standard was approved by CENELEC on 2016-05-03. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

European foreword.....	3
1 Scope.....	4
2 Normative references.....	4
3 Terms and definitions	4
4 Test procedure	4
5 Instrumentation	5
6 Information to be reported	6
 Tables	
Table 101 – Operating conditions for routers intended for cutting wood.....	5
Table 102 — Operating conditions for trimmers intended for cutting wood	5

European foreword

This document (EN 50632-2-17:2016) has been prepared by CLC/TC 116 "Safety of motor-operated electric tools".

The following dates are fixed:

- latest date by which this document has (dop) 2017-05-03 to be implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national (dow) 2018-05-03 standards conflicting with this document have to be withdrawn

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

This European Standard is divided into three parts:

Part 1: General requirements for the dust measurement which are common to electric motor-operated tools (for the purpose of this standard referred to simply as tools);

Part 2 or 3: Requirements for the dust measurement for particular types of tools, which either supplement or modify the requirements given in Part 1 to account for the particular characteristics of these specific tools.

This Part 2 is to be used in conjunction with EN 50632-1:2015.

This Part 2 supplements or modifies the corresponding clauses in EN 50632-1:2015.

This Part 2 was developed to set out requirements for the measurement of the concentration for inhalable and respirable dust emitted by routers.

Where a particular subclause of Part 1 is not mentioned in this Part 2, that subclause applies as far as reasonable. When this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

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

This European Standard has been drafted in accordance with the CEN/CENELEC Internal Regulations, Part 3.

The following print types are used:

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

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

1 Scope

This clause of Part 1 is applicable except as follows:

Addition:

This part of EN 50632 applies to **routers** and **trimmers**.

2 Normative references

This clause of Part 1 is applicable except as follows:

Addition:

EN 312:2010, *Particleboards - Specifications*

3 Terms and definitions

This clause of Part 1 is applicable except as follows:

3.101

router

tool with a base and a collet, designed to be fitted with a rotary cutting bit intended for cutting slots into or shaping the edge of various materials

3.102

trimmer

tool with a base and collet designed to be fitted with a rotary cutting bit intended for trimming the edge of laminate sheet or similar materials

4 Test procedure

This clause of Part 1 is applicable except as follows:

4.3 Operating conditions

Addition:

Routers intended for cutting wood are tested under load observing the conditions shown in Table 101.

Table 101 — Operating conditions for routers intended for cutting wood

Material and set-up	<p>Chipboard: P2 in accordance with EN 312:2010, density (610 ± 60) kg/m³, thickness (19 ± 1) mm, width (400 ± 2) mm, any length.</p> <p>The chipboard is mounted horizontally on a bench with a suitable working height (approximately 900 mm).</p>
Orientation and operation	<p>Milling of slots by means of a guide rail or rip fence, across the width of 400 mm, alternately in both directions.</p>
Tool bit/settings	<p>Slotting cutter, HW, with a diameter as follows:</p> <ul style="list-style-type: none"> - for routers with a rated input up to and including 1 200 W and for battery operated routers: 8 mm; - for routers with a rated input above 1 200 W: 12 mm; <p>New cutter at the beginning of each of the three tests.</p> <p>Cutting depth = 8 mm. Distance between the slots = 10 mm.</p> <p>Speed setting devices, if any, shall be adjusted to the setting specified for cutting chipboard.</p>
Feed force	<p>The feed force applied to the tool shall be sufficient to ensure stable operation with good performance.</p>
Test	<p>During the working time of one test cycle, 15 slots as specified above are performed equally distributed over the working time.</p> <p>NOTE Performing 15 slots in 10 min will require a working speed of 0,75 m/min, including sufficient time between the individual slots.</p> <p>If the above cannot be achieved within 10 min, the time is extended to allow the required number of slots to be cut.</p>

Trimmers intended for cutting wood are tested under load observing the conditions shown in Table 102.

Table 102 — Operating conditions for trimmers intended for cutting wood

Material and set-up	Beech: (400 ± 2) mm x (400 ± 2) mm, thickness approximately 10 mm. At the beginning of the test the wood shall have a humidity of maximum 12 %. The workpiece is mounted horizontally on a bench with a suitable working height (approximately 900 mm).
Orientation and operation	Trimming all 400 mm edges (four of each side) of the workpiece with chamfers. The workpiece thereby is turned.
Tool bit/settings	Cutter for 45° chamfer cuts. New cutter at the beginning of each of the three tests. Chamfer = 3 mm x 45°. Speed setting devices, if any, shall be adjusted to the setting specified for cutting wood.
Feed force	The feed force applied to the tool shall be sufficient to ensure stable operation with good performance.
Test	During the working time of one test cycle, 16 chamfers, as specified above, with a length of 400 mm each are performed equally distributed over the working time. NOTE Performing 16 chamfers in 10 min will require a working speed of 0,8 m/min, including sufficient time between the individual chamfers. 16 chamfers require the processing of two workpieces. If the above cannot be achieved within 10 min, the time is extended to allow the required number of chamfers to be cut.

5 Instrumentation

This clause of Part 1 is applicable.

6 Information to be reported

This clause of Part 1 is applicable except as follows:

p) *Modification:*

Information about extension of the cycle time in case the required number of operations could not be achieved within 10 min.

British Standards Institution (BSI)

BSI is the national body responsible for preparing British Standards and other standards-related publications, information and services.

BSI is incorporated by Royal Charter. British Standards and other standardization products are published by BSI Standards Limited.

About us

We bring together business, industry, government, consumers, innovators and others to shape their combined experience and expertise into standards-based solutions.

The knowledge embodied in our standards has been carefully assembled in a dependable format and refined through our open consultation process. Organizations of all sizes and across all sectors choose standards to help them achieve their goals.

Information on standards

We can provide you with the knowledge that your organization needs to succeed. Find out more about British Standards by visiting our website at bsigroup.com/standards or contacting our Customer Services team or Knowledge Centre.

Buying standards

You can buy and download PDF versions of BSI publications, including British and adopted European and international standards, through our website at bsigroup.com/shop, where hard copies can also be purchased.

If you need international and foreign standards from other Standards Development Organizations, hard copies can be ordered from our Customer Services team.

Copyright in BSI publications

All the content in BSI publications, including British Standards, is the property of and copyrighted by BSI or some person or entity that owns copyright in the information used (such as the international standardization bodies) and has formally licensed such information to BSI for commercial publication and use.

Save for the provisions below, you may not transfer, share or disseminate any portion of the standard to any other person. You may not adapt, distribute, commercially exploit, or publicly display the standard or any portion thereof in any manner whatsoever without BSI's prior written consent.

Storing and using standards

Standards purchased in soft copy format:

- A British Standard purchased in soft copy format is licensed to a sole named user for personal or internal company use only.
- The standard may be stored on more than 1 device provided that it is accessible by the sole named user only and that only 1 copy is accessed at any one time.
- A single paper copy may be printed for personal or internal company use only.

Standards purchased in hard copy format:

- A British Standard purchased in hard copy format is for personal or internal company use only.
- It may not be further reproduced – in any format – to create an additional copy. This includes scanning of the document.

If you need more than 1 copy of the document, or if you wish to share the document on an internal network, you can save money by choosing a subscription product (see 'Subscriptions').

Reproducing extracts

For permission to reproduce content from BSI publications contact the BSI Copyright & Licensing team.

Subscriptions

Our range of subscription services are designed to make using standards easier for you. For further information on our subscription products go to bsigroup.com/subscriptions.

With **British Standards Online (BSOL)** you'll have instant access to over 55,000 British and adopted European and international standards from your desktop. It's available 24/7 and is refreshed daily so you'll always be up to date.

You can keep in touch with standards developments and receive substantial discounts on the purchase price of standards, both in single copy and subscription format, by becoming a **BSI Subscribing Member**.

PLUS is an updating service exclusive to BSI Subscribing Members. You will automatically receive the latest hard copy of your standards when they're revised or replaced.

To find out more about becoming a BSI Subscribing Member and the benefits of membership, please visit bsigroup.com/shop.

With a **Multi-User Network Licence (MUNL)** you are able to host standards publications on your intranet. Licences can cover as few or as many users as you wish. With updates supplied as soon as they're available, you can be sure your documentation is current. For further information, email subscriptions@bsigroup.com.

Revisions

Our British Standards and other publications are updated by amendment or revision.

We continually improve the quality of our products and services to benefit your business. If you find an inaccuracy or ambiguity within a British Standard or other BSI publication please inform the Knowledge Centre.

Useful Contacts

Customer Services

Tel: +44 345 086 9001

Email (orders): orders@bsigroup.com

Email (enquiries): cservices@bsigroup.com

Subscriptions

Tel: +44 345 086 9001

Email: subscriptions@bsigroup.com

Knowledge Centre

Tel: +44 20 8996 7004

Email: knowledgecentre@bsigroup.com

Copyright & Licensing

Tel: +44 20 8996 7070

Email: copyright@bsigroup.com

BSI Group Headquarters

389 Chiswick High Road London W4 4AL UK